

Built Environment in the Andaman and Nicobar Islands: A Tradition on the Brink of Disappearance

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KEYWORDS Built Environment. Natural Resources. Port Blair.

ABSTRACT The tranquil panorama of Andaman and Nicobar Islands is undergoing a drastic change from the point of view of 'built environment'. The town of Port Blair had been built mainly with the locally available resources, which gives it a unique tradition of built environment as well as a pattern of utilizing the local resources optimally. In recent years, drastic changes are occurring in the construction of buildings. There is a shift from traditional wooden buildings to concrete buildings mainly due enormous increase in population in the last 50 years or so. Many recently constructed 'modern' buildings are depleting nonrenewable environmental resources leading to a skewed alteration of the traditional built environment. Much of accelerated growth of non-traditional built environment in and around Port Blair needs to be rationalized to maintain the continuity of the islands' tradition of its built environment

INTRODUCTION

The Andaman and Nicobar Islands in the Bay of Bengal are one of the most beautiful places in India. The tranquil scenery of these islands has yet not been looked from the point of view of built environment. The term 'built environment,' means all buildings, traffic provisions and places or spaces open to the public. Although these islands are known more widely for their tribals, but the settler populations have contributed to a distinctively local tradition of buildings and the use of natural resources. The built environment has contributed to the uniqueness of these islands. The capital of this Union Territory, Port Blair is the showcase of these islands (Vaidya 1960). Of late this unique ambience is undergoing a drastic change, urgent attention is needed to maintain the continuity of the islands' tradition of its built environment.

The disaggregated census data of the year 2001 at district level (Census of India 2003), which is now available, when this data is observed with the changes occurring in the built environment in the Andaman and Nicobar Islands, shows the

alarming nature of the situation especially urban areas of these Islands. Most of the advocates of environmental issues shy away from addressing the concerns of changing nature of built environment because it raises many uncomfortable socio-political questions. "Environmentalism highlights a political and social concern with depletion of natural resources" (Bramwell 1989). One is left with the feeling that the majority of the environmentalists and other politically influential persons have not really paid adequate attention to changing nature of built environment which is related in more than one way to the deterioration of environment and rapid growth of population in the Andaman and Nicobar Islands. The continuous environmental degradation in Andaman and Nicobar Islands is unlikely to allow proper regeneration of the natural forests on the islands and a large affected forest areas can be considered as a permanent loss to the ecosystem. Theoretically, all environments are open-ended systems and tend to change; even if they are island environments-but what is disconcerting is the rapidity with which it is happening in the Andaman and Nicobar Islands. This fact has a direct impact on the built environment.

An insight into the change of social fabric in these islands and the use of resources can illustrate the damage, which is being inflicted upon the unique island environment. In this context of population growth, migration, commercial expansion, and market incentives tend to degrade the environment. When one looks at the

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Andaman and Nicobar Islands, especially at Port Blair as a town from the point of view of natural resources then the enormity of the impending crisis would emerge. Resources derived from the physical and biotic conditions of the earth, are natural resources. There has been a scientific concern that rate of utilization of natural resources needs to be kept at a sustainable level where the environment can regenerate the renewable resources. The Islands have been experiencing a large-scale migration from mainland India since independence in the form of Government sponsored, as well as voluntary immigrants. Port Blair town itself has received migrants in large numbers and they continue to come. Port Blair being the port of disembarkation has to bear the blunt of this population rise. The huge spurt in population has had a direct impact on the local resources. The, rapid rise in population density has a direct bearing on the resource base and in an island situation; this has a severe impact on the environment. The increase in density of population is multidimensional, two of its main facets are: higher consumption resources per capita and the increased need for built environment.

POPULATION GROWTH AND BUILT ENVIRONMENT

To comprehend the problem of built environment we need to understand the impact of human population on the island environment especially in the urbanized area of these islands. As per the Census of India 2001, the urban population of these islands is 116,628 persons. They are distributed in Port Blair (100,407) and small population is found in Garacharma (9431) and Bambooflat (6790). Therefore, Port Blair is the only real urban area in the islands with 86.25% of the enumerated urban population. The town has an area of 16 square kilometres. The population of Port Blair has been growing rapidly. It was 7789 persons in 1951 which stood at 100407 in 2001 an enormous increase by most of the growth standards, over 12 times in a span of 50 years (Andaman and Nicobar Administration. 1999 & Census of India 2003). At the same time the total population of these islands has arisen from 24,649 in 1901 to 3,56,265 in 2001 that is an increase of more than 14 times in a period of 100 years. Looking at these figures one may feel that the total population of the islands is actually less than a medium sized

town in India, true, but one has to consider that the resources in an island environment with limited communications and restricted inflow of resources This makes the situation significantly different as far as the built environment is concerned.

Utilization of Natural resources

The growth of built environment is an essential component of human development. The entire infrastructure can be perceived as a part of built environment. The town of Port Blair from the beginning had been built mainly with the locally available resources; which gave it a distinct character. The local building material shaped the design and construction method to a large extent. The use of wood and the associated material formed the basic urban complex of Port Blair. Port Blair's urban complex was almost entirely based on the use of wood as the main construction material. The forests in the islands have been exploited for over 100 years mostly for high quality timber mainly *Paudak* (the most prized local timber) from the Andaman group of islands (Tamata 1991). Besides using wood for built environment and exports to the mainland, the original development of mechanized industry in the islands was wood based. There has been a gross over use of wood, although it is a natural construction material to be used in this island environment.

Changes in Construction of Buildings

There has been a transition from a wooden based urban complex to a concrete based complex as the material for kiln-baked bricks is not available in useful quantity and the finished product is below the acceptable standard. Therefore, bricks do not form a standard building material in the Andaman and Nicobar Islands. The construction of RCC structures is not entirely devoid of local materials. Further, stone as a building material is not available in adequate quantity in the islands. The standard of sand used in cement mortar is inferior, it is locally obtained from various parts of the islands (there are no rivers in the Andaman Islands). The use of local sand has been controversial, as there was a large-scale movement of this material from other parts of the islands to Port Blair, sand is being imported from mainland also at an exorbitant cost. In recent times the use of other techniques; such as hollow block cement

bricks in framed reinforced steel concrete structures with slab roofs are becoming common. Many public sector buildings have also been built with these materials. The standardized designs of the various central government departments are just replicated in the island environment without much consideration. Most of them are multi-stored RCC buildings devoid of functionality as far as the local environment is concerned. The point is that, there are many such buildings in Port Blair, which have played a large role in depleting the islands nonrenewable environmental resources and as well as changing the tradition of local built environment.

RECOMMENDATIONS

The total open area in the Port Blair town is now rapidly decreasing with increased constructions. These structural complexes add to the built environment. After one examines the growth of built environment it would be seen that it is mainly driven by the growth of population. Besides this there is a large demand for buildings, in the government, public and commercial sectors. The tourism industry has been promoted on large scale; the so-called eco tourism ends with building of 'theme parks'. Some of the larger hotels are designed from a point of view of external elegance, but how far do they contribute to the cause of

local environment and the tradition built environment is questionable. The Government of India, which controls the islands through the Lieutenant Governor, needs to be more sensitive to the expansion of various departments and agencies. In fact, the presence of large senior level bureaucrats places high demand on built environment, which is not sustainable with local resources.

The accelerated growth of non-traditional built environment in and around Port Blair needs to be rationalized even if harsh measures are required. The advocates of environmentalism would serve the cause better if they realize this urgent necessity instead of pursuing only high profile issues.

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