

**COMMITTEE CONSTITUTED TO
HOLISTICALLY ADDRESS THE ISSUE OF
POACHING IN THE ANDAMAN AND
NICOBAR ISLANDS**

REPORT



**GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT AND
FORESTS**

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Ministry of Environment and Forests
Report of the Committee constituted by the Ministry of Environment and Forests to
holistically address the issue of poaching in the Andaman and Nicobar Islands

Executive Summary

1. Biodiversity of Andaman and Nicobar Islands:

The Andaman and Nicobar Islands are very rich in biodiversity, harbouring unique endemic life forms. The islands have both rich terrestrial as well as marine ecosystems, such as mangroves, coral reefs and sea grass beds. The marine biodiversity includes marine mammals such as whales, dolphins, dugong; marine turtles; estuarine or salt water crocodile; fishes; prawns and lobsters; corals; sea shells including rare and endangered *Trochus* species and Giant Clam Shells and numerous other marine life forms including coelenterates and echinoderms etc.

2. Reasons for threat to biodiversity:

Economically also, many of the above species are highly valuable and some of them such as sea cucumbers, sea-shells, sharks, marine turtles, salt water crocodiles etc. are under severe pressure of over exploitation from illegal foreign fishing boats and poachers. Historically, these species had been exploited by people from neighbouring countries, mainly due to the low protective cover and low priority accorded to conservation of the marine biodiversity in general by the enforcement agencies of the country.

3. Legal measures for protection of biodiversity in the Andaman and Nicobar Islands:

Several legal measures have been in place for protection of the marine biodiversity of the region. The Regulation of Fishing by Foreign Vessels Act, 1981, Coastal Regulation Zone Notification, 1991 (last amended in 2011), Wild Life (Protection) Act, 1972, etc. coupled with establishment of 9 National Parks and 96 Wildlife Sanctuaries for a more focused conservation initiative, have all strengthened the enforcement regime in the region. Besides, the Andaman and Nicobar Administration has also taken measures for protecting the flora and fauna of the islands. Some of these National Parks are exclusively for the protection of the marine species. These include Mahatma Gandhi Marine National Park, Rani Jhansi Marine National Park, etc. As on date, an

area of 1619.786 sq. kms has been covered under the Protected Area network in the Andaman and Nicobar Islands.

4. Management of biodiversity in Andaman and Nicobar Islands:

Forest Department-The Wildlife Wing of the Andaman and Nicobar Administration, responsible for the protection of the biodiversity of the islands, is headed by the Chief Wildlife Warden, in the rank of the Principal Chief Conservator of Forests and has four divisions under his control. In addition to this, there are six territorial Divisions that carry out protection duties outside the designated Protected Area network.

Coastal Police- Twenty Coastal Police Stations have also been established on the islands to upgrade regulatory and law enforcement regime in the coastal waters. The Coastal Police Stations are being equipped with latest infrastructural communication and patrolling equipments.

Coast Guard: The Coast Guard has been assisting the Forest Department in apprehending the poachers in the Exclusive Economic Zone (EEZ) as well as along the coast.

5. Issues that require attention:

(a) Issue of foreign poachers: Despite the concerted efforts by various departments and agencies, the very availability of rich marine resources attracts foreign poachers to Indian territorial waters. Although, the enforcement agencies routinely apprehend several foreign poachers, it is believed that a large number of them get away undetected. Most of the poachers are habitual offenders and had been in Indian prisons several times. It has been observed that the western part of the Andaman Islands was the most vulnerable to poaching and also that the volume of the poaching has considerably increased over the years inspite of the best efforts by the Administration to contain the problem. Further, it is also believed that the problem of foreign poachers in the Andaman and Nicobar Islands has a long history, and there are a large number of ethnic people of Myanmar origin settled in the Andaman and Nicobar Islands. These people are believed to be often conniving with the poachers.

(b) Issue of *Trochus* and Sea cucumbers: It has been observed that although there was good population of Sea Cucumbers in Andaman and Nicobar Islands, there were contradicting reports of the status of the species as a whole in the country's waters. Therefore, there is need for

carrying out detailed scientific study on the population status of Sea Cucumbers. The Zoological Survey of India (ZSI), who has the required wherewithal for carrying out such scientific studies, is being requested for undertaking the study. The report of ZSI would be dovetailed with this report, as soon as the same is received from ZSI. A similar study on *Trochus niloticus*, would also be taken up.

(c) **Issue of livelihood:** The reduction in forestry operations has reduced the employment opportunities considerably for the local people of islands. It may be added that this sector was one of the biggest local employers for the last five decades. Subsequent ban on certain marine species after their inclusion in the Scheduled lists of the Wild Life (Protection) Act, 1972 has also adversely affected the livelihoods of the fishers community in the last decade.

Strategy and measures suggested for improvement:

In order to reach the desired goal, a three pronged strategy has been suggested which, *inter alia*, includes tightening and improving the protection regime for conservation of marine resources, taking care of the livelihoods of local fisher folk, both qualitatively and quantitatively so as to increase their stake in conservation of marine biodiversity, and to open a diplomatic channel with the Government of Myanmar to address the issue of ingress of its illegal fishers (poachers) into the waters and shores of A&N Islands with a view to finding a solution to this problem and stop the illegal practice jointly.

6. Recommendations of the MoEF Committee:

In consonance with what has been stated above, the Committee recommends adoption of a comprehensive strategy with certain measures to be taken up immediately to curb illegal poaching of precious wildlife (marine resources) in the Andaman and Nicobar Islands.

6.1 Comprehensive strategy includes the following measures for strengthening protection machinery:

- Imparting **training to the frontline staff** for wildlife management, especially in patrolling and protection of marine areas and its biodiversity, including training in SCUBA diving. Procurement of specialized tools and skills for the protection of marine

wildlife that will strengthen the enforcement efficiency of the staff in effectively controlling marine poaching.

- **Enhancing the incentives** to the frontline staff and their families to motivate them to be more dedicated and committed towards their duties.
- The enforcement machinery comprising Forest, Wildlife, Revenue, Coastal Police departments and the Coast Guard should also be equipped with specialized **infrastructural facilities** like mechanized boats, communication equipments, etc to quickly and effectively address poaching.
- These Departments should also be provided with **adequate manpower** and **sizable budgetary support** to improve human, technological and material resources.
- To keep a watch on the efficacy of the measures being implemented, an effective monitoring mechanism, *inter alia*, providing for regular evaluation of the measures will be essential.

6.2 Measures for improving the livelihood of local people:

- After due scientific assessment, **probable delisting** of species of local livelihood importance from the Wild Life (Protection) Act, 1972 (e.g., Sea cucumber and *Trochus*) can be considered. Collection of these species could thereafter be allowed based on strict scientific parameters including fixing of quotas, period and season of collection, maturity, reproductive cycles, etc.
- **Financial support to people** by involving them in JFM Committees and ED Committees which will benefit the protection machinery, and will also make people more ecologically sensitive, and simultaneously improve their livelihoods.
- **Provision for rewards** to informers leading to successful anti-poaching operations. Local fishermen are expected to benefit from this initiative.
- **Employment opportunities** by filling up 200 posts of Forest Watcher which are lying vacant in the Department due to absence of forestry operations.
- **Improvement in fishing techniques** of fishers through capacity building and training in modern methodologies of fishing including the use of sophisticated fishing gear as well as providing them with such gear.
- **Capacity building and provisions** for adoption of alternative livelihoods by fishers.

6.3 Inter-governmental dialogue with the Government of Myanmar:

A diplomatic channel needs to be opened with the Government of Myanmar to address the issue of ingress of Myanmar poachers into the waters and shores of A&N Islands with a view to finding a solution to this problem and stop the illegal practice jointly.

7. Financial requirement:

Comprehensive strategy outlined in preceding paragraph will be implemented through a structured scheme. The total period of operation of the scheme will be five years and an amount of Rs. 5,946.50 lakhs will be required for the purpose. The break-up of financial requirement is as given below:

S. No.	Year	Non-recurring		Recurring	
		Activity A	Activity B	Activity C	
		Buildings	Vessels, Vehicles and Equipments	Maintenance of Forest Stations, Vessels, Vehicles and Motor Cycles	Provision for Livelihood support
1	2012-13	605.00	1045.50	60.00	250.00
2	2013-14	672.00	904.00	65.00	260.00
3	2014-15	601.00	369.00	85.00	275.00
4	2015-16	-	10.00	95.00	265.00
5	2016-17	-	10.00	105.00	270.00
Total		1,878.00	2,338.50	410.00	1,320.00
Grand Total		5,946.50			

Period of implementation : **Five years**

Annual financial requirement for:

- **2012-13** : **Rs 1960.50 lakhs**
- **2013-14** : **Rs 1901.00 lakhs**
- **2014-15** : **Rs 1330.00 lakhs**
- **2015-16** : **Rs 370.00 lakhs**
- **2016-17** : **Rs 385.00 lakhs**

Total project financial requirement : Rs 5946.50 lakhs

8. Performance indicators:

The progress made in implementation of the programme will be monitored using target achievement indicators, such as the number of officials trained, number of training programmes conducted, number of poachers apprehended, number/quantity/value of items seized, etc.

**HOLISTIC APPROACH FOR ADDRESSING THE PROBLEM OF POACHING
IN COASTAL AREAS OF
ANADAMAN AND NICOBAR ISLANDS:
REPORT BY THE MINISTRY OF ENVIRONMENT AND FORESTS**

I. Biodiversity of Andaman and Nicobar Islands:

Biogeographically, Andaman and Nicobar islands are very rich, harbouring unique endemic life forms. Apart from having a varied and well developed range of terrestrial ecosystems, these islands have rich marine ecosystems, such as mangroves, coral reefs and sea grass beds. The rich marine biodiversity includes 25 species of marine mammals such as whales, dolphins, dugong; 4 species of marine turtles; estuarine or salt water crocodile; more than 1,000 species of fishes; about 50 species of prawns and lobsters; more than 350 species of corals; 313 species of sea shells including rare and endangered *Trochus* and Giant Clam Shells and thousands of other marine life forms including coelenterates, echinoderms etc. The sandy beaches on some islands provide nesting places for four species of marine turtles. The near shore waters are rich in fin fish, shell fish and other economically important species such as sea shells, sea cucumbers, crabs, lobsters etc. While seas around these islands are also rich in pelagic fishes such as Tunas, Indian Mackerel, Seer fish, Sharks etc. The rich marine resources not only provide livelihood to local fisherman, but attract fishing vessels such as trawlers for deep sea fishing in these waters from mainland India also. The status of wildlife in Andaman and Nicobar Islands (Marine Species) are as given below:

Table showing the status of marine mammals and reptiles in A&N Islands

Faunal Group	No. of Species	Marine Species.
Mammals	62	Dugong, Dolphins & Whales
Reptiles	104	Marine Turtles, Estuarine Crocodile, Sea Snakes

Table showing the status of marine faunal groups in A&N Islands

Faunal Group	No. of Species
Fish	1283
Echinoderms	430
Molluscs	1583
Crustaceans	607
Corals	431*
Sponges	112

(Source- Zoological Survey of India, Port Blair)

*As per latest survey done in 2009-10 (Final report to be published).

II. Reasons for threat to biodiversity:

Security of nation's boundaries and border areas is critical not only from strategic angle but also from the point of view of '**ecological security**'. This is applicable more in case of Andaman and Nicobar Islands' coastal areas adjoining the maritime borders and Exclusive Economic Zone (EEZ), which are open frontiers.

Geographical uniqueness of Andaman and Nicobar Islands: Being a group of islands, Andaman & Nicobar Islands are insular and isolated with a highly indented coastline of more than 1,900 km exposed from all the sides, besides having about half a million sq. km. of EEZ and treacherous shallow coastal waters. The islands also have thick tropical forest and mangrove growth and are sparsely populated, with human population only in 36 islands out of more than 500 islands (**Annexure I**). Therefore, the geographical uniqueness and vast spread of the Islands makes the task of protecting the maritime and marine resources very difficult and complex. In comparison to the land borders, the sea is easily approachable by outsiders and difficult to monitor because of its vastness.

Economic Value of the biodiversity: The coastal waters of Andaman and Nicobar Islands are rich in marine biological resources and are also home to many endangered marine species such as salt water or estuarine crocodiles, dugong, dolphins and whales. Economically, many of these species are highly valuable and some of them such as sea cucumbers, sea-shells, sharks, marine turtles, salt water crocodiles etc. are under severe pressure of over-exploitation from illegal domestic and foreign fishing boats and poachers from the neighbouring countries.

The issue of poachers: The illegal exploitation of the marine biodiversity continued because of low protection cover and low priority of interest on part of the local and National

Government. Only in recent times, serious efforts have been made by the Police, Coast Guard and Indian Navy, to protect the EEZ from invasion by foreign poachers. However, the extensive coastline and difficult terrain in and around these islands, provides easy access and hideouts for foreign poachers. Many a time, these poachers operate in small wooden boats, escaping easy detection. Further, even after many seizures of illegal fishing boats and convictions in recent past, these poachers continue to operate in these waters, at times with impunity. Major items seized from these poachers mostly include Sea Cucumbers, Sea Shells such as *Trochus* and marine fish which have a growing international market especially in China.

III. Legal measures for protection of biodiversity of Andaman and Nicobar islands:

The rich marine biodiversity of Andaman and Nicobar Islands has been accorded protection under the following legal framework:

1. **Regulation of Fishing by Foreign Vessels Act, 1981:** Within India's maritime zone, fishing by foreign vessels is regulated by Regulation of Fishing by Foreign Vessels Act, 1981, which prohibits fishing in country's territorial waters as well as carrying of any explosives, poisonous or noxious substance, which can be used for illegal fishing, dynamiting and poisoning.
2. **Coastal Regulation Zone, 1991/ Island Protection Zone, 2011 Notification:** The coastal areas and ecosystems have been provided further protection against internal threats under the Central Government Notification of 1991, declaring a Coastal Regulation Zone (CRZ) under Section 3(1) & Section 3(2)(v) of the Environment (Protection) Act, 1986 (now IPZ as per Notification dated 6th January 2011). Under CRZ/IPZ, ecologically important as well as fragile ecosystems, such as mangroves, corals/coral reefs, areas close to breeding and spawning grounds of fish and other marine life, along with National Parks, Marine National Parks, Sanctuaries, Reserved Forests and wildlife habitats, have been put under the Island Coastal Regulation Zone-I (ICRZ-I), which accords the highest level of protection against rampant unplanned development and resultant degradation. While ICZR area earlier included only the designated coastal stretches from High Tide Line towards the landward side, it now extends to the entire territorial waters of the country and the sea bed below it.
3. **Wild Life (Protection) Act, 1972:** Some of the important endangered marine animals have been accorded special protection under the Wild Life (Protection) Act, 1972 (WPA) wherever they occur in Indian territories. These include all species of Cetaceans such as whales and

dolphins, dugongs, reptiles such as Salt water or Estuarine crocodile and sea turtles such as Green Sea, Hawksbill, Leatherback, Olive Ridley turtles, hard corals, some fishes specially shark species, sea cucumbers, certain molluscs etc. Other marine animals get full protection within the Protected Areas (PAs), such as National Parks and Sanctuaries, which are constituted under the WPA.

4. **Establishment of marine protected areas:** To make the process of creation of PAs in marine areas easier, an amendment was made in the WPA in 1991 under section 26A. According to this section, any important or critical wildlife area occurring within the territorial waters of India can be declared as a sanctuary in consultation with the Chief Naval Hydrographer of the Central Government. In such PAs, the activities damaging to the ecosystem are regulated without affecting the right of innocent passage of any vessel or boat.

5. **International Conventions:** India is also a signatory to various international conventions related to protection of fauna and flora, such as Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Ramsar Convention, United Nations Convention on Law of Sea (UNCLOS), Convention on Biological Diversity (CBD), Convention on the Conservation of Migratory Species of Wild Animals (CMS), etc. In addition, country has signed several Memorandum of Understanding with various countries. Hence, commitment of India towards the protection of its rich and unique biodiversity has assumed added significance.

As it is clear, sufficient legal measures exists both at the national and international level which can provide effective protection to the endangered marine animals and critical ecosystems of Andaman and Nicobar Islands. However, still there are several tricky challenges specially the issue of poaching of the marine species which need immediate redressal. Therefore, keeping in mind the strategic location of the Andaman and Nicobar Islands and the immense ecological and economic value this region holds, further scrutiny and critical on-ground assessment is necessary for ensuring better protection of the rich biodiversity of the region.

IV. Management of biodiversity in Andaman and Nicobar Islands:

To protect and conserve the fauna and flora of these islands, many Protected Areas, both terrestrial and marine, have been constituted under the WPA. At present there are 9 National Parks and 96 sanctuaries which have been established in these islands. Most of these PAs are small isolated islands. Details of some of the major ones have been tabulated below:

Some major National Parks/ Wildlife Sanctuaries in A&N Islands

S.No.	Name of the National Park/ Sanctuary in Andaman and Nicobar Islands	Extent of area (sq.km)
1	Mahatma Gandhi Marine National Park (MGMNP)	281.50
2	Rani Jhansi Marine National Park (RJMNP)	256.14
3	Mt. Harriet NP	46.62
4	Saddle Peak NP	32.54
5	Campbell NP	426.00
6	Galathea NP	110.00
7	Interview Islands Sanctuary	133.00
8	North Reef Islands Sanctuary	1.74
9	Cinque Islands Sanctuary	9.51
10	Narcondam Islands Sanctuary	6.81
11	Barren Islands Sanctuary	8.00
12	Loahabarrack Crocodile Sanctuary	100.00
13	Cuthburt Bay Sanctuary	5.82
14	Galathea Bay Sanctuary	11.44

The PAs protecting mostly marine biodiversity are MGMNP, RJMNP and Cinque Islands, Lohabarrack, Cuthburt Bay, North Reef and Galathea Bay Sanctuaries and parts of Great Nicobar Biosphere Reserve. The location and extent of the main PAs is given in **Annexure II (A) and II (B)**.

Administrative set up for management of Biodiversity

The management of the PAs in Andaman and Nicobar Islands is mainly the responsibility of the Wildlife Wing of the Environment and Forest Department. However, other Departments under the Andaman & Nicobar Islands Administration such as the Coastal Police and Coast Guards also help in the protection of the marine resources of the islands. Additionally, a Coordination Committee has been constituted which acts as a nodal body to monitor the issues of poaching and illegal exploitation of the biodiversity of the region.

Details of the set-up and steps taken by the various Departments involved in the management of biodiversity in Andaman and Nicobar Islands are as described below:

Coordination Committee

As part of the efforts to control poaching, the Andaman and Nicobar Island Administration has constituted a full time Coordination Committee which has a toll free helpline number 1093. The said Coordination Committee has representatives from Intelligence Bureau, Forest Department, Coast Guard, Civil Society Organizations, etc. This Committee acts as a nodal body to monitor and ensure coordinated action for protection of the biodiversity of the Andaman and Nicobar Islands.

Forest Department

The Wildlife Wing of the Environment and Forests Department of A & N Administration is responsible for protecting and managing the PAs. The present administrative set up of the wildlife wing is *headed by a Chief Wildlife Warden (CWLW)* who is of the rank of Principal Chief Conservator of Forests with Headquarters at Port Blair. Under the CWLW there are *four field Divisions*, headed by a DFO/DCF rank officer with Head Quarters at Port Blair, Mayabunder in Middle Andaman and Campbell Bay at Great Nicobar Island respectively. The fourth division has recently been created with its Head Quarters at Havelock close to the Rani Jhansi Marine National Park in the Ritchie's Archipelago.

The four Wildlife Divisions have also established *Field Camps* in the following areas:

1. Wandoor and Rutland in Mahatma Gandhi Marine NP and Cinque Island in South Andaman;
2. Neil and John Lawrence Islands in the Ritchie's Archipelago;
3. Interview Island and Curtberth Bay in Middle Andaman;
4. Ramnagar, Aerial Bay, Smith island in North Andaman;
5. Car Nicobar, Katchal, Kamorta and Great Nicobar island in the Nicobar group.

The location of these camps and Divisional Headquarters is given in **Annexure III (A) and III (B)**.

Details of the management of infrastructure in the four Field Divisions in A & N Islands:

Infrastructure-wise, only Port Blair, Wandoor in South Andaman, Havelock, Mayabunder and Interview island in Middle Andaman and Campbell Bay in Great Nicobar are equipped with small fiber-glass boats/dinghies, wireless sets and arms. Most other camps are having skeletal staff and very basic equipment/ infrastructure. Also I.V. Class boats (wooden hull only) which can go only up to 3 Nautical Miles from the coast are available at Port Blair, Wandoor and Mayabunder only. The status of manpower, water crafts/communication facilities available under Wildlife Wing for anti-poaching activities are given below:

i. Manpower :

Division	Manpower							
	DCF	ACF	FR	Dy.R.	Forester	HFG	FG	Total
DCF(WL-I), Haddo	1	1	6	9	14	4	21	56
DFO(WL) Mayabunder	0	1	2	4	9	4	13	33
DFO, Havelock	0	1	2	1	8	3	8	23
DFO, Nicobar Division	1	1	4	1	14	3	22	46
Total	2	4	14	15	45	14	64	158

(DCF- Deputy Conservator of Forests; ACF- Assistant Conservator of Forests; DFO- Divisional Forest Officer; FR- Forest Ranger; Dy. R- Deputy Ranger; HFG- Head Forest Guard; FG- Forest Guard; WL- Wildlife)

ii. Boat/ Water crafts:

Division	Water crafts				
	Boat	Fibre boat with OBM Engine	Wooden engine dinghy	Glass bottom boat	Rigid inflatable boat
DCF(WL-I), Haddo	4 (2 running)	8 (3 running)	0	9 (4 running)	1
DFO(WL) Mayabunder	2 (Not running)	2	5 (3 running)	3 (1 running)	1

DFO, Havelock	1 (not running)	1	1	1	1
DFO, ND	0	3 (1 running)	0	0	0

Territorial Forest Divisions

In addition to the four Wildlife Divisions, following six Territorial Forest Divisions carry out wildlife protection duties outside the network of PAs:

1. South Andaman with Headquarters at Wimberlygunj
2. Baratang Island with Headquarters at Nilambur
3. Middle Andaman with Headquarters at Rangat
4. Mayabunder, North Andaman with Headquarters at Diglipur
5. Little Andaman with Headquarters at Hutbay

Coastal Police

Police Marine Force (PMF): In recent times, Police Marine Force (PMF) under the local Administration has been created which is being equipped to provide an effective regulatory and law enforcement regime in the coastal waters, Exclusive Economic Zones (EEZ) and even in intervening high seas of these islands. The PMF has **186 posts** of various ranks (Technical as well as Executive) under the Coastal Security Scheme (CSS) Phase-I. Out of the total, 174 posts have been filled. With respect to the **infrastructural facilities**, PMF has got 10 **Fast Interceptor Boats (FIBs)** in addition to existing 4 **Inland class vessels**. Eight of these FIBs are deployed at Diglipur, Mayabunder, Kadamtala and Hut Bay and 2 are being sent to Nancowry Island in Nicobar. In addition to these, PMF has sent detailed technical specifications of 10 **large vessels (3 vessels of 45 meter Jijabai Class and 7 vessels of the 28 meter C-143 Class)** and 23 **Rigid Inflatable Boats** under the CSS Phase-II. It has in addition prepared a consolidated proposal for creation of **451 posts of various ranks** to man the 10 large vessels and the upcoming Mobile Observation Centers (MOCs) as per the DG Shipping/Coast Guard norms which will be sent with justification and as per the DOPT format to MHA. In Phase-I, an amount of Rs 25 Crores has been spent for procurement of 10 FIBs and vehicles. The proposed outlay for Phase-II is

about Rs.1,000 Crores (*The breakup of these figures have not been indicated in this report as these are part of another scheme of the A&N Islands*).

Coastal Police Stations: There are now 20 Coastal Police Stations and further plans are to set up three Marine Operation Centres at Diglipur (North Andaman), Kadamtala (Middle Andaman) and Port Blair (South Andaman). To upgrade the Coastal Police Stations with navigational/communication equipment, 40 two/four wheelers have been approved, and upgraded Satellite Communication (VSAT & MART) technology has been made available along with the existing HF/VHF connectivity.

Police outposts: Three Police outposts have been set up to provide protection to the remote uninhabited islands namely Interview Island on the west coast of Middle Andaman, East Island (north of North Andaman) and at Narcondam Island. However, these outposts are presently not equipped with seaworthy boats, and at best offer a token presence to guard the land-based resources and near shore coastal areas rather than being a real deterrent to the boats illegally fishing in the open sea.

Coast Guard

Similarly the Coast Guard, which has the primary duty to provide protection from illegal exploitation of our marine resources by foreign poachers in the EEZ as well as along the coast, has its Headquarter at Port Blair with three District Offices, one each at Diglipur in North Andaman, Hutbay in Little Andaman, and Campbell Bay in Great Nicobar.

V. Issues that require attention:

- **Foreign poachers:**

The abundance of marine resources in our coastal waters such as sea cucumbers and sea shells coupled with their high economic value in international markets seem to be the main reasons for the foreign poachers to come to the Andaman and Nicobar Islands. In spite of a large number of poachers being caught by the security agencies, it is believed that many poachers do get away undetected. The most recent seizure was made on 13th July 2011 off the Interview and North Reef Islands on the West Coast when 22 Myanmarese poachers in two 12 meter long

engine dinghies equipped with diving equipment etc. were caught by Marine Police operating in their new Fast Interceptor Boat from Mayabunder. The information about the presence of foreign poachers was given by the local fishermen who were a part of the locally constituted 'Fishermen Watch Group'. Preliminary enquiry has revealed that the poachers had come to harvest sea cucumbers.

Following are the figures of foreign poachers apprehended in the coastal waters of Andaman and Nicobar Islands during the last four years:

Table: Details of foreign poachers apprehended in A&N Islands territory (2008-2011)

	2008	2009	2010	2011 (upto June)	Total
Poachers caught	195	122	482	246	1045
Vessels seized	15	18	47	24	104

Presently, 785 Myanmarese, 14 Bangladeshi, 06 Sri Lankan and 04 Thai poachers are in the Administration's jail, putting undue pressure and strain on its limited resources. In 1980s and 1990s, Thai poachers used to operate in greater number but due to effective joint patrolling by the Navy of both the countries, the number of Thai poachers has come down significantly.

- **Issue of *Trochus* and Sea Cucumbers:**

Poachers from the neighboring countries are attracted by the islands' rich marine resources, particularly – the sea cucumbers and sea shells which are in great demand in the international market. These species are found in good number in the territorial waters of Andaman & Nicobar Islands because the waters surrounding the islands provide a perfect habitat for growth of these species. Since the local fishermen are not allowed to fish these marine species as these are protected under the Wild Life (Protection) Act, 1972. Protection coupled with ban on fishing has ensured the increase in population of Sea cucumbers and Sea shells.

Trochus niloticus: The worldwide decline of pearl oyster populations in the Twentieth Century led to large-scale exploitation of another marine mollusc, i.e., *Trochus niloticus*, which is a very large Indo-Pacific species of shell having a thick inner layer of nacre. This nacreous layer is ideal for making mother of pearl buttons, mother of pearl beads, pendants, etc. In order to prevent the unregulated exploitation of this species and to accord the highest level of protection, the species was listed in the Schedule IV of the WPA. However, the prohibition on the exploitation of the species has affected a large number of people of the Islands as it was an important source of livelihood for them.

Sea Cucumbers: These are echinoderms found worldwide on the sea floor and are highly prized for their nutritional values especially in some Asian countries such as China where it is a staple diet. Aside from their use in cooking, there is also an emerging market for the use of sea cucumbers in the pharmaceutical and cosmetic industries. That is why in many countries it has become one of the most economically important non-fin fish export. Therefore, to protect the species from unregulated exploitation in India, it was listed as a Schedule I species under WPA. However, it has been observed that although there was a considerable population of Sea Cucumbers in Andaman and Nicobar Islands, there were contradicting reports of the overall status of the species in general in the country's waters. Therefore, it has been felt that there is a need for carrying out detailed scientific study on the population status of Sea Cucumbers.

Study to be conducted by Zoological Survey of India: The Zoological Survey of India (ZSI), which has the required wherewithal to carry out such scientific studies, has been requested to undertake the studies on Sea Cucumber/ *Trochus*. The report of ZSI would be dovetailed with this report as soon as received from ZSI. If the findings of the study permit the controlled utilization of sea cucumbers/ *Trochus* for commercial purposes, it will not only help in positively addressing the issue of livelihood for the local communities but will also ensure their participation in apprehending the foreign poachers.

Sea Cucumbers and *Trochus* are accorded the highest degree of protection from exploitation under the WPA. However, if the findings of the studies conducted on these two species by ZSI allow for their controlled exploitation, they can be temporarily removed from the Schedule List specifically for Andaman and Nicobar Islands after taking the requisite permission from the Standing Committee of National Board for Wildlife so that the species can be harvested for economic purposes in a sustainable manner. It may be mentioned that in a similar case

regarding Edible Nest Swiftlets in A&N Islands, the species was temporarily removed from Schedule I by the Standing Committee for three years for their in-situ conservation by involving the local people and ex-situ breeding of the species jointly by the Forest Department of A & N Islands and the SACON.

Issue of livelihood: Since the timber industry was one of the main sources of livelihood for the people in Andaman and Nicobar Islands, the ban on timber harvest for commercial purposes and closure of the timber industries in 2002 by the Order of the Apex Court has reduced the employment opportunities for the local people considerably. Subsequently, a ban on catching of certain marine species after their inclusion in the Scheduled lists of the WPA has also affected the fishing community economically in the last decade. In view of the changes in resource use patterns and the resulting livelihood issues, it has become necessary for the Forest Department to adopt different strategies to protect and conserve these open resources as well as to promote sustainable utilization of these resources by local community.

VI. Strategy and measures suggested for improvement/ Scheme:

In order to adequately manage the problem of poaching and conservation of marine resources in the islands and **in order to implement the strategy on field**, a comprehensive scheme is proposed to be implemented. The scheme incorporates the measures with a judicious mix of status survey of endangered as well as economically important marine species, controlled exploitation of resources by the fishermen, people's participation in protection of the marine resources and proper patrolling and protection by increasing the effectiveness of Forest Department.

In order to reach the desirable goal, a three pronged strategy has been suggested in the scheme which, *inter alia*, includes:

- a) Strengthening and improving the protection machinery** for marine resources:
 - i. **through training and capacity building programmes**, providing the frontline staff with requisite infrastructure, like weapons, vehicles, communication equipments, etc and increasing the overall manpower in the protection force, and

ii. **by improving the livelihood of local fishermen** both qualitatively and quantitatively so as to increase their stake in conservation of marine biodiversity.

b) An Inter-Governmental Dialogue with the Government of Myanmar, so as to open a diplomatic channel to address the issue of ingress of Myanmar poachers into the waters and shores of A&N Islands with a view to finding a solution to this problem and stop the illegal practice jointly.

Details of the above-mentioned strategies are as followed:

(a) Scheme to address the problem of poaching and security:

As the Forest Department already has a significant presence in many remote islands and Protected Areas throughout the A & N Islands, and the staff has good knowledge of local terrain, creeks and surrounding coastal waters, by equipping it with better infrastructure and giving appropriate incentives would surely add to the overall protection of the marine and coastal resources of the Islands.

Following are some of the measures suggested for this purpose:

1. Specialised training of manpower and upgradation of in-house training facilities for wildlife training:

Training the Frontline Staff: In today's age of information technology, it has become very important for the frontline staff to remain updated and in-sync with the current technologies and developments in the field of wildlife management and protection. ***The Forest Training School (FTS), Wimberlygunj*** in South Andaman is responsible for imparting training to the frontline staff, which is, however, not fully equipped to conduct any specialized training and capacity building for the frontline staff. Hence, the Forest Training School requires upgradation at the earliest in order to fulfil the added training requirements of the staff.

Training the Boat Crews: Training the boat crews in handling modern vessels and equipments is another such area which requires attention. Therefore, a component for training the crew in such vessels and technology has been added.

Training in SCUBA diving: The Department has a trained manpower of 20 personnel in SCUBA diving (PADI Open Water Certificate), comprising officers and the frontline staff. It is

proposed to increase this number by providing SCUBA diving and higher courses in rescue and surveys to 50 more officials and also procure additional SCUBA diving equipments and portable compressors for equipping the Research and Survey Vessels. The detailed proposal for this item is placed at **Annexure IV**.

2. Infrastructure and equipment:

Infrastructural facilities: There is need in Andaman and Nicobar Islands to set up a network of well trained and equipped Forest Stations, Sub-Stations and Outposts with all the required facilities such as specialized buildings, vehicles, modern vessels and trained man-power for effective management of the biodiversity in the region. Details of the proposal for the purpose are placed at **Annexure V**.

Patrolling boats: Although, the department has wooden and small Fiber Glass boats which are classified as **Inland Vessel Category**, these are old and are not permitted to sail beyond inland waters, i.e., beyond 3 nautical miles. Hence, the personnel of Forest Department are unable to effectively tackle the illegal poaching of scheduled and endangered marine species that is taking place in the territorial sea limit, beyond inland water. There is, therefore, a need for at least five sea-worthy **MS Class boats** to increase the surveillance capacity in the territorial waters. These boats will be stationed at Port Blair/Wandoor, Havelock/Rangat, Mayabunder/Diglipur, Little Andaman and Kamorta/Campbell Bay.

In addition to these bigger boats, The Department has also proposed 8 numbers of **Rigid Inflatable Boats** for regular patrolling in and around PAs and in the creeks/coastal areas. These boats will be stationed at Outposts at Casuarina Bay (North Andaman), Interview Island, Smith Island, Long Island, Wandoor (South Andaman), South Bay (Little Andaman), Katchal (Nancowry Group) and Galathea Bay (Great Nicobar Island). These will act as a force multiplier along with the resources of Marine Police and the Coast Guard. The Forest Department already has surplus crew/manpower and with some additional training, this staff which is presently not fully utilized can easily be engaged to run the new boats.

To further improve the survey and surveillance capacity of the Forest Department, it has been proposed to buy five **Deep Sea Fishing type boats**. These well designed and equipped boats are considered suitable for carrying sufficient manpower and equipments for marine research, surveys and diving for underwater surveys in coastal waters. As these are certified to

operate in deeper open waters, they will provide much needed communication to reach far flung PAs and remote Island Sanctuaries. Such boats due to their appearance will be a perfect camouflage for keeping surveillance on illegal fishing boats as well. This will act as a ‘Force Multiplier’ in providing information and support to Marine Police also.

3. Incentives and improvement of facilities for frontline staff:

Provisions for Family Accommodation: Most of the Protected Areas are remotely located. There are no basic facilities/amenities available in these island sanctuaries. Hence, staff that is posted in these remote areas is forced to keep their families in the headquarter by making their own arrangements. Accommodations for the families of such forest personnel need to be created by the Department to accommodate them in the headquarters during the posting of field staff in remote islands.

Twenty-four hour Duty Allowance: The protection staff/ personnel are normally required to perform their duties round the clock without any additional remunerations or incentives, while their counterparts in the police are paid a twenty-four hour Duty Allowance in the form of a month’s additional pay during the year for similar working conditions. Hence, provision for extra pay/allowance is to be made for the staff posted in areas involved in tough protection and risk-prone duty in the PAs/Wildlife Wing. Accordingly, the Beat Officers of the Territorial Forest Divisions, who also perform the duty of wildlife protection outside PA, may similarly be compensated. This has been a long pending demand of the Frontline Staff which needs urgent consideration and redressal.

The likely annual financial implication for paying an extra 24-hour duty allowance to the Protection/Beat staff in A&N Islands is as given below:-

S. No.	Particulars	No. of staff engaged on protection duty (Approx.)	Average monthly pay(BP+GP+DA)	Total Pay
1.	Wildlife Protection staff	75	Rs 15,000	Rs11,25,000
2.	Protection/Beat staff	125	Rs 15,000	R 18,75,000
			Total	R30,00,000

4. Manpower Requirement:

Redeployment of the Forest Staff in Wildlife Wing: Presently, there is considerable surplus staff in the Forest Department due to significant reduction in the logging and plantation forestry operations in the Islands. Considering the small number of personnel presently deployed in the Wildlife Wing and in the Territorial Divisions for beat and protection duties, this surplus staff can be redeployed in the Wildlife Wing to man the new set-up and vessels.

Creation of new posts: Some new posts also need to be created which can also be done by re-designating the existing vacant posts, which are no longer required after the retirement of the incumbents. The Department has a large number of such posts in Technical/Industrial Category also. The main requirement of executive and support staff will be for manning the proposed Forest Stations and Sub-stations. To man the new vessels and vehicles, more boat crews and other technical man-power will be required. Considering the existing strength of the Department of Environment and Forests, redeploying the required manpower can be done easily.

The present manpower of the Department of Environment and Forests is given below:-

Sl. No.	Category of Staff	Sanctioned strength	Filled in position	Posts lying vacant
Frontline (Executive Staff)				
1	Forest Ranger	76	68	8
2	Deputy Ranger	64	62	2
3	Forester	227	203	24
4	Head Forest Guard	47	47	0
5	Forest Guard	331	331	0
	TOTAL	745	711	34
Afloat staff/Boat Crew				
1	Master (First Class)	5	5	0
2	Sarang	6	3	3
3	Seacunny	38	18	20
4	Chief Engine Driver	3	2	1
5	Engine Driver (II nd class)	8	8	0
6	Motor Boat Driver	21	5	16
7	Asst. Motor Boat Driver	4	3	1
8	Oiler	32	16	16
9	Lascar	78	39	39
10	Cook	12	11	1
	TOTAL	207	110	97
Mazdoors/Skilled Assistants				

1	Mazdoors /Skilled Asst.	2,454	2,083	371
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With the proposed upgraded set up and in order to operationalize the entire scheme in the modified format of Forest Stations, Sub-Stations and Outposts, the total restructured requirement of Executive Staff of various ranks will be about 297, Forest Watchers/Multi-Skilled Workers will be about 200 and boat crew of different categories will be about 36. Considering the available staff which will need to be mostly redeployed, and the proposed additional posts in another scheme under the State Plan, no new posts have been proposed to be created under the Scheme. Financial requirement for these posts shall be met from the State budget. Details of requirement of various categories of staff and boat crew are given in **Annexure VI**.

(b) Strategy for addressing livelihood issues:

In order to address the issue of livelihood of local people the following measures would be adopted:

(i) Study for utilization of marine resources especially Sea cucumbers and *Trochus* for sustainable livelihood: As discussed in the foregoing paragraphs on the issue of marine species such as Sea Cucumbers and *Trochus*, the prohibition on the collection and exploitation of these species has affected the livelihood of the local people. On the other hand, the non-collection of the marine resources by the local population coupled with the abundance of the fauna has led to foreign poachers plundering the marine wealth especially of those species which have a high international demand.

To address this issue, and also to ensure protection of the marine biodiversity as well as allow sustainable livelihood from the marine fauna, it is decided to institute a scientific study for population assessment of the species, especially Sea cucumbers and *Trochus* to assess their abundance, and take a scientific decision based on the outcome of the study whether conservation of these species and livelihood needs from the same for the people can go hand-in-hand. In case the study indicates abundance of these species so that they may be scientifically and sustainably utilized for supporting livelihoods, a decision would be taken for collection of these species based on strict scientific parameters including fixing of quotas, period and season of collection, maturity, etc. while ensuring long term conservation of these species.

(ii) Livelihood support to people by their involvement in Joint Forest Management Committees (JFMCs) /Eco-Development Committees (EDCs) for conservation: The Forest Department, Andaman and Nicobar Islands has created JFM Committees and is in the process of constituting Eco-development Committees around PAs, specially MNPs. The details of the committees are given at **Annexure VII**. This component details the activities wherein livelihood support will be given to people which would also include eco-tourism. This would have three major components. These include:

- a) The EDC would help in protection measures to assist the forest staff in apprehending offenders and also assisting them for timely execution of eco-restoration works.
- b) To provide community benefits by developing village oriented activities like fuel and fodder plantations etc.
- c) Providing individual benefits to people like basket making, garment making, horticulture, apiculture, etc.

Similar programmes have also been envisaged under the JFMC. The activities implemented under this initiative would greatly improve and enhance livelihood opportunities.

(iii) Provision for rewards: As already enunciated earlier, a large number of foreign poachers stalk the coastal belt of the Andaman and Nicobar Islands for illegal smuggling of marine wealth of this area. The local fishers who also have a large presence in this area could provide valuable information on the movement of these foreign poachers which would go a long way in curbing illegal smuggling. Therefore, it is envisaged to suitably reward their services for providing information.

(iv) Improved fishing techniques and fishing gear: It is envisaged that capacity building for using modern techniques for fishing, utilizing sophisticated fishing gear would be provided to the local fishers to ensure optimal utilization of resources and energy with application of proper methodologies for enhancing environment friendly catch and also simultaneously uplifting their livelihood.

(v) **Training for alternative livelihood:** It also envisaged that suitable alternate livelihood options should be identified, and training and support for adopting these alternate livelihoods would be provided.

(vi) **Employment opportunities:** As has been detailed under para 4 above, there is requirement of Forest Watchers and Boat Crew Members. The details of deployment of these have also been given in the foregoing para. It is envisaged that the local people's livelihood needs would also be redressed, to a certain extent, through these placements.

(c) An Inter-Governmental Dialogue with the Government of Myanmar

The prohibition on the collection of the marine species such as Sea Cucumbers and *Trochus*, which have a high demand in the international market, coupled with the abundance of these species has led to foreign poachers specially from Myanmar to illegally enter the territories of Andaman and Nicobar Islands and their waters. Hence, an Inter-Governmental Dialogue with the Government of Myanmar can be opened at the level of respective Forest Ministers, followed by discussions between a high-level committee headed by the concerned Forest Secretaries and other higher officials of both the countries to find a solution to this issue, and to stop this illegal practice jointly. This high-level Committee can meet bi-annually for effective results.

Monitoring of the Scheme- Monitoring of the implementation of the Scheme during the 12th Five Year Plan (FYP) will be done by an Interdepartmental Committee with officials from Forest, Wildlife, Police and Coast Guard. Indicators of the intended outcome will be progress of additional infrastructure in place, procurement and deployment of vessels, manpower deployed and number of personnel trained at various levels and in defined skills. Success of the scheme will be judged from the effectiveness of patrolling, seizures and poachers arrested along with regular monitoring and survey reports of the marine resources as well as improvement of livelihoods and economic gains to the local communities.

VII. Financial requirements:

The total requirement of funds for implementing this Scheme is Rs **5,946.50** lakhs (Rupees Fifty Nine Crore, Forty Six Lakhs and Fifty Thousand only) over a period of five years of the

12th FYP. Out of this, the Capital Outlay for buildings, vessels and other infrastructure is Rs **4,216.50** lakhs (Rupees Forty Two Crore Sixteen Lakhs Fifty Thousand only). The recurring expenditure for maintenance for five years period is estimated to be Rs **1,730.00** lakhs (Rupees Seventeen Crore Thirty Lakhs only), which also includes incentives in the form of Twenty Four Hour Duty Allowance proposed for the Staff. As no new posts are proposed to be created, the salary and wages can be met out of the State Plan component of the Department. The details of financial implications are provided in table at **Annexure VIII**. A provision to this effect will be made in the 12th Five Year Plan proposal of Department of Environment and Forests, Andaman and Nicobar Islands Administration.

VIII. Performance indicators:

The implementation of the above scheme will be monitored through the visible target achievement indicators. A few such indicators of performance are given below:

- (i) Number of training programmes (for officials, local people, etc) conducted,
- (ii) Number of functional units operationalized,
- (iii) Number of poachers apprehended,
- (iv) Number of FIRs registered,
- (v) Number of conviction cases,
- (vi) Value/number of articles seized (Sea Cucumber, Sea horse, etc.),
- (vii) Ancillary items (such as weapons, vehicles, nets, etc) seized from the poachers,
- (viii) Number of officials rewarded for their meritorious duties,
- (ix) Number of community members awarded as informants, etc.,
- (x) Number of EDCs and JFMCs formed,
- (xi) Assessment of village oriented activities such as number and quality of fuel and fodder plantations created as well as other community assets created,
- (xii) Number of individual beneficiaries of tools and implements to aid in practice of their profession,
- (xiii) Number of persons who have taken to alternative livelihoods such as Agriculture, Horticulture, Pisciculture, etc. and assessment of economic viability for individuals by their professions. (Questionnaire / interview survey may be used),
- (xiv) Number of training programmes for EDC members for improving their skills.

F. No. 8-14/2011 WL
Government of India
Ministry of Environment and Forests
(Wildlife Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi – 110003.
Dated: 14 June 2011

Office Memorandum

Sub: Constitution of Committee for tackling poaching in the Andaman and Nicobar Islands.

In pursuance to the decision taken during the 13th meeting of the Standing Committee of Island Development Authority, of the Planning Commission, the Ministry of Environment and Forests has decided to constitute the following Committee to tackle the issue of poaching in the Andaman and Nicobar Islands:

1	Addl. Director General of Forests(WL)	Chairman
2	Inspector General of Forests (WL)	Member
3	Director, Wildlife Institute of India, Dehradun	Member
4	Chief Wildlife Warden, Andaman & Nicobar Islands	Member
5	Chief Wildlife Warden, Government of Tamil Nadu	Member
6	Representative from Indian Coast Guard	Member
7	Representative from Andaman Nicobar Environment Team, Port Blair	Member
8	Regional Deputy Director, WCCB, Southern Region, Chennai	Member
9	Deputy Inspector General (WL)	Member-Convenor

3. Terms of Reference:

- (i) To identify areas which are vulnerable to poaching in Andaman & Nicobar islands.
- (ii) To make recommendations on manpower and other logistic requirements of the A & N Administration to prevent poaching.
- (iii) To make suggestions for better control of poaching in the A & N Islands.
- (iv) The Committee would submit their report by 31st August 2011

4. The Committee may co-opt other experts as per requirement with the prior approval of the Ministry of Environment and Forests.

5. The non-official members of the Committee would be entitled for travelling and all other allowances as applicable to non official members as per SR 190.


(Prakriti Srivastava)
Deputy Inspector General (WL)
Contd..../2

Distribution:

1. PS to Hon'ble MOS (I/C) E &F
2. PPS to Secretary, E&F
3. PPS to DGF & SS, MoEF
4. PPS to Addl. DGF (WL), MoEF.
5. PS to IGF WL), MoEF.
6. All members of the above Committee.
7. Advisor, State Plans Division, Planning Commission, Yojana Bhawan, New Delhi
8. NIC Cell- with a request to upload the O.M. on the official website of MoEF.