Journal of Media and Social Development

University with Potential for Excellence of University Grants Commission was awarded to the University of Mysore in the disciplines of Science and Social Science. In social science, the focus area of study is *'Media and Social Development: A Case Study of Karnataka'*. The project aims to study the different paradigms of media and social development; Analyze the nature, forms, levels, phases and consequences of media intervention in the process of social development; Study the development "deficit" and its implications on social categories; Assess how media intervention can transform the State; Develop new social development indices to greatly disadvantaged groups; Based on the findings of this study, design an alternative Model of Development for Karnataka.

The Journal of Media and Social Development is an initiative to create scholarship in the area of media and social development by encouraging scholarly work by the academicians in interdisciplinary areas of social sciences. The Journal is a platform for publishing high quality original research and experiments in the significant areas of economic, political, social, cultural and media perspectives of development.

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University ☙ of Mysore

JOURNAL OF MEDIA
AND
SOCIAL DEVELOPMENT

Volume 1, Issue 1, July- September 2013

Public Policy Initiative and Shifting Paradigm of Governance in the Context of Climatic Change: Experience from Karnataka State, India

MUZAFFAR H. ASSADI

Abstract: *Climate change has become a major concern of large number of countries including different regions for the past couple of years with the shifting paradigm of development, and commodification of nature. West tries to blame the developing world, the south is equally blaming the west. The concern has grown out of the fear that climate change would affect community life, social structure and agrarian economy including identities of large number of communities. Many of the countries have not prepared themselves for climate change. However exception is Karnataka, a region in India which has prepared with documenting the possible effects of climate change on different regions. In fact climate change requires new form of governance - governance which is receptive, responsive and adaptive.*

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INTRODUCTION

Climatic change has become a buzz word in recent past both for academics as well as for public policy makers. It is now known as planetary crisis, crisis of the globe etc. At the same time it is no more seen as a concern of environment alone rather a "biggest developmental challenge or concern[1]". The different debates in the context of climate change such as the one on the need for reworking the issues of governance, issues of development, issues of sustainability etc (Devid Held et al 2011. Thomas George et.al, 2011. Albrecht Ansohn, Boris Pleskovic-2010) have percolated down to the domain of policy making too. This is because of the inherent problem in addressing the climate change issue from the perspective of governance. Further it is also due to the belief that climatic change is the result of increasing commercialization of nature both by the individual as well as corporate sector. Incidentally UNESCO argues that "humans are altering the climate"[2], thereby bringing back the human beings as the centrality of and for crisis. At the same time it is argued that climate change ultimately affect the poor more than anybody and thereby any policy making should take into cognizance of its large socio-economic consequence than just revolving around environmental one. It is here the issues of governance become all the more important. It is in this context it is argued that governance should take into cognizance four important questions: one, how to combat the climatic change through the mediation of different public policy two, will the paradigm shift in the governance help in mitigating climatic change? Three, what would be the socio-economic cost of climatic change? And finally, what would be the nature of governance emerging in the context of climatic change? It is in this background different governments both at the regional as well as national level have taken up the issues much more seriously in recent past.

In fact climate change governance poses different challenges for the contemporary political systems[3]. This is because of the fact

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1   UNDP, Ckunate change, Perspectives from Indiam 2009, http://www.undp.org.in/content/pub/ClimateChange/UNDP_Climate_Change.pdf

2   Catherine P. McMullen, Clinate Chanage,Science Compendium 2009, UNESCO., http://www.unep.org/pdf/ccScienceCompendium2009/cc_ScienceCompendium 2009_full_en.pdf

3   James Meadcroft,Climate Change Governacne, The World Bank, 2010,

that climate change effects not only everyday life practices but also the fact that it has larger political consequences too: series of dislocation of population, rehabilitation of displaced population, increasing cost of mitigating the climate change, recurring drought in due course, etc would eventually affect political system to tackle the issues judiciously. This is the reason why the political system ultimately has to take cognizance of the problems afflicting the system. This calls for the paradigm shift in the public policy vis-a-vis the governance. Nonetheless, the governance faces four important problems vis-a-vis the climate change in years to come: They are a) Problem of Societal Reach b) Problem of Equity and Distribution c) Problem of addressing the issues judiciously and d) Problem of adaptability. Nonetheless climate change governance has three requirements (James Meadcroft: 2010): Adaptation Mitigation, paradigm shift in public policy: governance in this context believes in introducing such policies which will take care of the effect of climate change on human activity and politics.

MYTHS AND CLIMATE CHANGE

It is in this context one can understand the kind of myths that have been perpetuated in recent past. One of the myths is that the democratic countries are not adequately prepared to mitigate the climate change due to the political intricacies as well political maneuvering. This particular argument does not hold good to countries like India, including its states like Karnataka. There is sufficient proof to say that democratic country is adequately prepared to face the climate change. This is apparent in the way the pattern of governance shifted from immediate needs to mitigate the problems of future.

Second myth is that developing countries lack holistic picture vis-à-vis the climate change. In fact the developing countries like India looks at the issues both from larger political perspective but also from socio-economic perspective. In India such issues as poverty, loss of energy, degradation of land, social lifestyle, recurring drought and employment opportunities etc are taken along with climate change.

Third important myth is that developing countries are not

sufficiently debating the issues. It is true that in countries like India climate change has become a major concern, even more than the western world. This does not mean that the debate is uniformly spread across the country. In some states there are concerns however issues have been addressed without much debate.

DEBATES AND PERSPECTIVES

There are different perspectives vis-à-vis the climatic change. One perspective tries to look at the issues by linking it to the larger issues of economic growth and prosperity. Sunita Narain for example argues that, "the more prosperous country's economy is higher is its fossil fuel consumption, resulting in higher Greenhouse gas emission"[4].

Adding to this the second argument tries to locate the reason for changing climate change in the over consumption of rich countries than by the poor countries. It is argued that "the unsustainable consumption pattern of rich industrialized nations are responsible for the threat of climate change, argues Kirtith Parikh (Kirit Parikh:2002)"[5]. It is further argued that "only 25% of the global population lives in these countries, but they emit more than 70% of the total global CO emissions and consume 75-80% of many of the other resources of the world.

Thirdly it is also seen as changing the patterns of consumption and distribution also. This calls for a paradigm shift from the key industry to low carbon emission economy. In other words climate change is seen as part of changing political economy of development. It requires what is called development of new technologies and doing away with the traditional one.

All these have made to find out whether issues of climate change is a political one? Given the controversy in recent past centering around the issues of cap on carbon omission, historical role played by the industrialized countries in sharpening Greenhouse, role of developing

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4   Sunita Narain, A Just climatie Change agreement: Thr Framework for an effective global deal" in Catherine P. McMullen, Clinate Chanage, Science Compendium 2009, p 10. See. UNESCO., http://www.unep.org/pdf/ccScienceCompendium2009 cc_ScienceCompendium2009_full_en.pdf
5   Jyothi K Parikh and Kirit Parikh, Climate Change:India's Perceptions,Positions, Policies and Possibilitiess,IGIDR< Mumbai. 2002. p2

countries in addressing the larger issues of survival etc., have contributed to the fact that climate change has become highly contested political issue.

EFFECTS OF CLIMATE CHANGE

Over the past couple of years effects of climatic change is witnessed in different parts of the world including India. These are discernible in the following:

* In 2007 Alaska witnessed highest snow fall in 30 years
* In 2008 Central Canada witnessed subzero temperature
* In 2009 South Carolina witnessed worst wild fire
* In 2009 Mexico witnessed worst draught in 70 years
* In 2008 Hurricane Bertha Atlantic Tropical Storm
* In 2009 China witnessed worst drought in 50 years
* 2008 Florida witnessed Tropical Storm Fray

Debate and Public Policy Governance on Climate Change in India

In India the main concern centered on the issues of reduction in the productivity of agriculture, increase in drought and flood frequency, increase in sea level water and frequency of extreme events. That does not mean that there wasn't other concerns too. In fact in India the concern also expressed on the social categories who contributed towards climate change. It was found that in India the large amount of climate change came from urbanite, rich including the fact that it is centred around some sectors such as power energy 48% of emissions, followed by road transport (10%), iron and steel (10%). The class / sectarian nature of the climate change is apparent in the following:

Per Capita Annual Energy Use (Direct and Indirect) 1989-90*

Income Group	Coal (kg)	Oil (kg)	Elec (Kwh)	Carbon (t)
Rural				
Bottom(50%)	74	22.5	95	054
Middle (40%	127	39.7	152	093
Top (10%)	262	89.8	284	204
Urban				
Bottom (50%)	130	45.6	164	101
Middle (40%	302	118.6	366	246
Top (10%)	765	332.3	858	656

In India other concern is that it would adversely affect the sustainable development. In fact in India the climate change is not viewed in isolation but rather linked to the larger issues of science and technology, economy and trade, diplomacy and politics.

It is in this context Central Government has come out with a National Action Plan for Climate Change. This action plan combined the issues of sustainable development with climate change. It has had couple guiding principles: Protection of poor and vulnerable groups through what is called "inclusive and climate change sensitive development", secondly, achieving growth through sustainable development", thirdly "integration of demand side of management for the purpose of saving resources", and fourthly, adaptation of appropriate technologies, engineering of new technologies, sustainable development." Its mission centred around seven important issues. They include energy security with emphasis on solar energy and its decentralization, two, energy efficiency which include green projects, captive generation, three sustainable Habitat which include development of energy efficient building, and waste management, fourthly water management - this include establishment of water database for the purpose of its utilization in the public domain, promotion of judicious management of water. In fact most important is the Green India Project. This project include Enhancing

Carbon Sink potentials to bring down Greenhouse gases, enhancing resilience of species and eco-systems to reduce vulnerability," "enabling adaptation of forest dependent local people in the context of climatic vulnerability". Other two issues are Sustainable Agriculture and Strategic Knowledge. In the former case, the stress is on increasing the share of dry and rain fed agriculture, enhancement of farm productivity and risk management and in the latter case, establishment of Central Knowledge System and increasing the capacity building of people and institutions.

DEBATE IN KARNATAKA

Unlike all India level, debate in Karnataka is a much muted affair. There was hardly any attempt to see the issues as political one; even there is no attempt to see the politics of industrial countries who were trying to dominate the issues of climate change. Most of the time the issues of climate change is viewed as problem of science, and urbanization and industrialization rather than the issues of increased consumption in the western world.

Projections and Concerns of Climate Change in Karnataka

Karnataka is one of the first states in India to initiate steps on climatic change. This is because of the fact that after Rajasthan, Karnataka is said to be the second most vulnerable state in India for climatic change in the years to come[6]. Incidentally, recent study conducted by Indian Institute of Science stated that not all the districts in Karnataka will be uniformly affected by climate change rather five districts of North Karnataka would be badly affected by it by 2030. These five districts include Bidar, Gulbarga, Raichur, Bellary and Bijapur districts. These districts will witness an increase of 2 to 3 degrees Celsius in temperature, and at the same time they witness reduction of 5 to 10 per cent in rainfall. They would witness extremity in weather condition. It is said that northern districts will witness an increase of 2 degree Celsius by the year of 2030. It is further argued that by 2030 state would be witnessing a warming of 1.8 to 2.2 0C

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6   Deccan Herald, Change to avoid climate change, December 23, 2010.

Many studies (CSST:2010, ISEC:2010, EMPRI:2010) have predicted that Karnataka will emerge as one of the driest places and it will witness depletion of rain fall in the years to come. It is believed that it will increase the drought by 30 percent. Further it is argued that climate change would affect the green cover in the Karnataka, particularly the Western Ghat regions. It is predicted that by 2035 Karnataka will lose more than 4/2 million square km of forest area which is approximately 38 per cent of the current forest areas. This has led to the growth of areas of concerns. There are other concerns too. One of the major concerns is in the area of land - the increasing use of fertilizer, pesticide and also the degradation of land has led to the thinking of preserving the land. The most important concern is apparent in the sphere of agriculture, poverty and economic status. It is argued that the climate change will deplete agricultural production particularly maize and pulses[7] and thereby increases the vulnerability of peasants or farmers to the vagaries of larger market.

Greenhouse Inventory[8] of Karnataka: Who contributes to Climate Change in Karnataka?

There has been a raging controversy with regard to the Greenhouse inventory. Who literally contributes for the Greenhouse effect in Karnataka is one major question quite often asked. Karnataka is one of the fast developing states in India, and therefore it is easy to link the issues of climate change and the development. In fact Karnataka is now witnessing two paths of development: Aggressive Path of Capitalist Path and Non-aggressive Path of development. However not all the sectors are contributing the Greenhouse effect. It is found that the contribution of power is highest amounting to 35.90 per cent followed by agriculture 20.2 per cent. Iron and steel is the third sector which affects the climate change in Karnataka, (10.73 per cent) followed by transport 10.48 per cent, and cement (9.58 per cent). This is obvious in the following chart;

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7   The Hindu, "climate change to hit north Karantaka hard, March 28 2011,
8   http://www.cstep.in/node/260

FIGURE 1.1 / KARNATAKA: GHG EMISSIONS BY SECTOR
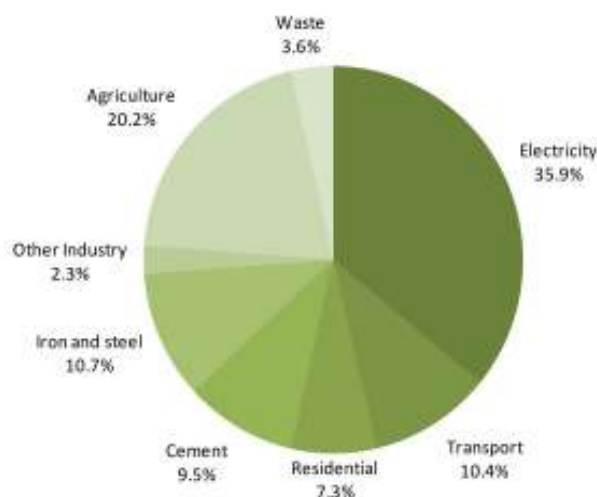
*See notes for Table 1.4 / Karnataka: Summary of GHG Inventory

Interestingly the electricity generation constitute the main culprit of Greenhouse effect in Karnataka. During 2008-09 they contributed nearly 28 per cent towards carbon emission in Karnataka.

TABLE1.1
KARNATAKA : INDUSTRIAL EMISSIONS 2008-2009

INDUSTRY		PRODUCTION (MILLION TONS)	CO2 EMISSIONS (TONS/TONS)	TOTAL CO2 MISSIONS (MILLION TONS)
ALUMINIUM		0.11	1.65	0.180
IRON &STEEL	Pig Iron	0.23	1.46	0.330
	Saleable Steel	0.14	0.70	0.098
	Steel ingots	0.15	0.08	0.012
PAPER		0.37	1.05	0.384
SUGAR		3.40	0.241	0.819
AMMONIA		0.24	0.82	0.197
CEMENT		12.10	0.63	7.642
IRON ORE*		36.39	0.008	0.291
TOTAL				9.954

TABLE1.4

KARNATAKA : SUMMER OF GREENHOUSE GAS (GHG) INVENTORY

	Particulars	Quantity /Production /Area	Production (Units)	CO_2 Emissions (in million tons)	CH_4 Emissions (in million tons)	N_2O Emissions (tons/tons	CO_2 Equivalence (in Million Tons)
ENERGY	Electricity generation(2009-2010)	11,495	MW	28.76	-	-	28.76
	Transport (2007-08)	-	-	8.35	-	-	8.35
	Residential	-	-	3.57	0.0900	0.002	5.84
INDUSTRY (2008-2009)	Cement production	120.97	Lakh tones	7.64	-	-	7.64
	Iron &steel production	115.4	Lakh tones	8.59	-	-	8.59
	Ammonium production	2.36	Lakh tones	0.19	-	-	0.19
	Aluminum production	1.09	Lakh tones	0.180	-	-	0.18
	Iron ore	423.14	Lakh tones	0.291	-	-	0.29
	Pulp and paper	3.65	Lakh tones	0.38	-	-	0.38
	sugar	33.97	Lakh tones	0.82	-	-	0.82
AGRICULTURE	Enteric formation (2003)	2,56,17,000	Animals	-	0.50	-	10.54
	Livestock manure management(2003)	2,56,17,000	Animals	-	0.04	0.00654	2.93
	Rice cultivation (2007)	1.40	Million hectare	-	0.13	-	2.75
WASTE		-	-	-	0.126	0.00079	2.89
TOTAL							80.6

It as to be pointed out again that the data for the same period was unavailable for all sectors all attempts were made to get the most recent data for each the sector. Hence it is likely that the total emissions will be higher than the 80 million tons given above. one could have fixed a particular yea and projected the emission of sectors where data was unavailable . However, this would introduce more errors as several assumptions had to be made in the projection. Going forward the government should take concerted efforts to collect annual data.

The Greenhouse Effect or Climate Change has effected different sectors as well as categories. The state of envrionment report of 2003 for example has identified, that, vehicular pollution effects public health much more. The Degradation of forest due to the constrution of thermal plants has affected the bio diversity , "vulnerable groups", and critical eco system. It also caused productivity loss too.

Problem	Public health	Loss of biodiversity	Impact of vulnerable groups	Productivity loss	Critical ecosystem	Irrevers-ibility	Urgency	Total
Degradation of forests due to firewood extraction	3	5	5	5	3	5	5	13
Loss of forest areas due to power plants	1	5	3	3	5	5	1	23
Air pollution due to thermal planets	3	1	3	1	1	3	3	15
Ari pollution due to vehicles	5	1	5	3	1	5	3	23
Are pollution due to captive power plants	3	1	5	1	1	5	3	19
Soil pollution due to thermal plants	3	1	3	1	1	3	3	15
Unequal distribution of energy	1	1	5	5	1	1	5	19
Energy shortage	3	1	5	5	1	1	5	21
Low energy efficiencies	5	5	5	5	1	5	5	31

PARADIGM SHIFT

The shift in the governance is apparent when state government came out with different policy measures including establishing Climate Hub in Institute of Social and Economic Change. It is also planning to have a task force to deal with the issues of climate change. More than that it has come out with a draft policy on climatic change. In the former case mode of the governance has shifted over the past one decade towards insisting on rain water harvesting, water conservation, community based tank management, priority to organic farming, use of solar energy, aforestation programmes etc.

In fact paradigm shift is apparent in the following major concerns:

a) Concern about environment

Karnataka is one of the first states to come out with "State Environmental Report". Along with a draft bill on climate change state government has come out with a action plan, covering such issues as Greenhouse Gas inventory, Climate variability and climate change projections ,Impact on Forests ,Agricultural Sector ,Water Resources, Socio-economic Vulnerability and Adaptive Capacity Assessment and Mitigation options in energy sector.

b) Energy

Karnataka government has come out with Karnataka Renewable Energy Policy of 2009-14 which aims at massively increasing the renewable energy. it has come out with Eco friendly resorts and it has made mandatory use of certain energy saving appliance for certain uses and energy efficient motor pump sets, power. Further, it has gone in for regeneration of degraded forest and protection of old trees through the participation of local population. It has undertaken massive greenery programme in the cities and also it has identified what is called "lung spaces in the urban areas". It has come out with what is called BhooChetana programme meant for promoting dry land farming, It aims at increasing the yield at 44 per cent and covering 12.5 lakh hectares in 15 districts. Energy policy envisages the establishment of series of mini hydel projects in the Western Ghats under private public

partnership or Build Operate Own Transfer or BOOT scheme. To mitigate the air pollution, the government has established Task Force appointed a steering committee on Development of Bio-Fuel.

c) Land

Third important concern as well as paradigm shift is obvious in the case of land. The degradation of land including the agricultural as well as forest land has been the other major concerns of the Karnataka government. One thing is clear that the increasing use of chemical fertilizers and pesticides have affected the environment. The increasing use of chemical fertilizers has contaminated the water and soil. This is obvious with the fact that the use of chemical fertilizer has increased from 1.11 million tons in 1996-97 to 1.29 million tones 2001. In this context couple of districts has been identified as the hotspot of excessive use of chemical fertilizers (Shimoga, Mandya, Bellary and Raichur). Excessive pesticide use (Gulbarga, Raichur and Bijapur), hotspot of soil erosion (all northern plain districts) and hotspot of water erosion (coastal and Western Ghat region). Under the National Watershed Development Programme it has   initiated to reclaim the alkaine lands and resorted to massive reforestation,

Paradigm shift and Initiatives of the Government

Other than the above, the Karnataka government has come out with series of programmes to combat climate change. This is obvious in the following:

- Fiscal incentives for voluntary reduction of emission
- Kannada Ganga: A new scheme to supply safe drinking water
- Rejuvenation of 36,000 tanks in different parts of Karnataka
- Establishment of Bio Fuel Board
- Capacity building of local and urban bodies
- Establishment of Waste Energy Project in Karnataka
- I-Ground water harvesting
- Starting Jalasiri Programme to establish two lakh check-dams to increase the underground water level
- Development of Lakes in Metropolitan areas such as in Bangalore (25 lakes have been rejuvenated till date)

• Establishment of Western Ghat Task Force as the latter is said to be hot spot of 4500 varieties of species
• Establishment of Village Forest Committees to protect the forest cover (Till date 50,000 such committees have been established in different villages)
• Planting trees in more than 80,000 hectares per annum
• Establishment of 3377 Bio-diversity Management Committees
• Supporting organic farming (Till date 52,300 farmers covering 70,000 hectares of land have adopted organic farming)

CONCLUSIONS

The multiple public policies show the increasing concern of the government. At the same time it also denotes the paradigm shift in the governance sphere. This does not mean that the climate change has not come under any criticism. One of the criticisms leveled against the public policy on climate change is that it is basically in the form of mitigating the problem than making a comprehensive analysis of the issue. Secondly, most of the public policy has come out as a reaction to the developmental issue rather than as a reaction to peoples' demand. Thirdly they do not reflect the fair understanding of the impact of climate change on the overall social categories. Fourthly advocates of climate change do not have specific time frame to mitigate the issues. Whatever it may be it is true that Karnataka has prepared itself to face the climate change in a judicious manner.

Climate Change Projections in Karnataka

Sl. No.	District	Increase projected in in T_{avg} (in ºC)	Increase projected in in T_{min} (in ºC)	Increase projected in in T_{max} (in ºC)
1	Yadgir	2.21	2.34	2.10
2	Bijapur	2.20	2.32	2.11
3	Raichur	2.20	2.31	2.12
4	Gulbarga	2.19	2.33	2.04
5	Bagalkote	2.15	2.25	2.10
6	Koppal	2.14	2.21	2.09
7	Bidar	2.12	2.30	1.93
8	Bellary	2.08	2.16	2.03
9	Gadag	2.08	2.15	2.05
10	Belgaum	2.01	2.11	1.98
11	Chitradurga	2.00	2.07	1.97
12	Dharwar	2.00	2.08	1.97
13	Mandya	1.99	2.03	2.00
14	Tumkur	1.99	2.06	1.96
15	Chikballapur	1.98	2.06	1.91
16	Davangere	1.98	2.05	1.98
17	Bangalore rural	1.97	2.06	1.91
18	Haveri	1.97	2.04	1.97
19	Ramanagar	1.97	2.05	1.92
20	Bangalore urban	1.96	2.06	1.88
21	Chamaraja nagar	1.96	2.03	1.94
22	Kolar	1.96	2.06	1.87
23	Mysore	1.95	1.99	1.98
24	Hassan	1.92	1.96	1.95
25	Shimoga	1.88	1.95	1.91
26	Uttarakannada	1.87	1.96	1.86
27	Chikmagalur	1.86	1.93	1.89
28	Kodagu	1.79	1.86	1.81
29	Dakshinakannada	1.72	1.81	1.71
30	Udupi	1.71	1.78	1.72

Towards Economic Empowerment: Study of Rural Women in Dairy Cooperatives of *Heggada Devana Kote* Taluk in Mysore District

MEERA M.

KRISHNE GOWDA

Abstract: *Women play a vital role in the dairy sector of India. Dairy cooperatives provide sustainable livelihood to millions of household in rural India. Several initiatives for empowerment of women are undertaken by Government of India, State Governments and Non-Government Organizations. As a feature of patriarchal society, women's contributions are rendered 'invisible' and unacknowledged in general; it's no different in dairying, livestock management and agriculture. Even in dairy development programmes, the central focus is predominantly on milk, milk products and livestock rather than on women. The scenario is fast changing with the increasing recognition of the dynamic role played by women and the inherent advantages of women empowerment for 'smart' economics and superior society.*

Studies from a gender perspective on rural dairy women to analyze their progress, problems and prospects at the grassroots are considerably rare. This paper aims to contribute towards bridging research gaps by examining the growth of economic status of women in dairy cooperative societies of rural India. This empirical study involves 160 women from 16 women dairy cooperative societies of Karnataka Milk Federation (KMF) in Heggada Devana Kote Taluk. Comprehensive pre-tested questionnaire was used for the purpose of primary data collection along with interview guide and field observations. The study examines the changes in income, access to cash and credit, confidence in financial transactions and their aspiration for economic autonomy towards drawing inferences and suggestions for engendering and strengthening endeavors for economic empowerment of women in dairy cooperatives.

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INTRODUCTION

"Just as a bird cannot fly with only one wing, a nation cannot move forward when the women are left behind" were the words of Swami Vivekananda that reflect the growing concern of all committed to development, equality and justice. One of the frequently emphasized goals of development in recent decades is women empowerment. Empowerment of women and issues linked with gender advocacy are now in the foreground as development takes on a more integrated gender sensitized perspective. The key to long term poverty alleviation in developing countries is empowerment, in the broadest sense of increasing self-reliance of the poor, especially poor women (Dawson 1998).

A number of research findings indicate that women are the disadvantaged gender in both rural and urban areas of the country (Dube et al. 1986; Chen 1993; Agarwal 1994). The very fact that poverty prevails is deplorable and it is a shame on mankind that 'Poverty has a woman's face' (UNIFEM Biennial Report 2000). Status of women is a crucial development index of any given society and nation. Indeed a component of Human Development Index (HDI).

Batliwala (1994) is of the view that empowerment stands for an individual's ascent in authority where authority means that the individual acquires more access to philosophical and material resources and also gains the capacity to use them in accordance with his/her needs and discretion. Rowlands (1995) and Mayoux (2000) strengthened this idea by accepting that empowerment is actually an

increase in the authority or power of an individual. Empowerment of women as defined by Kabeer (1999) is the process by which those who have been denied the ability to make strategic life choices acquire such ability.

Empowerment is a process as well as a 'state-of-being' that confers the initiative and the power to change; to challenge even the deeply prevalent gender bias and discrimination that is well-entrenched in the cultures of many societies in the world, including India, as revealed in their traditional dominant social practices. Patriarchal structures and their over bearing influence can be clearly seen in rural and urban India. Efforts to empower women are underway. Manifestations of women empowerment are less evident in rural India than in urban areas. This is a matter of concern since India is still predominantly rural in spite of rapid urbanization and explosion of cities. Socio-economic, political and cultural change is, however, possible, necessary and ultimately inevitable for dignified survival and development. The change can start from initiating new social practices, developing new perspectives and envisagement that would serve to challenge and change the present patriarchal proclivities, traditions and systems. This process of change has begun. At the forefront of this change is the women's movement. One of the sectors and organizations that have been instrumental and supportive of this change process is the dairy co-operative movement.

Cooperation has been an inspirational value enshrined in Indian culture since time immemorial. The cooperative movement has marked over 100 years of instrumental role in development. It has made its way deep into remote villages of India. Millions of marginalized families, far-flung communities, isolated farmers, producers, consumers, stakeholders have found a voice and strength to script their development through cooperatives. It has proved to be one of the socio-economic safely belts preventing several homes from sinking further deep in the swamps of poverty.

Dairy cooperatives are often described as the 'harbinger of rural prosperity' (Benni 2005) and women dairy cooperative societies are heralded as pioneers of a silent rural change in India. Support to

Training and Employment Program (STEP) for Women is a Government of India intervention for socio-economic emancipation of women. Department of Women and Child Development, Ministry of Human Resource Development, Government of India has been implementing the scheme since 1986-87. The programme of STEP aims to make a significant impact on women by upgrading skills for self and wage employment. The sequence of activities is envisaged as mobilizing women in viable collectives or groups, improving their skills, arranging for productive assets/ access to wage employment, creating backward and forward linkages, improving/arranging support services, providing access to credit, awareness generation, gender sensitization, nutrition education, sensitization of project functionaries etc. Thus, STEP advocates an integrated package of inputs aiming at self-reliance and empowerment of women by enhancing their productivity and enabling them to take up productive income generation activities.

Women Dairy Project (WDP) is one of the components of STEP striving to empower women through dairy cooperatives. Under WDP, Women Dairy Cooperative Societies (WDCS) which are constituted, controlled, and managed by only women are promoted. Apart from providing financial support for planning and management of WDCS, 10 to 15 percent of the budget in the scheme is devoted to capacity building/training of women (Government of India, STEP Revised Guidelines 2009). The Karnataka Milk Federation (KMF) and Mysore Milk Union Limited (MYMUL) have both STEP and Non-STEP WDCS in Mysore District.

OBJECTIVES

The objectives of this research are to study the economic status of women in dairy cooperative societies through changes in their income, access to cash and credit; to understand changes in their confidence in financial transactions; their aspiration for economic autonomy; to draw inferences from the study and make suggestions for economic empowerment of women.

METHODOLOGY

This empirical study has been conducted among women members of WDCS of KMF and MYMUL with a gender perspective. Using a stratified random sampling technique, 160 women from 16 women dairy cooperatives from H. D. Kote Taluk of Mysore district in Karnataka were selected for the present study. Some of the women dairy cooperatives were covered under the STEP scheme of Government of India and referred to as STEP WDCS while others are officially referred to as non-STEP. For the purpose of the study sample of eighty women each from both types of WDCS were selected.

The study has been undertaken using both primary and secondary sources of data. Most of the data used for this study are primary in nature to make the study more authentic. The data collected in the field has been analyzed statistically and empirically. Qualitative field observations from a gender perspective were very useful in data analysis. The data collection was conducted in the following phases:

* Step-1: Sample selection using stratified random sampling technique;
* Step 2: Pre-Testing of Research Tools and incorporating corrections accordingly;
* Step 3: Administration of the questionnaire, focus group discussions and field observation;
* Step 4: Data Analysis using descriptive and statistical methods. Statistical analysis was carried out through SPSS for windows (version 16.0);

STUDY AREA: *Heggada Devana Kote*

Heggada Devana Kote is H. D. Kote in popular parlance. It is the biggest taluk with very little urbanization among a total of seven taluks in Mysore district in the Indian state of Karnataka. The Total geographical area of the taluk is 1622 sq. km (2001 census). The area is bounded in north by Hunsur taluk, in the North West by Kodagu District, in the East by Nanjangud and Mysore taluks, in the South west by Kerala State. Located about 50 km away from Mysore city, H.D. Kote is along the Karnataka-Kerala border.
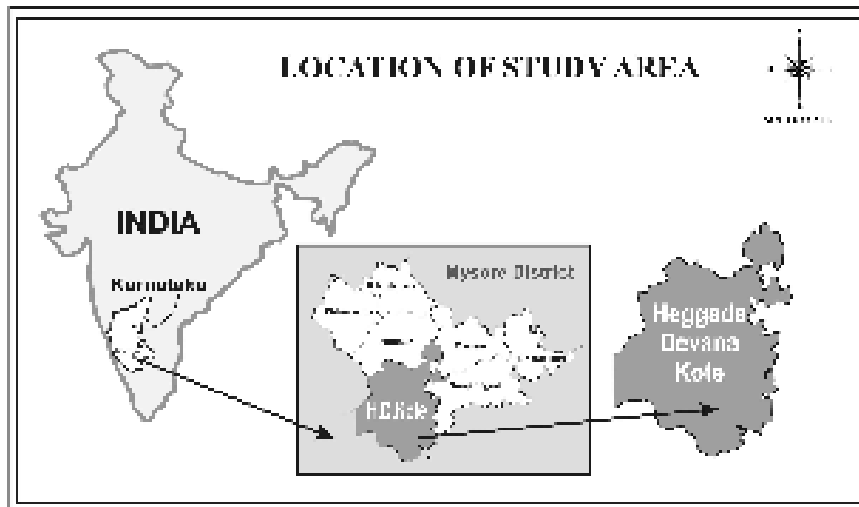
As per the Census of India 2011, H. D. Kote has a population of 2, 63,706 with 1, 32748 male and 1,30,958 women. Overall literacy rate is 50.63 percent with male literacy at 56.74 percent and female literacy at 43.26 percent. Sex ratio is 972 as per census 2001 (Govt. of Karnataka, District Profile 2013).

Rich in forest and other natural resources, H. D. Kote taluk is among the most backward Taluks of Karnataka State and as is described as such in the D. M. Nanjundappa Committee Report on Regional Imbalances. It has witnessed large-scale displacement, not once but three times, in the name of 'development' which has deeply affected the 'moola nivasi's' or the tribal population in particular. It remains mired in social and economic backwardness; it is among the most underdeveloped regions of the State and among the few taluks in the entire country without a single industry. Agriculture is the main activity in H. D. Kote Taluk and despite the four dams namely, Kabini, Nugu, Hebbala and Taraka it has no irrigation facility and agriculture is entirely dependent on rain. Water in the reservoirs and canals downstream of the dams help irrigate lands in other taluks but not in H.D. Kote. Farmers who could have raised three crops are able to hardly raise one crop and are perennially in debt (The Hindu, 2007, 2013; Wikipedia 2013). In this context, dairy cooperatives provide the much needed sustained employment and income.

Fig.2 H. D. KOTE TALUK : Sample Villages

MAJOR FINDINGS

A summary of major findings based on the study of women in WDCS of H. D. Kote taluk is presented in this section. The findings are presented in three sub-sections;

* Demographic Profile: Age, Education, Marital Status;
* Economic Empowerment: Increase In Income, Proportion of Increase in Income, Access to Cash, Access to Credit, Knowledge of Husband's Income, Confidence in Financial Transactions; and
* Aspiration for Economic Autonomy

4.1 Demographic Profile

Age - Age profile of the study respondents ranged from below 20 years to above 60 years with highest representation of 41.9 percent from the age group of 31 to 40 years. The next set of representation was of 23.8 percent and 19.4 percent from age groups 21-30 years and 41-50 years respectively (refer chart 4.1.1). The representation of women of all age-groups in WDCS is a positive aspect. It provides an advantage for members of all age-groups to benefit from dairying as well as develop their WDCS in a sustainable way.

Chart 4.1.1: *Demographic Profile - Age*

Above 60 years 6.90%
51-60 years 6.30%
41-50 years 19.40%
31-40 years 41.80%
21-30 years 23.70%
Below 20 years 1.90%
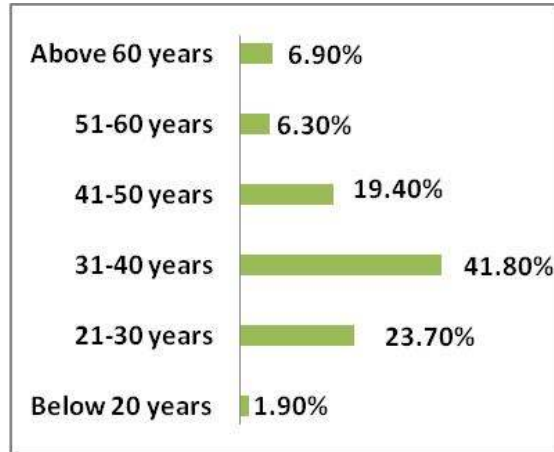
Source: Field Survey

Women bear multiple burden of productive and reproductive work in their household that curtails their effective participation in development activities and realization of their full potentials. It is encouraging and important for the cause of women empowerment that more women of all age groups participate actively in development activities be it economic, social, cultural, political; more so vital in tradition bound rural settings like in India.

Elderly poor rural women often face systemic exclusion in the name of their economic status, sex, geographic setting and then the advancing age. Several elderly respondents in the study belied the notions that advancing age usually harbor obsolete conservative attitudes by setting shining examples of progressive views by displaying an understanding of women in dairying, their challenges and achievements. They are powerhouses of information and experience.

Education - Educational profile of respondents show highest representation of 38.1 percent illiterate women followed by 22.5 and 21.9 percent of women with education level of primary classes 1-7 and high school grade of 8-10 respectively (refer chart 4.1.2). Most of the women who had studied up to 1-7 grades were in reality equivalent to signature literates. This shows that the educational

experience they have had has not benefited them on the literary front. They have in fact relapsed into illiteracy. In effect, 30 percent of the study respondents were literally signature literates and overall 68.1 percent women were unable to read, write and comprehend written material. Some of the disempowering factors that have become barriers to these women's continued education were early marriage, onset of puberty and associated perception of fear and insecurity, long distance between school, college and villages, irregular or absence of safe public transport, lack of support and encouragement by parents and village community due to gender role stereotyping and poverty.

Chart 4.1.2: *Demographic Profile - Education*
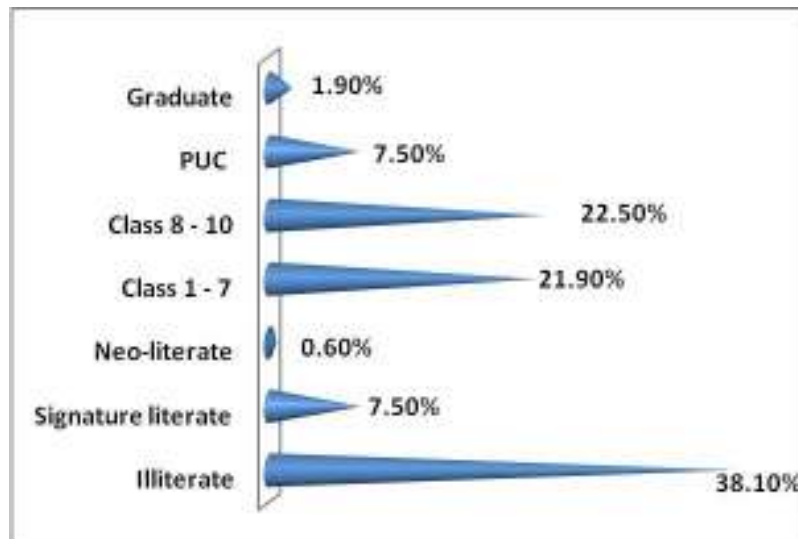
Source: Field Survey

On the brighter side, 22.5 percent respondents with high school level education, 7.5 percent and 1.9 percent from pre-university and graduate levels augur well for women education and empowerment in particular and sustainable development as a whole. Most of the educated respondents were already playing various significant roles in their dairy cooperative societies as secretaries, presidents, testers and active members. There were others who also took up active roles in their village community.

Marital Status - Married women emerged the most represented among respondents with 91.3 percent while the remaining 8.7 percent comprised of widows, single and divorced women. For these 8.7 percent women who are perpetually marginalized in the name of their marital status in particular, the WDCS has proved to be a life-changer; dairying for them has not only provided a means of livelihood but has also given them an identity of strength along with a support system.

Chart 4.1.3: *Demographic Profile - Marital Status*
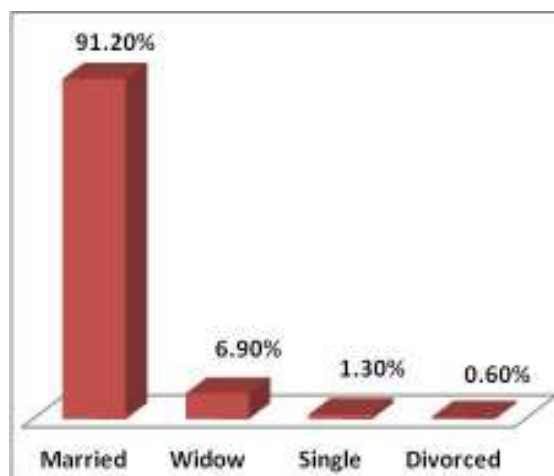
Source: Field Survey

4.2 Towards Economic Empowerment

Women in Dairy Cooperative Societies are marching towards economic empowerment and the cooperative movement is striving to retain its reputation of being the 'harbinger of rural prosperity' with 66.9 percent of respondents clearly achieving increase in income. This highlights the role and potential of dairy cooperatives in women empowerment, poverty alleviation, economic progress and rural development.

Income - Underdevelopment and inequalities are clearly traceable to unequal access and unequal control of resources. Economic resource is an imperative for dignified sustainable well-being of human beings including women. The study results show 67 percent women responding positively to increases in income and are overcoming one of the major obstacles to empowerment.

One of the common constraints is lack of access to opportunities of earning income and to credit which is generally a major obstacle to the improvement of women's economic situation (Simojoki, 2003). The 15 percent women who have recorded decrease in income (refer Chart 4.2.1) draw our concern. There are examples of women who are living in the 'vicious circle of poverty' that was theoretically explained by economist Nurkse. His simple yet profound statement was 'poor are poor because they are poor'. The causal factor for low dairy income was the consequential factor for decrease in their income. The income from dairy has decreased for them because the quality of milk has decreased. One of the main reasons for low quality of milk is lack of green fodder. Lack of adequate green fodder forces them to go for additional supplement feed which in turn requires additional money which is impossible to invest given their difficult economic

Chart 4.2.1: *Increase in Income*

Yes - 67%
Don't Know - 18%
No - 15%
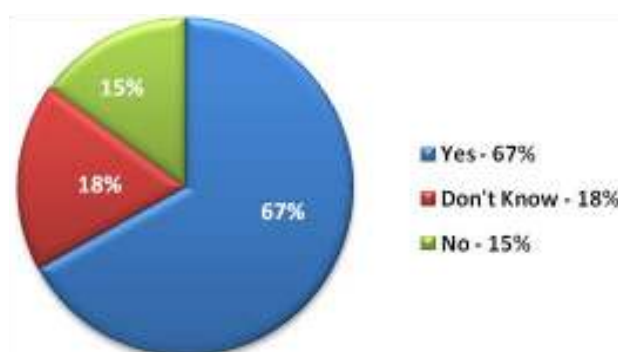
Source: Field Survey

status. This is a vicious whirlpool (refer Chart 4.2.2) in which poor dairy farmers especially women are getting constantly entangled.

The 'poverty trap' manifests itself in yet another sequence as follows: Low income of the poorer dairy farmers severely restricts the number, value and productivity of cows that they can afford (refer chart 4.2.2). High milk-yielding cross-breed variety of cows becomes very expensive for them. The margin money of Rs. 5,000 provided by the STEP scheme is insufficient to buy a healthy cross-breed variety of cow which costs from Rs. 20,000 upwards to even Rs. 100,000. Most of the dairy women in H. D. Kote could afford only the local

breed of cattle which yield low quantity of milk which hampers their income. This is forcing some of them to even contemplate withdrawal from dairy sector. If this trend continues and/or accelerates it may lead to severe marginalization and exclusion of more number of economically weaker sections especially women away from the dairy sector. Seasonal variations, unhygienic cattle management, shrinking common property resources like grazing grounds are other factors that adversely affect milk yield, quality and income generation from dairy. Gender inequality is another vicious circle. Of the 18 percent of women who responded as 'don't know' (refer Chart 4.2.1) to the question on changes in their dairy income, most of them shared that the husband or son was taking 'full care' of dairy income. Husbands were receiving all payments and so the women did not know their own income or the changes in their earnings. Even though the women undergo all the hardships of taking care of the livestock they were denied the fruits of their labor blocking their access to empowering economic power.

Chart 4.2.2 : *Vicious Whirlpool of Poverty*
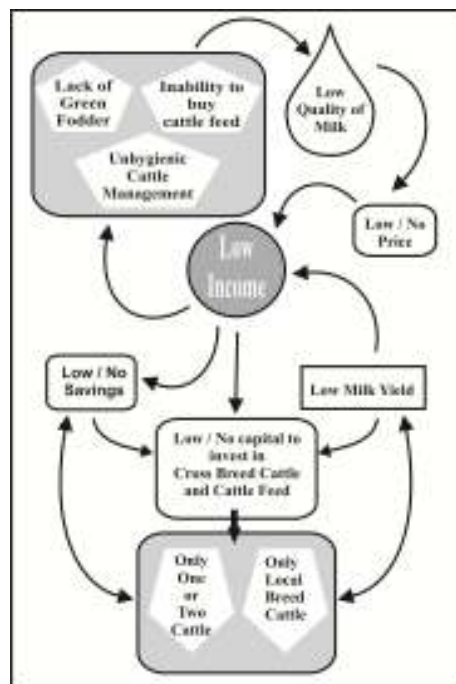
Source: Field Survey

Bound by patriarchal tradition and culture many women have accepted this as inevitable. While some do feel that their gender equations in the family must improve and they need to take charge of their own income; others do not want to change anything at all because they fear backlash in the form of disharmony, conflict and violence in the family.

Proportion of Increase in Income - The proportion of increase in annual income from dairying is substantial. As in Table 4.2.1, increase in annual income is three-fold from mean of Rs. 11,139.37 before joining WDCS to a mean of Rs. 32,024.06 for after joining WDCS. This is a significant progress given the backwardness of the region, absence of viable alternative livelihood options in the study area compounded by low set of skills in rural women.

Table 4.2.1: *Proportion of Increase in Annual Income*

Annual Income	Mean
Before Joining WDCS	Rs. 11,139.37 /-
After Joining WDCS	Rs. 32,024.06 /-

Source: Field Survey

Access to cash for personal and family expenses - Access to employment is expected to provide access to income which in turn is expected to provide the much needed economic self-reliance of which cash-in-hand for personal and family expenses is a basic indicator.

Table 4.2.2: *Access to Cash*

Yes	87
	54.4%
No	73
	45.6%

Source: Field Survey

Respondents who indicated that they had cash-in-hand for personal and family expenses were 54.4 percent. During focus group discussions, they expressed that they had come a long way from the

earlier state of helplessness, dependence and worthlessness to the present state of acquiring the ability to have some cash-in-hand for family and personal expenses. This is an indicator showing economic empowerment made possible through dairy cooperatives.

Chart 4.2.3: Access to Cash
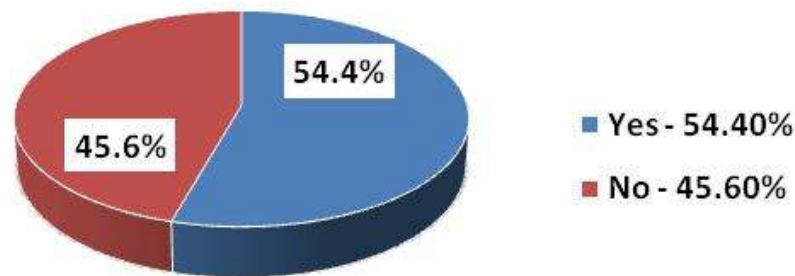
Source: Field Survey

The first pattern of practice is where the man of the house takes charge of all financial aspects of dairying: he takes the milk to the village dairy society and he collects payments thereby completely eliminating even a 'distant' role for women in financial transactions through dairy enterprise. All that the women get in return is 'full share' of the back-breaking tasks of dairying with no access or enjoyment of its benefits. The second pattern of common practice is a scenario where the woman does all the work of dairying including pouring of milk and receiving of payments and then they have to hand over all their earnings to the husband or other male member of the family. Both the types of practice uncover the extant gender relations and raise several issues of crucial gender concern.

Access to Credit - In spite of many positive changes brought about by the women's Self-Help Group movement, access to credit for women is still not on par with men. For rural women with high rates of illiteracy, low skills set, social inhibitions and low self-confidence access to credit is still a Herculean task; and for poor rural women due to apparent economic disadvantages all the above odds multiply in magnitude making access to credit even more difficult. In such a backdrop, access to credit available to 53.1 percent of women in the study sample indicates progress towards economic advancement.

Table 4.2.3: *Access to Credit*

Access to credit	Yes	85
		53.1%
	No	75
		46.9%

Source: Field Survey

The remaining 46.9 percent as represented in Table 4.2.3 have no access to credit. There is need to strengthen SHGs and build linkages with reliable financial institutions to provide smooth and women-friendly access to credit which is a critical ingredient for women entrepreneurship and empowerment. And this is an aim of financial inclusion initiatives.

Knowledge of Husband's Income - Interestingly, 46.9 percent of the respondents replied in the negative when asked if they knew the income of their husband. As shown in Chart 4.2.4, only 45 percent of respondents were aware of their husband's income which clearly depicts the unequal power equation within households.

Chart 4.2.4: Knowledge of Husband's Income

Source: Field Survey

For women empowerment initiative to make inroads into deeply entrenched gender inequalities such intricate gender issues need to be sensitively, consistently and creatively addressed through effective participatory mobilization of women and well-planned gender sensitization campaigns and programmes for both women and men. The 8.1 percent respondents who are categorized under 'not applicable' as per Chart 4.2.4, refers to the widows and unmarried women among the respondents.

Confidence in Financial Transactions - Financial transactions include receiving payments for milk supplied, calculating the total amount due to them, cross-checking with records in the dairy, making payments for purchases like fodder, veterinary services as well as family expenses, repayment of loans, depositing money in bank or post office savings account, withdrawing money from their accounts, savings in SHGs, updating SHG passbooks, planning and accessing credit from SHGs. And naturally, financial activities vary as per individual awareness and needs.

Patriarchal socialization of girl children and women reinforces the notion that they are not good with numbers, counting, mathematics and financial transactions. As a result very often women themselves set their minds to believe in low numerical capabilities. A breakthrough in this stereotype notion can set them on an empowering journey. Confidence in financial transaction as one of the indicators of economic empowerment process showed that 66.3 percent respondents perceived increase in their confidence in financial transactions. After joining the WDCS their exposure to finances, financial matters and transactions has increased which has given a big boost to their confidence.

Chart 4.2.5 *Increased Confidence in Financial Transactions*
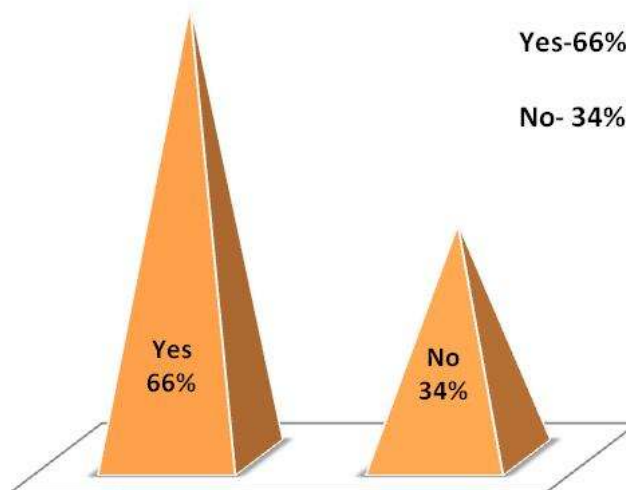
Source: Field Survey

The remaining 33.8 percent responded (refer Chart 2.6.1) that they did not perceive any increase in their confidence in financial transactions. Reasons show that in most of these women it is the husband who handles all financial transactions except mundane day-to-day home expenses which leaves no room for them to build a higher level of awareness and confidence.

4.3 ASPIRATION FOR INCREASE IN ECONOMIC AUTONOMY

Dreams and aspiration propel the human spirit to endeavor and reach the limits. Uncovering the aspiration for increased economic autonomy showed mixed results with 45.6 percent of women aspiring for increased economic autonomy and remaining 54.4 percent expressed no such aspiration.

Chart 4.3.1: *Aspiration for Increased Economic Autonomy*
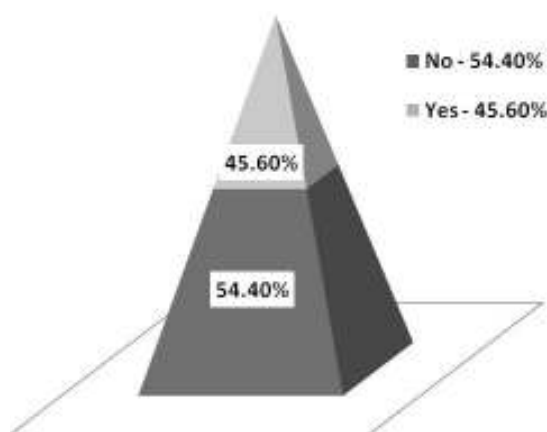
Source: Field Survey

Among those without aspiration for increased economic autonomy most of the women expressed cynicism and disillusionment in their lives; others subscribed to the patriarchal views that 'money matters belong to men'; some others did not wish or feel confident to take on the economic responsibilities from their husbands because they did not want any 'head-aches or fights' in the family; others just were complacent in their secondary roles and wanted no such responsibilities.

Among the 45.6 percent who aspired for autonomy most of them did not believe realization of such an aspiration in this lifetime. They said it was 'just a dream' and 'wishful thinking'. It was observed that women who wished for more autonomy were guarded and conscious of those around them while expressing their response. Patriarchy appears to be so strong that for women to even express an aspiration for increased autonomy becomes difficult. Patriarchy and gender role stereotyping moulds women in the name of socialization to bury her own aspirations, thoughts and dreams. It may be that there is concomitance between increased incomes and increased autonomy. This possibility of autonomy may instill a desire to widen horizons of life.

CONCLUSION AND SUGGESTIONS

Just as the women members in dairy cooperatives are invaluable to the dairy sector, the dairy cooperatives are playing a vital role by creating employment opportunities for women, access to income and access to credit. This is a sure march towards economic empowerment of women. Dairy cooperatives have greater potential and can play a bigger role in empowering rural women provided the challenges posed by society on women are effectively addressed. This study uncovers some of the obstacles to women's economic empowerment which is multi-dimensional in nature cutting across social, economic, cultural, psychological domains. The prevailing barriers are in the form of patriarchal values, rural conservative milieu, dominant husband or male family members who take control of the opportunities and benefits of dairying, inadequate margin money and illiteracy.

Suggestions to enhance active participation and economic empowerment of women in dairy sector include:

1. Prioritization of gender mainstreaming at all levels from policies, projects to people;
2. Continued support and special incentives for women;
3. Increase margin money to fully cover the purchase of quality breed of cattle;
4. Redesign male-sensitization programs to include more effective gender sensitive modules, participatory methodology and follow-

up activities at the village level towards building an enabling rural environment for women;

5. Adopt best practices and appropriate technology like direct transfer of payments to bank accounts of members through ECS which can discourage male interference and dominance of husband. It can also ensure women's financial inclusion; increase women's opportunities for financial transactions;

6. Further strengthen transparency, accountability and democratic principles of dairy cooperative societies as enshrined in the goals of cooperation.

Cascading effect of women empowerment is immense as it traverses beyond self, home, communities, dairy cooperatives to empower socio-cultural, economic, political, legal, ecological values, processes and institutions. Insights on its dynamics and dimensions through reflection, research and action are invaluable.

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Inclusion of the Excluded in Education: An Inter State Analysis of Universal Elementary Education in India

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R. PRASAD

'Educate a man, you educate one person, but educate a woman and you educate a whole civilization'.

Mahatma Gandhi

Abstract: *Development history of various countries has shown that Education is an essential instrument in uplifting the society from its different social and economic problems. Elementary Education is a fundamental right in Indian Constitution. Significant attempts have been made in the world in general and India in particular for achieving the Universal Elementary Education (UEE). World summits like Education for All (EFA) and Millennium Development Goals (MDG) gave strong foundation for UEE and gender equality in educational opportunity. In this context an attempt has been made to understand the performance of states in Inclusion of the Excluded in education. In this analysis girls and different religious and social groups are considered as excluded group. The important objective is to evaluate the performance of different states in the inclusion of this excluded group in education through the implementation of Sarva Siksha Abhiyan (SSA). It is based on available secondary data. Regression model has been used to understand the factors responsible for differential performance of the states. It is observed that educationally backward states have improved their expenditure on education considerably after the introduction of SSA. Lower Gender Parity Index indicating higher gender gap is observed in educationally poor states. Enrolment of Muslim students has improved significantly compared to other social groups. State expenditure on education, per capita income, sex ratio, NSDP and Girls enrolment found to be significant in explaining the differential performance of the states.*

Keywords: *Education, Educational expenditure, Gender disparity and Social Group*

Disparity JEL Classification, General Education, Educational Finance, Education and Inequality

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INTRODUCTION

Education is an essential requirement to uplift the society from various kinds of economic and social problems. Many economists argued that there is a positive relationship between education and economic growth (Solow (1957), Denison (1962), Lucas (1988), and Becker (1975). Development of educational opportunities enhances the social development and individual development simultaneously. There is a strong support for the argument that government intervention is very essential in delivering the public goods (Wagner, 1890); Peacock and Wiseman, 1961); Musgrave, 1969); and Lindhal, 2000).

For the past six decades the primary goal of education policy in India is to expand schooling opportunity in order to attain Universal Elementary Education (UEE). The objectives of National Policy on Education 1986, revised in 1992 were addressed during the Tenth Plan period mainly through the Sarva Shiksha Abhiyan (SSA) which is the flagship programme of Government of India being implemented in partnership with States and UTs. Substantial allocations were made by Government under this programme. The Government expenditure on Sarva Shiksha Abhiyan (SSA) has more than tripled during the last seven years from Rs. 766.6 Million in 2005-06 to Rs. 2555.5 Million in 2012-13.

Inclusive growth is an instrument to resolve the problem of regional disparities of all kinds. Inclusive growth policy is an attempt to bring the backward sectors, backward regions, backward classes, women, and marginalized sections into mainstream. It is important to understand the problem of exclusion to have better inclusive policies. Inclusion in Education means providing education opportunity to all

regardless of race, ethnicity, disability, gender, language, socio-economic status, and any other aspect. In the present paper girls, SC and ST categories, OBC groups and Muslims are considered as excluded group. An attempt is made to understand how far the existing education policies have promoted the inclusion of this excluded group in provision elementary education.

REVIEW OF LITERATURE

Social exclusion in education has been analyzed by several researchers. Some of the recent studies are presented below. Social exclusion of scheduled caste children from primary education in India and the comprehensive policy response for improving the access to educational opportunities of this disadvantaged group were analysed by Jenkins and Barr (2006). The paper suggested for a holistic approach to address the structural and basic causes of the problem. Fennell (2010) studied educational performance of the United Progressive Alliance (UPA) government's achievement as against Non-Democratic Alliance (NDA). The study observed that UPA government policy was focused more on legislative and administrative changes rather than on programme and consequently the marginalized groups were excluded from education during this period. It concluded that without greater emphasis on institutional delivery, innovations in the legal and administrative framework does not result in desired change. In a study on working towards inclusion: reflections from the classroom, Singal (2008) explored development activities towards educational inclusion in India. The study argued for provision of knowledge and skills to stakeholders for developing inclusive teaching practices. A Participatory Action Research by Polat (2011) on inclusion in education: a step towards social justice discussed the theoretical relationship between inclusion in education and social justice. The study found that there are numerous barriers in the education system itself to attain social inclusion at national, community and at school levels. An empirical study of Ashley (2005) made an attempt to understand the process involved in mainstreaming the out of school children from non-formal education system to formal schooling system. The study suggested for the involvement of the private schools

management in providing education opportunity for out of school children. Some studies at the macro level (Rampla, 2000, Premkumar, 2006) have shown the correlation between literacy and development status of the states and literacy and state domestic product. An attempt has been made in this paper to analyse the trends in the inclusion of those excluded; the excluded group constitutes girls, socially backward and categories across different states in India.

OBJECTIVES OF THE STUDY

The main intention of this paper is to evaluate the educational performance of different states towards the inclusion of those who are excluded. The other objectives are;
* To analyse the trends in financing of elementary education in India
* To evaluate the performance of different states in the inclusion of those who are excluded in education.
* To identify the factors responsible for differential performance of the states.

METHODOLOGY:

The paper is mainly based on secondary data. Data relating to expenditure on education, literacy, per capital income, enrolment and other variables were collected from various government reports such as MHRD Reports, Economic Survey and District Information System of Education (DISE) and Census. Coefficient of Variation was calculated to understand the disparity among the states, with respect to inclusion of girls and other social groups. Regression model is used to understand the factors responsible for differential performance of the states in inclusion. The model is specified as below;

$$Y_i = b_0 + b_2X_{1i} + b_3X_{2i} + b_4X_{3i} + b_5X_{4i} + \ldots\ldots + U_i$$

Dependent Variables:

GIRLEN= Girls Enrolment

SCEN= SC Enrolment

STEN= ST Enrolment

OBCEN= OBC Enrolment

MUSLIMEN= Muslim Enrolment

Independent Variables:

EDUEX= Educational expenditure

LIT = Literacy

PI = Per capita income

NSDP = Net State Domestic Product

POV = Poverty

SEXRA = Sex ratio

Statewise Expenditure on Elementary Education in India

Allocation of sufficient funds is the first step in improving access to education. Data relating to the share of expenditure on elementary education in the total expenditure on education of respective states is presented in Table-1. The data shows wider variations across the states. It varies from as low as 4.19 per cent in Lakshadweep in 2003-2004 to 68.84 percent in Jammu & Kashmir in 2009-10. The educationally backward states like M.P, Jharkhand, Chhattisgarh, Bihar, Assam and A.P have given higher priority to elementary education in their total expenditure on education. Though the mean percentage of expenditure on education has not improved much between 2003-04 and 2009-10 (around 30 percent) there is a considerable improvement in some states. The states can be grouped into three categories based on the changes in the share of money spent on elementary education after the introduction of SSA. The first category comprises the states which are already spending more (Arunachal Pradesh, Dadra Nagar and Haveli, Jharkhand, Karnataka, Nagaland) and continue to be spending the same amount. In the other category there are states where the share of expenditure has shown an increase. In states like U.P, Bihar, H.P there is an increase in the allocation. But in the case of the third category of states, there is a reduction in the allocations. For example during the first year of the introduction of SSA (2003-04), Madhya Pradesh, which is educationally backward state, has spent 80 per cent of the education budget on elementary education. However, this share

has decreased considerably from 2004-05 onwards and it is 63.50 per cent during 2009-10. Same is the case with Tripura and Assam also.

It is disturbing to observe that out of the 35 States and Union Territories, 16 states have shown decrease in share of expenditure on elementary education between 2003-04 and 2009-10. Six states have been maintaining same level. There is increase in 13 states. The increase is considerable in the states of A&N, Bihar, Delhi, A.P, Nagaland, Rajasthan and U.P. There is not much change in rest of the states/UTs.

The regional variation across the states in expenditure on elementary education can be judged by examining the Coefficient of Variation (CV) among the states. The CV decreased from 32.60 per cent in 2003-04 to 29.80 per cent in 2004-05 and it increased at 32 per cent in 2008-09and further decreased to 31.60 per cent in 2009-10. This implies that the variation continues to be around 30 per cent and it has not decreased after the implementation of SSA.

Table-1: Percentage of Public Expenditure on Elementary Education in Total Education Expenditure (Revenue Account)

STATES & UTs	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Andaman & Nicobar	47.95	49.35	48.34	49.66	49.78	53.29	52.94
AP	45.31	45.87	48.22	45.81	46.36	46.36	44.75
Arunachal Pradesh	64.02	64.36	63.46	67.41	68.18	68.28	60.18
Assam	60.44	60.96	63.38	57.03	60.06	55.09	56.36
Bihar	62.37	67.65	63.65	59.82	62.84	68.16	66.92
Chandigarh	26.75	35.82	29.43	26.38	26.96	31.9	31.49
Chhattisgarh	66.31	65.29	64.81	69.17	65.11	69.39	64.14
Dadar& N Haveli	69.21	72.77	69.63	68.13	68.52	73.02	65.8
Diu &	43.00	59.97	41.01	42.28	42.3	45.58	46.25
Delhi	18.22	33.12	26.53	30.89	32.93	22.44	19.64
Goa	20.4	20.44	21.58	18.61	20.08	19.09	21.36
Gujarat	52.02	55.13	55.14	56.38	54.17	54.02	54.09
Haryana	47.76	48.06	50.31	47.62	45.63	47.33	47.06
Himachal Pradesh	55.46	56.27	53.68	60.23	64.24	63.28	63.47
J & K	48.23	47.02	46.36	38.48	55.29	46.95	47.29
Jharkhand	68.72	71.28	64.77	67.94	69.17	66.68	68.84
Karnataka	55.01	57.8	56.33	55.48	54.16	55.66	53.69
Kerala	42.45	43.09	41.19	42.42	41.34	40.05	37.96
Lakshadweep	4.19	2.67	3.10	2.21	5.25	6.27	7.52
Madhya Pradesh	80.66	67.38	68.96	68.69	64.14	63.94	63.5
Maharashtra	43.74	45.9	42.2	44.86	43.94	46.39	44.99
Manipur	45.91	43.34	45.5	43.28	44.22	50.06	43.88
Meghalaya	54.41	51.13	54.06	51.13	50.36	48.82	48.62
Mizoram	52.88	55.49	55.49	52.36	51.63	49.88	51.67
Nagaland	57.93	62.97	61.41	63.88	64.18	64.49	62.38
Orissa	58.21	57.93	55.12	55.18	58.25	56.81	54.17
Pondicherry	38.43	39.81	39.04	37.81	36.48	38.13	35.52
Punjab	24.96	25.13	25.17	22.82	21.73	22.95	23.05
Rajasthan	56.65	57.59	60.34	58.92	59.94	60.27	59.43
Sikkim	49.14	48.25	47.32	47.93	47.63	45.99	34.87
Tamil Nadu	42.64	42.22	40.86	44	42.99	43.03	42.96
Tripura	57.31	56.54	52.86	43.08	41.33	38.82	38.08
Uttaranchal	46.77	42.34	43.39	45.46	45.79	63.25	63.76
Uttar Pradesh	57.76	56.62	58.12	56.49	61.89	65.86	45.41
West Bengal	33.36	37.37	38.73	37.21	36.74	35.33	34.76
Mean	48.53	49.91	48.56	47.97	48.67	49.34	47.34
CV	32.60	29.80	30.30	31.76	30.94	31.99	31.60

Sources: Various Reports of Budgetary Expenditure on Education in India, MHRD

Participation of Girls in Elementary Education in India

Equality between men and women is a matter of human rights and a condition for social justice and is also a necessary and fundamental prerequisite for equality, development and peace (Beijing Declaration, UN Fourth Conference on Women). Many scholars in the world have proved positive relation between women's education and economic development (Ramachandran, 2009). Neglecting women from educational opportunity is a waste of human resources in the country. Human capital and welfare economics theories have lead significant debate on the importance of women's education in economy. Education For All (1990 and 2000) and Millennium Development Goals (MDG) gave wider importance to the gender equality in all developmental activities in the system but history shows the gender bias against women in educational access due various social and economic reasons. Based on the experience gained, various provisions are made in the SSA exclusively addressing the gender disparity and to attain gender equity in all educational parameters. Inclusion of this group in the elementary education is analysed with two popularly used indicators, i.e. differences in school enrolment and Gender Parity Index (GPI).

Gender Gap in Enrolment at the Level of Elementary Education in India

Under SSA Government of India has launched two focused interventions for girls - the National Programme for Education of Girls at Elementary Level (NPEGEL) and the Kasturba Gandhi Balika Vidyalaya (KGBV) to reach out to girls from marginalized social groups. The KGBV aims to improve the literacy rate of the women, belonging to SCs, STs, OBCs and Minorities (GOI, website). Table 2 shows percentage enrolment of girls and boys to total enrolment to elementary classes during 2005-06 and 2010-11. It is disturbing to observe that out of 35 States and UTs only three states show higher enrolment of girls than the boys in 2005-06 and it increased to five states in 2010-11. The highest gender gap is observed in Bihar (13.06) followed by Rajasthan (10.74), Lakshadweep (8.34) in 2005-06 and Punjab reported highest gap (11.76) followed by Haryana (9.32),

Gujarat (7.82) and Dadra and Nagar Haveli (6.78) during 2010-11. The gap is higher in educationally backward states. However, the lowest gap is observed in Pondicherry (-2.96), followed by Sikkim (-1.14) and Meghalaya (-1.24) during 2005-06 and in Meghalaya (-2.00), Lakshadweep (-0.74), Assam (-0.16) and West Bengal (-0.16) in 2010-11.

CV shows regional disparity among the states in achieving gender equality. The CV of boys decreased from 10.31 per cent to 3.1 per cent, which indicates a significant decrease in regional disparity in boys' elementary enrolment among states, but there is a sharp decrease with respect to the girls' enrolment. However, the CV of gap between girls' and boys' enrolment decreased from 116.8 per cent to 88.07 per cent during 2005-06 to 2010-11 period which indicates decreasing regional disparity among the states in reaching gender equity in enrolment.

Table: 2 Percentage of Girls and Boys Enrolment to Total Enrolment at Elementary level during 2005-06 to 2010-2011

States/UTs	2005-06				2010-11			
	Boys	*Girls*	*Total*	*Gap*	*Boys*	*Girls*	*Total*	*Gap*
Andaman & Nicobar	51.73	48.27	48298	3.46	51.36	48.64	53353	2.72
AP	51.17	48.83	11122940	2.34	51.11	48.89	11272063	2.22
Arunachal Pradesh	52.75	47.25	252302	5.5	51.33	48.67	332065	2.66
Assam	50.8	49.2	3952262	1.6	49.92	50.08	5822163	-0.16
Bihar	56.53	43.47	13397041	13.06	51.65	48.35	19974702	3.3
Chandigarh	54.2	45.8	119056	8.4	54.79	45.21	149002	9.58
Chhattisgarh	52.13	47.87	4807510	4.26	51.04	48.96	4637444	2.08
Dadar&N. Haveli	54.21	45.79	39202	8.42	53.39	46.61	59064	6.78
Diu & Daman	53.76	46.24	24163	7.52	53.03	46.97	26143	6.06
Delhi	53.05	46.95	2218952	6.1	53.44	46.56	2710483	6.88
Goa	52.77	47.23	138028	5.54	52.15	47.85	181923	4.3
Gujarat	53.69	46.31	7155000	7.38	53.91	46.09	8147024	7.82
Haryana	52.4	47.6	2084377	4.8	54.66	45.34	3475846	9.32
H P	52.47	47.53	1071820	4.94	52.75	47.25	1035627	5.5
J & K	54.47	45.53	1567137	8.94	52.88	47.12	1998138	5.76
Jharkhand	53.02	46.98	5307134	6.04	50.8	49.2	6840744	1.6
Karnataka	51.53	48.47	6914456	3.06	51.74	48.26	7670492	3.48
Kerala	51.03	48.97	3300546	2.06	50.77	49.23	3438905	1.54
Lakshadweep	54.17	45.83	9671	8.34	49.63	50.37	10285	-0.74
M.P	52.3	47.7	13535429	4.6	50.71	49.29	15493689	1.42
Maharashtra	52.75	47.25	14958687	5.5	52.99	47.01	16081769	5.98
Manipur	50.46	49.54	438075	0.92	50.35	49.65	503682	0.7
Meghalaya	49.3	50.7	433524	-1.4	49	51	660129	-2
Mizoram	51.36	48.64	220086	2.72	52.38	47.62	235327	4.76
Nagaland	50.88	49.12	421879	1.76	50.82	49.18	411383	1.64
Orissa	52.25	47.75	5842193	4.5	51.38	48.62	6556425	2.76
Pondicherry	48.54	51.46	140999	-2.92	51.59	48.41	182627	3.18
Punjab	53.52	46.48	2400065	7.04	55.88	44.12	3964427	11.76
Rajasthan	55.37	44.63	11677476	10.74	54.11	45.89	12003827	8.22
Sikkim	49.43	50.57	117759	-1.14	49.86	50.14	126542	-0.28
Tamil Nadu	51.81	48.19	9754697	3.62	51.5	48.5	9797264	3
Tripura	52.03	47.97	697687	4.06	50.99	49.01	610098	1.98
Uttaranchal	52.7	47.3	30174852	5.4	50.31	49.69	32019087	0.62
Uttar Pradesh	50.72	49.28	347696	1.44	52.02	47.98	1638492	4.04
West Bengal	50.62	49.38	12592333	1.24	49.92	50.08	14931765	-0.16
All Districts	52.73	47.27	168283332	5.46	51.6	48.4	193051999	3.2
Mean	53.14	47.72	4779524	5.42	51.83	48.17	5515771	3.67
CV	10.31	3.59	136	116.81	3.11	3.35	131	88.07

Source: Various reports of DISE Flash Statistics

Gender Parity Index (GPI)

Gender Parity Index (GPI) is one of the important indicators to examine the gender equality in education during a particular period. GPI refers to percentage of enrolment of girls to boys in elementary education. In other words Gender Parity Index is the female to male ratio in enrolment/ participation in schools. It measures the number of boys and girls who are enrolled/attending recognized schools at a particular point of time (DISE Report, 2010). This measure does not include qualitative indicators like learning or transition from one grade to the next. GPI and Gender equality are not the same and parity does not measure progress towards gender equality but it tells about the ratio of the girls to boys in a specific educational setting (Ramachandran, 2009).

The Gender Parity Index at elementary level for the period of 2005-06 to 2010-11 is presented in Table 3. It is observed that gender parity has improved considerably in 2010-11 compared to earlier period. GPI is consistently increasing from 0.90 in 2005-06 to 0.93 in 2008-09 and to 0.94 by 2010-11. Out of 35 States/UTs only three states in 2005-06, four in 2008-09 and five in 2010-11 have achieved higher than one per cent of girls enrolment. Based on GPI, states can be classified into two groups. In the first group there are three states which have higher than one per cent in GPI (Meghalaya, Sikkim, Manipur, Lakshadweep, West Bengal and Pondicherry). In the second group there are states which have shown least performance in GPI. These states are Bihar, Rajasthan, Diu and Daman, MP, Chandigarh, Punjab, J & K, Gujarat and Haryana. It is disturbing to observe that educationally backward states like Bihar, Rajasthan, MP etc., have shown poor performance in GPI. This shows that the states which are educationally backward have lower gender parity. However these educationally backward states show improvement in GPI consistently by 2010-11. States like Bihar, Assam, Arunachal Pradesh and others have reported consistent improvement in GPI during consecutive period. The CV decreased from 6.76 per cent in 2005-06 to 5.74 per cent in 2008-09 and it further decreased to 6.39 per cent in 2010-11.

Table: 3: Statewise Gender Parity Index in Elementary Education

States/UTs	2005-06	2008-09	2010-11
Andaman & Nicobar	0.93	0.94	0.95
AP	0.95	0.97	0.96
Arunachal Pradesh	0.90	0.92	0.95
Assam	0.97	0.99	1.00
Bihar	0.77	0.89	0.94
Chandigarh	0.85	0.82	0.83
Chhattisgarh	0.92	0.95	0.96
Dadar&N. Haveli	0.84	0.88	0.87
Diu & Daman	0.86	0.91	0.89
Delhi	0.89	0.87	0.87
Goa	0.90	0.91	0.92
Gujarat	0.86	0.87	0.85
Haryana	0.91	0.90	0.83
H P	0.91	0.90	0.90
J & K	0.84	0.88	0.89
Jharkhand	0.89	0.96	0.97
Karnataka	0.94	0.94	0.93
Kerala	0.96	0.97	0.97
Lakshadweep	0.85	1.00	1.02
M.P	0.91	0.95	0.97
Maharashtra	0.90	0.89	0.89
Manipur	0.98	1.00	0.99
Meghalaya	1.03	1.04	1.04
Mizoram	0.95	0.95	0.91
Nagaland	0.97	0.96	0.97
Orissa	0.91	0.95	0.95
Pondicherry	1.06	0.93	0.94
Punjab	0.87	0.84	0.79
Rajasthan	0.81	0.82	0.85
Sikkim	1.02	1.03	1.01
Tamil Nadu	0.93	0.94	0.94
Tripura	0.92	0.95	0.96
Uttaranchal	0.90	0.97	0.99
Uttar Pradesh	0.97	0.94	0.92
West Bengal	0.98	0.98	1.00
All India	0.90	0.93	0.94
MEAN	0.92	0.93	0.93
CV	6.76	5.74	6.37

Source: Various reports of DISE Flash Statistics

Inequality in Elementary Education among Social Groups

There are well known substantial differences in wellbeing across social groups in India. Average per capita income of SC/ST at all India level is about one third lower than among other groups. The SCs, STs, OBCs and Muslims were lagging behind in the utilization of educational opportunities. According to NSS 64th round about 50 per cent of SC & ST children were unable to enroll in schools. However, it is impossible to achieve the UEE without inclusion of these excluded.

Percentage of SCs, STs, OBCs and Muslim enrolment to the total enrolment in elementary level is presented in the Table 4. In 2007-08, the share of SCs, STs and OBC in total enrolment at elementary level has decreased marginally between 2007-08 and 2010-11. But, the enrolment of Muslims has increased from 9.95percent to 12.5 percent during same period.

The share of SC enrolment to total elementary enrolment varies from lowest of 0.03 per cent (Nagaland) to highest of 49.19 per cent (Punjab). However, Uttar Pradesh (27.34), Uttarakhand (26.18), West Bengal (26.81) and Tamil Nadu (24.63) had much higher percentage than the all India level. Andaman & Nicobar (0.04), Lakshadweep (0.07), Mizoram (0.16) and Meghalaya (0.03) have reported less than one per cent SC enrolment. On the other hand, in the case of ST enrolment, three states from Northeastern region, mainly Meghalaya (91.59), Mizoram (98.49) and Nagaland (91.58) have above 90 per cent of ST enrolment. While Lakshadweep also reported above 90 per cent, Arunachal Pradesh (76.79) and Dadra Nagar & Haveli (67.78) have reported more than 50 per cent of ST enrolment. Haryana (0.57), Chandigarh (0.09), Punjab (0.27) and UP (0.58) have recorded less than one per cent in ST enrolment.

The enrolment of SC and ST students reflects the presence of SC and ST population in respective states. The states and Union Territories with higher share of SC and ST in the population has greater share of SC and ST student enrolment. For example Punjab with a 30 percent of SC population according to 2011 census has 49.19 per cent of SC enrolment to total enrolment. But Chandigarh with an SC

population of 17.5 percent has only 10.32 percent in enrolment.

During the period 2007-08 and 2010-11 the percentage of enrolment of OBC decreased from 42.22 per cent to 40.14 per cent. However, TN, Kerala, Bihar, Karnataka and UP have achieved above 50 per cent of OBC enrolment in elementary classes. While states like Bihar, Diu and Daman, Jharkhand and Manipur have reported increasing enrolment. Karnataka state shows significant decrease in OBC enrolment from 51.72 per cent in 2007-08 to 0.89 per cent in 2010-11.

The percentage share of Muslim enrolment has increased from 9.95 per cent in 2007-08 to 12.5 per cent in 2010-11 period. Number of states like J & K (61.85), Assam (27.47), West Bengal (WB) (25.25) and Karnataka (13.21) have much higher share in elementary level. States like Arunachal Pradesh (0.04), Chhattisgarh (0.64) and Northeast states like Mizoram, Nagaland and Meghalaya have reported less than one per cent in Muslim student enrolment.

The Coefficient Variation (CV) captures the regional disparity among the states in enrolment of different social groups in the states. The CV is highest in Muslim (181) enrolment during 2007-08 and comparing with other social groups indicates larger disparity in Muslim enrolment; it decreases to 141 per cent during 2010-11. But CV of SC enrolment has increased from 76.70 to 79.88 indicating regional disparity increase during the period followed by ST and OBC enrolment in total enrolment share shows increase.

Table 4: Percentage of SCs, STs, OBCs and Muslims Enrolment to Total Enrolment - 2007-08 and 2010-11

States/UTs	% of SC Students Enrolment		% ST Students Enrolment		% OBC Students Enrolment		% Muslim Students Enrolment	
	2007-08	2010-11	2007-08	2010-11	2007-08	2010-11	2007-08	2010-11
Andaman & Nicobar	0.04	0.39	7.02	7.54	0.66	6.28	1.4	7.37
Andhra Pradesh	18.91	18.51	9.64	9.84	45.62	45.57	10.15	9.33
Arunachal Pradesh	0.68	0.27	75.95	76.79	0.39	0.32	0.04	0.39
Assam	9.68	9.41	15.57	15.33	24.15	25.61	28.85	37.77
Bihar	16.89	18.28	2.29	1.95	59.44	63.17	10.74	13.99
Chandigarh	10.61	10.32	0.13	0.07	1.17	1.43	3.44	4.98
Chhattisgarh	15.28	14.81	32.03	32.43	46.67	46.47	0.74	1.33
Dadra & Nagar Haveli	2.37	2.39	71.03	67.78	0.97	1.22	---	2.83
Daman & Diu	4.71	4.32	12.94	10.89	32.01	43.77	3.37	8.77
Delhi	11.97	10.26	0.31	0.34	10.97	5.45	6.44	14.73
Goa	2.53	1.97	7.85	9.12	9.54	8.42	2.3	9.16
Gujarat	7.98	7.70	18.41	18.12	49.9	50.11	4.56	8.45
Haryana	28.21	27.94	0.13	0.08	32.16	32.74	4.34	7.01
Himachal Pradesh	28.04	28.09	5.64	5.74	14.3	13.51	1.07	1.59
Jammu And Kashmir	8.85	8.42	13.09	14.64	6.54	8.86	58.92	66.80
Jharkhand	15.03	14.44	30.49	29.20	44.91	46.12	10.06	13.39
Karnataka	19.18	0.33	7.51	0.20	52.67	0.89	15.55	14.96
Kerala	11.28	10.67	1.93	2.55	61.81	61.56	20.54	30.50
Lakshadweep	0.07	0.07	99.59	97.68	0.31	1.75	99.93	90.78
Madhya Pradesh	17.59	17.21	23.59	24.31	42.37	43.07	3.23	4.47
Maharashtra	14.71	14.32	11.34	11.80	32.49	33.21	8.14	12.28
Manipur	3.68	4.25	42.68	44.93	8.89	11.33	---	7.28
Meghalaya	1.00	1.10	93.08	91.59	0.61	0.78	0.16	3.20
Mizoram	0.16	0.24	99.24	98.49	0.28	0.41	0.01	0.18
Nagaland	0.03	0.02	93.75	91.58	---	0.23	0.04	0.58
Orissa	19.96	19.49	25.35	27.05	35.7	37.41	1.65	1.62
Pondicherry	19.04	19.26	0.68	0.22	73.95	69.84	6.42	7.27
Punjab	49.19	37.85	0.25	0.02	16.65	13.30	0.41	1.36
Rajasthan	19.48	20.23	14.97	15.52	48.53	47.62	4.9	6.61
Sikkim	6.80	7.26	36.1	37.15	40.07	39.19	NR	0.78
Tamil Nadu	24.65	24.41	1.88	1.71	68.99	68.77	4.74	5.50
Tripura	19.46	19.65	38.95	39.72	17.79	17.86	7.25	9.87
Uttar Pradesh	27.34	27.94	0.63	0.69	49.89	49.83	8.91	9.86
Uttarakhand	26.18	25.81	3.77	3.39	21.46	23.99	12.71	14.75
West Bengal	26.81	26.55	6.27	6.87	5.77	6.03	25.48	30.12
All Districts	**19.83**	**19.60**	**10.95**	**10.70**	**42.22**	**40.14**	**9.95**	**12.50**
MEAN	13.95	13.16	25.83	25.17	27.36	26.84	11.11	13.12
CV	79.42	78.08	122.62	123.18	83.55	84.19	177.44	141.00

Source: Various reports of DISE Flash Statistics

Factors Responsible for Differential Performance of the States

Regression models are used to understand the factors responsible for differential performance of the states in terms of enrolment of girls and other social groups in elementary education across the states in India. The results are presented in Tables 5A to 5E. Log values are considered to reduce the outliers problem in the model. Dependent

variables like Girls enrolment, SC enrolment, ST enrolment, OBC enrolment and Muslim enrolment are regressed over several independent variables such as educational expenditure of the state, literacy rate, Net State Domestic Product (NSDP), Per capita income, Poverty, Sex ratio and Girls enrolment.

In model 5A educational expenditure, per capita income and sex ratio are found to be significant at one and ten per cent level respectively. Sex ratio (5.47) has more significant influence over Girls enrolment, followed by educational expenditure (1.67) and per capita income (0.20). The model has explained at 40 per cent.

Only Net State Domestic Product was found to be significant at 10 per cent level in SC enrolment. While educational expenditure, sex ratio and per capita income (unexpected sign) were found significant in ST enrolment, educational expenditure and NSDP were found significant in OBC enrolment. Poverty was found to be significant in Muslim enrolment. The models have explained at 39 per cent in the case of girls' enrolment, 47 per cent in SC enrolment, 36 per cent in ST enrolment, and 45 per cent in OBC enrolment and none of the variables were found significant in Muslim enrolment. But poverty has expected negative relation with Muslim enrolment. The analysis shows that at macro level, Educational expenditure, NSDP, Sex-ratio and Per capita income are important variables in explaining the variation in the enrolment of girls and other social groups in India.

Table 5A: Regression Model on Girls Enrolment

Variables	Coefficient	t-Statistic	Prob.
LOGEDEX	1.674941	2.958368	0.0059
LOGPI	0.200673	1.998588	0.0545
LOGSEXRATIO	5.477129	1.751435	0.0898
C	-14.01834	-1.48625	0.1473
R^2 = .402		Adjusted R^2= .3451	
Dependent variable = Girls enrolment			

Table 5B: Regression Model on SC Enrolment

Variables	Coefficient	t-Statistic	Prob.
LOGEDEX	0.979011	1.663088	0.1061
LOGNSDP	0.445224	1.722852	0.0946
C	-1.132388	-1.157115	0.2558
R^2 = .1653		Adjusted R^2 = .1134	
Dependent variable= SC Enrolment			

Table 5C: Regression Model on ST Enrolment

Variables	Coefficient	t-Statistic	Prob.
LOGEDEX	1.857049	2.421492	0.021
LOGLIT	1.317892	0.377180	0.708
LOGSEXRATIO	10.31198	3.377715	0.002
LOGPI	-0.468677	-6.79302	0.000
C	-33.26805	-2.29533	0.028
R^2 = .364		Adjusted R^2=.268	
ST Enrollment			

Table 5D: Regression Model on OBC Enrolment

Variables	Coefficient	t-Statistic	Prob.
LOGNSDP	0.528744	2.015570	0.052
LOGEDEX	0.696122	1.766804	0.086
C	-0.489250	-0.835375	0.409
R^2= . 1483		Adjusted R^2=.095	
OBC enrolment			

Table 5E: Regression Model on Muslim Enrolment

Variables	Coefficient	t-Statistic	Prob.
LOGPOV	-0.134981	-0.435322	0.666
LOGSEXRATIO	1.019157	0.319944	0.751
LOGNSDP	0.018799	0.060332	0.952
C	-2.227288	-0.238219	0.813
R^2 = .013		Adjusted R^2=.092	
Muslim enrolment			

CONCLUSION

The paper analyzed the inclusion of the excluded in education with particular reference to girls and social groups in India. Statewise Government expenditure on education since the introduction of SSA to meet elusive goal of UEE was also analysed. In terms of government expenditure on education, the decreasing coefficient of variation suggested that the regional imbalance among the States/UTs has been coming down over a period of time. After the introduction of SSA, educationally backward states like M.P, Bihar, Jharkhand, Assam and A.P have given higher priority to education with around 50 per cent of the expenditure on elementary education. However, performance of Gender Parity Index shows that educationally backward states like Bihar, Rajasthan, Diu and Daman, MP, Chandigarh, Punjab, J & K, Gujarat and Haryana are not performing well in reducing large gap in enrolment of boys and girls. However, the CV of the GPI decreased from 116.8 per cent to 88.07 per cent during 2005-06 to 2010-11 period which indicates decreasing regional disparity among the states. Enrolment of Muslim students has improved significantly compared to all social groups. Moreover, the regression model confirmed that among several factors, Educational expenditure, NSDP, Sex-ratio and Per capita income were found significant in explaining the differential performance of the states with respect to gender gap and the enrolment of students from social groups in elementary education in India. Based on the analysis the study concludes that efforts to eliminate gender disparity and gaps in social groups have to go simultaneously. To achieve equality in education Central and State governments should have mutually supportive policies and programmes. There is need for the involvement of Non Governmental Organizations in sensitizing the people about gender equity and the importance of education in order to include these excluded groups in Universal Elementary Education.

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Community Radio in India: A Critique of Broadcast Policy

USHA RANI N.

Abstract: *Community radio labeled variedly as alternative media, grassroots media, local media or radical media is symbolic of democratization of communication with intangible power to enhance participation of masses in the process of development and social change. India, with a liberal media policy hesitated to open its broadcasting spectrum to the private ownership citing reasons of internal security, communal riots, terrorism and militant conflicts. However, the historic judgment of Apex Court in 2002 freed air signals from government clutches opening doors to private commercial radio. Ironically, the cause of social justice suffered as mass media were driven by market forces compelling government to embrace the community radio movement and issue licenses to anybody to establish radio to serve the local people. This paper critically reviews the vital issues viz., ownership, participation, programming and financial sustainability concerning operating CRS in India. The study concludes that the vision of Government of India to establish CRS since 2007 every mile in thousands has failed to materialize as the policy suffers from many shortcomings. Privatization of broadcasting has paradoxically brought the private players back to the doors of the government for financial succor, says the study.*

Key Words: *Community radio, Participation, Programming, Community ownership, Sustainability*

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INTRODUCTION

Community Radio Station- CRS is an alternative media initiative conceived to bridge gap between public and private radio broadcasting systems. India should have witnessed a rapid expansion of community radio stations by 2013 on the basis of speculative reports by the Ministry of Information and Broadcasting. At present 148 community radio stations are operational officially as on April 2013 and the Ministry is ambitiously anticipating establishment of 3000 community radio stations in a few years from now. India, with a liberal media policy hesitated to open its broadcasting spectrum to the private ownership citing reasons of internal security, communal riots, and terrorism and militant conflicts. However, the historic judgment of Apex Court in 2002 freed air signals from government clutches opening doors to private commercial radio. In the process, the cause of social justice suffered as mass media were driven by market forces compelling government to embrace the community radio movement and issue licenses to anybody to establish radio to serve the local people. India agreed to open the Radio for private participation with social agenda in December 2002. Indian government declared a policy to grant licenses for setting up of Community Radio to private/ government educational institutions and organizations recognized by the government. This policy was implemented in November 2007 when the CRS policy received cabinet approval.

'Community radio is a relatively new movement born out of expressed needs for equality for the voiceless' (Naughton, 1996). Across the world the community radio has ushered in a movement to give a tool of communication to isolated communities and creating opportunities for getting them heard in corridors of political power. In South African community radio movement, consisting of 100 such stations, which functions in the international tradition of alternative, grassroots and radical media, are gradually opening up for communities to participate in public discussion (Kruger, 2011). CSR has changed the stereotypical image of a community by underlining the potential of the voice of the marginalized. 'Community radio provides people with an ideal platform for debate, dialogue, and discussion of various issues affecting the community, without any

form of external influence. Ideally it is meant to provide an alternative voice to local communities, and to encourage them to participate fully in bringing about the development they want' (Mhlanga, 2009). Some element of homogeneity characterizes community radio that is structured to communicate in local language but to serve a community whose caste, religion and tradition as varied as in societies like India has added heterogeneity demanding room for different perspectives in programs. Unlike other mass media, community radio was built on the edifice of democracy, decentralization, privatization and localization with community owning and controlling a radio station according to its needs and interests. The essence of community radio is participation of people in planning, production and broadcasting.

Community radio cannot be compared with professionally run commercial stations, as programs sound amateurish and local centric that broadcast programs in the language of the people but create local identity in the process. It is a decentralized broadcasting system to meet the diverse needs of a multilingual and multicultural pluralistic society like India to protect different hues of cultural diversity. What makes this system different from commercial radio is the paradigm shift in the ownership pattern demolishing hierarchical governance and converting listeners into participating broadcasters.

This paper critically reviews the vital issues concerning operating CRS in India. CRS movement weakened as private broadcasters in the operation of commercial FM radio channels dominated the spectrum. The only beneficiaries of Apex Courts' historic judgment that 'Airwaves are Free' are media barons of India who control cross ownership of commercial FM Radio stations reaping the benefits of privatization of broadcasting.

LITERATURE REVIEW

Many studies have established community radio as a third force that has given voice to the voiceless. Community radio play crucial role in political process as it aims to empower the community in general but women in particular in some parts of the world like South Africa. Community radio has played a pivotal role in democratic

movement in countries like South Africa where radio reaches remote villages and the 'legend has it that more people own radio than mattresses' (Naughton, 1996). Women have fought with the administration and social norms to get a CRS as they perceive it as a medium to express their struggle, grievances and exploitation. South Africa's only women-run radio of Moutse is a case in point that created gender sensitivity in the concept of CRS (Ibid). For the first time in the history of mass media, community participation was accomplished as the community radio was designed to be owned and run by the community according to local interests. 'Based on a modicum of community ownership, such radio stations are commonly classified under the ambit of independent media (Taylor & Willis, 2000, p. 136) and alternative media' (Masilela, 1996). Community radio can shape social identity but may not conserve the local culture as the agenda is basically to promote a redressal mechanism. Mhlanga cites 'Riggins (1992) who defines "ethnic minority media" as being engaged in two parallel objectives: either preserving or weakening social identities and therefore argues that such radios regarded as a cultural appendage and medium of communication preserves social identity' (2009). Research suggests that community radio intensely develops ethnic consciousness as it aggravates the legitimatization of local languages (Laflin, 1989). Described as ethnic minority media, community radio gives cultural identity by fostering local languages in its broadcasting (Riggins, 1992). Therefore, small communities can hope to use their language, culture and tradition in radio platform. Unlike television, a non visual medium like radio can reach every member of the community through the use of local languages (Boeren, 1994). Nevertheless, despite the sense of belongingness and fostering of languages which were on the verge of collapse, the opportunity for manipulation in their desperate state seems to outweigh the plausible characteristic of community radio. In the garb of focusing on cultural distinctiveness and allowing localized form of public broadcasting political leadership can entrench ethnic cleavages so as to manipulate them (Mhlanga, 2009). Community radio can hold independent views on issues as some have pioneered alternative ethos that community radio is a haven for non-traditional approaches to music, literature

and even spirituality (R.Lewsi, McKinney as cited in Dunaway, D 2009). Studies have shown the contribution of community radios like USA's Pacifica in constructing the audience's identity as co-owner and participant in programming and management (Dunaway.,D ,2005) More significantly, Pacifica's study illustrates the presence of dynamic, interactive model of broadcasting that treats listeners not as consumers but sponsors. It also shows that listeners are not mere ratings who hold market share but people rooted in the idealism (Ibid) sums up the level of media independence of community radio in a democracy.

The establishment of community radio in many countries like South Africa has been linked with transition of political power from autocracy to democracy (Ojebode & Akingbulu,2009) endorsing the premise that community needs a medium to enhance its participation. The study on Nigeria, with low rates of literacy, concludes that the absence of community radio is a serious weakness in Nigerian democracy depriving the majority of Nigerians from participating in the democratic process as community radio would have given a medium to express their needs and aspirations in local languages in a society of ethnic diversity (Ibid). Community radio democratizes media as it creates access to the most deprived sections of the society. 'Access to media is the primary step towards the full democratization of the communication system (Tabing (2002) cited in Musubika, 2008).' In a case study on Mama FM, a community radio in Uganda established by women the findings reveal that women have much potential when it comes to community media but lack of accessibility, participation and sustainability weaken such initiatives (Ibid). News broadcasting has been experimented with alternative media in some pockets but one has to be cautious in not allowing them to go the commercial radio way. If community radio represented a deliberate attempt to extend the public sphere, then one has to say that the results of some studies in South Africa's Johannesburg have been disappointing in the area of news reporting (Kruger, 2011). Instead of covering local news, events and problems that do not appear in commercial media, these stations have failed to deliver. Research shows that some community stations are largely just relaying a mainstream news agenda (Ibid).

METHODOLOGY

These critical issues have been analyzed using case study method to examine the premise that the CRS policy needs to be transformed to make it relevant and meaningful to the community. The three case studies selected for this analysis are firstly "Jana Dhwani", Community Radio of Viveka School of Excellence, Heggada Devana Kote taluk, Saragur, Mysore District, Karnataka which caters to tribals, secondly KVK Pravara Community Radio of Krishi Vigyan Kendra, Babhaleshwar, Maharashtra that caters to farmers and the Krishi Community Radio of University of Agricultural Sciences, Dharwad, Karnataka which also caters to farmers. Semi structured interviews were conducted besides field visits to interact with owners, listeners, station managers, coordinators and radio reporters. The data was collected on the broadcasting policy, process of radio licensing, studio facilities, programming, staffing pattern, ownership and financial resources. The programs of all three stations were heard during specific broadcast hours on location to know the strength of signals, quality of broadcasting and access.

CRS is also an FM Radio station but unlike commercial radio (High Power Transmitter with 10kw and covering 50 to 110 km radius), it is a Very Low Power Transmitter (50 watt) with very limited reach of up to 10 to 20 kms. CRS was conceptualized with social agenda to serve the grassroots, voiceless and marginalized sections of the society.

Research Questions
RQ1: How local is the ownership of community radio?
RQ2: What is level of participation in programs by the local community?
RQ3: Are community radios financially viable?

ANALYSIS AND DISCUSSION

90.8 FM *"Jana Dhwani",* Community Radio of Viveka School of Excellence, *Heggada Devana Kote* taluk, Saragur, Mysore District, Karnataka

The community radio with a frequency of 90.8 in the predominantly tribal belt of Karnataka State that was established on February 24, 2012 is owned by Swami Vivekananda Youth Movement, a private educational institute in the southern region of the state surrounded by forests. Situated in the hilly side, the terrain helps in getting clear audio signals and the signals cover 80 villages within a radius of 25 kms reaching a population of 75,000- 1,000,00 and targets tribals as their key audience. The establishment of CRS was funded by the Government of Karnataka and in the absence of any revenue the owner has created a corpus fund to meet the expenditure of running the radio station. It broadcasts on an average 4-5 hrs of programs based on agriculture, health, education and tribal development and includes repeat telecasts. Housed in tribal hospital premises, the station is professionally well equipped and has couple of people to technically run the studio. Truly it has given a voice to the tribals of the region who have been fighting the government against their eviction from the forests. The organization owning radio has been serving the tribals for more than three decades against their marginalization and has set up hospitals, school and community centres for tribals. The community radio is in the hands of a leader who enjoys the stakeholder's credibility and recognition paving way for effective communication. The sense of participation already prevails in the environment and the radio station is trying hard to generate programs from the community.

In the long run it has the potential to create a database of tribal songs and dances, medicines, rituals, arts and crafts, food, costumes and narratives for posterity and has the potential to become nodal agency for area studies on tribals. The station boasts of a well equipped studio and control room equipped with advanced professional standard infrastructure.

90.8 FM KVK Pravara Community Radio Station - Krishi Vigyan Kendra, Babhaleshwar , Rahata District, Ahmednagar, Maharashtra State
A Krishi Vigyan Kendra serving the farmers in the region since 1992, an outreach initiative of the Indian Council of Agricultural Sciences and *Pravara Institute of Research and Education in Natural and Social*

Sciences in the sugar bowl of India, established its own community radio station on October 2, 2009. Broadcasting about 6 hrs of programs daily, the station has access to adequate content as it is run by the Krishi Vigyan Kendra (Agricultural Science Centre) and targets farmers as their key audience. Airing programs to the farming community, the radio station is reaching the farmers in 214 villages with an estimated population of 8.56 lakh within a radius of 25 kms. The radio station is gradually involving the community in running the day to day programming. The farmers are involved in program production and are successfully reaching the community with agriculture related programs. More content is focused on farmers, farming methods and weather reports. The studio facilities are adequate with control room, recording studio equipped with latest facilities.

90.4 FM *Krishi* Community Radio Station of University of Agricultural Sciences, Dharwad, Karnataka

The *Krishi* (Agriculture) Community Radio Station established on May 17, 2007 heralded the arrival of development radio in the corridors of Agricultural universities in India. Supported by a credible base of agricultural scientists, the radio station soon filled the information void by strengthening the extension work of the university with distribution and sharing of vital information among farming community. The radio station reaches a population of around 1.5 lakh people within a radius of 65 villages in the remote and backward regions of the state aiding paddy, sugarcane, jowar and cotton growers and targets farmers as their key audience. The station is funded by government departments, university and other organizations to a great extent. The station has good technical infrastructure and professional standard broadcasting studio with all facilities.
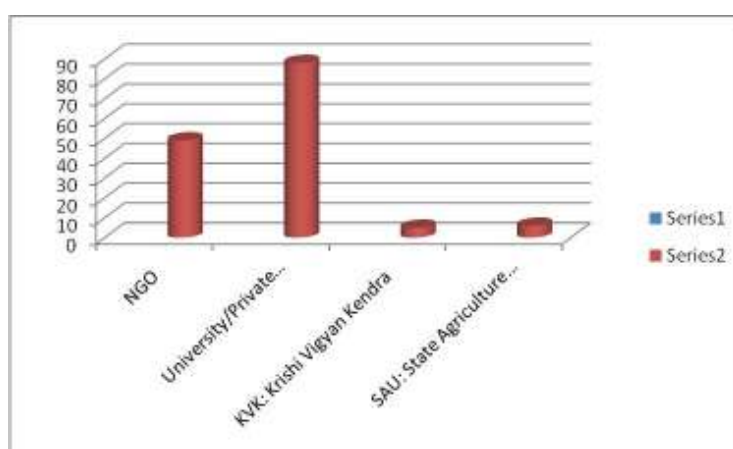
Ownership

RQ1: How local is the ownership of community radio?

Based on the 3 CRS under study, it is felt that today community radio stations are owned by both government and private educational institutions, central and state universities and NGOs. Out of 3 stations one each is owned by private educational institute, agricultural

university and agriculture science centre. Community radio operates on the premise that community consisting of farmers, tribals, women, students, minorities, marginalized, Dalits and others for whom radio is established have to participate in the process of development through media intervention. The community must gradually take up the responsibility of running the station and take over the ownership. CRMC- Community Radio Management Committee plays a crucial role in involving the community in the running of the radio station.

Figure 1

Ownership pattern of Community Radio Stations

1. *NGOs*
2. *University/Private Educational Institutions*
3. *Krishi Vigyan Kendra*
4. *State Agriculture University*

In all the 3 stations, the community members are involved at one level or the other but it is peripheral and total transfer of running the station has not been accomplished as per the agenda. They claim that 'slowly CRS will be owned by the local people' but doesn't say how and when this transition of ownership is going to happen. It is the license holder who continues to run the station and not the community per se. The present pattern of ownership illustrates low representation of the community in the CMRC for whom the station has been established. Unless and until the CMRC becomes truly representative

of the community, the content generation, programming and management of station will be in the hands of the NGOs, universities, educational institutions and others. The model of community radio is based on participatory management theory that draws power from capacity building of community members involved in governance and leadership. It has been pointed out that 'community ownership stems from the CRMC and the disconnection of umbilical cord between the NGOs and CRMC is crucial in the transition of ownership to the community members' (unicef study, 2012).

Program, Listenership and Participation

RQ2: What is level of participation in programs by the local community?

The purpose of establishing mass media is to communicate with the masses and the process of communication begins only when you have something to say. Electronic media unlike print media have to handle time by generating content for every fraction of a minute. Silence is deadly for the medium of sound compelling station to fill the radio time with meaningful content. Content creation is the biggest challenge of community radio and it requires people who are trained in radio programs to make stations work. The heart of any mass media is content and that requires planning, production and scheduling.

Participation is the essence of community radio set up and the local people are involved in program making and content generation. Programs portray their problems, issues, development, and opinions through discussions, interviews and talk shows. Unfortunately, the ground realities show that music constitutes the staple diet of programs to attract listenership. There are discussions and talk shows but the ideas for programming generate from the station and not from the community members. Participation means people's right to express their point of view but in the present model there is no room for exercising it. A radio station in the university or a tribal belt cannot take a critical look at the government or the institution's policies and programs. The CRS has become a tool for promoting government supported welfare programs and cultural programs

extensively used in creating awareness about development programs with programs continuing to flow top down rather than bottom up and paradoxically the latter is the essence of CRS communication process. In the case of universities, students or the people in the surrounding geographical area are involved in planning cultural programs rather than expressing their views in discussions on issues concerning them. It is the elite university administration that controls ownership, programming and broadcasting. Even in the NGO run stations, its point of view gets precedence over community's as programs are prescriptive bordered on its goals and community's real voice get muffled in the din of elite's opinion undermining the participatory approach.

Improvised CSR Model

CRS model has made provision for creation of community radio reporters consisting of station personnel and members of the community who have been identified and trained to carry out the job. This is a major bottleneck as community reporters have to be trained in radio program production and the reporters need financial assistance like stipend, salary or monetary aid to work either on full time or part time basis. The philosophy of CRS requires content generation and dissemination by the community members which in the given constraints is not easy to implement. How to expect a community in the remotely located area to give up their livelihood to participate in content production for radio is the moot point that needs to be

answered. The owner of CRS should have funds to pay the community radio reporters as well as the talent requiring station owners to mobilize funds for financial sustainability. The model also provides for voluntary participation by the community and today the slow growth of CRS movement is also attributed to low participation by the volunteers. Voluntary participation will complement a system but cannot replace community radio reporters who have to keep the flow of programs to fill an average of 4 - 6 hrs of broadcasting every day. In the 24X7 age of broadcasting, producing programs that are relevant to the community even for few hours demands huge database of radio programs.

Under the circumstances, it is possible to identify few strong CRSs as nodal agencies for producing a database of general development oriented programs in different languages that could be shared and distributed among the radio stations to fill the time slots. All India Radio (AIR) perhaps has the world's largest network of radio stations in India with huge database of programs on development in different languages that should be made available to community radios. Government should network between AIRs and community radio stations for distribution and transmission of programs free of cost for wider reach and access. Further, CRS should collaborate with local print media to access development stories and enlist the support of reporters in writing radio scripts. Journalism and Mass Communication programs that teach Radio should be networked with local CRS for education, training and internship. The funds meant for creating infrastructure in the departments could be used to support education and training programs for students of Journalism, Social Work and Electronic media in community radio stations. Students should earn credits in academic programs linked with CRS thus serving the twin purpose of content generation and education/ training. In the long run, community radio becomes a viable platform for producing journalists or social workers with social concern sensitized to development improving the quality of coverage of development issues in media. University Grants Commission should support such initiatives by the university departments by creating exclusive funds to strengthen radio based courses to produce trained program producers

to man hundreds of community radios that are mushrooming all over the country. The major lacuna of community radios in India is the dearth of trained hands to run radio stations and produce radio programs. CRSs need the participation by the universities in a big way to help realize the goals of reaching the community.

All the 3 radio stations suffer from reaching the stakeholders with 50 watt transmitter capable of covering a radius of 10-15 kms only and the signals are technically very weak and cannot compared with the commercial FM stations signals. The listenership is abysmally low as the technical quality of broadcast is much to be desired. Initially Krishi Community Radio Station at Dharwar distributed radio sets in the listening pockets. But now the people prefer to listen to radio over mobile phone changing the listening pattern. The commercial programs of radio FM and pre recorded music programs in the mobile have led to fragmented listenership relegating the CRS programs to the background.

'Potentially radio is a very democratic medium which when used in a decentralized manner may give local people and communities an opportunity to express their grievances in representative discussions' (Ronning, 1994). Ironically in India, despite privatization and decentralization of radio, news broadcast is exclusively a government preserve and therefore community radios owned by both private sector and government are not allowed to carry news. Further, the law bans news broadcast even by the private commercial radio stations. One of the features of democracy is the expanding access to the means of expression (Post and Olorunnisola cited in Ojebode & Akingbulu, 2009) and access to radio will increase the layers of voice. Then it will be the turn of local people and not media barons who are driven by market forces to control the message and to create a platform for healthy meaningful debate and discussion on public affairs. Radio initiative is a step towards bringing fundamental social change but the degree of isolation of community from news related programs reflects exclusion of marginalized groups from participating in public discussions and debates. Alternative media must be strong enough to accommodate spaces for the oppressed to voice their opinions in a

country like India where it is supported by a liberal constitution that has given freedom of speech and expression to every citizen. Therefore, the right to express one's opinion is the crucial issue in a society where the media industry driven by market forces has ignored the existence of voiceless communities for long. India has a vast and huge network of mass media but no media created space for oppressed, marginalized and small communities. The liberal media policy has established community radio to capture the attention of less privileged but unless the structure accommodates their perspective on public issues and issues related to their welfare and development, the movement will collapse. Radio has been given social agenda but it cannot be isolated from political discussions and debates as the concept of development is based on political ideology.

Michael Delorme of World Association of Community Broadcasters (AMARC) states that 'community radio……remains a type of radio that encourages expression and participation and that values local culture. Its purpose is to give a voice to those without voices, to marginalized groups and to communities far from large urban centers, where population is too small to attract commercial or large scale state radio' (AMARC cited in CEMCA & Unicef Report 2012). Paradoxically, the map of CRS establishes an urban up market profile intending to serve urban listenership relegating the rural development to the background. Technologically CRS should have been provided with VHPTs to have adequate reach in the community. Poor signals compel it to compete with high power public and private commercial FM channels mushrooming all over the remote places of India. CRSs have to wait till 2016 when the present commercial public and private FM radio stations will become digital making the entire spectrum available to community radio system. FM Signals are more powerful than CRSs' affecting listenership. Ironically one finds the CRS penetration more in media rich urban areas and metropolitan cities like New Delhi, Mumbai, Chennai, Hyderabad, Bangalore, Ahmedabad, Chandigarh, Patna, Pune, Nasik, Mangalore, Thiruvananthapuram, Bhopal, Puducherry and other cities than in rural and remote pockets of India.

Financial Support

RQ3: Are community radios financially viable?

Yet an another medium, the so called third broadcasting force, fails to deliver due to wrong planning and short sighted policy decisions. Setting up of a community radio requires a capital of INR 2.5 million and annual recurring expenditure of around INR.1million. CRSs established by the universities and educational institutions have been supported by the state government, University Grants Commission and other government agencies. But the concept of CSR requires participation by communities like civil society, NGOs and private organizations. How to make CSR model financially viable in private sector and village communities is the moot question? The government in its initiative to strengthen this movement recently has announced the cancellation of license fee for CRSs. It has plans to give financial assistance to community radio in its 12th Five Year Plan. A planned scheme of 'Supporting Community Movement in India' proposes to fund the CRSs initiatives to the tune of INR.1.5 Million depending on the purpose with provision to fund infrastructure cost and the Planning Commission has allocated INR.50 million for the scheme. Obviously government is keen on funding such radio station endeavor in rural or remote areas run by marginalized communities. Agriculture Technology Management agency (ATMA) of Ministry of Agriculture has also been supporting CSR initiatives through financial assistance. CSRs are extensively supported by government. 'The state's support of a community radio station is aimed at paving the way for state policies that are tangential to the needs of the minorities being targeted, and at seeking to promote policies of containment and repression'(Riggins, 1992). Political and economic factors have to be considered in evaluating the media independence says Mhlanga (2009) citing Taylor and Willis (2000).

These stations have to generate revenue through ads and private program production work. Today, DAVP, the government wing for empanelment of media for advertisements, has evolved guidelines for empanelment of CRSs to receive government advertisements and sponsored programs. But is it feasible to get adequate revenue from

ads as government ad rates of DAVP are dismally low? Regarding commercial viability, who would like to market their products or services except the government on these radio stations that aim to reach small pockets of communities? How would thousands of community radios generate revenue from advertisements with social agenda when public radio the largest public broadcasting network in the world has failed to earn more advertising revenue and continues to be loss making? How NGOs and Self Help Groups, the latter is already considered as the largest female vote bank of the state governments, who own community radios can function independently when they are under government patronage?

CONCLUSION

The vision of Government of India to establish CRS since 2007 every mile in thousands has failed to materialize as the policy suffers from many shortcomings. Decentralized radio in a democracy ironically falls short of reaching its goal because it has been isolated from political discussions and debates on grounds of social agenda but the very concept of development is determined by political ideology. Privatization of broadcasting has paradoxically brought the private players knocking the doors of the government for financial succor. News broadcasting is paramount in radio movement as it can highlight local issues and problems not only to get and endure listenership but also to create avenues for financial sustainability.

Technically, all the 3 radio stations suffer from reaching the stakeholders with 50 watt transmitter covering a radius of 10-15 kms only and the signals are very weak and cannot compared with the commercial FM stations .

Is it decentralization of radio broadcasting? The community is given with radio station but does it have a voice? Stations are still new to the concept of broadcasting and produce programs that they are comfortable with by using the same old stereotypical prescriptive AIR program formats rather than telling the stories of the people who are their key audience. They are good at creating awareness about government's development programs but lack clear cut policy on making the community radio movement a force to reckon with.

SL. No	State/UT	Population (in millions)		Rural Population (in millions)	Literacy rate (%)		2011-2012 Growth Rate of GSDP at (2004-05) Prices (%)	Sex Ratio (Females per 1000 males)	Community Radio Stations
		Male	Female		Male	Female			
1	Andhra Pradesh	42.51	42.16	56.31	75.56	59.74	6.81	992	7
2	Assam	15.95	15.21	26.78	78.81	67.27	8.42	954	2
3	Bihar	54.18	49.62	92.07	73.39	53.33	13.13	916	4
4	Chandigarh	0.58	0.47	0.03	90.84	81.38	NA	818	3
5	Chattisgarh	12.83	12.71	19.6	81.45	60.59	10.81	991	3
6	Delhi	8.98	7.78	0.42	91.03	80.93	11.34	866	6
7	Gujarat	31.48	28.90	34.67	87.23	70.73	10.47	918	5
8	Haryana	13.51	11.85	16.53	85.38	66.77	8.12	877	7
9	Himachal Pradesh	3.47	3.38	6.17	90.83	76.60	7.59	974	2
10	J & K	6.67	5.88	9.14	78.26	58.01	6.78	883	1
11	Jharkhand	16.93	16.03	25.04	78.45	56.21	6.57	947	1
12	Karnataka	31.06	30.07	37.55	82.85	68.13	6.44	368	11
13	Kerala	16.02	17.37	26.93	96.02	91.98	7.80	1084	6
14	Madhya Pradesh*	37.61	34.98	52.54	80.53	60.02	8.17*	930	10
15	*Maharashtra**	58.36	54.01	61.54	89.82	75.48	10.47**	925	16
16	Odisha	21.20	20.75	34.95	82.40	64.36	7.18	978	5
17	Puducherry	0.61	0.63	0.39	92.12	81.22	10.95	1038	3
18	Punjab	14.63	13.07	17.32	81.48	71.34	5.79	893	3
19	Rajasthan	35.62	33.00	51.54	80.51	52.66	9.69	926	7
20	Tamil Nadu	36.16	35.98	37.19	86.81	73.86	9.39	995	23
21	Uttar Pradesh	104.59	94.99	155.11	79.24	59.26	6.23	908	16
22	Uttarakhand	5.15	4.96	0.03	88.33	70.70	8.80	963	5
23	West Bengal	46.93	44.42	62.21	82.67	71.16	7.06	947	2

*2010-11   **2010-12

Figure 2. The List of States and Union Territories in India that have Community Radio Stations and Demographic Profile

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Understanding Social Determinants of Health Seeking Behaviors and Medical Pluralism: A Rational Framework for Rural Health Policy and Systems Development

NANJUNDA

Abstract: *Health is not only related to medical care but an integrated development of entire human society. Health is one of the prime concerns of mankind. Health is a pre-requisite for human development and is essentially concerned with the well being of the common man. Quality of health care, health orientation and social protection of health in a population affects the development of any nation. As far as an organic linkage with the rural health is concerned, there is no basic service for an inclusive health interference effort to understand health culture and health behavior of rural people from the larger perspective of social determinants in developing a model of culturally suited health care delivery system. Normally, the context in which an individual lives (socio-economic) is very vital and significant for his/her health status and quality of life. There are some external determinants which can decide the health status of any person including social environment, health culture, hospitals, doctors etc. Also it significantly depends on some internal factors including his / her health culture, education, health practices, etc. This paper based on field work experience reveals how social determinants are responsible for various health related problems of the rural people and focuses the need of developing Social Determinants of Public Health Care mechanism.*

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BACKGROUND

Health is one of the prime concerns of mankind. Health is a pre-requisite for human development and is essentially concerned with the well being of the common man. Health is not only related to medical care but an integrated development of an entire human society. Normally, the context in which an individual lives is very vital in signifying his health status and quality of life. There are some external determinants which can decide the health status of any person including social environment, hospitals, doctors or technology. Also, it significantly depends on some internal factors including health culture, education, health practices, etc. Quality of health care, health orientation and social protection of health in a population affects the development status of any nation.

What is Health?

Scientific definition of the term 'HEALTH'

WHO definition of health: The present definition of health was originally created during framing a preamble to the aims and objectives of the World Health Organization in 1946. According to the WHO definition "Health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity". In 1986, the WHO said that health is "a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources as well as physical capacities".

Today every government is interested to bring many health programmes. Quality health care has become a key indicator of social inclusion. Providing health care to the disadvantaged sections of the society has become a challenging task of governments. Rather than just medical care, health is a vital component in every social development programmes. Generally, quality health system depends on existing strong political economy of the state. Today, health sector is a potential long term investment with marketing potential. Quality delivery of health care service is largely influenced by socio-economic and other situational factors. Poverty, illiteracy, housing are some of the reasons for health inequalities in India. Uneven distribution of

modern medical facilities, lack of effective prevention measure, development behavior of certain communities, absence of strong political will, bureaucratic negligence, poor medical infrastructure, malnutrition, transport system, ignorance are some of the hurdles in achieving "Health for All".

There are some studies to show that changing socio-economic process will also influence the pattern of health culture and health seeking behavior. This is very common and true in the case of rural folk. Changes in health culture gradually cause change in health behavior resulting in the transformation of health status of a community. Hence, perception and attitude of the community towards different health problems will get new shape and frame finally leading to the formation of new health behavior when they face such health disorders in the future (Banerji, 1986). When the health culture is strongly influenced by the external organics (level of education, migration media. etc…) in a particular geographical area people will develop new health behavior. The adopted new health seeking behavior will resolve the health problems within the given ecological settings (Parson 1963). This type of forced change in the health behavior of a particular community sometimes will be explicit or will be implicit.

Social Determinants of Health

"What really moves the health of whole societies, adding to or subtracting from the sum of total health, may be factors which account for only a very small part of the individual variation in health and so escape detection" (Wilkinson:1996;16)

Not only biological factors but health is also determined by both social and cultural environment. Various studies have established this link. Some of the social variables like income or poverty, occupation, educational status, social network etc…. play a vital role in determining the health behavior of a community. Throughout the life course social determinants influence health at multiple levels. For example, the income of a person influences the health at different levels. This influence may occur and interact with each other to produce health status. Further, various social and cultural factors

independently influence the health of an individual at different stages of the life. Each socio-economic factor affects health behavior of a person through different mechanism. Medical sociologists have opined that social variables affect onset of disease/illness and type of treatment. Also individuals risk health behavior because of low levels of hygiene, low quality food etc.,that may play a vital role in the onset of some specific diseases. During the stage of illness social determinants will play a role in choosing specific health care system (Aurvedic, Western etc). Adoption or rejection of any medical system depends on success rate, treatment, coping behavior and other vital issues (Blaxter and Paterson, 1982).

Since India can be divided into urban, tribal and the rural, social determinant factors also affects differently on different sections of the society as it has marginalized classes like SCs,STs and OBCs. Rural people are most vulnerable to different kinds of diseases. Factors like socio economic conditions, living in remote areas , income, education and occupation will play a vital role in determining the health culture.

Income

The total income of a family may determine the levels of the poverty. Poverty may be relative or absolute. Since the link of income with health in not yet clear, it is not so easy to reveal the connection between them. Sometime income may be seasonal. Or sometime we may have to look into individual income or total household income. Income also depends on employment, salary, pension, social security, house taxes, etc. Low income always associates with low accessibility to good health care. The positive association between low income and high mortality rate in a particular family shows poor health status. Also, it is proved that individual having good health will have more chance to improve the total income of the family. It has been proved in several studies that lack of good health may result in loss of job and decrease in regular income. The fall in regular income not only affects the individual but also the entire family. Obviously, good income enables an individual to buy various health related items like, nutritious food, health insurance etc., In addition it also improves

good mental health as good income also relieves the individual from poverty related stress. Income is a kind of flow of resource whereas, assets and other form of wealth can be useful to maintain good health at any point of time.

Certain reports have shown that people with highest income live longer when compared to the people with low income. Infant mortality rate is lower in the high income group where as it is high in the low income groups. Also high income people are more likely to have access to a physician regularly whereas low income group people are not (Herzlich, 1973). All these findings show that marginal income and low income levels tend to be more strongly associated with reduced probability of poor health than increase probability of good health. Certain study reports have concluded that, rich people spend high on health care whereas poor people do not have a tendency to consume healthcare products and services. However, not all research shows an independent effect of income inequality on health and social problems because there is less agreement about whether income inequality causes health and social problems or are these factors independent (MacInnes and Milburn, 1994)

Education and Health
Educational level has the close link with health. Over the period of time studies have shown that level of education directly or indirectly impacts health. It proves that lower education attainment influence risky health behavior. Education is a casual variable in improving the health status. The study shows that higher level of education is associated with a healthy lifestyle. It is found that there is correlation between level of schooling and healthy lifestyle. It is found that link between level of schooling and health shows;
a.   Normal impact of education on health.
b.   Interaction between the level of education and inherited features.
Level of schooling is responsible for improved health literacy. Educationists felt the importance of providing pre-school education that will greatly increase the health prospects of children as well as family members. It is found that both physical and mental health would be better among better educated people and these people will

spend less on health when compared with others. Also, it is found that low level of education is strongly associated with the poor psychological function. Certain studies show that low level of education is associated with poor biological conditions, bad habits and unscientific health practices also. Interestingly, better educated people though had bad habits earlier, changed their lifestyle in eagerness of better future health care.

Since education is also a major determinant in the health care low educated people has experienced a short life expectancy than high educated ones. Also, a high rate of crime and violence can be seen among low educated people. More education obviously leads to a higher income paving way for access to high quality health care. It is found that good education provide individuals to make better health related decisions for their personal health. In rural areas levels of education may not impact health separately like other variable factors. Income and occupation also have good linkage with education as influential factors on health. Finally, education is vital for increasing healthy lifestyle of an individual. Due to better education, family members can practice good health behavior and low health expenditure (MacInnes, and Milburn, 1994).

Poverty

It is widely known fact that poverty is plays a key role in determining health status of any community. It may be urban, rural or tribal. It is found that poverty ultimately results in unhygienic housing, poor nutrition, increased risk of infections etc. Poverty leaves an ultimate impact on any community particularly vulnerable and poor. Health status might be a best parameter to measure poverty. Experts have felt that increasing health expenditure not only improves the health status of the community but also increases poverty level.

Poverty is a multidimensional aspect. Lack of good food, shelter, unemployment and low income all work together and affects individual's health status. Due to this, an individual will be at risk of getting into depression, anxiety or any type of chronic diseases. Because of poverty poor people may not visit a doctor unless it is a serious disease. First he/she will try with local traditional or self

medication. Sometime due to poverty patients will buy medicine over the counter (From the medical shops with prescription). Recent human development report (2005) opines that poverty and health influences each other directly and indirectly. Sociologists feel poor people often describe illness and disease as fate, hunger, pain, fear, anger etc. Poverty not only affects the adults it also affects severely on the health status of the children and aged people of the family. Due to poverty poor people visit only government hospitals where there will be no modern equipments or highly specialized physicians to diagnose the problem in the early stage.

Due to poverty, people cannot visit private practitioners or hospitals where one can get high quality health care. Educationists feel that, due to poverty sometime children are not able to attend school hence, children and parents cannot get any awareness about simple day to day health related practices. Poverty not only affects physical health but also affects mental health. Poverty related stress may even provoke one to commit crimes in the society. This poverty related stress also leads to severe depression, lack of self esteem which finally affects mental health of an individual (Jill, 2009).

Occupation

Rather than income, occupational status of an individual or family is more reliable and static criteria to measure socio-economic status and its effect on the general health. Good occupational status leads to better quality of healthy life. It is found that occupational status has a close link with access to good health care. Flow of income may fluctuate but good occupation promises more reliable and regular income flow. Hence, one can take right decision regarding one's health care planning. Many a time ill health may be a major reason for downward occupational mobility. It is also seen that health disorders may be a constraint for upward occupational mobility.

Higher occupational status is less likely to be an exposure to various occupational disorders. Also higher occupational status gives more peaceful mental health. Since, employment status is more strongly associated with health than income experts feel it plays a

vital role in creating access to more economic resources. This may help an individual for upward social mobility. Also, it is observed that unscientific health practices and unhealthy habits can be seen more among unemployed people which may lead to bad health status. This association has been found more among young adults, old adults and people with various disabilities also. However, some of the studies have observed that income and health are independently associated. Good food and employment however will not mitigate health problems among low income groups owing to the effect of material factors on health care.

Social Support and Social network

Social connections play a vital role as a major social determinant of health. Social supports not only give material recourses but also they provide love, emotions and attachments to an individual. Social support is a type of assistance that people will normally receive through their established social network. Social network provides vital information about healthy life style or hospital care. Studies have shown that good social network results in positive impact on physical and mental health. Social networks predict the risk of all causes and cause specific health disorders. Social network also have a history in providing good mental health care to the rural folks. Social network and social support have also helped in surviving of some major illness.

Certain epidemiologists felt social connections may help in avoiding onset of various infectious diseases. On other hand, good social network can also be a negative impact on health outcomes. Sometime people may use their social network for bad health behavior. Also few studies are going on to study the association between social supports and environment interactions. Social network and support may together be used as social capital. Members of the community can make use of social capital system for betterment of their health needs. Studies have also proved that there is a close association among social capital, health outcomes and community's social economic characteristics. It is also proved that withdrawal from the social network results in some type of mental issues among the youth. Modern social network system in rural area has proved useful in

providing culture specifics for instance in the case of planning by the local NGOs. Through social network and support people will get instrumental support, emotional support and information support to save themselves from both short term and long term problems.

In a changing society association between various socio-economic characteristics and health has been under study for decades. It is found that education, poverty and income are the three main indicators of the healthy society. However, each of the indicator acts through different mechanisms on health issues. Socio-economic characters in health are wide spread, distinctive, dynamic across multicultural societies and for a diverse range of health policies. These social variables play a vital role. Also through these variables we can enhance our knowledge in understanding how biological pathways for some health disorders are shaped by local culture. Understanding the contribution of social and cultural factors on health gives a new edge to get an idea on mechanisms by which these variables play a role about the onset of disease and progression to adopt positive health behavior.

MEDICAL PLURALISM

Around the world different rural communities use different medical systems to cure different infectious and non-infectious diseases. Depending on the diseases and illness rural people normally practice black magic, superstitious belief, miracle cures , religious worship, besides using indigenous healing knowledge and practices representing traditional healing and other medical systems like Ayurveda, Homoeopathy, Allopathy, Unani, Sidda, Chinese, Tibetan etc to cure many type of diseases. All these invariably constitute medical pluralism. However, this medical pluralism is based on ecology, cosmology and other belief systems. Rural people classify different diseases into failure or malfunctioning of different organs. Even though it looks vague and unscientific, these classifications help the indigenous practitioners to diagnose the problem properly and to find out the actual cause of diseases or illness. Rural local healers use different healing techniques or different therapeutics stages representing medical pluralism. Preference for practitioners from their

own cultural milieu is more important to the patients than the accessibility and quality of good medical care provided by the different systems". (Minocha, 2011).

As McGrath (1999) writes, "pluralistic systems persist to be explained in terms of opposites: ethno and biomedical, non-Western and Western, native and European, traditional and modern, local and cosmopolitan, indigenous and introduced, alternative and scientific, natural and allopathic, and so forth" (McGrath, 1999). In rural settings choosing an appropriate medical system and specially having strong faith on folk medicine basically depends on the theory of causation of illness and disease. It may vary from witch craft to breakdown of body systems. Selecting a kind of healing technique or more than one type of healing pattern within a given culture is a kind of response by the population over the period of time to cure a disease. This therapeutic option is most common phenomenon across the society and coexists within other type of alternative (various) medical practices and ideology. This different treatment options will have different origin and have different success rates. However, more people go for such type of treatment despite practitioner's use of toxic elements unknowingly.

Medical pluralism is a part and parcel of socially stratified and culturally diverse nature of rural society. Since numerous medical care system is available in the rural society sometime these medical systems (pluralistic therapy) may have to compete with each other over the success rate. Also due to influence of changing health culture, the underlying notion in each medical system will also get changed. Individual practitioner will adopt an appropriate technique/s in administering each therapy. While administering more than one therapy to a single patient co-operation and co-existence is required between various medicinal systems. Biomedical system dominates over indigenous medical system or vice versa. Hence, medical pluralism should be referred as blend of tradition and modern medicine within an existing complex factors of political, economical, social and cultural hegemony with respect to rural people (Elling, 1981) in given society. Hence, experts feel that the true reality of medical pluralism is quite a myth only.

It is a well known fact that medical pluralism is culture dependent rather than culture independent. Medical pluralism is a kind of social system because it will rise and construct within a broader framework of social, cultural and political context. Every medical system will have its own anthology, theory, and epistemology. Every medical system plays a vital role in fulfilling various needs of the patient/s. It is found that dichotomization/ contra position is crucial among various medical care systems. Few medical sociologists argue that there are no specific boundaries among various therapeutic measures. Some studies have shown that there is an association/ interaction between the folk healers and the modern medical practitioners when they practice in the same village. It shows that various medical systems either local or global have their own method of sharing or transmitting vital information about diagnosis and cure among themselves.

Medical sociologists have felt that availability and accessibility of various medical systems in a given setting may be useful in changing culture based attitude towards illness, diseases and sickness. Also, variety of medical care system may be useful in decreasing the occurrence of both infectious and non-infectious diseases in rural areas. Probably, this would be very useful in introducing modern medicines for cultural acceptance by the rural folk. In rural setting it is found that in case of any prolonged disease/illness and if folk medicine fails to cure then people consult bio-medical health provider for the solution. Still in majority of cases patients reject use of tablets or tonics prescribed by the modern doctors and prefer local healers.

Since various medical systems are available in the same society the vital question arises about its legitimization and allowing them to co-exist in any given setting. "In case of therapeutic pluralism, both trained and untrained practitioners give patients with an array of diseases and illness concept and healing alterative that can be used not only to get resource like prestige, power etc., but also to negotiate social relation and define cultural identity. Both pragmatic and pseudo political views help to explain medical pluralism in different settings" (Cranelon -Malamuel 1991)

Medical pluralism is a common character of every society. The main issue is their recognition and comparison with the modern medicine. Pluralism in medicine can be divided into two types, 1. Inter system & 2. Intra system. Medical pluralism depends on type of service providers and type of medicine. Normally, availability of different medical system involves perceived concept of diseases and most appropriate choice for treatment. In many rural parts of India several medical systems coexists;

a.   Western system of medicine

b.   Indian System of Medicine (ISM).

Also, it is found that hierarchical principle of high and low caste is not only within the social groups it exists with that of medical pluralism in case of rural settings. Normally low caste people will visit traditional healer who also belongs to the low caste as Guptha (1990) said that the caste class classification is normally congruent with the 'medical pluralism hierarchy with special reference to rural society.' Today the broad variety of healing techniques belongs to different medical systems that co-exist alongside traditional medicine in rural society. This is well established fact that in some cases traditional healer will treat the patients based on the certain diagnostic techniques available in the modern medicines. It is happening purely because of medical pluralism only. Due to globalization rural society is fast changing. Despite new social, political and economic scenario including other powerful external agencies rural people are showing more interest in Ayurvedic and Homeopathy rather than allopathic. It is also because of side effects and cost factor in case of bio medicine.

Mazumdar and Mazumdar (2007) have opined medical pluralism cannot be overlooked from both clients and providers' perception and today a hierarchical range of systems within the band of pluralism is extensively manifestable. Also, they felt sometime different ISMs (Indian System of Medicine) is influenced with allopathic in urban areas. The more worrying factor is that some of the forgotten healing systems like Unani, Sidda, Naturopathy etc have become a last resort for the patients whose problems fail the test of modern health care system and the most two popular medical systems

are Ayurveda and homeopathy. Further, they have stated even though allopathic medicine has been more emphasized, usage of different medical system should also be focused by the State.

CONCLUSION

As health behavior is becoming too complex today, there is quite a high level of medical pluralism in both traditional and advanced societies. It may be any type of medical system, however, that medical system normally reflects the existing culture of the particular society. They cannot be free from the influences of current socio-culture system. Both traditional and advanced medicine system have more similarities rather than differences. Today, health education for preventive health care is most essential. It invariably affects forms, content and context of any medical/health care system. Publicity, understanding, and validation of pluralistic medical system are the need of the hour. This is a vital drawback in implementing culture specific health care programme for the rural people.

Rural health culture a part of social system is also an adaptive system. Anthropologists feel that health culture is a product of actions adopted by the pool of changes over a period of time. It is quite evident that rural health culture should not be underscored as superstitious or overlooked. Various external agencies including lack of education, good income, poverty etc also influence health behavior of the rural people. Many rural focused health programmes have not been successful because of lack of local cultural component in the programme and also absence of effort to remove social determinants. The biggest problem in case of the rural health problem is emotions and proactive behavior associated with various concepts about the onset and curing of various diseases and illness. Since traditional beliefs and customs play a vital role, culturally accepted and culturally meaningful health programme for the rural people is very essential today. Understanding the role of social determinants may be more helpful for making new rural health programme. Today, rural health culture has a lot of influence by various external factors including social, economical, geographical, political and historical issues. Understanding rural health behavior always must be within the

boundaries of various societal factors which are helpful in providing modern medical health care system. It would also be very vital in planning any health care programmes.

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Role of Media in Achieving Millennium Development Goals

SIDDEGOWDA Y.S.
JAGADISH B.

"The earth, the air, the land and the water are not an inheritance from our forefathers but on loan from our children. So we have to hand over to them at least as it was handed over to us."

- Mahatma Gandhi

Abstract: Sustainable development refers to a mode of human development in which resource use aims to meet human needs while ensuring the sustainability of natural systems and the environment, so that these needs can be met not only in the present, but also for generations to come. Sustainable development encompasses four domains - economic, ecological, political and cultural sustainability. In order to have a sustainable world, it is very important to achieve the Millennium Development Goals (MDGs). The role of mass media has been phenomenal in eradicating extreme poverty and hunger. Today, attaining Universal Primary Education has been on the top of the agenda of every government. Today women are more empowered, there is reduction in the Child Mortality Rates and improvement in maternal health which have been possible due to the intervention of mass media. Further, media have been able to create ample awareness across the globe in combating HIV/AIDS, malaria and other diseases. To achieve MDGs, it is very essential to have a global partnership for development wherein developed countries contribute for the progress of developing countries. Through its preventive, curative, rehabilitative, developmental and correctional approach, mass media have become a key stakeholder contributing to move towards accomplishing the MDGs. The paper discusses on role of mass media in realizing all the eight MDGs.

Key Words: *Sustainable Development, Millennium Development Goals, Mass Media, Human Development.*

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INTRODUCTION

It may be little surprising to know that the first civilization in the world to collapse due to ecological factors was Sumer in Mesopotamia more than 4000 years ago. One might perhaps think that it was some natural disaster that led to the extinguishing of the Sumerian civilization. But the reality is different. In fact, it was, in a great measure, a man made catastrophe caused by the increasing salinity in the extensive irrigation channels built by the Sumers for cultivation. Historical and archaeological evidence points out that ecological factor played a crucial role in the collapse of a number of ancient civilizations like the Indus Valley, Greek, Phoenician, Roman and the Mayan. Today again, a similar possibility is in front of us.

In the present context, we cannot turn our back towards development. Development brings advantages as well as challenges. Sustainable development is the key for success. In 1987, the World Commission on Environment and Development (WECD), which had been set up in 1983, published a report entitled Our Common Future. The document came to be known as the Brundtland Report named after the Commission's Chairman, Gro Harlem Brundtland, the then Prime Minister of Norway. This document developed the guiding principles for sustainable development as it is generally understood today.

Meaning of Sustainable Development

Sustainable development is defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The word 'sustainable' itself means something that lasts long while 'development' implies a change

that is considered desirable in a society. It involves socio-economic change leading to improvement in the conditions of life (Agarwal, 2008).

The above definitions contain two key concepts within it;

* the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given;

* the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

Thus, sustainable development refers to a mode of human development in which resource use aims to meet human needs while ensuring the sustainability of natural systems and the environment, so that these needs can be met not only in the present, but also for generations to come.

Domains of Sustainability

The concept of sustainable development has in the past most often been broken out into three constituent parts: environmental sustainability, economic sustainability and socio political sustainability. More recently, it has been suggested that a more consistent analytical breakdown is to distinguish four domains of economic, ecological, political and cultural sustainability.

Indigenous peoples have argued, through various international forums such as the United Nations Permanent Forum on Indigenous Issues and the Convention on Biological Diversity, that there are four pillars of sustainable development, the fourth being cultural. The Universal Declaration on Cultural Diversity (UNESCO, 2001) further elaborates the concept by stating that "... cultural diversity is as necessary for humankind as biodiversity is for nature"; it becomes "one of the roots of development understood not simply in terms of economic growth, but also as a means to achieve a more satisfactory intellectual, emotional, moral and spiritual existence". In this vision, cultural diversity is the fourth policy area of sustainable development.

MILLENNIUM DEVELOPMENT GOALS

The **Millennium Development Goals (MDGs)** are eight international development goals that were officially established following the Millennium Summit of the United Nations in 2000, following the adoption of the United Nations Millennium Declaration. All 193 United Nations member states and at least 23 international organizations have agreed to achieve these goals by the year 2015. Mass media has played a catalytic role in ensuring the progress in Millennium Development Goals. The Millennium Development Goals Report (MDG Report, 2012) stands testimony to the role of mass media in all the eight development areas:

1. **Eradicating Extreme Poverty and Hunger**
   Extreme poverty is falling in every region. For the first time since the World Bank started to monitor poverty trends, both the number of people living in extreme poverty and the poverty rates fell in every developing region-including in sub-Saharan Africa, where rates are highest. In the developing regions, the proportion of people living on less than $1.25 a day fell from 47 per cent in 1990 to 24 per cent in 2008. In 2008, about 110 million fewer people than in 2005 lived in conditions of extreme poverty. The number of extreme poor in the developing regions fell from over 2 billion in 1990 to less than 1.4 billion in 2008.

2. **Achieving Universal Primary Education**
   In the developing regions, the net enrolment rate for children of primary school age rose from 82 to 90 per cent between 1999 and 2010. However, a closer look at the data reveals that nearly all of this growth occurred between 1999 and 2004, and that progress in reducing the number of out-of-school children slowed considerably after 2004. At the same time, many of the countries facing the greatest challenges have recorded significant progress towards universal primary education. Enrolment rates of children of primary school age increased markedly in sub-Saharan Africa, from 58 to 76 per cent between 1999 and 2010. Total enrolment of children of primary school age in the region rose by more than two thirds, with 43 million more enrolled.

Not only did countries succeed in reducing their relatively high out-of-school rates, they also improved their enrolment rates even as the primary school age population was growing by more than one quarter between 1999 and 2010 (28 per cent, or 31 million children).

3. **Promoting Gender Equality and Empowering Women**

Achieving parity in education is an important step toward equal opportunity for men and women in the social, political and economic domains. Driven by national and international efforts and the MDG campaign, many more of the world's children have enrolled in school at the primary level, especially since 2000. Girls have benefited the most! Progress is reflected in the gender parity index (GPI), showing the ratio between the enrolment rate of girls and that of boys. The gender parity index grew from 91 in 1999 to 97 in 2010 for the developing regions as a whole-falling within the plus-or minus 3-point margin of 100 per cent that is the accepted measure for parity. From 1999 to 2010, girls' participation in primary education, as measured by the gross enrolment ratio (ratio of girls enrolled regardless of age to all girls of primary school age) increased from 72 to 96 per cent in sub-Saharan Africa and from 87 to 97 per cent in Western Asia. At the country level, 71 out of 131 countries in developing regions reporting data by sex had achieved gender parity in primary education by 2010. Boys' participation rates were higher than those of girls in 53 countries, while the opposite was true in the remaining 7 countries.

4. **Reducing Child Mortality Rates**

Considerable progress has been made in reducing under-five mortality since 1990. In the developing regions, the mortality rate declined by 35 per cent, from 97 deaths per 1,000 live births in 1990 to 63 in 2010. Despite population growth, the number of under-five deaths worldwide fell from more than 12 million in 1990 to 7.6 million in 2010. Five of nine developing regions show reductions in under-five mortality of more than 50 per cent from 1990 through 2010. Northern Africa already has

achieved the MDG 4 target, bringing down the child mortality rate by 67 per cent, and Eastern Asia is close, with a 63 per cent decline.

5. **Improving Maternal Health**

   An estimated 287,000 maternal deaths occurred in 2010 worldwide, a decline of 47 per cent from 1990. Sub-Saharan Africa (with 56 per cent of these deaths) and Southern Asia (29 per cent) together accounted for 85 per cent of the global burden in 2010, with 245,000 maternal deaths between them. The number of maternal deaths per 100,000 live births-the maternal mortality ratio, or MMR-was also down, from 440 in 1990 to 240 in 2010, for the developing regions as a whole. But the MMR in developing regions was still 15 times higher than in the developed regions. At the high end, sub-Saharan Africa had an MMR of 500. At the other end of the scale in developing regions, Eastern Asia had the lowest level, at 37 deaths per 100,000 live births.

6. **Combating HIV/AIDS, Malaria and Other Diseases**

   Fewer people are becoming infected with HIV, with the decline in new infections happening faster in some countries than in others. Of the 33 countries where new infections have fallen, 22 are in sub-Saharan Africa, the region most affected by the AIDS epidemic. Annual new infections in 2010- 2.7 million people, 390,000 of whom were children-were 21 per cent lower than the 1997 peak and 15 per cent lower than in 2001.

7. **Ensuring Environmental Sustainability**

   The reduced rate of forest loss is due to less deforestation plus the establishment of new forests, as well as the natural expansion of existing forests. As a result, the net loss worldwide decreased over the last 20 years, from -8.3 million hectares per year in the 1990s to -5.2 million hectares per year in the last decade.

8. **Developing a Global Partnership for Development**

   In 2011, net aid disbursements amounted to $133.5 billion, representing 0.31 per cent of developed countries' combined

national income. While constituting an increase in absolute dollars, this was a 2.7 per cent drop in real terms over 2010, the year official development assistance (ODA) reached its peak. Aid had been increasing steadily for more than a decade. Net Official Development Assistance (ODA) rose by 63 per cent between 2000 and the peak year, 2010. ODA has long been considered a stable source of development financing. It cushioned the immediate impact of previous financial crashes, such as the Mexican debt crisis in the early 1980s and the recession of the early 1990s.

ROLE OF MEDIA IN SUSTAINABLE DEVELOPMENT

Media has played a pivotal role in achieving considerable progress in achieving the Millennium Development Goals. Broadly, the role of mass media can be classified as follows:

Preventive Approach:
Media has been promoting messages to adopt "Prevention is better than cure" especially in reducing child mortality, reducing maternal mortality, combating HIV/AIDS and other diseases.

Curative Approach:
Media propagates the curative services like medical services, health services, services related to HIV/AIDS Counseling, psycho-social and mentalhealth, psychiatric services, child guidance, child welfare services, services for the women etc.

Correctional Approach:
Media has been instrumental in disseminating correctional services be it at an individual level, family level, community level or at national and international levels. It is educating the needy people about the need for primary education, correcting abnormal behaviour and eliminating poverty and hunger.

Rehabilitative Approach:
With HIV/AIDS stigma being a taboo subject, role of media in disseminating the rehabilitative services for the affected is certainly a silver lining in their lives.

Developmental Approach:

Above all the approaches, the developmental approach adopted by media is worth mentioning. It is bringing together all the developed and developing nations together along with corporate sector to commit themselves to achieve the Millennium Development Goals. Thus, socio-economic, environmental and cultural development is taking place in the society.

CONCLUSION

In summary, media should adopt the SHINE formula:

S	Sensitivity	Be sensitive to the needs, culture, feelings and emotions of the people
H	Honesty	Be honest in its approach, far from biased and judgmental reporting
I	Innovative	Adopt innovative technology and share novel experiments to the people
N	Newsworthy	Always report newsworthy news in public interest. Avoid trivialization of newsworthy news.
E	Empathy	Media must have human face and cover human interest angle.

To conclude, media has been playing a pivotal role in achieving the Millennium Development Goals. It needs to focus more on the developmental aspects rather than focusing too much on the entertainment aspects of society. It has been creating public opinion and whenever media participates wholeheartedly, it has brought in sea change in the society. Hence, the role of media in sustainable development is very significant.

ACRONYMS:

GPI	:	Gender Parity Index
HIV		Human Immunodeficiency Virus
MDG	:	Millennium Development Goals
MMR	:	Maternal Mortality Rate
ODA	:	Official Development Assistance
WECD	:	World Commission on Environment and Development

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Social Exclusion of Women and Inclusion by Third Sector through Self Help Groups

NAVITHA THIMMAIAH

Abstract

The vital objectives of 10th Five Year Plan were equitable, sustainable and inclusive growth. This actually was prompted by the revelation that growth and development process in the country has been exclusive. Social exclusion is the societal and institutional process wherein different groups of people or communities are excluded from full participation in socio- economic activities. The exclusion has its roots in the caste, communities, economic inequities, and also in gender. In any excluded group the most marginalized is the women community. The third sector includes Non Governmental Organizations (NGOs), Community Based Organizations (CBOs), Not For Profit Organizations and other Voluntary Organization (VOs). These organizations have been working day and night, towards highlighting the plight of women and also in bringing them to the mainstream. In this context, the present paper attempts to highlight the concept of social exclusion with special reference to women. It also examines the role of third sector in underscoring the issue of social exclusion of women and bringing them into mainstream through Self Help Groups in the villages of Periyapatna Taluk in Mysore district.

Key words *: Social exclusion, Social inclusion, Third sector. Self help groups.*

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INTRODUCTION

The grand objectives of 12th five year plan (2012-2017) include faster, sustainable and more inclusive growth. The planning commission started thinking in terms of inclusive growth since the 11th five year plan (2007-12) wherein the objective was faster, more broad-based and inclusive growth. It openly acknowledged that the process of economic growth and development is the country has excluded many sections of the society. There are many marginalized sections that are neither part of development process nor receive benefits of growth and development process. The poverty ratio, malnutrition and income inequalities continue to bog India's polity.

Social exclusion is the social and institutional process where in different groups of people or communities are excluded from full participation in some economic activities. The exclusion sociologically is happening on the grounds of caste, community, and economic inequality and gender. Thereby, the most excluded ones in the Indian society include, schedule castes, schedule tribes, other backward communities and people from minorities. Women are the most marginalized among the excluded community. Given such a scenario the major focus of inclusive growth is to get the excluded ones into the mainstream of the development process. In other words, it is about including excluded community into the manifolds of developmental activities.

Traditionally, as the process of development is non-inclusive in nature, there was need for external interventions from different sections of the society. It may be the Government, Private or the so called Third sector. The third sector includes Non- Governmental Organizations (NGOs), Community Based Organizations (CBOs), Not for Profit Organizations and other Voluntary Organizations (VOs). These organizations have been working hard highlighting the plight of women and also in bringing them to the mainstream. In this context, the present paper tries to examine the role of third sector in underscoring the issue of social exclusion of women and bringing them into the mainstream. One of the most important interventions by the third sector has been creation of Self Help Groups (SHGs).

REVIEW OF LITERATURE

Hedayat Allah Nikkhah et al (2011) in their article **"The Effect of Non-Governmental Organizations (NGO)'s Approaches on Women's Empowerment in Shiraz, Iran"** attempt to determine the impact of Non-Government Organizations (NGO's) approaches on the empowerment of women in Shiraz, Iran. They define and analyze empowerment at two levels, namely, 'individual' and 'community' levels. The study based on 195 women participants in NGOs activities showed moderate level of empowerment. This means they are neither disempowered nor empowered adequately. The study indicates that bottom-up approach is the most effective approach in the empowerment of women.

Empowerment of Women through Self-Help Groups (SHGs): A Case Study of Viswa Santhi Balananda Kendram (VSBK) -The study by K. Prabhakar (2010) focuses on the effects of the SHGs (VSBK) on women's participation and exercising control over decision- making, both in family matters and in group activities.

Iniobong Aniefiok Akpabio (2009) in her study **Women NGOs and Rural Women Empowerment Activities in the Niger Delta, Nigeria** attempted to document beneficiaries' perceptions on the contributions of Women NGOs (WNGOs) to the socio-economic empowerment of rural women in Akwa Ibom State, Nigeria. The specific objectives of the study included: an assessment of WNGOs contributions to improvements in beneficiaries' socio-economic activities and constraints affecting beneficiaries' participation in WNGOs activities. Findings reveal that WNGOs cater to a broad spectrum of rural women. WNGOs were revealed to affect beneficiaries' socio-economic status through increased income generation, health awareness and acquisition of food processing skills. The study also identified constraints affecting beneficiaries' participation in WNGOs activities which include: inadequate credit facilities, and poor utilization of credit advances, resulting in poor loan repayment levels. The study concludes that WNGOs are capable of more effective inputs into human and community development activities.

The study **Accountability for Empowerment: Dilemmas Facing Non-Governmental Organizations** by Patrick Kilby (2006) discusses the accountability of NGOs, particularly their "downward" accountability to their beneficiaries, affects NGO effectiveness in the process of empowerment of the poor and marginalized in developing countries. The paper looks at evidence from a number of case studies of NGO programmes with poor women in India on the role of accountability in empowerment outcomes, and the role NGO values play in these outcomes.

Lotsmart Fonjong (2001) in his study **Fostering Women's Participation in Development through Non-governmental Efforts in Cameroon** examines case studies of NGOs and women's empowerment in Cameroon, and highlights their successes, with regard to improved access and welfare and their limitations, with regard to conscientisation, participation and control.

The paper on **Towards Realistic Strategies for Women's Political Empowerment in Africa** by Sara Hlupekile Longwe (2001) highlights that all development organisations supporting women's empowerment must recognize the true obstacles women face in gaining political power, and develop programme strategies to overcome them. In addition to focusing on the need to get women into government, NGOs could also usefully support women's organizations that are engaging in direct action - a key strategy which enables women to push for policy changes from outside government.

The study on **Women's Empowerment through NGO Interventions: A Framework for Assessment** by Smita Mishra Panda (2000) uses a seven-step process of assessment of women's empowerment within the system framework. The steps are assessments of the macro environment, the external agency environment, the external agency, the target group environment, the target group, the development programme / project and lastly integration of the assessment process. Such a framework will help the organizations in the design, implementation and evaluation of development projects from the point of view of understanding, incorporating and assessing empowerment related issues at the grassroot level.

The article on **Nongovernmental Organizations, Micro-credit, and Empowerment of Women** by Jude L Fernando (1997) critically evaluates the approaches used in studies on micro-credit and empowerment. It informs that most of the studies have focused on the final outcomes of micro-enterprises rather than the process through which they are achieved. The field research in Bangladesh, demonstrates that the widely documented successes of micro-enterprises are a result of the activities of the very institutions that are considered to be oppressive to women. Claudia Neura, in her article **"Leading the Way for Social Inclusion"** highlights how NGOs can bring women into the mainstream by example of *"Themis"* an NGO in Latin America. She also mentions as to how *"Themis"* has become another word for "justice" by training women community leaders on law and protecting human rights.

There are numerous studies focusing on the role of NGOs or broadly the third sector, in bringing women into centre of development process at global level and national level. The present paper is an attempt in the same direction, trying to document the efforts of NGO in the remote villages of Periyapatna taluk in Mysore district.

OBJECTIVES
Following are the objectives of the present study;
* To examine the aspect of Social Exclusion with special reference to women.
* To examine the role of third sector in underscoring the issue of social exclusion of women.
* To analyse the impact of NGO interventions on inclusive development of women with main focus on SHGs.

METHODOLOGY
The methodology that has been employed is focus group interview, unstructured interview and observation method. In the focus group interview, the researcher interacted with the group members of SHGs to elicit necessary information. The common or shared responses of the respondents to the questions raised were documented. Unstructured interviews were employed to gather necessary

information from NGO representatives and few elected women members of local bodies, that is., Gram Panchayats and Zilla Panchayats. Additional information was gathered by observing the behavior of the SHG members during meetings and Social Audit process. As most of the responses to the questions raised by the researcher were unanimous, there was no scope for using quantitative techniques. The study mainly depends on information collected from the members of SHGs in the study area, interactions with the Non-Governmental Organization representatives working in the area and women representatives of local bodies.

Sampling Technique: Multistage random sampling method was followed to select the taluk and villages for the study. Proportionate random sampling was followed to select SHGs within the selected villages. More number of SHGs were selected in villages that had more number of SHGs. All members of the selected Self Help Groups in the selected villages participated in the focus group interviews barring few who were unable to attend on personal reasons. The sample size is 200 selected from 20 SHGs in the study area.

Study Area

The study was taken up in the villages of Hunasawaadi, Doddaharave, Doddahosur and Koppa villages of Periyapatna taluk. Following SHGs were selected in these villages;

S. No.	Name and Address	Date of Establishment	Members	Supporting Bank
1	Sri Saraswati Women SHG, Hunasawaadi	27.01.2003	11	Agricultural Cooperative Society, Nandinathapura
2	Sri Masanikamma SHG, Hunasawaadi	10.02.2003	20	- do -
3	Sri Vinayaka Women SHG, Hunasawaadi	05.08.2003	19	- do -
4	Sri Shakthi Basaveshwara SHG, Hunasawaadi	14.02.2003	20	- do -
5	Sri Basaveshwara Women SHG, Hunasawaadi	24.12.2003	19	- do -
6	Sri Nanjundeshwara Women SHG, Hunasawaadi	30.06.2003	20	- do -
7	Sri Manjunathaswamy SHG, Hunasawaadi	05.10.2003	19	- do -
8	Sri Rangaswamy SHG, Hunasawaadi	03.04.2005	18	- do -
9	Sri Venkateshwara Women SHG, Doddaharave	26.08.2003	20	- do -
10	Sri Annapoorna Women SHG, Doddaharave	26.08.2003	19	- do -
11	Sri Women SHG, Doddaharave	30.06.2006	20	- do -
12	Sri Saraswati Women SHG, Doddaharave	16.04.2003	18	- do -
13	Sri Dhanalakshmi Women SHG, Doddaharave	09.09.2003	11	- do -
14	Sri Basaveshwara SHG, Doddaharave	14.12.2002	20	- do -
15	Sri Basaveshwara SHG, Doddahosur	15.07.2003	15	Syndicate Bank
16	Sri Sneha Women SHG, Doddahosur	09.02.2006	20	State Bank of Mysore
17	786 Women SHG, Doddahosur	14.01.2003	17	Syndicate Bank
18	786 Dadapeer SHG, Doddahosur	14.10.2003	20	Syndicate Bank
19	Sri Shakthi Women SHG, Doddahosur	11.12.2002	17	Syndicate Bank
20	Sri Doddamma Taayi Women SHG, Koppa	03.01.2005	20	Syndicate Bank

SHGs selected for the Study

DISCUSSION

Various data and indicators relating to women make interesting revelations about their status in the economy. As per NSSO Survey of 2009-10, total female employment declined at an annual rate of 1.72% between 2004-05 and 2009-10, whereas male employment saw an increase at the same rate. A work participation rate of females has

been around 30% in rural areas and 15% in urban areas since 1970s. In the decade of 2000s, though the number of women aged 15 years or more increased by 86.5 million only 8.9% of them joined the labour force, and only 7.5% of them were described as gainfully employed. The data on type of work of rural women workers indicate that 55.7% were self employed, 39.9% were casually employed and only 4.4% were regularly employed in 2009-10. In urban areas, 41.1% were self employed, 19.6% and 39.3% were employed casually and regularly. The distressing fact is that most of the regular work included women working as maids, cleaners and cooks which are not considered to be gainful. The NSS data on males and females in agricultural work highlights declining trends. The number of males declined from 52.96% in 1999-2000 to 45.28% in 2009-10, whereas the percentage of females declined to 65.64% in 2009-10 from 73.26% in 1999-2000 though higher than males. This again reflects the disparities wherein the burden of hard work is borne by greater percentage of women folk in rural areas.

The demographic indicators also do not reflect a different situation. The Maternal Mortality Rate (MMR) is still large at 212 (in 2009).The sex ratio as per 2011 census is 940 with much worse number of 914 for 0-6 years population. The literacy rate of females is 65.46 way behind male literacy rate at 82.14. The percentage of women representatives in Indian parliament is mere 9.2%. Further, only 5.9% of total budgetary allocation is allocated to women related programmes in the Union Budget of 2013-14, which would not do much in moving towards the direction of gender equity and empowerment. All the facts and figures thus show that very little has been done to make women inclusive and women still have to tread a long path to reach the goals of inclusion, equity and empowerment in almost all walks of life whether social, political or economical.

As mentioned earlier, there needs to be interventions from different agencies in the process of inclusive development. The success of NGO interventions in this direction has been documented and the most discussed issue is the role of Self Help Groups in inclusive growth of women. The self help groups are playing a major role in poverty

alleviation. Almost all the states in India are supporting and promoting the growth of self help groups because of their importance in poverty reduction. The number of SHGs and membership is continuously increasing because of the support from government and NGOs. They engage in savings and credit activities and also in other activities like income generation, childcare, literacy, natural resources management etc. But the savings and credit activities are the most prominent ones which have made the SHG movement very strong as poor women in need of money have positively accepted the concept of empowerment through SHG. This initiative has induced confidence in the lives of women members to face the exploitation both at home and at workplace. The SHGs have proved to be an effective and efficient model for empowering the poor women in poverty alleviation. The word "Microcredit" was started to be widely used only in the 70s. The general features of Microcredit are:

1. It promotes credit as a human right;

2. Its Mission is to help the poor families to help themselves to overcome poverty;

3. Most distinctive feature of micro credit is it is not based on any collateral or legally enforceable contracts or securities. It is based on "trust" and not on complex legal obligations.

4. It is offered for creating self-employment for income generating activities and housing for the poor, as opposed to consumption.

Major objectives of formation the SHGs are mutual co-operation among members, financial support, training, provision of education to children, healthcare facility, women welfare, effective implementation of government projects, village development, cleanliness, sanitation etc., SHGs have 10 to 25 members who can be either only men or women or only youth or a mix of these. The present study deals only with women SHGs which have been promoted by non-governmental agencies. The SHG's meet regularly once a week or fortnight to collect the savings from members, decide to which member loan should be given, take decision on collective activities and initiate action against defaulting members which affects the financial well being of SHG. The members who abstain from meetings

or who arrive late are imposed nominal fines to maintain discipline. Fine is also collected from members who fail to pay loan installments. The SHGs have an elected chairperson, a deputy, a treasurer and other office holders.

Most SHGs start by saving regular contributions by the members and not with the help of any external financial capital. The contributions are very small, say Rs.10 per week. After a period of consistent savings the SHGs give loans from savings in the form of small internal loans for micro enterprise activities and consumption. The SHGs that have utilized their own funds are further assisted by banks and other financial intermediaries. With the success of Grameen bank in Bangladesh, the Micro financing has been the most important means of women empowerment provided through SHGs promoted by NGOs. The present study endorses the observations of the earlier studies.. The important activities by the NGOs are:

- Encouragement for the creation of Self Help Groups (SHGs) by women and becoming members facilitating access to Microcredit / Microfinance.
- Women from Below the Poverty Line (BPL) families were made members of the SHGs.
- Create awareness through Jaatha, road shows and informal meetings. The voluntary organizations have done tremendous job in creating awareness regarding Banking activities, Health issues, Management of resources, Importance of Potable drinking water, Sanitation, Women's rights, Legislations like Right to Information (RTI), Domestic Violence Act, Government programmes on Social Security and Social Protection.
- Training for income generating activities like tailoring, candle making, homemade food, phenyl production and other articles.
- Many members have taken up income generating activities.
- Encouraging savings habits among members.

FINDINGS

- Women from Below the Poverty Line (BPL) families were made members of the SHGs. The micro financing through SHGs has

directly resulted in the upliftment of these BPL families.

- The exploitation of poor women by money lenders and pawn brokers has stopped, as members are no longer depending on them for their financial needs.

- The awareness created and information provided by the NGOs is solving the problem of asymmetric information of the rural women.

- The banking activities of SHGs are having direct impact on the achievement of Financial inclusion. Apart from having SHG accounts, many women have opened personal accounts in the banks positively affecting the process of financial inclusion.

- Voice the concerns: Some of the women members of SHGs are active enough to take up the issues of deprived women. With the awareness created, they take up the matter (like depriving benefits of a government programme) and discuss with necessary government officials. Most interesting development is that members are able to tackle the apathy of government officers through RTI Act.

- Empowerment: The confidence gained from earning income and increased savings has empowered women members to take decisions about their lives and of their children and also guide other members of the society.

- Women are able to address their health problems without waiting for other members of the family to take decisions.

- Community Participation: By enabling members to monitor the functioning of the ration shops, take up issues like safe drinking water, sanitation, education, violence against women, prohibition, early childhood care and timely payment of widow pension, the NGOs are promoting community participation.

- Creation of Social capital: The most important impact of NGO intervention has been the creation of social capital. By developing Leadership qualities, increased interactions among inter and intra groups, peer members, motivating for collective action, information sharing among members and active participation in development issues, the NGOs are making decentralised democracy a reality.

Forward Linkage effects

- Children to schools and Reduction in Child Labour: With the newly gained economic independence and increased savings, the women members boldly take decisions to send their children to better schools. This has drastically brought down the problem of child labour in the area.

- Reduction in alcohol abuse and domestic harassment: Awareness and empowerment have helped women effectively face abuse and harassment leading to overall reduction of such incidents.

- Active political participation: There has been great change in the attitude of members towards political participation. With necessary information, awareness and interactions, they know the importance of voting, contesting elections, and getting elected. Thereby members never miss voting; few of them though from very poor background have stood for election and also have won the elections. The SHG members are very active in Social Audit or Jamabandhi which earlier was a routine process.

Is Everything Fine?

The roses bloom but there will be thorns. Likewise, there were few constraints which are related to the following:

- Lack of Income generating activities: Many SHG members still have not taken up income generating activities. Few of them use the funds from micro financing for unproductive activities and few lend the money to others at higher rates of interest. Members have to be made more aware of the importance of income generating activities which is the most important objective of SHG formation;

- Still many members left out from the purview of SHGs: Strengthening the participation of poorest of the poor in SHGs through effective targeting mechanisms is the need of the hour which will strengthen inclusion process;

- Intensive capacity building: Much needs to be done towards capacity building of the members and augment the process of inclusive development;

CONCLUSION

The NGO interventions have thus created huge benefits for the society, especially the women living in the rural areas. There is a direct movement towards inclusion of excluded community, the women from BPL families, within the purview of development by taking up income generating activities largely supported by microfinance in SHGs. With the newly gained economic independence, the women members are empowered to take important decisions relating to their lives, fight harassment at home and outside, educate children and take care of their health and that of family members.

Community participation component is supported with women members actively involving in important issues concerning their villages like alcohol prohibition, monitoring ration shops (Public Distribution System), sanitation facilities etc. The third sector is jotting success story of decentralized and development governance, with women from deprived background actively participating in governance by getting elected to local bodies. With the increased awareness, economic independence, empowerment, political participation, health and educational benefits the NGOs/ Third Sector are leading a meaningful inclusion of excluded community in the society in all dimensions.

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Philosophy of Punishment in Criminology: A Historical Review

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Abstract: *From the dawn of human civilization, the existence of crime and punishment are acutely noticeable. Paradoxically, crime and punishment are interrelated termed with each other in contemporary criminology. The prime objective of the study is to identify the changing nature and forms of the philosophy of punishment from historical perspectives. Moreover, the study also tried to find out the associated factors, which contribute to the philosophical change from ancient period to modern age. The review paper is based on secondary sources as well as historical documents like journal articles, authentic books. There are three basic eras perceptible in accordance with the historical viewpoint which are pre classical, classical and modern having retributive, deterrent, rehabilitative and re-integrative philosophies of punishment respectively. The nature of punishment changed due to the impact of political movement especially the French Revolution, industrialization, advancement of science and technology, advent of law enforcing agencies viz., police, courts, and correction systems. Although, the modern philosophy of punishment is re-integrative and rehabilitative, but still punishment itself is a debatable issues from different points of view such as existentialism and postmodernism.*

Key words: *Punishment; Philosophy of Punishment; Factors of Punishment; Deterrence.*

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INTRODUCTION

Punishment is a fundamental and essential component of our daily life. Social behavior is shaped by the use of punishment as well as the societal reaction to it (Carlsmith, 2006: 437). As a method of social control or social obedience, punishment is a kind of institutionalized cruelty. More specifically, punishment means any of a series of impositions (such as fine, probation, work service, incarceration and so on) imposed upon a person by authority of law after that individual has been determined to be a criminal offender (Reid, 1997: 79). Eminent penologist Hudson (1996:01) said "Penalties which are authorized by the state and inflicted by the state officials in response to crime are normally termed as punishment." Moreover, actually it is the belief or intention of the person who orders something to be done, and not the belief or intention of the person to whom it is done, that settles the question whether it is punishment (Walker, 1991: 03). In this regard, Flew, Benn and Peters (1959) have suggested a set of six criteria related to punishment which are: involvement of an evil and an unpleasantness to the victim; applicable for an offence, actual or supposed; applicable for an offender, actual or supposed; the work of personal agencies; imposed by authority conferred through or by institutions against the rules of which the offence has been committed; and lastly the pain and unpleasantness which is an essential part and intended and not merely a coincidental or accidental outcome (Hudson, 1996: 01-02). In addition, Sir Walter Moberly has suggested different criteria of punishment: (a) What is inflicted is an ill, that is something unpleasant; (b) It is a sequel to some act, which is disapproved by authority; (c) There is some correspondence between the punishment and the act which has evoked it; (d) Punishment is inflicted, that it is imposed by someone's voluntary act; (e) Punishment is inflicted upon the criminal, or upon someone who is supposed to be answerable for him and for his wrong doings (Paranjape, 2005: 204). On the other hand, philosophy deals with the basic problems of life and the world (Nuruzzaman, 2000: 65). According to Encyclopedia Britannica, philosophy means the way of ordering of the history or an effort to codify the rules of human thought in order to promote rationality and the extension of clear thinking.

Philosophy means an examination of truth, goodness and beauty (Britannica: 2000: 733- 734).

The 'Philosophy of Punishment' refers to the rigorous examination of the origin, extent and validity of the punishment in different dimension. Philosophy of punishment involves defining the concept of punishment and the values, attitudes, and beliefs contained in that definition, as well as justifying the imposition of a painful burden on someone. In terms of understanding the historical overview of the philosophy of punishment there are three basic schools of punishment in criminology: pre-classical, classical and positive school (Paranjape, 2001). From the philosophical discussions two questions have been raised: what is punishment and what is the justification of that punishment (Mcpherson, 1967)?

There are numerous academic works in relation to the philosophy of punishment in criminology as well as penology. First of all, Durkheim, the founding father of sociology, linked between forms of society and forms of punishment. On the basis of Durkheimian thought, Speirernberg and Garland focus on the 'constituency' between 'the methods of treatment of criminal' and other aspects of culture (Sutherland, 1939: 348). On the other hand, Karl Marx, great philosopher and political economist, developed an idea in relations to nature of punishment, which was based on his central thesis on capitalist social structures. In his view, institutions like law are shaped to parallel the relations of production and the maintenance of the capitalist system. Additionally, Marxist penologists have argued that punishment regulates the supply of labor; this view was put forward in 1939 by Rusche and Kirchheimer in Punishment and Social Structure (Howe 1994: 12). In discussing the history of punishment in Europe from the 13th century until the development of capitalism, the authors perceive the severity of punishment as being tied directly to the value of labor. Thus, the severity of punishment, they argue, is relatively lenient when labor is scarce and its value high, whereas when labor is abundant, punishments becomes more intense (Hudson, 1996). Moreover, Marxist tradition was concerned with the basic question 'why prison?' In contrast to this, Michel Foucault's Discipline and Punish: The Birth of the Prison (1977) offered a deeper analysis

of the relationship between forms of punishment and the society in which they are found. He identified an emergent 'penal rationality'; he described not a simple phenomenon of punishment but penality, a complex of theories, institutions, practices, laws and professional positions which have as their object the sanctioning of offenders. Renowned criminologist and scholar Hudson (1996) introduces the core debates in the field of 'penology' or the study of theories of punishment. The author provides clear analysis and critique of Durkheimian, Marxist and Foucouldian explanations. She also tried to link between social and economic nature of societies and forms of punishment. Additionally, she opined that 'there are social and economic reasons for the emergence of particular forms of penality at particular periods of history' (Hudson, 1996: vii). She identified that French Revolution, industrialization, development of science and technology and biographic factors alongside sociological factors were potentially noticeable for changing the nature of punishment system from early to modern ages. In this regard, the most important work is done by the prominent scholars Rudolph J. Gerber and Patrick D. Mcanany (1970) who have studied the philosophy of punishment in terms of the existentialist philosophy of life. Other eminent scholars Barnes and Teeters (1943) have studied the philosophy of punishment of the early era. Alexander (1922) has just studied about the philosophy of punishment but not in terms of historical views of punishment system. Although the philosophy of punishment is an important concept like crime, criminality and punishment in contemporary penology but the discussion on philosophy of punishment has been ignored in academic arena. So the main purpose of the study was to review the philosophy of punishment from the historical point of view and find out the associated factors which contribute to the philosophical changes of punishment from one era to another. Besides, the present debates of the philosophy of punishment are also reviewed in reference to post modern philosophy.

METHODOLOGY

As the research is qualitative in nature, data and information have been collected from secondary sources such as journal articles,

research papers, books and government documents. Data has been analyzed through descriptive method.

DISCUSSION
COMPARATIVE DISCUSSION ON PHILOSOPHY OF PUNISHMENT IN HISTORICAL ERA
Philosophy of Punishment in Pre-classical Age

In the early era barbaric system of law, punishment and justice existed specially before the French Revolution (1789). Until that time, there was no real system of criminal justice in the whole world. For punishing a criminal, the retributive principle on the lines of 'an eye for an eye, a tooth for a tooth' was prevalent.

During the pre classical age, it was believed that man by nature is simple and his actions are controlled by supernatural power and people commit crime due to influence of some evil forces manifest in the form of vampires, demons or devils. Worships, sacrifices and ordeals by water and fire were usually prescribed to specify the spirit. Trial by battle was common mode of deciding the fate of criminal. At the time with the theory of diabolical possession, the conventional notion of punishment was either to exercise the devil or to exile or execute the wrongdoer (Barnes and Teeters, 1943: 391-395).

The supernatural and religious belief was remarkably so strong in this era that punishment of all kinds of offences against religion was cruel and barbaric. In an actual sense, there was no distinction between sin and crime. In this regard three major forms of crimes can be found which were crimes against the State, against the church and against the crown having such forms of punishment likely as branding, burning, flogging, mutilating, drowning, banishing, and beheading (Adler, 2004:62). Professor Heinrich Oppenheimer summarizes the mystical and religious background of primitive punishment in these words: 'Primitive Punishment is inflicted either to remove the stain of impurity from society or to prevent a supernatural being from taking revenge on the tribe. Its' object is in either case expiation- expiation, however, not for its own sake but expiation with a utilitarian background' (Barnes and Teeters, 1943:395).

Although most of the criminal laws of that time were unwritten, there were few which were written likely as the Code of Hammurabi (1780 BC), the earliest known written code of punishment (the origin of the Hebrew code "an eye for an eye, a tooth for a tooth"). These laws codified the natural inclination of individuals harmed by another to seek revenge, but they also recognized that personal revenge must be restrained if society is not to be fractured by a cycle of tit-for-tat blood feuds. Such blood feuds perpetuated the injustice that "righteous" revenge was supposed to diminish. The law sought to contain uncontrolled vengeance by substituting controlled vengeance (Hudson, 1996). Natural punishment was treated as "God's Anger". Plagues, earthquakes or other natural disasters were treated as the punishment of God. Personal revenge where the victim or victims' kin retaliated for the injury suffered which is the prime thought of the retributive philosophy (the dominating philosophy of the early era). At that time there was no real system of criminal justice, no specification of crimes and no amount of specific punishment. For example, in England a person might receive the death penalty for any of more than 200 offences, including what we call today petty theft (Adler, 2004). Moreover, judges had unbounded discretionary power with which they convicted a person for an act not even legally defined as criminal. So punishments were arbitrary, barbaric and cruel.

Actually, the early era was completely based on the demonological thinking whereas the religion and the custom that is the supernatural belief of the theological and metaphysical stage of society was the dominated basis for the justice system. In many primitive societies, the members were constantly in fear of the ravages of the unknown and the supernatural, and nothing stands between them and the power of darkness except the well beaten path of custom. Philosopher Montesquieu's Persian Letters and Spirit of Laws made a special impression that severity and cruelty in punishment do not necessarily decrease the number of crimes. Also, Voltaire (1694-1778) has drawn his attention to the notorious abuses and cruelties in the body of criminal law and in the methods of treating criminals (Barnes and Teeters, 1943: 395, 459). Besides, after the French revolution the classical and rational thinking against the arbitrary punishment

philosophy of the early had emerged in classical era. Concrete expressions were given in the French revolutionary penal code of September 29, 1791 which declared that "penalties should be proportionate to the crimes which they are inflicted and that they are intended not merely to punish but to reform the culprits. All of these developments were done towards securing a new and more rational and human criminal jurisprudence (Barnes, 1943).

The practice of brutal punishment and arbitrary legal codes began to decrease in the mid 18th century with the beginning of a period historians call the Age of Enlightenment (Incomplete project of modernity which always asks for rational reasons), which was essentially a major shift in the way people began to view the world and their place in it. Moreover, instead of thinking that crime is the consequence of demon or devil power, it was thought that man commits crime on his free will and rational thinking. In case of inflicting punishment barbaric methods of punishment were almost abolished and equal punishment was imposed for all committing the similar crimes. Besides in classical period the proponents emphasized on reforming the penal system and administering appropriate laws and regulations for inflicting punishment.

Philosophy of Punishment in Classical Age

From the criminological aspect the dominating philosophical approach of punishment of the classical era was deterrence, culminated in the mid 18th century in the classical thinking. The ignorance, crudities, and barbarism of the 'old regime' in Europe were effectively attacked in the writings of the classical writers such as Montesquieu, Voltaire, Diderot, Turgot and Condorcet and of their English sympathizers and associates like David Hume, Adam Smith, Tom Paine and Jeremy Bentham. Specifically powerful and successful attacks were made upon the barbarism and irrational criminal jurisprudence and penal institutions by a group of able and influential European writers. The French publicist, Montesquieu (1689-1755), in his Persian Letters and his The Spirit of the Laws, condemned the barbarous injustice of the French penal code and advocated reforms which would make punishment less severe and more nearly adapted

to the specific crimes for which they are imposed (Barnes, 1943).

In accordance with the classicists, individuals have free will. They can choose legal or illegal means to get what they want and the fear of punishment can deter them from committing crime. Here, society can control behavior by making the pain of punishment greater than the pleasure of the criminal gains. The main assumption of the period was individuals chose to commit crimes after weighing the consequences of their actions and the philosophy of punishment was just, reasonable and exemplary and will act as deterrence. The philosophy of deterrence which consists of two purposes: (i) to restrain the wrong doer from repeatedly indulging in crime (specific deterrence) and (ii) to set an example for others to deter and prevent them from committing crimes or violating laws (Akers, 1943). Basically the period was being evolved for explaining the rational and logical relation between crime and punishment in the mid 18th century due to the rise of the Age of Enlightenment, political cleansing of the judicial and penal system and mostly for rising conscious through protesting the arbitrary and barbarous punishment. At that time, social contract doctrine and utilitarianism thinking produced philosophical understanding of classicism. Ceasre Bonsena, marchese di Beccaria (1738-1794), an Italian nobleman and professor of law, was the leader of this period who in his writing 'On Crimes and Punishment, 1764' did not question the need for punishment, but he believed that laws should be designed to preserve public safety and order, not to avenge crime. He also took issue with the common practice of secret accusations, arguing that such practices led to general deceit and alienation in society. He argued powerfully for the abolition of torture, the need of a more just and accurate method of trial, the necessity for a reduction in the severity of the penalties imposed a large use of imprisonment in the punishment of crime and improvement in the administration of prisons (Barnes, 1943)

According to Beccaria, the crime problem could be traced not to bad people but to bad laws. He proposed some basic principles in this regard: Laws should be used to maintain the social contract; only legislators should create laws; Judges should impose punishment only

in accordance with the law; Judges should not interpret the laws; Punishment should be based on pleasure pain principle; Punishment should be based on the act, not on the actor; Punishment should be determined by the crime; punishment should be prompt and effective etc (Adler, 2004: 63-64).

Jeremy Bentham (1748-1832) another thinker likely as Beccaria was concerned with achieving 'the greatest happiness of the greatest number' and his work was governed by utilitarian principles which assumes that all human actions are calculated in accordance with their likelihood of bringing happiness. The multitudinous and diverse reforming interest of Jeremy Bentham (1748-1832) embraced voluminous writings of the reform of both criminal jurisprudence and penal administration (Barnes, 1943).

The main limitations of classical school was that the power of the judges had been limited and specified through written criminal law but there was no such police force of modern times for crime controlling. Moreover, there was no difference between first and habitual offender and the armchair philosophy of classical era had no proper empirical and objective evidence such as all offenders are not equal due to having different demographic criteria, mental growth etc. Though there was a sub branch of the classical thinking that was neo-classical (1880-1920) thinking which emphasized on the individualized punishment system through making distinction between first offender and habitual offender. But the next modern era took the notion and gave elaborate explanation of this view point (Adler, 2004:66).

From classical period to positive period, the prerequisites for the development of reformative or rehabilitative penal strategies were two. First, there was a socio- economic impetus provided by the increasing need for labour brought about by the industrial revolution, to reintegrate offenders into the community rather than to keep them out of the community by severe sentences. Second, there was the growth of the human social sciences, which admitted the idea of criminal behavior as caused by psychological or environmental factors. Reform/rehabilitation is therefore associated with modernism and positivism, which, most simply, means belief in the possibility of

change and improvement through the application of science to human behavior, as well as to enterprises such as public health and engineering (Hudson, 1996).

Moreover, in case of deciding punishment, it was considered that punishment should be equal for all and it should have deterrent effect but the thinkers of positive school emphasized more on treatment methods for criminals instead of punishment and considered the circumstances associated with the punishment. At that time some important changes had occurred with the progress in science and technology, industrialization, rise in awareness through education coupled with some major legal changes challenging the existing deterrence philosophy by replacing the rehabilitative philosophy. Industrialization in this regard played a major role because free trade system had been evolved which directly affected the middle class people with urbanization. The advancement in science and technology, more specifically the use of scientific method for explaining criminal behavior by identifying cause and effect relationship had created a socialistic perspective towards the offender. The rehabilitation of the offender or reintegration of the offender (more social and modern view) will benefit the society beneficiary because rehabilitated or reintegrated offender will become a source of production in the present division of labor society. And such viewpoints developed new philosophy of punishment based on corrections, rehabilitation and reintegration.

Philosophy of Punishment in Positive Age

Positivism is one of the important schools of criminology as well as penology regarding causes of crime, use of scientific methods and in determining the questions of appropriate punishments. The positivist school developed in 19th century and the first two thirds of the 20th century, which gained its name from the positive philosophy, as an attempt to apply scientific methods to the study of criminal as well as social problems. This school was based on ideas of people's behavior as being determined by circumstances or by psychological or physiological predisposition (Hudson, 1996: 11). The Positivist school maintained the position that criminology must become

scientific by which they meant that the explanation of criminal behavior and the treatment of criminal must be accomplished by scientific means (Jeffery, 1959: 18). Scholar George B. Vold opined that, "the essential point in positivism is the application of a deterministic and scientific method to the study of crime" (Vold, 1998). The search for causes of human behavior led positivists to dismiss the classical notion that humans are free agents who are alone responsible for their actions (Adler, 2004). A new vision of the world had come through challenging the validity of classical theory and presented an innovative way of looking at the causes of crime by positivists. Contemporary ideas about additional imprisonment, or refusal of parole, for prisoners likely to reoffend as well as suggestions about how to help people refrain from reoffending while dealing with them by community penalties such as probation, all derive from current criminological notions about the causes of crime (Hudson, 1996:11).

The main question that arises is, 'why did positivist criminology developed in penology?' According to Hudson, "Development of the human sciences was facilitating the growth of positivist criminology and its correlate, correctional penology, with reformist penalties for the 'corrigible' and preventive detention for the incorrigible" (Hudson, 1996:85). Also, positivistic nature of criminology was influenced by two great scholars and scientists Sociologist August Comte and Biologist Charles Darwin. Firstly, Comte envisioned a society in which all social problems are solved by scientists using positivistic methods of research. He had opined that there could be no real knowledge of social phenomena unless it was based on a positivist (scientific) approach. Secondly, Lombrosian theory of biological 'atavism' was influenced by the idea of evolution proposed by Darwin. In his book, On the Origin of Species he had brought about the final break with spiritualist, free will thought of the past. Darwin presented evidence that humans were the same generation kind of creatures as the rest of animals, except that they were more highly evolved or developed (Vold, 1998: 33).

Just as deterrence had its foundational text in Beccaria's work, the text in the development of positivist criminology was Cesare

Lombroso's The Criminal Man, published in 1876. This set out typology of criminal, who is at a lower evolutionary stage, less morally developed, but non-criminal. Early biological positivist thinking of Lombroso went to extremes to espouse a hard form of determinism in criminology. In addition, positivism slowly moved the criminal justice system away from a concentration on the criminal act as the sole determinant of the type of punishment to be meted out, and toward an appraisal of the characteristics and circumstances of the offender as an additional determinant. So, the Positivist School emphasized individualized treatment and the protection of society against the criminal. The punishment must fit the criminal. A man was sentenced, not according to the seriousness of the offense, but according to the factor or factors which motivated him to commit a crime. It is foolish, reasoned the positivist, to sentence all men guilty of armed robbery to the same length of time since the motivational pattern for each man would be different (Jeffery, 1959: 14). Additionally, each criminal would receive individualized treatment according to his own psychological and sociological needs. The criminal, not the crime, governed the sentence or punishment given. The time a man spent in prison would be determined, not by the crime he had committed, but by the time needed to adjust and rehabilitate him. Whether or not a man was reformed and ready to return to society would be determined by scientific penology.
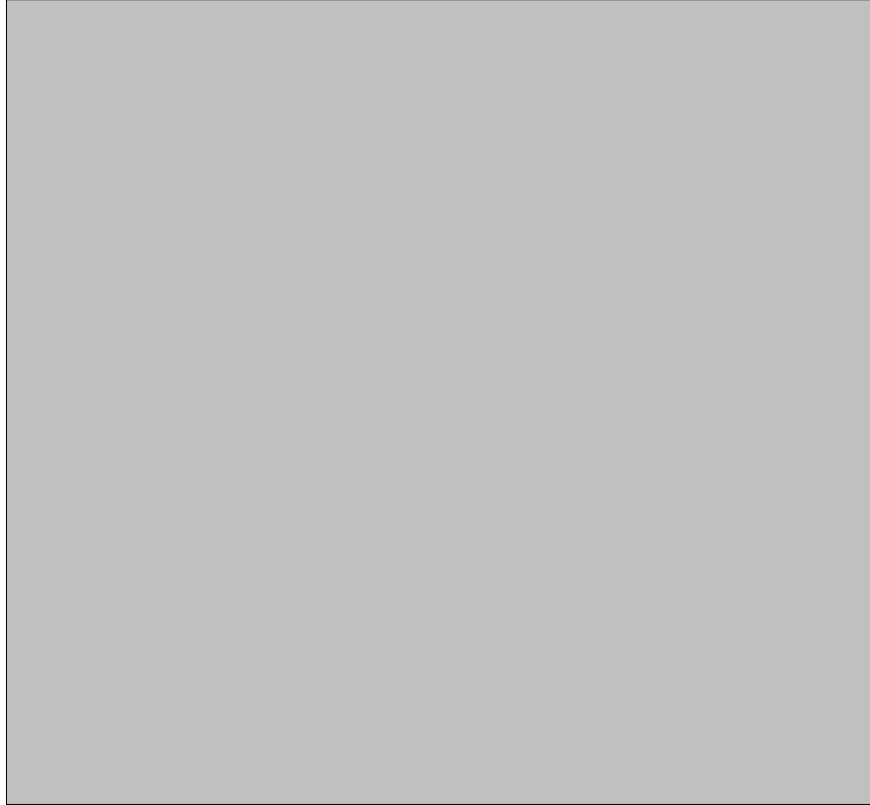
Garofalo believed that because human action is often evoked by circumstances beyond human control (temperament, extreme poverty, intelligence, and certain situations), the only thing to be considered at sentencing was the offender's "peculiarities," or risk factors for crime. He was skeptical about the possibility of reforming the criminal. So, he advocated the death penalty, overseas colonies, and life imprisonment for those lacking all moral sense. For the young offender he recommended the indeterminate sentence, and for less serious violations he advocated reparations rather than punishment (Allen, 1954). Garofalo's only concern for individualizing sentencing was the danger offenders posed to society, and his proposed sentences ranged from execution for what he called extreme criminals (whom we might call psychopaths today), to transportation to penal colonies

for impulsive criminals, to simply changing the law to deal with what he called endemic criminals (those who commit what we today might call victimless crimes). Though, the practice of transporting criminals has been defended by famous criminologist Lombroso, he held that it eliminated the hopeless and non-reformable types in the criminal population and used the less serious offenders for colonizing (Barnes and Teeters, 1965: 455). Lombroso, Garofelo and Ferri favored the transportation of criminal in penal colonies.

Lombroso's evolutionary theory was succeeded by the more sophisticated typology of Enrico Ferri, who divided criminals into three types: the born criminal, the insane criminal and the person who, in different circumstances would not be a 'anthropologically criminal' at all. This broadening of ideas about the causes of crime to psychological and social factors led to development of rehabilitation as we think of it today, with its combination of psychotherapeutic techniques and help with circumstances such as addiction, debt and unemployment (Hudson, 1996: 28). Likewise, Ferri continued the positive schools emphasis on social welfare and social defense. The purpose of criminal justice was to afford maximum protection or defense of society against the criminal. The defense of society was placed above the rights of individuals. He recommended penal colonies, indeterminate sentences, hospitals, scientifically trained judges, and the abolitions of juries. Although he recognized the value of individualized treatment, he also recognized its limitations. Individualized treatment was limited to the five classes of criminals which he developed (Sellin, 1958: 491). German criminal lawyer Franz von Liszt, on the other hand, campaigned for customized sentencing according to the rehabilitative potential of offenders, which was to be based on what scientists found out about the causes of crime (Sherman, 2005). Modern trend in penology has been in the direction of positivism, with such innovations as the indeterminate sentences, parole, probation, suspended sentences, and good time laws. The reforms made in the criminal law in all civilized nations in the last century have resulted in the adoption of many of the proposals of the positivists.

Beside this, a few criticisms were also found in regarding positivism from early days, which is penetrating the post-modern ideas of punishment since second world war . Firstly, the positivist school has ignored the fact that the criminal law is a double edged sword. It protects society against individual, and it protects the individual against the arbitrary actions of the state. Secondly, the positivist emphasizes parole and indeterminate sentence, yet a determinate sentence has more value than does the indeterminate sentence as a factor in success or failure of parole.

In brief, the positivist thinkers emphasized more on scientific approach in defining criminal behavior and setting punishment. Factors like biological inheritance, mental abnormality, situations, gravity of crime, age, sex and offender characteristics were taken into consideration in determining punishment. Besides, the proponents of the positivist school drew attention more on corrective and reformative approach than imposing serious punishment. The notion was to correct the negative behavior of a criminal and reintegrate him into society as a law abiding person. Thus the concept of punishment shifted from barbaric forms of punishment in early era to a corrective and preventive form in modern age.

Notes: The above table has been constructed from the writings of Barnes and Teeter's seminal book In Criminology: The American Crime Problem; Barbara A Hudson book's Understanding Justice and Normann Johnston et.al book's The Sociology of Punishment and Correction.

Contemporary debates on Philosophy of Punishment

Punishment resorted in any society, whether it be primitive, barbaric or civilized, is based on a twofold consideration: the assumed damage of the anti social act to the group and the measure of repayment that the social group exacts (Barnes and Teeters, 1943:391). At present philosophy of punishment is an essential part of the philosophy of life - freedom such as existentialism. Initially the philosophy of life stands against the punishment system but later some of the philosophers asked for the punishment system as a means of social control or social obedience. But still there is a debate on this issue. The three major debates are found in contemporary penology such as

need of punishment, abolishment of capital punishment and modern punishment system.

In terms of the legal and penal thinking, existentialism which is the philosophy of the life nowadays is most compatible. Existentialism evolved from Kirkeguard and popularized by the French philosopher and writer Sartre. Sartre and Heidegger have insisted in varying ways that justice and punishment are subjective affairs for each individual, for individual is like another, no one situation comparable to that of another man's (Johnston et.al, 1970: 337). Existentialist rejects ontological, political and linguistic approaches to morality and betrays a marked concentration on the individual apart from society is a fundamental analysis which begins not with words, but with the ontological structure of man (Johnston et. al, 1970:337-339). Former idea is provided by the leading exponent of Existentialism Jean-Paul Sartre and the later is given by eminent philosophers Albert Camus also with Gabriel Marcel, Karl Jaspers, Emmanuel Levinas and Maurice Merleau-Ponty.

According to Sartre, man is a true subject of his own making, yet he is subjected to the artificiality of institutionalized standards and laws. As the individual becomes a member of the law abiding, punishment approving, he slips inconspicuously into the anonymous institution and unknown allows his absolute freedom to be converted into the slavery of the organization man. He obeys: if he does not, he submits to punishment, which itself is form of social obedience. And if he disobeys he has to face punishment, formulated by those institutions (Johnston et.al 1970: 338). He recommends practicing absolute freedom and thus rejects traditional punishment system. Additionally, Sartre stated punishment reduces man's potentiality, limits his freedom and constraints his humanity. On the other hand Camus has emphasized not to the punishment system but to the capital punishment through breaking Sartrean existentialism. In this regard, Camus has pointed out some arguments: For future social benefit, punishment is necessary. Role of the capital punishment is not vengeance but needed for the protection of the society. According to the Human Right thinkers, punishment should be replaced by the

reformation and corrections of the offender through maintaining his rights as a person.

Capital punishment, the ultimate limit is the severest type of punishment because nothing can be more painful, cruel to an individual than being deprived of the very life and existence. Thus it creates an issue of arguments. Philosopher Plato said in this regard that, 'if a man cannot be harmless otherwise then in sleep, it is better for him to die than live'. A group of penologists has supported death penalty for the reasons of retribution, deterrence, incapacitation and the instrumental perspectives. On the other hand, few criminologists and criminal justice personnel have rejected the notion of death penalty due to the reasons of morality, the brutalization effect or the risk of executing an innocent person (Lambert, et.al. 2006).

Recently a new thinking has begun to take a philosophical viewpoint towards present punishment system which is nothing but the post modern thinking. It rises question about the penalizing and normalizing responses to crime which nowadays continues to create tension in modern philosophy of punishment. The upcoming thinking on punishment suggests about the transformation from the disciplinary society to actuarial society which refers to break the imprisonization thinking of punishment.

CONCLUSION

Since the growth of civilization, punishment has been existing in different societies to control crime and it has been practiced in present society in diverse forms. For controlling crime, the appropriate nature of punishment is being determined by the philosophical aspect of punishment in structural position of a given society and the philosophy is also being changed due to its associated factors. The barbaric punishment system of pre-classical period has been replaced by the rational thinking, enlightened ideas, and penal reform in determining punishment in classical period. Similarly, the deterrent philosophy of punishment in classical period has been changed by science, individualism, constitutional democracy, penal reform and reformative ideas in setting the punishment in positive period.

Postmodernist thoughts influenced the philosophy of punishment with reference to the questions of subjectivity and existentialist identity of man and disciplinary nature and technology since Second World War. Although, the modern philosophy of punishment is reintegrative and rehabilitative, punishment itself is debatable from different perspectives such as existentialism and postmodernism.

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Health Status of Elderly Living in the Old Age Homes: An Overview

RAMESH

Abstract: *Truly speaking aging is a natural phenomenon and is biological also. India is a second country having the largest number of elderly people aged 60 plus. Because of modern medical care average life expectancy is gradually increasing in India. Demographers have presumed that by the year 2050 more than 40% of people would only be elders in India. Elderly people are being viewed as non-productive, dependent and are considered as liability in the family. Health status is an important factor that decides the quality of life of an individual. In the countries that are considered "more developed" as per the UN definition, this share is expected to climb from 14.3 percent to 26.8 percent over the same period. Ageing is a time of multiple illnesses and poor health is repeatedly cited by the aged as one of their most serious problems. Besides, the health condition of elderly people living in old age homes is India are still worse. Hence, there is a need to focus more on health and functional abilities rather than on vulnerability, risk and sickness as vast majority of elderly people in developed country who enjoy good health function as active members of the community. This article is based on an empirical study conducted as a part of UGC project in the selected old age homes in Karnataka.*

Key words: *Old Age Home, Medical Care, Dormitory, Voluntary Service.*

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INTRODUCTION

Old age and the problems associated with it are emerging as the most pressing social problems of the 21st Century. According to 2001 census, in India, there are about 75 million (7.3%) elderly people. It is expected to be 179 million by 2031, 301 million by 2051 and 340 million (26%) in 2061 (Liebig et al., 2003). It is estimated that over the next fifty years, the share of the elderly (defined as those aged 65 years and above) is expected to climb from 6.9 percent in of the total population to 15.6 percent worldwide. Health status is an important factor that decides the quality of life of an individual. In the countries that are considered "more developed" as per the UN definition, this share is expected to climb from 14.3 percent to 26.8 percent over the same period. Ageing is a time of multiple illnesses and poor health is repeatedly cited by the aged as one of their most serious problems. Besides this, health conditions of elderly people living in old age homes in India are still worse. Hence, there is a need to focus more on health and functional abilities rather than on vulnerability, risk and sickness, as a vast majority of elderly people in developed country who enjoy good health function as active members of the community.

OBJECTIVES OF THE STUDY

Against this background the study is designed with the following objectives.

1. To study the status of elderly population and health problems;
2. To study the health status of elderly population living in old age homes;
3. To understand the quality of life affecting the overall health of elderly in old age homes;

METHODOLOGY

This study is based on part of the data collected for an UGC sponsored Major research project titled 'An empirical analysis of old age homes in Karnataka'. The sample consisted of 120 elderly, who were living in 24 old age homes spread across Mysore and Mandya districts of Karnataka State. Study is based on both primary as well as secondary sources of data. The primary source of data has been

collected from 120 persons both male and female living in aided, private as well as government old age homes situated in Mysore and Mandya districts of Karnataka State through structured interview consisting of simple and short questions. The sample of 120 was drawn from the total list of inmates of old age homes. Only those who were of 60 years and above and willing to co-operate with the study were selected by simple random sampling technique. The secondary data has been collected from available literature in books, journals, research reports and other published materials related to the health status of elderly population. The data was collected during the period from February 2013 to June 2013 through personal interviews. The data was analyzed using the simple percentage and averages.

RESULTS AND DISCUSSION

As people age there tend to be a concomitant increase in the presence and number of chronic conditions and complications of both physiological and psychological nature. Among people age 60 and older, heart disease, cancer, and other chronic illnesses already account for over 87 percent of health problems globally (Khan et al, 2006). There will be a great dependency on the caretakers. Infections and illnesses, which are common problems of elderly, add to the severity of the condition. The reasons include impaired defense system of the body, late diagnosis and malnutrition. Besides, older people are prone to chronic diseases of heart, blood vessels, brain, kidney, liver etc., and also have complications of diseases like diabetes. The quality of life of the elderly population depends on their socio-economic characteristics. Ageing affects the social and economic foundations of societies. Present conditions become vulnerable for the aged, because on one side the traditional welfare institutions are deteriorating and on the other side the population of the aged is increasing rapidly. There is a big gap between the problems of the aged and the available resources. The attempt made by the government and non-governmental organizations are nothing compared to the needs (Lawani and Seeba Thomas, 2012).

Age and Gender

Table 1.1 Age and Gender

Age	Gender		Total	
	Male	**Female**	**Number**	**%**
60-65	9	15	24	20
66-70	18	18	36	30
71-75	13	18	31	25.8
76-80	8	5	13	10.8
80 >	7	9	16	13.3
Total	**55**	**65**	**120**	

Source: Primary Survey.

Table No 1.1 shows the distribution of the respondents according to their age. Analysis shows that about 20% of respondents belong to the age group of 60-65 and 25.8% to the age group of 71-75. But most of the respondent's i.e. 30% of respondents belong to the age group of 66-70 and only 13.3% of the respondents are of 80 and above.

The study shows that out of 120 respondents studied 55 members are males and 65 are females. During the study it was found that some inmates are staying with their wife / husband because they have no children or none to take care of. Some inmates are staying with their mother or sister. Caretakers of the old age home opined that after the age of 76-80 it is very much difficult for elderly to take care of themselves. Hence, they need extra care or somebody to take care. However lack of adequate staff in the old age homes has aggravated problems faced by the elderly. Some inmates also come from outside the state of Karnataka and some inmates were admitted by their relatives. Some inmates have opted for old age home stay voluntarily on the basis of reputation of well-known institutions.

Education

Table 1.2 Educational Level

Education	Number	Percentage
1-7	30	25
8-10	32	26.7
PUC / Degree	11	9.2
Others	3	2.5
Uneducated	44	36.7
Total	**120**	

Source: Primary Survey.

Table 1.2 provides the data on the current educational background of sample respondents. Regarding the educational status 36.7 % of the respondents are illiterates and 25% of respondents have completed primary education. About 26.7 % of respondents have finished high school education and interestingly 14 persons out of 120 respondents have finished Engineering Degree and other professional courses. Some inmates are basically engineers and some are diploma holders. Some retired government officials also stay in good and highly standard old age homes that are costly and that have trained care takers. However, other uneducated or less educated elderly persons stay in government aided old age homes and some private old age homes without paying any fees as they have no source of income.

Duration of Staying in Old Age Home

Table 1.3 Duration of staying in old age home

Period	Number	Percentage
1 year	33	27.5
1-3 years	39	32.5
3-10 years	43	35.8
10 years >	5	4.2
Total	**120**	

Source: Primary Survey

Table 1.3 reveals 27.5% of respondents are staying in old age home since one year and 32.5 % of people are staying in OAH for 1-3 years. While only 4.2% of people are staying in old age home since

10 years. In all, it was found that most of the elderly are forced to stay in old age homes, as there is no one to care of them at home. Most of them are staying in old age homes free of cost, which indicates their low economic status and they are nearly deserted and lack family support. Most of them are satisfied with the services available in the old age homes. The persons staying in the Old age homes for more then 5-6 years are mostly unmarried women and destitutes. Some inmates are admitted by their daughters because their husbands do not allow them to keep their mothers with them. The daughters visit the old age homes once a week, wash the cloths of their mother, bring medicines if they are ill and spend some time with them.

Accommodation

Table 1.4 Nature of Accommodation

Density	Number	Percentage
1-2 person	11	9.1
3 >	47	39.2
Dormitory	62	51.7
Total	**120**	

Source: Primary Survey

There are two types of old age homes in India. One is the 'free' which care for the destitute who have no one else to care for them. They are provided with food, shelter, clothing and medical care without any charges. The second type is the 'paid' home where care is provided for a fee. The table 1.4 shows that 51.7 % of respondents are living in old age homes having dormitory whereas only 9.1 % of the respondents are living in single room or on twin sharing basis. Some paid old age homes provide single rooms or rooms with twin share basis by taking certain fees. Generally, retired officials or rich people whose children live in foreign countries stay in this kind of paid old age homes. Since most of them are stay in dormitory as well as in rooms with more than three inmates, they face more health problems compared to the people who stay in separate rooms.

Drinking Water

Table 1.5 Source of Drinking Water

Water Source	Number	Percentage
Public Tap	89	74.2
Bore Well	17	14.2
Filter/Packaged Water	14	11.6
Total	**120**	

Source: Primary Survey

Regarding the drinking water facilities 74.2 percent of the respondents depend on public tap and 14.2 percent of them were found using borewell water. Whereas only 11.6 percent of respondents were using filtered or packaged water. It was found that other than drinking water purpose the inmates have to depend on open well for their daily water needs. In pay and stay old age homes they provide water filters and packaged purified water whereas in government, NGO run and some other old age homes filter water is not provided. Hence, it can be said that drinking water from public tap and borewell directly causes ill health for the old people.

Quality of Food

Table 1.6 Quality of Food

Quality	Number	Percentage
Good	111	92.5
Not Good	5	4.2
No Comment	4	3.3
Total	**120**	

Source: Primary Survey

Regarding the quality of food is concerned 62.5 percent of the respondents that means majority of them opine that quality is good. However, a small percentage of them (4.2 percent) say food served is not of good quality.

Health

Table 1.6 Health Status

Health Problems	Number	Percentage
No Health Problem	32	26.7
BP/Sugar	52	43.3
Joint Pain	10	8.3
Eye/Hearing Problems	6	5.0
Others	20	16.7
Total	**120**	

Source: Primary Survey

Health status is one of the important factors which give satisfaction during old age. The major health problem as reported by the male elderly is BP/ Sugar (43.3 percent) followed by Joint pain (8.3 % percent), poor vision / Hearing Problems (5 percent) and others 16.7 percent. Others problems like asthma, gangrene, not able to walk perfectly, thyroid, etc., and women suffers from personal gynecological problems and have undergone surgeries requiring serious medical care and assistance.

Type of Medical System:

Table 1.7 Medical Facility

Medical System	Number	Percentage
Allopathy	133	94.2
Homeopathy	1	0.8
Allopathy & Ayurveda	6	5.0
Total	**120**	

Source: Primary Survey

As regards to the type of treatment it was found that a large percent (94.2%) of the inmates prefer allopathic treatment followed by homeopathic which constituted 0.8 percent. Whereas, 5 percent of the respondents use both Allopathy and Ayurveda.

Access to Medical Facilities

Table 1.8 Access to Medical Facilities

Medical Facilities	Number	Percentage
Weekly Doctor Visit/Medicine Free	31	25.8
Doctor Visits Twice a Week	7	5.8
Patient visits Hospital on his own	59	49.2
Doctor Always Available in Old Age Home	23	19.2
Total	**120**	

Source: Primary Survey

In majority of cases (49.2) usually Doctors don't come or visit the old age homes but patient themselves go to the nearest government hospital or any private hospital. In some aided old age homes doctors visit OAH twice a week (5.8 percent). In pay and stay old age homes doctors are available round the clock in OAH and their percentage is 19.2. In some OAH doctors visit once or twice a week and distribute free medicines.

Availability of Nursing Staff

Table 1.9 Nursing Staff

Nursing Staff	Number	Percentage
Available	43	35.8
Not Available	77	64.2
Total	**120**	

Source: Primary Survey

The study shows that 35.8 percent of the old age homes have nursing staff that are available on all days. But majority of homes (64.2%) do not have any nursing staff largely affecting the quality of health care in these homes.

Health Insurance Facility

Table 1.9 Health Insurance

Insurance Policy	Number	Percentage
Yes	2	1.7
No	118	98.3
Total	**120**	

Source: Primary Survey

Majority of inmates are not aware of the health insurance policy. However, some educated inmates have knowledge about the insurance but only some inmates have got the insurance policies. Shockingly, data reveals that out of 120 persons interviewed 98.3% i.e., most of them do not have any insurance policy.

Decision in Old Age Home
Table 1.9 Treatment for the Health Problem

Decision Treatment	Number	Percentage
Management takes its own decision to give necessary treatment without waiting for permission from family/guardians	104	88.67
Management does not give any treatment without seeking permission	16	13.3
Total	**120**	

Study reveals that for some minor health problems management gives necessary treatments to the inmates (88.67 percent). This kind of facility can be seen in some purely private or paid OAH's. However, some old age homes do not give any necessary treatment, instead they inform the children, relatives or guardian about the hospitalization and medical treatment as it is very expensive. It was also found out that the family objects to any treatment without their permission as they have to foot the medical bills. Further, some medical treatment gets complicated and the old age home does not want to take the risk without getting the family involved. However, in some cases the management gives the necessary treatment after informing their relatives or children.

SUGGESTIONS
The study found that most of the inmates of the old age homes are economically dependent and less educated. Further, the health condition of the inmates is not satisfactory. Following suggestions are made to improve the status of the inmates of Old Age Homes;
1. Recreational facilities should be made available in the old age homes apart from providing TV. The elderly should be encouraged

to become the members of social organizations to actively participate in civic and political engagements. There is also a need to introduce income generating activities for the elderly who are fit to work in the old age homes.

2. The grant to the government aided old age should be increased. Besides government can make arrangements to provide medical treatment and major surgeries free of cost for those staying in old age homes.

3. At present health care is becoming expensive and is not affordable by the majority especially those who are economically weak. Provision for some kind of health insurance coverage with low premium will increase access to good health care facilities. There is need to create an awareness relating to health insurance policies.

4. Further conducting free periodical health checkups need to be organized. For emergency health care facilities vehicles, doctors, etc., should be made available. Voluntary services of medical professionals should be promoted and encouraged.

5. Health care system in India has already been designed for taking special care for vulnerable groups like women and children. Similar arrangements for elderly need to be organized in general hospitals, Public Health Centre's etc. to deal with the multiple health problems of aged people.

6. Government can arrange the visit of nearby government hospital doctors, nurses and paramedical staff to old age homes for periodic general checkup of the inmates.

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Avenue Greenery and Sustainable Development of the City of Mysore, India

KRISHNE GOWDA

SRIDHARA M.V.

Abstract: Mysore is not only a city of palaces and heritage structures but also of parks, trees, sylvan avenues and boulevards. This has been so for long; from the time of Wodeyar Kings since early 19th century to the time of independence and even now. Though the tree population, its variety, grandeur, hugeness and its numbers are often coming to be destroyed in the name of city development as is been often highlighted by the media, the people and the administration are generally committed to improve the city's arboreal culture and considerably to replenish the losses. The roads, in the traditional areas as well as in the newly formed extensions are getting endowed with trees in all their variety and sylvan beauty. Provision of saplings is an important precondition and there are significant efforts including newspaper advertisements in place regarding these supplies. The urban forestry efforts should become coordinated with all the other development and service departments. Urban green administration is becoming more and more diversified and complex, demanding many techno-scientific inputs. The choices of proper or suitable saplings, their production are all to be undertaken in an informed manner. As of now, we do not have suitable technical people to accomplish these tasks. It requires a program of training; and of a training of trainers too.

Coordination between many cognate departments of government is necessary. These departments have to have a healthy liaison between them. Otherwise, cost to the exchequer as well as to the citizenry will be high; doing and undoing of things will increase and will become a nuisance to city life. Recording of coordinating experiences will itself be a new area of research and will become an important element in urban studies. Since this involves public education, the role of media is infact increasing.

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Keywords: *Tree planting, Avenue greenery, Sustainable development, Heat island effects, Aesthetic content, Ecological upgradation.*

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INTRODUCTION

Raising and preserving green areas are a part of our ancient culture within urban settlements. They continue to be life sustaining even today. Well maintained green areas constitute a necessary input for civilization. Indians, from ancient times, have revered trees as manifestations of the Almighty. Plants and trees are in fact worshipped even today; for example, Tulsi, Shami and Aswatha trees.

Trees and plants can actually clear the air of not just carbon dioxide, but also particulate pollutants, and obnoxious gases. Besides, trees can alleviate water pollution, noise and light pollution (glare) too. Trees and shrubs, particularly when they are dense spread over significantly large areas, can contribute to prevent soil erosion and increase fertility.

Mysore City has to grow in an orderly and environment friendly way and should provide aesthetic experiences with parks, public squares, pretty sidewalks, waterfront promenades and green concourses. Avenue plantations are trees found along roadsides. Apart from avenue trees, coconut trees are prominent within residential slots.

The main function of avenue greenery is to provide a canopy increasing the proportion of forests and reducing heat island effects. Tree lined avenues, streets and roads along with green medians and traffic islands are spread all over the city adding to its arboreal grandeur. Aesthetics of trees, flowering seasons, and the range of uses it can be put to, their medicinal value, planting techniques and tree care all add value to urban living. There is evidence that properly designed greenery in avenues can create a better quality of life while providing a platform for long term economic development. It will create value, civic pride and improved quality of life for residents.

It is grim news for the 'Greens'. The widening of roads in the city is being planned. The full grown trees along those roads are being uprooted and carted away. Widening of roads must accompany planting of suitable trees on roadsides to conserve greens and their ecology. In this regard, newspapers of the city have contributed constantly in rising people's consciousness and photo journalism also has played a vital role.

This study is mainly limited to different types of road side or avenue greenery in the city of Mysore. The focus has been to assess the existing situation and suggest ways for the prospective development of avenue trees. Photo journalism can be of great value in exploring the sylvan beauty of Mysore environs.

THE STUDY AREA - Mysore City

Mysore is known for its magnificent palaces and majestic buildings, sprawling gardens and tree lined boulevards. The 'City Royale' always figures in the tourist's itinerary. The City has to grow in an orderly and environment friendly way and should be endowed with aesthetic content in the form of parks, public squares, pretty sidewalks, waterfront promenades and green concourses. Mysore is currently undergoing extensive urban expansion. There is need for a strategic vision involving adaptive and realistic policies and new urban planning practices.

Majestic View of Mysore Palace, Mysore

Mysore city's population is more than a million at present (0.98 million as per the 2011 Census). Based on the JnNURM forecasts, Mysore's population by 2020 will be around 1.5 million with a medium growth rate of 3.5 percent and 1.9 million with a high growth rate of 4.5 percent. This works out to 2.21 million with a medium growth of 3.5 percent by the year 2030 and 2.95 million with a high growth rate of 4.5 percent. Here, we should note that urban population growth has already outgrown general population growth in India. Urban growth is due to both intrinsic population growth and migration from the surrounding and other areas and absorption of rural enclaves into the nearby urban centers. Increase in population and unbridled urbanization of Mysore city has nibbled away green spaces as the city continues to expand horizontally.

a) Location of the City

Mysore is located at an altitude of 770meters above mean sea level and situated in the larger south central part of the Indian Deccan Plateau at 120 18' North latitude and 760 12' East longitude. The gradient within the city ranges from 1 to 100 m to 1 to 50 m. Its situation amidst beautiful sylvan surroundings with majestic Chamundi Hill (1085 m) in the south east as a backdrop is indeed unique. The northern part of the city drains into the river Cauvery and the southern part into the river Kabini, a tributary of the Cauvery.

b) Climatic Factors

The climate of Mysore can be described as 'tropical monsoon type'. Mysore manifests a very hospitable climate all through the year, where temperatures vary between 200 C and 300C. Neither too hot nor too cold, it's always pleasant although some climatic changes have become visible as the surrounding forest areas have become greatly depleted. The city lies in the rain shadow region of the Western Ghats and, therefore, receives not more than 850 mm rainfall per annum mainly between the months of April and November. Even in the rainy season, relative humidity does not exceed 60 percent. April and May are the hottest months. Being located on an undulating terrain, the city and its surroundings have large tracts of land suitable for forests and pastures. Its forests are describable as deciduous and not evergreen.

c) Land Use Pattern

In order to promote health, safety and the general well being of the community, it is necessary to enforce reasonable and facilitatory norms on the use of land for buildings and other constructions. This is to ensure that the most appropriate economical and healthy development of the city takes place in accordance with a land use plan. For this purpose, the city is divided into a number of user Zones, such as residential, commercial, industrial, public, semi-public, etc (see Fig. 1 & Table 1). Each zone has its own regulations and features as the same set of regulations cannot obviously be applied to all of them.
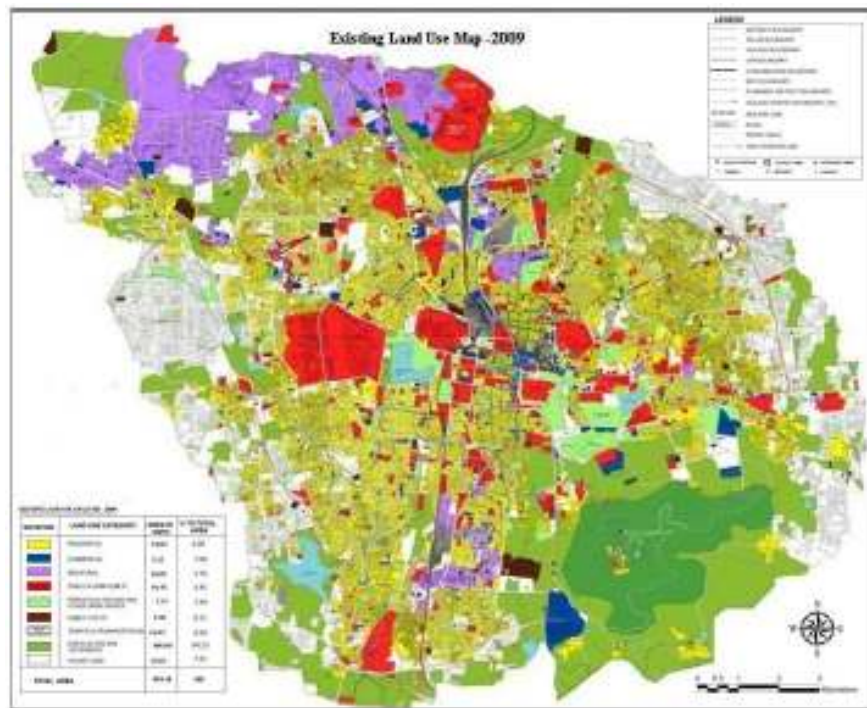

Fig. 1 *Existing Land Use Map of Mysore City.* **Source:** *MUDA, Mysore*

The objectives of land use planning may in brief be summarized as: improving physical environment, strengthening urban economy, ecological up-gradation and fostering of social values.

Table 1.Land use in Mysore 1995 and land use analysis for 2011 AD

No	Land Use	Area (ha)		% Developed area	
		1995	2011	1995	2011
1	Residential	3075.30	6097.87	40.40	43.45
2	Commercial	182.23	344,07	2.41	2.45
3	Industrial	1021.01	1855.05	13.40	13.22
5	Public/ Govt. Offices	856.45	1180.78	11.32	8.41
6	i. Parks and Open Spaces	415.77	1055.05	5.49	7.52
	ii. *Chamundi* Hill	-	1634.82	-	-
7	Traffic and transportation	1530.73	2380.56	20.22	16.96
8	Water Bodies	182.68	178.95	2.41	1.27
9	Public Utility	37.26	43.35	0.49	0.31
10	Agricultural purpose	285.34	898.99	3.73	6.41
	Total Area	**7568.77**	**15,669.49**	**100.00**	**100.00**

Source: MUDA, Mysore.

An analysis of the land use pattern of Mysore shows a thrust towards residential development which covers a greater portion of the city, and this is expected to increase in the next few years.

Importance of Trees

Plants and trees have a capacity to absorb not just carbon dioxide but also poisonous odorous gases like sulphur dioxide. Growing trees like Neem as avenue trees also bestows economic benefits, as the entire tree twig, bark, leaves and flowers has economic value. Neem twigs are bactericidal, Neem oil is a bio-pesticide, Neem fruit and bark are used in Ayurveda. Trees should be planted alternatively on both sides of the avenue and branches can be pruned as required depending on the growth pattern. This pruning can contribute to the provision of bio-fuels and green manure. All these are aspects of organized eco-maintenance.

Broad leaf trees reduce noise pollution too. There is apparently a 7 decibel noise reduction per 100 square feet of forest by reflecting and absorbing sound energy by the trees. Moreover, the 'white noise' or the noise of the leaves and branches in the wind reduces the impact of manmade jarring sounds like honking and whirring of automobiles. The trees also block and reflect sunlight and artificial lights to minimize eye strain and also the ambient summer heat.

a) Avenue Plantations

The role of greenery in arresting pollution, acting as dust-busters, by reducing noise pollution and muffling the sounds of urban living has been long established. Their cooling effect on the city heat island is well known.

There is a widespread assault on scenic old trees and strings of flowering bushes, grassy patches and roadside greenery. At the same time a series of callous green cover activities are unfolding in the public domain on regular and routine basis. Trees wither and crash due to lack of aeration and water supply to the roots, as a result of unimaginative concrete pavements **(see Plate 2).** For widening of roads

Plate 2 . *Lack of Aeration and Water Supply to the Roots -
Saraswatipuram Residential Area*

and drains or laying of underground cables, the anchorage area of long existing trees get destroyed. Streets are frequently littered with branches and leaves following the mayhem they are subject to by chopper wielding state electricity gang men clearing the way for overhead electric lines **(see Plate 3).**

Plate 3. *Avenue Trees are chopped by Electricity gang men clearing the way for overhead lines - Manasagangotri Campus*

The continuous assault on green cover has already resulted in an unhealthy rise in surface temperatures and related changes in climate like heightened toxic content in air and noise pollution. It is no surprise that incidents of stress, road rage, tense and nervous pedestrians, and other psychic and medical problems are mounting among road users. Sparrows and other birds have long become scarce and we are witnessing the natural endowments of wholesomeness giving way to a plethora of pharmacies, clinics, and hospitals in the landscape.

b) Cultivation of Trees
The cultivation of trees in an urban environment requires careful thought and planning. A wide range of horticultural management skills is warranted, from appropriate arboricultural treatment of individual trees to ensuring effective overall management of a city's tree cover.

Optimality and appropriateness in respect of tree planting are to be ensured.

While some trees in urban environments regenerate naturally and get to grow, a large majority are usually deliberately planted. Tree planting sub serves different objectives. Key attributes to be considered are ornamentation shade, wildlife habitat, noise and air pollution reduction, production of fodder, fuel wood and timber.

Different stakeholders or agencies will have different perspectives on the choice of species to be planted. One determining factor is of course the ownership of land on which the planting is to take place. Again this is based on whether planting occurs on public space or private land. An individual while planting a tree on private land is unlikely to consult a professional. For example "affluent localities with a strong element of indigenous culture" had a high proportion of indigenous ornamental species, while the "westernized upper class localities" had a high number of exotic ornamental trees. Fruit trees dominated the species assemblage in poorer areas, where few avenue trees existed. Media intervention has increased awareness among some sections of people.

In Mysore, according to few elders of the city, there was a time when the entire city would look festive during spring. It is sad that now we just have a handful of such streets. However, it is up to sensitive citizens, and the district administration to take care of what we are left with and improve on them.

All the roads and streets do not manifest avenue trees significantly as some do in the city. Only the older parts of the city with high density population are absolutely devoid of avenue trees. The new layouts with relative lower density have roads accommodating trees. Otherwise in some parts of residential areas avenue trees are absolutely scarce.

In Mysore, Urban forestry had been taken up to some extent by the Forest Department. During 1992-93, the government initiated a new scheme called "Greening Urban Area and Urban Forestry" for taking up afforestation in urban centers. Well-developed trees exist

along major roadsides and the authorities are endeavoring hard to maintain these trees and they have been planted one in every 10 meters (see Plate 4). Of these newly planted tree saplings of different varieties, substantially many are surviving and the authorities are attending to the problem of preserving planted saplings - the avenue trees as well as the ones in open space. A variety of trees such as teak, silver oak, jacaranda, bauhinia, pent flora, etc., have been planted, fenced, well protected and watered by students during summer. Ornamental and economical value of these has been well recognized.


Plate 4. Greening Urban Areas: Afforestation program in newly developed extension area - Vijayanagar 3rd Stage.

The network of roads and streets in Mysore follows a hub and spokes pattern with arterial roads originating from the centre of the city i.e., the Palace area. There are four main arterial roads, namely, highway connecting Bangalore and Ooty, highway connecting Kanakapura with Mysore (Bannur road), highway connecting Mysore with Mangalore (Hunsur road) and highway connecting Mysore with (Mananthavady road) Kerala. Most of the roads in the city are broad and straight with regular footpaths on either side. Narasimharaja Boulevard and Mirza road are notable examples. As the city grows, with increase in per capita income, the ownership of the vehicles coupled with traffic on roads has increased.

The total road network in the city was 335 kms in 1971. It increased to 432 kms in 1981, which accounts for 29 percent increase over a decade. There are 48 main roads in the city covering a total

length of around 58 kms. Many layouts have been developed between 1981-1991 consequently increasing the total road network to 600 kms. The road capacity in older parts of the city has remained the same while the quantum of traffic has increased significantly. Now, the total municipal roads have increased to more than 1093 kms (see Fig. 2). The road network of the city includes three ring roads, viz. outer ring road, intermediate ring road and inner ring road and also arterials roads, sub-arterial roads, collector roads, and others. The three ring roads not only collect traffic from other roads but also act as bypass roads at their respective locations in order to reduce congestion especially at the core of the city.
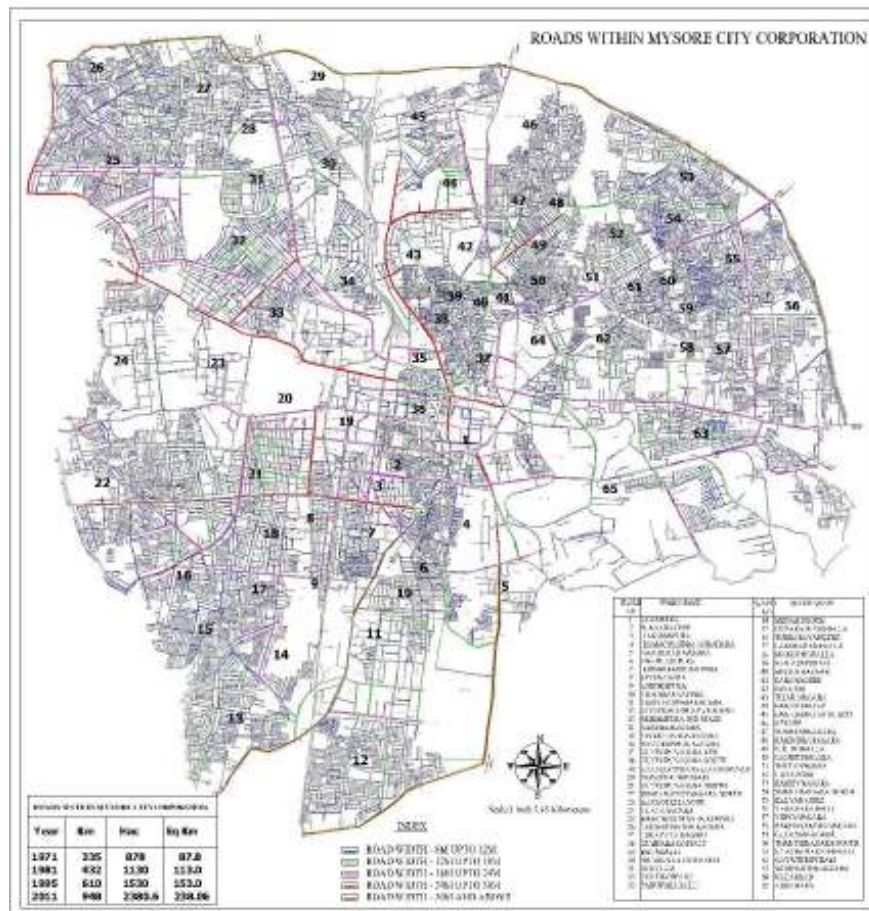
The Outer Ring Road is 45 meter wide and is helping

decongesting traffic in the city. The Intermediate Ring road is not a new road. It is conceived along with the existing roads only. But, it is proposed to increase its width to 30 meters. It starts from new Kantharaje Urs road and passes through Vishwamanava Double road, Bogadi road, Open Air theatre road, Hunsur road and Gokulam road. The existing road in Manjunathapura in front of Ideal Jawa runs up to Highway Circle and then passes through Bannimantapa, old Bangalore-Mysore road, Hyderali road, Karanji Tank Bund road, Race Course road, Bangalore- Nilgiri road, J.L.B. road and joins Kantharaje Urs road. The width of this intermediate ring road along Kantharaje Urs road has been retained at 24 meters as many structures have come up on either side of this road.

The Inner Ring Road is also not a new road but its alignment is proposed along the existing roads and its existing width is proposed to be widened to 30 meters. Its width along the Seshadri Iyer road and Sawday road is 24 meters whereas in other parts it has been proposed to have 30 meter wide roads. The inner ring road starts from Sawday road and passes through Bangalore-Nilgiri road, Chamaraja Double road, J.L.B. road, Seshadri Iyer road and then joins Sawday road.

c) Streets - The streets are some of the most important public spaces in urban areas. Apart from the original purpose of enabling people and vehicles to move, it is used as a place to do business/trade/ work/ manufacture/service/socialize and in some cases to live. New uses are manifest on streets and sidewalks, 'often temporary and sometimes more lasting'. The street side "cobblers, bicycle repairer, key makers depend on fair weather for their livelihood". With fast escalating rents of formal premises, these skilled labourers have resorted to doing business on streets. Streets are also venues for protests and rallies. Several of the main streets have developed into major commercial and entertainment areas, particularly in the CBD and such other busy areas.

History of Avenue trees and important Roads

Since early 20th century, visionaries such as *K Seshadri Iyer, Jamsetji Nusserwanji Tata, Sir M Visvesvaraya, and Sir Mirza Ismail* emphasized rather reemphasized the importance of trees, parks and

green recreational spaces beyond their visual contribution in a cityscape. But, in our hurry to "modernize" through rapid economic growth and the expediency of ever increasing types and intensity of land use, urban aesthetics and environmental upkeep and enhancement are being sidelined (Janardhan Roye, 2009).

The Mysore Maharajas, right from *Krishnaraja Wodeyar* III up to *Jayachamaraja Wodeyar,* the last ruler of the Mysore *Yadu* dynasty, took great care in promoting the aesthetics of city roads and streets by planting the choicest avenue trees **(see Plate 5 & 6).**

Plate 5. *Well Grown Avenue Trees in Mysore - Vinoba Road*

Plate 6. *Old Avenue Trees in Mysore - Western part of CFTRI Road*
Even up to the 1950s, the city had a rows of lush green trees

rich with enchanting flowers, in their successive seasons. It was a pleasure to walk on these streets those days, with almost no automobile traffic. They planned the selection of trees so well, it hindered neither the beauty of the great buildings the Maharajas built for various purposes, nor the traffic, which of course was not as dense as it is today. The main thoroughfare, Sayaji Rao Road, had flowering trees growing straight and tall, obstructing none. The long white flowers (you find one such tree behind the Chamundi Guest House on Dewan's Road) spread a beautiful aroma all around and those who most enjoyed its fragrance were the visitors to the Cauvery Handicrafts emporium, then known as Chamarajendra Technical Institute.

These trees were home for thousands of beautiful parrots, which fluttered and flew, now no longer to be seen. One of the complaints that were often heard in the City Corporation meetings then was that these birds were dirtying the Sayaji Rao Road with their droppings - white patches all around!

Another famous road known for its beautiful avenue trees was the 100 feet road or the Chamaraja Road, now a double road. On either side are thick and lush grown rain trees, with wide-spread green canopies, not allowing any sunshine on the road even during the hottest of summer days!

The small hairy white and red flower bunches were a pleasure to be seen and admired. Only a tree or two are left on this road now. So also the Boulevard Road now called the Lalitha Mahal Road. The majestic road from the Race Course almost up to the Lalitha Mahal Palace had a series of huge rain trees, giving shelter to men and horses which often passed on this road. It was a pleasure to take an evening walk on this road after resting a while on the stone benches in the precincts of Karanji Tank. One would often come across the Mysore Palace Guards moving on horseback.

Another royal road from the hind entrance of the Palace to the Jagan Mohan Palace, called the Jagan Mohan Palace Road, had rows of beautiful Jacaranda trees with full of bell-shaped blue flowers. The adjacent Seetha Vilasa Road had an excellent row of well-grown Neem trees, now a treasured variety for its herbal value. The deserted Jhansi Lakshimibai Road then had a row of Honge trees, spreading a unique

pleasant fragrance during its flowering season.

The avenue trees - each variety for each street and each place- were planted right from the days of Krishnaraja Wodeyar III (AD 1799 to AD 1868) who built the first five Agraharas outside his Palace Fort. The new extensions developed subsequently received similar patronage from Chamaraja Wodeyar, Krishnaraja Wodeyar IV and Jayachamaraja Wodeyar, great lovers of flora and fauna. Soon after Independence, when the then Governor-General Rajaji's "Vana Mahothsava" call caught up with the people, the Rama Vilas Road became the venue for tree planting. A series of Gul Mohars or May Flower Trees were planted on either side of the road. During May-June, the trees spread a carpet of fiery red and golden color flowers on this road.

Avenue trees are found along the sides of major roads in the city. Apart from avenue trees, coconut trees are prominent within residential plots in Saraswathipuram, V.V.Mohalla, Jayalakshmi puram, Vidyaranyapuram and the promising areas for trees are Lalithadri Nagar, Shanthaveri Gopal Gowda Nagar, Vidya Nagar and Rabindranath Tagore Nagar, Vijayanagar IV Stage, Metagalli and Yelwal, Hootagalli and Dattagalli, Sathagalli, JSS Layout, Police Layout, KC Layout, Roopa Nagar, JP Nagar, University Layout, Sriramapura, BEML Layout, Rajarajeshwari Nagar, Vasanth Nagar and Ambedkar Nagar among many others.

Cutting Avenue Trees for widening the Roads

Nearly two dozens of giant trees were felled on the Krishnaraja Sagar Road to make space for broadening the railway bridge and widening the underpass near the railway station **(see Plates 7, 8 & 9).**

Plate 7.*Cutting Avenue Trees for Road Widening in Krishnaraja Sagar Road*

Plate 8.*Cutting Avenue Trees for Road Widening in Lalitha Mahal Road*

Plate 9. *Loading Log from Avenue Trees for Road Widening*

These included widening of the railway bridge to lay three pairs of tracks to facilitate trains coming from Chamarajanagar and Nanjangud to switch tracks, before entering the platform at the Mysore railway station. Officials also stated that the bridge had to be lowered by 1.2 m to 1.4 m as the existing gradient of the track on the Mysore-Chamarajanagar line was steep; as per the new safety norms of the Indian Railways, the gradient had to be reduced from 1:190 m to 1:260 m. Because of this, the road underneath had to be re-laid at a lower level. The existing gap between the road and the bridge was reckoned to be around 4.5 m and if the bridge is lowered by 1.4 meters, the gap would be reduced further and safety would be compromised. But officials pointed out that there were water pipelines criss-crossing the road at lower depths and hence if the pipes were to be overhauled,

the trees on the surface had to be felled. The existing road under the bridge would also be widened to accommodate four lanes to cope with the increase in traffic. It was inevitable that the trees had to be removed, the officials added.

Another example of a victim of urbanization - the leaves have been turning yellowish and branches gradually wilting - a slow but sure death for the tree and the cause for this are the grievous injuries inflicted on its roots some time ago by the workers who dug up the tree's base to rectify the water supply pipeline. The authorities concerned in the water works department say that these incidents are common when it comes to providing amenities in urban areas and have to be accepted by the people for augmenting their amenities.

The pipelines, installed several decades ago, have to be repaired, replaced and maintained under JnNURM scheme to revamp the existing water supply system in the city and as such, it is inevitable to clear the pipelines of the entwined tree roots as they grew deeper in search of moisture and nutrients. Roots of big trees have a tendency of growing deeper and farther in search of moisture. The small leaks in the pipelines attract the feeder-roots that are capable of penetrating into the smallest holes in the pipeline and then grow in size within the pipe, causing blockages and ruptures which eventually hinder water supply.The water authorities pointed out the necessity of chopping down such roots that posed a threat to the pipelines. This emphasizes the need for imaginative coordination between the water supply and urban forestry authorities.

Moving Towards a Greener Mysore
Tree Plantation Program - The Mysore City Corporation (MCC) has joined hands with the Forest Department in a drive to turn the entire city green. Together, they have embarked upon the welcome idea of planting about 65,000 saplings throughout the city (City to go Green, 2010). As part of the plan, flower and fruit bearing saplings have been planted. The MCC planted 30,000 saplings in the year 2010 but not many have survived, according to officials. The saplings would be planted alongside roads (see Plate 4). "While the cost incurred

thereby was borne by MUDA and the Forest Department, many residents have looked after the plants' growth". Based on a field survey, it is said that 60 percent of the plants are in good condition and have survived (The Hindu, 2010, Mysore residents become 'green activists'). The publishing and researching for such people oriented news items in the regional and national press contribute to enhancing civic consciousness and commitment to general good.

Plans for tree planting over the next ten years such as avenue trees along urban arterial roads, residential streets, parks and green spaces, private properties and special ecological zones have to be made operational. In this connection, local residents have already organized themselves into groups in support of urban tree planting and maintenance. This kind of sympathy and understanding based program should be integrated with planning in the energy, water supply, urban infrastructure, waste disposal and other municipal services, food and agriculture and transportation sectors.

Avenue plantations should entail planned, integrated, coordinatated and systematic management of trees in urban areas. Any successful incorporation of trees into the physical and social fabric of towns and cities clearly requires integrating forestry into overall urban planning. Given the potential involvement and uncertainties of numerous and varied professional personnel, government and nongovernment agencies, community groups and individual urban residents, this is indeed difficult to achieve. This involves considerable effort in persuasion and dissemination of experiences and knowledge. Media should sensitize the people about the significance of urban green management.

Municipal services must be well planned and developed to cope with proper management of street trees and trees elsewhere on public lands. Trees are generally planned, planted and tended poorly and many become public hazards. Adequate and constant attention is needed to tend trees properly equipped with clear roads and storm water drains of tree debris, and dispose of tree wastes. The commitment to tree planting must be matched with the financial and human means of providing such services on a sustainable basis. Tree planting,

wherever it takes place, should be accompanied by a provision for rain water absorption suitably. Paving of sidewalks has to be studded with patches providing scope for rain water convergence and absorption. In fact, proper tree planning and tending may indeed become an important source of manure, fodder and fuel. This dimension of urban forestry must be seriously worked upon. Urban forestry development is a difficult area particularly in the context of growing primacy of markets, privatization of services and the so-called private-public-partnerships. Conscientious and concerned citizens, who have persuaded their neighbors in Kuvempunagar to plant on roadsides, recommend Honge, Neem, Tachoma and other flowering trees that look beautiful during flowering seasons. Trees, including avenue trees provide a habitat for birds and their nests, adding a natural aesthetic dimension to urban living.

Availability of planting stock

Plant Nurseries in Mysore- Planting material may be produced in nurseries run by public bodies (Departments such as Urban Forestry, Horticulture or others) **(see plate 10), i**n private nurseries (more than 20) (see plates 11), or by all major individual institutions for their own use. Trees planted on public access lands are often obtained from nurseries run by the Department of Urban Forestry in Mysore Division. The problem here is that only limited species are available in public nurseries. Private nurseries exist in many places in Mysore city; they work on a smaller scale and concentrate on selling of saplings in high demand. As they are often engaged in the production of ornamental and fruit tree species, they may add significantly to the total available choice of species. Avoidance of mono culture in tree plantation is an item of ecological value worthy of pursuit.

Plate 10. *Urban Forestry Plant Nurseries - Next to Kukkarahalli Lake-*

Experts identified a few species that were considered favorable to Mysore's climatic conditions and soil. According to them, species such as champaka, pongamia pinnata, cassia spectabills, assia javanica

and jacaranda can be planted. As Mysore is fast developing and many new areas are coming up, there is scope for tree plantation to forestall and minimize environmental pollution and soil erosion and to promote ground aquefaction. That way, tree plantation can almost always be clubbed with rain water conservation and harvesting and maintenance of storm water drains.

Budgets for Afforestation Program

MCC had allocated Rs. 2.8 million for afforestation in the city during 2010 budget and saplings purchased then are being planted now. This year, the allocation will be increased further for such schemes. In addition, there are a number of public and private institutions with allocations to make their campuses green.

Although every year certain allocation is made in the MCC's budget, it is highly insufficient for development or maintenance of avenue trees. Moreover, there is no adequate staff within the department to work in the city. Given that infrastructure development, maintenance and other activities have gained priority in budget allocations, the allocation available for the greening of the city has been very limited. Due to various developmental works, the tree cover is being reduced, and hence the proposal to plant a tree for every tree cut requires implementation. Tree planting has also been taken up under various other programs. Despite the growing interest, understanding and allocation for this sector, the paucity of specialized staff and training therefore is indeed a problem.

Future Plans

Mysore is poised to launch its new Master Plan aimed at beautifying and further greening the city. It is appropriately called 'Sundara Mysooru' (beautiful Mysore) Plan. Rs. 3000 million would come from the JnNURM of the Central government, Rs. 500 million from the Central Ministry of Tourism and Rs. 3000 million from the Asian Development Bank and World Bank. Work has also started on drawing up an urban forestry strategy and an information pamphlet on this strategy through the efforts of the Forest Department and NGOs is being circulated. Certainly, raising and maintenance of avenue trees is a part of beautification of the city.

Suggestions, Recommendations and Conclusions

a) Suggestions and Recommendations

- MCC's permission mechanism may not forestall threats from road diggers , public works department on road-widening work, the power supply and telephone people, and those who lay underground water supply and sewage pipes. It is necessary to coordinate with the authorities on the choice of trees to plant and on how to take care of them. Those planting trees on roadside and other public space should be enjoined to file a compliance report to the authorities online. Compliance reports by residents should furnish details of the trees planted, their number, variety and location. Such information would help keep a record of trees planted in the city at citizens' initiative.

- The trees should not be planted too close to the compound wall, foundation, water and sanitary connections and electric wires. Even if the entire area is concreted or asphalted, optimal space can be provided for planting between trees. This is necessary for water, air and nutrition to enter into tree roots.

- Mysore has 1093 kms of roads including arterial roads and connectives. Still there are 60 percent of the streets remaining unplanted. So, there is considerable scope for furthering avenue plantation. The type of trees to be chosen for this purpose has to be left to the forestry and horticulture experts and should not be done capriciously or arbitrarily. In this tree plantation effort, the

cooperation of electricity, telephone, water supply and sewerage authorities have to be duly enlisted. In addition to this, there will be more scope for planting and maintaining avenue trees in the newly developed layouts within the LPA boundary.

2✷ The government has decided to make it mandatory for every new relatively bigger house coming up (in urban centers) in the city to provide adequate space for two trees. It is being made compulsory by amending the Karnataka Municipal Corporation Act 1979. Once the amendment comes into force, separate space for two trees requires to be mandatorily earmarked. Unless, the building plan specifies spaces for trees, it should not be approved as it would be violative of the prescribed policy. Similar to the idea of floor area ratio (FAR), we should develop tree person ratio (TPR) while sanctioning licenses to multi-storied apartments. The height of adult trees may be sought to be correlated to the height of multistoried apartments.

2✷ It is strongly recommended that tree maintenance and suitable lopping of branches are attended to for the upkeep of the tree in later years to prevent snapping of branches and unexpected and dangerous uprooting of trees in the avenue areas.

2✷ The Department of Horticulture at MCC attends to the complaints as expeditiously as possible. If the matter is serious that has to be dealt with by the Forest Department and MCC draws its attention immediately.

2✷ The MCC regularly evaluates trees based on the complaints they receive from the general public and send the report to the Department of Forests. "The MCC is not supposed to trim the branches or do anything unless the tree has collapsed and is obstructing the traffic flow. Forest department sends report on a regular basis so on the need to carry out the trimming job".

2✷ Wherever electric wires run above, suitably dwarf canopy seedlings such as Pongamias, Bahunias, Bilvapatre, Cassia Fistula (Indian Lebernum), Buteafrandosa, etc have to be preferred. It is better to use shock proof insulated cables and this new practice has to be introduced early and universally.

2✷ The Storm Water Drainage cleaning mechanism as of now is

perceived to be inadequate as there have been complaints of defunct drains and overflowing of drains. These drains should be remodeled, increasing the coverage of storm water drainage network, delinking the sewerage system from the storm water drainage system by completing missing sewer links and de-silting to clean up the storm water drains and properly planned for planting trees which are suitable to these places in order to make them green.

- Greater focus on indigenous trees and matching suitability of species to the potentiality of respective sites and also increasing urban nursery capacity and efficiency is required.

- Avenue trees, often well grown, are getting felled in the name of widening of roads to erect new buildings in many places in the city. 'If these trees are felled, then their loss must be well compensated by mass planting of tree in and around the city'. There is still another option available. In the place of the present old, unwieldy and dying trees new species of dwarf, ornamental trees can be planted which would grow considerably in just 2 to 3 years. A specialist horticulturist could be drafted to advise the forest officials. Regarding location and number of trees, the idea of tree person ratio TPR comes into play.

- As Mysore is fast developing and many new localities are coming up, there is scope for tree plantation to achieve environmental improvement.

- Tree plantation program has to be undertaken on either side of the roads in residential areas, suitable vacant grounds at schools, hospitals and burial grounds.

- Experts have identified a few species that are considered favorable to the Mysore's climatic conditions and soil. According to them, species such as champaka, pongamia pinnata, cassia spectabills, assia javanica and jacaranda can be planted on either side of the roads.

- Priority has to be given to fruit production and valuable trees thereof in most parts of the city. Local varieties should be chosen for cultivation that is disease resistant and less nutrient demanding. Designing and laying of pavements should be

coordinated with tree maintenance.

- The use of indigenous plant varieties and inventive planting systems can contribute to energy efficient landscapes and reduced consumption of natural resources. By planting trees at right locations, water can be conserved. Water consumption can suitably be reduced. Heat island effects can be minimized.

- Since urban green is a people supported project, media and public play a major role. Specialist green reporters may be appointed.

CONCLUSION

People in urban areas need a break from their busy, tiring and often unhealthy and unpleasant modes of work and routine. As everyone cannot go to distant National Parks or forests, it should be possible for the government to bring a part of nature closer to city dwellers. This can best be achieved by developing pieces of land in or near cities as parks, gardens, open spaces and mini-forests including maintenance of water bodies in and around the urban area. These green patches and open spaces should be evenly distributed in the city of Mysore to function as city lungs. A larger area can be planted with suitable trees, shrubs and creepers to provide a forest atmosphere and operational cost may be contained. In green belt area, flowering trees, shrubs and creepers have to be additionally planted. The existence of water sheets or water bodies is an important asset to the environment and has a beneficial effect on the microclimate of the city. The tank beds could also serve as outdoor recreational areas which are very much needed for the city dwellers. These tank beds must be freed from the covetousness of land grabbers and their supporters among administrators and politicians. The nearest forest or tree area is the avenue with trees nearby. Green reporting and green statistics may be made an integral part of media space.

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Review of Business Education in India - A Perspective

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Abstract: *Currently business management education is perhaps the most commercialized of all the higher education programmes in India. Thanks to glossy advertisements in the media/websites/publicity brochures and tall claims made by every business school, both branded and mediocre, regarding the infrastructure, faculty, program package, industry placement, on campus recruitment, tie up with overseas universities and foreign education tours, the management education has caught the attention of news magazines. The ranking of B schools by the reputed English magazines periodically illustrates the significance attached to B-education in India. The mushrooming of business schools, especially in the private sector, as a consequence of the liberalized recognition policy of the government and the malleable affiliation procedures of the local universities or, for that matter, of even the national affiliating bodies, have left the standard and quality of education much to be desired. There seems to be lot of money that can be mopped up by every business management institute from the anxious students who are keen to get the much sought after MBA degree at any cost. Obviously the standard and quality of the course are at huge risk and unless stringent measures are taken to stem the rot the prospective students of hundreds of business management institutes face the risk of becoming unemployable in both organized and unorganized sectors of Indian economy.*

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INTRODUCTION

Business management schools in India are relatively of recent origin started not more than four decades ago. Apart from Indian Institutes of management and a few Indian institutes of technology offering specialization in industrial management/economics at the post-graduate level, there was scarcely any recognized business school till the mid-eighties. The reasons are not far to seek. The Indian organized industrial sector was narrow and, for a pretty long time, the demand for business administration personnel used to be mostly met by recruiting graduates trained in commerce/accountancy and economics. Private business schools started emerging only since the mid 80s and their growth became phenomenal since the early 90s, obviously as a result of the increasing demand for MBA graduates by the industries in the era of Liberalization, Privatization and Globalization (LPG). Globalization and liberalization of Indian economy since z1991, emergence of Corporate sector as a major player in economic growth, liberal business education policy (including collaboration with foreign business schools), aspirations of all professional graduates for a degree in management, encouraging campus recruitment along with attractive pay package, and entry of private sector to the area of business management education have all triggered the expansion of business management education in India. These days MBA degree is perhaps the most sought after post graduate program in India, and the growing of business management schools along with diversification of management education covering new areas like agribusiness management, media management and hospital management and so on has taken place with over 1700 business schools/institutions producing over one lakh MBA graduates every year. A stage has reached where in management education is needed in every sector where principles of management are useful.

The rising of business management schools has led to a situation of islands of excellence, but a sea of substandard institutions. As a result of which, there are many maladies and concerns of business management education. Different admission tests and various accreditation standards, declining standards in teaching, research and consultancy services, expansion of business education in private sector,

inadequate regulatory system in case of private business schools with foreign university collaboration, more emphasis on physical landscape and less on intellectual landscape, lack of vision on future development path of the institutions, scarcity of quality faculty and lack of effective quality assurance system could be identified as the major maladies and concerns of business management education in general.

QUALITY AT RISK

At present business management education is perhaps the most commercialized of all the higher education programs in India, what with glossy advertisements in the media / websites / publicity brochures and tall claims made by every business school - both branded and mediocre - regarding the infrastructure, faculty, program package, industry placement, on campus recruitment, tie up with overseas universities and foreign 'education' tours. The mushrooming of business schools, especially in the private sector, consequent upon the liberalized recognition policy of the government and the malleable affiliation procedures of the local universities or, for that matter, of even the national affiliating bodies, have left the standard and quality much to be desired. There seems to be lot of money in that can be mopped up by every business management institute from the gullible students who are otherwise keen to get the currently coveted MBA degree at any cost.

Obviously the standard and quality of the course are at huge risk, and unless something is done to stem the rot that has set in the business management education in India at present, the prospective products of hundreds of business management institutes run the risk of becoming unemployable in either of the two segments of the Indian economy - organized as well as unorganized.

Currently there is an incredible range of management institutions in India with equally widely divergent curriculum and examination system. These institutions differ widely with regard to the quality of students admitted and the admission process, didactic methods, industry placement, faculty development and infrastructure. There is virtually no coordination of the otherwise heterogeneous courses of these institutions. Based on the nature of ownership, affiliation to controlling bodies and autonomy in regard to the curriculum and

examination system, one can identify four broad groups of business schools in India. The first of these comprises those that are owned and managed by the central government, like the IIMs and IITs. The second group consists of those that are locally run (by the universities as well as private institutions) but are recognized by the AICTE and are affiliated to the central or state universities. The third group is represented by the umpteen 'autonomous' management institutes, most of which are run by the privileged institutions including minority educational institutions, and they often award PG Diploma in management 'equivalent' to MBA degree under affiliation to AICTE. The last group comprises autonomous institutions like Symbiosis XLRI, ICFAI, IFIM, IBM and a number of foreign university affiliated universities.

One of the banes of management education in India has been the lack of post recognition or post affiliation surveillance on the quality of instruction and student evaluation in the institutes/colleges as also on the admission criteria. While the 'high profile' management institutes enjoy a sort of immunity from scrutiny by the relevant government bodies, the others often manage to hoodwink inspection by shortcut methods. So, circumventing regulations by institutions needs to be tackled by some objective and unyielding check mechanism by the central bodies like the AICTE and the concerned universities.

INTAKE QUALITY AND CURRICULUM STANDARDS

A typical procedure stipulated by the AICTE / universities for allotment of 'seats' for admissions to the MBA / PGDBM programs in the private management education institutions affiliated to universities and also the so-called autonomous institutes is that about half of the admissions are based on merit in the entrance test and is allotted by the government, while the rest is distributed under the management 'quota', which is also supposed to be on merit obtained by the candidates in the entrance test. In reality, however, the management quota turns out to be sort of discretion by the management depending on who coughs up the maximum money. This naturally leads to dilution in the entry level standards. The standard and structure of the curriculum also leave much to be desired. There is hardly any periodic

review and modification under the coordinating eye of a central body. The AICTE's control is often confined to setting the initial approval norms and insisting on mandatory disclosure about things like the logistic facilities and the faculty, while the university boards of studies/ academic councils which have long since allowed the academic deterioration creep into virtually every faculty alike, have not been looking at the MBA curriculum and standards with any special attention.

So, in the absence of quality control, the MBA degrees produced by most management institutes in the country have turned out to be of the run of the mill type. Obviously the post-graduates from many management institutes fare no better than any other post-graduates in the job market although the degree has cost quite a bit of their parents' fortune. The AICTE which is basically meant to regulate the quality of technical education in the country is made to look into the development, quality and supervisory aspects of management education as well. How far the AICTE has succeeded in the quality control of management education has always been a debatable issue. Even the most ardent supporters of AICTE would admit that its' understanding of the peculiarities of management education as well as its approach and functioning need to be strengthened to a great extent. The main handicaps in this regard have been political intervention in the functioning of the AICTE, lack of a clear professional focus on its part in tackling the issues relating to management education and the rather bureaucratic approach of looking at management education.

All these point to the urgent need for an apex body exclusively meant to control and coordinate management education in India. AICTE is, after all, made for technical/engineering education and not for management education. Although the National Academic Accreditation Council (NAAC), an autonomous body for ensuring quality in higher education has been set up, the grades allotted to many management institutes do not actually reflect the commensurate quality, since the criteria used for grading institutions are not completely foolproof and there is lot of window dressing by the institutions. Management institutes are expected to be role models

for corporate governance including the ethical standard, openness and transparency. However, the reality is that many of these institutions lack certain critical requisites for sound academic governance. These include, lack of involvement of a governing council, absence of an academic advisory committee, inadequate interface with the industry, and lack of qualified, experienced and committed faculty.

There is a great divide between the academicians and industrial managers regarding the nature of academic administration and the structure of the curriculum to be followed in a typical business management school. There is hardly a blend of theory with industrial practice. Pragmatic business education calls for mature contacts with several existing scientific disciplines. In other words, it requires a multi-disciplinary approach. Business courses need to be taught by scholars, i.e., by the Ph.Ds trained to use scientific method to study various phenomena of business. Business schools need to draw faculty from many of the older academic disciplines such as economics, mathematics, psychology, and statistics. Unlike in the US or the UK where the business schools themselves train Ph.Ds in the various management disciplines, most management institutions in India recruit Ph.Ds from outside. The western business schools spend a lot of money on academic 'R and D' to train Ph.Ds for faculty positions by teaching them the basic business disciplines as well as scientific method and by directing their research toward important business problems. Unfortunately, the R and D efforts by most management education institutes in India are, at the most perfunctory. Instead of developing either their own human resources or recruiting Ph.Ds from outside on regular basis, most management institutes look for guest faculty.

The substance of the courses taught in business schools should come increasingly from their own research and from the business research published in standard journals. This stuff is increasingly theoretical and analytical rather than descriptive. This approach to business education has proved spectacularly successful in the western universities because thoroughly tested theories have immense practical value. The results of in house scholarship find their way into practical application through the training of MBAs in schools that produce

new knowledge and the recruitment of those MBAs by the industry. It is the technically trained professional manager who can translate theories into practice. The success of business school in training a professional manager is reflected in the campus interviews by corporate recruiters who throng to the top schools year after year with attractive salary offers and present a vast array of attractive opportunities to woo the new MBAs in reputed business schools.

Despite the abundance of market evidence, there are skeptics who doubt the value of abstract and theoretical training for future business leaders. Partly, the skepticism arises from exaggerated claims of many business school deans / directors who claim that the schools they head even impart leadership training. Many business graduates have come to occupy responsible and important management jobs, like their counterparts in the faculties of engineering, law and humanities and there are some of them who have managed to reach the top rung of the ladder with little schooling. The ability to lead a business depends largely on qualities of intellect and character that a good business school inculcates in its students in the course of its didactic programs.

To produce potential business leaders, a business school must recruit and admit students who possess, not just exceptional intellectual capacity, but other equally important attributes of leadership potential viz., integrity, courage, judgment, and ambition. This does not mean to suggest that the admission should be selective. Unless the business schools add something valuable to the mix, promising young men and women will not seek admission in business schools.

SOCIAL RESPONSIBILITY OF BUSINESS SCHOOLS

The best professional schools teach their students how to learn from experience. In teaching their students how to reason about markets and how to evaluate evidence, the schools equip them to improve their own professional competence. The problems they encounter in the performance of their jobs combine with the theoretical knowledge the business provide, enrich it, and mold it into a powerful set of tools. Because we expect our students to be called on to put what we teach them to practical use, we regard it as our responsibility to teach them the limits as well as the uses of theory and to encourage

them to develop an attitude of healthy skepticism, even toward accepted wisdom - even toward our own wisdom. A complete explanation of a business school's success, one that will illuminate the future of business education, requires a discussion of the demand side of the MBA marketplace.

Why do the big Indian business firms - and for that matter, even the multinational firms - hire the products of a few business schools paying hefty pay package? The answer lies partly in the changing scale and scope of modern corporate business and in the contribution of business schools themselves to change. The recruiters who hire management graduates come mostly from the large companies and the accountants, bankers, and consultants that serve them. Since the early 90s, there has been considerable increase in the number of people employed by these firms resulting in many fold increase in the real value of their assets and profits, and six fold increase their sales. This growth has been achieved by more than just an increase in size. Local and regional firms have become national and international. The customers served and the facilities and people managed by them reach around the world. The value of the assets they employ is immense; under the intense competition that is characteristic of the markets they serve; even small improvements in the management of those assets can spell the difference between profit and loss for the shareholders. Thus by producing successful managers of complex businesses, the business schools have great social responsibility to discharge.

THRUST AREAS IN MANAGEMENT EDUCATION

Compared with the scientific and technical discoveries that gave us wonderful things like modern computers and satellite communication, jobs such as cash management, asset valuation and marketing of goods and services seem sterile and unproductive, but the appearance is misleading. Material benefits flow from doing these things well and their implications for the allocation of resources are real and significant. Large firms typically are far more diversified and decentralized than they were 30 years ago and must employ highly sophisticated systems for gathering and disseminating information of every sort. It is no accident that the business disciplines that have prospered most are those that improve the gathering, analysis, and flow

of information, especially financial and marketing information. The MBAs in greatest demand are those with the best training in accounting and finance on the one hand and marketing on the other. Obviously, teaching and research in top business schools are concentrated in these two functional areas of management, and handsome salary premiums are paid to professors who teach them well.

Top management of the larger firms is forced to rely increasingly on incentives in place of direct control. The internal organization of such firms, if they are to function efficiently, must more and more resemble the organization of a market economy. For this reason, formal training in economics - especially in industrial organization - is an increasingly valuable part of the education managers receive in business management schools.

Of all business disciplines, marketing and finance have always held a place of high value in management education. The intellectual respectability of these two areas is such that they have merged with the mainstream of economics; a significant part of the literature in these areas now appears in leading economics journals. Their practical value is evident from their widespread application in the marketplace. Productive scholarship was made possible by vast quantities of data for testing theories, large scale computers, and modern statistical methods. Just as the organized financial markets generated the data that provided the raw material for financial research, electronic point-of-sale equipment and computerized personnel records are now generating the raw material for scientific study in the applied business fields of marketing and industrial relations.

Firms hire management graduates, just as they hire engineers, scientists, and lawyers, for access to new technical knowledge. Business has always recruited leaders from the ranks of its best educated and most ambitious employees. That is why such a large proportion of the people who rise to the top are engineers, lawyers, and, increasingly, MBAs As they rise, they make less and less use of detailed, technical knowledge and more and more use of general and fundamental knowledge. The present students, as they graduate and reach higher professional ladders, will remember a lot of what the teachers have taught them that is to be sophisticated consumers of the

information the most recent graduates produce for them; eventually they will be left with a mixture of what experience has taught them, a valuable residue of what teachers taught them, and the outstanding personal qualities that gained them admission to the business school in the first place.

However unpleasant it may seem to those who want us, teachers, to teach courses in entrepreneurship, leadership, and statesmanship, we are likely to become increasingly abstract and theoretical in our approach to business education as our success in finance and marketing is replicated in other disciplines. Our own institutional imperatives and the demands of the marketplace both tend in the same direction. All the best business schools are located in universities/deemed universities in which professors who excel in scholarship and scientific research command the greatest respect, gain the most rapid promotion, and earn the highest salaries. As for the MBA marketplace, the greatest catch a recruiter hopes to find is a graduate of a fine engineering school with an MBA in marketing and finance, ambitious enough to become chairman of the board, and patient enough to wait and work diligently for a few years, first, putting his technical knowledge to profitable use for the company. Best schools are encouraged by the market's enthusiastic acceptance of their students. These schools persist in their basic strategy: searching constantly for valuable new knowledge and teaching what their erudite professors discover, to the most promising young men and women whose ambition is to manage and lead the modern business in the promising but challenging times that lie ahead.

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