Eco. Env. & Cons. 28 (October Suppl. Issue) : 2022; pp. (S93-S103) Copyright@ EM International ISSN 0971–765X

DOI No.: http://doi.org/10.53550/EEC.2022.v28i06s.016

The Khasi Indigenous People and Environmental Governance: A Case Study of the Ri Lyngdoh Mawlong Protected Forest, Meghalaya, India

Charles Reuben Lyngdoh¹ and Banshaikupar Lyngdoh Mawlong²

¹Department of Political Science, Synod College, Meghalaya, India. ²Department of Political Science, Union Christian College, Meghalaya, India

(Received 20 January, 2022; Accepted 7 March, 2022)

ABSTRACT

The present day environmental issues and challenges calls for the active participation and involvement of all stakeholders- from the state mechanism of governance to the traditional model of governance practiced by indigenous peoples. Indigenous peoples with its wealth of environmental governance models may very well be one of the solutions to the present environmental problems. This article examines the environmental governance model of one of the indigenous peoples of India, the Khasi tribe of the state of Meghalaya.

Key words : Environment, Environmental governance, Indigenous people, Khasis, Sacred forests.

Introduction

Achieving a working environmental governance model is becoming one of the great environmental challenges of our time. However, the deficit in taking a serious, long-term perspective on the future, lack of political will, the constraint of the leviathan principle of national power, and the looming environmental crisis reflects both the world's orientation towards the limited time horizons of capitalism, and the general worldview of the economic development agenda. Humanity must, thus, liberate creativity and distribute environmental governance- values and ethics, whilst at the same time addressing issues of social responsibility and sustainability. In addition, the new emerging economic paradigm and development paradigm calls for an overlap between strategic plans for economic development and the introduction of new era initiatives for a holistic, participatory, sustainable and integrative approach to

(¹Associate Professor, ²Assistant Professor)

development. The present environmental management discourse calls for re-orientation of the research interests by examining, exploring and integrating the governance models across all spectrumsthe formal and informal, the modern and the indigenous, the scientific and the traditional indigenous ecological wisdom, knowledge and their traditional models of environmental governance.

The concept of environmental governance is a combination of two concepts- governance and environment. Firstly, the concept of governance requires discussion because of the subtle but significant differences between it and the concept of government (Hewson and Sinclair, 1995). According to the United Nations Centre for Human Settlements (UNCHS), the differences are between a single authority (government) and shared purposes and responsibilities (governance) (1995). Governance, in this context includes all of the ways that individuals and institutions plan and manage their common affairs and consists of formal institutions, informal arrangements, traditional institutions and what citizens know and do (Birnic and Boyle, 1992: 123).According to Kooiman, governance- as 'social political interaction'- comprises "the totality of interactions in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities; attending to the institutions as contexts for these governing interactions; and establishing a normative foundation for all those activities" (2003: 4). Secondly, environment can be defined as to include water, air, soil, and physical properties and the interrelationship which exists among and between them and human beings, animals, plants, and micro-organisms. Environment is the sum of all external conditions affecting the life, development, and survival of an organism (Haque, 2017).

Environmental governance comprises rules, practices, policies, values and institutions that shape how humans interact with the environment. It is a process that links and harmonizes policies, institutions, procedures, tools, and information to allow participants (public and private sector, NGOs, local communities) to manage conflicts, seek points of consensus, make fundamental decisions, and be accountable for their actions (Hague, 2017). Edward Challies and Jens Newig define environmental governance as the totality of interactions among societal actors aimed at coordinating, steering and regulating human access to, use of, and impacts on the environment, through collective binding decisions (Challies and Newig, 2019). Environmental governance can, therefore, be described as how humans exercise authority over natural resources and natural systems- how and who makes environmental decisions.

The significance of environmental governance is also reflected at the political discourse at the international level. Most of the United Nations' commissions, programs, funds, and specialized agencies now recognize a green dimension to their mandate. Several organs and programs have been created and institutionalised to catalyse and coordinate environmental activities, such as the UN Environment Programme (UNEP), the UN Commission on Sustainable Development (UNCSD), the United Nations Framework on Climate Change (UNFCC), the Intergovernmental Panel on Climate Change (IPCC) and the yearly United Nations Climate Change Conference of the Conference of the Parties (COP) to the

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United Nations Framework Convention on Climate Change (UNFCCC) (Steiner, 2021).

One of the significant features of global environmental governance is the recognition of the role of traditional indigenous societies, informal institutions and non-governmental organizations (NGOs). This was accepted by governments at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 and reaffirmed in the IPCC Fourth Assessment Report 2007 and the UNFCC Cancun Conference of 2010. The Brundtland Commission Report (2007: 98) noted that the indigenous communities are repositories of vast accumulations of traditional knowledge and experience that links humanity with the environment. The report also acknowledged the indispensable role of the non-governmental organizations (NGOs) and civil society in environmental management and conservation. The report further noted that it is a terrible irony that as formal development reaches more deeply into rain forests, deserts, and other isolated environments, it tends to destroy the only cultures that have proved to thrive in these environments. Kirsty Galloway McLean in her book Advance Guard: Climate Change Impacts, Adaptation, Mitigation and Indigenous Peoples(2010) contends that indigenous people are the first communities to observe climate and environmental changes first-hand, and are using their traditional knowledge and survival skills in environmental governance. She contended that they are the environmental stewards of the environment and drawing upon their traditional knowledge, indigenous peoples are at the vanguard of climate change. However, many indigenous societies and the traditional institutions that are in place are finding it difficult to cope with environmental degradation. Pilgrim (2009) argued that indigenous and non-industrial communities retain much stronger links with the natural environment through resource use and management. For these societies, nature and the local environment provide not only the landscapes in which human activities take place, but play a pivotal role in belief systems, cultural activities and livelihoods.

One such indigenous people who represent one of the reservoirs of traditional environmental governance and practices are the Khasi tribe of Meghalaya. Residing in the hilly state of Meghalaya in India, the term Khasi stands for both the tribe and the language. The Khasis belong to one of the five sub-groups of Mon-Khmer family of languages

(Chowdhury, 1996). The Khasi tribe is one of the largest tribes in the State of Meghalaya- the other major tribe is the Garo who inhabit the western part of the State. Noted Khasi philosopher Barnes L. Mawrie (2009) argued that the indigenous Khasi people are a people who live in profound communion with nature and its resources. Henry Skolimowski (1993) argued that the Khasis are one of the pioneers in environmental governance practices and forest management.

The Khasi World view on Environment

Meghalaya, one of the twenty-eight states of India, is home to three main tribes- the Khasis, the Jaintias and the Garos. The Garos inhabit western Meghalaya, the Khasis inhabit central Meghalaya, and the Jaintias inhabit eastern Meghalaya. The term 'Khasi' stands for both the tribe and the language. The Khasi, Jaintia, Bhoi, War, collectively known as the Hynniewtrep people predominantly inhabit the districts east of Meghalaya. The Khasi language spoken is believed to be one of the few surviving dialects of the Mon-Khmer family of languages in India (Sadangi, 2008). The Khasi people also known to be one of the earliest ethnic groups of settlers in the Indian sub-continent, belonging to the Proto Austroloid Monkhmer race (Gurdon, 1987). The Khasis follow a matrilineal system of society. Descent or lineage is traced through the mother, but the father plays an important role in the material and mental life of the family. While, writing on the Khasi and the Jaintia people, David Roy observed that a man is the defender of the woman, but the woman is the keeper of his trust (Roy, 1936 and East Khasi Hills District Website).

Meghalaya is inhabited largely by Scheduled Tribes. According to the Census of India 2011 conducted by the Office of the Registrar General & Census Commissioner, India, Ministry of Home Affairs, Government of India, Meghalaya accounts for 2.5% of the total Scheduled Tribes (ST) population of the country. It has the third largest proportion of Scheduled Tribe population in the country behind Lakshadweep (94.8%) and Mizoram (94.4%). The ethnic composition of the Scheduled Tribes to the total population as per the 2011 Census is 86.1 percent. (The Scheduled Tribe population of the State as per the 2001 Scheduled Tribe Census was 85.9%). The remaining 13.9% of the population is non-tribal.

The Khasi system of governance and administration in Meghalaya is unique, evidenced in the existence of traditional political institutions at the grassroot level- *Syiemship*, *Doloiship*, *Wahadarship*, *Sirdarship*, *Lyngdohship*, *Dorbar Shnong* (Village Council) and *Dorbar Kur* (Clan Council) besides the State government and the Autonomous District Council. They perform both the traditional functions as well as modern civic functions as entrusted by the concerned government authorities (Gassah, 2018). Their existence and continuity, despite several short-comings, is crucial to the implementation and execution of government policies and schemes particularly in far-flung areas of the State where the State and district administrative machinery fail to reach.

One such role the traditional institutions in Meghalaya have been entrusted with is in the field of environmental governance and management (Diengdoh and Wahlang, 2008). The Khasi traditional institutions have been instrumental in maintaining the integrity of nature and its resources and simultaneously catering to the needs of the people through traditional practices. These include community forest management, codification of rules and regulations regarding forest management, sacred grovesand protected forests, community ownership of land and its resources and equitable resource management (Nongkynrih, 2006).

Thangkhiew (2015) noted that the Khasis, like every tribal group, have a close affinity to nature. For a Khasi, God, Man and Nature form one single and indivisible entity. God takes residence in nature, on the mountains and the hills, in the rivers, the lakes, the forests. God reveals himself through nature and the world that he has created. Man on the other hand, is seen as an integral unit of nature. His relationship with the rest of creation is so elemental; he is the link who communicates with the rest of creation. A Khasi believes in the interdependence or inter-connectedness between man and other beings in nature. He is a part of nature itself. Every aspect of nature has a bearing on the Khasi's overall personality and his relationship with his fellow human beings.

Khasi stories are thus vehicles through which moral lessons on nature and environment are transmitted to posterity. Mawrie (2014) notes that a Khasi personifies nature and speaks of its qualities as if they belong to a real human person. The Khasi pine tree (*diengkseh*) is a teacher of self-sacrifice and service because it provides fuel and timber for houses. The Khasi oak (*diengsning*) stands tall for a person of principle, who never wavers even in the strong winds of criticism. Furthermore, the Khasi have upheld a remarkable environmental ethic. Nature is fondly referred to as *Mei Mariang* (mother nature), who is to be loved, cared for and respected. Man is reminded to use the gifts of nature (wood, bamboo) with discretion and due permission all along heedful that need and not wanton greed is his guiding principle. To protect the natural environment from wanton destruction, the Khasi have also framed and followed ecological laws. The reference of Khasi stories to sacred mountains, sacred forests (groves), sacred rivers reflects this ecological frame of mind within the community. Violation of these protected environmental spaces and their gifts would invite the wrath and punishment of nature herself manifested again through stories of guardian spirits and sacred settlers in such places. Human punishments against violations took the form of trials and ordeals by natural elements such as water and fire. The Khasi believe that the community is the ultimate custodian and authority in deciding all matters related to land and land management. The community regulated land usage patterns to ensure that sustenance needs of every individual and family were met while simultaneously balancing the ecological need of mother nature to recuperate.

The Khasi author, H. O. Mawrie observed: "Nature for a Khasi is like a book. The teaching and wisdom he derives from it, he makes use of it in his daily life. He examines meticulously and with great care the objects around him. He cares for and treasures all he sees and observes so that they could be of help to him in all his needs." (2010: 105).

Under customary law, forests are classified into different types depending on their intended use. Locally these forests are known as *Law Kyntang* (sacred forest), *Law Shnong* (village forest), *Law Adong* (village restricted forest), *Law Raid* (forests belonging to a group of villages), *Law Raid* (forests belonging to a group of villages), *Law Ri-Sumar* (private forest on community land), *Law Ri-Kynti* (private forest on private land) *Law Lum Jingtep* (cemetery forest) and *Law Kur* (clan forest) (Tiwari, Tynsong and Lynser, 2010: 333).

According to the Khasi principle, God, Man, and Nature form one single and indivisible entity (Mawrie, 2001). They believe that both man and Nature belong to the same category of the created and there is no dichotomy between them. H. O Mawrie expresses Man-Nature intimaterelation in these words, "a Khasi lives with Nature, and Nature lives in him" (1981: 97). Manis intimately related to

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and lives in close communion with Nature. He further argued that (1981: 102-105): "A Khasi lives in nature and learns in its bosom. It teaches and guides him in his daily existence, be it in his movement from place to place or in his occupation...Nature for a Khasi is like a book. The teaching and wisdom he derives from it, he makes use of in his daily life. He examines meticulously, and with great care the objects around him. He cares for and treasures all he sees and observes so that they could be of help to him in all his needs. He lives peacefully in his own land and enjoys the embrace of nature".

Although, a sustainable approach involving the building of traditional institutions for effective environmental governance devised by the Khasis has been in place for long, the pace of development sometimes places the environment and local communities at risk. Environmental degradation caused by depletion of sacred groves, large scale mining of coal and limestone have severe implications on the livelihood, health, security, etc. of the community apart from affecting the traditional aspects of life (Dasgupta and Syiemlieh, 2006).

It is in this context that this paper will attempt to examine the role and significance of the Khasi indigenous environmental governance models in environmental management. This study will focus on three main areas: environmental governance of the Khasis, the role of traditional institutions of Clanship in environmental governance and the issues and challenges faced by the traditional institutions in environmental governance.

Environmental Governance: A Case Study of the Ri Lyngdoh Mawlong Protected Forest, Meghalaya, India

The sacred groves of Meghalaya are commonly of three types- *Law Lyngdoh* 'forest of the priests', the *Law Niam* 'ritual forests' and the *Law Kyntang* 'sacred forests of the clan'. The Ri Lyngdoh Mawlong Mawlong Protected Forest falls under the first category of *Law Lyngdoh*. It is a patch of protected forest owned and administered by the Mawlong clan of Mairang township. The area in which the Mawlong clan resides is referred to as *Ri Lyngdoh Mawlong*. This patch of land lies south of the main Shillong-Nongstoiñ highway before reaching Mairang town. The area under study- i.e. Mawlong village falls within the Mairang C&RD Block under the Eastern West Khasi Hills District administration of the State of Meghalaya. The total population of Mairang

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Sl. No.	Sacred Grove Name	Sacred Grove Location	Area (Hectares)
District -	East Garo Hills		
1	Bora Miapara	Bora Miapara	1
2	Ganna Ram Rock	Megapgiri	30
3	Jongola	Jongola	1
1	Kimpra Hills	Risubakrapara	20
5	Konkal Hills	Risubakrapara	10
5	MiaparaRongadom	Miapara	1
7	Rautagiri	Rautagiri	37
8 Walchi Ruram Hills		Risubakrapara	25
District -	East Khasi Hills	I	
	Diengkain	Umwai	400.0
0	Diengliengbah	Rngiksheh	0.50
1	Ingkhrum	Cherrapunji	0.25
2	Ingkhrum	Cherrapunji	0.25
3	Kharai Law Lyngdoh	Nongkhieng	150.0
4	Khlaw Ram Jadong	Mawsmai	50.0
5	Kynsang	Mawlong	150.0
6	Law Adong	Mawsmai	400
7	Law Adong Laitryngkew	Laitryngkew	20.00
8	Law Adong, KhliehShnong	Cherrapunji	90.0
9	Law Blei Beh	Mawsmai	120.0
0	Law Dymmiew	Sohrarim	200
1			90.0
2	Law Kyntang, KhliehShnong	Cherrapunji	
3	Law Lieng	Sohrarim	20.0 75.0
	Law Lyngdoh	Mawphlang	
4	Law Lyngdoh Lyting	Lyntilew	100.00
5	Law Lyngdoh Mawshun	Mawshun	100.00
6	Law Lyngdoh, Smit	Nongkrem	6.0
7	Law Mawsaptur	Sohrarim	50.0
8	Law Nongshim	Mawmihthied	5.0
9	Law Suidnoh	Lait-Ryngew	80.0
0	Law-ar-Liang	Lait-Ryngew	25.0
1	Lawthymmal	Cherrapunji	2.00
2	Law–u-Niang	Lait-Ryngew	10.0
3	Lum Diengjri	Khadar Shnong	25.0
4	Lum Shillong	Laitkor	7.0
5	Madan Jadu	Lait-Ryngew	5.0
6	Maw Kyrngah	Umwai	1200.00
7	Mawlong Syiem	Mawsmai	120.0
8	Mawlot	Phyllut	20.0
9	Raid Shabong Law Adong	Wahpathew-urksew in Pynursla	700.0
0	Niangdoh	Wahlong	0.0
1	Mawmang	Khatar Shnong	15.0
2	Mawryot	Wahlong	40.0
3	Mawsawa	Mawmluh	50.0
4	Mawthoh	Umwai	30.0
5	Nongbri	Pyndeng-Nongbri	5.0
6	Pohsurok	Cherrapunji	0.50
7	Pom Shandy	Mawsmai	80.0
8	Rangbaksaw	Cherrapunji	1
.9	RilawKhaiti	Wahlong	35
50	Swer	Lum Swer	12

Sl. No.	Sacred Grove Name	Sacred Grove Location	Area (Hectares)	
51	Umkatait	Dieng Ksiar	100	
52	Umthri	Nongduh	80	
53	Umtong	Umwai	400	
54	Wahkhem	Khadar Blang	10	
5	Wanning Sawkpoh	Shngimawlein	7	
6	Lum Shyllong	Laitkor	7	
7	Rijaw	Wahlong	35	
8	Diengliengbah	Rngiksheh	0.50	
	Jaintia Hills	0		
9	Blai Law	Raliang	50.0	
0	Dpepat Myndihati	Sutnga	15.0	
1	Ka Pun Lyngdoh	Raliang	15.0	
2	KhlawBlai	Dien Shynrum	15.0	
3	Khlaw Byrsan	Raliang	50.0	
4	Khloo Lyndoh	Jowai	15.0	
5	Khloo Paiu Ram Pyrthai	Jowai	150.0	
6	Law Kyntang	Shangpung	400.0	
7	Lawianlong	Jowai	12.0	
8	Lumtiniang Mokaiaw	Syndai	25.0	
9	Mokhain	Jowai	45.0	
0	Poh Lyndoh	Shangpung	30.0	
1	Poh Moorang	Raliang	20.0	
2	Poh Puja Ko Patti	Raliang	4.0	
3	Trepale Jowai	Jowai	70.0	
	Ri Bhoi	Jowan	70.0	
4	Nong Lyndoh, Nongkhrai	Nongpoh	90	
5	Pahampdem	Umsaw Nongkharai	900	
6	Sohpethneng	Nongpoh	90	
	West Garo Hills	Nongpon	20	
7	Angalgiri	_	20.0	
8	Asigiri	_	4.0	
9	Damalgiri	-	50.0	
)	ē	-	25.0	
	Daronggiri	-		
1	Goragiri	-	25.0	
2	Jelbongpara	-	20.0	
3	Jhanjipara	-	7.0	
4 	Sadolpara	-	30.0	
	West Khasi Hills	Poro Miorogra	1	
5	Boro Miaparara-Rayggadam	Bora Miapara	1	
5	Ganna Ram-ram Rock	Bokma Megapgiri	30	
7	Jongola Ranggadam	Jongala	1	
8	Kimpra Hills	Resubakrapara	20	
9	Kongkal Hills	Resubakrapara	10	
0	Kyllai Lyngngun, Mariam	Nobosohphoh Syiemship	80	
1	Law Adong Lyngdoh Mawlong	Nongkhlaw Syiemship	200	
2	Law Kyntang, Mawlangwir	Maharam Syiemship	300	
3	Law Kyntang, Mawten	Maharam Syiemship	100	
4	Law Kyntang, Whawiaw	Maharam Syiemship	100	
5	Law Lyngdoh, Kinglang	Maharam Syiemship	200	
6	Law Lyngdoh, Nonglait	Mawiang Syiemship	50	
7	Law Lyngdoh, Nonglyngkien	Maharam Syiemship	90	
8	Law Lyngdoh, Rangmaw	Maharam Syiemship	400	

Table 1. Continued ...

Sl. No.	Sacred Grove Name	Sacred Grove Location	Area (Hectares)
99	Lawren	Nongstoin	10
100	Lum Blei, Nonglyngkien	Maharam Syiemship	55
101	Lum Sanglia, Nonglyngkien	Maharam Syiemship	45
102	Rautagiri Sacred grove	Rautagiri	37
103	Wahlang-Nongklung	Nongklung	10
104	Walchi Ruram Hills	Resubakrapara	25
105	Nonsynrih Sacred Grove	Nonsynrih	100

Table 1. Continued ...

(Source: Tiwari B.K. et al., 1998 and Barik, S. K. 2006)

C&RD Block as of 2011 Census is 82,437. Of this, the population of Mairang town is 68,074 with 34,311 males and 33,763 females. The literacy rate of Mairang town is 61.2% (2011 Census).

Mawlong village is under the traditional administration of a village headman, *Sordar* and his council. The term of the *Sordar* is two years and every newly appointed *Sordar* receives an appointment letter, *Sanad* from the *Syiem* of *Hima* Nongkhlaw, chief of the Nongkhlaw Khasi state. The land in *Ri Lyngdoh Mawlong* is owned only by members of the Mawlong clan who have settled in it or in its vicinity. Non clan members can neither buy nor sell any plot of land within the *Ri Lyngdoh Mawlong* (Interview 1).

The affairs of the Mawlong Protected Forest and other clan related matters are administered by the Mawlong clan. The traditional system of administration in the Mawlong clan comprises of:

- a. The clan council, *ka Dorbar Kur Pyllun* this clan council comprises of all the members (men, women and children) of the Mawlong clan residing in Mawlong village, Mairang.
- The Executive Committee this committee is a smaller body comprising of eighteen members, both men and women. The Executive Commit-



Fig. 1. Sketch of Mawlong Village (Ri Lyngdoh Mawlong)

tee is headed by two *Rangbah Kur* (Clan Chief), Secretary, Treasurer and Finance Secretary and thirteen Executive Committee members (Interview 1).

The management of the protected forest is taken by the Executive Committee under the guidance (jingpyniaid) of the Dorbar Kur Pyllun. Though no written records were to be found, according to the clan elders, the institution of the protected grove has been in existence for not less than a hundred years. The practice of maintaining this grove is an indigenous institution which has the effect of conserving forest areas by local inhabitants. The protected forest has strong cultural and traditional values associated with it. It is a traditional nature conservation practice which can also be found throughout the world. Perhaps this is the first democratic approach by the earliest settlers to protect nature from over exploitation long before the term "democracy" was coined.

1. **Deep Ecology**: As in the general belief system prevalent among the Khasi, the Mawlong clan model of environmental governance can be best ex-



Fig. 2. Ground View –Ri Lyngdoh Mawlong Protected Forest Source: Google Earth

S100



Fig. 3. Aerial View –Ri Lyngdoh Mawlong Protected Forest Source: Google Earth

plained as the principle of deep ecology- a philosophy based on our sacred relationship with Earth and all beings (Arne Naess, 1989). The Ri Lyngdoh Mawlong model also treats the earth as *Ka Mei-Ramew*, environment as *Ka Mariang* and the world is *Ka Pyrthei*. The Khasis call nature *Ka Mei-Ram-ew*, *Mei* meaning mother and *Ram-ew* meaning earth. They consider her *Ka Meirilung-Meirisan*, which means the mother who nourishes, cares, and gives growth to all living creatures.

2. Participatory and Inclusive Governance : The

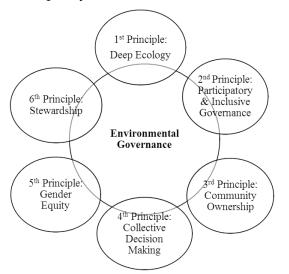


Fig. 3. Environmental Governance Model of theRi Lyngdoh Mawlong Protected Forest

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second vital principle in the Mawlong protected forest is the decentralization of responsibilities and resources to local and community levels. Good governance for sustainable development requires stronger mechanisms for people to participate in governance. As mentioned, the Mawlong Protected Forest is administered by the *Dorbar Kur* in which all the members of the clan participate. The *Dorbar KurPyllun* has a final say in all matters relevant to the administration of the protected forest and the Executive Committee must bring any matter of importance before the *Dorbar Kur Pyllun* for a final decision.

3. Community Ownership: The sacred groves in Meghalaya belong either to an individual, a clan or the community as a whole. The Mawlong Protected Forest is commonly owned by the Mawlong clan. All members of the Mawlong clan residing in the area irrespective of their sub clan or uterine descent, kpoh, are members of the Dorbar KurPyllun. However, only three sub clans or uterine descents ki laikpoh, can take the title of Lyngdoh Mawlong whereas all other sub clans or uterine descents take the title of Mawlong and not Lyngdoh Mawlong. These three sub clans are Kpoh Basa Langstieh, Kpoh Basa Iewrap and Kpoh Basa Iewjuh. The Executive Committee comprises of members who belong only to either one of these three sub clans of the Mawlong clan.

4. Collective Decision Making: The Mawlong Protected Forest is managed by the clan council, ka Dorbar KurPyllun, which meets at least twice in a year. The day-to-day functions are looked after by the Executive Committee of the clan. At the top of the clan council is the clan elder, Rangbah Kur who presides over the meetings of both the clan council and the Executive Committee. All decisions taken by the Rangbah Kur and his Executive Committee must be reported to the Dorbar Kur Pyllun and the clan Executive Committee is collectively responsible to the Dorbar Kur Pyllun. No acts of commission and omission can be carried out without the consent of all the members of the Dorbar Kur Pyllun. Presently, there are two Rangbah Kur who have been chosen by the Dorbar KurPyllun since 2016 to administer matters on behalf of the clan, the clan council and the executive committee.

5. **Gender Equity:** Just like the Khasi Matrilineal society whereby both men and women assume their respective significant functions, the model of governance in the protected forest is also based on divi-

sion of powers and functions between the two gender. While the political administration of the forest lies with the men, the management of the purseof the forest rests with the women folk. It may also be mentioned that women are part not only of the *Dorbar KurPyllun*but also of the Executive Committee. The post of Treasurer and Finance Secretary are held by women of the Mawlong clan.

6. **Stewardship:** In the Eco-leadership model of the Mawlong Protected Forest, man's relation with other created things is that of a Steward and Keeper, not a master. Man being endowed with reason and intelligence, it is his duty and responsibility to see that each created thing is able to flourish, to live a harmonious and sustained life on the earth's surface.

The management system of the protected forest is based on oral tradition. The important values related to protection of the forest, preservation of the forest and prohibition of extraction of forest resources (primarily wood) have been handed down from one generation to the next orally. People who disobey these clan rules are first warned not to break them. If such people break these rules, they are then fined a certain sum of money such as Rs 100/ to Rs 200/-. Fines are rarely imposed since the situation regarding the disobedience to rules has not been serious. Fines are primarily meant to be a deterrent (Interview 2).

Clan members are given oral permission to collect fruits that have fallen on the ground inside the protected forest. They are however not permitted to climb the trees inside the protected forest. The clan members are prohibited from cutting trees or plants from the forest. However if a female member of the clan starts a new household, she and her family are given one tree trunk from the protected forest as a token for building her new residence.

Conclusion

The sustainable usage of the natural environment through judicious utilisation of the resources which the ecosystem affords is in keeping with the body of traditional knowledge accumulated over generations. The taboos and customary laws regarding the exploitation of natural resources show their respect towards nature. The institutions of sacred groves and protected forests indicate the involvement of the community in sustainable exploitation through the traditional laws regarding the prohibition on the use of certain resources. Such practices appear to be of great antiquity.

Against this backdrop, it may be inferred that the Mawlong clan has been able to maintain the richness of its biological resources until recently, in part due to the reverence and involvement of the local inhabitants in the maintenance of a reciprocal relationship between man and his environment. However, in recent years, due to an increase of accessibility and the demand for forest products such as timber and charcoal, considerable ecological degradation has set in throughout the forest landscape of Meghalaya in pace with growing economic development. This has destroyed the sacred relationship between man and his/her environment utmost. Some of the challenges facing the Ri Lyngdoh Mawlong protected forest are loss of biodiversity and ecosystem degradation due to insects and pests and on certain occasions due to forest fires; unsustainable resource use, climate change, financial strain and lack of government support to maintain such forests. The challenges are compounded by the gradual erosion of the authority of the traditional institutions vi-a-vis the formal institutions of the state. From the field study conducted, it is also found that the traditional institutions are being ignored and excluded from the consultation and decision-making process in environmental governance. Another issue faced by the Clan management of the protected forest is the lack of coordination between the government environment policies and conservation programs which are not in sync with the traditional institutions and environmental governance model. While it may not always be possible to ensure that one priority for action does not conflict with another, we must do our utmost to address the problems and issues directly and openly. In all cases decisions should be guided by the holistic of inclusive governance principles of sustainable development.

The solution, in fact, is us; it can be found among and within all the diversity of cultures and other social associations or groups, of ideas or schools of thoughts, of projects, and between and among all varieties of national, regional and international institutional and non-institutional settings and processes, which all together can bring into life a public order of human dignity through a process of rigorous implementation of justice, equality and human values at all levels and in all processes.

Eco-leadership requires that man and nature be

viewed holistically, as part of a single system. This system has several subsystems that each has to be viewed from the point of view of sustainability. Even if we, here, will focus only on the ecological aspects we need to bear in mind that the economic and social dimension of the society are such subsystems. The social aspects refer importantly to the political institutions, where democracy is especially crucial to sustainability.

Sacred groves and protected forests have been recognized as important refugia for the rare and threatened plant species and it is true of the Mawlong Protected Forest as well. However, the need of the hour is to create awareness among people about its importance, involve people in its conservation and management and explore its potential in livelihood improvement. The threat to the Mawlong Protected Forest is serious and the residents of the villages need to be sensitized and alternatives to firewood should be offered to the residents to decrease the pressure on the forest produce. Long term conservation needs an incentive for the effort to be put in by the local populace and the government needs to step in to support such initiatives. A paradigm shift in the worldview toward sustainability needs to include discussions about cultural sustainability in ways that do not damage our ecosystem, environment and social well-being. The strategies toward this paradigm shift need to be inclusive and holistic.

Sacred groves are one of the finest instances of traditional conservation practices. They have also formed centres of cultural and religious life for people over much of the old world. These groves got demolished in Europe and West Asia and most other lands due to the arrival of modern religions and consequent changes in man's attitude towards nature (Gadgil and Chandran, 1992: 183). In the case of Ri Lyngdoh Mawlong protected forest, despite the influence of modern model of development, the protected forest and forest cover remained intact and was never cleared. The clan elders as well as the clan members still observe the ecological prudence of the need to protect this patch of forest cover and forest resources. Nongbri (2006: 1) while writing on the significance of the indigenous Khasi system of environmental governanceaptly put it as: "More importantly the merit of indigenous systems of beliefs for the preservation of the ecological system are seen in the local reverence for parts of nature like sacred groves and such trees and natural objects as are considered sacred. It is such beliefs that had led to the sustained relationship between man and nature that preserved both for centuries; Nature is, thus, an oasis of knowledge and wisdom. It is a living treasure to which great care, observation and respect must be given". Thus, the present ecological discourse calls for re-orientation of the research interests by examining, exploring and integrating the indigenous ecological wisdom and knowledge to address key challenges to ecological disaster.

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