

CHAPTER 2

DEVELOPMENT APPROACH

2.1 PURPOSE OF MASTER PLAN

The ecosystem prevailing over the Havelock and Neil Islands are complex, and intricate. The absolute beauty of these islands attracts tourists in large numbers, creating vast scope for tourism development, better employment opportunities and growth of economy. Physical developments, mainly by the private entrepreneurs are active in order to capitalize on the increasing tourist flow. Such developments have to conform to the limits of carrying capacity and if not regulated could heavily damage the fragile nature of the ecosystems which may cause tourists losing interests over these islands. Therefore, it is imperative that the master planning exercise focus not only on capitalizing the prospects of tourism sector, but also on sustaining the prospects over long time. In addition, the Master Plan is expected to protect the interests of the local residents and help them to share the benefits of tourism development in these islands.

Achievement of these priorities would require identification of necessary physical development projects, allocation of land parcels for various functional activities and necessary regulating mechanism for land and building development. Master Plan for Havelock and Neil Islands propose to serve the above requirement as it is set to be the statutory instrument under the 'Andaman & Nicobar Islands Town and Country Planning Regulation, 1994' which states that 'no development of land shall be undertaken or carried out in any development area by any persons or body (including a department of Government or the Administration) unless permission for such development has been obtained in writing from the Town Planner.

Assessment of existing conditions at Havelock & Neil Islands suggests the need for strengthening basic facilities and services, which caters to the local population along with the development of necessary tourism infrastructure. Employment opportunities accruing through development of tourism sector should help the local population to enhance their income levels and quality of life. The purpose of the Master Plan is to serve in these lines, with the specific objectives as listed below.

- To enhance the level of basic services and facilities delivered for the local population.
- To develop self-sustaining communities in these islands, through expansion of employment opportunities in the traditional and new forms of employment.
- To draw policies/regulations for sustaining a pristine environment and promote sustainable tourism in these islands.
- To develop a world class tourists' infrastructure, offering a unique and inexplicable experience which can attract high value tourists, with minimal ecological footprints.
- Focus on attractions which are natural and developed in compatible with the fragile eco system.
- To encourage orderly spatial development keeping in view of the need for sustainable tourism development in these islands.

Essentially this Master Plan will be a blue print for development, which would guide development along desired lines for a particular horizon year. This Master Plan for Havelock and Neil Islands is set to be a Perspective Plan for 20 years laying down regulations for land development & identify the physical development strategies/projects to be implemented in a phased manner. These proposals would aim to serve the aspirations of the present population, satisfy the needs of future population in the plan period and also cater to the comforts and joy of the tourists' population.

2.2 DEVELOPMENT CONCEPT AND APPROACH

Capitalizing and sustaining the prospects of tourism will be the key to development of Havelock and Neil Islands. A development concept is evolved both for Havelock Island (Map 4) and Neil Island (Map 5), as part of the Master Plan which translates the various inventiveness proposed, over the geographical space of the islands, which is fundamental to the development approach conceived and elaborated in the following sections of this chapter.

2.3 LAND

2.3.1 Land Use Zoning

Availability of land is limited, which leads to its fullest exploitation to achieve maximum economic gains. However, such a scenario may not well augur for the sustainable development of these islands and hence the Master Plan proposes to adopt the approach of 'land use zoning', through which all the lands in Havelock and Neil Islands are brought under certain category of land use zone.

Over 900 hectares of lands within the revenue villages of Havelock Island are under agriculture use. In addition to this, more than 500 hectares of land are under forests. Together, agriculture and forests lands account for 87 % of the total area (17.17 sq.km.) of the five revenue villages of Havelock Island. At Neil Island, agriculture and forests lands constitute 47 % each, of the total area, which means 94 % of the total area of the island is sensitive to development. The pressures of population growth and especially the expected growth in the tourism sector are likely to consume considerable portion of lands for development, if not regulated and left to the market mechanism. Further, unless the disposition of land for development is not planned and regulated the objective of sustainable development could not be realized.

Therefore, Master Plan would not only bring all the lands in the island under various land use zones, but also specify the nature and extent of development permissible under various land use zones. The idea of land use zoning, would not only help to protect the environmentally sensitive areas of the islands and fertile agriculture lands but also ensure, preservation of open spaces, and orderly physical developments which would collectively enhance the value of land, improve economy and quality of life of the people.

2.3.2 Regulation on Coastal Lands

The Central Government with the view to ensure livelihood security to all the people living in the coastal areas, to conserve and protect coastal stretches and also to promote development to sustainable manner based on scientific principle taking into account the dangers of natural hazards in the coastal areas, sea

level rise due to global warming, has declared the coastal stretches of the entire Andaman & Nicobar Islands and water area upto territorial water limit as the Island Protection Zone and a separate Island Protection Zone Notification has been issued in the year 2011. Under this Notification, two separate approaches for environmental management in the Andaman & Nicobar Islands have been envisaged. One is in the form of Island Coastal Regulation zone (ICRZ) for ten major islands namely North, Middle, South Andaman, Baratang, Long Island, Little Andaman, Havelock, Neil Island, Car Nicobar and Great Nicobar and in the form of Integrated Island Management Plan (IIMP) for all the rest of the islands. The coastal areas of the islands coming under the scope of ICRZ are classified under four categories such as ICRZ – I, ICRZ – II, ICRZ – III, ICRZ-IV. Under these categories, areas upto 200 mtrs. from HTL on the landward side have been earmarked as No Development Zone (NDZ) and no new constructions are permitted within 200 mtrs. from HTL. The Ministry of Environment & Forests in the amended IPZ Notification issued in the year 2013 has allowed for the development of eco-tourism activities from 50 mtrs. of the HTL in the ICRZ-III areas. In ICRZ-II and ICRZ-III the area between 200-500 mtrs. buildings are permitted subjected to local town and country planning rules. The water area from the low tide line to 12 nautical miles on the seaward side has been categorized as ICRZ-IV.

The IPZ Regulations have been framed with the objective of ensuring the livelihood security of the local communities, conserve/protect coastal stretches and promote sustainable development which are very much integral part of this Master Plan. Hence, this Master Plan proposes to adopt the approach of IPZ, and incorporate these provisions in granting permission for development as per the provisions contained under ICRZ/IIMP.

2.3.3 Spatial Organization of Land Use Zones

Land use planning refers to the way we plan the physical layout, or land use, of our communities and it is an essential component of a long term spatial planning exercise. One of the challenges in land use planning is the presence of long coast line in these islands. Beaches and vegetation along the coast line are the common features of these islands, which attract the tourists'. Further, developments along the coast could possibly pollute and damage the richest coral reef ecosystem. The coral reef structure acts as natural barrier and buffers shorelines against waves, storms and floods, preventing damages. Moreover, the coastal zone is always vulnerable for natural disasters. Hence, the planning approach would negate residential & commercial zones along the coast line.

2.3.4 Green Buffers

Sustainable tourism not only means sustaining the tourists' interest or the value and volume of the tourists, but also means a minimal impact over the environment and generation of employment for the local people in the tourism sector. Island tourism will be the most fragile and sensitive form of tourism and hence the development approach would promote eco tourism, in an attempt to achieve sustainable development.

Vegetative buffers between environmentally sensitive areas or hotspots and areas of development can be useful in minimizing the negative impacts of developments. Therefore, wherever these kinds of buffers are naturally available in the form of forests / mangroves, Master Plan would protect these buffers. Further, these green buffers can help to generate interests among the tourists and develop island tourism more in the sustainable perspective. Therefore, the development approach conceives the main transport

corridors of Havelock and Neil Islands travelled by the tourists as Eco corridors, and proposes to develop a green buffer zone along these corridors. The existing road network at Havelock and Neil Islands is shown in Map 6 and the Map 7 shows the proposed Eco Corridor at these islands. Considering the paucity of land for development at these islands, the width of these buffer zone are kept at a minimum of 3m. on either side of the road at Havelock and Neil Islands.

2.3.5 Size & Location of Residential Use Zone

Land use planning proposals, do have a larger socio-economic impact over the people. Parcel of land becoming eligible for one or more specified use, considerably alters the functional characteristics of the land and its economic value. Opening up of more than required lands for development, could result in speculation and delay the development process. It is also possible that in such cases, the developments occur sporadically and more investments will be required for the delivery of services. Therefore, the Master Plan proposes to achieve compact and clustered development, around the existing / new locations of settlements. Considering these points, Master Plan proposes to bring 1.5 times to 1.75 times of additional lands required to maintain the present level of densities (during the plan period) under residential zone, so that sporadic developments are minimized.

2.4 PEOPLE

2.4.1 Population Projection

An assessment of population number is made in this section, which will further help to carry out the demand assessment for evolving the plan proposals. Tourism being the main function & character of these islands, the share of tourists' population is likely to be significant. Hence, population projection for the plan period is carried out separately for the local resident population and the tourists' population.

2.4.1.1 Resident Population

Population projection is a difficult task, for islands like Havelock and Neil, which reflects no temporal pattern or uniformity within the areas contained in these islands. During 1991- 2001, the Havelock & Neil Islands recorded population growth of 45 % and 16 % respectively. In the subsequent decade 2001-11, the growth rates of these two islands came down drastically to 18 % and 6 %. In the twenty year period 1991-2011, the population had grown by 72 % at Havelock Island and 23 % at Neil Island, which works out to be 3.6 % annual growth for Havelock Island and 1.2 % for Neil Island.

The high growth rate of 3.6 % is largely attributed to the growth of tourism industry at Havelock, which is not expected to continue at the same level for the next twenty years, in spite of impetus gained by the sector. However, it is desirable to project the population at this same rate of growth as it is targeted to achieve 5000 tourists' population visiting this island on every single day. The Neil Island is also targeted to receive 2000 tourists daily in the next twenty years and hence it is expected to exceed the present annual growth rate of 1.05 %, drawing in-migrants to provide services for the tourists' population.

Under these considerations, the population for Havelock & Neil Islands have been projected at the rate of 2.75 % and 1.50 % annual growth under the geometric projection method and the same are presented in Table 2.1.

Table 2.1 Projected Populations for Havelock & Neil Island

Name of the Island	2021	2031	2034
Havelock Island	8283	10864	11786
Neil Island	3528	4094	4281

2.4.1.2 Tourist Population

As mentioned earlier, since mid-1990’s tourism has been on the rise at Havelock Island and in the last two years the growth has been very significant. Increase in the tourist population has already led to intensive physical developments catering to the various needs of the tourists. Further the Administration has also been considering and started to implement measures which would help to attract more tourists. In view of these, not only the tourists’ number is expected to increase in future, but also the duration of their stay is bound increase. It is expected in the next 20 years, Havelock and Neil Islands are to receive at least 5000 and 2000 tourists respectively on each day and the average duration of stay would increase to a minimum of 2 days. In such case, there would be 10000 tourist population at Havelock and 4000 tourist population at Neil Island, on any single day in addition to the projected resident population of about 12000 and 4300 respectively by the year 2034.

Master Plan proposes to adopt an approach that would not only help to develop and sustain the islands in the form which continue to attract tourists, but also meet the aspiration of the local residents, help to improve their economy, taking advantage of the anticipated growth in the tourism sector. Within the above approach, specific objectives have also been listed in section 2.1. Development approach to be adopted with regard to people perspectives are discussed in this section.

2.4.2 Implications on changing Demographic Patterns

Support population for the tourism industry cannot be provided by the local population alone, in view of its limited size and skill levels. Therefore, notable in-migration is expected to Havelock & Neil Islands, mainly from other parts of A & N Islands. This population will be in employable age group and young, moving into islands mostly in singles. This may alter the pattern of age distribution of the population, sex ratio, proportion of workforce in the islands, and especially in the tourism dominated revenue villages like Radhanagar, where already it could be seen that proportion of children population is lower compared to the other parts of the island.

The alteration in the demographic features as mentioned above, and increase in working population in-migrating to Havelock & Neil Island would enhance the demand for housing, which the local community may find difficult to supply. The Master Plan would look into these perspectives while evolving the development proposals for the islands.

2.4.3 Enhancing the Skill Set of Local Population

Local population to benefit out of growth in tourism industry, need to enhance their skill levels to absorb the opportunities arise in the sector. Exclusion of local community from the main source of occupation may cause social discomfort, which this Master Plan proposes to eliminate. As mentioned in section 1.3.3, the literacy levels at Havelock and Neil Islands are lower than the South Andaman district by more than 10 percentage points. Developments at these islands are proposed to include raising the literacy levels and enhancing the employability levels of the local population.

2.5 ECONOMY

2.5.1 Sustaining the Economic Base

How a community earns for its living, determines the economic base of town / settlement. Tourism and Agriculture will continue to be the backbone of economy at Havelock and Neil Islands during the plan period. It will be the endeavor of this Master Plan to promote tourism, more in a responsible and sustainable manner and eco-tourism, thus leads the way forward. Principles of eco-tourism are proposed to channelize the development approach, conceived by the Master Plan. Multitude of eco-tourism characteristics and elements has been brought by different authors and agencies. However, for the sake adopting a particular line of approach, the four principles of eco-tourism laid out by the Ministry of Tourism, Government of India, are mentioned hereunder.

- i) The local community should be involved for the overall economic development of the area.
- ii) The likely conflicts between resource use for eco-tourism and the livelihood of local inhabitants should be identified and attempts made to minimize the same.
- iii) The type and scale of eco-tourism development should be compatible with the environment and socio-cultural characteristics of the local community, and
- iv) It should be planned as a part of the overall area development strategy guided by an integrated land use plan avoiding inter sectoral conflicts and ensuring sectoral integration, associated with commensurate expansion of public services.

2.5.2 Protection of Agriculture Lands

Despite, significant growth of tourism activities in the recent times at Havelock and Neil Islands, agriculture will continue to hold an important share in the economy. As of 2011, around one third and two third of the workers at Havelock and Neil Islands respectively are agriculture dependent. Continuation of their activities in the sector would depend largely on retaining the agriculture lands. Though, the land use zoning proposed in section 2.3.1 would provide the legal instrument for protection of agriculture lands from conversion to other uses, it is necessary to augment productivity levels of agriculture lands through appropriate strategies, as that alone can stop agriculture land owners, succumbing to the pressures of the market economy.

2.5.3 Harnessing the potential of Fisheries Sector

In addition to Tourism and Agriculture, Fisheries is also to be considered a potential sector for generating employment and ensuring sustainable development. Presently, significant number of local fisherman use non-motorized wooden dinghies for fishing, which restricts the scope for deep sea and multi day fishing. The fishermen also do not have facilities either to store or move the catch, in excess of local consumption. Developing Fish landing Centres at Havelock & Neil islands would help fisherman to use bigger mechanized fishing boats and venture into longer duration of fishing and access coastal areas which are not accessed for fishing. Further, establishment of necessary infrastructure for handling, processing, and storage of the catch could help to create more employment and increase the household income.

2.5.4 Promoting Rural Tourism

Regular employment is not guaranteed for the agriculture workers in the farm sector which is the main reason for high proportion of marginal workers in Neil Island. As the regular employment is not assured in the farm sector, the workers are inclined to change, to other livelihood options. Apart from combating the situation through external aides & support, the Master Plan proposes a systematic approach to take advantage of the tourism sector by supplementing and regularizing the employment in the farm sector.

Promotion of 'Rural Tourism', at Havelock & Neil Islands would support more regular employment for the workforce and also support sustainable development of these islands, as rural tourism is considered to be a kind of eco-tourism. Rural Tourism allows the creation of an alternative source of income in the agricultural sector for rural dwellers. Rural tourism can showcase rural life, culture of native population and provide the opportunity for the tourists to partake in the agriculture activities, which could be a lifetime experience for most of them coming from urban areas. Cultivators can provide the farm accommodation for the tourists, which not only helping them to increasing their earnings, but also providing auxiliary services for the tourists. Thus, through rural tourism the local community is expected to benefit economically and socially, which would also help retention of agricultural lands even without the support of legal instruments.

In fact, rural tourism is multi-faceted and includes nature tourism and adventure tourism. Havelock and Neil Islands host significant numbers of international tourists' extremely keen on experiencing nature tourism and adventure tourism. Not the regular kind of accommodation and services are sought by this nature of travelers. Accommodation in the midst of agriculture fields and association with the indigenous community for a short period is what the desire of this category of visitors. It is proposed that local communities are enabled and strengthened to provide such support in an organized manner.

2.5.5 Enticing High Value Tourists through Cruise Tourism

Cruise Tourism is defined as travelling for leisure to various destinations on a cruise (luxury) ship, which are not involved in the transportation industry like ferries or cargo ships. A cruise ship is a passenger ship used for pleasure voyages, where the voyage itself and the ship's amenities are part of the

experience, as well as the different destinations along the way. As mentioned, transportation is not the prime purpose, as cruise ships operate mostly on routes that return passengers to their originating port.

Globally, Cruise Tourism has gained a lot of momentum in the recent past, and several new destinations have emerged in the map of cruise destinations. The long coast line, location and spread of many beautiful inhabited and uninhabited islands have been one of the USPs of the Andaman & Nicobar Islands, which offers enormous scope for developing Cruise Tourism in the A & N Islands. Developing Cruise Tourism in the Islands will certainly increase the number of international tourists, and high value domestic tourists, significantly resulting in increased level of per capita expenditure of the visitors. Havelock & Neil Islands are already very popular among the foreign tourists, and a primary survey conducted by EQUATIONS and published in 2008, reveals that more than 55% of foreign tourists visit only Havelock during their trip and 26% visit both Havelock and Neil during their trip to Andamans.

Havelock & Neil Islands cannot be missed out, while proposing for Cruise Tourism in A & N Islands. The gaining popularity of the fully air conditioned merchant vessels 'Makruzz' & 'Coastal Cruz', engaged in marine transport of passengers between Havelock and Port Blair, confirms the scope of developing Cruise Tourism in the islands with Havelock and Neil as cruise destinations.

On the basis of the stakeholders consultation and the recommendation of the Directorate of Tourism, A & N Administration, the Interim Report on 'Identification of Tourism Circuits across India' prepared by the IL&FS on behalf of the Ministry of Tourism, Government of India in the year 2012, has identified Port Blair - Neil - Havelock - Little Andaman as the priority circuit for development. Introducing Cruise Tourism in this Circuit could be the beginning, which has the potential to extent national and international boundaries.

2.5.6 Expanding Attractions / Facilities for the Tourists

Beaches are the main attractions for people visiting Havelock & Neil Islands. Coral Reef Watching and opportunities for Water Sports are the other attractions for the tourists to these islands. However, the entire A & N Islands are bestowed with such treasures at various locations, and it is important that Havelock & Neil Islands are to enhance their capabilities to attract more tourists and sustain the number in the long term. Also, important is to develop a range of attractions, so that visit to the islands does not become monotonous, but constantly inspiring. Tourists' average duration of stay is also bound to increase with increasing number of attractions and level of facilities, ultimately bringing more shine to the local economy.

Further, it is equally or more important to completely revamp the existing tourism infrastructure, as the present condition of these completely fail to convince both the domestic and foreign tourists coming to these islands from far off places. Tourists are invariably tempted to compare the tourists' sites / places, they have visited and recording a lower score on this, will fail to sustain tourism development in the long run.

2.6 SERVICES

2.6.1 Water Supply

In order to sustain the present level of water supply (120 lpcd) by the plan period 2034, Havelock Island will require 1.41 MLD of water to serve the resident population, against the present availability of 1.01 MLD of water. For providing the same level of 120 lpcd for the residents of Neil Island, the water requirement will be around 0.51 MLD against the present availability of 0.18 MLD. Further, development would warrant daily water supply, which is now provided on alternate days or once in three days. While developments relating to water supply, to this extent are to be planned to cater to the needs of the future population, meeting the needs of tourists' population would be a difficult task for the administration.

Hotels and Resorts at present use underground water. But danger waits, when huge quantum of underground water is drawn with increase in tourists' number. Agriculture also consumes high quantum of water drawn through open and bore wells. Excessive use of underground water could result in intrusion of saline water, causing damage over the environmental sustainability of these islands. Under these circumstances, the Master Plan proposes to conserve water and focus on recycle & reuse of water with the participation of the hotel / tourism industry. Tourists' accommodation providers are to plan for their own water needs, without depending upon the administration.

2.6.2 Waste Management

Both solid and liquid waste management measures are yet to be taken up in full, at these islands. As mentioned in section 1.5.2, toilet facilities are not present for most of the local population. This situation cannot be continued permanently, considering the wellbeing of the natural environment, and the kind of tourism development proposed to be achieved in the Havelock & Neil Islands. Therefore, it is proposed that the entire population of Havelock & Neil Islands is provided with toilets connected to individual or combined septic tanks with soaktic.

Islands are adopting different approaches to solid waste management depending on their size, available resources, and the extent and perception of the problem. The approaches may range from fencing a small dumpsite to an island-wide waste separation programme.

The size of the revenue villages in the islands, their spread and availability of lands, suggests that both the solid and liquid waste management measures could be approached more in a decentralized manner. It is proposed to follow such an approach in waste management, by which no waste generated at the islands go untreated. Accordingly, the management measures are to be planned and executed.

Waste management for the tourists' population also needs to be efficient, so that the entire islands sustain not only the natural environment, but also the tourism development. The waste management at the accommodation houses of the tourists is to be handled by the providers of such facilities, individually or collectively. Investors, shaping the built environment for the tourists are to be encouraged to comply with the prescriptions of green buildings.

2.6.3 Electricity

In view of geographical and topographical constraints, including separation by sea of the inhabited villages, there is no single power grid in the islands and instead power houses cater independently to the areas. Two grids connected solar power plants of 50 kw capacities each, installed at Havelock & Neil Islands in 2004 and 2002 respectively are non-functional due to technical reasons. It is only the diesel power generation house with the installed capacity of 1330 kw and 560 kw function at Havelock & Neil Islands, providing 24 hours of power supply. There are 1281 consumers at Havelock and 665 consumers at Neil Islands receiving the electricity supply from these power houses.

Complete dependence on diesel for power generation, is not the ideal state of affairs, considering the fact that the diesel is not locally available commodity. The Electricity Department of the A & N Administration has drawn the new policy for power generation through new and renewable energy sources in the year 2012 with the main objective of reducing the dependence on conventional sources of power generation, especially from diesel. The policy, mention to consider any registered company, co-operative or registered society desirous of installing systems and generating electricity from new & renewable energy sources such as mini/micro hydro, solar photo voltaic, solar thermal, biomass, wind, co-generation, municipal waste, biogas and ocean. Havelock and Neil islands are to be given priority for establishing such facilities, as the demand for electricity in these islands are to increase manifold in the coming years in view of tourism development.

Already, in the whole of A & N Islands, 52 % of power generated is drawn by the non-domestic, industrial and other bulk consumers. This share of non-domestic commercial consumers is expected much higher (than 52 %) at Havelock & Neil Islands, as tourists population in the next 20 years are projected to be nearly equal to the resident population. In such scenario, the responsibility of conservation of electricity, will largely remain with the service providers of the tourists, including the lodging, and boarding operators. The non-domestic consumers are expected to come with their own plan and arrangement for generating electricity for their use.

2.7 TRANSPORT

Both Havelock & Neil Islands are connected to Port Blair by sea and air. The projected tourists' population would require substantial augmentation of transport facilities between Port Blair and these islands. The cost of augmentation is expected to be huge and it is proposed that the Administration encourages participation of the private sector in this exercise.

Intra Island transport facilities require detailed planning as it is proposed to minimize the adverse impacts over the environment. Already pollution is experienced at Havelock, because of the uncontrolled number of commercial vehicles. At Havelock Island, there are 99 commercial three wheelers and 180 commercial LMV or plying, mainly for supporting tourist population. If the operation of these vehicles are not regulated the number of vehicles are expected to grow proportionally to the increase in tourist population. Therefore, the Master Plan proposes to limit the use of vehicles run by fossil fuels and support transport by non-polluting vehicles, cycling and walking.

Parking is the related issue, to be addressed with priority. Absence of designated places for parking of tourist vehicles leaves the vehicles parked on the road margins and public use areas, causing obstructions for smooth flow of traffic.

2.8 SOCIAL AND INFRASTRUCTURE AND OTHER FACILITIES

While the educational facilities for the present are to be considered adequate for the present both at Havelock & Neil Island, the increase in population during the plan period, would require additional facilities. As far as health facilities are concerned only the minimal services are provided, which is to be considered inadequate considering the importance of the services. Also, the lack of health facilities becomes a major constraint for developing tourism at these islands. As tourism is considered a thrust area for economic development, the Master Plan proposes that the high level of health facilities is established during the plan period.

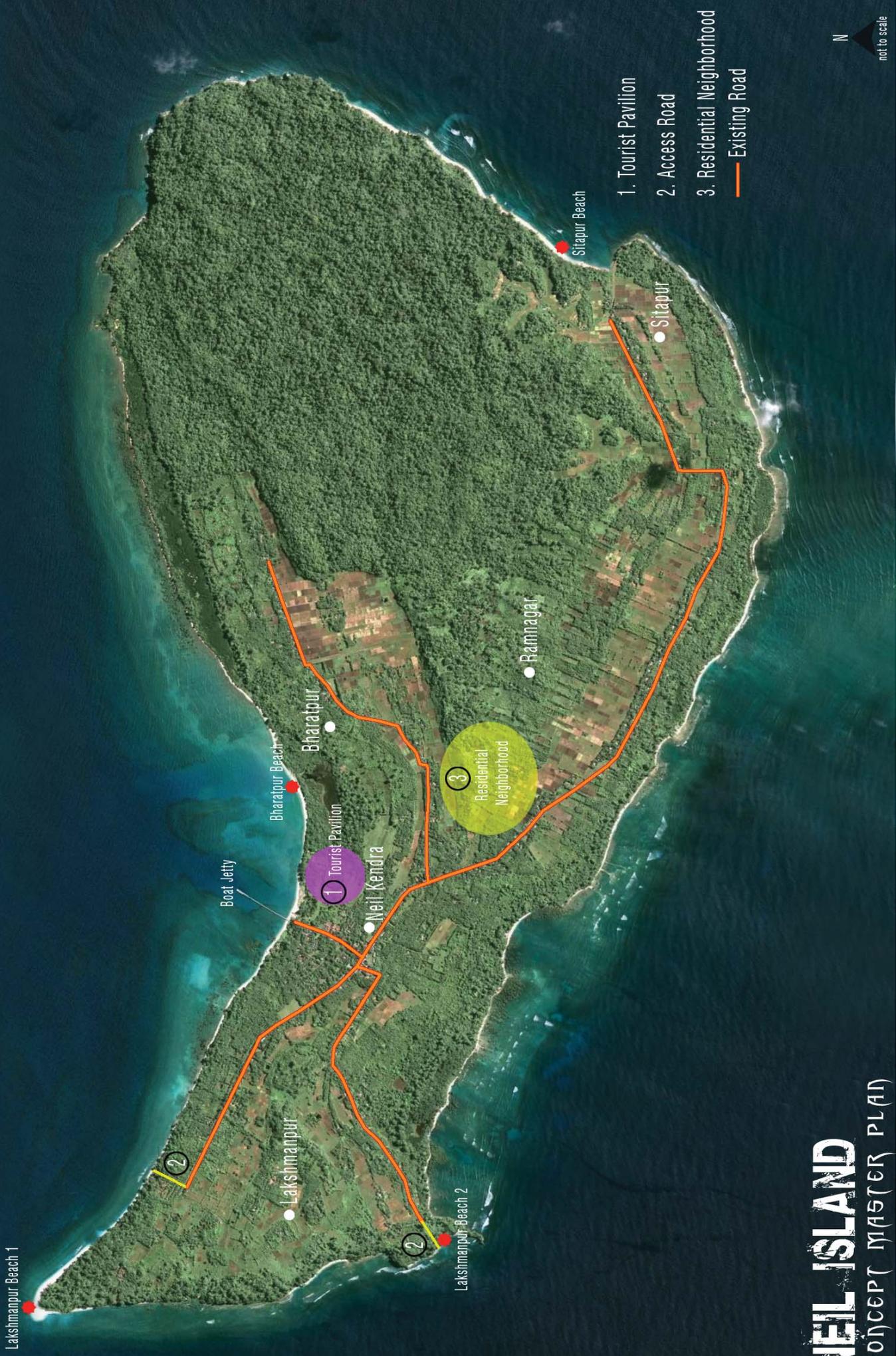
The facilities like Police Station and Fire Station, which are much essential for the local population as well for the tourists' safety, requires expansion both at Havelock & Neil Islands.

Map No. 4



- 1. TOURIST PAVILION
- 2. ISLAND PARK
- 3. BOAT HOUSE AT GOVINDA NAGAR
- 4. REJUVENATION OF SPACE AROUND BOAT JETTY
- 5. BOAT HOUSE AT VIJAY NAGAR
- 6. RESIDENTIAL NEIGHBORHOOD
- 7. CORAL MUSEUM
- 8. SHOWS ON ELEPHANT CENTRE
- 9. LINK ROAD
- 10. EXISTING ROAD - PROPOSED FOR IMPROVEMENT
- 11. FOREST TREKKING
- 12. VIEW TOWER
- 13. ECO-FRIENDLY TOURIST COTTAGES
- 14. BUDGET ACCOMMODATIONS
- 15. RURAL TOURISM
- 16. DOLPHIN SHOWS
- 17. ENVIRONMENTALLY SENSITIVE AREA FOR PROTECTION
- 18. BEAUTIFICATION OF GOVINDA NAGAR BEACH

Lakshmanpur Beach 1



2

Lakshmanpur

Boat Jetty

Bharatpur Beach

Bharatpur

1 Tourist Pavilion

Neil Kendra

3

Residential Neighborhood

Ramnagar

Sitapur

Sitapur Beach

1. Tourist Pavilion

2. Access Road

3. Residential Neighborhood

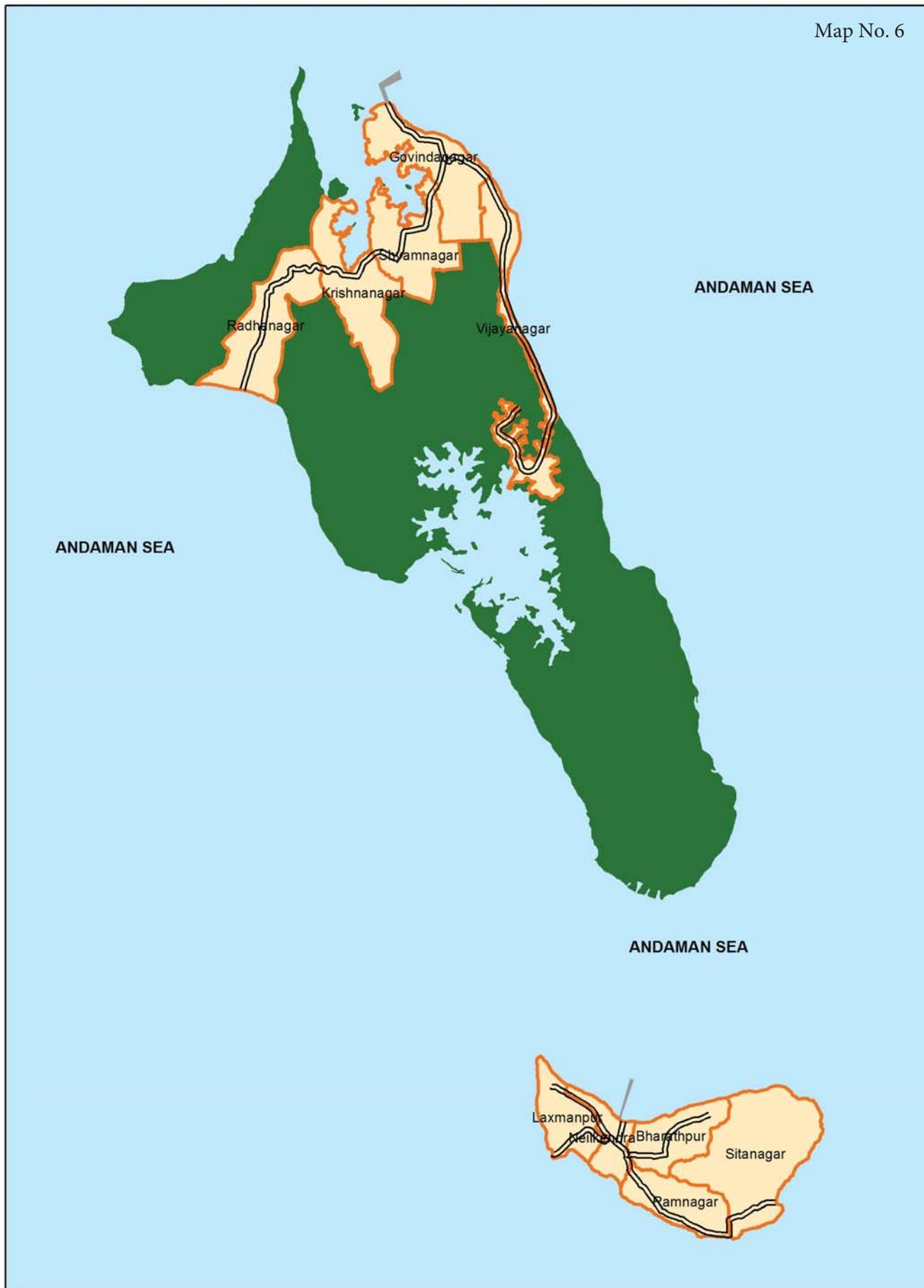
— Existing Road

NEIL ISLAND

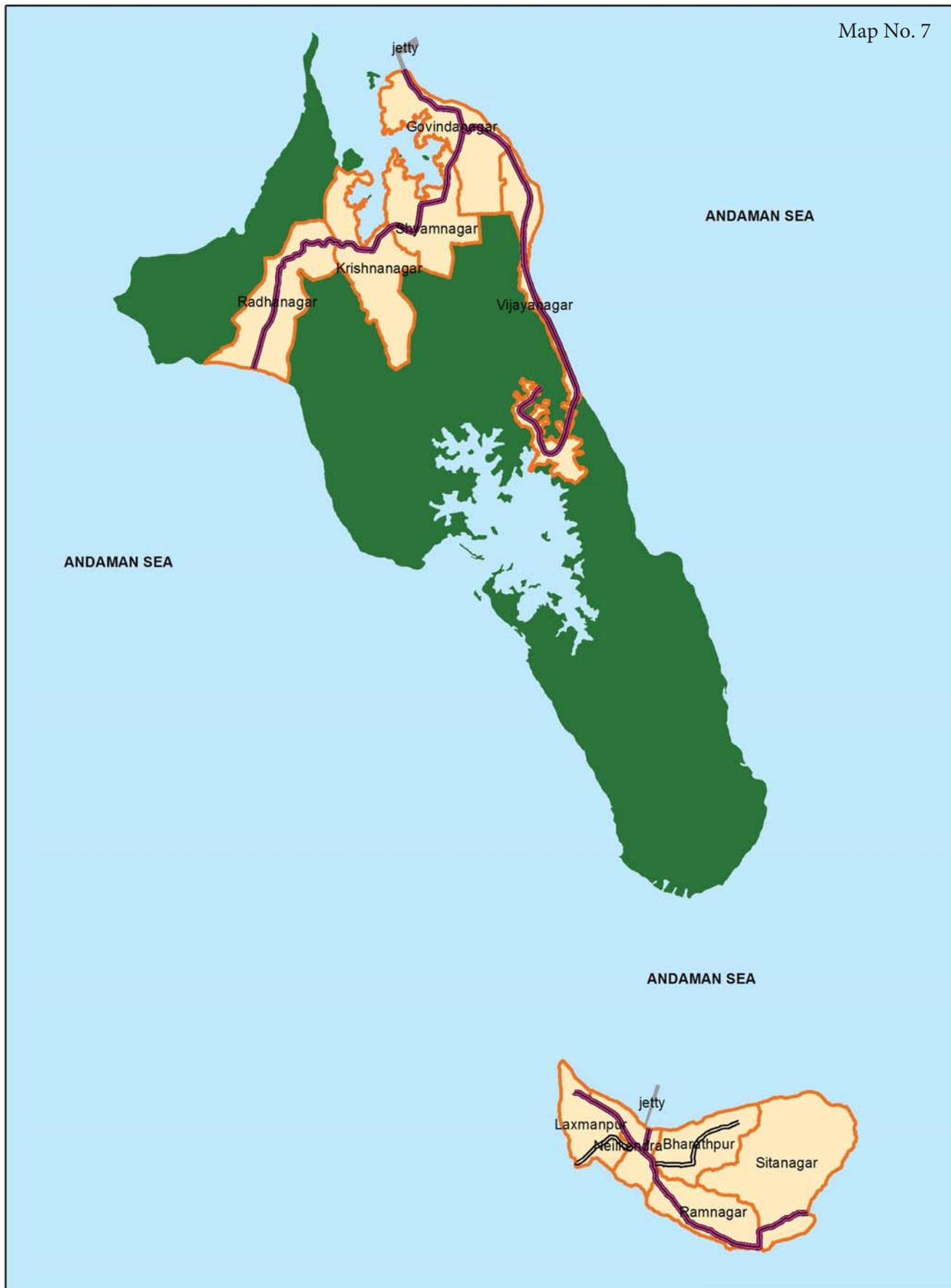
CONCEPT MASTER PLAN

N

not to scale

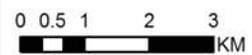


LEGEND = EXISTING ROADS — ISLAND BOUNDARY	0 0.5 1 2 3 KM	N ↑
EXISTING ROAD NETWORK	CLIENT Andaman Public Works Department A & N Administration, Port Blair	APWD
MASTER PLAN FOR HAVELOCK AND NEIL ISLANDS - 2034	CONSULTANTS School of Architecture & Planning Anna University, Chennai-25	



LEGEND

- EXISTING ROADS
- VILLAGE BOUNDARY
- ECO CORRIDOR



PROPOSED ECO CORRIDOR

MASTER PLAN FOR HAVELOCK AND NEIL ISLANDS - 2034

CLIENT Andaman Public Works Department A & N Administration, Port Blair	APWD
CONSULTANTS School of Architecture & Planning Anna University, Chennai-25	