

Local Government Quarterly

January - March 2015

A Journal of the All India Institute of Local Self-Government

- * Urban Governance and its Implications on Service Delivery - A Special Focus on Urban Water Supply
- * Rapid Urbanisation in Nigeria as Factor Negating Rural and Grassroots Development in Nigeria
- * Disempowerment of Tribal Women: A Human Security Perspective
- * Revisiting Sustainable Community Development
- * The Indian Ocean Archipelagos: A Comparative Study of their Conservation Vs. Development Spectrum
- * Health Problems of Women Working under NREGA
- * Educational Development of Backward and Minority Class Children: Opportunities and Challenges
- * Climate Change Update

ABOUT THE INSTITUTE

All India Institute of Local Self-Government (AIILSG), established in 1926 has been actively working in the field of urban development management and is an active partner in promoting the cause of local government in India and overseas.

The Regional Centre for Urban and Environmental Studies (RCUES) of All India Institute of Local Self-Government (AIILSG), Mumbai is actively involved in building capabilities of municipal officials, staff and elected members from the States of Goa, Gujarat, Maharashtra, Rajasthan and the Union Territories of Diu, Daman, Dadra & Nagar Haveli by upgrading their knowledge and skills required for effective administration and implementation of various urban development programmes. The research and training activities of the RCUES of AIILSG are supported by Ministry of Urban Development, Government of India, New Delhi.

The Institute organises several tailor-made training / orientation programmes for various countries in South Asia, viz, Bangladesh, Nepal, Sri Lanka and other countries, viz, South Africa, Ethiopia, Indonesia, Malaysia, China, etc. The organisation of World Mayor's Conference at Jaipur, Rajasthan in 1998 was a unique event of remembrance in the field of local self government. The Institute participates in various national and international forums and is the oldest member of the International Union of Local Authorities (IULA), the Netherlands. Director General is one of the members of the Executive Committee of the IULA. The Institute is an active member of International Council of Local Environment Initiative (ICLEI) and the President of the Institute Dr. Jatin V. Modi is Vice President of IULA-ASPAC and Director-General Shri R S. Chavan is Executive Member of CITYNET. The Institute has close work – ties with UNCHS (Habitat), UNDP, UNICEF, WHO, DFID, CITYNET, CLGF, US-AEP, Ford Foundation, etc. and is the anchor institution for Urban Management Programme (UMP – UNCHS – Habitat) for South Asia.

The Institute has also set up a Fire Academy at Vadodara, Gujarat which imparts regular and specialised training in fire services management. Environment Protection and Research Centre (EPRC) of the Institute at Vadodara in collaboration with ICLEI Japan organises experience sharing visits in environmental management for government and municipal officials.

The Institute is working in close collaboration with Ministry of Urban Development, Government of India, several State Governments, Development Authorities, Research and Training Institutions, international and national agencies. The Institute has its well developed regional centres in Ahmedabad, Bangalore, Belgaum, Bhopal, Panji, Mumbai, New Delhi, Thiruvanthapuram and Vadodara.

The present President of the Institute is Dr. Jatin V. Modi. The Institute was nursed by the late Mr. C. D. Barfiwala who was also its first Director-General. Mr. R. S. Chavan, who is now at the helm of affairs of the Institute is the present Director-General.

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Editorial

Revisiting Sustainable Development vis-à-vis Lima Sustainable Innovation Forum

The fifth annual Sustainable Innovation Forum by Climate Action & UNEP was held in Lima on 9th December 2014. It was graced by about 500 leaders from key United Nations bodies, governments, international & regional companies and leading non-governmental organisations (NGO's). It also brought out very interesting perspectives on sustainable development and environment and related aspects such as climate change, but also appealed to pull the hitherto less addressed issues to the center of sustainable debate while revisiting the arena of 'Sustainability'. In sync with the spirit of this global churning, the current issue focusses on revising few fundamental tenets of 'sustainability' and concerned methods and approaches.

A crucial test of maturity of a sustainability elucidation is to what extent it addresses the most excluded: be it a theme or a community. In sync with this spirit, the current issue endeavours to highlight hitherto less explored two aspects of sustainability. One is related to the 'sustainability from ecological perspective' while the other refers to 'sustainability from sociological perspectives'. Not to be construed as professing solo significance of these issues while rendering others as insignificant, this is more of an attempt to impart deserving justice to criticality of these 2 themes which lacked attention hitherto.

The first one is of 'Archipelagos' which despite being very crucial from climate change dynamics has not found its rightful place in development dialogue in Asian, especially South Asian, context. Though, climate change debate has been firmly on agenda for considerable time, one of the most neglected aspects of it, though very important one, in the context of Indian Ocean is the status of the archipelagos. The term 'Archipelago' refers to an extensive group of islands which also implies a sea or stretch of water having many islands. Recent disasters have proved that archipelagos are among the most vulnerable and associated local governments have a challenging task on cards with intensity increasing exponentially. Also being a cluster of islands, they need a comprehensive and holistic consideration together. The Indian Ocean is host to a unique assembly of archipelagos; each within a distance of a few kilometres from each other, highly similar in their bio-geographic nature yet with seemingly dissimilar fates. A focus in this issue is on analysing the current status of the archipelagos of the Lakshadweep along with its neighbouring, sister-archipelagos of Maldives and Chagos. This comparison is set in the wider context of the nature of the conservation versus development policies faced by them. It, therefore, helps us appreciate where Lakshadweep lies today within the development spectrum as compared to its sister archipelagos. It illustrates the paradox of development faced by the local governments in climate sensitive island situations. Another curiosity it raises for governments, including local governments in analogous situations is the possibility of an ecologically sensitive situation being overlooked during international and national enquiries of conservation and development.

The second sustainability aspect referred in this issue is about nomadic tribes (or in the context of India- Denotified & Nomadic Tribes- DNTs). The DNTs are amongst the most marginalized communities today in India with an estimated population of about 110 mn. In the traditional societal hierarchy, they occupied lowermost positions and face severe social discrimination. The branding as 'Criminal tribes' during the British era in 1871, though de-notified immediately after independence, remains stamped on them firmly. Though, Eleventh and current Twelfth Five Year Plans have equitable, inclusive and sustainable development as key agenda yet DNTs have remained excluded from the fruits of mainstream development. Despite being among the most deprived and socially downtrodden communities, there have been hardly any developmental initiatives undertaken for them. The condition of women is more precarious as gender inequality is among the worst in the DNT communities.

Sustainable development vis-à-vis poverty alleviation and empowerment of DNTs is among the most challenging task of the future. The magnamity could be gauged by the fact that they constitute about 10 per cent of the population, and most of them not yet formally enumerated nor have decent access to the basic services. One aspect which hinders the designing & development of sustainability initiatives for and with DNTs is an acute lack of information of them as they are among the least researched communities among the most vulnerable. To address this knowledge deficit, All India Institute of Local Self-Government (AIILSG) formed a "Researchers' Colloquium on DNTs" dedicated to the cause. The core objective of this colloquium is motivating researchers, especially young researchers, to generate knowledge about the life of DNTs, the socio-economic dynamics of their existence with interplay of other stakeholders and factors, and envisioning sustainable development with them.

Starting with the current issue, this journal will in series publish papers by young researchers based on primary research with a hope that they motivate development professionals to initiate innovations towards sustainable social development.

Urban Governance and its Implications on Service Delivery - A Special Focus on Urban Water Supply

D. V. Gopalappa

In the recent years, the water supply and sanitation have become serious problems for the government institutions in many cities. Water supply and sanitation are very much crucial and the public can survive without food for a day or two, but without water no one can survive. Therefore, water supply and sanitation are the major challenges in most of the cities. There is an increasing demand for water and sanitation facilities in urban areas in both domestic and non-domestic sectors that can be attributed to growing population in urban centers, change in the life-quality and quantity and rapid economic development. But this problem of unmet demand is due to inadequate, unreliable, lack of alternative arrangement, escalating cost, inaccessibility of sources particularly by poor, women and children. In addition, inequality in service delivery in million plus cities like Bangalore is embedded in a 70years history of formal urban institutional fragmentation.

Liberalization regime has been demanding better facilities in the urban areas as we have been inviting Foreign Direct Investment. Providing better facilities in the urban areas has been one of the major criteria to attract the FDI. Therefore, the public agencies of the developing world have been committed to tackling urban inequality with the promise of redistribution and democratization of service delivery. At the same time, the transitional government has emphasized the need for efficiency in service delivery in order to address a growing fiscal deficit and rapidly expanding service delivery demands. Since, 1990s local authorities have restructured both institutionally and administratively in order to reduce inflated bureaucracies and thereby service delivery inefficiencies. Local governments have turned to public-private partnership; outsourcing; and private sector interventions to address these inefficiencies, rather than tackling the structural management weaknesses that have reproduced the city's inequality in service delivery.

As already mentioned, the Urban Water Supply (UWS) is one of the essential urban infrastructure services. Unrestricted expansion of metropolitan areas has kept the water supply system out of reach for a larger section of society. Even the available water is faced with complaints such as low supply, high leakages, low pressure and poor quality. The vast majority of the people in slums has no access and is unlikely to afford water (so much literature is available in this regard). In many cities, more than one third of the production is lost; over-staffing is pervasive; revenues do not cover the operating costs; piped water flow and pressure are inconsistent and water is unsafe to drink. Water provision and use involve externalities in terms of public health and environmental impact. Faced with poor service, high-unmet demand, often deteriorating water resources, and inability to finance the needed expansion, cities in many countries have embarked on water and sanitation governance reforms to provide safe drinking water and sanitation and thereby promote public health and sustainability. This can be further justified based on the observation by any common man in the cities specially Bangalore city, where, so many water pipes are broken, sewages are heavily leaking through which entire atmosphere is polluted. Against this background an effort is made to examine the implications of urban governance reforms on service delivery with special focus on water and sanitation in the city of Bangalore.

Bangalore Water Supply and Sewerage Board currently supplies approximately 900 million liters (238 million gallons) of water to the city per day, despite a municipal demand of 1.3 billion liters. Water for India's third largest city (with a population of 10 million) comes from a number of sources, with 80 per cent of it coming from the Cauvery River. Water is also drawn from the Arkavathy River, but the supply does not meet the demand (http Wiki BWSSB). The per capita water supply that BWSSB is able to provide averages 100 to 125 liters per capita per day. However, the actual availability of water to the poor areas of the city is limited by infrastructure, and so for these areas, the *per capita* supply can be as low as 40 to 45 liters per day. The per capita national standard for a city the size of Bangalore is 150 to 200 liters per day. From the month of March 2012, water supply in Whitefield has been stopped, with even rich neighborhoods left to fend for themselves (Wiki BWSSB).

As it is witnessed Bangalore continues to be one of the fastest growing cities in India, witnessing the decadal growth rate of 47.18 per cent coupled with matching high-technology business activities in the last two decades. According to 2011 census, the city stretched 800 sq kms and population of Bangalore has reached 9.625 millions, of which Bangalore Metropolitan Area (BMA) has reached 8.425 million and likely to reach 15 million by 2021 at the decadal growth rate of 47.18 per cent. The density of the population per Sq. km. is 2985 as against the state average of 276. In 1986, Bangalore was split into two districts, one urban and another rural. The urban district was in turn divided into three taluk areas: Bangalore North, Bangalore South, and Anekal, with Bangalore East carved out of the South in 2001.

Bangalore city has been the fifth largest urban agglomeration in the country and amongst the fastest growing cities, is the tech outsourcing capital of the world. In the past two decades, more than 800 multinational corporations had established office parks, call centers, and luxury hotels. It is now recognized as a 'Global' city, a preferred choice of many global corporations to position their businesses. The agglomeration of the city, neighbouring municipal councils and outgrowths was notified in December 2006 as "Greater Bangalore" spreading 709 sq.kms by January 2007 which has gone up to 800 sq. kms. in 2011.

Interestingly few years back Obama, the present president of USA has said 'Not to Bangalore it is to Buffalo' for the encouragement in the software industry. That means even the president of the USA has been afraid of Bangalore as it is growing in such a way in the tertiary sector specially the software. There is a possibility that the city's borders will be expanded to Chickaballapur in the north, Kolar in the east, Magadi and Tumkur in the west, Ramanagara in the south. If this happens, the Bangalore city's radious will be around 65 to 70 kms. If this is the case the city will be the second largest next to Delhi. Otherwise at present it is the third largest city in the country next to Culcutta and Delhi.

The city is fast emerging as a world technological centre in recognition of which the Government of India has initiated the construction of a Modern International Airport and a Metro Mass Transport

System and the elements necessary for making Bangalore a "Knowledge City", "Capital of Innovation" and often referred to as 'Mega City'. In addition, Bangalore has garment sector that generates an annual revenue of Rs.4,000 crores, a fifth of IT/ITES generates, employs around three lakh workers, a number, which is greater than the IT/ITES sectors. Out of this most of them live in 700 slums, grossly underserved (Roychowdhury 2005 and 2008). The city governance is stressed out to meet up with these unprecedented demands and challenges of the global companies and its citizens demanding international class 'Citizen Services'. In the absence of defined boundaries, the city has been growing in all directions and along major roads.

A few problems encountered in the city include: high population densities, heavy traffic movement, and consequent delivery of poor water supply. Growing traffic congestion with pollution, discharge of untreated waste water into natural drains and lack of comprehensive planning for city services hampering delivery of the services. Besides, economic factors that influence the city's urbanization, access to urban basic services are the key determinants of quality life. The urban poor, in particular, are in a disadvantaged position when it comes to availing and accessing the basic services, which is under great strain. The researcher when he visited the area had observed that during summer season the people in the slums and village segments in the city not at all getting the water — as a result there is a foul smell everywhere and the corporation authorities not cleared the garbage and such other problems are unmet.

Many studies have conducted focusing on different aspects of BWSSB. The survey conducted by Paul et al (2004) shows that the relative performance of public services, which include drinking water, has performed consistently well. But various studies (Sastry 2004a and 2004b; Thippeswamy 2003) have pointed out a number of problems associated with the performance of BWSSB, like high growth rate of population, high cost of production, differential tariff, high levels of unaccounted water, unauthorized connections, inadequate institutional mechanism, poor financial position, downsizing of the staff etc. Besides, the issues of equity that includes access to reliable water by the poor and those who are living in the slums are very discouraging. The attempt of BWSSB to privatize some of its activities is not encouraging. Meanwhile, Bangalore Agenda Task Force captured the recent reform agenda of BWSSB to enhance its efficiency and promote customer friendly approach. Many governance factors are involved to access the achievements and failures of BWSSB. Hence, it is pertinent to examine certain governance issues such as efficiency, equity and sustainability of provisioning of services.

Though, the data was not collected specifically for the present paper but it is based on the primary data only. The primary sources consists of independent observation of selected public facility and also individual case studies were undertaken to highlight the condition of the service delivery and to examine the unique characteristics of a few sample respondents in the city of Bangalore. The paper has been divided into three sections. The Section-I deals with the Service Delivery related issues, Section-II deals with the discussion relating to the crucial issues and Section-III deals with conclusions and policy suggestions.

Section-I: Service Delivery

Ouite a few Chief Ministers starting from S.M. Krishna and his successors had the dream of making the Bangaluru city as Singapoor. They had dreamt to create a world-class city, a vision defined by much more than economic activity. When a city is perceived solely as an arena of economic exchange, and managed according to the neo-liberal economic principles, the study has shown that basic amenities like water and sanitation are evolved from being a public good into a commodity based on 'user-charges'. In the light of these transitions, this paper has analysed the different settings in terms of structures, organizational changes and actors behind the transformation from access to water and sanitation as a basic right to access, based on the ability to pay. This paper tries to capture key mechanisms, strategies and processes that have advanced restructuring of local government, essentially under the pretext of urban sector reforms, and effective intervention of international donor agencies that impact on the delivery of

services in the urban areas like Bangalore city.

Group of Various Institutions and Service Delivery

Various government policies and programmes have been the focus to get the opinion of the respondents, which includes major approaches of service delivery through policies, strategies and allocations (grants and loans) to address the problem of urban service delivery, in general and water and sanitation, in particular, in mega cities. The issue in question coincided with the implementation of structural adjustment policy in India and urban management strategy focusing on rapid economic growth by emphasizing infrastructure projects through Five Year Plans. In addressing service delivery, more focus has been on reliability, affordability, accountability of institutions, transparency, cost-recovery, subsidies, outsourcing, and debt management that are intrinsic to commercialization process and involvement of private sector which has considerable impact on distributive and procedural equity. Some of the constraints observed included: (i) interface of different institutional arrangements posed serious threat to inefficiency in the provisioning of services. So, it is the concern of longchain of accountability to influence policymakers; and (ii) the greatest challenge in rapidly growing cities has been the shortfall of finances to invest in basic urban services. In addition to this the available funds have not been utilized because the administration to some extent failed to focus the meager resources for the most essential services to the urban poor.

This clearly revealed that the Urban Local Governments (ULGs) have been greatly influenced by international donor agencies to reorient itself for promoting institutional reforms in support of institutional financing through market bonds and private sector participation in infrastructure development. A number of external donor agencies are sought after to invest in urban sector development such as WB, UK-DFID, and ADB. An adjustment in the public policies to accommodate the banks view of economic growth had a considerable impact on urban governance in the country. A major move was taken for the 73rd and 74th Constitutional Amendment Act, 1992 to strengthen the PRIs and ULBs respectively. These arrangements resulted in policy shift in municipal governance in favour of: (i) leveraging market finance through PPP models for urban infrastructure; and (ii) initiating urban sector reforms attached to donor and international funding conditionalities favouring effectively coordination with private, corporate and community based organizations in service delivery.

Restructured municipal governance mostly focused on promoting privatization and commercialization of service delivery. Commercialization has mainly focused on transition of institutional and financial management, facilitating the shift from public financing service delivery towards market finance or private (such as user charges, municipal bonds, pooled finance projects and other forms of municipal debts, essentially through a series of financial reforms) for provisioning of services. The entire exercise seemed to focus mainly on creating 'world-class' cities with international standards of customer-friendly infrastructure, performance and competitiveness in service delivery. The policy shift at municipal level hinged on that urban infrastructure development a key driver of economic growth and required private sector participation in terms of funding, thereby efficiency in service delivery. One such project was designed to provide piped water supply to the eight ULBs around the city of Bangalore. In addition, PPP became one of the most visible institutional changes attracting private capital and generated commercial revenues. An enabling environment was created by introducing quick required amendments and local level policies and legislations.

The GOI had serious balance of payment difficulties, when we approached the International Financial Agencies (IFAs) for funding. To assist the Indian government IFAs had insisted on privatization of our economy. Therefore, the liberalization programme of the economy, and complimentary intervention of private sector duly advocated by donor agencies, a comprehensive flagship programme of JNNURM was symbol of embedded urban reforms within the apparatus of national, state and local governments that promotes to leverage funds from market sources. The service delivery literature has suggested that private sector principles have internalized and practiced to recover cost and to manage service more efficiently. Firstly, the transformation of the local governance entailed to remove cross-subsidies leading to potential increase in the tariff and price of essential services. Secondly, parastatal's were part of the process of setting up separate units to ensure management autonomy and authority in nourishing corporate culture in service delivery. Thirdly, fragmented decisionmaking processes undermined the ability of local government to prepare holistic service delivery policies. Fourth, urban sector reforms were unconditionally attached to the market finance and IFI loans for infrastructure projects, heavily PSP and commercial models of provisioning services. This facilitated various avenues of fund raising, for instance the JNNRUM projects leveraged funds from private sector. Fifthly, an entrepreneurial or commercial approach to competition, and innovation to develop effective service or specialized customer relations were developed by public utilities in the city of Bangalore.

Many developments from the past 24 years have been influencing the development of the problems in the urban areas. Such problems or projects demonstrated the mission of corporateinfo-elites involved in changing the image of the city overpowering elected municipal bodies by manipulating the course of public policy, urban development and planning process. Further, the technocratic form of planning through master plans institutionalized in inequitable service delivery and anti-poor measures in the city. Sixthly, multiple levels of players and jurisdictions complicated provisioning of services both at planning and implementation stage. Diverse planning projects with varied planning priorities were conceptualized and implemented independently. In addition, various isolated infrastructure projects were supported and operated by IFAs making it impossible to assess outcomes. Rarely there was any coordinated spatial development. There was little or no connection between the land use dedicated in the master plans and the actual use of land. The land use in the cities was dedicated in the master plan to address supply-side without actually providing guidance to mobilization of land. The urban land politics, particularly in the city like Bangalore was complicated by real estate barons and info-tech agglomerates without reference to equitable provisioning of services. This is true because even today many of the site owners do not have the original A Katha. Most of them have registered their cites in B Katha only. Even the financial institutions have been lending to the BKatha sites also.

As the IFAs insisted on privatization, which has influenced the unprecedented influence of corporate agglomerates that coordinated production for global markets which simultaneously 'maneuver' urban and regional planning outcomes towards supporting privatization of service delivery. The international financial donors played a significant role like WB to formulate the city development plan, which is blue print that outlined a vision for the city development effectively supported by the capital investment plans. Whatever the development the critics of the Bangalore city always tell that the planning in Bangalore city is always 10 years behind. Therefore, the inconsistency interms of providing water facilities, services and other urban infrastructural needs has been found.

In the city of Bangalore there are about 800 slums, which are very much threat in terms of development. There is serious effort to transform the city of Bangalore into 'slum-free' city in the next four years. The nature of this new alignment of the state-private sectorbusiness-techno-elites commodifies the state's relationship with service users by treating them like customers before citizens. Such realignment in the city of Bangalore is a clear testimony of capture of corporate-info-elite rapidly transforming the terrain of urban governance into urban entrepreneurialism. The city of Bangalore fits the bill of neoliberal world order and global-local nexus characterized by hegemonic IFAs like World Bank, ADB, and DFID and corporate elites, spatial rescaling, capture of complex group of institutional and political practices that impact the land use, service delivery and governance. These are very very important issues to be dealt with.

Section:II — Crucial Issues Relating to Service Delivery

The cities like Bangalore need to get the improved service delivery. Otherwise

we can see only slums and other unwanted pictures in the city. The question of access to basic amenities like water and sanitation is the heart of urban development. Urban planning must be more strategic, flexible and adapted to the existing socio-spatial context and above all more attentive and inclusive to the needs and demands of the citizens particularly the urban poor. Certainly, the spatial implications and patterns of location of these IT/Hi-Tech forms has led to growing disparities in income and lifestyle, spatial polarization, and crisis in public service delivery of Bangalore city. The combined dynamics of demographic growth, urbanization, globalization and liberalization through the spread of advanced technologies, and deregulation all combine to create the impression that in developing countries urban areas will continue to grow in a dual discriminatory fashion, territorial fragmentation, with increasingly limited areas with better access to services. This process will be marked by increasingly informal relationships, particularly in the economic sphere, giving rise to individual and social insecurity. This has been the common scenario in Bangalore city, where the boundaries are very large and the service delivery is very much poor.

In Bangalore, today the immediate step has to be taken to clear the slums. The Slum Development Board, has been trying its level best to minimize the slums. However, they themselves are creating improved slums in the city. Further, commercialization of land in the city of Bangalore with increase of property tax (property tax reforms) has considerable impact on ability to pay by urban poor forcing them to evict or demolish favouring private or business elites, thus tampering service delivery. There is a move to provide better standards of services for those who pay for it or tax payers or those who can afford for it as against those who cannot pay for services. Overcoming disparities and social inequity in service delivery calls for the mobilization and involvement of all citizens, particularly the participation of residents and their representatives. Urban planning instruments must consider the nature of delivery of the user needs and the nature of city growth and their different patterns of service consumption. Unfortunately the public involvement is very low in terms of cleaning the public places. It is unfortunate that, their own premises are not being cleaned by themselves.

Importance has to be given for Effective Service Delivery

This paper has explored the implications of public-private partnership in service delivery in terms of efficiency. Efficiency in service delivery with respect to water and sanitation has several shortcomings with respect to institutional and management approach of public utilities. The problem with the BWSSB is focusing on 'efficiency' rather than effectiveness which is directly linked to the field reforms in broadening the notion of governance beyond engineering and technical approach to the supply-side services. The historical exclusion of slum dwellers from the decision-making process related to service delivery supports the

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problem of failure of slums to connect to paid/legalized connections in the core city areas. The findings of the paper establish the fact that efficiency efforts have been linked to the more complex issues of 'inbuilt-reforms' towards responsiveness, customer-satisfaction in terms of introducing service-centres, 24/7 billingbooths, customer complaint stations and water-adalats directly linking with managerial and technical structuring of resolving grievances. These reforms do not build on existing relationship between poor residents, urban elected representatives, local leaders and community based organizations through which they access services. Therefore, it is the self realization of the public on their own.

Second, 'cost-recovery' and outsourcing methods have extensively promoted by public utilities in the cities of India, which in turn helps to improve the quality of the service delivery. The neoliberal approach of 'cost-recovery' had in fact badly penalized the urban poor to access services in terms of rising and unfavourable tariff, which results and in (i) those slum households without 'legal/ paid' connections depending on either public-taps or illegal connections; and (ii) other reasons attributed to nonpayment of bills and arrears. Commercial viability of services gains favour through various measures such as 'pay and use', tariff hike, unbundling of services and elimination of subsidies for service delivery. The main reasons could be the awareness among the staff about the tariff structure and its implementation in collection process.

Third, there exists a communication gap between the local government and the agency, resulted in the weakening both the institutions. Three reasons that could be attributed first: local authorities in the city of Bangalore are deeply rooted in promoting 'efficiency' of service delivery to cater the business-class and technocrat citizens. Second, the efficiency approach in service delivery is too technical to be understood and historically the slum households have been denied a relationship with state as either citizen or customer. And the third, the failed relationship has encouraged patron forms of service delivery. The political representative stands as a critical intermediary to arrange services in their constituencies. Even the middlemen entertain the tax payers saying that they can pay the bill, which is lower than what is fixed. This clearly reveals the effective functioning of the agencies.

2a. Service Delivery on Equity Basis

It is very clear that there are variations in the availability and average number of households per public tap. In fact, it was found that even the intervention of NGOs had not helped much to the poor to access services. The scarcity of water supply and sanitation in the city drives poor from slums resort to agitations and involvement of political leaders. Under the most favourable conditions the slum dwellers depended on water taps; tubewells; and during dry periods depended on tankers. Water from the public tap was not regular, the timings were inconvenient none of the slums get water supply every day. Thus, the present study has investigated into the aspects of accessibility and affordability of water supply and sanitation facilities in the slums. The BWSSB vision for equity and redistribution was carried out with a rationale of 'cost-recovery' through: (i) phasing out of public taps and (ii) promoting subsidized paid metered connections with little attention to integrate slum dwellers into the policy procedures that ensure how services were delivered. Some of the fundamental aspects associated with equitable distribution were sidestepped in an effort to increase the consumer base. For instance, 'package programme' with respect to subsidized connections and relaxation of land documents was not successful in extending legal connections replicated in all slums in the city. Another adverse factor is the Social Development Unit while was less effective in terms of building a coherent and strong organizational or institutional structure. The Board in the slums has not established any concrete guidelines for the supply of water by the NGOs and community organizations.

The three agencies like the government, NGOs and international funding agencies had completely failed to replicate in determining the priorities of all slums. With no interface or education on how to maintain services, slum residents were absolutely unclear of their responsibilities as service users. The consumer interface measures indirectly mobilized citizens as passive recipients of service delivery would eventually transform them as 'paying customers'. Both, the 'cost-recovery' aims and prevention of wastage of water projects, however, undermined public participation of service users. The GBWASP project by BWSB clearly demonstrated that poor in the city had to pay the capital cost to access piped water supply and sewerage facilities (Ranganathan 2009) irrespective of legal status of slums dwellers. The emphasis on managerial efficiency tended to adversely affect the lives of the urban poor because the emphasis was paid on metered connections which found inefficient to extend water services to the urban poor in slums. Not only in Bangalore city even in the other cities the meters, which are supplied are not working efficiently.

2b. Price Policy and its Influence on Service Delivery

Service delivery has been depending on the price and price policy. One of the main structural constraints that impact equity of service delivery within the board framework of water pricing are: (i) tariff; and (ii) subsidies in service delivery. The Board follows incremental block tariff method for metered domestic connections calculation based on consumption of the household. The neo-liberal orientation of service delivery emphasis on individual relationship where 'customer service' is delivered to those who pay as clients, while those cannot afford to pay does not receive the service. For those, who are historically excluded from service delivery, let alone their capacity as citizens, the relationship between the state and citizen

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is replaced with customer entitlement. First, this study shows that BWSSB's approach to distributive equity, through adherence to cost-recovery principle, bearing to commodification of service delivery. Thus, large scale subsidization of water on grounds of lack of affordability by the urban poor has not been achieved in service delivery. Secondly, elimination of subsidies for urban poor clearly points the Board's serious attempt towards expanding consumer base. The existing tariff rates have been very high, which can be borne by the rich and the high medium class but not the middle and low categories. Evidence in this paper clearly points out to the fact that subsidies on paid meter connections are poorly targeted, as not more than 30 per cent of the beneficiaries are urban poor in the city. Moreover, a large proportion of urban poor households do not access private or paid meter connections and are, therefore, unable to avail the benefit of water subsidy.

Section-III: Conclusions and Policy Suggestions

The service delivery in the urban areas has been gaining momentum as the public awareness has been more and moreover, the services are paid services. Therefore, the public have every right to demand the required services like water and power supply, sanitation and other services. Time and again it is proved that the government's inefficiency in this direction. Hence, there is a strong suggestion that the government needs to involve the NGOs and other social service organizations in this direction. In this direction following few suggestion have been given to improve the service delivery in the supply of water.

The Revenue receipts from water supply are unable to meet the expenditure, there is a need to investigate accurately explore the reasons for losses. The question of access to provisions is the heart of the urban development. The delivery of water and sanitation must be more strategic, flexible and adapt to the existing socio-spatial context-above all more attention must be to the needs and demands of the urban poor in slums. An alternative approach is needed to rebuild urban legal regulatory framework to address the population needs and capable of responding to sector-wise demands of water and sanitation. Today, the boundaries of metropolitan government of metro plus cities like Bangalore is too large in spatial area and population to efficiently govern. This requires considering alternative ways to promote horizontal and vertical coordination among and between governments and to enhance mechanism for better and equitable provisioning of services. Given the differential characteristics of 'slums', it is better to contextualize service delivery around the specific characteristics of land tenure regimes. Service delivery in these areas must be considered on par with other investments infrastructure for development projects, rather than viewed as social obligation. Institutional and political dimensions and participatory process must be considered. With these it is expected that there will be an improvement in the service delivery for the urban poor.

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Rapid Urbanisation in Nigeria as Factor Negating Rural and Grassroots Development in Nigeria

Samson E. Obamwonyi

Towns and cities in Nigeria are the natural abode for the rich and affluent, for the jobless, for the poor, for the unemployed, and for the unskilled (Makinwa and Ozo, 1987). On the other side, the more developed a country, measured by per capita income, the greater the share of population living in urban areas. However, while individual countries become more urbanized as they developed, present day poorest and developing countries like Nigeria, are far more urbanized than the present day developed countries when they were at the time they were at a comparable level of development, as measured by per capita income.

In the present world, the less developed nations are urbanizing at the faster rate than expected; and this is causing some developmental ripples in some countries like Nigeria because the rural areas are suffering the consequences of this phenomenon. For the past four decades, Nigeria has witnessed rapid and unprecedented in urbanization which is occasioned by the influx of rural dwellers into the towns and cities, most especially, the state capitals including the federal capital territory, Abuja. This does not portend positive things for the entire country. Due to this influx of rural dwellers to the urban areas, the urban areas have become congested and over population is becoming a problem by the day. The overcrowded urban areas have become associated with the negativities of urbanization such as insecurity and other social vices.

Besides these negativities, the rural areas are fast becoming deserted by the day. This leaves the rural areas less peopled and less attractive to people, both the young and those in their middle ages. The consequences of this development is the less attention being paid to the people at the grassroots and rural communities by the three tiers of government federal, state, and local. If attention is paid to the rural areas, the zeal may not be there to develop it because the people for whom the rural areas are developed are not there to utilize whatever amenities that may be built in the communities. As a result, the cost benefit factor would be defeated.

On the other hand, the rural areas which are being denied development in almost all its ramifications, that is, in terms of infrastructure, human capital, political and economic, does not portend goodness for the country. The rapid urbanization of the country as a consequence of ruralurban emigration can spell doom for the country as more able body population in terms of young men and women who ought to provide succor to the country in terms of agricultural productivity migrate to the urban centres can spell danger for the country now and in the future. At present, the rapid urbanization in the country has imported the poverty in the rural areas to the urban centres. As the former president of World Bank, James Wilfensohn (no date), said "poverty is increasingly urbanized. Within twenty-five years, the number of urban poor will increase from an estimated 400 million to one billion". Nigeria is certainly in this category.

In the urban areas of Nigeria today, poverty is common place. It can be seen in the faces of people on the streets of state capitals and local government headquarters. In the cities and towns, able body men are idling away and becoming social misfits in the society. Some are doing menial jobs to keep body and soul together while those who are not in this category are into crime or doing what is close to criminality, all to eke out a living for themselves. Whereas in the rural areas there are lots to be done to survive and contribute to the nation's gross domestic product economically and socially.

Characteristics of rural and urban areas in Nigeria

The characteristics of urban and rural areas in Nigeria are as shown below.

Sr. No.	Rural Areas	Urban Areas
1.	Wealth: Poorer and sometimes extreme poverty	Richer in wealth or show greater affluence
2.	Industry: Agriculture based on land	Factories and various kinds of industries
3.	Water supply: Stream water where it exists; otherwise virtually non	More abundant good sources of water supply for homes and streets (although some of the taps in existing ones stinks due to pollution)
4.	Employment opportunity: Farming, mason, tapping of palm wine, petty trading, tailoring, <i>etc</i> .	Abundant jobs in industries, ministries, firms, private businesses, <i>etc</i> .

5.	Sanitation and sewage system: Inadequate sanitation and sewage system	Better sanitation and sewage system
6.	Electricity: virtually non existence	Elaborate electrification system.
7.	Communication and Transportation: Inadequate system of transportation mainly bicycles, motorcycles, rejected buses and foot. Non- telephone, where they exist, difficult to get dialling tones.	Adequate system of transportation ranging from good buses, planes, trains (in some areas with rail lines, taxis bicycle motorcycle and many posh private cars.
8.	Educational institutions: poor schools with inadequate facilities and unqualified teachers mainly primary and secondary schools. There are no secondary schools in some areas.	Richer, better-equipped schools. Have many primary and secondary and schools and even universities and other higher institutions of learning.
9.	 Social amenities: (i) access roads: poor and dilapidated roads (ii) recreational facilities: virtually non-existent. No centres like stadium, standard hotels, clubs and cinema. Where these exist, they will be few in number and ill-equipped. 	 (i) First class tarred and clean roads buses sometimes (and in fact most times now) not maintained. (ii) Abundant entertainment centres of first class standard.

Source: Anikeze, N.H. (2011): Fundamental Issues in Nigerian Politics, Government & Development Administration: A Multidimensional Approach, p. 411-412.

Causes of Urbanisation in Nigeria

(i) Neglect of Local Governments in Nigeria

Local governments do not exist for the sake of it hence many countries, both developed and developing, embrace its creation and existence as one of the important tiers of government. Local government enhances governance. But, in Nigeria local governments, which ought to be the bastion of rural development are neglected hence the frequent migration of citizens in the rural areas to the urban and metropolitan areas thereby further congesting the already choked cities and towns. The money due to local governments is not given to them to develop the hinterland and where they are released the amount is not enough to execute projects that can impact meaningfully on the lives of the people. Where the money is given to local governments the political big wigs in the councils will corruptly enrich themselves with it thereby denying the rural populace of the much-needed rural development.

(ii) Rural-urban Migration

People in the rural areas are increasingly migrating to the urban centres. Most of the people believe that the cities and towns are where opportunities lie for them in terms of employment and social amenities which are not available in the rural areas. This trend started in the 1970s when the oil boom era took off in the economic history of Nigeria.

(iii) Lack of Social Amenities

In the rural areas of Nigeria, the essential and basic social amenities are still lacking. This is in spite of resources made available to the local and state governments by the federal government coupled with their internally generated resources. Essential social amenities like pipe born water, energy, good roads are still lacking in rural areas of Nigeria. The lack of these amenities encourages rural dwellers to migrate to urban centres.

(iv) Employment Opportunities

Rural dwellers in Nigeria migrate to the city centres because of employment opportunities. They feel that they can easily get job opportunities that will enable them live a worthy life. Employment facilities used to be abound in urban areas. But employment is not readily available in urban areas in present day Nigeria as it used to be in the 1970s to mid 1980s where even secondary leavers, primary school leavers and school drop-outs rush to urban areas to get jobs. This is now history. Now-a-days, such expectations are very unrealistic.

Other reasons responsible for rapid urbanisation in Nigeria include neglect of rural areas, environmental degradation, collapse of primary commodity prices, corruption in the school system, intra- and inter-communal conflicts. Aina (1995) listed unequal development, population pressure, low agricultural productivity and the attraction of a better life in urban, areas as the major factors pushing migration to the city centres.

Implications of Rapid Urbanisation in Nigeria

(i) Lack of Promotion of Grassroots Democracy

Local government helps in the promotion of grassroots democracy. The local people are provided with the enabling environment to participate in democratic activities with creation of local government. The frequent migration of the rural and local people to the towns and cities negates the promotion and growth of democracy in the rural areas. The people cannot have say and participate in their local affairs because they moved away from the rural communities to the urban areas.

(ii) Surplus Labour

Migration from the rural to the urban areas is increasingly a contributory factor to the ubiquitous phenomenon of urban surplus labour in the country. This factor, has become a force which continues to exacerbate the already serious urban unemployment problems in Nigeria. The swell in urban labour simultaneously depletes the rural countryside of valuable human capital. This is a disservice to rural areas. This is not what rejoicing about in an economy that is not developing. According to Todaro and Smith (2009) "we must recognize that migration in excess of job opportunities is both a symptom of and a contributor to underdevelopment".

(iii) Denial of Leadership Training The rural areas, especially where local self-government is granted, are good places to train future leaders, especially for political leadership.

> Many people and politicians in the country have used the rural areas to train and learn the rudiments of leadership in the past. But the frequent rural-urban migration in the country is denying up-coming and future leaders of the same opportunity. Many politicians who occupy top political positions in Nigeria today and other countries started from the local level. Urbanisation and emigration from rural areas does not give opportunity for leadership training. The local people cannot develop the grassroots politically, socially and economically.

(iv) Unwillingness of spirited persons to develop rural areas

The rural areas provide an outlet for competent and public spirited persons

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of the locality to render social services to the community, but migration to urban areas prevents this selfless service. This prevents the rapid development of rural areas in the country.

(v) Participation in public affairs

Local government encourages and affords the people at the grassroots and rural communities the opportunity to participate in public affairs. The affairs of modern states are too complex for local governments at all levels to understand for common and ordinary citizen hence they cannot easily part-take in national or state/ regional affairs. Communities are the closest to the ordinary citizen and it affects his everyday life. The affairs of the village or town are the affairs of the common citizen which he/she is very interested in. For example, sanitation and education for the village or town's children, maintenance of roads, management of markets and so forth. But rapid urbanization which is occasioned by rural-urban migration can draw back the development in the rural areas as people who would have participated migrated to urban areas.

(vi) Competence in Community/Local Problems

The people in local and grassroots communities are more competent in solving local problems. Considering the complexity and large size of modern states coupled with the expanded scope of the functions; it is hard for the central government to attend to local problems of the people at the grassroots. The central government is more competent in dealing with national matters which are common to all the country's citizens like defence, foreign affairs, currency, communications and so forth. The people, that is, rural dwellers and local indigenes, who supposed to demonstrate commitment to local problems are frustrated out of their natural environment.

(vii) Population explosion

The population of the urban areas in Nigeria has increased at an alarming rate. The influx of people to urban centres is due to the focal points for change and progress. This has contributed to environmental hazards in urban areas.

(viii) Urban Poverty

The influx of people from rural areas to urban centres has increased urban poverty in Nigeria. Many people, with the false hope that they can gain employment in urban areas become poorer than they were in rural areas. Consequently some become beggars and dependent on their friends and relatives. Some of the urban dwellers cannot pay their children schools fees. Many find it hard to eke a living for themselves. Many also find it hard in to pay their house rents at the end of every month. Many have become liabilities to their friends, relatives, and neighbours. At the end they become involved in social vices.

(ix) Scarcity of Land

Due to the heavy population in the urban areas of Nigeria, coupled with the resultant increment in renting or hiring accommodation due to its shortage, land, which is a fixed asset, and on which houses are built for accommodation, has become very scarce and where it is available it becomes very expensive for the poor, and low income groups to buy. As a result the poor and many middle class have found it hard to build their shelters. Instead, these classes of people have continued to live in rented but; expensive apartments. For some, they prefer to rent apartments in semi-urban areas of the cities to avoid high cost of shelter. Surprisingly, many of these people have houses in the rural areas but come to the cities to rent shelter.

Implications of Urbanisation for Rural and Grassroots Development

Urbanisation has its negative aspects in a country, especially the one that is developing as Nigeria. The country cannot benefit meaningfully from its rapid urbanisation for the following reasons:

(i) Neglect of Public Schools

Due to the rapid urbanization in Nigeria, schools in the hinterland have been neglected and abandoned by government and the people in rural areas. Most of the schools in the rural areas, apart from those in the local government headquarters, have been overtaken by weeds and tall grasses. Consequently, many of the buildings of both primary and secondary schools have collapsed as their walls have given way. In one of the local governments in Edo State, the Chairman of the Council was false to withdraw teachers in many of the primary schools and subsequently closed them down. This was a result of very low population of pupils in the schools. Some classes have a maximum of five pupils. The cost of retaining the teachers in the schools are wasted. The negative aspect of this type of scenario was the denial of the children whose parents are based and resident in the rural areas of the opportunity to access basic education. Due to non- profitability of schools in rural areas, private individuals do not see the need to establish private schools in rural areas as it is not viable.

(ii) Neglect and absence of health facilities

As the saying goes in Nigeria, health is wealth. Due to the influx of people to the urban areas health facilities like

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health centres, are not made available in rural areas: where health facilities area available the health workers select the number of days they go to work to attend to the sick and expectant mothers. As a result of lack of health facilities in rural areas, many people have lost their lives. Coupled with bad roads in the rural areas before the sick are rushed to urban centres for medical attention they die on their way. On the other hand, health facilities that were provided to render skeletal services to the people, particularly the poor, has been neglected by the subregional and local governments. The areas where these facilities were not available have been completely denied of health facilities. This is to the disadvantage of the rural dwellers who may die of simple ailments which could have been cured by medical experts. This is capable of further preventing able body men and women to remain in rural areas.

(iii) Lack of Decent Living

Because the rural areas have been neglected due to rapid urbanisation and non availability of social amenities and other infrastructural facilities like water, electricity, access roads, and so forth, the rural dwellers are left to fend for themselves. The implication of this is denial of good life. The people are perpetually left in poverty. The people will remain underdeveloped. This is capable of denying the country of the contributions of these people to the wellbeing of the entire society and country.

(iv) Denial of Human Development

As a result of denial of rural and grassroots people of the muchneeded social services like education and health care, there will not be opportunity for them to develop. Human capital development is an important aspect of a nation. Human capital development starts from primary and secondary school levels couple with good health.

Why Grassroots should be Developed

The government at the grassroots, that is, local government or local selfgovernment, is closest to the people at the local level, hence the need to energise the local government to focus on the development of rural communities due to the following factors, according to Obodoechi (2006):

1. Poverty reduction

This is the main reason why local governments exist. The elimination and reduction of poverty is the main concern of local government. In Nigeria, over 70 per cent of the people live in rural communities, and their living standard is very poor compared to their counterparts in urban areas. They have very low

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education, bad roads, inadequate savings which leads to lack of investment opportunities, inequality, lack of access to health facilities, and so forth.

2. Unemployment

There is lack of employment opportunities in rural areas. Where there is employment opportunities, the people are underemployed. This is partly responsible for rural-urban migration whereby those in rural areas migrate to urban areas to seek greener pastures and this indirectly lead to over population and high rate of crime in urban areas.

3. Reduction and elimination or rural-urban migration

The rate at which people in rural areas migrate to urban areas in the country is alarming. The reasons for this are that there is lack of economic opportunities in rural areas. There is also lack of social amenities which make life more meaningful to the people in rural communities. Local governments need to address these issues to reduce the migration.

4. Participation of rural people in their development

It is part of the responsibilities of local government to encourage the people in rural communities to take part in their own affairs, especially as it concerns their development affairs. The involvement of the people at the grassroots in their development will eliminate failure of government policies and programmes in rural areas.

Conclusion

Urbanisation is gradually turning Nigeria into a state of comatose. A society that is experiencing rapid urbanisation ought to be seen as modernizing. In the case of Nigeria it is not so because there are not enough infrastructures in the town and city centres. The few that are available are fast dilapidating by the day due to high influx of rural dwellers to the cities. The rural communities are where the strength of the country ought lie because these are where the food baskets of the country suppose to be but the migration of people from rural communities to urban centres would not help to develop the people and the grassroots and rural communities.

Recommendations

For the country to discourage the underdevelopment its rural areas and at the same time discourage rapid urbanisation, the following recommendations should be implemented.

- 1. Political office holders at the local government level should be mandated to be resident in their local areas, that is, their villages and communities as this will spur them to establish infrastructures.
- 2. Basic social amenities should be fixed in the rural communities by the local

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and state governments to discourage rural-urban drift.

3. The spirit of self-help development should be encouraged by the local and state governments.

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Disempowerment of Tribal Women : A Human Security Perspective

Snehalata Panda

Understanding Human Security

Freedom is an essential component of human existence. Human security aims at "enhancing the freedoms by protecting people from critical and pervasive threats and situations."1 The Commission on Human Security (CHS) reconceptualised security as protection and empowerment of individuals. In view of multifarious threats to human beings it proposed "integrated coordinated approach" to "human freedom and human fulfillment." Being a "people centred approach", individual is the quintessence of its enquiry whose condition need to be identified and analysed. Basing on the findings multisectoral approaches are to be worked out and implemented to protect people from threats that undermine their dignity as human beings. Empowering them to be confident and capable enough to lead a life with dignity is its prime objective.

The relationship between traditional notions of state security and human security is complimentary, each reinforcing the other. CHS (2003:6) State creates conditions including territorial security for growth and progress of which human development is an indispensable part. It values the human dimension of security for sustainable development. It also emphasizes human rights as essential for every person. In this approach the distinction between different types of human rights are blurred as it views threats to human life is multidimensional and comprehensive but specifies a practical framework for identification of rights, which might be at stake in a particular situation.

Human security approach is different from realist strategy of territorial security based on use of military power. It is basically a cooperative global approach to ameliorate the condition of disadvantaged people who are denied of freedom, food and resources to live a meaningful life. Security in this sense means protecting fundamental freedoms essential for human beings. As a matter of fact, state centric "security" focusing on safeguarding territory of state from military aggression was expanded to include protecting people from natural and man-made disasters, empowering people for self actualization, initiate "processes that build on people's strengths and aspirations," creating and rationalizing systems to serve as bases for human survival with dignity.

The concept of human security is inherent in the forms of government and statecraft envisaged since ancient times even though the term is used copiously in the post liberalization period. Aristotle delineated the purpose of state as providing good life to the citizens. Vedic literature in India emphasized on providing security and rendering unselfish service to the people as the fundamental determinant of benevolent kingship. Safeguarding the geographical boundary along with the people residing in it necessitated choosing a powerful person as ruler having the capacity to fulfill both the objectives. Notwithstanding, the discourses on choice of ruler as divine or human, the basic requisite was unselfish public service. Of course, innumerable anecdotes of empire building in ancient literature in the east and western hemispheres reveal that wars were fought to expand the territorial limits without caring for the people. Later Hobbes stated that the basic objective of establishing state was to escape from the inhumanity and uncertainty of state of nature preceding it, safeguarding life, property and freedom of people. However, the concept of private property, maturing of industrial revolution in Europe and the concomitant search for markets resulted in colonization of vast territories of Asia, Africa and the Americas by the rich European countries. Territorial security became the prime

concern of the colonizing European powers to safeguard which innumerable wars were fought stretching over several continents culminating in two great wars. End of World War II facilitated decolonisation but the scare of war continued particularly between the two ideologically divergent imperialistic powers; U.S and Therefore, safeguarding USSR. geographical contours of a sovereign state became the primary focus. The realist approach to international relations gained momentum as the panacea for safeguarding territorial security even with use of military force. Inherent in this approach is security of people residing in a sovereign country but it deviated from their basic requirements to survive as dignified human beings. Academic deliberations and policy in the post cold war period took stock of the miseries of people ravaged by multifarious human disasters like war, poverty, disease, discrimination and other vulnerabilities. No doubt, territorial security is fundamental to a sovereign state but human security approach emphasizes redeeming people from poverty, hunger, malnutrition, disease, discrimination and so on. In other words human security redefined the post cold war realistic view of national security extending its contours to the multifarious invulnerability of individuals. The human dimension added a collective approach to redeem people from adversities created by natural forces and crafted by human stupidity. Widening the horizon of security to include individual was strongly argued in the post cold war period.²

Objective and Methodology

The paper draws on human security perspective to analyse the case of a selected group of tribal women who are financially independent but not free from threats at various stages in their lives. The types of threats included for discussion are personal, economic, food and health though CHS has identified few more vulnerabilities. These insecurities are "interlinked in a domino effect" as each insecurity feeds the other. As an exemplar lack of food and nutrition affects health and earning capability which disempowers women and threatens their survival as dignified human beings. It has serious implications not only for themselves, but their children, family and society to which they belong.

The extent and meaning of human security in developed and developing countries vary. It is context specific as insecurities differ in different situations basing on which it can be argued that the insecurities of tribal women and non tribal women in Odisha are disparate. Some threats to security of tribal women are beyond their control like the traditional culture and its practices related to women. Therefore, intervention in culture is more important simultaneously with empowerment strategies aimed at development of their full potential and evolve solutions to ensure security. CHS defines it as "strategies (that) enable people to develop their resilience to difficult situations." "Protection and empowerment are mutually reinforcing and cannot be treated in isolation". The

paper argues economic freedom of women has not enabled them to cross the barrier of tradition to survive as dignified human beings. They are not free from fear and want. Some of their personal freedom has not enabled them to contend the patriarchal culture keeping them in a situation of constant threat and insecurity.

In order to verify the presumptions a sample of three tribal villages in the Randapali Panchayat of Odisha were selected. The sample included married and unmarried women. Discussions were held with some tribal and non tribal men to understand their perceptions about role of women in tribal society. Both, qualitative and quantitative data were collected for broad basing the analysis.

Three hundred tribal women were grouped into categories basing on their approximate age, marital status, income and number of children. They were not able to say their exact age. Therefore, narration of various stages in their life like marriage, birth of the first child, number of children, the age difference between children, remarriage, etc., served as criteria to determine their age. For older women menopause was the criterion though they were reluctant to tell exactly the time when periods stopped. Names were also overlapping as there were several women with the same name. Tribals call their children as per the name of the day they are born like sombari, manguli, buduri, gurbari, sukri etc., So, there were many such names in the group. All of them were illiterate. Collecting information was very difficult as they had

no time to interact. Therefore, groups of women working in the field, factory, construction site, weekly market were interviewed at a time suitable for them. Even with my familiarity with the women most of them were not forthcoming with answers to discrimination in labour, upbringing, marital violence, deprivation *etc.* An important reason might be they never considered gender discrimination as detrimental to their survival. Traditional culture is not disputed and its imperfections are internalized without inquiring their rationale.

Analysis

Interaction with the sample group, people in the villages and personal observations revealed interesting facts about their socio-economic life and threats to security. These are -

Illiteracy

The family creates "obstructions to human self realization" by keeping the girls illiterate. Most of them earn their livelihood at the tender age of seven to ten years. Girls aged five to six years help their parents in domestic chores. In the absence of parents they look after younger siblings. These responsibilities deprive them from formal education. It is an important reason for lack of awareness hindering activation of mental ability to take a critical view about the redundant norms of the society. Patriarchal norms in family and society are accepted even though majority of women in the sample group were earning and not dependent on the male members

of their family for their sustenance. Without education the culture remains unaltered and its imperfections are carried over from generation to generation. To a question on reasons for illiteracy women in the sample, mostly mothers, said poverty and customs as the key reasons. About eighty per cent women in the sample said that they are poor to afford for educating girls. About the same number said that girls assist mothers in household chores, and look after the younger siblings in the absence of parents. Education does not have any economic value for the parents as after marriage her husband and family will benefit if she gets employment. Almost all women said that society does not approve girl's education after a certain age. Educated girls will not obey their parents and recoil from physical labour. Childhood is the period for training them in different types of physical work so that they can earn their livelihood. If time will be spent in school they will not learn work necessary for earning. Besides employment opportunities are not many for educated girls. Hence, the girls will be doubly disadvantaged. They have to marry illiterate boys. Neither the girl nor the boy would like such marriage partner. In fact, illiterate parents never allowed their girls to be educated. Thus illiteracy descended down from generation to generation. Even with facilities for education parents did not allow the girls to attend school. In all cases, children of illiterate parents were illiterate.

Some girls wanted to go to school but they could not speak out to their parents for fear of making them unhappy. According to them, "girls should behave properly by not arguing and creating conflict in the family". A girl with brothers and sisters answered that "her elder sister has not been to school. Therefore, she should not go to school. Her brother should be educated as boys have no household responsibilities. Teachers require discipline. Indiscipline carries punishment. Lessons are incomprehensible because of the language. School timing is not suitable for them to adjust between domestic chores and field work". These views reflected the strong influence of culture and poverty as barriers for education.

Girls are deprived of an environment to get education due to domestic responsibilities. They are groomed to earn their livelihood after attaining a certain age. Before that, they assist their mother and get trained for their future role as the bulk of labour that sustains life in a family including farming for food, cooking, raising children, caring for the animals, cleaning, maintaining the house, is done by women. In fact, they work soon after getting out of bed in the morning till they go to bed in the night. Many women do not know about several government laws for child labour, equal wages, workers' compensation, maternity benefit, contract labour, crèche and insurance undeniably due to illiteracy.

Earning and Expenses

Financial independence is the essence of tribal women. Since, early childhood they have to fend for themselves as the parents are too poor to feed their children. Most of them work in

agricultural field, nearby cashew factories, construction sites and brick kilns. Independent income does not empower them so much as to cross the barrier set by a patriarchal culture. Unmarried women spend money for the family. Structural deprivations not withstanding, unmarried girls enjoy considerable freedom in their personal lives. They spend their earning without interference by the parents though a major portion of it is appropriated to meet family expenses. Some parents collect wage of the girls from the employer. But compared to a married girl an unmarried girl is less tortured by her parents for spending her earnings.

Married women spend most of their earnings for the family and children as most of the married men spend for themselves. Harvested grain is preserved by women. Therefore, they control it though men steal it in their absence for meeting their expenses for drinking. Regular altercation for such habit of the husband results in discord and breach of marriage although instances of marital breach is less in economically well up families possessing land compared to those without land.

Property Rights

Most of the women do not have permanent assets as well as inheritance rights. Change in land tenure has not benefitted women though land obtained from government is owned jointly by the husband and wife. The husband owns permanent assets. Quite a few have mortgaged land without the knowledge of their wives. Of course, treatment and performance of death rites are expensive in their community. Many in the sample group said that land is mortgaged to meet these expenses. Few of them are able to redeem it. Many women have not resented mortgage of land with the hope for redemption.

Parents without a male issue pass on the property to the daughter to look after which a ghar jamai(a son in law staying with the wife's parents) is brought. Few widows with ancestral property having no children are the sole owners of land. Besides, women whose husbands have migrated are cultivating lands on share basis along with the land in the possession of the husband. In fact, some women have redeemed the land mortgaged by their husband after they migrated. Land reform and farm improvements are favourable for men as entitlements are male based. Women act as labourers in their own family land which is tedious, time taking and less remunerative. Almost, all the tasks relating to food production is left to women. Improvements and new skill acquisitions are concentrated in men while women continue with the monotonous tasks like transplantation, weeding, harvesting and storage.

Marriage

Tribal girls choose their marriage partner. The parents do not dishonor their choice provided the amount received from the boy is satisfactory. There is no dowry system that is bride's parents do not give gifts to the daughter as demanded by the groom and/or his parents. Instead, the groom pays money for the bride to her parents. To a certain extent it is compensation for loss of an earning member of the family. Even though girls are free to choose their marriage partner, they cannot claim the money paid by the groom to parents. It can therefore, be inferred that girls are exploited by parents in several ways though in the community culture it is not perceived as torture. One woman in the older age group said, "it is a curse to be born as *maiji*(girl). During childhood she works for the family, after marriage she works for her own family. She has no rest throughout life. Parents deprive her of her earning. The husband steals her money and spends for drinking." But this feeling has not served as a critical mass to change the situation of women in the traditional patriarchal society.

She cited several cases including that of her own daughter. "She was married after attaining puberty. Her husband paid good bride price at the time of marriage. After one year he wanted to marry another woman suspecting her daughter's fidelity. He started to beat her even in public places after some time. She worked in a factory where men were also her coworkers. Therefore, the amount of physical violence increased keeping in tandem his suspicion. When her toleration saturated she left him, stayed with her parents for some time and married another person, a widower having two children from the previous marriage. He is no good either as he stole her silver bangles and exchanged for wine. Now, her daughter is thinking of leaving him."

Almost all the people irrespective of age drink liquor prepared at home from rice, ragi, cashew fruit, mohua flower, sugarcane *etc. Tadi* and *salap* (extract from palm tree and *salap* tree) are also their favourite drinks. Drinking is regular. Festive occasions are marked by wine preparation, consumption and offering to Gods. Drinking which was earlier on pay day became an everyday affair for men followed by violence usually against women and children as tribal homes are nuclear households.

Even if economically weak, tribal men remarry while the first wife is alive. Men believe that female bodies are to be traded, used and discarded. This belief results in marital violence, atrocities and harassment of women. But cases of torture relating to dowry, widowhood, female foeticide, termination of pregnancy, craze for male child are absent in the community. Economically independent women can leave the husband and stay separately.

Some rich tribal men having landed property prefer to marry more than one woman. The second wife is taken care by the husband and the first wife is neglected. Such women have preferred to stay in the same premises albeit in a separate room. One such woman revealed that "marriage is a curse. She has a grown up son. Though, she is neglected by her husband and the son does not feed her, she has peace of mind after separation. Her husband gives her paddy and millet annually. Whenever, she needs money she collects forest products and sells in the weekly market. All her needs are fulfilled

without any interference by the husband and the son." Her case is an instance of personal choice. Though, the culture is permissive of remarriage, she has chosen not to remarry. She is an older woman though not able to tell her exact age but living a life of personal choice is real empowerment. Some young widows have preferred not to marry. Tribal society ensures safety for women as cases of physical assault are rare. The community views seriously a man who assaults a woman physically without her consent. It is also not sympathetic to women who have extra marital relationship. Young girls are therefore married at an early age.

In case a widow marries a widower with children, such children are not looked after properly by the second wife. Interaction with a group of girls whose mothers have died and fathers have remarried, revealed that they are maltreated at home. One such girl was given to a rich town dweller to help his wife as a domestic servant on the condition that they will feed her but send the money to her father. For some time this contract was retained but problem started when the girl wanted that the money should be given to her and not her parents. Her employers consulted her father who insisted that the money should not be given to her. While this problem remained unresolved, the girl wanted to marry a boy of her choice and left her employers' house. Her father held the employer responsible for the incident and demanded bride price. Not satisfied with the amount received from her employer he is in search of her daughter to get more money from her husband as bride price.

Health

Hard physical labour puts a lot of strain on the vital organs of women. Lack of nutrition is the main reason for poor health, mental as well as physical. Poverty compels young children to earn their livelihood lest they would go hungry. Girls with young children tending cattle and moving in the outskirts of the village to watch the cattle in semi naked bodies, without hair make up or wash are a familiar scene in the villages. Girls aged about five years watch cattle. The cattle owners give them ragi paste in lieu of wage which sustains them for the day. Picking fruits from trees and eating them without knowing their food value is common. Married women do not have control over pregnancy for cultural reasons as well as whim of the husband. Pregnant and lactating mothers are compelled to work outside for a wage. Usually the child is carried by the mother to the work place after forty days of confinement following delivery of the child. The baby is tied in a cloth round her neck which makes the hands free for work while the child is allowed to suck. If it is the first child or no support is available from neighbours, the child after learning to walk moves around in the work place where the mother works. In all these cases the child is not looked after properly. But nurturing a child is not discriminatory as boys as well as girls experience the negative effect of poverty that is malnutrition, disease and death. Due to poverty and superstition ailments are referred to the desari (village quack) though medical facilities are available near the villages.

Violence against women

Tribal women move around safely, marry a person of choice, are economically self sufficient, free to breach marriage and remarry. But these traits in their culture have not made them free from torture. Some cultural reasons like belief in supernatural forces, inferiority of women embedded in patriarchy, physical and mental abuse by the husband, son and other male members in the family and society, early marriage and frequent pregnancy, socio-economic reasons like lack of knowledge to bring up their children by providing healthy food, environment, education, considering education for girls as unnecessary, lack of hygiene, disease, reduced longevity discriminatory division of labour characterize the tribal society. Cultural improprieties are not questioned by women due to lack of awareness, unsupportive social environment and inability to control the situation in which they are obligated to survive.

Psychology of tribal men, traits, inherited qualities also are responsible for inappropriate behavior towards women. The inherited qualities and acquired habits in the process of growing up play an important role in manifesting specific attitudes towards women. Physically offending wife by the husband is accepted as usual demeanour of men. Therefore, women's freedom in personal and economic spheres has not filtered down to equal spousal or men-women relationship. Women might provoke men with their specific demeanours like retaliating physical abuse by physical force or create frustration in the husband due to consistent ill health. But, such women are cast off by the husband and disapproved by the society.

A childless woman is discarded by the husband. He may provide her maintenance as per custom or out of compassion if he has means to provide. But the wife is tortured. Medical checkup is not done to rectify her barrenness. It may be due to lack of awareness or finance. All the same the wife has to bear the brunt for not begetting children. The case of Raibari, a barren women, lays bare the plight of childless women.

She could not conceive after five years of her marriage. Her husband remarried. Afterwards she stayed in a room in the same premises of her husband's house. Interaction with her revealed that she was teased for being barren by the husband and neighbours. Therefore, she left home early in the morning, collected forest products and sold in the nearby town. It served two purposes; one, she kept herself away from the couple and two she got money for her survival. Her husband was giving her some paddy and millet annually as per the settlement of their separation but when her toleration reached a saturation point she refused to get the alimony in kind. Being a tribal woman her separation from the husband is not the grist for the local gossip mill but she became really empowered after breach of her marriage.

Earning women in many cases have no control over their income. The husband

considers her as an unpaid servant who should be submissive to his command and bear children along with earning for their sustenance. Quite a few irrational people who are too lazy to labour but addicted to drinking steal money and force the wife to pay for satiating their grubby habits. Women are equated with animals who can be bought and sold, are productive and disposable if they become unproductive, obey without resistance, serviceable to the owner and therefore a commodity whose value is measured in her sacrifice not in the development of her personhood. This perception pervades all social institutions. In the community physically offending wife by the husband is accepted as usual demeanour of men. Therefore, women's freedom in personal and economic spheres has not filtered down to equal spousal or men-women relationship.

The most insidious form of violence is suffered by tribal girls engaged as domestic workers. They suffer due to unfair wage, lack of basic rights, lack of job security, undefined hours of work, lack of dignity, physical assault. They do not enjoy maternity or sick leave. Such leave means dismissal from employment. They do not have any organisaton to fight for their rights. One domestic worker in the sample revealed that she is over worked and gets less wages. Her husband beats suspecting her fidelity. Many women revealed that their husbands do not earn sufficient enough to meet the family requirements. Whatever they earn is spent for satisfying their own needs. A major portion is spent in drinking. Therefore, women have to earn but this capability has

not entitled them to live a violence free life.

There is no honour killing against girls if they assert their independence in their personal lives. Girls move freely and never experience crimes like molestation, rape, disfigurement or amputation. Male female ratio is not adversarial for girls as there is no craze for boys in the tribal society. This is because each one of them has to earn since childhood. The only difference being job specification for boys and girls. Small children, both boys and girls, fetch water, firewood, forest products, tend cattle and engage in work considered as appropriate for children. Personal observation revealed that most of the tribal men shirk hard labour if they have some means for survival for a couple of days. Important reasons for wife battering are real or perceived adultery by the women, demand for earnings of the husband by the wife, intoxication, and second or third marriage by the husband.

Discussion

The above analysis reveals that earning capability and personal freedom related to marriage have not empowered women so much as to assert against threats to personal security, protection from the perpetrators of violence and survive as dignified human beings. Violence is usually perpetrated by men in case of married women as married couples do not stay with the husband's parents. In the family of her birth a girl is not nurtured properly to grow as a healthy, educated person, which impacts her future life. Accepting the tradition without question results from lack of awareness, giving free rein to division of labour and discriminatory wages, reinforcing hierarchy and patriarchal control. The tribal women included in the study are acquainted with the people in the nearby towns for generations but their culture is less porous to allow positive changes. For that reason illiterate parents have not allowed girls to attend school despite close location of schools. Even young mothers are unwilling to send their girls to school. Education is the key to empowerment. It ensures ability to think, judge, amend and ameliorate the disadvantages that hinder human self realization. They have not developed a critical outlook about their situation due to illiteracy. Traditions continue to guide their perceptions thereby keeping them in perpetual subservience to patriarchal social order. Economic independence has not redeemed them from the fetters of fear and enabled to live a life of their choice except for single woman free from marital relationship. Lack of education has obstructed development of ability to free the mind from fear of the supernatural. Compliance to custom is more out of fear of the supernatural. Birth control measures are considered as displeasing the supernatural powers. Frequency of child birth has adversely affected health and wellbeing of offspring and mother.

It is contemplated that where women outnumber men the society is less traditional and excess of male population keeps the society conservative. But this is not true with the sample group as

women clutch to tradition more than men despite their number. Besides due to several welfare measures income of some tribal families has gone up. They have pucca houses, water and electricity connection, agricultural equipment, two wheelers etc. Women in such families have refrained from engaging in wage labour. Neither men nor women in such families approve working for a wage. Rise in economic level of men has impeded economic independence of women. Their freedom remains at the custody of men whose social status is respected if their women do not move out to work. In due course the financial independence of tribal women will be lost with rise in economic level of men there by making them absolutely dependent. But children in such families are not educated neither do get nutritious food. So time ahead seems to be adversarial for women and children in families moving up in income level.

Tribal society is simple compared to the non tribal society. Nature of violence is related to poverty and patriarchal attitude. Inbuilt mechanisms in the society help tribal women to overcome torture by the husband though remarriage does not put an end to their miserable situation. But they are not able to overcome violence. Women do not consider the deprivations during childhood as obstruction for their self realization. Marital violence is considered as customary. Therefore, they were not forth coming with answers to several questions on physical and psychological violence. They are not aware of violence as gross violation of human rights. Personal observations and

informal discussion revealed that their culture is the principal reason due to which economically independent women do not escape torture. Middle aged women, separated from the husband, having independent income lead a life of their own choice with dignity. But tribal society is individualistic. Owing to lack of social support they are not taken care after they become weak and infirm.

It is interesting to note that the two requisites of human security, that is freedom from fear and freedom from want are absent in this group of women having independent income and considerable personal freedom. During childhood they are scared of parents who burden them with sibling care. Simultaneously, they are compelled to earn. Due to lack of control on pregnancy the number of members to feed is more in some families than the number of people to earn. Usually parents engage in labour outside home to earn. In the absence of parents the onus for looking after youngsters is on the elder girl who herself needs care and nourishment. In this case "want' has a domino effect. Thus the two elements of human vulnerability, 'fear and want' threaten people.

Intervention

Tribal women included in the study have two types of constraints. These are capacity constraints and incentive constraints. The capacity constraints are lack of education, nutrition, health and threats accruing from violence. Earning capacity has not enabled them to challenge the prevailing norms of the society threatening their existence as self respecting human beings. Illiteracy and lack of awareness have dampened their economic independence and personal choice relating to marriage. Married women have no control over their bodies resulting in frequent pregnancy and concomitant negative impact on health. Economic independence has not relieved them from fear of dominance of parents over their earning and brutality of the husband. Incentive constraints are basically cultural, the norms of the patriarchal society restraining their mental and physical development, economic component of gender discrimination and limited earning choices.

These constraints need to be eliminated through education imparted in their own language including the elderly and young persons. It should be continuous and composite learning process including knowledge and skill with liberal timing and not affecting their income. Informal education is a better option. Parents need to be educated about the redundancy of their custom that prevents them and their children to assert against violation of human rights and grow as empowered persons to challenge the odds that obstruct their self actualization.

Customary practices of bride price must be changed to provide right to the bride over the payment made by the husband. It should be kept in a savings account in a government portal like post office or bank. They can use their savings in time of need. They should be trained in farm as well as nonfarm based sector and encouraged to use the money in small business appropriate for them and their location. This will enable them to engage in labour of their choice besides keeping their earnings uninterrupted as farming is seasonal.

Women are not open for conversation due to lack of time, family pressure and fear of torture by the husband. Convincing women and their families is time consuming. Therefore, regular interaction with all the villagers should be followed by stimulating women to understand their situation and enabling them to change their life situation.

Awareness programmes relating to health, nutrition, equal wages for equal work, punishment to the torturer should be regularly implemented through the tribal development agencies. The onus of doing away with the negative aspects of tribal culture should be on local persons having the ability to serve as a critical mass. They should carry forward changes with a mission mode. The local tribal development agency can select such people, train them, get feed backs and reformulate agenda to cope with changes. An atmosphere of trust should be created so that they will gradually reorient their attitude and perceptions.

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Disempowerment of Tribal Women : A Human Security Perspective 39

Revisiting Sustainable Community Development

Shradhha Oza

Today's global society is one in which citizens of all nations are deeply connected. Direct and indirect networks among peoples of the world have been enhanced by technological advances, wide venues communication, free-market of economics, trade flows, and access to transportation. However, the globalization of networks has also resulted in often unequal distributions of wealth and power, as well as over-exploitation of global natural resources. It has been argued that, in order for future generations of both human and non-human species to persist, current generations of humans must change the practices that have resulted in degradation of human and ecological systems (WCED, 1987).

Sustainable development is an approach that aims to secure a better future for current generations, and those to come, by countering the misuse of natural resources and reducing disparities in wealth distribution and social equity. The most widely accepted definition of the term was developed during the 1987 World Commission on Environment and Development: "humanity has the ability to make development sustainable- to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). Sustainability is comprised of interdependent ecological, economic, and social factors (Agyeman & Angus, 2003; ICLEI, 2002a; James & Lahti, 2004; and Roseland, Cureton, & Wornell, 1998), all of which must receive equal consideration in the implementation of sustainable development initiatives. The importance of these three elements is widely accepted, however, there is divergence of opinion on how to achieve sustainability, especially the appropriate level of governance to carry out sustainable development initiatives. Many initiatives have been top-down, macrolevel efforts by national governments and international institutions. However, there is currently a predominant push to make sustainability local (FAO, 2006; Phillips, 2008b; and UNCED, 1992). It is argued that macro-level efforts often negate the rights of local communities, disallowing them the autonomy to govern themselves

towards sustainability (*e.g.*, Armstrong & Stratford, 2004) and that natural resources can be managed more effectively by the people who derive direct livelihood from them (Agrawal & Gibson, 2001; Alcorn, 1993; and Kijtewachakul, Shivakoti, & Webb, 2004).

Efforts local-level towards sustainability in developed countries differ from those in developing countries (Redclift, 1993), especially in rural impoverished areas. In developing countries rural populations often depend on their surrounding natural resources for subsistence and livelihood, and many of these areas suffer from environmental degradation, which causes a large impact on humans as well as the health of native ecosystems (MEA, 2005). The causes of environmental degradation are many, including exploitation of natural resources by outside actors and social inequity. When a community's source of livelihood is degraded, its capacity to provide sustenance is greatly diminished, as well as its potential to maintain that capacity for future generation, even if demand levels remain constant. Therefore, locallevel sustainable development in developing countries must address the most basic needs, often related to natural resource management, in order to implement a sustainable vision for the future. The concept of sustainability ultimately incorporates the long-term temporal capacity dimension to development, and its relations to all of the ecological, economic, and social factors that limit or promote it. This paper presents "theoretical perspectives and previous

research findings regarding the problem at hand" (Leedy & Ormrod, 2005). As such, a conceptual framework for sustainable community development in SKB and NV is created by describing the broad concept of sustainable development and discussing ecological, economic and social attributes of local sustainability initiatives in developing countries. The attributes comprising the conceptual framework are used as a means of describing how each community has made steps towards sustainability.

Sustainable Development: History and Overview of the Concept

Sustainability and sustainable development have been popular topics of discussion on global, regional, national and community levels for over two decades. The World Commission on Environment and Development's release of Our Common Future (commonly referred to as the Brundtland Commission report) in 1987 is often cited as the catalyst to the recent trends in sustainable development discourse (e.g., Agyeman & Angus, 2003; Kates, Parris & Leiserowitz, 2005; Redclift, 1993). In addition to acknowledging the over-use of natural resources on a global scale (Roseland, Cureton, & Wornell, 1998), Our Common Future proposed а definition forsustainable development that is widely used: "humanity has the ability to make development sustainable- to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). Although, this definition is commonly cited, it is also inherently vague, (In the full report of Our Common Future the definition of sustainable development is actually much more extensive; authors generally do not cite the entire picture this report presents, which might dispel some of the arguments of its inherent vagueness and applicability (Kates et al., 2005), which has led to divergent interpretations and approaches to achieving the goal of a more sustainable global society (Bell & Morse, 1999; Kates et al., 2005; McCool & Moisey, 2001; and Roseland et al., 1998). Some authors have argued that the vagueness of the definition may lead to unsustainable growth where economic or political interests supersede ecological and social well-being (Parris & Kates, 2003; and Redclift, 1993). There is also exceptional divergence of opinion on what the definition means for developed versus developing countries (Redclift, 1993; and Nagpal, 1995), though some authors argue that developed and developing countries have similar problems but the degree and intensity of the issues differ significantly (Robinson, 2004, cited in Rist, hidambaranathan, Escobar, Weismann, & Zimmerman, 2007). The ambiguity of sustainable development has also led to different ways of measuring sustainability through indicators, which can vary depending on the user's idea of what development should occur and what should be sustained (Bell & Morse, 1999; and Parris & Kates, 2003).

Although, the vagueness of the definition is an issue, it also allows flexibility for application in myriad contexts (Kates,

Clark, Corell, Hall, Jaeger, Lowe, McCarthy, Schellnhuber, Bolin, Dickson, Faucheux, Gallopin, Grübler, Huntley, Jäger, Jodha, Kasperson, Mabogunje, Matson, Mooney, Moore III, O'Riordan, & Svedlin, 2001), which allows groups to adapt themselves according to their own initiatives and resources.

Additionally, the Brundtland Commission definition can be thought of as a broad philosophical approach rather than a recipe for sustainability (James & Lahti, 2004). That being said, it is important to note that a distinction should be made between "weak sustainability" and "strong sustainability", where in the former the costs of obtaining sustainability are often considered too high (essentially a costbenefit analysis) and economics supersede true efforts to attain the latter, which promotes ecological or social sustainability without shying away from initial high costs (Bell & Morse, 1999).Weak sustainability also assumes that resources depleted over time can be substituted by others, which is countered by strong sustainability, which assumes that natural capital cannot suffer a net loss (Agyeman, Bullard, & Evans, 2002).

There is a common theme in the literature that sustainable development encompasses three broad, yet interdependent elements: ecological integrity, social equity, and economic opportunity (*e.g.*, Agyeman & Angus, 2003; James & Lahti, 2004; Roseland *et al.*, 1998). Each element is comprised of multiple factors that contribute to sustainability (Table 1). Ecological integrity

ensures that the environment is able to regenerate, support biodiversity, and continue to perform ecological functions essential for ecosystem health. Social equity includes themes such as gender and indigenous rights, access to resources, and participation in decision making processes. Lastly, the economic aspects of sustainability allow people to sustain livelihoods and meet the basic needs (air, food, shelter, clothing, and water) of life for themselves and their families. As such, economic aspects are really a means to an end, which is a more socially equitable and environmentally sound world (Agyeman *et al.*, 2002). The interconnectedness of these three elements is stressed in the literature, especially the fact that environmental health and degradation are often directly connected to economic and social disparities (Agyeman et al., 2002; and Thrupp, 1993).

Although, the literature stresses the three-pronged framework for sustainability, there is divergence of opinion on how to achieve sustainability, especially the appropriate level of governance to carry out sustainable development initiatives (Yanarella & Levine, 1992, cited in Bridger & Luloff, 2001). Many initiatives have been topdown, macro- level efforts by national governments international and organizations. However, there is currently a predominant push to make sustainability local (FAO, 2006; Gurung, 2006; and Phillips, Miskowiak & Stoll, 2007). It is argued that macro-level efforts often negate the rights of local communities, disallowing them the autonomy to govern themselves towards sustainability (Armstrong & Stratford, 2004). Additionally, some studies have shown that natural resources can be managed more effectively by the people who derive direct livelihood from them, rather than by a centralized government agency or nongovernmental organizations (NGOs) (Agrawal & Gibson, 2001; Alcorn, 1993; Kijtewachakul, Shivakoti, & Webb, 2004; and Thomas-Slayter, 1992).

One of the most cited sources of support for local-level sustainable development came from what is a macrolevel institution: the United Nations (UN). The promotion of local-level sustainability has evolved over the latter half of the 20th century, especially after the Brundtland Commission report (WCED, 1987) and the UN Conference on Environment and Development in 1992 (Roseland et al., 1998). This conference, commonly referred to as the "Rio Summit" (because it was held in Rio de Janiero, Brazil), resulted in the development of an agenda for global sustainable development, Agenda 21, which stresses the necessity of local involvement in sustainability. The definition for Agenda 21 was established as "a participatory, multi-stakeholder process to achieve the goals of Agenda 21 at the local level through the preparation and implementation of a longterm, strategic plan that addresses priority local sustainable development concerns" (ICLEI, 2002, page 5). The strategies laid out in this document stress that local

involvement especially that of local authorities is crucial for sustainable development:

"Because so many of the problems and solutions being addressed by Agenda 21 have their roots in local activities, the participation and cooperation of local authorities will be a determining factor in fulfilling its objectives. Local authorities construct, operate, and maintain economic, social, and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and subnational environmental policies. As the level of governance closest to the people, they play a vital role in educating, mobilizing and responding to the public to promote sustainable development." (Chapter 28, UNCED, 1992)

Although, *Agenda 21* promotes local-level sustainability, it is noteworthy that it also emphasizes collaboration between international, national, regional, and local governments, as well as the importance of non-governmental organizations in implementing sustainable development (UNCED, 1992).

Sustainability is not an end state, but a process. The ultimate goal is an equitable society that acts in ways that do not exceed the Earth's capacity to support human and non-human life. Working towards this goal is a multi-stakeholder process that involves players at various levels of government and throughout disciplines. This thesis is concerned with efforts at the local level.

Efforts towards sustainability at the community level

The International Council on Local Environment Initiatives (ICLEI) defines a sustainable community as a community "that maintains the integrity of its natural resources over the long term, promotes a prosperous economy, and hosts a vibrant, equitable society" (ICLEI, 2002). Sustainable community development is an important part of global sustainable development initiatives at the local level and has been implemented and supported in a number of ways.

There are many cases of communities that have made attempts towards sustainability and have valuable lessons to be learned from their experience. Some communities have opted for the use of frameworks such as The Natural Step (James & Lahti, 2004), or SEED (Taylor-Ide & Taylor, 2002). Other communities have joined national and global networks, such as the Sustainable Communities Network (Concern, 2002) and the Global Ecovillage Movement (Trainer, 2000) that provide a venue for discourse on sustainable community development.

Sustainable communities have been supported by larger institutions such as the UN as a legitimate solution to global sustainability. The UN itself has initiated pilot initiatives for sustainable communities in the Millennium Villages Project, a joint project with the Earth Institute at Columbia University. The UN and the Earth Institute chose twelve impoverished communities in sub-Saharan Africa to explore how external funding and logistical and technical support can help pull small, rural communities out of the poverty trap (Earth Institute, 2005). The Millennium Villages Project has been criticized as being unsustainable even in its nascent stages (Rich, 2007), but its success as a local-level sustainable development initiative remains to be seen and lessons learned from the project could have implications on how aid is administered to impoverished areas in the future (Buse, Ludi & Vigneri, 2008).

Attributes of Local Sustainable Development Initiatives in Developing Countries

There is a wide base of literature regarding local-level sustainability efforts in developing countries, especially in regards to community natural resource management, integrated poverty and conservation initiatives, extractive reserves, ecotourism (Agrawal & Redford, 2006) and sustainable communities. All of these approaches attempt to merge ecological, economic, and social interests, though they are implemented in different ways. The literature reveals that most projects in developing countries are geared towards environmental restoration and poverty alleviation (e.g., Agrawal & Gibson, 1999; Berkes & Seixas, 2004; or Western & Wright, 1994). This is a result of the fact that people in these areas depend directly on natural resources as sources of subsistence and livelihood and because environmental degradation impedes their ability to meet their basic needs (MEA, 2005).

Deciding what constitutes as sustainability is an issue that has given rise to an abundant amount of literature regarding its measurement (Bell & Morse, 1999; and Pagdee, Kim & Daugherty, 2006). Indicators and measurement tools for sustainability at the local level are highly variable depending on the user and context and exhibit many inconsistencies (Bell & Morse, 1999; and Parris & Kates, 2003). For example, the ICLEI report (The number of Agenda 21 communities that met the criteria was 6,416 (ICLEI, 2002)) to the UN Earth Summit in Johannesburg (ICLEI, 2002) developed criteria for a community to be considered an Agenda 21 sustainable community. The criteria included eight categories, of which communities must be committed to undertaking:

- 1. Must include a participatory process with local citizens
- 2. Must include a consensus on a vision for a sustainable future
- 3. Must address economic, social, and ecological needs together
- 4. Must establish a multi-stakeholder group to oversee process
- 5. Must prepare an action plan
- 6. Action plan must include concrete long-term targets
- 7. Must establish indicators to monitor progress
- 8. Must establish a monitoring and reporting framework (ICLEI, 2002)

While the ICLEI indicators were used to develop an initial report to the UN at the Johannesburg Summit in 2002, they

are also limited in what they can reveal about a community's place along the sustainability continuum. Developing a list of ecological, economic and social indicators may help the communities strengthen the overall project and may signal a more comprehensive picture of what is happening (Bell & Morse, 1999). Data availability in the two communities studied does not allow the development of numerical sustainability progress indicators. The projects were not designed with relevant data gathering from the onset, thus not allowing the establishment of baselines and definition of relevant indicators. To overcome this limitation, this study uses indicators derived from literature on sustainability initiatives as a checklist for sustainability. Using the state of the communities at the beginning of the project as a reference, this study researches how the projects have helped meet needs of community members and have shown commitment to sustainability in their current states. This list of attributes may aid communities in focusing efforts towards sustainability by providing a framework of enduring guidelines.

The proceeding sections of this paper highlight the ecological, economic and social attributes of local-level sustainable development initiatives that have been important factors in the implementation and longevity of projects in developing countries. The information in this section is derived from literature regarding sustainability indicators, community natural resource management, eco-tourism, and sustainable communities and is summarized in Table 1 at the end of this section.

Ecological factors

The environment, with its myriad species and abiotic factors and interacting functions, provides humans with what they need to survive. Environmental degradation reduces people's ability to live healthy and prosperous lives as well as impedes the continuation of non-human species that share the planet with humans (MEA, 2005). How communities manage and develop their surrounding natural resources is a key factor in the success of sustainable development projects, especially for communities that depend on those resources for direct livelihood and subsistence. There are several aspects of natural resource management that are important elements to achieving ecological goals in sustainable development projects at the local level.

Biodiversity conservation

Biodiversity is defined as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems" (UNEP, 1992). Biodiversity has allowed for the development of humans through exploitation of various species and the niches they play in ecosystems (MEA, 2005). For example, myriad species and the habitats in which they are found are responsible for many medicines and a loss in biodiversity reduces the amount of plant or animal derived medicines available for discovery.

Additionally, the intrinsic and aesthetic values of biodiversity to ecosystem function as the basis of life, economy, and spirituality are important factors which must be considered.

Anthropogenic environmental degradation threatens the status of biodiversity, and the potential for further development from it (MEA, 2005). Biodiversity also has inherent value aside from the benefits humans have derived from it and losing species may have remarkable linear and non-linear impacts on entire ecosystems that cannot be predicted.

Conservation of native biodiversity is a common aspect of local-level sustainable development projects (Kellert, Mehta, Ebbin, & Lichtenfeld, 2000; Pagdee, *et al.*, 2006; Parris & Kates, 2003; and Western & Wright, 1994). The indigenous species of an area are often important to native peoples for consumption, medicinal properties or other cultural values. Biodiversity preservation may also have positive economic impacts for communities. Preservation of fauna, for example, has been crucial for communities that depend on ecotourism as a source of income generation.

Sustainable use of resources

Closely related to biodiversity conservation, the sustainable use of natural resources is a common theme in local level sustainable development literature. Although communities depend on surrounding resources, over-exploitation often results in extinction, which transfers into loss of a species as well as the economic or social benefits it once created. Some examples of the sustainable (or unsustainable) use of natural resources in the literature are communities' use of bush meat and non-timber forest products (NTFPs) (Kellert et al., 2000; Murali, Murthy, & Ravindranath, 2006; Pagdee et al., 2006; and Smith, Chhetri, & Regmi, 2003). In some cases where sustainable harvesting has taken place, the threats to a species' existence and its benefits to humans have been abated. Community forest projects in Mexico, for example, have created institutions to regulate extraction of timber and/or NTFPs, which demonstrates long-term thinking used to preserve economically important species for the future (Castillo & Toledo, 2000). Sustainable extraction regulations also help to lessen the chance of exploitation by certain user groups over others (e.g., Smith et al., 2003).

Environmental awareness and stewardship

Environmental awareness and stewardship, or knowledge about ecological health and the will to preserve it, is an important way to engage community members in the management of natural resources and to create a connection to place (d'Entreves, 1992, quoted in Davidson, 2003). Ultimately, creating environmental awareness and stewardship may serve to reinforce the relationship between quality of life and participation in maintaining environmental health (Young, 1997).

Restoration of degraded resources

The Earth's ability to support human and non-human life is compromised by environmental degradation, which is a result of both ultimate and proximate factors (Diamond, 2005). Although ultimate factors of environmental degradation, such as national policy, agriculture subsidies or globalization cannot be undermined, proximate factors may be more readily addressed by local communities. Proximate factors are the actual physical processes that lead to degradation, such as cutting a tree, building a road, or constructing too many wells in a given area (Diamond, 2005, Pagdee et al., 2006; Redclift, 1993; and Thrupp, 1993). In addressing proximate factors sustainable use is a major consideration, as is improvement of the condition of the resource (e.g., allowing positive succession, Pagdee et al., 2006).

Preservation of ecosystem function and services

Protection or simulation of ecosystem functioning is an important aspect of sustainability projects because it keeps ecosystems that people depend upon healthy (MEA, 2005). Abiotic functions of ecosystems maintain biotic life and the diversity found therein. Changes in ecosystem function may alter the makeup of native biological communities. An example of this is the exclusion of fire from systems that have evolved with natural fire maintenance (*e.g.*, long leaf pine (*Pinus palustris*) and wiregrass (*Aristida stricta*) ecosystems in the southeastern United States), which has resulted in less biologically diverse ecosystems.

Ecosystems also provide various "services" that are economically and socially beneficial to humans. Examples of ecosystems services are nutrient cycling, provision of food and water, climate regulation, aesthetics and recreation (MEA, 2005). Preserving these support systems by maintaining ecological function, preserving native biodiversity, and reducing degradation are key aspects of sustainability that should be recognized and implemented by communities (Parris & Kates, 2003; and Roseland *et al.*, 1996).

Economic factors

Economic activities allow people to meet their basic needs and improve their quality of life. In rural areas of developing countries economic activities are often limited and can be at the whims of the international market. It is important for communities to act within the existing economic climate and adjust to change while also continuing to provide local economic services needed by community members. New economic reality based on sustainability and living within nature's means and limits is being re-defined in the 21st century.

Poverty reduction

Many communities in developing countries are not plagued with systematic poverty, which impedes sustainability because it does not allow for long-term thinking or planning, nor does it allow for much investment in the future. Poverty reduction is viewed as one of the most important aspects of sustainability projects in the developing world and is often the primary goal (Agrawal & Redford, 2006; Berkes & Seixas, 2004; Parris & Kates, 2003; and Smith et al., 2003). Components of poverty reduction goals are the sustained provision of basic needs such as food, water, air, shelter and clothing (Nagpal, 1995; Parris & Kates, 2003; and Smith et al., 2003) and secure employment opportunities or livelihood options to ensure basic needs provision (Pagdee et al., 2006; Rocky Mountain Institute, 2003; and Smith et al., 2003). Although the causes of poverty varyespecially in terms of degree- identifying and addressing the ecological, economic and social factors that create poverty traps is an essential task for sustainability projects in developing countries.

Economic diversity

Economic diversity is an important aspect of sustainability for a number of reasons (Bridger & Luloff, 1999; and Davidson, 2003). A community that relies upon only one activity is subject to economic disaster if that activity should fail or deteriorate. Maintaining diversity in economic activities is a way to buffer fluctuations in markets and reduce a community's vulnerability to economic decline. It is also an incentive to eep young people in a community rather than making them seek work elsewhere (Davidson, 2003).

Access to markets

Having access to local, regional, national and even international markets is

an important aspect of economic sustainability. Local self-reliance, which means emphasizing local markets, helps communities establish a buffer between their local economies and the fluctuations in larger markets (Bridger & Luloff, 1999). Access to markets is highly related to infrastructure and transportation, so it is even more important for rural communities to create local economies that do not require shipping to regions far away. However, using resources to move goods and services to larger markets is also economically important and communities that have access to regional markets are at an advantage because their products reach a wider demand base (Barbier, 2000). Communities that have access to Fair Trade markets are at even more of an advantage because more money goes directly to the producer through co-ops.

Social factors

The social factors involved in sustainability projects are perhaps the most important considerations, yet they often pose the most challenging problems in keeping a project alive and ultimately to a community's success or failure in sustainability. In order for a local community group to maintain efforts towards sustainability several social factors must be considered including: education, information sharing, capacity building, community ownership, support from multiple levels of government, participatory decision-making processes, development of institutions, secure land tenure, development of a community vision, action plan and evaluation techniques, and equitable distribution of project benefits.

Education, interdisciplinary informationsharing and capacity building

Providing education to community members in both formal and informal settings is key to sustainability (Kellert et al., 2000) because it helps to develop an understanding of why the project is important and aids in giving the community ideas as to how it may accomplish its various goals. Formal education is a critical aspect of any community and is seen widely by people in rural communities in the developing world as a means of reducing poverty (Nagpal, 1995). Informal education between outside and internal actors is critical to sustainability projects because it involves engaging community members (often adults) who will be actors in projects. Informal education can take place in the form of participatory rural appraisals (Chambers, 1994), action education and other forums for learning (Fagan, 1996). Learning that is applicable to local contexts is especially pertinent to sustainable community development and can be facilitated in informal settings (Fagan, 1996). Also, local indigenous knowledge provides a reservoir of placebased knowledge pertinent to sustainability that is too often overlooked by rural development projects practitioners of the past (Phillips, 2008b).

An aspect critical to education for sustainability is the ability of internal and external actors to share information generated from various disciplines and sources. Many sustainable development projects occurring at the local-level are not limited to the internal resources (or interests) of a community or group (Mitchell, 2001) and a positive interaction between external actors and a community can reinforce these efforts. Clear communication between actors is an ingredient of any project involving multiple groups. A study by Rist *et al.* (2007), for example, argues that management of natural resources is strongly affected by ways in which external and internal actors relate to each other.

Information sharing between local groups, government, NGOs, research institutions can help communities learn new research from multiple fields and merge it with local or indigenous culture and knowledge (Burns, Audouin & Weaver, 2006; Castillo & Toledo, 2000; Kellert et al, 2000; Kijtewachakul et al., 2004; Redclift, 1993; Rist et al., 2007; Rocky Mountain Institute, 2003; Taylor-Ide & Taylor, 2002; and Thrupp, 1993). argue authors Many that an interdisciplinary approach to sustainable development is the best way to ensure that projects are indeed meeting ecological, economic and social goals (Berkes, 2004; Berkes & Seixas, 2004; Chan, Ranganathan, Boggs, Chan, Ehrlich, Haff, Heller, Al-Khafaji, & Macmynowski, 2007; Fagan, 1996; and Kellert et al., 2000). There is evidence of this in studies from the relatively new field of sustainability science, which aims to create pathways of information sharing between disciplines and to communities to reinforce sustainability projects (Burns et al., 2006; Kates et al., 2001; and Manual-Navarrete,

Slocombe & Mitchell, 2006). It is also especially important for local authorities to be involved in sharing information with the community and provide access to information from other sources (Agyeman, Morris & Bishop, 1996).

Capacity building is one of the key factors in maintenance of sustainable development initiatives at the local level (Castillo & Toledo, 2000; Davidson, 2003; Fagan, 1996; McCarthy, 2005; Phillips et al., 2007; Spangenberg, McGinley & Tschida, 2004; and Tucker, 2000). Developing capacity in the local community allows them to be agents of change and provides them with skills to continue what has been initiate (UNDP, 2008). Capacity building can also be empowering, giving community members the confidence to sustain their work (Berkes & Seixas, 2004). The adoption of alternative techniques learned through capacity building exercises may also aid in more sustainable use of natural resources (Thrupp, 1993).

Community ownership

Community ownership of the project and its benefits is an important factor in sustainability, especially when there is involvement by external actors (Bridger, 2001; and Wiggins, Markfo & Anchirinah, 2004). A community's commitment to sustainability may be hampered if there is a perception that the process does not belong to them (Wiggins *et al.*, 2004). If community members have a stake in the project it makes the idea of sustainability concrete rather than an abstract concept contrived by external actors and driven by foreign ideology (Bridger, 2001). Ownership is also related to high levels of mutual trust that benefits will be shared equitably among community members (Pandey & Yadama, 1990).

Support from multiple levels of government

Although this thesis is focused on sustainable community development projects occurring at the local level, it is important to recognize that local governments and groups do not act independently of the larger governmental structures on national and international levels (Agrawal & Gibson, 1999; and Berkes, 2004). This makes support from higher levels of government a critical aspect of projects because they can act as a brace to support long-term commitments (Rydin & Holman, 2004; Taylor and Taylor- Ide, 2002; and Wint, 2000). On the other hand, lack of support from higher levels of government may seriously undermine a project's success (Armstrong & Stratford, 2004).

The first level of governance that is crucial is the local level, especially if projects are not managed by local authorities (Armstrong & Stratford, 2004; and ICLEI, 2002), because it serves as a conduit to and from higher levels. The local government must be able to relay information and make connections to larger political structures in order to make sure the community's voice is heard at higher levels (Agrawal & Gibson, 1999). Of course, it is important that local officials do so without individual interests in mind, which undermines the community as a whole (Davidson, 2003).

Participatory decision-making process

Highly related to community ownership, projects that involve a participatory decision-making process may be more successful in the long run because they may garner more support from the community than projects that are initiated by the national government or international NGOs (Armstrong & Stratford, 2004; Dorm-Adzobu, Ampadu-Agyei & Veit, 1991; Horochowski & Moisey, 2001; Mitchell, 2001; and Thrupp, 1993). A participatory decision-making process may mobilize citizens into action (Agyeman & Angus, 2003; and Shutkin, 2000, quoted in Agyeman & Angus, 2003), especially if the process is transparent (Smith et al., 2003). One study found that many people from developing countries viewed a democratic decision-making process as a key to sustainability (Nagpal, 1995).

It is argued that involvement from local communities in decision-making processes is crucial because their exclusion, particularly in relation to topdown natural resource management, has resulted in conflict (Chan *et al.*, 2006) or increased poverty and environmental degradation (Hogg, 1987). Projects initiated from above have failed largely in part because they introduced new and unknown management methods that locals did not value or understand (Berkes, 2004; and Redclift, 1993). Local involvement helps community members place value in the project because they have had a stake in developing it. As cases in Africa have shown (Thresher, 1981; and Litchfield, 2001), if the protection of natural resources is proven to have value for locals, then they may be more willing to manage natural resources in a sustainable manner. If locals participate in the project then they are also likely to articulate the problems affecting them, which may not be clearly understood by outsiders (Fagan, 1996). Locals may need outside help to get a project running, but this should not undermine their decision making processes (King & Stewart 1996; and Walsh, Jamrozy & Burr 2001) and, instead, outside groups can serve to empower local groups (Seymour, 1994).

Development of local institutions

The development of local institutions that govern behavior is viewed as one of the most important aspects of sustainable development at the local level (Agrawal & Gibson, 1999; Berkes, 2004; Barton Bray, Merino-Perez, Negreros-Castillo, Segura-Warnholtz, Torres-Rojo, Vester, 2003; Castillo & Toledo, 2000; Kidane-Mariam, 2003; Leach, Mearns, & Scoones, 1999; Murali et al., 2006; Pagdee et al., 2006; and Pandey & Yadama, 1990; and Tucker, 2000). The creation of local institutions that are accepted by the community can help in the decision-making process, reduce vagrancy, and provide a transparent view of the process from both internal and external viewpoints (Barton Bray et al.,

2003; Castillo & Toledo, 2000; Tucker, 2000; and UNCED, 1992). Many authors have emphasized that the absence of strong local institutions is one of the most limiting factors a project may face (e.g., Agrawal & Gibson, 1999; Berkes, 2004; Leach et al., 1999, Pagdee et al., 2006; and Pandey & Yadama, 1990). A focus on institution development helps to unite people from disparate groups that make up a community, which may not necessarily be cohesive in and of it (Agrawal & Gibson, 1999). Institutions that are created through a participatory decision-making process are only helpful if they are developed, accepted, and enforced by the community as a whole. This is especially evident in communitybased natural resource management projects (Pagdee et al., 2006), but also in the conduct that governs social and political interactions within groups (Agrawal & Gibson, 1999; and Berger, 2003).

A focus on institutions at higher levels of government is also important because weak institutions at those levels may reduce a project's sustainability even if there are strong institutions at the local level (Berkes & Seixas, 2004). The impact external factors can have on local-level sustainability efforts is complicated and in many cases, may make or break any initiatives a local community attempts (ICLEI, 2002). In many cases, local level institutions in many developing countries have been eroded in the colonial and post-colonial eras because of a predominant push for centralized government (Kidane- Mariam, 2003; Leach et al., 1999; and Wiggins et al.,

2004), so the need for reinforcement exists at all levels. Regional or national attempts towards sustainability must take into account local institutions that govern behavior and adjust accordingly (Berkes, 2004).

Secure land tenure

Secure land tenure in the form or legal or informal institutions that define ownership and use rights is also a critical aspect of sustainability projects at the local level (Barton Bray et al., 2003; Castillo & Toledo, 2000; Kidane-Mariam, 2003; Tucker, 2000; and Romano, 2007). In Mexico, for example, the success of sustainable community forest management projects is highly related to secure land tenure of local communities (Barton Bray et al., 2003; Castillo & Toledo, 2000; and Tucker, 2000). Studies from Africa have also shown that secure land tenure plays a large role in sustainable management of natural resources such as soil (Barbier, 2000; Kabubo- Mariara, Mwabu, & Kimuyu, 2006; Opondo, 2000; and Romano, 2007).

In post-colonial developing countries land tenure is an issue because areas formerly inhabited or managed by local and indigenous groups has been changed drastically, with land tenure being moved either into private hands or centrally managed areas. This has made the question of redefining property rights a huge issue in these countries (Kidane-Mariam, 2003; and Romano, 2007). Often, marginalized groups have been relegated to less productive land (Thrupp, 1993) and local people resist involvement with the government in fear that their ownership or access to land would be changed (Mortimer & Tiffen, 1994). In order for communities to initiate sustainable development projects on either private or common land, they must be ensured that the land will not be taken away from them; otherwise, their commitment to long-term management is severely compromised.

Community vision, action plan and evaluation techniques

As with many projects, there must be a vision for what the community wishes the future to look like (Davidson, 2003; and Rocky Mountain Institute, 2003) and a road map to get there (ICLEI, 2002; and Rocky Mountain Institute, 2003). Having a vision with an action plan consisting of goals, objectives and benchmarks to work towards the vision is a critical aspect of any venture because it allows for measurement of success. This is especially important in sustainable development projects because it is argued that economic interests may supersede social and environmental ones and an action plan may help reduce overemphasis on economic goals (Bell & Morse, 1999; and Kates, 2005).

Literature related to eco-tourism projects, for example, calls for significant planning, which the absence of may serve to reduce overall success (Epler Wood, 2002; and McCool & Moisey, 2001). Additionally, having a community vision and action plan gives the community something concrete to work towards, with outlined objectives to get there. Evaluation is also a key factor in meeting project goals and working towards a vision and is often measured through the use of progress indicators (ICLEI, 2002; and Rocky Mountain Institute, 2003).

Equitable distribution of benefits

A community's commitment to sustainability may persist only if benefits are felt throughout the community (Pagdee et al., 2006). Often, one group may secure more economic gain from a project, leaving the poorest groups in the same financial situation they found themselves prior to the inception of the project (Agrawal & Gibson, 1999; Berger, 2003; Kellert et al., 2000; Mitchell, 2001; Murali et al., 2006, and Pagdee et al., 2006). If this situation occurs, then the project may be met with diminished morale and result in a lack of participation by marginalized groups (Horochowski & Moisey, 2001; Kellert et al., 2000; and Wiggins et al., 2004). This is especially important to consider in developing countries where the most marginalized groups are often the poorest.

On the other hand, equitable distribution of benefits to users may facilitate more sustainable use of resources because all parties have an equal stake in protecting them (Pagdee *et al.*, 2006; Murali *et al.*, 2006; Tucker, 2000). The development of institutions to regulate behavior is an important factor in resource use (Agrawal & Gibson, 1999; Berkes, 2004; Barton Bray *et al.*, 2003; Castillo & Toledo, 2000; Kidane-Mariam, 2003; Leach *et al.*, 1999; Murali *et al.*, 2006; Pagdee *et al.*, 2006; Pandey & Yadama, 1990; and Tucker, 2000) and may be a precursor to equitable distribution of benefits because it may provide a system of checks and balances to ensure that one group or individual does not take advantage of the community's efforts and that distribution of benefits is equitable without marginalization of user groups.

Sustainability Attributes Checklist

Sustainability attributes

Literature regarding locally initiated sustainability projects reveals that success in meeting goals is dependent on many factors (Kellert et al., 2000; and Pagdee et al., 2006). For many cases in developing countries, program success is often evaluated based upon poverty alleviation, social equity and protection of biodiversity (Agrawal & Redford, 2006; Berkes & Sexias, 2004; and Pagdee et al., 2006), but results are highly varied due to situational factors of each case (Berkes & Sexias, 2004; and Kellert et al., 2000). The global, national and regional economic context within which a community is situated may significantly impact a project's success. This is particularly true if the project is depending on external sources of funding for seed money or other additional financial support. Volatile markets, especially in the recent and continuing global recession, are affecting the global economy and have trickled down into nearly every sector and community. Social situations, including the heterogeneity of a community, power

structures, individual interests, gender relations, and instances of conflict also affect a community's commitment and ability to carry out sustainability projects.

The natural resources surrounding a community are also factors in the success of sustainability projects. Water resources and the infrastructure to retain and purify water for irrigation, drinking, and household use greatly impacts a community's ability to abate poverty (ICLEI, 2002), especially in dryland regions (characterized by arid, semi-arid and desert habitats). The type of surrounding forest, for example, dictates opportunities for fuelwood, fodder, nontimber forest products, which can be used both for subsistence and economic gain (Pagdee et al., 2006). The proximity of natural resources that meet the needs of community members is a huge factor in how the community is able to develop, though some communities have been able to use technological advances to optimize resources in seemingly barren areas (Weismann, 1998).

The differing contexts within which communities are found can make the transferability of sustainable development successes and failures implemented in one context difficult to achieve in other contexts (Agrawal & Redford, 2006). However, there are certain aspects that are commonly found in the literature and a focus on these attributes may be beneficial if adapted to the local context by local actors working with outside actors. This paper identified factors important to sustainability that are important to consider

Table 1
Ecological, Economic and Social Attributes Important to
Sustainable Community Development

Ecological	Economic	Social (Sociopolitical)
Biodiversity	Poverty reduction	Education
conservation Sustainable use of resources Environmental awareness and stewardship Restoration of degraded resources Preservation of ecosystem function and services	A. Secure livelihood B.Provision of basic needs Economic diversity Access to markets	A. Access to information and sharing of information between internal and external actors B. Interdisciplinary approach inclusive of scientific, indigenous, traditional and cultural (<i>etc.</i>) knowledge C. Capacity building Community ownership Political support from local, regional and national governments Inclusive democratic decision- making process Institution development
		Social (Sociopolitical) Secure land tenure Action Plan with an accepted community vision Evaluation techniques Equitable distribution of benefits

in order to avoid over-emphasis one or a few elements (*e.g.*, economic gains over social equity or ecological health). The attributes generated in this literature review may serve as a guide for communities for developing indicators for sustainability if they so choose. The elements are listed in Table 1.

Summary

The World Commission on Environment and Development's release of Our Common Future(commonly referred to as the Brundtland Commission report) in 1987 is often cited as the catalyst to the recent trends in sustainable development discourse (e.g., Agyeman & Angus, 2003; Kates, Parris & Leiserowitz, 2005; Redclift, 1993). In addition to acknowledging the over-use of natural resources on a global scale (Roseland, Cureton, & Wornell, 1998), Our Common Future proposed а definition forsustainable development that is widely used: "humanity has the ability to make development sustainable- to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). Although, this definition is commonly cited, it is also inherently vagued. (In the full report of Our Common Future the definition of sustainable development is actually much more extensive; authors generally do not cite the entire picture this report presents, which might dispel some of the arguments of its inherent vagueness and applicability (Kates et al., 2005), which has led to divergent interpretations and approaches to achieving the goal of a more sustainable global society (Bell & Morse, 1999; Kates et al., 2005; McCool & Moisey, 2001; and Roseland et al., 1998). Some authors have argued that the vagueness of the definition may lead to unsustainable growth where economic or political interests supersede ecological and social well-being (Parris & Kates, 2003; and Redclift, 1993). There is also exceptional divergence of opinion on what the definition means for developed versus developing countries (Redclift, 1993; and Nagpal, 1995), though some authors argue that developed and developing countries have similar problems but the degree and intensity of the issues differ significantly (Robinson, 2004, cited in Rist, hidambaranathan, Escobar, Weismann, & Zimmerman, 2007). The ambiguity of sustainable development has also led to different ways of measuring sustainability through indicators, which can vary depending on the user's idea of what development should occur and what should be sustained (Bell & Morse, 1999; and Parris & Kates, 2003). Although the

vagueness of the definition is an issue, it also allows flexibility for application in myriad contexts (Kates, Clark, Corell, Hall, Jaeger, Lowe, McCarthy, Schellnhuber, Bolin, Dickson, Faucheux, Gallopin, Grübler, Huntley, Jäger, Jodha, Kasperson, Mabogunje, Matson, Mooney, Moore III., O'Riordan, & Svedlin, 2001), which allows groups to adapt themselves according to their own initiatives and resources. Additionally, the Brundtland Commission definition can be thought of as a broad philosophical approach rather than a recipe for sustainability (James & Lahti, 2004). That being said, it is important to note that a distinction should be made between "weak sustainability" and "strong sustainability", where in the former the costs of obtaining sustainability are often considered too high (essentially a costbenefit analysis) and economics supersede true efforts to attain the latter, which promotes ecological or social sustainability without shying away from initial high costs (Bell & Morse, 1999). Weak sustainability also assumes that resources depleted over time can be substituted by others, which is countered by strong sustainability, which assumes that natural capital cannot suffer a net loss (Agyeman, Bullard, & Evans, 2002). Although the literature stresses the threepronged framework for sustainability, there is divergence of opinion on how to achieve sustainability, especially the appropriate level of governance to carry out sustainable development initiatives (Yanarella & Levine, 1992, cited in Bridger & Luloff, 2001). Many initiatives have been top-down, macro-level efforts

by national governments and international organizations. However, there is currently a predominant push to make sustainability local (FAO, 2006; Gurung, 2006; and Phillips, Miskowiak & Stoll, 2007). It is argued that macro-level efforts often negate the rights of local communities, disallowing them the autonomy to govern themselves towards sustainability (Armstrong & Stratford, 2004). Additionally, some studies have shown that natural resources can be managed more effectively by the people who derive direct livelihood from them, rather than by a centralized government agency or nongovernmental organizations (NGOs) (Agrawal & Gibson, 2001; Alcorn, 1993; Kijtewachakul, Shivakoti, & Webb, 2004; and Thomas-Slayter, 1992). One of the most cited sources of support for locallevel sustainable development came from what is a macro-level institution: the United Nations (UN). The promotion of locallevel sustainability has evolved over the latter half of the 20th century, especially after the Brundtland Commission report (WCED, 1987) and the UN Conference on Environment and Development in 1992 (Roseland et al., 1998). This conference, commonly referred to as the "Rio Summit" (because it was held in Rio de Janiero, Brazil), resulted in the development of an agenda for global sustainable development, Agenda 21, which stresses the necessity of local involvement in sustainability. The definition for Agenda 21 was established as "a participatory, multi-stakeholder process to achieve the goals of Agenda 21 at the local level through the preparation and implementation of a long-term, strategic plan that addresses priority local sustainable development concerns" (ICLEI, 2002, page 5). The strategies laid out in this document stress that local involvement especially that of local authorities is crucial for sustainable development.

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Definitions used in paper

Agenda 21: "a participatory, multistakeholder process to achieve the goals of Agenda 21 at the local level through the preparation and implementation of a long-term, strategic plan that addresses priority local sustainable development concerns (ICLEI, 2001, page 5)".

Case study research: a form of research used primarily in the social sciences and are selected when the study proposes "how" or "why" questions about the topic at hand, the researcher has little control over events, and the study is investigating contemporary phenomenon in the context of events in the real world (Yin, 2003).

Foundation for Ecological Security: (FES) a non-profit organization located in India.

Mission statement: "to strengthen, revive, or restore, where necessary, the process of ecological succession and the conservation of land, forest, and water resources in the country" (FES, 2007).

External actors: institutions, agencies, both state and nongovernmental that interact with local communities and individuals Internal actors: institutions, and groups living in a community that interact with each other and with external actors.

Global Environmental Management Education Center: (GEM) a non-profit organization housed in the College of Natural Resources at the University of Wisconsin-Stevens Point. *The mission of GEM is*: "pioneering and applying practical learning methods and technology to solve natural resource problems by linking faculty, students, and citizens worldwide"(GEM, 2009).

Institutions: the rules, regulations, and norms that govern behavior Locallevel sustainable development: sustainable development initiated at local levels, with or without financial, technical, or logistical support from external actors.

Participatory rural appraisal: "a family of approaches and methods to enable rural people to share, enhance, and analyze their knowledge of life and conditions, to plan and to act"

(Chambers, 1994, page 953).

Sustainable development: Meeting the needs of current generations without compromising the ability of future generations to do the same (WCED 1987).

Three-pronged framework: A framework for sustainability that includes ecological, social

and economic goals (Roseland et al. 1998).

Abbreviations

AU : Agroprocessing unit in N	VV	V
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- CGL : Common Grazing Lands in India
- FES : Foundation for Ecological Security, India

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GEM :	Global Environmental Management Education Center	PRA : PS :	Participatory rural appraisal Perimeter <i>shamba</i> system in NV
ICLEI :	International Council for Local Environment Initiatives	RRA : UN :	Rapid resource assessment United Nations
NGO :	Non-governmental organization	UNCED :	United Nations Commission on Environment and
NTFP :	Non-timber forest product		Development
NREGA :	National Rural Employment Guarantee Act, India	UNDP :	United Nations Development Program
PRI :	Panchayati raj institution system of local governance, India	USAID:	United States Agency for International Development

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Revisiting Sustainable Community Development 65

The Indian Ocean Archipelagos: A Comparative Study of their Conservation Vs. Development Spectrum

Aparajita Rajwade

The Indian Ocean is host to a unique assembly of archipelagos; each within a distance of a few kilometres from each other, highly similar in their bio-geographic nature yet with seemingly dissimilar fates. This paper focuses on assessing the current status of the archipelagos of the Lakshadweep along with its neighbouring, sister-archipelagos of Maldives and Chagos. This comparison is set in the wider context of the nature of the conservation Vs. development policies faced by them. This study therefore helps us appreciate where Lakshadweep lies today within the development spectrum as compared to its sister archipelagos. Also comparing the three archipelagos gives critical insight about their development spectrum and hence more importantly helps assessing which of the developmental stages out of all three are the most feasible and sustainable for Lakshadweep to follow. Secondly, this paper also addresses the possibility of Lakshadweep being overlooked during international and national enquiries of conservation and development.

Methodology

To gain a holistic perspective on the nature of conservation and growth drivers, this assessment followed two broad steps. In step one relevant sources of literature were identified using the Google Scholar search engine and databases such as Science Direct, Web of Knowledge, Springer and JSTOR. Various combinations of the following keywords were used:

'MPA', 'atoll¹', 'Lakshadweep', 'Maldives, 'Chagos', 'fisheries',

¹ Atoll: Atolls are annular mid-ocean reefs; the reef rim supports isolated, or nearcontinuous, reef islands composed of unlithified or poorly consolidated sand or gravel, and encloses a central lagoon (Woodroff & Biribo, 2011).

'conflicts', 'linkages', 'coral reef systems', 'Laccadive ridge', 'development', 'conservation', 'livelihood', 'tropical', 'challenges', 'barriers', 'success'.

Apart from sourcing information from peer-reviewed articles, this study also sourced critical and current developments of the archipelagos' developments from news websites. Crucial government documents, primarily the 'Lakshadweep Development Report, Planning Commission, Government of India, 2007' were also reviewed. In the second step, these select key articles and documents were then analysed to understand the conservation and development spectrum along the archipelagos of the Laccadive ridge.

Therefore, the primary objectives of this study were

- To assess the developmental stages of the sister archipelagos of Lakshadweep, Maldives and Chagos by:
 - a. Conducting a comparison based on their physical characteristics.
 - b. Conducting a comparison using the lens of governance histories, development trajectories and therefore their coral reef conservation measures.

- c. Using the above comparisons to assess whether Lakshadweep's present development trajectory is leading towards a desirable stage of sustainable development.
- 2. To identify the possible underlying causes of Lakshadweep being overlooked during international and national enquiries regarding conservation and development related endeavours.

Results

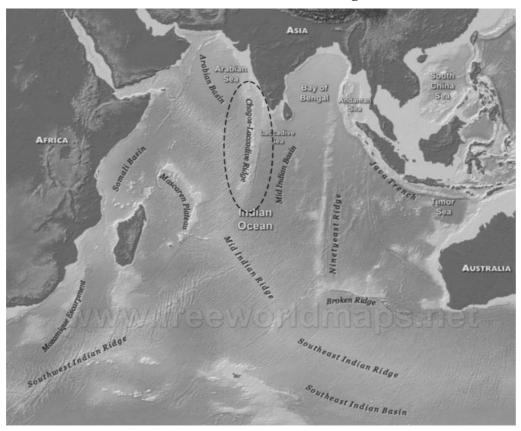
According to Kittinger (2012:1) it is necessary to study the 'differences in trajectories' of socio-ecological systems (SES) at various scales which can lead to either their 'sustainability or decline'. Hence, these groups of islands were examined to comprehend how although similar in their physical, ecological aspects, they have been exposed to varying degrees of a development regime.

The assessment has shown how these differences in their developmental trajectories have in turn affected the management of their coral reefs and the livelihoods dependent on them. It has revealed the varying stages of development the sister archipelagos find themselves at today. The identification of these stages can further help determine which path of development would be the best for India's Lakshadweep archipelago to follow.

Assessment of the Developmental Stages by Comparison of the Lakshadweep, Maldives and Chagos Archipelagos

These three groups of islands exist on a large submarine mountain range running North to South in the South-West Indian Ocean between 72° to 74°E (World Wildlife Fund, (WWF), 2013). Known as the Chagos-Laccadive Ridge, this volcanic ridge is a prominent feature in the Indian Ocean (Woodroffe 2011; Ashalatha *et al.*, 1991; Ben Avraham and Bunce, 1977). The peaks of the underwater ridge colonised by corals rose above sea level to form the three island groups of Lakshadweep (Laccadive), Maldives and Chagos at its southernmost end (Woodroffe, 2011). Figure 1 depicts the location of this ridge.

Figure1 Location of the Laccadive ridge



(Free World Maps, 2013)

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Together these islands form one of the biggest coral reef systems of the world (Wilkinson, 2000). Table 1 displays a comparison of various characteristics of these sister archipelagos. Observing the parameters displayed in the table, it is evident that all three island groups possess a common coralline nature and atolls as their most predominant feature. They also face the same kind of climate-change based threats such as sea level rise and coral bleaching (Woodroffe and Biribo, 2011; Mimura *et al.*, 2007). Highly similar in their physical characteristics, the WWF has also classified them as a separate 'Eco-region' on account of the unique biodiversity they represent together (WWF, 2013).

Table 1
Comparison of the Three Archipelagos' Characteristics

Archipelago	Lakshadweep	Maldives	Chagos (British Indian Ocean Territory)
Туре	Coralline atolls		
Elevation (metres)	Up to 3	Up to 5	Up to 2
Number of islands	36 islands, 12 atolls	1190 islands, 23 atolls	50 islands
Land area (km ²⁾	32	300	54,400
Population (2012)km ²	64,429	338,400	Uninhabited (except for 1 island with UK-US military base)
Livelihoods	Tuna fishing, Tourism	Tuna fishing, Tourism	NA
EEZ (exclusive economic zone)	40,000km ²	90,000 km ²	200 nautical miles
Status of protection	1 Bird Sanctuary on Pitti atoll	25 MPAs	Entire archipelago is a Marine Protection Area (MPA)

(*Inputs from* : Woodroffe, 2008, Sheppard, et al., 2012, World Bank, 2013, National Information Centre (NIC), 2013, Wilkinson, 2000)

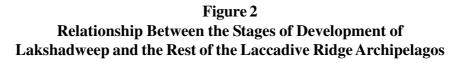
Through the Lens of Development

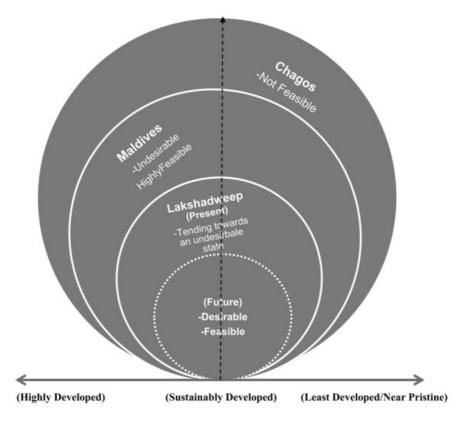
The literature reviewed for the three archipelagos reveals several similarities between them such as their morphology, flora and fauna as well as social-economic aspects of religion and livelihood dependence on the reefs. However, beyond these common aspects lie certain critical differences. These are mainly due to their governance histories which have acted as major drivers for the kind of development they experienced. For example, consider the central archipelago of Maldives with a large exclusive economic zone (EEZ) of 90,000km² (Wilkinson, 2000:110). After getting independence from the British in 1965, this small island nation developed rapidly. The Word Bank has declared the Maldives as a 'development success story' (World Bank (WB), 2013). Over the years, the Maldivians' major occupation changed from live bait tuna fishing to nature tourism (Rajasuriya et al., 2002). The nation has capitalised on the beauty of their coral reefs to make immense progress economically. Approximately 80 per cent of their GDP relies on its biodiversity based sector (WB, 2013). Such rapid development over the last three decades has however taken its toll on the Maldivian marine resources. Rapid advances in mass tourism and development have led to an overall snowball effect for the nation in

terms of infrastructure, standard of living and lifestyle practices (Nickerson and Maniku, 1996). Problems of increasing population density, lifestyle changes, depleting freshwater resources and solid waste disposal are on the rise. Somewhere, along the course of development, the Maldivian's marine environment has slowly degraded. To overcome resource depletion, Marine Protected Areas (MPAs) were created as a tool to protect their coral resources. Maldives today has a total of 25 MPAs developed essentially to aid tourism since the protected regions are all diving sites (Wilkinson, 2000:120). However, Wilkinson (2000) also reports that these MPAs still lack effective management due to unclear goals of conservation.

2012). This can be considered as another extreme example of human intervention which has led to a highly conserved state of coral reef atolls.

This comparative review thus brings into focus two atoll examples on either end of the development spectrum. Figure 2 depicts these extreme stages of evolution and regression of development faced by the Indian Ocean archipelagos in the last 2-3 decades. The largest circle stands for the largest archipelago of Chagos. It is shown as tilted to the right indicating Chagos' reversed state of development and high state of coral reef conservation. However, for Lakshadweep to achieve such a state is neither possible nor desirable for it would mean displacing its already vulnerable community. Next is the slightly smaller Maldives circle, which is shown, tilted to the left indicating its present state of development, highly vulnerable





population and extreme pressures on the natural resources. These 2 larger archipelagos appear as two extreme outcomes within the development spectrum. Although not desirable, this study believes that there is a tendency for Lakshadweep to move in a direction similar to Maldives, and hence the central circle of Lakshadweep is shown to be tilting slightly towards the Maldivian circle. The central dotted line represents an ideal state of optimal balance of sustainable development. The dotted circle depicts a stage in this state of equilibrium, which is both desirable and possible for Lakshadweep to achieve provided the island government takes initiative. This is not yet a realized state for the Indian archipelago and hence is represented as a potential future stage by a dotted circle. This illustration therefore depicts the current scenario faced by the archipelagos under study with reference to each other.

Possible Reasons Behind Lakshadweep Being Overlooked For Research Purposes

The lack of literature on conservation-development and research of the Lakshadweep archipelago brings us to this study's second objective which was to find out the possible reasons for the wide gap in research regarding Lakshadweep. An interesting fact was

discovered during the literature review. It was realised that detailed scientific enquiry regarding the Lakshadweep archipelago has been neglected. Scientists and conservationists seem to have overlooked Lakshadweep and its islands when on the other hand numerous inquiries have been made regarding the other two archipelagos of the Laccadive ridge; Maldives and Chagos. There is a dearth of peer reviewed research based on atoll geology, developmental history and conservation especially within the international scientific community. To put this into clear perspective, a few of the results obtained have been described below.

During the database searches, a discrepancy was noticed regarding the number of sources available for Lakshadweep compared to the other archipelago states of the Maldives, Chagos and Philippines. For example when JSTOR was searched for each archipelago along with the keywords 'protection' and 'conservation', the results obtained were as follows :

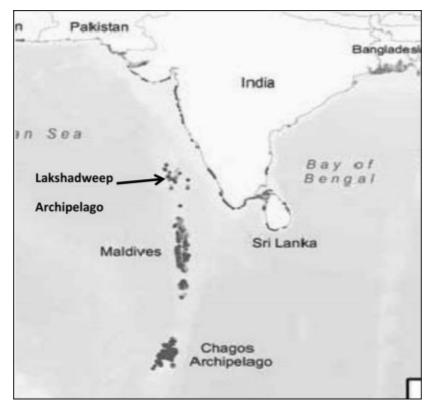
- Lakshadweep=33 sources
- Maldives=381 sources
- Chagos = 160 sources
- Philippines =10,148 sources

The World Resources Institute (WRI) published an assessment about the

magnitude and types of risks faced by coral reefs of the world in 1998 (Bryant *et al.*, 1998). During the course of its review this study noted that in maps depicting risks to coral reefs in the Indian Ocean, the Lakshadweep group of islands were not identified and labelled separately. Neither are the threats they face discussed independently in both reports by the WRI (Bryant et al., 1998; Burke *et al.*, 2011),

unlike those of India's other group of Andaman and Nicobar Islands or the Maldives and the Chagos. Figure 3 illustrates this fact from a map obtained from the WRI documents. This overlook is also found in literature on coral reefs atoll morphology, geology *etc.*, where the Lakshadweep has not been considered of as a separate entity.

Figure 3 Coral Reef Atolls at Risk in the Indian Ocean (2011)



(Burke, Reytar, 2011:51)

According to Agardy (2003), in the present global marine conservation scenario, almost every coastal country has applied some form of MPA. Although, this holds true for the coastline of mainland India and its islands to the south-east (Andaman and Nicobar) unfortunately, the same cannot be said for Lakshadweep. This south-western group of islands have been widely overlooked and underrepresented while establishing protective measures [See Table 1]. This state of fact is also corroborated by studies carried out by Singh (2003), Rajagopalan (2011) and Jadhav (2012). All three authors have stated in their work the underrepresentation of Lakshadweep where marine or coral reef conservation is concerned. Overall, it was noticed that research gaps exist at both national and international levels. Firstly, compared to scientific research carried out in the rest of the world, Lakshadweep is greatly overlooked. Secondly, even at the national level, these islands have been less studied as compared to India's eastern group of Andaman and Nicobar islands; which have 105 marine and coastal protected areas over 1620km² (Singh 2003, Rajagopalan, 2011). Whereas, to date, the only protected area in Lakshadweep is a bird sanctuary on a tiny 0.01km² atoll of Pitti (Rajagopalan, 2011). This study suggests the following possible explanations for such a long term underrepresentation of the islands:

- 1. The geographic isolation of the islands from the mainland which makes the archipelago's concerns not easily discernible to the national authorities. Given the general lack of conservation awareness amongst the islanders, ascertained through literature review, there is lack of proactive initiatives as is the case on the mainland (Hoon, 2003; Hoon and Babu 2012). Additionally, there is a lack of proactive engagement by the island civil society as far as advocating for resource protection is concerned. For this to happen at Lakshadweep, there is a need for its present conservations status to be broadcast beyond scientific literature and through other prominent means of media.
- 2. Yet another reason to explain the under-representation both nationally and internationally is that Lakshadweep suffered relatively less during the 2004 tsunami as compared to the other Indo-Pacific islands. It was mainly the south-eastern region of the Indian Ocean and India's coastline which suffered the most (Anand *et al.*, 2006). The tsunami triggered a lot of research towards increasing resilience and

conservation work on the affected islands by the international scientific community. Within India seas, the south-eastern islands of Andaman and Nicobar were severely affected by the tsunami and therefore have been studied regularly since then (Sonak et al., 2008, Anand et al., 2006, Ramalanjaona, 2011). One critical reason why the high islands of Andaman and Nicobar possess a greater number of protected areas could be since they are home to a unique, indigenous tribe which does not keep any contact with the modern, developed world.

Nevertheless, the fact that Lakshadweep are India's only coral reef atolls should be sufficient to serve as an incentive to increase efforts towards building a comprehensive framework for establishing an MPA network around the atolls such that it increases the island population's resiliency.

Conclusion

This comparative study has thrown light on some interesting facts such as the under-recognised status of Lakshadweep's vulnerable nature within the scientific community of coral reef atolls. The physically small nature of atolls is mirrored in the limited nature of their resilience. Rapid changes of development or climate change induced ecosystem modifications all get expressed on a magnified scale and within a short period of time. The aspiration for their islands' tourism development is similar to the neighbouring Maldives archipelago. The need is to develop a tourism model based on an integrative approach which sustains the islander's local livelihoods and protects the reef.

This paper has illustrated the paradox of development faced by the islands of Maldives and Lakshadweep on one end and the Chagos group which lies at the other end of the spectrum. Their comparison further elucidates Lakshadweep's present and immediate needs for focussing on policy which balances development with conservation. This will go a long way in building resilience vis-à-vis climate change dynamics.

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Health Problems of Women Working under NREGA

B. H. Satyanarayana

The National Rural Employment Guarantee Act (NREGA) aims at enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household whose members volunteer to do unskilled manual work. The objective of the Act is to create durable assets and strengthen the livelihood resource base of the rural poor. The choice of works suggested in the Act addresses causes of chronic poverty like drought, deforestation and soil erosion, so that the process of employment generation is maintained on a sustainable basis.

Women, constituting around half of the population play a distinct role in the development of the nation. It is a fact that women cannot contribute meaningfully in the process of the development, until their own development is taken care of. Though, women in urban areas have excelled in many fields, the rural women are denied of even the basic amenities like health and education. Central and State Governments have introduced various schemes for rural development. One such Scheme is National Rural Employment Guarantee Act (NREGA). Both men and women are working under NREGA. For this, a detailed survey in the five Taluks from Shivamogga District was undertaken to highlight the rural women health condition of the NREGA.

Objectives of NREGA

- Aims at enhancing the livelihood security of the people in rural areas by guaranteeing 100 days of wage employment in a financial year, to a rural household whose members volunteer to do unskilled manual work.
- The objective of the Act is to create durable assets and strengthen the livelihood resource base of the rural poor.

Objectives of the present study

• To study the profile of the rural women working under NREGA.

- To assess the health condition of the respondents.
- To evaluate the reasons for ignoring health condition of the respondents and
- To give the suggestions provided by the respondents to improve their health condition.

Methodology

The present study is empirical. Field survey method and personal interview technique were adopted for collecting primary data. Simple random sampling method was adopted for selecting 238 sample respondents. The present study area was five Taluks from Shivamogga District. NREGA is a predominant occupation of the study areas and it occupies an important place in the economic development of the areas. The respondents were asked about their age, education, number of children and personal income to study their profile. For the purpose of the study, the health condition of the respondents are classified as major health problems, that is the sickness for which they have to take medicine for a long period, minor health problems, that is the sickness for which they have to take medicine for a short period of time and no problem. The data relates to the month of January 2013. For analyzing the data, statistical tools such as percentage analysis, averages, standard deviation, and variance, method of least square tests,

Cramer's V and probability analysis were used.

Total number of rural women working under NREGA in Shivamogga District is 815. From the 815 women, 238 respondents (30 per cent) in five Taluks *viz.*, from Shivamogga District Hosanagara, Shikaripura, Bhadravathi, Sagar and Thirthahalli were selected for the study and average number of the respondents in Shivamogga District study areas was about 48 members and standard deviation was about 16.

The age wise classification was done into four different categories, and we found that the women respondents mainly fall under the age group of 41-50 where the highest frequency occur *i.e.*, 162 and in total sample size it constitute to 68 per cent followed by the age group of 31-40 and its frequency is 39 which constitute 16 per cent in the total sample, followed by the age group of 51-60 which the frequency is 33 and its percentage in the total sample size is 14. This indication would be relevant to the study because most of the earning members in a family would be in the age group of 41-50.

The women respondents are mainly from the SC/ST community which is 55 per cent of the total respondents. Following this, next stands the OBC community with 85 per cent members and 36 per cent of the total sample size. Here, MBC are only a meager amount in the sample *i.e.*, 22 in numbers and 9 per cent in total percentage. 86 per cent of the total women respondents belong to the Hindu Religion and the actual number are 205 of the total 238 samples selected. The remaining 13 per cent are Christians. This might be of the fact that the field area chosen should be a Hindu religion dominated area.

Among the sample households, 72 per cent were illiterates and 28 per cent were literates. In this study the literacy was extended from read and write to attending regular school education. Illiterate women respondents were having major health problems. To see the relationship and the intensity of relationship, the chi-square-test was used. The result of chi-square-test (?2=51.88,P=<.0001) revealed that there is significant difference between education and major health problems of women in Shivamogga District.

Out of 238 respondents, the majority of the respondents *i.e.*, 66 per cent of families are having large size ranging from 4-6 members. The result of chi-square analysis (?2=19.12, P=0.000070) revealed that there is significant relationship between size of the family and health problem of women workers in the study area.

4 per cent of the respondents are earning an income up to Rs.1000, 94 per cent of the respondents are earning Rs. 1000-Rs.3000 monthly and the others (2 per cent) are earning above Rs.3000 monthly. According to the result of this study, all the respondents were of the feeling that work under NREGA was heavy and proper rest was not provided, showed significant difference (P=<.0001).

It could be seen that lack of education (81 per cent) was considered to be the most important reason for negligence of health care in Shivamogga District. The next important factor was low personal income (74 per cent). The other factors in order of importance were lack of health awareness (64 per cent), poor family condition (55 per cent), food problem (53 per cent), and lack of medical facility (45 per cent).

The important suggestions provided by the respondents to improve their health conditions were conducting free medical camps (53 per cent), creating awareness regarding their health conditions (14 per cent), increasing their wages (17 per cent), providing education (11 per cent), and insisting nutritious food (6 per cent) respectively.

Findings

- Majority of the respondents were of 40-50 years of age. Illiterate respondents were having major health problems.
- Majority of the respondents having income below 3000 rupees are having major health problems.
- Only 16 per cent of the respondents having two children were facing minor health problem.

- All the respondents were of the feeling that work under NREGA was heavy and proper rest was not provided.
- The important suggestions provided by the respondents to improve the health conditions were conducting free medical camps, increasing their wages and creating awareness regarding their health conditions.

Suggestions

Based on the findings of the study following suggestions are given -

- A holistic approach to women's health which includes both nutrition and health services such as free medical camp should be conducted.
- Health care should be recognized through documentation. Health condition of the women should be considered in allotment of work.
- Steps should be taken to improve the literacy level of rural women. Proper rest should be provided when the work is heavy.
- Wages should be increased since personal income is significantly associated with health condition.

Conclusion

Rural women are economically benefited by the implementation of NREGA. At the same time the flip side of the scheme is that is no consideration about the age and health condition of the women in work allotment. For the income sake, the poor unhealthy and illiterate rural women are forced to work under the hot sun without any rest. If these problems are properly rectified by the authorities concerned, NREGA will be a real gift to the poor rural women.

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Educational Development of Backward and Minority Class Children: Opportunities and Challenges

Malli Gandhi

A major portion of the children from SC, ST, OBC and Minority sections are excluded from the school system as a result of various factors with non enrolment, high rates of dropouts and low rates of survivors at the end of primary schooling itself. Though, the state and central governments have been taking prominent initiatives for the educational development of these sections of people, there are many hindrances and hurdles in proving quality education to their children at all stages of education. Child friendly infrastructure, positive and supportive attitude of teachers, girl child friendly toilets are still a big concern. The needs of adolescent girls are another important concern. Several studies conducted by UNESCO, UNICEF and Government of India reports and scholarly works on the educational problems of SC, ST, OBC and Minority children shows the deplorable conditions of school education system, school experiences, classroom practices, curriculum practices, their academic

success, language barriers, problems of school incentives and so on. The ultimate aims and objectives of education is to make the children of these sections of people to understand their cultural and world genius better and engage them in social action and change of their society for the better. Inspirations can be drawn from the experiences of ethnic minority schools from US, UK, Australia and other nations' in order to plan and implement better education systems for the children of these communities.

Children from these sections are living in a large degree of isolation. This is a point for the need for more effective curriculum frame work that is sensitive to their cultural and educational needs. There is a need for better forms of interaction among teachers, children and community members in the school environment. But, very little has been done with regard to the educational needs of OBC and Minority children. Parents of these sections express their anguish and feelings about the future of their children. They feel that their children should be educated. Education is a tool for their social, economic, political and cultural development. They feel that schools should impart right knowledge, good behaviour, and right attitude to their children. They strive for a better place in society through education. But a large number of children from these sections are lacking support from schools and community members. They have to struggle constantly for their academic success.

Backward Classes enjoy constitutional privileges under Article 340 (1), 15 (4), 338 (1), 16 (4) and are provided certain special measures including reservation even before independence in Princely States and Presidencies of peninsular India. Backward classes consist of castes of mendicants, Safai Karmachari and nomadic, semi-nomadic and Vimukta Jati castes. The Safai subcategory includes Muslim scavenger castes like Halalkhor, Muslim Mehtar, Muslim Jogi. Backward classes can be seen under categories like: extremely backward (Sarvaadhik Pichade) castes; most backward castes (Athyanth Pichade); more backward (Adhik Pichade) castes of BCs. Many of BC families are dependent on traditional occupations like fishing, productive industries and services. But access to technology is still not within their easy

reach due to which reason traditional occupations like weaving of cotton and silk handloom fabrics may soon face extreme difficulties.

Muslims of India come broadly under two categories: socially and educationally backward classes (BCM). They account for about 80 per cent of the total Muslim population of India and other Muslims. The BCM are converts from the same castes as BCs and SCs of Hindus (more from BCs in North India and more from SCs in South India). All the schemes, programmes and legislations mentioned for BCs apply to BCM also. Christians constitute a much small proportion of the Indian population than Muslims, about 2.5 per cent. They are mostly in South India. They are also in small numbers in North India known by the names Massihs. There is no problem of incomplete identification in the case of Christian BCs. But, developmental issues mentioned in the context of Muslims also apply to BC Christians, particularly SCs and fisher-folk converts.

Children from OBC/Minority communities drop out of schools in large numbers as compared to the children of forward sections of India. Their experiences in schools are not very positive and face various types of discrimination, caste discrimination, community specific exclusion, genderrelated exclusion and sexual harassment, bullying, and violence against the children. Despite several efforts by government conditions of OBC/Minority children is far from satisfactory. There are significant variations in education among OBC and minority children. These variations cut across community, tribe, section, state and various other variations. Children cannot attend the school due to the barriers of distance from their school to home.

Building infrastructure in OBC/ Minority schools needs to be upgraded. Ensuring teacher regularity in OBC/ Minority schools with effective monitoring system needs to be in place. Across all the states, regular attendance is a serious issue among children from extremely poor and marginalised communities. The availability of school buildings, toilets, bore well or hand pumps are not ensuring access to OBC / Minority children in schools. There is a huge gap existing between the availability of such infrastructure facilities and the conditions of its usage and usability. The general status of OBC/Minority schools is anything than satisfactory and is expected to undergo a few important changes. Teacher orientation and training with appropriate subject knowledge should be enhanced. Quality education should be provided to teachers working with OBC/ Minority children to enable them to attend to the needs of these children. A massive scheme of skill-development in various marketable modern occupations should be undertaken such as plumbing, electrical

repair, repair of electronic goods, agricultural equipment etc so that they can be employable.

The Problems of Education of Backward Classes and Minority Children

Background

Contrary to popular misconception, it is not only Scheduled Castes (SCs) and Scheduled Tribes (STs) who are constitutionally recognised but Backward Classes too enjoy such constitutional privilege under Article 340 (1), 15 (4), 338 (1), 16 (4) and are provided certain special measures including reservation even before independence in Princely States and Presidencies of peninsular India. After independence, some North Indian States gradually joined this process. Other States and the Centre came last. But, there has been little effort to take a comprehensive view of the economic, educational and other issues of the BCs and Minority communities resolve them.

Backward classes consisted of castes of mendicants (a better word for beggars), *Safai Karmachari* (scavengers barring those who are included in SCs) and nomadic, semi-nomadic and *Vimukta Jati* (castes formerly dubbed as criminal) castes. The *Safai* sub-category includes Muslim scavenger castes like *Halalkhor*, *Muslim Mehtar*, *Muslim Jogi etc.*, who are not included among SCs on account of Clause (3) of the Presidential Order under Article 341. This sub-category has the lowest status among BCs and is devoid of assets as well as skills. They can be designated as the extremely backward (Sarvaadhik Pichade) castes of BCs. Castes of traditional artisans (weavers, blacksmiths, potters, carpenters etc.) and artisanal producers (fishing groups, stonecutters, earth workers, oil-pressers etc.) form the largest sub-category of BCs. They have no or little assets but known for their traditional skills. These skills have become out-dated on account of lack of technological upgradation and other support. They can be designated as the most backward castes (Athyanth Pichade) of the BCs. Pastoral castes and castes providing various services like haircutting and washing of clothes are generally on par with artisan castes and would mostly come under the subcategory of the most backward castes. On the other, many of tenant farmers are from weaker sections among BCs. They can be designated as the more backward (Adhik Pichade) castes of BCs. Examples are the Bataidars or sharecroppers of Bihar. Along with these groups, castes of landowning peasants have the advantage of possessing agricultural land and related skills, which skills are not fully developed. While most of the peasant castes are included in the list of BCs, there are peasant castes that have in historical times emerged out of social backwardness and risen above the

line of social backwardness. These fourfold sub-categories of BCs are commonly known. Though they did not suffer the problem of untouchability, they suffered from their low social status. Usually each of these castes was associated with a traditional occupation. The traditional Indian system had a hierarchy of castes. The linkage with traditional occupation does not mean that all people of a caste were and are engaged in that occupation, but all those who were and are engaged in that occupation belong to that caste.

Status of Backward Classes and Minority Groups

A large proportion of the BCs are dependent on their traditional occupations like fishing, variety of traditional productive industries and services. While, on the one hand, the doors of access to other occupations of their individual choice have been barred to them, on the other hand, opportunities and incomes in the traditional occupations, to which they are largely confined, are also being threatened and truncated by the organised market and through denial of access to relevant technology, finance and flexible credit. Many of them have consequently been pushed into agricultural wage-labour and even bonded labour. This process has gained tempo after traditional artisans were exposed to global competition without prior preparation of technological upgradation, financial support, market linkages and other support mechanisms which were necessary to enable them to stand up to international competition. At this rate, there is the danger that even traditional occupations like weaving of cotton and silk handloom fabrics, which are cultural hallmarks of India, may disappear after the present generation; already their numbers have shrunk by about half in recent decades. Most of bonded labourers today belong to BCs. The problem faced by BCs engaged in traditional occupations is also the fate of those sections of SCs and STs who are dependent on similar traditional occupations. The presence of BCs in the organised modern establishment of government and quasi-government bodies is very limited on account of denial of their Constitutional right to be recognised and accorded reservation and other facilities until 1990-93. It took another 12 to 14 years for reservation in education in the Central sector to be provided for them. In all parameters of development and welfare, the BCs figure between SCs and STs at the lowest end with the Socially Advanced Castes (SACs) at the top end. There is still no systematic approach of holistic and comprehensive planning for the development of BCs, so that in a reasonable time they are enabled to become equal to the Socially Advanced Castes.

Legislation for BCs (along with SCs and STs) for reservation in private higher

educational institutions including professional institutions should be enacted, fulfilling the real purpose of the 93rd Constitution Amendment Act, 2005 inserting new Clause (5) in Article 15. High Quality Residential Schools up to Class XII for BC boys and girls should be set up, initially one each in every district and subsequently in every Block. 75 per cent of children in these schools should be from BCs. Among the BCs due share should be given to the children of More, Most and Extremely Backward castes. Some of these residential schools should be located in areas of substantial Muslim population so that children of BCs Muslims can have due access to these institutions. There was a move and financial provision for these residential schools for BCs as well as SCs and STs as early as 1996-97 which was later scuttled.

Muslims of India come broadly under two categories: Socially and Educationally Backward Classes of Muslims referred to hereafter as BCM. They account for about 80 per cent of the total Muslim population of India and other Muslims. The BCM are converts from the same castes as BCs and SCs of Hindus, more from BCs in North India and more from SCs in South India. Right to Freedom of Religion (Articles 25 to 28) and cultural and educational rights (Articles 29 and 30) in the Constitution touch upon some basic rights of religious minorities. All Muslims, both socially backward and others, have these rights along with other religious and linguistic minorities. They are also entitled to the rights of all citizens like Right to Life (Article 21) which includes right to safety and security of person and property, right to life with dignity, right to livelihood, right to shelter etc., as interpreted by the Supreme Court from time to time. These rights have to be zealously protected. There are special developmental and welfare rights including right to reservation in order to bring about equality as mandated by the Constitution. This part is available only to the socially and educationally backward classes of Muslims (BCM) and also to a very small proportion of them who are STs (in Lakshadweep and Jammu & Kashmir).

All the schemes, programmes and legislations mentioned for BCs apply to BCM also. In these, BCM and BCs of other religious minorities should not be lost sight of and it should be ensured that they are taken up fully in development programmes and schemes along with the rest of the BCs, without oversight or discrimination or scope to suspect discrimination. Establishment of high quality residential schools for BCs in areas where the proportion of Muslim population is high so that Muslims especially BCM whose educational indicators are very low get well-deserved support for their educational progress. These measures pertain to employment and education. If in these two areas Muslims especially

BCM are given extra support, the atmosphere in the country may begin to substantively change.

Christians constitute a much small proportion of the Indian population than Muslims, about 2.5 per cent. They are mostly in South India. They are also in small numbers in North India especially in districts like Gurdaspur. In Gurdaspur, they are known as Massihs who are converts from the same castes as the Balmikis of Hindus. The Hindu Balmikis, the Sikh Mazhabis, the Christian Massihs, and the Muslim Halalkhor and Muslim Mehtar are a continuum of castes on which the inhuman work of manual scavenging was imposed. Massihs exist across the border in Pakistan also. While Balmikis and Mazhabis are SCs, Massihs and *Halalkhor* are excluded from the SC list on account of Clause (3) of the Presidential Orders. There is no problem of incomplete identification in the case of Christian BCs. But, developmental issues mentioned in the context of Muslims also apply to BC Christians, particularly SCs and fisher-folk converts. In addition, SC converts to Christianity suffer from untouchability and atrocities not because they are Christians but because they belong to the same castes as Hindu SCs. Therefore, it would be appropriate to give them equal coverage under the Protection of Civil Rights Act and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) (POA) Act. This is independent of the claim of SC Converts to Christianity to be brought within the ambit of SCs.

There is also a need to consider the situation of the poor who do not belong to SC, ST and BC. The difference between them and the poor among the SC, ST and BC must be clearly understood. The former are poor purely on account of economic reasons and circumstances. They have not been denied access to education or avenues of gainful employment by the social system or the Indian caste system. The latter are poor on grounds of systemic and systematic deprivation and exclusion on account of the traditional social system or the Indian caste system.

Education: Status and Systemic Issues

It is a known fact that children from OBC/Minority communities drop out of schools in large numbers as compared to the children of forward sections of India. Their experiences in schools are not very positive and encouraging as they come from diverse social and poor backgrounds. Every day they face various types of discrimination, caste discrimination, community specific exclusion, genderrelated exclusion and sexual harassment, bullying, and violence against the children of OBC/Minority communities. Many research studies pointed out about their segregation and exclusion from school atmosphere. However, the state and

centre educational institutions, organisations do not accept this fact. A study conducted by SSA during the year 2011-12 by involving a team of researchers in six states like Andhra Pradesh, Assam, Bihar, Odisha, Madhya Pradesh and Rajasthan reveals these facts clearly, and acknowledges the prevalence of exclusionary practices in schools and demands the need to address them urgently. It is becoming a distant dream for OBC/Minority children to access school, participate in school related activities, learn and grow. Their education is closely entangled with variety of issues such as society, family, school and community. The National Policy on Education 1986 reiterates that universal education is a powerful tool to help neutralize distortions of the past and give children a level playing field.

The Right to Education (RTE) Act 2009 states that guaranteeing all children the right to go to school, the right to be treated with love and care, and most importantly the right to be treated equally and with dignity". Despite several efforts by government and good intentions the conditions of OBC/ Minority children are far from satisfactory. Discrimination, unequal treatment, hidden practices retarding the abilities of these marginalised sections of children to learn, grow and acclimatise with educational benefits. There is a need to conduct several qualitative and quantitative research studies in minority schools to capture the reality of conditions persisting in minority schools, gender equality, social equity dimensions, practices of social discrimination with the schools, classrooms, and their daily experiences.

Children of OBC/Minority sections often get admitted into government or public schools. It is an established fact that the quality provided is not put up to the mark. A very insignificant section of OBC / Minority sections opts for private run schools (where the report card is very poor of their success of completion). In rural and remotest areas their educational situation is still poor. There are significant variations in education among OBC and minority children. These variations cut across community, tribe, section, state and various other variations. Rajasthan and Madhya Pradesh governments are providing education in the same schools where the children of forward sections are attending. In Andhra Pradesh, Karnataka and Kerala most of the upper class or forward caste children do not prefer government run schools. In these states we can see majority of the children are from weaker sections like SC/ST /OBCs and Minorities. There has been a significant growth in the number of Ashram schools, Residential schools, Tribal welfare, Social welfare, BC welfare and minority schools. But their quality, ability to provide safety, security and skills to many children is not encouraging. The

academic standards in these schools are disheartening and discouraging. Some OBC/minority children are unable to be shifted to these residential Ashram schools soon after completing their V standard as parents do not want to send their children to these institutions.

In many states the habitations/ villages/blocks where the children of marginalised groups reside are quite far and interior. Their children cannot attend the school due to the barriers of distance from their school to home. The social norms in Indian society with regard to the treatment of OBC and Minority children are by and large discriminatory. Discrimination against these children was more prevalent than against BCs or STs. The Mid-day meal (MDM) is one area which needs special attention. Social and community prejudices invariably surfaced in recent time. The cooks appointed in OBC/Minority schools are mostly from other caste category groups where there is every possibility that their performance is too poor. The seating arrangements for eating, and access to water for cleaning and drinking is also discriminatory.

Building infrastructure in OBC/ Minority schools needs to be upgraded. Infrastructure facilities form an important concern in case of BC/Minority schools. The infrastructure facilities that are available in these schools are poor in almost all the states. There are inadequate classrooms for children. Usable toilets are almost absent. In fact, toilets are available in majority of the schools but their usage is very little. Serious attention should be paid to ensure that they should be brought into serviceable conditions with running water facilities and cleaned regularly. A minuscule proportion of schools had usable and functional toilets for girls. And where there are such toilets they should be girl child friendly. Girls from the poor sections mostly the socially disadvantaged groups in the villages were frequently asked to clean the toilets.

Ensuring teacher regularity in OBC/ Minority schools with effective monitoring system needs top priority. One of the biggest challenges that needs to be tackled is the availability of adequate teachers to cater to various needs of OBC/Minority children. There is acute teacher shortage at all levels. Majority of teachers are not present in schools on every working day and do not come to school even though they are appointed on permanent basis. In some schools, contract teachers are being appointed who do not show serious interest in quality education of children. Para-teachers, contract teachers are not paid regularly. The responsibility of educational administration at the district/ block level is to ensure that all contract/ para teachers should attend the school regularly every day. Community participation in OBC/Minority sections is another concern for promoting quality education for OBC/Minority children.

Though, parents are aware of the discriminatory practices in the schools they are helpless because they simply accept or ignore the situation as something of this could not be changed overnight. In majority of the OBC/Minority schools the provisions of RTE/RTI are not observed properly. Sensitisation of the community members on RTE, RTI, has not taken place in OBC/Minority schools. Both RTI and RTE should be linked to OBC/Minority schools and 25 per cent reservation clause should be activated to ensure children's easy and smooth enrolment.

A common discussion at any time with a teacher working in on OBC/ Minority schools or teaching such children in a school states the perception of teachers, educational functionaries and monitoring authorities about their poor perception of such children. Their common perception is that OBC/Minority children do not perform better in schools. Interestingly the records from the schools reveal that academically these children perform better than others. There is a difference between the teachers' perception and reality. Teachers entertain prejudices and stereotypes about the academic achievements and attainments of OBC/Minority children. They often face the screaming and coercive conditions in schools. Teachers make use of them for different purposes like fetching water, roll call sheets, attendance registers, and for personal causes. Screaming and coercive conditions are often retarding OBC/Minority children in schools. In some schools the scholarships these children get or incentives they get will be rebuked by the teachers.

Across all the states, regular attendance is a serious issue among children from extremely poor and marginalised communities. This is due to various reasons such as poor health, recurring illness, seasonal migration by parents for work, taking on household responsibilities especially among girls and parental absence for daily wage labour. Frequent absence essentially meant that the children were unable to keep pace with learning and when they fall behind the teachers never show interest in their educational needs. Their problems are totally ignored.

The proportion of children from socially disadvantaged groups like backward classes, SCs/STs/OBC/ Minority is much higher than their share in the population. This aspect confirms that government elementary schools cater to the educational needs of the poor and marginalised children. There are state wise variations with regard to this issue. The attendance rates among these sections of children are also uneven. There is a gap between attendance reported in school records and the number of children present on all working days of the schools. Children from extremely poor families, landless daily wage labourers, seasonal

migrants tend to miss school more often. Most importantly, girls from very poor families were irregular and many children from such families reach school very late. Therefore, such children are not involved in school activities like leading the morning assembly and participating in other school functions. Research studies show that such children are excluded from active participation in class and school activities because they are not able to keep pace with the lessons taught and, the children are made to sit in the back rows.

The availability of school buildings, toilets, bore well or hand pumps are not ensuring access to OBC/Minority children in schools. The status of working of such facilities needs to be identified. There is a huge gap existing between the availability of such infrastructure facilities and the conditions of its usage and usability. There are no proper water mechanisms for cleaning such facilities. Schools are becoming sites of discrimination even in these issues. In some states most of the schools allow the forward caste children to eat to drink water first (Rajasthan) and wash their mid-day meal places first. The hand pumps are exclusively meant for upper class children. OBC/Minority children are asked to stand away from the tap water even to wash their hands or plates. They had to wait for other children to pour water for them. There is overwhelming evidence of gender as well as caste-based discrimination in practices

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around cleaning of toilets. First of all very few schools have usable toilets with proper water facilities. Wherever toilets are being used, children clean them using water from the hand pump or tap. In some states, persons are hired to clean the toilets, but often children mostly from the minority communities had to bring water from the hand pump and pour it. In several schools, usable toilets are locked for the use of teachers and even in these schools the girls were asked to clean them. There is a glaring absence of sports facilities for children in schools. Only selected students are given access to spots equipment. In most cases, teachers consider these boys bright as they attend schools regularly and sit in front rows. Like sports facilities libraries also are noticeable by their absence.

It can be clearly observed from the Government schools that children from **OBC/Minority** communities regularly participate in the tasks that are assigned to them by the teachers. Schools rarely practice democratic practices and teachers decide the roles of tasks to be performed both in the classroom and around the school. These include routine duties like sweeping the playground, classrooms, veranda, toilets and the place where the Mid-day meal is served. High profile tasks such as leading the morning assembly and participating in school functions are assigned to upper caste students and personal tasks such as fetching water or the register for the teacher, making and serving tea, cleaning the blackboard, collecting notebooks/papers and carrying desks/chairs are given to others including OBC/Minority children. These tasks are allowed to students depending on the teacher's perceptions on what is the prevalent norm in the community and their own personal assessment of what each child can or cannot do. There is clear gender and caste-based behaviour in the classroom and also in the school chores that the teachers assign to the children.

The day begins with a morning assembly in schools. The teachers select students based on two important criteria for leading the morning assembly: 1. Gender, 2. Perceived academic abilities. First girls are given preference over the boys as the teachers feel that they sing the National Anthem rhythmically and with more devotion and discipline. The criterion of using gender is straight forward. The second criterion is the perceived academic abilities. This is influenced by caste and class basis. Teacher perceives that students who attend regularly are bright. As a result, these children perform better in studies and speak good English as compared to students who are not able to attend the school regularly. Therefore, the regular students are given opportunities to lead the morning assembly while the not so regular students are not given opportunities to lead the morning assembly. They generally lose the opportunities. Only

a few schools give opportunity to other students to lead the assembly/morning prayer. Parents in almost all the states do not bother much concerned about the assignments and tasks assigned in the schools to OBC and minority children. They are quite silent on these specific norms. Similar patterns are also found during the celebration of festivals. For example, wherever a formal *puja/prayer* is performed it is led by teachers with the help of bright students. The issue of discipline is closely linked to being a good student across all the states. Only children who are perceived good or bright are selected to be class monitors, to speak in the morning assembly, the participate in national day functions etc. This form of discrimination is a consequence of certain conditions.

Scolding children is very common across all states. Due to the RTE Act teachers are more careful about overt form of punishment. Earlier there used to be a stick in the hands of teachers. Government declared school as no punishment zone. However, OBC/ Minority students regularly complain of punishment. Children are prone to verbal abuse with caste, community identity and often OBC/Minority children often are abused. Teachers often complain about implementation of ban of all forms of corporal punishments. They feel that this ban is the main reason for lack of disciple or no discipline among OBC/Minority

children in schools. In many places children report that physical punishment is very common as manifest in instances like pulling of girls' hair, twisting, pinching the ears, stomach of the boys etc. The disciplinary measures meted out to OBC/ Minority children are complex. The RTE Act notwithstanding, teachers and parents are found quite vocal about the need for punishment. The verbal abuse using caste/ community identity is sensitive to OBCs/ Minority children in several schools. The attitude towards girl OBC/Minority students and the kind of punishment meted out to them is very severe. After puberty touching the girls is a taboo, therefore in some schools teachers resort to abuse/ scolding the girls.

The mid-day meal scheme has emerged as the most important educational programme for OBC/Minority children. There are several discriminatory practices in the mid-day meal programme. In majority of schools the mid-day meal is prepared by forward castes/sections. OBC/Minorities are functioning as helpers. In some states caste identity is observed as an important criterion for appointing cooks. The OBC/Minority children are observed sitting in their own community groups. Children are separated based on gender, caste, sect, and community. In some schools the mid-day meal is irregular. Even teachers also sit separately and do not eat in the plates supplied to the schools. In schools three seating arrangements are practiced. The brightest/most active/disciplined students are allowed to sit in the front rows. Academic performance of children matters much. They get their role numbers according to the academic performance. Normally OBC/Minority students are asked to sit at the back. In all states children sit and play with their own group members. Though caste identity does not matter much children are not encouraged to mix with all groups of children. A line is drawn among children in playing, eating and living together.

There is a need to study, understand and identify good school practices towards OBC/Minority children with regard to their education. Some schools are following inclusive and positive practices in their schools and classrooms. But these inclusive practices are very few and need further and greater elaboration. In such schools teachers and head teachers are committed towards quality education of poor OBC/Minority children. They take interest and initiative in promoting education regardless the class, caste and gender and physical disabilities. Attention is paid to proper hygiene and active participation of children. However, it is important to note that the number of such schools is very less in our country across the states.

The State and Central Governments have taken a few prominent initiatives towards social and educational improvement of children from depressed sections: Tola Sewak (a volunteer in a village or habitation can take the responsibilities of getting children to school and interacting with them in school) and Hunar programme for promoting and encouraging education for poor and marginalised sections. Tola Sewaks have been appointed at the school level and their primary responsibility is to provide to students and more importantly to bring them back to the school. Their second major responsibility is to ensure that no discrimination takes place in school activities. Hunar is a programme to empower the minority Muslim girls. It was launched by the State Government of Bihar in collaboration with National Institute of Open Schooling (NIOS). Girls have benefited from this programme. They are confident and showing keen interest in their education. Such programmes need more attention and further extension for OBC/Minority children.

It is important that the specific needs of children with special needs among OBC/Minorities groups need special focus. The conditions of such children are more pathetic. In majority of the cases such children are not included in the school system. The SSA framework clearly mentions that children with special needs should be provided education in an appropriate environment. They should not be left out of the education system. Child friendly infrastructure, positive and supportive attitude of the teachers and students need reflection. Providing ramps and child friendly toilets remain a specific concern.

Conclusion

The situation and conditions prevailing in OBC/Minority schools are expected to undergo a few important changes. This is an important and difficult task before planners, administrators and academicians. Even after 67 years of Independence the conditions of OBC/Minority children are still deplorable. Issues of caste, religion, gender, economic status, place of residence, knowledge of English development of technological skills have become significant factors for the education of OBC/Minority children. Modernisation of learning institutions with culture specific education is an urgent task. Any violation of the rights of OBC/ Minority children is a violation of their rights to equality, social justice and right against all forms of discrimination. A nonnegotiable agenda for the needs of OBC/ Minority children has to be kept in place by the democratic bodies in the country. Teacher orientation and training with appropriate subject knowledge, use if Information and Communication technology (ICT) should be enhanced. Quality education should be provided to teachers working with OBC/Minority children to enable them to attend to the needs of these children.

A massive scheme of skilldevelopment in various marketable modern occupations should be undertaken such as plumbing, electrical repair, repair of electronic goods, agricultural equipment etc so that they can be employed by municipalities and other local bodies or provided necessary assistance to set up as self-employed providers of services which are badly required by urban as well as rural residents. Appropriate planning for nomadic, semi-nomadic and Vimukta Jati communities of BCs should be commenced including provisions for open-ended Post-Matric Scholarships. Also, appropriate planning for Safai Karmacharis among BCs (who belong to religious minorities) should be commenced including provisions for open-ended Post-Matric Scholarships. Sectors related to BCs should be reoriented as sectors for the people concerned e.g., fisheries sector should be renamed and re-oriented as fisherpeople's sector.

Sub-quotas of reservation with due respect for four-fold categorisation of BCs (Extremely Backward, Most Backward, More Backward and Backward castes) should be fixed separately for each within the total Reservation percentage (27 per cent in the Centre and varying percentages in States). This procedure will enable the weaker and weakest castes of BCs to get some share in the benefits of reservation in employment as well as education. This practice has been in existence in peninsular states even before independence. In North Indian states, this is one of the most acutely felt needs of the BCs who are not land-owning peasant castes and who collectively call themselves as Most Backward Classes. A commitment that this will be undertaken on a purely objective basis and completed within a fixed time-period and, that this task will be entrusted to a body of nonpolitical experts will be a welcome gesture in this regard.

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Climate Change Update

F.B. Khan

In a session of the Indian Science Congress, held in Mumbai in January, 2014, a paper was read raising some questions about climate change, inter alia, stating that climate change is a natural phenomenon and that fears of it being man-made are exaggerated. The report of the session was widely reported in the newspapers. The questions need to be clarified. The has published a book entitled 'Understanding Climate Change' jointly authored by Dr. Jatin Modi, Mr. Ranjit Chavan and this columnist. An international edition of the book is expected to come out shortly. A few excerpts from the international edition of the book in which such questions are covered are as under.

In the long history of the earth whether climate changes have taken place?

What have been the causes?

How is today's warming different from the past?

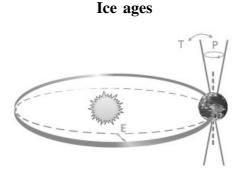
"Climate on Earth has changed on all time scales, including long before human activity could have played a role. Great progress has been made in understanding the causes and mechanisms of these climate changes. Changes in Earth's radiation balance were the principal driver of past climate changes, but the causes of such changes are varied. For each case be it the Ice Ages, the warmth at the time of the dinosaurs or the fluctuations of the past millennium – the specific causes must be established individually. In many cases, this can now be done with good confidence, and many past climate changes can be reproduced with quantitative models¹"

The earth has a history of about 4,500 million years. We get amazing information from the science, lucidly presented in atlases, that in the beginning there was a whirling globe of stellar gas. Then the earth passed through a liquid state before a solidified crust was formed. The earth passed through many major disturbances of its crust, which caused important changes in the geography and climate. Based on these changes the geological

history is drawn into four separate *eras* and 16 *periods*. The geologists have unearthed these changes through the evidence they found in the rocks and in the fossilized relics of plants and animals. And paleoclimatologists, through examining rocks, sediments, ice sheets, tree rings, corals, shells and microfossils have found the past states of the earth's climate.

Based on all these vast information, the scientists have now a definite picture of the past climates, and how they changed in the past. Most of the scientific findings in respect of climate change have now seal of approval of the IPCC. According to IPCC ^{2"}Global climate is determined by the radiation balance of the planet. There are three fundamental ways the earth's radiation balance can change, thereby causing a climate change:

- Changing the incoming solar radiation (*e.g.*, by changes in the earth's orbit or in the sun itself);
- 2) changing the fraction of solar radiation that is reflected (this fraction is called *albedo*-it can be changed, for example, by changes in cloud cover, small particles called aerosols or land cover), and
- 3) altering the long wave energy radiated back to space (*e.g.by* changes in greenhouse gas concentrations). In addition, local climate also depends on how heat is distributed by winds and ocean currents. All these factors have played a role in the past climate changes."



Milankovitch Cycles. Schematic of the Earth's orbital changes (Milankovitch Cycles) that drive the ice age cycles. 'T' denotes changes in the tilt (or obliquity) of the Earth's axis, 'E' denotes changes in the eccentricity of the orbit (due to variations in the minor axis of the ellipse), and 'P' denotes precession, that is changes in the direction of the axis tilt at the a given point of the orbit. Source : Rahmstorf and Schellnhuber (2006)

Fig 5.1(IPCC AR4 WGI, FAQ 6.1page 449)

Image of Milankovitch given in IPCC AR4,WGI,Chapter 6. IPCC has sourced this image from Rahmstorf and Schelinhuber (2006)

Ice ages have occurred in regular cycles in the last three million years. Scientists have shown that they are linked to regular variations in the earth's orbit around the sun. They are called Milankovitch cycles. These cycles change the amount of solar radiation received at each latitude in each season, though they may not have effect on global mean. Many studies have pointed out that the amount of summer sunshine on northern continents is crucial: if it drops below a critical value, snow from the past does not melt away in summer and ice sheet starts to grow as snow accumulates. Climate simulations have confirmed ice age can be started this way. Scientists have also used conceptual models to show how past glacial changes have occurred based on orbital changes. The next large reduction in northern summer insolation, similar to those that started past Ice Ages, is due to begin in 30,000 years³.

Role of carbon dioxide

The scientific findings have also established the key role of carbon dioxide in the ice ages. Antarctic ice core data show that CO2 concentration is low in the cold glacial times (~190 ppm), and high in the warm interglacials (~280ppm); atmosphericCO2 follows temperature changes in Antarctica with a lag of some hundreds of years. Because the climate changes at the beginning and end of ice ages take several thousand years, most of these changes are affected by a positive CO2 feedback; that is, a small initial cooling due to the Milankovitch cycles is subsequently amplified as the CO2 concentration falls. Model simulations of ice age climate yield realistic results only if the role of CO2 is accounted for⁴.

During the last ice age, over 20 abrupt and dramatic climate shifts occurred that are particularly prominent in records around the northern Atlantic. These differ from the glacial-interglacial cycles in that they probably do not involve large changes in global mean temperature: changes are not synchronous in Greenland and Antarctica, and they are in the opposite direction in the South and North Atlantic. This means that a major change in global radiation balance would not have been needed to cause these shifts; a redistribution of heat within the climate system would have sufficed. There is indeed strong evidence that changes in ocean circulation and heat transport can explain many features of these abrupt events; sediment data and model simulations show that some of these changes could have been triggered by instabilities in the ice sheets surrounding he Atlantic at the time, and the associate freshwater release into the ocean⁵.

Warmer periods

As ice ages have occurred, similarly warmer times have also occurred in climate history, during the most of the past 500 million years, Geologists have studied ice marks on rock to conclude that Earth was probably completely free of ice sheets, during such warmer periods, unlike today, when Greenland and Antarctica are icecovered. Data on greenhouse gas abundances going back beyond a million years, that is, beyond the reach of Antarctic ice cores, are still uncertain, but analysis of geological samples suggests that the warm ice-free periods coincide with high atmospheric CO2 levels. On million-year time scales, CO2 levels change due to tectonic activity, which affects the rates of CO2 exchange of ocean and atmosphere with the solid Earth⁶.

Solar Output

Variations in the energy output of the Sun are another likely cause of past climatic changes. Measurements over recent decades show that the solar output varies slightly (by close to 0.1per cent) in an 11 year cycle. Sunspot observations (going back to the 17th century), as data from isotopes generated by cosmic radiation, provide evidence for longer-term changes in solar activity. Data correlation and model simulations indicate that solar variability and volcanic activity are likely to be leading reasons for climate variations during past millennium, before the start of the industrial era⁷. These examples illustrate that different climate changes in the past had different causes.

Paleoclimatic research has unearthed a great deal of the climatic conditions of the past, which have been variously cited by various scientific authorities. Paleoclimatic data indicates that the earth has experienced both warm phases and ice ages, with the cold phases lasting generally for shorter periods. "In the mid cretaceous period (120 to 90 million years ago), dinosaurs roamed in northern areas and sea levels were much higher than at present, as less water was held as ice. The most recent geological period, the Quarternary, has seen numerous oscillations in temperature and ice caps. These are called glacial/interglacial cycles. The earth is at present in the Holocene period, which began about 15 thousand years ago. The warming was interrupted by a cold phase called the Younger Dryas, but about 11,800 years ago, an abrupt warming brought the climate into the interglacial phase we are experiencing today8".

The Intergovernmental Panel on Climate Change (IPCC) established in 1988, is the highest world level body set up to *assess the state of existing* knowledge about climate change; its science, the environmental, economic and social impacts and possible response strategies. For the last three decades there has been a spate of research the world over on climate science, world climate and climate change. The IPCC has been assessing all these vast findings and data and coming out with its authentic versions through its Assessment Reports. It has been established that in the 20th century, the influence of human activities, burning fossil fuels, deforestation, and similar activities have changed the chemical composition of the atmosphere, which has impacted the natural system. The increasing concentrations of carbon dioxide and other greenhouse gases in the atmosphere enhance the natural greenhouse effect, leading to increase in the earth's average surface temperature, sea level and weather patterns, which will dramatically change the earth. It is now a confirmed fact that Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since AR4. It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century¹⁰.

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Book Review

Financing Local Government Nick Devas with Munawwar Alam, Simon Delay, Pritha Venkatachalam and Roger Oppong Koranteng. Commonwealth Secretariat, London. ISBN: 978-0-85092-853-2

The eighteenth and nineteenth century were the centuries of colonization by the British, French, Dutch, and Portuguese when their colonies were established wherever they could sail through ships. This is the stuff of history. After the World War I the decolonization set in, which culminated after World War II, when the colonies gained independence, one after the other. However, of these colonizers, Great Britain thought it fit not to severe all contacts with their erstwhile colonies, and thus came the concept of the 'Commonwealth of Nations', used simply as **Commonwealth.** This was formally set up by the London Declaration in 1949, which established the member states as free and equal. The bitterness of the period of colonization and freedom struggle is sought to be replaced by a bond of unity of the member states for the shared values of democracy, human rights and the rule of law. The Commonwealth activities are organized through the Commonwealth Secretariat. There are many areas of Commonwealth including sharing of democratic experiences, Commonwealth games etc. The Commonwealth Secretariat has a Governance and Institutional Development Division which, among other things, brings out publications, organizes experience sharing visits, and holds conferences. One of its spheres of activities is to present contemporary trends, thinking and good practices in local government practitioners, public sector policy-makers and those working at sub-national level in the Commonwealth and internationally. *Decentralization* is a key approach in good governance, a fine concept to state, describe and comment upon, but it requires thorough capacity building to work.

The book under review Financing Local **Government** is the second of the series, after the first book Managing Change in Local Governance. In the Foreword, the Director of the Commonwealth Secretariat makes clear the scope of the book that 'the book explores methods ofensuring that fiscal decentralization takes place at the same time as administrative decentralization, considers a range of available revenue sources, the design of systems of intergovernmental transfers and rules needed to ensure that local governments manage their financial resources prudently, and deals with more complex issues such as capital financing, municipal bonds, and accounting and auditing in local government.'

The subject of Public Administration attracts researchers, academicians and writers, and books on it abound. It is also a vast subject and some innovations in governance approaches keep on coming. Local government is a part of the subject, something that is closely related with the day to day life of citizens. Compared to national and provincial/state governments the local bodies have been at the fringe when it comes to the finance and resources. Their mandates are increasing, but their finances do not keep pace with the requirements of finance to fulfill their mandates in a desired manner. As

such, a good deal of attention is needed for the local bodies to raise resources and manage the kitty with good practices of financial management. The book under review is on this aspect, and hence a welcome addition. Local bodies in the Commonwealth countries were set up during British Raj and hence there are many commonalities of their set up and functioning among the countries coming under Commonwealth. Thus, the authors could come up with their analysis and prescription as regards financing local government, which is the caption of the book. After an Introduction by Munawwar Alam, there are twelve chapters in the book. Every chapter is on a different topic so as to cover the subject comprehensively.

Decentralization is a buzzword in the literature of public administration. Need for decentralization has arisen because it was preceded by rigid centralization. Nick Devas, in chapter 2 of the book traces the trend towards centralization in the period from the 1940s to 1970s and reversal of the trend since the 1980s. He has rightly stated that in many countries local governments are chronically short of resources and there is need to examine options on how to fill this gap. He suggests various ways of doing this, including control of expenditure, exploiting the tax base and improving revenue collection, charging for services, increasing the transfer of funds from central government and borrowing. Discussing various forms of local taxation, he discusses need to stepping up efforts for increasing revenue and not to ignore the cost of collection, equity and enforcement. In chapter 3 Devas (chapters 2 to 4, 6,7, 9 and 10 are written by him) comes up with suggestions for effective revenue administration practices, such as taxpayer identification, better records

management and giving minimum discretion to assessors. He is emphatic that user charges for water and power should fully cover the cost and should be received at the earliest date. Infrastructure development like underground sewage disposal system, water supply, roads and bridges are capital intensive works, where the own resources of the local bodies woefully fall short. In chapter Devas lucidly discusses the sources of capital investment, purposes of borrowing, arguments for and against borrowing, sources and methods of borrowing. Borrowing is not an easy thing as it is related to scope and capacity of the local government to repay the loan. He gives examples of many countries- UK, Belgium, Netherlands- that have central funds for lending to local authorities and indicates sources from which the capital may be derived. A fact is that most of the things suggested in this chapter are more or less tried in regard to capital financing of local bodies, and alternative sources of capital financing have come up. These include private sector investment which comes in various forms of Public-Private Partnership. Devas lists the alternative sources of local finance in this chapter.

Limitation of traditional sources of local finance is an established fact. Now the shift is towards *innovative approaches of local finance*, especially in infrastructure funding. Pritha Venkatachalam takes a look at the experience in the North America and Western Europe where private debt is harnessed to build urban infrastructure but concludes that there is no single system that can be applied or emulated and that, need is to move gradually from donor support to own or market –raised funds, which demands capable local units that can attract investment. She cites the example of Tamil Nadu, where the decentralization brought about by the

74th Constitutional Amendment, resulted in seachange. As a result of devolution of financial powers to the urban local bodies, these bodies maintained operating surpluses on their revenue account and capital investment have grown substantially-Total revenues which were 12627 million (rupees) in 1998-99 rose to 20,711 million in 2002-2003, and capital investment grew from 2073 million in 1995-96 to 6598 million in 2002-2003. Setting up the Tamil Nadu Urban Development Fund (TNUDF) was India's first public-private financial intermediary managed by a predominantly private fund manager, which sanctioned in a little more than a year, loans of the order of 1.5 billion rupees. A true criterion of success of a financial body lies in its performance in recovery of loans. The Tamil Nadu Urban Infrastructure Financial Services Ltd. (TNUIFSL), which was established as the fund's asset management company ensured record recovery of about 99 per cent. She concludes that Tamil Nadu's ingenious financial engineering overcame potential credit risks and successfully secured private institutional finance, even for non-remunerative infrastructure in small towns.

In the sixth chapter Nick Devas deals with crucial issue of intergovernmental fiscal transfers and its design. He has dwelt on each type of intergovernmental transfer namely, tax/revenue sharing, general (block) grants, specific (conditional) grants, deficit grants, capitalization grants and subsidized loans. He discusses the criteria for evaluating these transfer systems namely, adequacy, elasticity, stability, interregional equity, economic efficiency and simplicity. Devas argues that the impact of transfer system on local governments should be regularly monitored and advocates that the system requires stability, *i.e.*, frequent changes in the formula of transfer are to be avoided.

Budgeting and expenditure management hold keys to financial management of local governments. Budget is a key document to allow expenditure and also a tool for policy declaration and implementation with short term, medium and long-term financial planning objectives. In chapter 7 Nick Devas deals with these vital aspects. He shows the key difference between the recurrent (revenue) budget which is limited to the current year and capital budget, which cover future needs. As to the issue of corruption in decentralized financial management in which more resources are handled at locations away from direct control, he suggests keeping greater accountability on the officers/managers at that level. Financial reforms are now the buzzwords. Devas draws attention to the reforms to financial management in many countries and rightly argues that decentralization involves a shift from direct role played by central government in service delivery to one of enabling and monitoring the work of local governments.

In chapter 8 Simon Delay rightly points out the limitation of conventional accounting system which is good at identifying costs, but poor at identifying performance. It may be mentioned here that precisely for this reason the reforms brought out by the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) strongly advocated for Double Entry Accrual Based Accounting System, which shows the true state of affairs of financial standing. Another apt point mentioned by Simon Delay is of *underspending*, *i.e.*, incurring expenditure below the norm, which affects the service delivery. He also points out the fine line between over-regulation and local autonomy.

Institutionalization of public participation in local governance has been a major initiative

taken in the JNNURM. This is what is advocated by Devas in chapter 9, when he suggests for some participatory mechanism. He rightly pitches for role of civil society, which according to him should include Community Based Organizations, NGOs, business organizations, trade unions, religious organizations, traditional leaders and the media. He cites some examples which include Self-Employed Women's Association in India which are raising issues on behalf of poor women.

Any good book of this nature has to have some case studies. Chapter 10 to 12 comprises cases studies on local government and local finance in England (chapter 10). In chapter Dr. Koranteng analyses how politics within the various policy networks affects fiscal decentralization and shows how various stakeholders have different interests, which influence decentralization. The chapter 12 includes short case studies of Malaysia, Jamaica, Sierra Leone, Malta, Mauritius, Nigeria and Sri Lanka.

Of late, local governance, local government finances are receiving good attention through researches, case studies and books by researchers, academicians and by government authorities. The JNNURM in India is a fine example how the flagship central scheme of the Ministry of Urban Development emphasizes reforms and gets them implemented.

The contents and the issues raised, discussed and suggestive reforms advocated are not new. But they have been presented in a lucid manner and covering a full range of them with good examples and case studies. This is what makes the book immensely useful for the policy makers and authorities, office-bears and officers/ managers of local bodies.

F.B.Khan

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OBJECTIVES

The main emphasis of the Institute's work is to see that the local bodies can contribute more effectively to the development process and provide the citizens with better living conditions by meeting their aspirations in terms of required amenities, infrastructure and better environmental conditions, thus contributing to social and economic development of the society as a whole by better management of the human settlements. While these are the long-term objectives, the immediate ones are :

- To advance knowledge of the principles and practices of Local Government by conducting research and by organising training courses and programmes at various centres in India for officials and elected representatives in the local bodies.
- To strengthen and improve Local Government Institutions by improving their performance through education, orientation training and bringing them together for common endeavor by organising specialised conferences, conventions and seminars.
- To make available a platform for members of local bodies and officials for exchange of views and ideas related to urban development and administration.
- To represent the views of local authorities supported by research work to the concerned higher authorities from time to time.
- To publish bibliographies, articles, books and other literature on matters of interest to local bodies.
- To publish journals, bulletins and other literature on different aspects of Local Government and on the working of Local bodies in different states.
- To undertake research studies in public administration, problems of local bodies and also in related topics of urban and environmental factors and arrange for their publication etc.
- To establish and maintain an information-cum-documentation service for local bodies.
- To undertake consultancy assignment in various areas of urban development and problems of local bodies with view to improve and develop organisational, managerial and operational efficiency.

In view of above, the Institute has been collaborating with the relevant government departments, Central and State, Universities, Organisations and Research Institutions. The work of the Institute covers several aspects involving a multi-disciplinary teamwork.

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