

Community-Based Conservation for Sustainable Forest Management - Probing the Indian Projections and Selected International Paradigms

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ABSTRACT

The agenda of sustainable forest management has gained profound significance with the avowal of the year 2009 as the 'International Year of Ecotourism', followed by regarding 2011 as 'International year of Forest' as well as coining 2014 UNWTO 'World Tourism Day' Theme as 'Tourism and Community Development' complemented by initiatives like MABP (Man & Biosphere Programme), The action plans of UNEP, UNDP, WWF, DFID, World Bank, SGPTF (Small Grants Programme for Tropical Forest) & IUCN have given importance to the forest in a much larger way looking into its conservation aspect more intensively. The term Community Based Conservation (CBC) refers to wildlife conservation efforts that involve community people as an integral part of Forest and Wildlife Conservation Policy. Further, the main aim of the Community Based Conservation effort is to bring the local community at the forefront of the conservation agenda by the tag "forest for people". With the rapid change in the climate and forest cover depreciation strict conservation steps need to be adopted for the future sustainability of the green cover. This work highlights the need for forest conservation while examining the present state of forest conservation in the Indian context. Analyses of successful case studies from Cambodia and Thailand as regards community-Based Conservation which is a novel concept for the upkeep of the forest have been conducted. The paper elucidates how CBC programme can work to produce a better relationship between forest, wildlife and local people, and on the other hand, the vast economic and social improvement that puts in the life of the local community will ultimately produce a more secure future for the forest and wildlife of Asia.

Key Words: Conservation, Forest Management, Community Involvement, Sustainable Development

“A country is known by the way it treats its animals.”

-Pandit Jawaharlal Nehru

INTRODUCTION

Tourism, one of the fastest-growing industries in the world, is often called the '*Sunrise Industry*'. It has been emerged as one of the priority medium of employment creation and revenue generation that ensures diverse economic well-being for the host community in many of the developed, developing and underdeveloped countries. Out of a wide range of tourism types, the popularity of Wildlife or Forest-Based Tourism is increasing day by day. The mid-70s through to the 80s and 90s of the last century saw the emergence of many innovative thoughts and practices in the realm of forest and wildlife management in this country also. Once it was realized that the needs and desires of forest dwellers had to go hand in hand with the demands of nature conservation, practices like the Joint Forest Management (JFM) were adopted. This, in turn, led towards the innovative experiments by a few resource managers in different parts of the nation in the case of the management of protected areas (PA), a document of Government of India (1983) entitled '*Eliciting Public Support for Wildlife Conservation*' sowed the seed of philosophy and practice which later was called as "*Eco-Development*".

Major Objectives

1. To underscore the need for forest conservation.
2. To examine the role of Government and Non-governmental bodies in forest conservation and promoting Community Based Forest Management in India.
3. To find out the role of the local community in promoting Community Based Forest Management in Protected Areas.
4. To derive new sustainable and practicable measures for conservation of forest from the analyses.

Review of Literature

The ecosystem includes both biotic and abiotic elements interacting with each other in a given area (Peine, 1999). There is the least possible chance to find an unaffected ecosystem

in today's scenario (**McCormick, 1999**). Therefore, there is a necessity of having an Ecosystem Management Approach that will be holistic and where humans should not be considered as a separate entity. This approach supports the concept "Man in Nature" not "Man vs. Nature". Ecological Society of America in 1996 has defined ecosystem management as, "Management driven by explicit goals, executed by policies, protocols, and practices, and made adaptable by monitoring and research based on our best understanding of the ecological interactions and processes necessary to sustain ecosystem structure and function." **McCormick (1999)** opines that the ecosystem and the understanding of ecosystem both are changing rapidly and therefore, he suggests to adopt an appropriate management approach, as per the change. C. S. Holling termed it as "Adaptive Ecosystem Management" (**Wondolleck, 2000**).

According to **Babylon (2003)**, to protect an ecosystem needs privately owned land. In that case, to motivate the host community (who are the original landowners) to take active participation in the protected area coverage in which they live is a kind of challenge. But once they become aware of the adverse impacts of many of their practices on the ecosystem, there is a fair possible chance that they would respond positively by taking more responsibility to resolve the problem (**Diamond, 1996**). It is a well-acknowledged fact that a healthy environment often makes the economy robust. Vermont Governor Howard Dean cited a clear connection in between healthy environment and a strong economy (**Diamond, 1996**). The connection between the economy and the conservation of valued natural resources often motivates the local community to take positive and action-oriented initiatives that lead towards the successful implementation of community-Based Conservation. According to **Weeks (1997)**, "Good strategy incorporates or at least acknowledges the things people hold dear as we ask them to change" and to achieve this, he suggested grasping an intense understanding of the socio-economic conditions at the community level.

The conventional approach towards conservation supports to establish a Protected Area whereas the community once resided inside the forest area to be relocated outside the park coverage. Such an approach often creates a clear conflict between the host community and the respected forest authority. Therefore, an alternative approach came into light in the name of 'Community Based Conservation' that integrates social and environmental priorities by encouraging local community people for stewardship of nature and natural resources and also the preservation of their age-old heritages. In 1982, The World National Parks Congress advocated CBC for the first time, and they promoted the Biosphere Reserves Model. Since

then till date, the concept has taken many shapes and forms. There is no doubt about its beneficiary part, but its strategical part regarding at what extent the concept will work out so that its impact can be last in the long run towards a positive direction is always a debatable topic.

Gordon and Betty Moore Foundation, a USA foundation established by Intel co-founder **Gordon E. Moore** and his spouse **Betty** commissioned Future Generations in 2007. They conducted a global review on Community Based Conservation to study the (1) contribution of local community in biodiversity conservation and natural resource management, (2) role of the host community in preservation of culture and local heritages, (3) fulfillment of social needs, (4) growing opportunity for earning revenue, (5) improving health and hygiene, (6) reducing management cost and finally (7) sustaining outcomes over time and from the study it has been concluded that any successful Community-Based Conservation initiative depends on few essential factors and these are: "active participation from the community level in conservation, partnership with outside group; upliftment of social status of women; infrastructure development; growth of social capital; improved livelihood opportunities and a local community controlled management approach that adapts to changing ecological, economic and social dynamics." Even though previous reviews have almost uniformly supported Community Based Conservation, there is a limited guidance regarding its application part (how to do it) and still we are lacking the appropriate measurement tools that can substantiate the interrelationships and integrated results of communities interacting with the forest within a protected area.

In developing countries, now it has been a common practice to exclude the local communities from the Conservation Based Resource Management Projects. This approach can be fruitful in a few specific cases, but in maximum cases, it has negative impacts. The excluded populations tend to harbour feelings of resentment as well as experiencing direct losses to their livelihoods. Bwindi Impenetrable National Park, Uganda faced similar kind of problem. Here the forest-dwelling local community, mostly depended on forest resources, were physically excluded from conservation project and were being forced to leave their residences in the name of preservation of vulnerable nature and its floras and faunas. Such approach drove the community people to be involved in illegal poaching to fulfil their daily needs. Many scholars suggested that the solution to such problem is to adopt a 'proactive and mutually beneficial conservation plan - an inclusionary management approach' that will establish mutual understanding in between the forest people and its authority. Not only that,

one of the many factors behind every successful conservation project is to grow a 'sense of ownership' in community people that will inspire them to be involved in the entire management process. It will be undoubtedly more effective and more monetarily efficient especially for shifting towards the ultimatum goal i.e. sustainability.

Higher participation often ensures an overall higher success rate. Fiji Island can be a good example where Community Based Management Plan (CBMP) has been successfully implemented for conservation. During the last decade as the coastal community realized that coastal resources were shrinking, they immediately formed Locally Managed Marine Areas (LMMAs) to take care of the marine ecosystem. The benefits of Community Based Natural Resource Management (CBNRM) are mostly non-financial that include the rural community empowerment, biodiversity conservation, improved and more secure livelihoods and overall reduction of risk. But on the contrary, such initiatives can also lead towards the over-usage of natural treasures in the absentia of proper supervision and control from a higher authority (**Fabricius, C. & Collins, S., 2007**). It has also been observed that in many cases communities participate passively in management programmes in a Protected Area because they would like to minimize the cost of participation as it is often being recognized that in many instances while local communities pay the bulk of the cost of conservation, the benefits go to governments and visitors (**Fabricius, C. 2007**).

Community-Based Conservation in term of 'Community Forestry' is often described as a "Collective Action" based approach. According to **Ostrom (1990) and Hobley (1996)**, the local community can manage natural resources through collective action. Many researchers have mentioned that such approach is not only suitable for the sustainable management but also for controlling the over-utilization of forest products, particularly in developing nations (**Brown et al., 2002; Victor et al., 1998; FAO, 1978**). **Chambers & McBeth (1992)** have mentioned that 'Collective Action' can bring about progressive social changes including community participation, decentralization and conservation (**Shrestha & McManus, 2006**). The importance of participatory Forest Management Programme was first declared in 1992 - 'Earth Summit' in Rio, Brazil and reaffirmed by the 'World Summit on Sustainable Development' and the '12th World Forestry Congress' held in South Africa and Montreal respectively in the year of 2003.

Davidar et al., (2010); Mishra et al., (2008); Arjunan et al., (2005); Silori and Mishra, (2001); Maikhuri et al., (2001) have blamed the 'over-dependency of local

livelihood on forest resources' as one of the many reasons behind the loss of forest area. **Gulati & Sharma (2000)** support it by saying that, low productivity coupled with the growing demand for forest products is creating such an alarming situation. Therefore, another approach towards Community Based Conservation is to minimize the over-dependency on forest resources. The very first step is to identify the forest-dependent, vulnerable groups (that may include Poachers, Hunters, Tribal and Non-Tribal Women, (NTPF) Non-Timber Forest Product collectors) and the final step is to provide the necessary capacity building and skills enhancement training to enable them to find out alternative livelihoods for survival and also ensure tangible benefits from conservation through employment, different development programmes and controlled tourism. Such initiative empowers communities, and it encourages them to carry out things by their own and thus make a perfect platform for Community-Driven Conservation (CDC) Projects.

A UK registered environmental conservation charity named CERCOPAN is facilitating the co-existence of primates, local communities and rainforest in Cross River National Park in Nigeria through its Community Based Conservation Programmes. Here each community has signed for conservation, and according to the law, they are being allowed for the sustainable exploitation of the community forests. To achieve effective results, necessary education has been provided to the community so that their reliance on the forest products does not go beyond sustainability. CERCOPAN is employing the ex-hunters for forest patrols, and CBO members are also being trained and offered logistical support for this reason. Such initiative has already made a significant contribution to Nigeria's acceptance as a partner country under the UN-REDD Programme (United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation Programme).

Another approach towards the Community Based Conservation is Conservation Volunteerism. According to **Chandra & Idrisova (2011)**, local implementation of Convention on Biological Diversity (CBD) often faces a serious challenge when it needs Stakeholders' active involvement in it and volunteering helps to overcome such odd situation. Such spontaneous involvement in conservation initiatives enhances knowledge among the participants (**Evely et al. 2011; Krasny & Tidball 2009; Braschler 2009; Cohn 2008**). Such approach plays a pivotal role in bridging the gap between the need for conservation and the available funding (**Asah & Blahna, 2012**).

The Community-Based Environment (CBE) Management model gained momentum in the early 1970s. The Brundtland Commission (1987), The United Nations Conference on Environment and Development (UNCED), the Earth Summit (1992), the Agenda 21 - all supported this model (**Lane, & Corbett, 2005**). Moreover, many national bodies, donor agencies along with non-governmental organizations also support this model (**Kapoor, 2001, Leach et al., 1999**). The Community Based Conservation model empowers local community in case of the decision-making process regarding their control over managing lands and also reduces the chance of failure of so-called 'command and control' approaches. In many scholarly articles, researchers have suggested and advocated this model because they feel that it is more democratic (**Kapoor, 2001; Scott, 1998; Sandercock, 1998**). For example, Australia, a continent, known for its unique aboriginal culture and unique biodiversity has adopted a kinder gentler conservation that has given importance to local participation and co-management of protected areas (**Lane, 2001**).

RESEARCH METHODOLOGY

The researchers chose the qualitative method by reviewing and analyzing the media reports, published works, research papers, working papers on conservation and dossiers of consultancies. NGOs working in the field of Ecotourism, Conservation, Environment and Forestry were consulted by the researchers to gather resourceful views on the issues. In the present study, thematic and content analyses were used to scrutinize and infer the data acquired from report reviews and experts responses.

NEED FOR FOREST CONSERVATION

"Saving wildlife and wilderness is the responsibility of all thinking people. Greed and personal gain must not be permitted to decimate, despoil and destroy the earth's irreplaceable treasure for its existence is essential to the human spirit and the wellbeing of the earth as a whole. All life has just one home — the earth — and we as the dominant species must take care of it."

-Dr.Dame Daphne Sheldrick (Kenyan Author and Conservationist)

Forests are restorative and the getaway for making fun, relaxing from the hustle and bustle of fast-paced city life. It is called "Green Therapy". Walking in the woods, Bird-Watching, Spotting and observing wildlife in their natural habitats and spending quality time in forest ambience can offer anyone the best education that no classroom teaching can ever provide. Researchers often refer to wetlands as the "Kidneys" of the earth and forests as the "Green Lungs". Forest covers one-third of the total area of this planet. It provides an organic infrastructure for some of the planet's densest and most diverse collections of life and also supports innumerable species.

According to **WWF (World Wildlife Fund)**, nearly 50% of all known species and three fourth of total biodiversity on land (i.e. 80,000 floral species; 30,000 faunal) live in the forest environment. Many of those are under serious threat now, because of deforestation leading towards the destruction of their habitats. Forests, with its variety of resources and wide range of bio-diversity, are the heritage that our ancestors have offered. WWF report says that some 300 million people including an estimated 60 million indigenous people stay inside the forests and many millions more live in villages near the forest fringes. According to the U.N., over 13 million people across the world are employed in the formal forest sector and are involved in different forest conservation projects. About 1% of the world Gross Domestic Product comes from timber and non-timber forest products of which the latter support up to three fourth of the total community in many developing countries. WWF Report also says that approximately 1.6 billion human livelihoods rely on forest resources, though it is unfortunate that 46-58 thousand square miles of forest cover has been lost every year because of deforestation. The Amazon rainforest in Latin America, Central Africa Mekong, Madagascar and Costa Rica etc. are just a few examples of being the homes to some of the world's most exciting species and also famous for the stunningly beautiful greenery.

The recent report from WWF has already identified 11 regions throughout the world where it has been estimated that if we can't address the major forest threats we will face major forest loss that is expected to occur by 2030. Today, in extensive regions of the continents like Asia, Europe and North America, the natural forests are disappearing at a large scale. In the last 50 years in the Amazon, around 17% of the total forest area has been lost due to forest conversion for cattle ranching and human encroachment and their continuous search for valuable natural resources like mahogany, gold, and oil. Forests are a storehouse of biochemical information. The U.S. National Cancer Institute states that, out of 3,000 medicinal plants- that work against mitigating cancer cells and 70 per cent of them are

found in rain forests. Forest plays a vital role in the effects of climate change as it plays a significant role in carbon sinking. Recent studies reveal the harsh fact that man-made deforestation results in nearly 15% of all greenhouse gas emissions. Pollution and air impurity have also a lot to do with such conditions. The disappearance of forests can affect the water cycle, which is an unavoidable factor in case of climate changes. Therefore, in late 2012, The United Nations recognized 21st March as the "International Day of Forests" though it was celebrated on 21st March in 2013, for the first time. Such initiatives highlight both the significance and the unfortunate situation of the woodlands' present status.

Another reason why forest conservation has paramount importance is that it ensures equilibrium on the planet. **Gawde (2014)** opines that destruction of forests would mean willful forfeit of the important machinery that is keeping the planet in "Live Action" mode; on the other hand, its conservation sustains nature's diversity, benefits our climate and supports human wellbeing. According to many scholars, reviving forests is a grand undertaking and the long-term and broad-gauged participation of communities can make it possible. If rational plans of reforestation will not be implemented sincerely, intervention on the ecosystem will have serious consequences for the food web as well as an ecological hierarchy.

PRESENT STATUS OF FORESTS IN THE INDIAN CONTEXT

Forest cover in India has more or less been stabilized since the 1980s. According to India State of Forest Report (ISFR) 2011, India's forest and tree are covering approximately 78.29 million hectares constituting nearly 23.81% of the geographical area of this country and recently released India State of Forest Report (ISFR) 2015, the 14th report in this series states that India's forest and tree cover has been increased by 5081 sq. Km. As per the report of Forest Survey of India, the forest cover has been increased marginally from 64.08 million (as per 1987 report) to 96.2 million hectares in 2011.

The Intergovernmental Panel on Climate Change (IPCC) Special Report on 'Methodological Options' defines 'Forest Degradation' as "direct human-induced long term loss of at least Y % of forest carbon stocks since time T and not qualifying as deforestation". The major factors causing forest degradation in India are (1) critical livelihood - enormous forest dependent population (**FSI 2011, Davidar et.al 2010**), (2) gap between the demand

and supply of forest products (**Aggarwal et.al 2009**). (3) destructive forest fires, (4) Overgrazing, (5) Illegal felling and diversion of forest land both permitted and illegal for non-forest uses due to competing land use demand for developmental and other uses (**FSI, 2011; Davidar et al, 2010; Aggarwal et al, 2009; MoEF, 2009; MoEF, 2006**) etc.

The enactment of proactive forest conservation policies and changes in management approach from "Timber" to "Forest Ecosystem" during the last forty years has restrained deforestation and proactive conservation. Moreover, involvement of the local communities in forest management, delegation of power to the lower level and ownership rights have ensured greater tenurial security and improved forest management and conservation. Besides these positive statements, it is also true that several recent studies on Indian forestry consider India as a Low Forest Cover-Low Deforestation (LFLD) country "exposed to significant direct human-induced deforestation and degradation in past few decades" (**Ravindranath et.al, 2012; ISFR, 2011**).

CONSERVATION INITIATIVE IN THE GLOBAL CONTEXT

Conservation is a global issue. Biodiversity across the globe are on a steep decline. Scientists, Wildlife Conservationist and Researchers have estimated that two-thirds of all the species could be on the brink of extinction by the end of this century. Each day a new species is being listed in the Red Data Book. Looking at these issues more seriously, each continent in general and countries, in particular, have taken initiatives to save the remaining patches of forest lands and wildlife for the existence of this planet. Besides the initiatives taken by the countries, many world bodies, as well as NGOs, are playing a big role in conservation aspects. On the top of the conservation initiatives comes Global Conservation Programme (GCP), a partnership between the United States Agency for International Development (USAID) and six leading nongovernmental U.S.A. based organizations that aims to conserve biodiversity areas those are also globally significant. Partner organizations implement site-based programs around the world as in the savannas of Africa, to the rainforests of the Amazon, to the most diverse coral reefs of Asia.

Similarly, African Wildlife Foundation (AWF) founded in 1961, enacts programmes to protect the wildlife and wild lands of Africa and to ensure a more sustainable future for the African community. AWF stands against the degradation of animals and the world's natural

environments. The World Wild Life Fund for Nature (WWF) is yet another pioneering international nongovernmental organization founded in the same year of 1961 and is working in the field of wilderness preservation and reduction of human footprints on the environment.

On the other hand, The Nature Conservancy, a charitable environmental organization founded in 1951 is finding solutions for the benefit of Conservation, People and Nature. The organization can protect 119 million acres of land and thousands of miles of rivers and operates more than 100 Marine Conservation Projects so far. The International Union for Conservation for Nature (IUCN) created in 1948 has evolved into the world's largest and most proactive conservation network. It provides public, private and non-governmental organizations with the knowledge and tools that enable human progress, economic development and nature conservation to go in tandem. The United Nations Environment Programme (UNEP), yet another specialized agency of the United Nations works for global environmental agenda, promotes the coherent implementation of the environmental dimensions of sustainable development within the United Nations system and serves as an authoritative advocate for the global environment.

CONSERVATION INITIATIVES IN THE INDIAN CONTEXT - AN OVERVIEW

The Indian Constitution has significant provisions for environmental protection and the Article 51-A (g) has mentioned the fundamental rights and duties of every Indian citizen to stand for the sake of improvement and protection of the natural environment and to have compassion for living creatures.

[A] PRE-INDEPENDENCE ERA:

The Indian Forest Act, 1927, classified forests into three different categories: (a) Reserved Forests, (b) Protected Forests (c) Village Forests. The 'Reserved Forest' is the most restricted zone, where without the consent taken from the forest authority in the course of "settlement", even local people are not allowed to enter into the forest area. In case of 'Protected Forests', the Government has the supreme authority to issue necessary regulations to control the usage of forests' resources and the State Government allots the village-communities the rights of governing 'Village Forests' by their own.

[B] POST-INDEPENDENCE ERA:

In the post-Independence era, three National Forest Policies and few Forest Acts have been implemented so far where the special focus has been laid on the host communities. The first Forest policy, 'The National Policy' came into vogue in 1952. It classified forest into four categories: (a) Protected Forests (b) National Forests (c) Village Forests and (d) Tree Lands. This policy recognized the forests as "National Interests" and restricted the free-accessibility into the forest without taking permission from the Forest Authority. 'The Wildlife Protection Act, 1972', is probably India's first comprehensive legislation that recognized over 500 National Parks and Sanctuaries as Protected Areas (PAs). 'Private Forests Act' was sanctioned to check the denudation of tree growth in 'Private Forests' due to extensive over felling as a consequence of high prices of fuel. 'The State Forest Corporation Act' empowers the Corporation to manage various research projects relevant to forest conservation within the State. This act also mandates that every individual from the local community has to support this Corporation by providing all requisite information. 'The Environment Protection Act, 1986', was an ardent response to a much needed general legislation for environmental protection. It was supported by 'Water Act' and 'Air Act' which were amended later. 'The Forest Policy (NFP), 1988', represented a major paradigm shift from the basic concept of past implemented acts and policies and it envisages that the rights and concessions are to be primarily for bonafide use of the tribal and non-tribal forest dwellers. The Section 4.2 (4.2.1-4.2.4) & 4.3. (4.3.1-4.3.3) of 'National Forest Policy, 1988' also advocates for inspiring the forest communities to take active participation in protecting and developing the forests from where are derived their benefits.

Joint Forest Management (JFM) was introduced in India for the first time in 1990 and it says that forest dwellers accompanied by the State agencies and local NGOs will jointly manage the forest and in return, the community people will share both costs and benefits with them. The Joint Forest Management Committee is a democratic, decentralized and transparent local body that follows JFM guideline of the respective States. June 1990, the Ministry of Environment and Forest's issued a circular to different State Forest Departments (Source: Vide Letter No.6-21/89-F.P), stating that the villagers and the voluntary agencies should be encouraged to take active participation in forest land regeneration programme. The Guidelines of 2000-2002 also helped to make the framework of rules and resolutions at the State level. Panchayati Raj Act 1994, Panchayats (Extension to Scheduled Areas) Act (PESA) 1996, Forest Rights Act (FRA), 2006 etc. further enhanced the rights and

responsibilities of communities towards forests. JFM empowers the communities to manage the forests and they have the power to exclude the non-members. The benefits come in terms of accessibility and control over the usage of non-timber forest products. The main focus areas are as follows:

- No existence of claims or rights, privileges or concessions from anybody including the beneficiaries regarding the forest area.
- The village community who are the beneficiaries also will implement JFM collaborating with the NGO's and the State Forest Department and there will be no commercial or other interests.
- The beneficiaries' work will be closely monitored by the respective forest department. Accessibility and usufruct rights are limited to the group of people forming co-operatives or village forest committee.

In India, the balance between forest conservation and local development is not up to the mark and the lack of collaboration from local communities leads towards the failure of many nature preservation policies so far. The Government of India, pushed by international NGOs such as WWF (**Baviskar, 2003**), launched the Indian Eco-development Project in 1996 (**Mahanty, 2002**) with the twin objectives of – (a) Biodiversity Preservation, and (b) Undertake Eco-Development activities in rural sites. Eventually, the Eco-Development Committee (EDC) was formed. EDC is meant for the villages located in the buffer zones of protected areas and its setup, role and responsibilities, activities, authorities, funds - all are controlled by the State Government. It was officially recognized that the local people are dependent on the forest environment and there is a need to involve them to participate in different forest preservation measures to restrict them from overexploitation and overutilization of forest products and thus environmental protection and conservation can be achieved. (Rio Earth Summit, 1992; Convention on Biological Diversity signed by India in 1994). The Global Environment Facility (GEF) created within the World Bank to provide funds for projects for protecting the global environment (Young et al., 2001) subsequently lead to, Indian Eco-development Project which was kicked off in 1996. One of the many aims of this project was to reroute the human pressure on natural resources. This approach did not delve upon the terms of the 'Wildlife (Protection) Act, 1972' into consideration because environmental conservation was still a priority over the rights of local people to resources (Dejouhanet, L., 2010; Baviskar, 2003; Saberwal et al., 2000).

In 1996, the Parliament of India extended the 73rd Amendment Act to 10 States by legislating the provisions of Panchayat Act, 1996. It is known as 'Panchayats (Extension to Scheduled Areas) Act' and in short PESA. The application of PESA is restricted to the Scheduled Areas only. It endows special authority to the Village Panchayats and Gram Sabhas and mandates that the State legislature will ensure the transfer of power so that they can function as an autonomous body. PESA empowers the Gram Sabhas and establishes its right towards forests and its resources. 'The Biodiversity Act, 2002' has been enacted in the pursuance of the United Nations Convention on Biological Diversity in the year of 1992. It supports bio-diversity conservation, sustainable use of forest products and equitable share of benefits by forming a three-tier hierarchy of authorities to manage the biodiversity by interlinking the NBA (National Biodiversity Authority) with State Biodiversity Boards and Biodiversity Management Committees at the local level.

Despite so many enactments and amendments Forest Acts and Policies across India's forest areas, the native people are still fighting for democracy, livelihood and dignity. In this connection, 'The Forest Right Act, 2006' has safeguarded forest dwellers' rights and it makes the conservation concept more accountable and it acts as a weapon of democracy. 'The Indian Forest Act, 1927' declared the forests as "Government Forests" ignoring the people living inside the forest areas.

The drawback of many Forest Acts, implemented earlier is that they converted forests into the property of a colonial department; and as a result, there is always a stronger claim to the property than its conservation. On the contrary, 'The FRA Act, 2006', grants recognition to the forest-dwelling communities' rights. Moreover, it partially compensates the injustices that happened to these people because of previous forest laws and provides authority to the people depending on forests and forest land for their livelihood. In this Act, Gram Sabha plays a significant role as it is a public body and here all can participate, and therefore, it is fully democratic and there is no question regarding transparency. The recommendation of Gram Sabha goes through two stages of screening committees at the (a) Taluka and (b) District levels while the authority of final 'decision making' goes to the district level committee only. The law also recognizes three rights: (1) Land Right: The land can only be sold or transferred to inheritance. (2) Use Right: The forest dwellers can use NTFP Non-timber Forest Product, grazing grounds and water bodies and (3) Right to protect and conserve: Offers rights to the community to protect and manage the forests.

SUCCESSFUL COMMUNITY BASED FOREST CONSERVATION MODELS

Case Study-1- Chambok Community Project- Cambodia

Chambok, located in Chambok Commune of the Kompong Speu province is adjacent to the one of the popular National Park in Cambodia named Kirirom National Park. It encompasses four villages and these are Krang Chek, Beng, Thmei and Chambok respectively. Chambok Commune has 814 households. The primary occupation of 99% of the households in the community is rice cultivation whereas 0.61% venture into service and 0.37% don't have any steady occupation. In the past, the residents were over depended on forest products extraction such as illegal logging, firewood collection, charcoal production and wildlife poaching (Ven S, 2015). With all these anti-environment activities the forest cover got depleted drastically. To bring a turnaround in the forest resources of Chambok, an assessment study was conducted by a Cambodian Environmental Non-Governmental Organization named Mlup Baitong. Ecotourism has been applied as a promising tool for preserving natural resources as well as for providing an alternative way of earning for the local community. Chambok Community Based Ecotourism Tourism (CBET) was formed in 2002, with the initiative and support of Mlup Baitong. A management committee consisting of elected residents was nominated to operate the CBET. The aims of the project were (1) to offer the host community, living in the forest fringe, an alternative source of livelihood so that the over-exploitation of forest can be restricted to some extent and (2) to provide the residents as well as the visitors the education on environmental conservation.

Chambok offers lots of attractions and activities for nature lovers. The 40 meter beautiful waterfall, a bat cave with its hundreds of inhabitants, protected forest, mountainous landscape, local livelihood, rural Cambodian culture, traditional dance and music performances performed by the local performers, bird watching, animal trekking etc. are the most popular of that lot. Out of the 814 households, 500 households are the members of CBET. Revenue comes from the entrance fee, parking fee, souvenir selling, and nursery plants' sale. Tourists' services include ox cart driving, homestay guide, cooking, bicycle rental, traditional dance, tourist gazebos catering and many more. Today, Chambok Ecotourism Project has been considered as one of the most successful ecotourism models in Cambodia. The Community based ecotourism has opened up a sustainable livelihood approach in Cambodia as well.

Case Study-2 Koh Yao Noi Community - Phang Nga Bay Southern Thailand

Koh Yao Noi, a small island situated in Phang Nga Bay in Southern part of Thailand is inhabited by Muslim families who are able to preserve traditional small scale sustainable fishing practices. During 1980s, Phang Nga Bay witnessed large scale illegal trawlers, using illegal fishing equipment (such as electric shock and dynamite to catch fishes) that led to the mass degradation of coral and sea-grasses which were considered as the thriving ground for baby fishes. Such practice was putting Phang Naga Bay and the local community in deep trouble. To combat this problem, the Koh Yao Nai Small Fishers Group (established in 1984) started fighting against the illegal fishing. The group coordinators were local village leaders and organized community conclaves who underscored the importance of protecting coastal resources to their livelihood and families and joined hands in fighting against illegal fishing. The Small Fishers Group collaborated with seven villages in the island neighbouring sub-districts and provincial movements in Krabi, Phang Nga, Phuket and three provinces established in Andaman Network. The network helped the community members to communicate with the Thai government. In the 1990s this Small Fishers Group were assisted by Responsible, Ecological and Social Tours Project under the Thailand Volunteers Service (TVS-REST) to develop Community Based Tourism, through which they started communicating their struggles with the mainstream Thai Society and to demand more positive initiative and better law enforcement. By the year 2001, local action as a medium to communicate to the outside world has proved to be successful. Koh Yao Noi got global attention and illegal fishing has been banned on Phan Nga Bay. Few members of the Koh Yao Noi community formed a Community Based Ecotourism Club with the motive of developing CBT as a way to make the visitors aware of the life of these fishermen. In the year 2002, the CBT programme got a strong momentum with proper objectives and code of conducts to join host families to see and understand "traditional fishing" using traditional wisdom depending on low and high tides. In 2003, the club received the prestigious 'World Legacy Award' from the National Geographic Traveler and Conservation International. Not only that, it also received several leading Thai Awards from the Tourism Authority of Thailand (TAT). At present, the annual income of the registered participating families has been increased nearly 10% increase due to the CBT programme and Koh Yao Noi Community has been emerged as a true successful Community model for Sustainable Coastal Resource Management and Cultural Empowerment.

SUGGESTIONS, LESSONS LEARNT & WAYS FORWARD

- India Eco-Development Project (IEDP) has been considered as a landmark project in India. Commenced as an ambitious exercise, facing civil society criticism, and plagued with an agonizingly slow pick-up, a serious rethink and downscaling at the Mid Term Report (MTR) stage, it has finally resulted in some exceptional achievements. It has seriously challenged some long-held assumptions and propped up sound learning to guide any future project of its kind. The lessons from the project even go beyond the future projects of its kind and beyond the limited genre of IEDP and are expected to benefit any externally aided projects. This project has been selected to be implemented in a five-year pilot project basis in seven selected Wildlife Sanctuaries but the benefit and outcome in terms of profit could not be achieved from all the sanctuaries.
- Eco-Development Committees need to move towards a more sustainable future for the community and it requires involvement and active participation of all key stakeholders to develop a shared vision at the outset of the processes.
- The age-old procedures of Guns and Guards, Fines and Fences of the Forest Department has slowly moved to the concept of Share and Care; the last step is going to build a strong bond with the local community for the proper functioning of the different activities.
- Local youths can be the guardians of the forests and also act as local guides and trekkers for ecotourism activities.
- Special attention to be given in developing mutual trust and understanding between the community people and the park management.
- Cultural Ecology could be mooted as an effective practice for conservation
- Capacity Building for tribal youth is expected to be a path changer in many respects.
- Micro Financing plays a key role in Sustainable Livelihood.
- Technology Intervention to monitor flora and fauna certainly brings positive results.
- Coordination between Tourism, Forest and related Departments is vital.
- Focus on indigenous health practices and incepting herbal gardens as part of Participatory Forest Management (PFM).
- Innovative ventures on the lines of Tree Houses for sustainable use of forest resources.
- Afforestation programmes have to be scientifically engineered.

- Environmental auditing and proper land use by communities to be stepped up.
- Setting up a forest museum can bring forth beneficial results.
- Proper interpretation centres to be incepted at protected areas to educate the visitors on the importance of flora and fauna.

CONCLUSION

The work configures two parts both underpinning the efficacy of community participation and its manifold engagements with forest to its usher in sustainable management. The Indian projections retrieved from the path-breaking Acts, Principles and Directives categorically vouch on the new-found consultative powers of the local communities as a game-changer in efficiently preserving the flora and fauna species of the forest land. Furthermore, traditional wisdom and indigenous know how are utmost crucial for robust conservation ventures. The second part of the study attempts to unveil the refreshing community-based conservation paradigms successfully operating in Chambok Ecotourism Project in Cambodia as well as the Koh Yao Noi community project of Southern Thailand. This part provides key leads to the forest managers and officials on the nuanced approaches involved in enabling and facilitating community participation for sustainable forest management in India.

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