

Project Proposal
on
Smart Island Project
at
Little Andaman Island
in
Andaman & Nicobar Islands

Submitted by:

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Smart Island^{@NIC} – from NIC

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Executive Summary

The Andaman & Nicobar Islands is an archipelago comprising of 572 islands in the Bay of Bengal, at a distance of around 1200 km from the Indian peninsula. The Islands have been an integral part of the Indian nation and are renowned for their prominent part in the national freedom struggle movement. The islands have been in the news for the Tsunami that struck in Dec 2004 affecting vast areas, population, livelihoods and vital infrastructure of the islands. However, the islands have gradually come out of the devastation and destruction, there is renewed hope with the relief and rehabilitation measures that the islands are receiving and new opportunities are emerging in sectors like Relief and Rehabilitation, Tourism, High Value Agriculture and Fishing etc.,

The A & N islands have been left out of the IT boom being witnessed in the other parts of the country and the benefits of ICT for the citizens of the islands have also been relatively low. The “Smart Island” Project by National Informatics Centre, the premier Science & Technology organization of Ministry of Information Technology, Govt. of India, to overcome this digital divide between A & N Islands with the rest of the country and with the primary objective of “Reaching the Un Reached” and “Serving the Under Served” by utilizing ICT tools, systems and organizations to support the transformation process. It is envisioned that the Smart Island project, when implemented, will make a meaningful difference to the lives of the islanders in the rural areas. The project will be designed, developed and implemented by NIC in coordination with various stakeholders like Andaman & Nicobar Administration, Central Govt offices working in the Islands, NGO's, Self Help Groups, PRI institutions etc.

The Smart Island project is proposed to be executed at the pilot location of “Little Andaman” Island, comprising of 5 revenue villages.

1. INTRODUCTION

i. Background:

The Andaman & Nicobar Islands (A & N Islands) is located in Bay of Bengal, Approximately 1200kms East of Mainland India and spread over a distance of 700kms from North to South. The capital of A & N Islands is Port Blair located at South Andaman Islands. The population of A & N Islands is 3.85 Lakhs. Out of 572 Islands only 38 Islands are inhabited.

The technology has reached these Islands but all the inhabited islands are not equally privileged. The capital town Port Blair has been benefited with Information, Communication and Technology (ICT) setup but due to poor internet bandwidth through satellite link the services are not being provided in a better way.

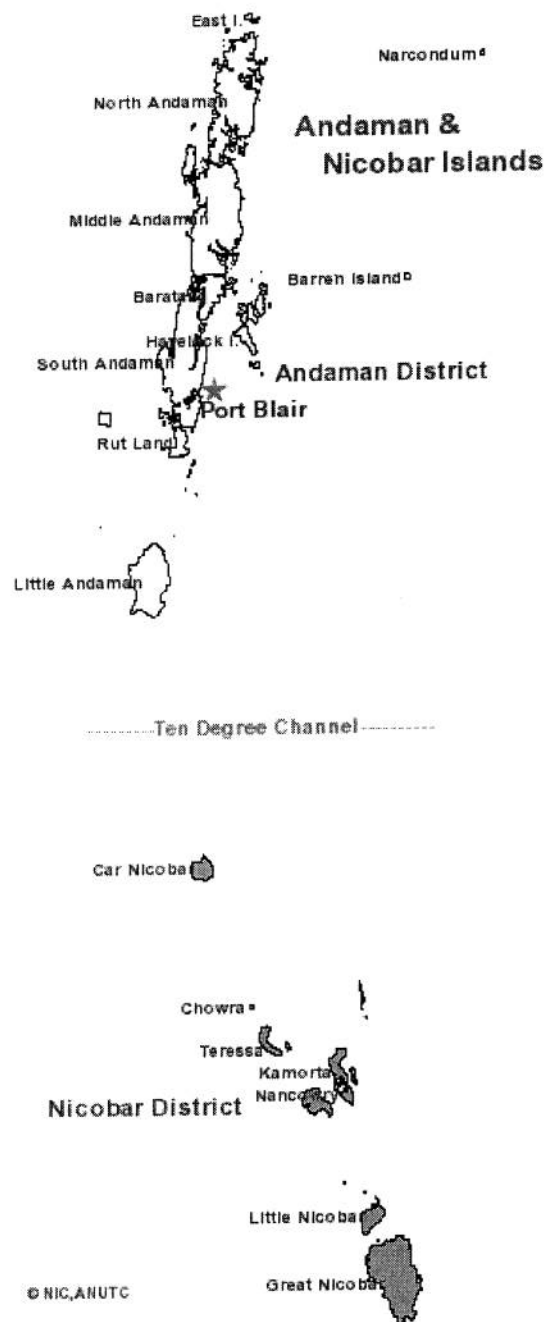
The ICT setup and internet bandwidth in the remote islands are not up to the mark, 100% service delivery through online mode is yet to be done. Therefore it is need of the hour to pick one Island and make it ICT enabled using both Online and Offline technology to so that it can reach the unprivileged.

ii. **Purpose & priorities of Smart Island:**

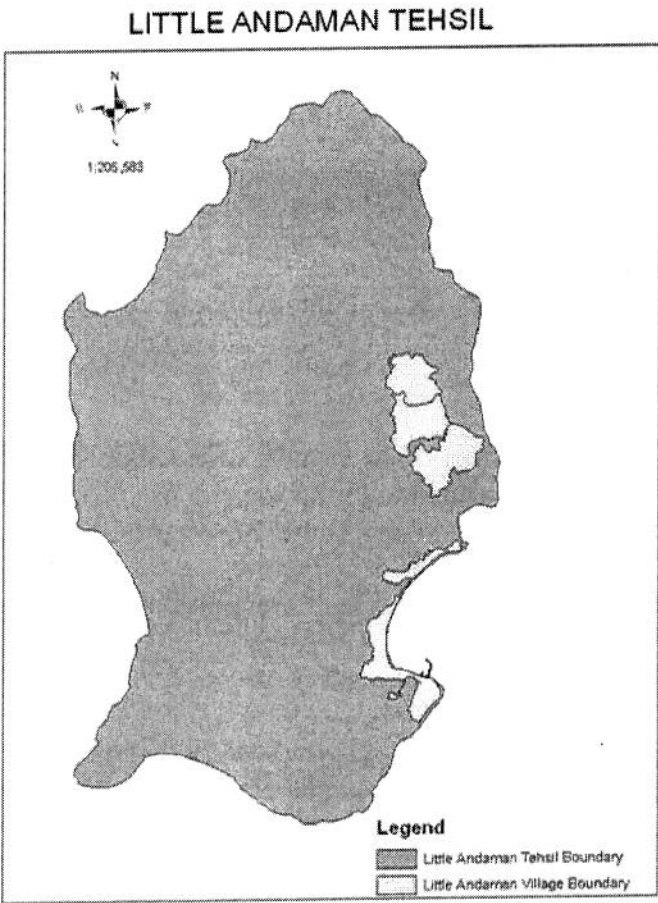
- Prompt delivery of services;
- Technology upgradation
- Technology benefit should be used by the villagers (Like Farmers, Fishermen etc.)
- Cost savings and effective administration; and
- Management, planning and monitoring mechanism in the Island,
- It should be powerful, flexible, easy to use and to be designed and developed to deliver real benefits to the Islanders;
- To cover the Tribal Population settled in this Island under this Project.
- The Project will also support the Health, Transport and Education sectors.

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iii. Map of A & N Islands



iv. Map of Little Andaman Island



Little Andaman Island, located south of the South Andaman Island, is at a distance of 120 km. by sea from Port Blair. Hut Bay Village in Little Andaman is the entry and exit point and also the Island Tehsil headquarter.

v. General Information

GENERAL	
Tehsil	Little Andaman
Geographical Area	731.60 Sq.Km
Revenue Area	34.340000000 Sq.km
Revenue Circle	Nil
Patwari Circle	2
Revenue Village	5
Panchayat	5
Panchayat Samiti	1
POPULATION(as per census 2011)	
Male	9964
Female	8859

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Total	18823
Total Electors	13325
EDUCATION	
Schools	15
Institutes	Nil
Colleges	Nil
HEALTH	
Health Facilities	PHC-2, Sub Centres -7

Besides five Revenue Villages, Little Andaman Island also has two tribal settlements, where Nicobares and Onges tribe are settled.

Onges

Onges are one of the most primitive tribes in India. The Onges are inhabiting the Little Andaman Island. This Hunting and Gathering tribe has also been settled by the Andaman & Nicobar Administration at Dugong Creek and South Bay on Little Andaman Island. Coconut plantation has been raised for the benefit of Onges Medical care, free ration etc. are being provided t by the Administration. Onges go for hunting and fishing occasionally. The approximate population of Onges is 100.

Nicobaries

Harminder Bay Village has total Nicobari Tribal Settlement located at the southern part of Little Andaman Island. The approximate population of Nicobari is 1200.

Connectivity

Speed Boats

Government ferries run by the Directorate of Shipping Services connect Phoenix Bay jetty/ Haddo Wharf, Port Blair to Hut Bay, Little Andaman every day. The journey takes about 7 to 9 hours.

ByAir

The Civil Aviation Dept. of A & N Administration operates regular helicopter service from Port Blair airport to Little Andaman. It takes about 35 minutes by helicopter.

Tourism

Little Andaman island offers a perfect mix of white sandy beaches bewitching Waterfalls, Boating through the Creeks, exciting Elephant Safari, Elephant lumbering, Elephant calves training, Surfing etc. All the places of tourist interest are approachable by the road, leading northwards from the Hut Bay Jetty. Little Andaman has an evergreen rain forest which paves way for a very rich biodiversity.

2. **Smart Island Solution:**

- A. The Smart Island Project Is Not An Information & Communication Technology (ICT) Project
It Is A Project That Uses ICT Along With Other Components.
- B. The Smart Island project is NOT an exclusive project of Central or State Government or NIC or NGO's or PRI's
It is a synergetic collaborative effort of all these agencies and others also.
- C. The Smart Island project is NOT office centric
It is Citizen centric
- D. The Smart Island project is NOT a replacement or substitute for village level Governance
It is Value Addition to the existing systems, procedures and processes.
- E. The Smart Island project is NOT a project that will computerize the offices, individuals, activities etc., at village level
It is a project that will use local conditions and factors at village level and will leverage ICT to create business like environment for increasing Livelihood opportunities.
- F. The ICT component of Smart Island project is NOT disparate or distinct from other components.
The ICT component will be intertwined and interlinked with all components so that it is seamlessly integrated in the project.

i. **Strength of Smart Island**

The strength of the project is that it will reach the disadvantaged sections of the population in the islands who have been left out of the reach of benefits of ICT, till now. The final outcome of the project will result in an integrated Smart Island portal for serving the disadvantaged sections of the population in the islands. As part of this process, it may well be necessary and advantageous to have a re look at some of the existing processes and re engineer them.

Of particular interest is the viewpoint of envisioning the role of Smart Island project as a System for delivery of Services to the diverse set of population, organizations and processes. The focus is on utilizing the power and reach of Internet to drive and manage the basic systems and processes by adopting the best practices and standards.

ii. **Functional Features of Smart Island:**

- The Project Smart Island will provide e-Governance services to the Islanders at Village Level.
- The Island will have VSAT based connectivity provided by NIC.

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- The project will link the existing services like e-Tehsil (Issuance of Certificates etc.), Vahan-Sarathi, ePDS through a single window application.
- Web based Public Grievance Monitoring System at Tehsil Level.
- Tourism related services for the Tourist and Tour Operators.
- Health services by connecting all the PHC and by using Telemedicine services
- Online Land Records, Electoral Roll, Islander Cards services
- The Project will also cover Swachhata Abhiyaan, Computer Literacy
- IT education to the Students of the Islands
- Technology support to the Farmers, Fishermen and other low level business communities.
- IT Educations to the tribal population settled in the Island.

iii. Present Internet connectivity status

Presently the Little Andaman Island has only broad band connectivity provided by BSNL and the bandwidth is very low. A & N Administration has already initiated the Under Sea Cable project for connecting A & N Islands with mainland through a very high bandwidth undersea cable. The tender has already been floated by Department of Communication, Min. of Communication, Gol, New Delhi. The Project may take 2 years for completion after the work is awarded.

The Little Andaman Island has been identified as one of the node where the undersea cable will be terminated. After completion of this project the internet bandwidth of A & N Islands will improve manifolds. And the Smart Island project can be further improved using the high bandwidth provided under Undersea Cable Project.

3. Why Smart Island

Smart Island will be an unique project of NIC which will try to reach the people of the remotest place. This project has not been initiated by any agency till date. A & N Islands is consisting of many small islands which are very far from the State Capital, District (HQ) and even Tehsil (HQ). Project like Smart Island will try to cater the needs of the citizens of these places by innovative use of ICT.

4. About Smart Island Implementation

Smart Island Project will be implemented in Little Andaman Island of South Andaman District, A & N Island by NIC in coordination with A & N Administration, Gol Offices, Panchayats etc. The implementation strategy will be as below for the Pilot village:

- a. Establishment of the Smart Island Computer Cell at Little Andaman Island
- b. Interconnecting all offices / units of Little Andaman Island as a part of the Smart Island network.
- c. Initially the existing Software applications being used in the Head Offices at Port Blair will be implemented in the Computer Cell.
- d. Providing the services of the Government to the islanders.

- e. Simultaneously new applications will be developed by NIC with the support of hired manpower and implemented.
- f. Strategic linkages with A & N Govt, Central Govt offices, NGO's, Self Help Groups, PRI institutions, academic and research institutes for running and sustaining the Smart Island project
- g. Training, handholding and making operational the systems, software and network, through outsourcing.
- h. In the second phase the rest of the villages will be connected through OFC to the computer cell and services will be provided at village level to all the islanders of Little Andaman Island.
- i. Providing internet access to every household in the Island (Only after the internet bandwidth is improved by BSNL)

Needless to say, the commitment of all the stakeholders, especially the Government functionaries and the efforts of the NGO's and Self Help Groups in this endeavor is of paramount importance for the project to be successful.

5. Project Scope

The scope of the project is to

- a. Setting up a Smart Island Computer Cell with latest hardware and networking equipments at Little Andaman Island.
- b. Setting up a computer cell in each village
- c. Identification of services to be delivered to the Islanders from different Islands
- d. Registration of Islanders as per Electoral Roll/ Islander Card Database
- e. Development of Webbased applications
- f. Delivery of services
- g. Connectivity with line departments and 5 villages
- h. Implementation of National Level Projects through Smart Island Project.
- i. Capacity building for operational staff.
- j. Training to the Govt. Officials, Staff and the Islanders including Farmers, Fishermen and Tribals.
- k. Maintenance of Smart Island Project

It is proposed to implement Smart Island Project in two Phases by deploying functionalities / modules in Phase -I for the Pilot Village only where minimum efforts towards localization would be needed and other villages will be covered in Phase-II. Project deployment and implementation duration is 2 (Two) years and software support/updates shall be extended by NIC as per the MOU and Terms and Conditions (Not yet framed).

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6. Hardware Requirements

Sl No.	Description	Quantity	Approx. Unit Cost (in Rs.)	Approx. Total Cost (in Rs.)
1	Blade Servers with enclosure	1 enclosure with 5 Blades	2000000	2000000
2	PCs	15	45000	675000
3	Printers a. Multi Functional b. Laser Printer with scanner	1 4	50000 15000	50000 <u>60000</u> 110000
3	STM1-Router	1	1600000	1600000
4	24 Port Manageable Switch	2	60000	120000
5	24 Port Non-Manageable Ethernet Switch	4	5000	20000
6	Server Rack 32U	2	80000	160000
7	LAN setup (Cable, Patch Chords, Jack Panels, connectors, IO Outlet etc.) and Miscellaneous	1	500000	500000
Total Cost (Approx.)				5185000.00

Total cost (approx.) for Hardware requirements would be Rupees Fifty one lakhs Eighty five thousand only.

7. Manpower Requirement

a. For the 1st and 2nd Year

Sl No.	Description	No. of Manpower	Approx. Salary per person (in Rs.)	Duration	Approx. Total Amount (in Rs.)
1	Application Developer –Level 3	2	30000/-	2 Years	2*30000*24=1440000
2	Data Entry Operators /Application Support Professional	7	15000/-	2 Years	7*15000*24=2520000
3	Network Administrator	1	35000/-	2 Years	2*35000*24=1680000
4	FMS Support	2	22000/-	2 Years	2*22000*24=1056000
Total Cost (Approx.)					6696000.00

Total cost (approx.) for Manpower requirements for 1st and 2nd Year would be Rupees Sixty six lakhs ninety six thousand only.

b. For 3rd Year

Sl No.	Description	No. of Manpower	Approx. Salary per person (in Rs.)	Duration	Approx. Total Amount (in Rs.)
1	Application Developer –Level 3	1	30000/-	1 Year	30000*12=360000
2	Data Entry Operators /Application Support Professional	7	15000/-	1 Years	7*15000*12=1260000
3	FMS Support	2	22000/-	1 Years	2*22000*12=528000
4	Network Administrator	1	35000/-	1 Years	2*35000*12=840000
Total Cost (Approx.)					2988000.00

Total cost (approx.) for Manpower requirements for the 3rd Year would be Rupees Twenty nine lakhs eighty eight thousand only.

So the total estimated cost for hiring manpower for the project for three years would be Rs.9684000 (Rupees Ninety Six lakhs eighty four thousand only).

8. Site Preparation

For Server Room and space for manpower, NIC will request A & N Administration to provide a RCC room of Apprx. 600Sq.ft size with proper electrification and ACs. Internal Networking will be carried out by NIC.

In Village/ Panchayat, existing CSC or Panchayat office will be used for providing Citizen Services.

9. Connectivity

OFC based Leased Line connectivity between the Server room and Village Panchayat/CSC, Server room and Govt. Departments within the Island will be provided by BSNL and payment will be made by A & N Administration.

NIC may provide VSAT based connectivity for internet access from NIC Budget.

10. Future Plan

After successful implementation of Smart Island Project in Little Andaman Island the project may be rolled out other major Islands of A & N Islands. There are total 10-12 Major inhabited Islands where this project can be implemented.

11. Conclusion

The Smart Island project can bridge the digital divide between (1) the Andaman islands and the rest of the country at one level and (2) the rural population at Havelock islands and urban area of Port Blair at another level. The Smart Island project can transform the existing archaic systems and offices at the villages to the envisioned state where in data and information can be shared not just among the various offices within the village but also with other agencies for sustainable development. More than anything else, the Smart Island project can provide a way for enriching the employment opportunities and livelihood pattern of the Islanders taking into accounts the ground realities and existing opportunities.

“Smart Island Project”

About Smart Island Project

Under “Smart Island” Project National Informatics Centre, the premier Science & Technology organization of Ministry of Electronics and Information Technology, Govt of India, may adopt the “Little Andaman Island” and provide full IT support and implement e-Gov Services to overcome this digital divide between A & N Islands with the rest of the country and with the primary objective of “Reaching the Un Reached” and “Serving the Under Served” by utilizing ICT tools, systems and organizations to support the transformation process. It is envisioned that the Smart Island project, when implemented, will make a meaningful difference to the lives of the islanders in the rural areas. The project will be designed, developed and implemented by NIC in coordination with various stakeholders like Andaman & Nicobar Administration, Central Govt offices working in the Islands, Academic & Research Institutes, NGO's, Self Help Groups, PRI institutions etc.

Objective of Smart Island

- ❖ **Connectivity:** Connecting all the Villages with Tehsil Head Quarter through OFC. Connecting all the Govt. Offices through OFC.
- ❖ **Improving the quality of services** to the islanders enabling easy access to information, quick service norms and complete transparency in the processes
- ❖ **Facility to extend the reach of Internet to every household** in the selected villages in the islands
- ❖ **Complete replacement of manual records** for improving the manageability, data integrity and efficiency in processing time
- ❖ **Achieve complete integration among all related systems and procedures** facilitating information exchange among the offices of the A & N Administration and Central Govt offices at village level, as well as with other institutions like rural banks, cooperative societies etc.,
- ❖ **Generation of meaningful MIS** for improving the timeliness, accuracy and efficiency thus facilitating an effective decision support system
- ❖ **A single window Smart Island portal** for satisfying the data and information requirements and needs of different sections of islanders, offices, institutions and other stakeholders.
- ❖ **Establishment of Smart Islands Service Centre (SISC)** at the pilot location for delivery of services and information to the islanders

Major Services to be offered to the Islanders using high Internet bandwidth:

1. Better support to Farmers/Fishermen
 - a. Weather Report
 - b. Agriculture Products rate in different islands
 - c. Near by Fishing Zones
 - d. IT Awareness Campaign
2. Health
 - a. Online Registration
 - b. Consultation thru Video Conference
3. Land related services
 - a. Record Entry
 - b. Mutation
 - c. Land Conversion
 - d. Valuation
4. Permits, Licenses and Certificates
 - a. Tourist Permits
 - b. Vehicle Permits
 - c. FPS License
 - d. Bar License
 - e. Birth & Death Certificate
 - f. Income Certificate
 - g. Legal Heir Certificate etc.
5. Internet Browsing and training on IT applications to School Students
6. Online Ship Ticket Booking/ Purchase
7. Online Flight Ticket Booking/ Purchase
8. Tourism Development
9. Evening Classes on IT Awareness to Villagers

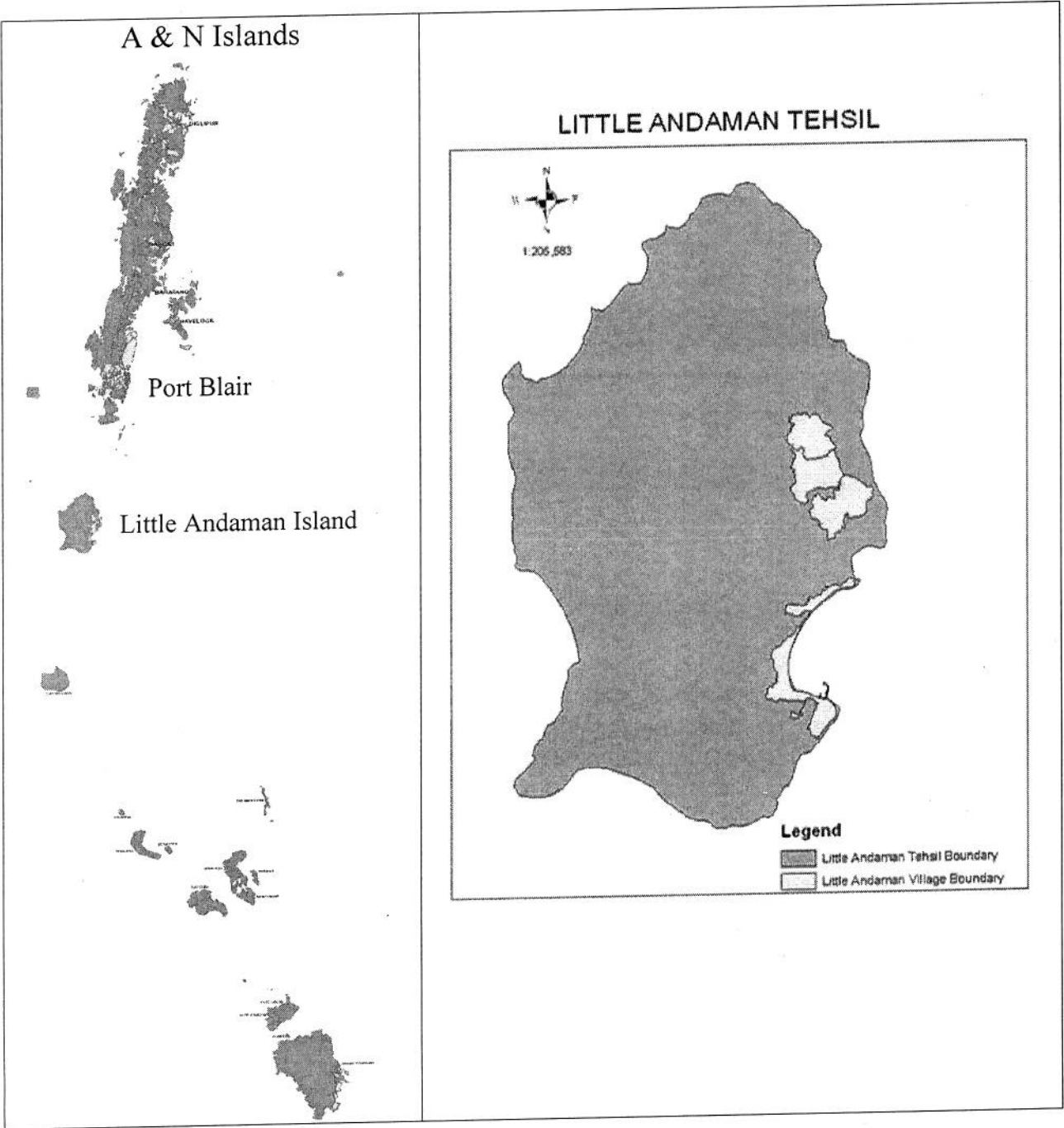
**Roles & Responsibilities on Smart Island Project at
Little Andaman Island in
Andaman & Nicobar Islands**

Roles & Responsibilities			
SI No.	Description	NIC	DIT, A & N Administration
1	Site Preparation - Server Room and Space for Man power	LAN and procurement of Furniture will be done by NIC	Civil & Electrical works, Partitions, ACs will be provided by DIT, A & N Administration
2	Software Development	All software will be developed by NIC	Software already developed/ implemented by DIT will be linked with Smart Island project to be accessed by the citizen of Little Andaman
3	Training	Will be provided by NIC to the Govt. Employees, Panchayats and the Islanders	DIT may identify IT cadre personnel to be trained under Smart Island Project and provide implementation support.
4	Hardware	Will be Procured by NIC for Server room and Citizen Service Centre at Panchayat level	The Govt. Department under A & N Administration may procure the Hardware as per NIC's request in coordination with DIT, A & N Administration.
5	Connectivity	VSAT based connectivity for server room	Connectivity between Server Room and all Panchayat through BSNL LL by DIT, A & N Administration. The Govt. Departments to be connected with server room may get the connectivity after obtaining approval from respective HODs in coordination with DIT,NIC and BSNL
6	Manpower	Network Admin -1 No. Field Engineer – 2 Nos. Programmer – 2 Nos. In Addition two Officials from NIC, Port Blair will monitor the project on regular basis.	DIT will provide 2 full time IT Cadre Personnel for implementation and on site operational support.

“Smart Island Project”

Brief About Little Andaman Island

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General Information

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Besides five Revenue Villages, Little Andaman Island also has two tribal settlements, where Nicobares and Onges tribe are settled.

Onges

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