# CHAPTER 10 TRANSPORT

Transport is one of the basic infrastructures needed for generation of economic activity and for bringing about prosperity and well being in the state. The Andaman and Nicobar Islands is served by three means of transport viz. road ways, water ways (sea transport) and airways. Unlike mainland-India the Andaman and Nicobar Islands are deprived of National Highway road and rail connectivity due to its geographical dislocation.

## 10.1 ROAD NETWORK

Roads and Bridges are the lifeline of the people for transportation of goods and passengers and provide linkage in the accessible terrains. The Union Territory of Andaman and Nicobar Islands is located in the Bay of Bengal far away from mainland and no land connection feasible with the mainland. The roads in the Union Territory are divided into three categories viz. Trunk Roads (inter islands roads), Urban Roads (primarily roads with in Port Blair township) and rural roads (roads linking villages to a trunk road or inter village roads). APWD constructs & maintains both urban and rural roads in these islands.

APWD has built more than 1232 km as trunk routes (Major District Roads) and 117 km urban roads (in Port Blair). Of the 547 villages (as per 2001 census) a total of 254 villages have pucca (Black Top) road connectivity. The remaining 248 villages, consisting mainly of small hamlets each having a population less than 200, are proposed to be covered during 11<sup>th</sup> five year plan. As per 73<sup>rd</sup> and 74<sup>th</sup> amendments of the constitution the rural and urban roads are to be looked after by the PRIs and Port Blair Municipal Council respectively. The responsibility of the up-keep of the trunk roads rests with the Administration of Union Territory. Tribal areas continue to be with Andaman Public Works Department of Administration.

## National Highway 223

The Andaman Trunk Road has been designated as NH-223 vide GOI MOSRTH Notification dated 25.02.2004 except charge km 61 to 104 and 142 to 155 km for a length of 227 km.

## State Highways

Vide No.56/2006/F.No8-19/2004 – PWD dated 22/03/06 the Hon'ble Lt. Governor of A& N Islands declared the following roads as State Highways.

**SH 01**: Road in Little Andaman Island (22 Km) runs along the Eastern Coast, starting

from Jetty it pases through Hut Bay, R. K. Pur and Terminating at V.K. Pur.

**SH 02**: Road in Great Nicobar Islands (38 Km) starting from 0.00 Point (Trijunction)

at Campbell Bay Bazaar passing through Joginder Nagar, Vijay nagar, Laxmi

Nagar, Gandhi Nagar & terminating at Shastri Nagar along the East Guard.

**SH 03**: Road of Car Nicobar (46 Km corenlar raod) starting from 0.00 point near Post

Office at H.Q. (VIO) Gandhi Statue, Tamaloo, Jayanti junction, Teatop, Arong and Kakana.Again vide No. 203/2007/F.No.8-19/2007-PWD (PF) dt. 1.10.07 following roads also declared as State Highways.

- SH 04: Havelock Jetty to Radha Nagar Beach (11 Km)
- SH 05: Govind Nagar Junction to Kalapather (9 Km)
- **SH 06**: Neil Island Jetty to Sitapur (4.06 Km)
- SH 07: Shippighat to Manjeri (11.50 Km)
- SH 08: Guptapara to Wandoor (10.20 Km)
- SH 09: Chunnabhatta to Ferrargunj (via) Kadakachang (12 Km)
- SH 10: Bambooflat jetty to Shoal Bay 19 (24 Km)
- **SH 11**: Tushnabad Junction to Tirur (11 Km)
- SH 12: Saithankhari Junction to Ograbraj Junction (10 Km)

Due to substantial forest area in the Union Territory, the road density (by area) cannot be easily compared with that of other state and Union Territory. The road density (by area) in Union Territory has been low it was 109 km per 1000 sq km in 1990-91 as against 609 km per 1000 sq km at all India level. It was 160 km per 1000 sq km in 1996-97 as against 750 km per 1000 Sq.km at all India level.

The challenges faced in construction and maintenance of these roads include a long spell of rainy season, poor quality & strength of soil, remoteness of places and non availability of consistently good quality of construction materials in many regions. Despite all these difficulties, constant efforts are being made to overcome practical and local constraints by adopting new techniques, new machineries and methods are being introduced to increase the durability of roads

On 26.12.2004 the Earthquake and subsequent followed waves totally disturbed these Andaman and Nicobar Group of Islands especially to southern group of islands i.e. Great Nicobar and Car Nicobar Islands. In Campbell Bay the north-south road beyond 2 km in Headquarters and Indira Point is mostly submerged. In Katchal Island from jetty to Kapanga village the road has been entirely damaged. The Teressa Island affected with roads and water supply. In Car Nicobar the circular road of the island was partly damaged and new construction of nearly 20 km is required. Surrounding area of Port Blair as such Garacharama, Prothrapur, Austinabad and the adjoining area and also in the ATR many of the culverts and bridges are damaged. The Austin Bridge was also disturbed in the earthquake.

Due to shifting of most of the habitants especially in southern groups of Islands after Tsunami the construction of new roads and approach paths was given top priority. During 2006-2007 around 35 Km of black top road work was completed in the Nicobar Districts and 33.50 Km of roads are in progress. One Bailey bridge at Passa Nalla is installed and made good for traffic. At Teressa Island the road work for a length of 13 km is also in progress. At Kamorta the road connecting Vikash Nagar has been completed. The Road from Kamorta to Phillpilow of length 22 Km and Champion to Topong for length of 6 Km are in progress. Widening and Improvement of 30 Km of Andaman Trunk Road has been completed. Construction and Improvement of area has been completed. Construction of Cement Concrete Drain, toe wall in locations wherever required is in progress. In Campbell Bay the North South Road the first phase 0 to 20 Km will be completed by December 2008. The road connecting to all the Permanent Shelters are also in progress.

District-wise number of Culverts & Bridges on State Highway during 2007-08 South N&M Nicobar Total Andaman Andaman No. of Culverts 343 1107 294 1844 No. of Minor Bridges 10 43 16 69 No. of Major Bridges 16 26 3 7 317 Total 356 1166 1939

Statement 10.1

## **10.2 ROAD TRANSPORT**

In the year 1956 transport service was provided initially with the help of two make shift Lorries for the people of South Andaman. Later it extended to other Islands. State Transport service provides satisfactory public road transport service carrying the students, patients, and other commuters to their destinations in all the 11 islands. Unit wise fleet strength is furnished below:

Statement 10.2 Fleet Strength in STS						
S No.	Name of the STS Unit	Fleet strength				
1.	Port Blair	67				
2.	Ferrargunj	24				
3.	Baratang	13				
4.	Rangat	19				
5.	Mayabunder	16				
6.	Diglipur	18				
7.	Havelock	4				
8.	Niel Island	2				
9.	Hut Bay	11				
10.	Car Nicobar	11				
11.	Katchal	9				
12.	Campbell Bay	9				
13.	Kamorta	2				

Of these STS unit kamorta and Neil Island started functioning from the year 2004 -05 and 2001 -02 respectively.

Parameters	2000-	2001-	2002-	2003-04	2004-	2005-	2006-	2007-
	01	02	03		05	06	07	08
On road buses	54	62	72	76	86	98	144	155
No. of buses	10	10	-	03	20	49 (40	20	08
purchased as						buses		
replacement						under		
						TRP)		
Fleet utilization %	32	35	44	49	64	78	88	88
Total Km operated (in	28.10	29.63	31.89	38.02	35.63	45.54	70.75	76.19
lakhs)								
Total passengers	26.70	81.83	33.50	39.73	45.60	60.08	111.8	135.88
carried(in lakhs)							7	
Average revenue per	15.58	16.16	18.90	28.42	24.17	34.24	73.54	89.60
month								
Passenger carried /	2.22	2.40	2.79	3.31	3.80	5.00	9.32	11.32
month								

Statement 10.3 Performance of State Transport Service

The above statement shows that fleet utilization of this Department was very low prior to Tsunami which was less than 50%. It has increased to 88% in the year 2007-08 after most the long off road buses were repaired and brought on road. In the past eight years kilometers operated by buses of STS have increased from 28.10 lakhs to 76.19 lakhs which means an increase of

171 %. Similarly the State Transport Service buses have carried 409% more passengers during 2007-08 than 2001-02. Revenue earned by the Department has also increased by 475% during the corresponding period.

It was decided to privatize the public road transport during the late eighties and stage carriage permits were issued to private bus owners. Initial response of privatization was very good and there was a time when nearly 200 stage carriage permits were granted to private operators. With the passage of time private operators could not bear the heavy operational expenditure and started withdrawing their buses and as of now only around 45 private buses are plying. Earlier decision to grant stage carriage permits to Co – operative Societies formed by a group of people also failed as none of the Societies to which permits were issued are currently plying their buses. Factors like Withdrawal of private buses, increase in population, construction of new rural roads connecting villages to the arterial roads has put more burden on the STS to provide buses in all the motor able roads which requires further increase in the fleet size. In an effort to augment the existing fleet this STS has made provisions in the 11<sup>th</sup> Five year Plan to procure 100 new buses.

In the year 2001-02 STS operated only 6 express buses on the ATR whereas now 18 ordinary express buses are operated daily which connects port Blair to Kadamtala, Rangat, Mayabunder and Diglipur. In order to provide comfortable journey to the commuters especially on the long routes, STS is planning to buy 10 deluxe luxury buses during the 11<sup>th</sup> Five year plan.

To streamline and overcome the problems faced by the public road Transport service in the Islands A&N Administration appointed Central Institute of Road Transport, Pune to conduct Origin- Destination Survey. The survey has been completed and report submitted which has been approved by the Administration. Survey finds that Public Transport is carried out by STS buses, private buses, jeeps etc. It also reveals that over the years number of private bus operators has receded significantly. Major reasons that could be attributed to this receding number are problems in financial management, profit sharing, leakages in revenue earned and high cost of maintenance. Important suggestions of the survey are:

- Emphasis has been given on developing a strong road based public transport system with significant roll of private bus operators.
- 2. Hiring of buses from the private bus owners on fixed per kilometer basis.
- 3. Augment the fleet of STS by deploying additional 50 buses to cater to the requirements of urban commuters.

## **10.3 MOTOR VEHICLES**

Like else where in the country these Islands have also witnessed a boom in the transport sector mainly due to advancements in the automobile technology, increase in population coupled with increased buying powers of people, affordable prices etc.

Year wise vehicles population and growth trend may be seen in statement given below:

Items	1996- 97	2000- 01	2001- 02	2002- 03	2003- 04	2004- 05	2005- 06	2006- 07
No. of vehicles	16062	25198	28456	30815	34116	39151	43176	48938
Increase in no. of vehicles	1479	1882	3258	2359	3301	5035	4025	5762
Annual growth (%)	10.14	8.07	12.92	8.28	10.71	14.75	10.28	13.34

Statement 10.4 Growth of Motor Vehicles in A&N Islands

Like in the rest of the country these Islands have also seen an increase in the number of personalized vehicles. Efficient and good quality public road transport service is required to control the increase in the personal vehicles.

The number of motor vehicles registered in the Union Territory as on 31<sup>st</sup> March 2007 was 48938 showing an increase of 13.34% over previous

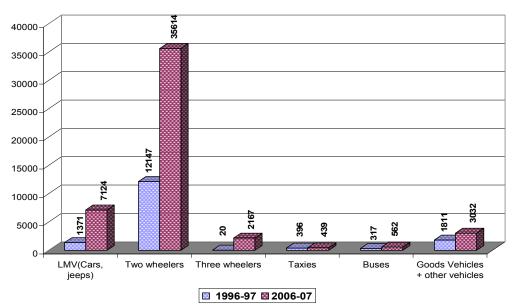
year .Of the total number of vehicles 14.56% were light motor vehicles, 72.77% were two wheelers, 4.43% were three wheelers (Auto Rickshaws) and 7.34% were heavy motor vehicles (buses and trucks).The details of vehicles in the UT are given in the Statement 10.5.

		Ulowiii	or venicles	5.		
S No.	Cate	gory	No. of v	vehicles	Decennial Growth Rate %	
			1996-97	2006-07	(1996-97 to 2006-07)	
A. PR	IVATE	E VEHICLES				
i	LMV	(Cars, jeeps)	1371	7124	419.62	
ii	Two	wheelers (MC, Scooter	12147	35614	193.19	
	& Moped)					
	Sub Total		13518	42737	216.15	
B. CC	MME	RCIAL VEHICLES				
iii		Three wheelers	20	2167	10735	
iv		Taxies	396	439	10.85	
V		Buses	317	562	77.28	
vi		Goods Vehicles +	1811	3032	67.42	
		other vehicles				
		Sub Total	2544	6200	143.71	
		Total	16062	48938	204.68	

Statement 10.5 Growth of Vehicles

## Chart 10.1





Statement 10.5 shows that there has been a growth in the number of vehicles which increased from 16 thousand in 1996-97 to 48.9 thousand in

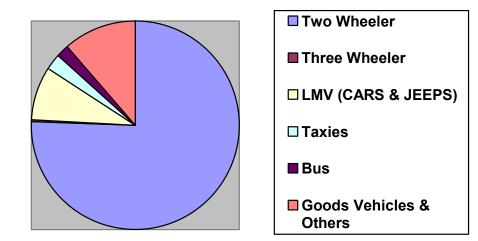
2006-07 at an annual compound growth rate of 11.15%. Decennial growth rate of private vehicles like Motor cycles and Cars is very high which has registered a growth rate of 193% and 419% respectively. In the commercial vehicles category Auto Rickshaws have registered the highest increase mainly because in the nineties auto rickshaws were considered unsafe for this terrain and only 20 Autos were there in 1996-97 whereas up to 2006-07 2167 Auto Rickshaws were registered. Taxies have registered the least decennial growth rate i.e. 10.85 % because of the influx of Auto rickshaws. Buses and other vehicles have registered a growth rate of 77.28 % and 67.42% in the ten years.

I yp	Type of motor vehicles in A & N Islands as % share							
SI. No	Type of Vehicle	1996-97	2006-07					
1	Two Wheeler	75.62	72.77					
2	Three Wheeler	0.12	4.43					
3	LMV (CARS & JEEPS)	8.5	14.55					
4	Taxies	2.46	0.89					
5	Bus	1.97	1.15					
6	Goods Vehicles & Others	11.27	6.19					
	Total	100	100					

Statement 10.6

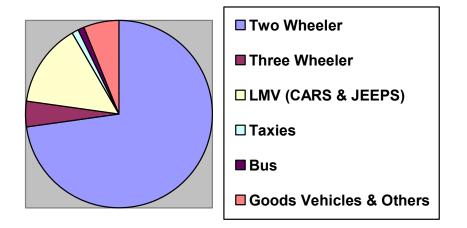
## Chart 10.2

Percentage Share of Vehicles in 1996-1997



### Chart 10.3





The percentage distribution of Categories of Motor Vehicles in A & N Islands (Table 7 & Fig. 2 & 3) shows that there has been a rapid proliferation in the number of cars & jeeps and three wheelers during the decade, while there has been a decline in the relative share of taxies, buses, goods vehicles and two wheelers.

## **10.4 SEA TRANSPORT**

The sea transport has an important role to play in the economic development of Andaman and Nicobar Islands which are located 1200 km away from mainland. Except limited agriculture products all day to day needs from essential commodities to materials required for construction need transportation from mainland. Connectivity between scattered islands is a real challenge before the Andaman and Nicobar Administration.

The maritime transportation sector comprises of shipping services for transportation of men and materials and the required infrastructure includes ports, communication, radars, jetties etc. to facilitate the shipping services.

The Port Management Board was established in April 1989 for administering ports and harbour in the Andaman and Nicobar Islands. The shipping services require various aids for safe navigation and homing. The term 'aids to Navigation' includes various type of Light Houses, Light Beacons, Fog Signal, Buoys, Recons, Satellite Navigational aids etc. These are maintained and developed by Light House & Light Ships Department to match international standards.

Navigation / tab								
Particulars	2004-05		2005	-06	2006-07			
F al liculai S	Andaman	Nicobar	Andaman	Nicobar	Andaman	Nicobar		
Gas operated lights				-				
Unlighted Beacons	2		1	-	1			
Lighted Buoys								
Unlighted Buoys					1			
Port Signal Stations	5	3	7	3	8	3		

Statement 1	0.7
Navigation A	ids

The Shipping service provides transport connectivity between inhabited Islands and three ports in Mainland viz. Chennai, Kolkata and Vizag with a fleet strength of 86 vessels of different capacity. Present borne strength of shipping fleet is as follows.

## Statement 10.8

SI. No.	Type of Vessel	Nos.
1.	Mainland-Island Pax-cum-cargo	05
2.	Inter-Island Sector	05
3.	Foreshore Services	17
4.	Passenger-cum-Vehicle Ferry	13
5.	Cargo	06
6.	Water Barge	03
7.	Touring Vessel	05
8.	Mooring Vessel & Utility Launches	06
9.	Oil Tanker	01
10.	Tug	01
11.	Landing Craft Assault	02
12.	Harbour Ferry & Motor Launch	22
	Total	86

## Mainland-Island

During 1951-52 there was only one ship plying in mainland sector. The second ship joined in the year 1965. The present strength of mainland-island vessels is five. The pax and cargo traffic during1951-1952 was 9952 and 28177 MT respectively. The passenger traffic during 2007-2008 is more than 17 times the traffic handled during 1951-52. Maximum cargo is now being

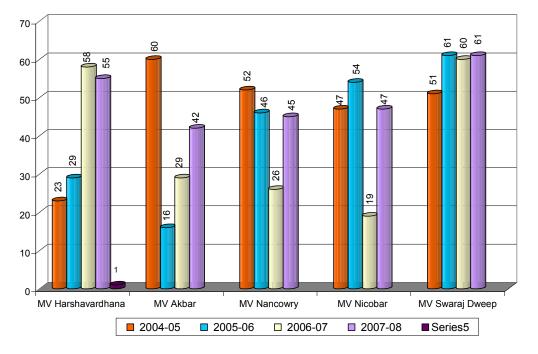
handled by the private shippers. Voyages performed by Mainland – Island Ships during the last four years are given below:

Name of Passenger-	No. of Voyages					
cum-Cargo Ship	2004-05	2005-06	2006-07	2007-08		
MV Harshavardhana	23	29	58	55		
MV Akbar	60	16	29	42		
MV Nancowry	52	46	26	45		
MV Nicobar	47	54	19	47		
MV Swaraj Dweep	51	61	60	61		

## Statement 10.9 Voyages performed

## Chart 10.4

## Voyages performed by Mainland – Island Ships



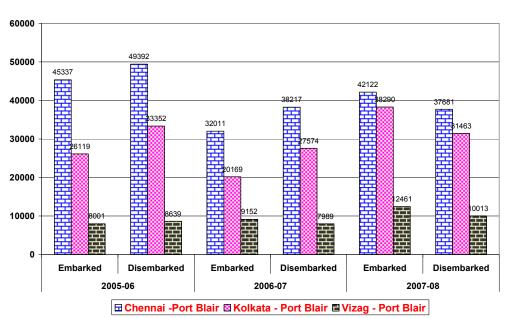
The passenger traffic between Port Blair to mainland is given in statement.

Statement 10.10						
Passenger Traffic						
Particulars	2005-06	2006-07	2007-08			

				1		
	Embark	Dis	Embark	Dis	Embark	Dis
	ed	Embark	ed	Embark	ed	Embark
		ed		ed		ed
Chennai -	45337	49392	32011	38217	42122	37681
Port Blair						
Kolkata -	26119	33352	20169	27574	38290	31463
Port Blair						
Vizag -	8001	8639	9152	7989	12461	10013
Port Blair						
Total	79457	91383	61332	73780	92873	79157

The above statement shows that during 2005-06 and 2006-07 the number of passengers disembarked at Port Blair is more than passenger going to the mainland. But during 2007-08 passengers embarked from Port Blair is more than the passengers disembarked at Port Blair.

Chart 10.5



Sector-wise Passenger Traffic

## Statement 10.11

Cargo Traffic by Sea between Mainland Island by DSS/SCI/ Vessels (in MT)

Year	Inward	Outward	Total				
2004-05	23301.53	1179.80	24481.33				
2005-06	30134.78	2679.84	32814.62				
2006-07	20256.69	2814.20	23070.89				
2007-08	30812.42	3731.34	34543.76				

Inter Island

Inter Island service was started in 1950 using a streamer namely SS Cholanga which made one round voyage weekly via Rangat to Mayabunder and Diglipur. During 1964 the service was extended to Southern group of Islands namely Campbell Bay, Nancowry, Car Nicobar and Hut Bay. In 1950 the passenger traffic was 27650 and cargo traffic was 750 MT and now we carry 10 times more passengers and 7320 MT during 2007-08. The passengers carried during 1950 and 7 times more than the cargo carried during 1950.

## Statement 10.12

Route / Sector	Passenger Traffic during 2004-05 to 2007-08						
	2004-05	2005-06	2006-07	2007-08			
Inter Island Sector	172464	233664	277900	204145			
Foreshore sector	139673	177276	189064	301284			
Harbour Ferry sector			4569436	4896911			
Total	312137	410940	5036400	5402340			

Passenger traffic by Inter-Island, Foreshore Sector and Harbour Ferry

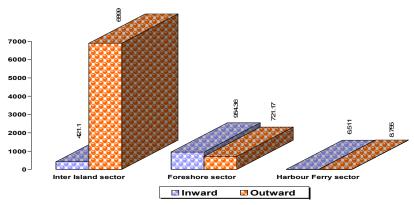
In some years the inter-island sector has shown a growth in passenger movement and has shown a fall in 2007-08. This is largely due ships being made Annual Passenger Survey (APS) and not because there is lesser demand from islanders for travel.

Statement 10.13

argo Tranic by Inter-Island, Foreshore Sector and Harbour Ferry (In MT)						
Route / Sec	tor	Cargo carried during 2007-08				
		Inward	Outward	Total		
Inter Island	sector	421.100	6899.000	7320.100		
Foreshore s	ector	954.360	721.170	1675.530		
Harbour Fer	ry sector	6.511	8.755	15.266		
	Total	1381.971	7628.925	9010.896		

Chart 10.6

#### Cargo carried during 2007-08



Shipping services to Southern Groups of Islands is one of the major area of concern, due to distance factor and is isolated geographical location i.e. Campbell Bay is almost 298 nautical miles away from Port Blair. The journey time to this southern most island has been reduced to less than half from 72 hours to 28 hours with the introduction of M.V. Kalighat since 2005.

### Harbour Ferry Services

The Harbour Ferry Service had been introduced during 1953 with only one ferry boat in between Port Blair and Bambooflat. After that the ferry service has been extended to different coastal villages. The passenger traffic during 1954-55 was 114327 which increased to 4896911 during 2007-08 near about 43 times more than the traffic during 1953-54.

In its endeavor to provide reliable and quality services to the general public, the shipping department of A&N Administration is making efforts to meet the ever increasing traffic through its existing fleet strength. During recent years the Directorate General of Shipping has imposed many stringent regulations especially on passenger ships. A large number of old vessels are now being subjected to comply those statutory provisions, which compelled those old design vessels to remain out of service till such time the required statutory requirements are met. Similarly, the competency level of the manpower to man such vessels has been raised. Non-availability of technical manpower is yet another problem due to which the shipping department is largely dependent upon external agencies like Shipping Cooperation of India,

National Ship Design Research Centre and Private Agencies for manning supervision and for technical management of most of the vessels. Inadequate repair facilities, non-availability of spares for imported machineries, lack of private sector participation, non availability of proper jetties in some of the islands etc. are some of the other areas of concern hurdling the smooth operation of the shipping services. For proper maintenance and repair of both mainland-island and inter-island fleet, Andaman and Nicobar Administration is totally depending on the shippards located in the mainland. Small crafts and fibre boats vessels are being built in private sector for construction of vessels though the Administration is procuring vessels in large numbers. The long construction period for these vessels has also been a worry for the Administration.

The severe earth quake followed by Tsunami waves caused extensive damages to port and harbour structure and allied facilities in these Islands especially in Hut Bay and Southern group of Islands. Further the increase of water level by 1.00 to 1.20 meters at Port Blair creates problem at jetties during high tide.

There is a plan to acquire 25 new vessels during 11<sup>th</sup> Five Year Plan to meet the increased demand. Efforts are on to identify shipyards which have the ability to deliver the vessels in time.

Vessels of the following capacity are in the final stages of delivery/construction, which are expected to join the fleet by December 2008:-

- a) 1 No. 500 passenger capacity vessel. "M.V Campbell Bay" to be deployed in Southern Group of Islands.
- b) 1. No.100 passenger capacity vessel "MV.Rani Changa" to be deployed in Foreshore sector.
- c) 2 Nos.150 passenger capacity vessels "MV Bambooka and MV North Passage" to be deployed in foreshore sector.
- d) 2 Nos. 100 pax–cum-vehicle ferries "MV Karmatang and MV. Afra Bay" to be deployed in Harbour Ferry.

The following new vessels are planned for acquisition during XIth Five Year Plan:-

## Mainland –Island Sector

a) 4 Nos. 1200 Pax vessels

### Inter-Island Sector

a) 4 Nos. 400 pax vessel

### Foreshore sector

- a) 2 Nos. 200 pax vessels
- b) 1 No. 250 pax vessel

## Harbour Ferry

- a) 4 Nos. 100 pax -cum-vehicle Ferries
- b) 6 Nos. 200 Pax vessels
- c) 4 Nos. 50 Pax Motor Launches.

## **10.5 CIVIL AVIATION**

With the growing demand in air traffic in Andaman and Nicobar Islands are being considered as exotic tourist place, the significance of this airport has increased. Therefore to meet the enhanced requirement, extension of the airstrip has been carried out from the original 6000 feet to 11000 feet. With the increased runway length the airport will enable the bigger size aero-planes such as air bus A-300 etc. to operate safely. This will tremendously boost tourism activities including international tourism in these islands. This will certainly open up new vistas of self employment opportunities to island youth and private entrepreneurs. The airstrip had been tested for all required international standards and was found to be as per standard quality norms.

Apart from the extension of runway, APWD has constructed a number of bituminous concrete helipads in various islands such as Rangat Mayabunder, Diglipur, Havelock, Wandoor, Chidiyatapu, Hut Bay, Campbell Bay, Katchal, Kamorta, Chowra, Teressa, Port Blair, Car Nicobar, for the island helicopter service. These helipads are being maintained by the APWD. Few more helipads will be constructed as per the proposal by the concerned authorities of the Administration.

2006-07	Mail	(Kg)		72000	33466	105466		13096		81176	94272
	Freight	(Kg)		252000	38400	290400		352292		546600	898892
	Passenger	No)		42024	43026	85050		34660		37776	72436
2005-06	Mail	(Kg)		77432	32321	109753		103044		25440	128484
	Freight	(Kg)		308392	39913	348305		370691		234040	604731
	Passenger	No)		31495	30199	61694		33927		36070	26669
2004-05	Mail	(Kg)		80285	33100	113385		92001		22780	114781
	Freight	(Kg)		347077	101100	448177		725596		176510	902106
	Passenger	No)		36543	37489	74032		31175		35665	66840
	Particulars		Kolkata/Port Blair	Sector Inward	Outward	Total	Chennai/Port	Blair Sector	Inward	Outward	Total

Statement 10.14 Air traffic by Indian Airlines between Port Blair-Kolkata/Chennai