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DEVELOPMENT ISSUES AND PROSPECTS

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DEVELOPMENT ISSUES AND PROSPECTS

2.1 PHYSICAL

2.1.1 The town of Port Blair located in South Andaman has more than 34 % of lands under forest, agriculture, water bodies, vacant and defence possession and only about 66 % available for development. The land under development cannot be intensified because of steep slopes and the existing net density of more than 200 PPH is observed in most of the wards. This is a major issue and hence for expansion in future the development potentials of the adjoining settlements need to be considered. The second major issue is the fragile eco system of the island with 84 % under forest which restricts the carrying capacity of further developments.

2.1.2 The Islands and Port Blair to a large extent depends upon the main land for energy, consumer products and building materials. There is only a limited scope for augmentation of water supply and expansion of transportation network. Accessibility is another issue not only within Port Blair but also in the Islands as well. With limited institutional mechanism towards land management the town of Port Blair experiences encroachment and unauthorized construction, and environmentally evasive activities. The encroachments into revenue lands and forest lands pose greatest challenge for regulated development. Future development proposals for Port Blair need to consider these aspects.

2.1.3 The greatest strength that the union territory enjoys is the patronage of Central Government towards investment in various physical and developmental activities focused sector wise. In terms of electricity and energy, augmentation of generator capacity to meet future demand at Phoenix Bay, Bamboo flat and Chatham to reach per capita energy consumption at 1000 kwh/annum and exploration of Nuclear Power Generation, Ocean Wind, Biomass, Solar and Hydro – based production of electricity are receiving attention of the government. Similarly, Industries and Minerals sector have priorities for setting up Air Cargo complex, establishment of State Productivity Council, Island Entrepreneurship Development Institute, Food Processing Cell, Industrial Training Centre, Exhibition centre and Software Technology Park. Identification of appropriate lands for implementing such physical development projects is a prerequisite.

2.1.4 It was observed that 1375 hectares of paddy area got submerged during Tsunami 2004 and 73% of agricultural land got damaged in the island. So the Agricultural sector has gone for high value (spices & fruits) and low volume (limited land) crops along with crop intensity and rotation of crop techniques. Apart from building up of terminal markets, composite live-stock farming and development of fodder seed production farm are envisaged for future. Some of these have to get located around Port Blair for which

land requirement is a must. Fisheries sector need facilities for fish processing units, cold storages, and marketing facilities. Fisheries museum and Aquarium at Shore Point are also contemplated, which require lands.

2.1.5 Under transportation sector, it is proposed to extend the present Airport and construct Helipads, Aviation infrastructure and Hangers in Port Blair. The road network in the town is such that it takes more than 2 hours to reach tourist spots like Wandur, Chouldari, Chidiyatapu and Dundas Point in the vicinity of Port Blair. In order to improve intra island communication, improvements and widening of roads is a must. Within Port Blair road improvements for a length of 50 km., is required to improve the carrying capacity. More than 28 km. of the Andaman Trunk Road needs to be improved, widened, with bridges. Similarly 18 km. of rural roads declared as State Highways are to be upgraded. The Comprehensive Traffic & Transportation Plan prepared by the Division of Urban Systems Development, Anna University has observed congestion at three critical junctions, need for widening the road connecting Chatham to Airport via Bhatubasti, Junglighat, Hyatsingh junction. Inadequate parking areas, limitation of city bus terminal at Aberdeen and movement of trucks within the city are the other issues to be addressed.

2.1.6 Water supply is an important sector which needs thrust as it is a challenging issue. The present requirement of water for Port Blair is 195 lakh litres per day. At present only 50 to 60 % of the total demand is met with restricted supply of 5 days a week in monsoon and 3 days a week in summer. In order to augment supply, in a phased manner, short term, medium term and long term measures are to be envisaged. Towards this, desilting of Dilthaman Diggi, revival of Dollygunj Diggi, raising the embankment of Chakkargaon Diggi and transportation of water from Rutland Island as short term measures are considered. Raising the height of Dhanikhari dam (5 metres), piped supply from Rutland Island and revival of Indira Nallah scheme are recommended as medium term measures. For permanent and long term solutions, Flat Bay Project recommended by Water and Power Consultancy Services (India) Limited (WAPCOS), and water desalination plant at Port Blair suggested by Engineers India Ltd (EIL) are receiving serious consideration.

2.1.7 Sewerage and Drainage system in Port Blair and surrounding region throws lot of challenges in terms of land availability, rainfall run off to the sea because of terrain. The comprehensive study report on sewage and drainage by WAPCOS, projects the sewage discharge to be 45 MLD for Port Blair surrounding region by the year 2037. Since terrain is hilly, it may not be possible for the sewage to flow in one direction and to take the entire sewage to one place cutting through hills & valleys would involve huge pumping cost. Hence, decentralized sewerage system is required. The location of sewage treatment plants need careful consideration in view of the fact that treated effluent will have to be disposed off into sea through a Marine outfall. One site near Mazar and the other near MES quarry

have been selected by WAPCOS and National Environmental Engineering Research Institute (NEERI).

2.1.8 Housing demand at present is apparently not felt as a major issue. However in absolute terms rehabilitation of slum dwellers, transitional accommodation of Tsunami victims and need for more government housing because of expansion of departments, bring in additional demand for housing. As against 26,500 employees in the government sector only 7340 are accommodated in government housing, the remaining being provided by rental accommodation.

2.1.9 Rehabilitation of slum and provision of housing for slum dwellers also is equally challenging. As per the study conducted by ANCON consultants, there are sixteen pockets or areas within Port Blair where slums are located. There are 2132 dwelling units with a total population of around 9,800. Map no. 6 indicates the spread of slum areas in the various parts of Port Blair town. Considering the fact that less than 10 % of population only are living slums and less than 10 % are below the poverty line, slums can be phased out in Port Blair through environmental upgradation programme. Sanitary condition and solid waste disposal are serious matter of concern. The main issue arises out of the fact that more 41% do not have toilet or water closet facilities, resulting in environmental degradation.

2.1.10 Acceptance of alternative building materials for walls in the place of celcrete or hollow blocks and roofing material in the place of GI sheets and concrete throws challenge in terms of sustainability. There is scope for using adobe clay walls, brick panel slabs, tiles and thatch which can become appropriate technology for the island. The recommendation of the committee set up by the Ministry of Urban Development in 1986 to promote aesthetic and ethnic or vernacular design details needs serious consideration and adoption.

2.2 SOCIAL

2.2.1 As the Islands in general and Port Blair particularly, the community of people indicate a heterogeneous society with a mixture of culture, religious and social values. The people indicate a high level of literary rate of 81% of males and 72 % of females in the town. Similarly, good health condition is observed. At the same time most tribal population except the Andamanese and Nicobarese keep themselves away and have not socially become cohesive. Analysis of social infrastructure and observations of State Development Report 2006, bring out the need for strengthening social infra-structure with a thrust on education, health, vocational and farmers training urgently.

2.2.2 Though the economic status of a society is an indicator of standard of living, quality of life in towns and cities depends on several social parameters and indicators.

The Human Development Report prepared by the United Nations Development Programme (UNDP), has generated three important indices of human development, namely (i) Human Development Index (HDI), (ii) the Human Poverty Index (HPI), and (iii) Gender Disparity Index (GDI). The Human Development Index has improved in ranking in rural areas i.e. from 12 in 1981 to 5 in 1991. The disturbing trend is seen in urban areas where the rank has fallen from 2 in 1981 to 4 in 1991, though as a consolation it indicates a reduction of urban-rural disparity. The Gender Disparity Index has improved from an index value of 0.645 in 1981 to 0.857 in 1991 indicating the attainment of women in overall human development. These statistics point out that in urban areas like Port Blair the declining human development index has to improve and requires strengthening social infrastructure for overall human development.

2.2.4 Among the various sectors of social sphere, education receives priority as the development of the society depends largely human resource. It was already observed that though education facilities are adequate at the higher secondary level, and students - staff ratio is adequate, the main issue in terms of physical planning is accessibility of schools in outlying areas in and around Port Blair. Most of the schools need infrastructure up-gradation in the form of land and building development. Specifically higher education facilities like vocational and technical training institutes to match the present needs and future is necessary. Professional and technical education at highest level is absent. There is a need for an engineering college which can offer programmes related to Environment, Bio-Diversity, Marine Biology, Ocean Research and Disaster Mitigation Planning. Considering the forest eco-system the islands Forest College at peripheral area can be thought off. The different Ashram Schools for tribal welfare which had problems of accessibility and location may be focussed upon in the surroundings of Port Blair town. With good forest reserve especially with Bamboo, cane, and Balsa, along with the support of indigenous craft skills, an Arts and Crafts College may also be thought off. Craftsman trained here can capitalize on tourists and visitors to the island through craft product.

2.2.5 Health and family welfare as the second factor of social sphere has to receive adequate attention. Demographic indicators present a very good picture of healthcare facilities available at present. However considering the future growth, strengthening of existing facilities and creation of new facilities are essential. Healthcare in traditional knowledge systems like Ayurveda, Siddha, Homeopathy and Unani, have not received adequate attention. Provision of such hospitals and dispensaries around Port Blair may have to be thought of. Health care in terms of animal husbandry and veterinary services as a value addition to economic development needs to be given adequate importance. The existing polyclinic sub dispensaries, dispensaries, hospitals and laboratory are just sufficient but needs to be developed further.

2.2.6 Though there are no problems of malnutrition in the islands and Port Blair, large number vitamin and iron deficiencies cases are reported. In order to solve these problems apart from creating awareness about foods, fruits and vegetables rich in minerals, government can ensure that vegetable, and fruit requirements for the islands can be grown locally. Vitamin and mineral rich local varieties such as bamboo shoots and “sahjan” can be cultivated outside urban areas. Vegetable and fruit farms need to get integrated in the land use planning not only in terms of physical sense but also in ecological sense.

2.3 ECONOMY

2.3.1 The State Development Report 2006 for Andaman and Nicobar Islands has pointed out a worrisome fact that there is a virtual stagnation of per capita income at a level of Rs.15,703 per annum during 2001-02, which of course is higher than the country's level of Rs.12,203. At the same time as a positive sign nominal income is growing annually at 8 % per annum from 1994 onwards. Similarly labour productivity indicates a declining trend with more than 30 % of population below 25 years and not contributing to potential workforce. The last general issue is that the performance of this Union Territory is poor compared to nation. It becomes pertinent to review the status of infrastructure development for greater economic growth. It is also clearly observed that there is relatively lesser exploitation of growth potential of primary and secondary sectors of employment. As mentioned already there are abundant natural resources having potential for tourism and fishery activities. In addition, the agriculture sector can support the economy.

2.3.2 **Fisheries:** With one fourth of the total coastline of India and about 80 % of the total Exclusive Economic Zone, ANI has significant potential in fisheries. The present level of marine fish production in ANI is 30,000 tonnes, which is about 12 % of the estimated potential. It has been reported by the Department of Fisheries that there are about 3,448 active and full time fishermen. The perspective plan of the Andaman and Nicobar Islands, drawn up for a period up to 2012, aims to exploit at least 40 % of the estimated potential of fishery (State Development Report of Andaman & Nicobar Islands-June 2006).

From the above facts, it is moderate to assume that at least 75% of the total fishing potential will be realized within the Plan period ending 2028. If we go by the assumption, the total additional number of jobs created due to fishing will be 9500, which will also create additional service employment.

2.3.2 The Fisheries department is aiming at facilities for storage, preservation of fish and processing the same, marketing facilities, running and maintenance of ice plants and cold-storage. Culture fisheries, modernization and up gradation of fisheries museum and

aquarium near Shore Point and construction of fishing services are some of the programmes that are likely to improve the economic activities in the Island.

2.3.3 Tourism: The importance of tourism is borne out by the vision statement of A&N administration which states that ‘the limited scope for industrial activities in the islands coupled with the decline in the wood-based industry pursuant to the Supreme Court judgment dated May 7, 2002 has led to tourism being identified as a thrust sector for economic development, revenue and employment generation in the islands’. Keeping in view of the fragile ecology and limited carrying capacity of the islands, the objective of A&N administration is to strive for sustainable tourism.

The Central Planning Commission of India forecasts Indian tourism to grow at 7 % for the international tourists and at 9-10 % for the domestic tourists. The ANI is ranked 27th and 22nd (out of 32) respectively in the number of domestic and foreign tourist arrivals. Tourism is increasingly considered to be the emerging life-line of these islands. The A. F. Ferguson & Co., in their report (2003) states that “the direct revenue from tourism with average stay of domestic tourists for 5 days and foreigners for 10 days with corresponding spending of 1000 and 2000 Rupees per person per day is expected to yield Rs.300 crores at current prices”.

From the above facts, it is evident that the fisheries and tourism sector offer enormous scope for employment generation and economic growth.

2.3.3 Agriculture: The nature of terrain and the soil profile especially after the Tsunami act as constraints for active traditional agricultural practices. However, this sector can support the economic activities by concentrating on high value and low volume crops. Cultivation of medicinal plants/spices, coconut and horticultural products are to be given thrust in this regard. State Level Agricultural Exhibition (Kisan Mela), establishment of Central Oil Testing Laboratory are programmes envisaged by the agriculture department for boosting the productivity. In addition, Composite Live Stock Farming, Fodder Production as nutrient to animals and Fodder Seed Production farm at South of Andaman are some of the programmes on the anvil.

2.4. ENVIRONMENTAL

2.4.1 Considering the ecologically fragile nature of the islands, and the need to accommodate future growth the following environmental issues assumes greater significance:

- i) Changes in the hydraulic cycle caused by built form underground water supply, and sewage disposal system.

- ii) The disbursed pattern of surface runoff causing wastage of the available rainfall
- iii) The depleting and lower standards of ground water and increased dependency of rain water requiring augmentation
- iv) Susceptibility to earth tremors, Tsunami and impact of Coastal Zoning Regulations IV, requiring stretches of land to be excluded from further urban development.
- v) Restriction and regulation of cutting clearing of hillocks, quarrying and mining activity in areas like Austinabad, Pahargaon, Dollygunj and Dairy Farm.
- vi) Regulating and restricting water pollution caused by cargo handling in harbours, ship repair works in the existing 21 Hectares of water spread in Port Blair and
- vii) Regulating and restricting the pollution caused to soil, water and noise levels in selected areas.

2.4.2 The main strength of the islands in promoting tourism is its environment. Emerald islands as it is otherwise called has 3.0 lakh sq.km., of marine wealth and culture fisheries. The beaches, the islands, the forest, the mangroves and the coral reefs constitute the biotic environment. These abundant natural resources need to be exploited. Similarly, the forest based activities needs to be enhanced. The vision statement of Andaman and Nicobar Island administration is to develop Andaman and Nicobar Islands as an upmarket island destination for eco – tourists through environmentally sustainable development of infrastructure without disturbing the natural eco-system with the objective of generating revenue, creating more employment opportunities. In keeping with the policies of Government of India and the Island administration the following issues emerge.

- i) Promoting high value low volume eco-friendly and environmentally sustainable tourism
- ii) To incorporate proposals of UNDP/WTD report 1996 on sustainable tourism
- iii) Encouraging private sector investment in development of tourism infrastructure.
- iv) Gradual privatization of management of tourism infrastructure and development of new tourism activities and
- v) Marketing Emerald Islands as tourist destination not only at national level but also at international level.

2.4.3 With such major issues emerging at the policy level, several micro level issues are observed as follows. The first and foremost seems to be connectivity between the islands and the main land. The entire tourist travel from India as already mentioned is routed from Kolkata and Chennai through air and ship. According to Rajavel (1998) Report and Foundation for Aviation and Sustainable Tourism (FAST 2002) Report it is seen that while 65% to 75% of domestic tourists travel by ship. Only 10% to 20% of international tourists choose this mode. However as on date with 4 private airliners compared to 2 in the past operating in this sector, and with declaration of Port Blair Airport as an International Airport and the air-fare becoming competitive, the scenario has changed.

2.4.4 The second issue pertains to transport within the island. Travel within the islands including Port Blair is characterized by long waiting time and lack of synchronization between alternative and complementary modes. The State Development Report 2006 says that on a very broad assumption, the speed of transit between the islands averages between 12 to 18 km., per hour. It is striking to note that as per Rajavel's survey nearly 58% of foreigners and almost 28% of domestic tourists did not go to any other islands because of the "risk perception" associated with ferry boat, country boat and doongies. About 32% of domestic tourists, and 10% of International tourists, who used private car, van and bus have generally expressed dissatisfaction because of the connectivity and quality of vehicles. The foreshore services that connect Port Blair to nearby islands require up-gradation of Port, anchoring, berthing, storage and processing facilities. One option or strategy is high quality intensive tourism development within a small geographical area. The sea transport and harbour facilities face constraints because of existing Coastal Regulation Zone (CRZ) guidelines. The air-transport and road transport facilities pose problem again because of availability of land is a constraint.

2.4.5 The third issue relates to problem and limitations in tourism policy and planning. Though the tourism policy provides for eco-friendly tourist resorts, camping grounds, up-gradation and privatization of existing guest houses, it is difficult to understand how such independent efforts of the tourism department helps to include Port Blair and the islands in the international air travel and international cruise route.

2.4.6 Fourth set of issues concern about security, environment and socio-cultural aspects. The proposal to set up a strategic nuclear command would take ANI into a critical security zone and is likely to cause impact both on domestic and international tourist and cargo movements. Environmental consideration discussed already, ban on, extraction of sand from the coastal area, commercial plantations in reserved areas and eviction of encroachers, all these call for a comprehensive strategy which can be implemented with a strong institutional mechanism and technically empowered planning

authority. On par with international standards and considering the size, shape and coverage width of the island and availability of land for development 50 metres of coastal protection with stringent parameters on intensity of development needs serious consideration.

2.4.7 Finally there are certain additional issues arising out of the above context. The first one relates to realistic projection of tourist traffic and estimating their duration of stay. It is seen that while majority of domestic tourists i.e. 84 % stay for less than 5 days, majority of foreign tourists stay for 15 days or more, which again is speculated. The State Development Report 2006 predicts that the direct revenue from tourism, assuming the above duration of stay and the domestic and foreign tourists spend Rs. 1000/- and Rs. 2000/- per day respectively is Rs. 300 crores at current prices. In such a scenario, development of eco-tourism can result in influx of large domestic and international tourists.

2.5 INSTITUTIONAL AND LEGAL

2.5.1 Port Blair, at present is the only urban Tehsil Headquarters, situated in the district of Andaman. The Municipal Board for Port Blair consists of three office bearers viz., (i) Chairman (ii) Senior Vice-Chairman (iii) Junior Vice-Chairman and eight elected members and four nominated members. All the physical planning and development works are executed by the Andaman Public Works Department under the control of the Chief Engineer. Examination of the town and regional area activities reveals that they are carried out by the Town and Country Planning Unit of the Andaman Public Works Department (APWD) under the control of an Associate Town and Country Planner, with minimum technical support. The APWD is essentially a prime construction agency of Andaman and Nicobar administration. The department is entrusted with the work of providing infrastructure support to the people, other departments of the administration and all other departments functioning under the control of ministries. The major activities include, i) Roads and Bridges, ii) Water supply and sanitation, iii) Housing, iv) Urban Development, v) Public works, vi) Minor Irrigation and vii) Civil aviation

2.5.2 The Town & Country Planning Unit of the APWD is occupied with updation of planning data and co-ordination of some of the developmental programmes. Empowerment of such a technical wing is necessary for an optimistic foresight, and spatial integration of all planning decisions. The existing town and country planning unit needs to be strengthened both in terms of technical manpower, finance and infrastructure.

2.5.3 It is seen that the Andaman and Nicobar Islands Coastal Zone Management Authority was constituted vide amendment S.O.No.992 (E) 26th November 1998 and the

latest notification regarding the extension of its members is dated 31st March 2005. This authority is specified with functions relating to all physical development and is supposed to perform with support of officials of Municipal Council, department of Revenue, Deputy Commissioner of the district for CRZ, and Divisional Forest officer. The various physical development projects are dealt individually on case to case basis and not in the light of a co-ordinated development plan. Alternatively co-ordination with Town Planning unit is lacking. Hence projects along the coast are sporadically developing. Finally though the entire island is under CRZ-IV, proposals for declassification under CRZ-II, in some coastal stretches of Port Blair, Bamboo flat, Hut Bay and Campbell headquarters are under active consideration.

2.5.4 A strong legal framework flexible enough for futuristic, directed growth strategy is important. In the absence of a strong legal framework, the growth strategy proposed can not be achieved. The Regional Plan for Andaman and Nicobar Islands and the Outline Development Plan (ODP) prepared by the Town and Country Planning Organisation, Government of India could not be implemented as they did not have the required statutory support. This Master Plan is set to fill the void.

2.5.5 Port Blair Municipality as well as the Andaman and Nicobar islands at present are governed by the following statutes or legal frame work which contain provisions for regulation and development of building and land activities:

- (i) The Andaman and Nicobar Islands (Municipal) Regulation, 1994 – effective from 8th Dec. 1994.
- (ii) The Andaman and Nicobar Islands Town and Country Planning Regulations, 1994 – effective from 19th Dec. 1994.
- (iii) Port Blair Municipal Council Building Bye-laws – effective from 13th October 1999.
- (iv) The Andaman and Nicobar Islands Town and Country Planning Rules 2005 – effective from 28th Sept. 2005.

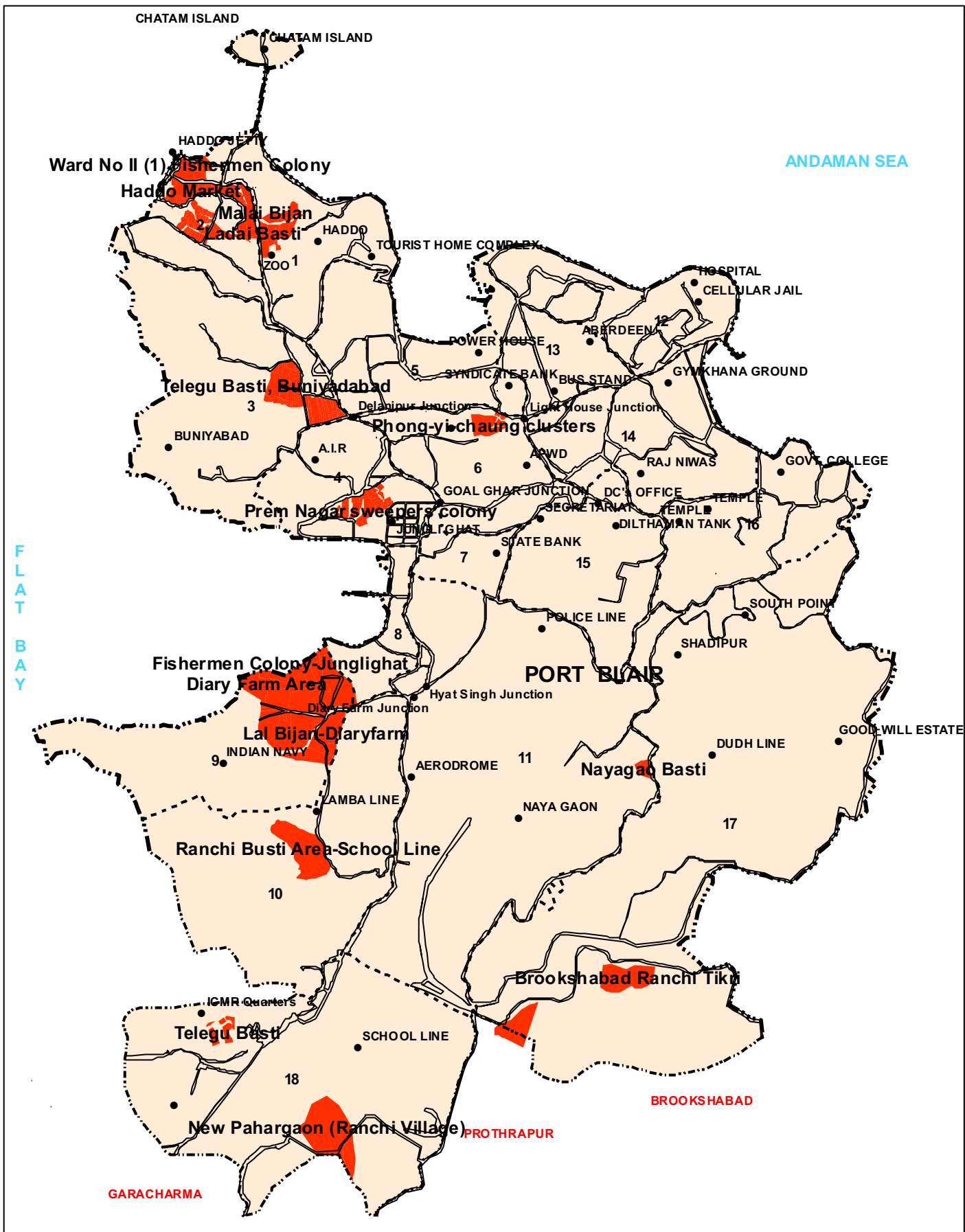
2.5.6 The Andaman and Nicobar islands (Municipal) Regulation, 1994 is the oldest statute covering the entire Union Territory of Andaman and Nicobar Islands. The entire focus and thrust is on governance, administration and management. Chapter X relates to Buildings, where the focus is on ‘sanctioning’ procedures. Clause 78(I) under chapter III makes provision for formation of sub-committees. It is seen that “Town Planning” is linked to “work and improvement” like other sub-committees on finance, taxation, public

health, sanitation, water works, education and social justice. Developmental activities need to get integrated within the frame work of the Master Plan and hence there is need for the separate sub-committee on planning.

2.5.7 The Andaman and Nicobar Islands Town and Country Planning Regulations 1994, again extending to the whole of Union Territory focuses on monitoring of town planning activity through an establishment and procedures in the preparation of Master Plan and implementation of the same. Sub section (3) of clause (II) and Clause (14) of chapter IV relating to regulation of land development after the statutory Master Plan and treating of “land”, as deemed to be for “public purpose” are strong and healthy provisions in this regulation. The realization of the goals and objectives set forth in the Master Plan is possible achieve with the establishment of the Department of Town and Country Planning.

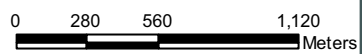
2.5.8 The Port Blair Municipal Council Building Bye-laws which came into force from October 1999 is perhaps the most detailed statute available to regulate all land and building activities and has direct public oriented responsibility. All the provisions are on par with Bye-laws of other States of India prepared and are being implemented. Mandatory requirement in the form of sustainable and green building concepts are needed especially for all government buildings. The present staffs are in-adequate to oversee all the building and land activities especially when this institution has to create a positive image as a societal asset. The responsibility becomes more critical considering the expansion of urban development activities beyond the Port Blair Municipal boundaries.

2.5.9 The Andaman and Nicobar Islands Town and Country Planning Rules 2005 are a well thought out and guiding statute in terms of preparation, publication, monitoring and implementation of Master Plan. These ‘rules’ again extend to whole of “Emerald islands”. The classification of development area as “urban, sub-urban and rural”, under Master Plan is a constructive suggestion. However it is felt integration of ecologically sensitive areas, sub-classification of areas subjected to natural disasters, monitoring of identified mining and quarrying activity, and strengthening the co-ordination between, Town Planning Department and Islands’ Coastal Zone Management Authority are issues requiring immediate attention. Re-examination of fees for development or re-development in urban, sub-urban and rural areas is necessary. Levying of “Environmental Cess” for degradation of environmentally sensitive areas, or evasive proposals treating it as a ‘continuous offence’ may be thought off.



LEGEND

- Port Blair Municipal Area
- Slums Area / Pockets
- P B P A Boundary
- Municipal Boundary
- Village_Boundary
- Ward_Boundary
- Roads



PROJECTION SYSTEM : UTM
 DATUM : WGS84
 SPHEROID : WGS84
 ZONE : 46

Scale 1 : 30000	DRG NO DMP 6	N
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LOCATION OF SLUMS IN PORT BLAIR

MASTER PLAN FOR PORT BLAIR PLANNING AREA - 2028

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