

# SOCIAL ECOLOGY OF THE PAMBA RIVERINE AT SABARIMALA, THE MASS PILGRIM CENTRE OF KERALA

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**Abstract:** The interaction between societies and natural systems is the key aspect of analysis in social ecology. It offers a conceptual approach to society-nature coevolution pertaining to history, to current development processes, and to a future sustainability transition. The present study tries to assess and analyse the social ecology of the Pamba riverine at Sabarimala, the mass pilgrim centre of Kerala, with its focus on the impact of mass pilgrimage and religious ritualistic practices. The pilgrims depend on the river Pamba for their domestic needs and holy ritualistic ceremonies. Due to the influx of devotees, over the years, the Pamba basin of Sabarimala has been developed into a small township. Thus, the natural environment of the Pamba riverine of Sabarimala has been 'humanly re-shaped' by the long tradition of Sabarimala pilgrimage.

**Index Terms:** Social ecology, Pamba riverine, Sabarimala pilgrimage, holy dips, religious ecology.

The interaction between human societies and their natural environment plays a fundamental role in the evolution of socio-cultural and religious life of the societies at large. The nature of these interactions was heavily depended upon the attitudes of the societies towards nature and its resources. In ancient times, the natural environment shaped the socio-cultural and religious way of human life. In the course of socio-cultural evolution, particularly in the modern period, this 'nature shaped' way of life has been altered by the modern 'human re-shaped' environments with the utilitarian ideas about nature and its resources. This process of transitions and its impacts on human societies and the environment are the key aspects of analysis in social ecology. It focuses on the interaction between social and natural systems. Social Ecology is centred on a shared paradigm according to which human social and natural systems interact, coevolve over time, and have substantial impacts upon one another, with causality pointing in both directions. It offers a conceptual approach to society-nature coevolution pertaining to history, to current development processes, and to a future sustainability transition. Social Ecology addresses energy and society, land use and food production, metabolism of societies, and the short- and long-term environmental impacts of human activities.

Religion, a prominent category in the human social world, is one of the most dynamic realms in which societies and their environment interact. It is not surprising, then, that societies have used religious symbols and beliefs to imagine their relationship to their natural and social environments. It is also no accident that societies have used religious practices to manage their relationships with their environments. Religion and its ritualistic practices often adapt natural elements or assimilate with the natural environment as a means of an active interaction between humans and gods. This religious-environmental interaction is the basis of spiritual or religious ecology, which refers to attitudes, values, and practices regarding nature within the world's religions and outside of those traditions. Spiritual or religious ecology identifies ways of interacting with nature that inspire human responses of respect, protection, and appropriate uses of nature. The word religion is derived from *religare*, originally meant a bond. The roots of this 'bond' can be traced between the members of the societies and also with their natural environment. Durkheim considers religion as a system of beliefs and practices that bind a community together around those things which it holds sacred. For him, the sacred, refers literally anything which is capable of being sacralised: physical objects, persons, times, places, and so forth. These things are transformed by a diffuse and generalized force or power capable of making them sacred. In this process of sacralisation, nature and its all-encompassing elements constitute the default category because of its conjectural and unexplainable phenomena, and its overpowering nature. Hinduism is the best example of this 'sacred environment' conception of religion, which is associated with nature centred practices of religion.

The Hindu ritualistic practices are inextricably linked with the environment and its various elements. According to the Hindu belief system, water constitutes one of the five basic elements fundamental of all

cosmic creation. Generally, water and religion are inevitably connected to sin and defilement, and how to erase sin or how to prepare oneself for a life after death. 'Water is the purified as well as the purifier, the real and spiritually conceived source of life'. In Vedic texts, water is referred to as Apah, or literally the waters. The waters are considered to be purifying in a spiritual context. The Rg Veda identifies the waters as the first residence or ayana of Nara, the Eternal Being and therefore water is said to be pratishtha, the underlying principle, or the very foundation of this universe. In the ritualistic practices of Hinduism, rivers, one of the most dynamic water systems, occupies an important place. There is a universal reverence to rivers in almost all of the major religions of the world. Most religious beliefs involve some ceremonial and ritual of "holy dips" in river water that started from unknown mythological origins. Rivers has an impression of a 'purifier', which leads to salvation. Societies all over the world have 'holy rivers' that are inextricably linked with their socio-cultural and religious way of life. In this regard, Kerala, the southernmost state of India, has the river Pamba, which is considered a 'Holy River' and is often called 'Dakshina Ganga', which means Southern Ganga. The river Pamba is being sacralised by the famous shrine of Sabarimala, situated in the hills of Pamba plateau which is one of the most popular pilgrim centres in South India. Pamba River is the third largest river in Kerala with a length of about 176 km and comes under the category of a medium river under national norms of river classification. The river has its origin in Pulachimala in the Western Ghats and has a catchment area, lies totally in Kerala, of about 2,235 sq. km. The River serenely flows by the foot of the hill about 4 Km below the Sabarimala Holy Temple.

In its wide context, religion is a society of believers that constitutes its own rules and practices. Pilgrimage to Sabarimala can be seen as a part of the common way of life of the believers. Pilgrimage is seen as a prime context for the development of *communitas*, a state of temporary separation from mundane structures, hierarchies, and identities, and incorporation into a broad commonality of feeling with fellow pilgrims. While analysing the capacity of religion to sacralise "the world", Durkheim emphasised the role of religious rites, practices, collective actions, and assemblies. He holds that it is only through them that collective experience can be coloured with the sacred. In communally organized societies, individuals' prospect of salvation was seen as intimately connected with their participation in the common way of life. It was in their observance of communal mores that individuals were offered the prospect of participating in the common salvation. It was shared values, sentiments, and mores which constituted social consensus and sustained social cohesion. The ritual of holy dip at Pamba River, the pilgrimage to Sabarimala, and all other shared ritualistic practices related to the pilgrimage can be seen as a part of a collective experience for common salvation.

Sabarimala is an ideal mass pilgrimage destination which is administratively located in the Ranni Perinadu Grama panchayat of Pathanamthitta district of Kerala. Sabarimala Sree Dharma Sastha Temple, the famous forest Shrine of Swami Ayyappa, is situated amidst the northwestern foothills of the Pamba plateau. According to the myths, Ayyappa, son of Lord Shiva and Mohini (spirit of Lord Vishnu), was found lying in a basket on the bank of the Pamba River and was adopted, by the King of Pandalam. In the adolescent period (Brahmacharya) he volunteered to make the arduous and dangerous journey to the mountainous forest to get tiger's milk for his adoptive mother. After a series of supernatural events, everyone had realized his true divine identity and finally, Ayyappa went to the top of the forested mountain and achieved his divine form. The temple is managed by the Travancore Devaswam Board, under the government of Kerala. The temple does not remain open the year around for worship. The major pilgrimage season is limited to 60 days of Mandalam-Makaravilakku festival season (mid-November to the second half of January). The next important season is 'Vishu' in April. The sanctum sanctorum is open for *darshan* during the first five days of every Malayalam month.

Sabarimala pilgrim centre occupies a large congregation of people from all over India, for a short period that too in a limited area without adequate basic infrastructure. The density of the pilgrim population in Sabarimala is higher than that of the visitors who arrived in any of the world's similar places of worship. It is estimated that around 50 million people visit Sabarimala, from October to January every year. Altogether about 70-80 lakh pilgrims visit Sabarimala temple every year during the festival and other seasons. During the peak season, on an average, about 70000 people congregate every day at *Sannidhanam*, its coverage being little above 50 acres. This assemblage of mass pilgrims within a limited geographical area necessitated the 'reshaping' of the natural environment in accordance with the utilities of pilgrims. The vehicles of the pilgrims are allowed only up to Pamba and thereafter they have to climb the 4 km. long steep stretch on foot. Thus, Pamba has become developed as a base camp for the pilgrimage.

The pilgrims depend on the river for their domestic needs and holy ritualistic ceremonies. While reaching the base camp of the Pamba river basin, the pilgrims take a holy dip in River Pamba. The holy dip is inextricably linked with purification theories of religion. A cleansing bath was believed to liberate one from

sin and impurity. In Hindu ritualistic practice, water is an inevitable purifying element. ‘...Whatever sin is found in me, whatever wrong I may have done, if I have lied or falsely sworn, Waters remove it far from me....’ Before performing the Sabarimala pilgrimage the devotees have to prepare their body and mind. Pilgrims prepare themselves with 41 days of Mandalavratha which includes rigorous fasting, celibacy, meditation, and prayer. Finally arriving at the Pamba, they take a holy dip in the River, which is considered as the purifier to approach Lord Ayyappa of Sabarimala. The mass holy baths (Pampa Snanam) of pilgrims were taking place at Pampa Kadavu. The act of bathing was considered intensely spiritual and it was believed that physical acts of imperfection were removed and spiritual oneness with the Eternal Self was attained during the process. According to the Vedas, it was not the act of taking a bath itself, but the coming into contact with the sacredness of water, and the attainment of such knowledge and proximity that made one sinless and guided the individual to the Eternal Self. Water was considered sacred but it was clarified that man does not pray to water, the physical entity, but the source of life and spirituality within the water. Pilgrims believe that the bath in Pampa will free them from all the sins. This turns Pamba valley, a sacred sphere of believers in which the actions of the devotees are guided by ritualistic practices. But all the activities of pilgrims are not considered religious. Meanwhile, inadequate sewage treatment, disposal of the wastes, and lack of efficient sanitation facilities combined with reduced availability of water flow in the Holy River Pamba result in alarming high pollution levels in the Sabarimala pilgrim season. As part of a misconception of the religious tenets, discarding clothes and other belongings into the ‘Holy River’ led to the degradation of the ecosystem.

Over the years, the Pamba basin of Sabarimala has developed into a small township. As a consequence of this, the land use pattern of the area has completely changed, deteriorated the environment and the pollution level shoots up in Pamba River. A major portion of the adjoining Pamba riverine area is now extensively used for parking purposes. All the major offices, rest houses, and business establishments are located in this area. The Travancore Devaswom Board is utilizing 11.536 ha of land for various activities at Pampa. This purposive intervention into natural systems aimed at improving their utility for societal purposes denotes the colonization of nature and its systems. This process of colonization refers to ‘the intended and sustained transformation of natural systems, by means of organized social interventions, for the purpose of improving their utility for society. A colonizing intervention must both be causally effective in changing some biophysical condition; it must make a difference in the world of matter. Likewise, it must be culturally conceived of, organized, and monitored; it must make sense in the world of communication’.

Land use and its relation to ecosystems are one of the key aspects of social ecology. Land-use intensity is an essential aspect of the human use of terrestrial ecosystems. Land use is a prime example of the human colonization of natural systems. Land use involves the colonization of ecosystems, organisms, and, increasingly, the genomes of crop plants. An overall comparative analysis of the land use of Pamba Riverine in Sabarimala and its environs for the last 26 years showed that there had been considerable change in land use in and around Sabarimala and its proximity. The decrease in forest area can be attributed to an increase in open scrubs and grasslands. The invasion of grasslands and the spreading of scrubs inside this forest area indicate the level of degradation around Sabarimala. In the current population and land use trends of the Sabarimala which use extensive technological adaptation and wider urbanization, many constructions of a permanent nature involve heavy landscape modifications. ‘This would mean the total degradation of the forest ecosystem’. The results of the current development activities in the region indicate that grave degradation of the forest ecosystem has already set in. Further, the increasing land-use intensity has often been associated with detrimental effects on ecosystem functioning, such as soil degradation, groundwater, and air pollution, and biodiversity loss. Such processes have had negative effects on the ability of ecosystems to sustain vital ecosystem services, thereby potentially jeopardizing human well-being in the end. The dynamics of pilgrimage created a local market of various products in and around the Pamba valley. Private local markets and commercial stalls are a regular feature at Pamba riverine during the Sabarimala pilgrim season.

Due to the influx of devotees to Sabarimala during the ‘Mandala Makaravilakku Season’, the river is a victim of catastrophic destruction due to incessant anthropogenic pressure. The lack of adequate infrastructure and treatment facilities for liquid waste purification makes the situation more vulnerable, as the entire quantity of untreated sewage ends up in river Pamba leading to lurking environmental problems. The inadequacies for accommodation, sanitation, transportation, and communication have led to water pollution, land pollution, traffic congestion, and parking congestion. The pilgrims to Sabarimala have to stay at least one day or more either at Sannidhanam or on the banks of Pampa. Pilgrims from outside the state may stay even up to one week. As the devotees are amid limitations many resorts to open defecation. This results in the immediate development of commercial activities including hotels and stationery. And all these promote an extreme level of pollution in River Pamba.



The constant use of this area for parking caused the regeneration of forest vegetation and its total absence. Further, large quantities of solid waste were found to be dumped deep into the forest. Human interference was found to be high in the surrounding forest. Pilgrims as well as local shop owners depend mainly on these forest areas for their diverse requirements, such as firewood collection, pole cutting, debarking, etc. Firewood collection by pilgrims as well as shop owners for cooking was common in this area. Cooking under the tree was noticed at several sites, which eventually leads to the death of the trees.

Lack of sanitary latrines, lack of facilities for sewage collection, and treatment accumulation of wastes discharged from hotels and commercial establishments located at Sabarimala are the major sources for the pollution of Pamba River. The pollution is mainly due to human excreta and biodegradable waste like used leaves, vegetable wastes, discarded clothes, food wastes, etc. Indiscriminate disposal of used plastic bottles forms the major portion of the non-biodegradable waste. The gathering of very large crowds over a short period every year in an ecologically sensitive area has given rise to various environmental problems. Thus, the organic natural system at Pamba valley has been heavily affected by the pilgrimage and associated ritualistic practices.

There are several initiatives to protect the Pamba valley and also to provide more facilities to the pilgrims. In 2002, Pamba is included in the National River Conservation Plan (NRCP), subsequently, the state government of Kerala formulated Pamba Action Plan and submitted it to the Ministry of Environment and Forest (MoEF). The Pamba Action Plan (PAP) initiated by the Government of Kerala attempts to conserve of Pamba River and its reservoirs by averting pollution, through the projects undertaking integrated planning, monitoring, management, and development of water sources. Pollution abatement schemes for the 37 local bodies lying on the banks of the river, as well as pollution abatement schemes at Sannidanam Pamba and Nilackal, were envisaged in the Pamba Action Plan. The MoEF approved the first phase of the Pamba Action Plan and the same was communicated to the State Government in 2003. Later, the Pamba River Basin Authority Act, 2009 been constituted in Kerala, which was the first of its kind in India. The Act provides arrangements for the management of activities connected with the conservation of water resources in the Pamba River Basin. This has very specific relevance to Pamba River governance. The Authority has been set up at the state level as a logical step for institutionalizing Integrated Water Resource Management. The Pamba has witnessed an inadequate flow of water and an extensive decline in river services. This Act, therefore, holds high significance to the Pamba basin.

Meanwhile, a master plan for Sabarimala was approved in 2007. The Sabarimala Master Plan involves the Travancore Devaswom Board, Ministry of Environment and Forests, Government of India, the High Court of India, and the Government of Kerala as the stakeholders. It attempts to ensure the development of Sabarimala as a world-class pilgrim centre. The Master Plan aims to develop the Sabarimala temple complex and the surrounding region, which mostly forms part of Periyar Forest Reserve, in a complimentary and eco-friendly manner, to provide a satisfying pilgrimage experience to the pilgrims visiting the Holy Shrine. Provision of sustainable basic infrastructure facilities to the pilgrims while safeguarding the environment is the overall objective of the Master Plan. The Master Plan includes aspects related to pilgrim management, development of base camps and transit facilities, and the land-use transportation linkages and incorporates the latest technological and economically feasible solutions wherever possible. It also analyses the infrastructure requirements, physical and social amenities and services required to support the pilgrimage, land development management strategies at Pamba and Sannidhanam, development models for built spaces, implementation and monitoring plan and options on phasing, resource mobilisation, disaster management, and institutional mechanism to oversee regional development.

The natural environment of the Pamba riverine of Sabarimala has been 'humanly re-shaped' by the long tradition of Sabarimala pilgrimage. This extremely affected the organic system of the environment and its elements. Human pressures on biodiversity and ecosystems in the name of pilgrimage on the Pamba riverine are quite evident in the present condition of the region. The pilgrimage turned the once stable ecosystem into a fragile one with several ecologic and epidemiologic implications. The daily average sewage generated in Sabarimala was 10 mld and the entire 10 mld of untreated sewage was being discharged into the river. Religious rites such as mass bathing and holy dips, cremation on the river banks, depositing clothes in the river, immersing offerings in plastic bags, etc. add to the water contamination. The congregation of a very large number of people in a limited area for a period exerts enormous pressure on the environment in the region and on the Western Ghat Ecology, which is one of the hottest biodiversity hotspots. Cleanliness is godliness' is the message that spread to promote 'responsible pilgrimage' and keep the Sabarimala and Pamba River clean. A progressive interplay between society and environment is the essential aspect for the existence of societies and ecological systems.

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