When civilization extends its arm to isolated tribes, its impact is felt in the form of pressure and conflicts with poachers and new settlers, fishing, hunting and dwindling forest resources. This report is the outcome of a study on the impact of settlers on the Jarawa tribal reserve in the Andaman Islands. This project is also the first of a series of Rapid Action Projects conducted under the Wild Aid division of the Wildlife Trust of India.

Impact assessment of settlers on the Jarawa Tribal Reserve, Middle and South Andaman Islands

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The Wildlife Trust of India (WTI) is a non-profit conservation organization committed to initiate and catalyse actions that prevent destruction of India's wildlife and its habitat. In the long run, it aims to achieve, through proactive reforms in policy and management, an atmosphere conducive to conservation. WTI works through building partnerships and alliances and its strengths lie in its willingness to work with innovative conservation techniques like acquiring land for wildlife and rescue and rehabilitation.

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Impact Assessment of settlers around the Jarawa Tribal Reserve, Middle and South Andaman Islands

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March 2000

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PREFACE

Till the early 90s, the Jarawas were one of the most primitive and aboriginal tribes left in India. Living in a few hundred square kilometers of tribal reserve in the middle of the largest Andaman Island, these Negrito tribes were fierce, independent and kept civilization at bay. Today, the Jarawas have seen civilization extend to its fold and the Sentinelese remain the only isolated tribe in the islands and perhaps in all of India. This Occasional Report was the result of one of the very first Rapid Actions conducted by the Wildlife Trust of India.

The Jarawa Reserve Forest was being opened up and threatened by settlers and illegal loggers around a time that the tribals themselves were making their first tentative contacts with the outside civilization. There were a large number of civil society groups that wanted to halt this encroachment into the pristine forest and indeed into the pristine tribe’s culture itself, but most of them were hampered by lack of knowledge. There was little by way of ecological facts available for the region and this impact assessment study was done at a time when its results were desperately needed by these groups.

This study recommends removing the encroachments and preserving the sanctity of the reserve forest as expected. But it also points out that until anthropologists, ecologists and the government work together it is difficult to preserve the futures of an ancient people and their equally ancient habitat.

Vivek Menon
Executive Director, WTI
EXECUTIVE SUMMARY

Jarawas are considered amongst the purest races on the continent, who have lived for millions of years as hunter gatherers. They inhabit the South and Middle Andamans, especially the western coast. Over the years, this tribal community has been impacted sociologically and culturally by the new settlers and this process was facilitated through two government notifications. As a result, the Jarawa settlements are now confined to what is known as the Jarawa Reserve.

A project was undertaken to assess impacts on the Jarawa tribals from these new settlements. Rapid socio-economic and coastal surveys were conducted over a three-month period.

The surveys revealed a constant pressure on the Jarawa people with regard to their daily and seasonal movements. These communities are continually threatened by conflicts with local and Myanmar poachers, fishermen settlers and the bush police.

Wetland ecosystems and associated habitats in the Reserve are the most pristine and diverse when compared to the rest of the Andaman islands, barring the Little Andaman island. There is thus an urgent need to enforce territorial laws and boundaries and more than trying to keep the Jarawa people within the Reserve, efforts should be made to keep outsiders and poachers away from the Reserve.

There is a need to look into welfare requirements of the settlers through eco-development programmes and also the constitution of a team of experts to look into their problems.
1. INTRODUCTION

In 1947, the Andaman and Nicobar group of islands were taken over by the Government of India and in 1956, areas in the Islands were designated as Reserved Areas for the different aboriginal people of the islands. The Nicobar group of islands was reserved for the Nicobaries and the Shompens in Great Nicobar Island. The Onge people were marginalized on two occasions to two areas on Little Andaman Island; the Dugong creek area and in South bay. This was chiefly to accommodate refugee families from mainland India, (Reddy, 1994). The last few remaining people of the once-largest-tribe the Great Andamanese were settled on Strait Island and the Sentinelese who were always on North Sentinel Island still remain on this Island. The Jarawa, 'the other people' referred to as such by the Great Andamanese, were marginalized to the west-coast of Middle and South Andaman islands (Figure 1).

The territorial range of the Jarawa people up to 1858 and after has been discussed in detail by Chandi (1999). Their original range extended from the South in Rutland Island and around Port Blair area to the North, inland into the western side of South Andaman Island. Later, during 1890–1910 the Jarawas colonized the western coast of Middle Andaman Island, an area that was previously occupied by one of the Áka-Béa-da Septs (Portman, 1899). However, the Jarawa people were finally marginalized on two occasions through the notifications ANPATR/ 3 (r)/1,1956/57 and NO. 107.7/78-TW.1979. Marginalisation mainly occurred to accommodate people already settled in the Andaman Islands and new settlers who came from mainland India. The second notification was for the construction of the Andaman Trunk Road through South and Middle Andaman Islands. The Jarawa Reserve area starts from the south at Constance Bay along Mt. Cholunga range towards and along Mt.
Figure 1: Map showing the Andaman Islands
Cadell range up to Middle Strait, all along an imaginary line. This Reserved area along the West Coast of South Andaman Island is only 560.69 sq.km (Forest Stats. 1998–1999). The Reserved area further extends north from Bluff and Spike Islands, west of Yeratila jig creek in southern Middle Andaman island along the western coast and includes Flat Island. The Reserve then extends further north along Louis Inlet and Mt. William range on the eastern side and up to Hanspuri in the Middle Andaman island. The area includes 338.69 sq. km in Middle Andaman Island and 11.7 sq.km. in Spike island (Forest Stats. 1998–1999). (Figure 2). The Notification also includes five km of coastal waters from the high tide line mark along the Reserve of South and Middle Andaman Islands as part of the Reserve.

2. METHODOLOGY

Survey and assessments were conducted along the western coast by sea, the eastern and southern boundaries by road. A rapid socio-economic study and interviews with local people settled along the eastern and southern areas of the boundary was conducted over a two-month period. The coastal survey was conducted with a dug-out boat and an inflatable rubber boat as part of a crocodile and wetlands survey and the methodology employed has been earlier reported (Andrews, 1999).

All mangrove creeks, marshes, bays and wetland habitats along the western coast of the reserve were surveyed day and night over a period of three months. Interviews with local fishermen, poachers and other settlers were also conducted. The coastal survey commenced from Constance Bay between Florence and Palmer Points in South Andaman Island, the southern most boundary of the Reserve and extended along the coast north, up to Louis Inlet in the Middle Andaman Island (Figure 2).
Figure 2: Map showing South Andaman Islands
3. RESULTS

3.1 The West Coast

The Constance Bay Area
This area was surveyed along the three main mangrove creek systems, two draining south into this Bay from Mt. Chattenton and the others draining out from the north-eastern side of the settled areas known as Tiruar and Herbertabad (Figure 2). The Tiruar creek, as is locally referred, is formed by several smaller mangrove creeks with two freshwater streams draining into it from the settled area that is outside the Reserve. These creeks were surveyed during the daytime, as were the freshwater creeks next to the settlements. All these creeks are highly disturbed creek systems with agriculture extending right up to the fresh water streams, mangrove creeks and plantations on hill slopes, causing large-scale silting of creeks, marshes and the bay. Evidences of large-scale felling of forests and mangroves were observed, which is another cause for siltation. However, there are reports of the Jarawa people crossing this creek and there is a Bush Police outpost right at the mouth of this creek.

The two creeks draining from Mt. Chattenton through the Reserve were surveyed during day and night on two occasions. A small creek flows south into the bay and is west of a larger creek called Bajalunta Jig (Figure 2). Bajalunta Jig creek, almost 12 km long with pristine mangrove habitat and right within the Jarawa Reserve, is under immense pressure due to forest and mangrove felling, poaching of the Andaman wild pig (Sus scrofa andamanensis) , spotted deer/cheetal (Axis axis) and intensive fishing. Fishing within the bay along the Reserved area was also observed and fishermen reported poaching of crocodiles by settlers in these creeks. On both occasions, fishermen were observed in these
creeks as also in the bay, and poachers going into the creeks and coming out into the bay after hunting under the protection of the Bush Police. Poachers from South and Middle Andaman Islands have used these creeks since the early 1970's. Interviews conducted with these people indicate that there has always been pressure on the resources and the presence of outsiders in this area from other parts of the Andamans.

North into this creek is a crossing made by the Jarawa people, a bridge constructed with wooden poles, tree-bark fiber and a mangrove tree that leans across the creek towards the western bank. Although it may seem very crude, there is a certain technology in the design for load-bearing and in keeping it user friendly. However the concept of a Jarawa bridge is uncertain, this being the first and only bridge encountered in a creek within the Reserved area surveyed. The Jarawa people are known to use rafts made of different shapes, sizes and designs, constructed from various natural materials to raft down creeks or cross over to the opposite bank. However, this was the only creek where no rafts were observed, pointing to the fact as to how little is known about these original inhabitants of the islands. This bridge was seemingly not meant to avoid crocodiles (*Crocodylus porosus*), since all other creeks surveyed along the western and eastern coasts have populations of crocodiles and only rafts were encountered there.

People settled close to the Reserve use the area right up to Mt. Chattenton and east of it for hunting, timber and other forest produce. It is known that the Jarawa people use the northern edge of an extensive marsh areas within the Reserve as campsites and probably use the marsh for hunting fish and collection of shellfish. Some of the settlers use the same marsh on the eastern and southern sides mainly for catching freshwater fish and trapping teals, which includes the endangered
endemic Andaman teal (*Anas gibberifrons*). The Tribal Welfare Department has used this marsh to airdrop food for the Jarawa people (Chandi, 1999). Marshes of this type in the Andaman Islands exist only in the Jarawa Reserve, Baratang and Little Andaman Islands. These fragile ecosystems are very important for several species of birds of the wetlands, the endemic Andaman teal, fresh water fish of which we know very little of, habitat for crocodile nesting and for small crocodiles.

There are Jarawa camps on the western side of Constance Bay with the Bush police camp situated at the mouth of the Tiruar creek and plantations on the southeastern side of the bay (Figure 2). This critical area that has the largest number of Bush police camps was always a region for intensive conflict between the Jarawa people and settlers, poachers and the Bush police (Chandi, 1999). These conflicts can be assessed and evaluated from the number of newspaper and police reports. It is also important to consider that historically the Jarawa people used the area up to Port Mouat off North Wandoor.

**Coastal Belt along Palmer Point, Cape Barwell and south of Montgomery Island**

This area is fringed by rocks, coral and inter-tidal reefs and has several open sandy beaches backed by forests with four small mangrove creeks and three fresh water streams draining into the sea (Figure 2). Along this stretch are four campsites of the Jarawa people who very frequently used them up to 1998; several huts seldom used since 1999 can be seen from the sea. This was confirmed as a number of campfires were seen during the night while traveling on earlier surveys by boat. These surveys were used since 1993 for sampling group numbers and families of the Jarawa people. However, this random study was given up due to the lack of realistic number of people at a campfire and as they could not be really counted from the open sea during the night from a distance.
Evidence of pressure on this stretch of the Reserve and on the Jarawa people has been observed by the author since 1997. In the same year, local fishermen brought three Myanmarese poachers, found wounded by Jarawa arrows in the open sea, to North Wandoor. Interviews with these poachers indicated that twenty-two of them had landed on one of the beaches and were attacked. The Jarawa people killed several of them, and in retaliation, Myanmarese poachers also killed many Jarawa people. Seven more Myanmarese poachers, who were also wounded, escaped through the forest to Tirur area and were later admitted to the Port Blair hospital by the Bush police.

Recent assessments indicate that the pressure from local fishermen, local poachers and Myanmarese poachers has increased tremendously. Fishermen were observed fishing very close to the shore in front of the camps during the nights; they had also started anchoring closer to the shores during nights. Local and Myanmarese poachers were observed diving very close to the camps looking for shells and sea cucumber and local poachers had started landing on these shores for water besides looking in the Jarawa camps for honey and other products collected by the Jarawa people. This is a clear indication that the Myanmarese poachers must be doing the same, since each of their boats carry 15–25 persons and they would require large quantities of drinking water.

South of Cape Barewell is a mangrove creek that drains into an unnamed bay; this bay and creek are used by local fishermen for fishing. Local poachers use the creek to go into the Reserve to hunt pigs, spotted deer and meet Myanmarese poachers to barter and trade. Myanmarese poachers use this creek to hide and process sea cucumber (*Holothuria sp.*). Evidences of their camps can be seen in the form of platforms for sleeping and for drying sea cucumber. During late 1997, a Myanmarese
boat was observed south of this bay close to the mangroves. The Jarawa people had completely dismantled this boat for metal and planks and it can be inferred as some sort of an encounter, leading to some of the boat crew and some Jarawa people being killed. South of this creek is a Jarawa camp which was active up to April 1997. The same pressures were observed along the area north of Cape Barewell and south of Montgomery Island where there are several major campsites of the Jarawa people, including a communal hut.

**Port Campbell**

The southern areas of Port Campbell, an area of historical importance, were occupied by the Great Andamanese and the northern areas were occupied by a Áka-béa-da Sept (Portman 1899). Their huge kitchen middens can still be seen in this area. Port Campbell comprises Montgomery, Petrie, Defence and Clyde Islands, including an unnamed mangrove island south-east of Defence. Four large and three small mangrove creeks, besides several small freshwater streams drain into the Dalrymple beach area and two large and three smaller mangrove creeks drain into the Blair Beach area from the Mt. Cadell range.

Port Campbell is one of the most significant areas for the Jarawa people and they are known to use Petrie, Defence, Montgomery and Clyde islands (Figure 2). Their camps can be seen on the North-western side of Defence including a couple of small huts on the Main Island south of Ike Bay opposite Defence Island. A large communal hut was observed on a small hillock opposite south-east of Defence, including two more small hunting camps along the eastern side of Blair bay on the Main Island and another communal hut situated on a small hillock south on the western side of the mouth of the large Partam Jig creek (Figure 2). There are however, evidences of several other such units inside the forest and
clearings to suggest that several more huts may be in the making. A raft was observed below the Partam Jig creek communal hut and subsequently the same raft was observed approximately 12 km north, just below the hut opposite Defence Island. During late January 2000, a group of Jarawai people including women and several children were observed south of Ike Bay. Two of the men were carrying pigs on their backs indicating that this group was returning to their camp after a hunt. Another group was observed moving south from Partam Jig area to the west of Clyde Island.

Observations in this area suggest that it is a highly disturbed area with immense pressure on the Jarawai people, on their Reserve and their movements. Fishermen use this area as a safe anchorage bay and for fishing. They also fish in areas around Ike Bay, areas off Petrie Island and off Montgomery Island (Figure 2). Intensive fishing and crab hunting is also carried out within the bay and in the creeks. Local poachers use these creeks to go into the forests to hunt pigs and deer and several such boats were observed inside the creeks and in the bay. Three large camps constructed by Myanmarese poachers were found in the creeks draining from the south-western side in the Dalrymple Beach. During the nights their boats were audible and interviews with fishermen indicate that they use this area frequently. There are also local reports and evidences of Thai poachers having used this area to poach crocodiles during 1992 and 1993.

Local fishermen were observed using the same water source very close to the Jarawai camp south of Ike Bay, indicating that local and Myanmarese poachers do the same and that people do not fear the Jarawai people any more. Camps made by local fishermen or poachers were observed on the south-eastern side of Defence Island. However this
requires serious consideration since assessments conducted in Little Andaman Island have shown that Onge people do not use their seasonal camp sites that are now being used by local fishermen and poachers (Andrews, 1999). Local poachers do land on Petrie and Defence islands to collect the nests of edible-nest swiftlets (Collocalia fuicphaga) and hunt deer. Several noose traps were found and destroyed on Defence. The pressure on the Jarawa people and on their resources and habitat in this area is tremendous. Their access to free movement is totally restricted within the bay and on the coast and as hunter gatherers, they are pressured into going to other areas for resources in order to avoid outsiders and conflicts.

Port Campbell, over the years, has been another area of constant conflicts, mostly because there is a large concentration of Jarawa camps within this area. Local fishermen, Myanmarese and local poachers extensively use this area and the islands within. There are past incidents of fishermen and poachers being killed on Petrie and Defence Islands and there are several more such unrecorded incidences that had occurred and went unreported. However, there was never ever any evidence or reports of what may have happened to the Jarawa people involved in such encounters.

Coastal belt between Ike Bay and Cape Bluff
Local fishermen use this stretch for fishing close to the coast besides using Blip and Breakfast Bays as anchorage sites. Over 20 Myanmarese poachers were observed diving for sea cucumber very close to the shore north of Breakfast Bay one late afternoon. Some fisherman, local and Myanmarese poachers are known to land on this stretch of shore for fresh water and hunting. Some Jarawa people have their communal huts close to these Bays.
Cape Bluff, Bluff and Spike Islands, Port Anson and Foul Bay area
The inlet east of Cape Bluff is a narrow closed bay, oriented south-east and is almost four km long. This inlet is fringed by mangroves, small beaches, rocky outcrops and Andaman beach forest on the western side and mangroves on the eastern and southern areas (Figure 2). The Jarawa people used the western and southern sides as recently as 1997. There used to be large communal huts just off the beach on the western side and a communal hut on the southern side on a hillock in the forest. Local fishermen currently use this inlet for anchorage and as a camping site. Local poachers use this inlet to enter the forest within the Jarawa reserve to hunt pigs, deer and to steal honey and ambergris from the Jarawa people’s huts. Over the years, there have been several conflicts between the Jarawa people and the local and Myanmarese poachers. The Jarawa people have killed Myanmarese poachers and Myanmarese boats have been found in this inlet several years ago.

Spike and Bluff Islands have always been areas of conflicts since 1948 (Sarkar, 1990), (Figure 2). Local poachers and fishermen have been very frequently killed on these two Islands. Local poachers still hunt, take timber and mine sand from Spike Island. Feral dogs that have escaped poachers can still be seen on Spike. These two islands have been very important areas for the Jarawa people. Bluff was good for collecting sea turtles’ eggs and Spike was an island were a large group of Jarawa people always resided on the western and northern parts. There are also local reports of poachers raiding Jarawa huts for honey and ambergris.

The mangrove creek south of Baby Island drains from a very extensive wetlands system comprising marshes, several small mangrove creeks, a small and a large freshwater creek. The area was surveyed in 1998 and in February 2000 (Figure 2). Intensive fishing and crab hunting was
observed within this area of the Reserve. Local settlers also use this area for timber, crocodiles, wild boar and deer, besides collection of bamboo and cane. There were evidences of the Jarawa people using this area extensively and indications are that it could be a very important hunting ground for them.

Yerata tila jig, east of Foul Bay and Lakda Lungta, is a large mangrove creek almost 16 km long and is one of the most pristine and diverse wetland ecosystems in the Andaman Islands with several freshwater streams draining into it (Figure 3). This is the only wetlands and creek system in the Andaman Island with an extensive nypa palm (*Nypa fruiticans*) habitat. A smaller creek from the north-eastern side draining into Yerata tila jig was also surveyed. Several rafts made by the Jarawa people were observed in this creek system and fish traps made of nypa palm leaves were seen set across small drainage. Observations suggest that this creek area is a very important hunting, fishing and crossing area for the Jarawa people who live in the Yaditi, Foul Bay/Lakda Lungta and Spike Island.

However, this large creek system is used by local fishermen for fishing and crab hunting. The settlers poach crocodiles, pigs, deer, timber and bamboo. On two occasions, fishermen and poachers were encountered in the creek systems. Other observations include loads of bamboo tied together and left in the creeks, besides felled mangrove and other species of trees. This has also been an area of conflicts since 1952 (Sarkar, 1990), besides being one of the important Jarawa concentration areas (a separate group from the group of Jarawa people in South Andaman Island and from people around the Luwis Inlet area).
Coastal stretch between Foul bay and Rocky Point including Flat Island

This stretch must be a very important area for the Jarawa people considering the number of temporary and large communal huts along this stretch that can be seen from the sea. The main sites were Tanmuguta, Barla-Ka-bi and Yadita including a small unnamed bay south of Flat Island where there are a several communal and small temporary huts. There are also several small temporary huts in an unnamed bay north of Flat Island (Figure 3). No assessment was possible of this area except local reports by fishermen and boat people that Myanmarese poachers have been observed diving and collecting sea cucumber and on one occasion during early 1990s, Jarawa people were observed taking apart a Myanmarese dugout canoe—probably for the metal. One of the important observations was that Jarawa people were seen along this stretch of coast and around all small and large communal huts. Boats were always observed anchored near Flat Island and people were seen on the island. It is known that the Jarawa people use this island and cross over at low tide. Over the years, there have been several conflicts on this island between fishermen, local and Myanmarese poachers.

Pilot and Robert Bay

Pilot Bay was surveyed and no disturbances were observed but people report that fishermen use this bay as a safe anchorage place. Local and Myanmarese poachers use this area to enter the forests.

Ecologically, Robert Bay should be considered as a very important sea turtle feeding ground as it has extensive sea grass beds as previously reported (Bhaskar, 1993), (Figure 3). During the survey, green sea turtles (*Chelonia mydas*) and hawksbill turtles (*Eretmochelys imbricata*) were observed and it is known that local settlers hunt turtles in this bay. The
eastern side of this bay has a long, wide beach which is a nesting site for two species of sea turtles.

Robert Bay has two creeks from the south eastern side and two very narrow creeks from the south western side that drain into the bay. These narrow creeks were surveyed on two occasions -- on the first, local poachers were encountered and on the second, two Myanmarese boats with 25 poachers were encountered in the eastern most creek. These boats were loaded with sea cucumber, food supplies, basic diving gear and fuel. These boats were later apprehended close to Mayabunder by the police.

The two large creeks draining into Robert bay from the south eastern side were surveyed on two occasions (Figure 3). These creeks drain out from within the Jarawa Reserve into the bay and are frequently used by local and Myanmarese poachers. In one of the creeks, a boat from Chainpur was encountered, carrying five people, six dogs and three freshly killed wild boars. Another group of poachers were in the forest and their dogs could be heard barking. Settlers from Chainpur and Sippi Tikri use these creeks for fishing. Interviews with these and other poachers suggest that these creeks are used regularly by local poachers to enter the Jarawa Reserve for poaching wild pigs and deer that are supplied to the Bush Police out post at Louis Inlet and the remaining sold in the settlements. Myanmarese poachers use these creeks as a hideout and to process sea cucumber.

There is evidence of the Jarawa people using these creeks. Their rafts and Styrofoam pieces was found, which are used for crossing or to float down creeks. Poachers report that there are large Jarawa camps around these creek systems including large communal huts and these Jarawa
people visit the settlement 'Sippi Tikri' north-east of the Louis Inlet Bush Police outpost. This area requires a more detailed study since indications are that it is a very important area for the Jarawa people.

Two huge, long kitchen middens were also seen in one of the creeks, indicating that this area was once occupied by one of the septs of the Kede Tribe (Portman, 1894).

**Louis Inlet, Melegar Boilyu, Lungrawath Boilyu and Wolga Boilyu Creek systems**

This is a very extensive wetland area with the Melegar Boilyu and Wologa Boilyu creeks system, fed by smaller creeks and freshwater streams from Mt. William Range, which drain through the area known as Lungrawath Boilyu that has several small mangrove islands and a freshwater stream. West of Point Thomas, just after the entrance and on the northern side of Louis Inlet, is the Bush police camp established in 1957 on a hillock (Figure 3). This camp was closed in 1999 and manned again in February 2000 by the police after a group of Jarawa people raided the encroached settlement 'Sippi Tikri' that is within the Jarawa Reserve. Hanspuri, north of the Reserve, Louis Inlet and the area around it are the northernmost extremity of the Reserve for the Jarawa people. All the large creeks and fresh-water systems draining into the Melegar, Wologa and Lungrawath Boilyu were surveyed. The Wologa drains down mostly from settled areas like Chainpur and settlements south of Hanspuri (Figure 3).

The northern areas of Louis Inlet has encroached settlements within the Jarawa Reserve like Sippi Tikri, a name derived from a kitchen midden on the south-western bank of Wolgar Boilyu and north-west of it is Khokdi Dabla now Ganish nagar, Balu Dabla on the coast, Naya Katti, Sundri Khadi, Bathak Khadi, Pharsa Nalli and Karanj khadi all situated south of Hanspuri.
Figure 3: Map showing Middle Andaman Islands
Settlers from north, Middle Andaman and settlements of Chainpur, Sippi Tikri, Ganish Nagar and Hanspuri use this area for fishing, crab hunting and for poaching pig, deer, crocodiles, timber, cane and bamboo. This was evident from the number of boats in most of the large and small creeks systems. Mynamarese poachers too use this area for illegal timber extraction and as a hideout. Several platforms for fishing and camping, made out of poles and bamboo were observed in almost all the creeks and mangrove marshes. Interviews with local settlers indicate that the Jarawa area is well used by the settlers and poachers. The Melegar Boilyu area and south of it, had evidence that these areas are still being used extensively by the Jarawa people and these evidences consisted of rafts and fish traps.

Presence of old kitchen middens in Wolgar Boilyu and Melegar Boilyu are indicators that these areas too were once occupied by an extinct Sept of the Kede Tribe and later colonized by the Jarawa people.

3.2 The South Eastern and Eastern Boundaries

The southeastern boundary of the Jarawa reserve is surrounded by settlements, their plantations and converted forests without a buffer zone. The settlements are Tirur/ Temple Myo: Hyderabad, Manpur and Colinpur are clustered. Tusonabad and Orabaraji are clustered settlements, as are Anikhet and Cattle Gung and the northernmost settlement is Ferrarung. The settlements along the eastern boundary are Beach Dera, Jinga Nullah, Mile Tilek, Jirkatang and settlements along Shoal bay areas in South Andaman Island (Figure 2). Areas of Turur/ Temple Myo extend up to the Jarawa Reserve boundary and in some cases, inside the Reserve.
Socio-economic studies conducted around Tirur indicate tremendous pressure on the Reserve. Several hundreds of people interviewed have confirmed using resources from within the reserve. These include forest produce, such as bamboo, cane, medicinal plants, and poles and timber for construction. Over thirty men from this area continue to go into the Reserve for fishing and poaching Andaman teals, wild boar and deer. People from the other settlements, too, go into the Reserve on a regular basis for the same forest resources, as also poachers from the Shoal Bay settlements who use the Reserve for hunting deer and pig, which has been confirmed (Chandi, 1999). Crocodile surveys during 1998 revealed evidences of the Jarawa people using areas around the Puttatang creek area. Several of their bamboo rafts were observed in two creeks and several poachers and their boats were also encountered in these creeks within the Reserve.

The settlements along the north-eastern and northern boundaries in Middle Andaman Island are mainly Uttra, Kadamtala, Santanu, Kausalya Nagar, Kalsi and Chainpur (Figure 3). Socio-economic surveys conducted in these areas also indicate a tremendous consistent pressure on the Reserve area for timber, bamboo, cane, fish, Andaman teal, wild boar, deer and crocodiles. Of the 350 hunters interviewed, all hunted wild boar and deer, 127 also hunted Andaman teals and 63 also poached crocodiles. Last year, a Forest Ranger from Kadamtala instructed the Jarawa people to destroy noose traps within the Reserve that were set for pigs and deer. The Jarawa people have been regularly bringing in traps and handing these over at the Range office for some time (Chandi.per.com).

A very interesting observation was that poachers who go into the Reserve always wear brown shirts and pants; this was recorded from the south in
Constance Bay up to Middle Andaman Island in Louis Inlet. This is mainly to lead the Jarawa people into thinking that these poachers were the Bush police and this has been in practice for over forty years. This observation was confirmed during the socio-economic study in Middle Andaman and South Andaman Islands and it is well known that the Jarawa people always feared the Bush Police and their guns right from the 1940s.

Other indirect observations are foreign nationals going to the Jarawa reserve to photograph the Jarawa people for magazine articles and to video tape them. Evidence of this are from German, French and Italian magazine articles already published and video tapes that are being circulated. Some of the articles portray the Jarawa people as savages and even worse, they lack any truth or valuable information about the people or islands.

4. DISCUSSION

Colonization in 1772 and 1858 by the British and later the taking over of the Islands by the Government of India in 1946 has been a continual process of territorial change for the original inhabitants of the Andaman Islands. Decimation of several tribes also occurred through the colonization process over the last two centuries and conflicts have been reported throughout the history of the Andaman Islands (Portman, 1899; Reddy, 1994). Ironically, conflicts still keep occurring in this present day and age of progress and rapid development, seemingly letting history repeat itself. All tribes in the past who were befriended by outsiders and got into a system change, are nearing extinction. Only the tribes that were always hostile, survive today. Portman (1899) has mentioned that the
British in all their attempts to bring in and alter the lifestyle of the Great Andamanese failed miserably. He further states that it was a big mistake on his Government's efforts trying to decide the change and impose their way of life on the Great Andamanese people. Effects of colonization, impact of the development and its implications, before and after Independence, has been discussed in detail by Reddy (1994).

The two notifications formulated to marginalize the Jarawa people did not take into consideration their structure of social organization and their territorial range. Ever since these notifications, the Jarawa people have been under constant pressure, with their movements being restricted by conflicts right around their territorial range and their resources under exploitation by settlers and poachers. The notification also states that the five km of coastal waters from the high tide line is included in the Reserve and any one in contravention of this notification is punishable with imprisonment or a fine or both. However, this was never enforced and is continually violated.

The survey and assessment around Jarawa Reserve clearly confirms the past and constant pressure on the Jarawa people. Their seasonal and daily movements are continually threatened by conflicts with local and Myanmarese poachers, fishermen, settlers and the Bush Police. Their resource areas and habitats are constantly occupied by outsiders, further threat of marginalization through the presence of Bush Police camps within the Reserve and the encroached settlements. The constant pressure and unmindful exploitation on the main food resources like wild pigs, shellfish, turtles, fish, burning of their camps and stealing of products from the huts by poachers keep the Jarawa people under constant threat. Frequent deaths occurring through conflicts with poachers must also be taking a toll on their population. Conflicts with
poachers and deaths of Jarawa has been previously discussed, (Chandi,
1999; Reddy, 1994; Sarkar,1990). Diseases contracted more recently by
contact with outsiders on the road, bus passengers, road workers and the
hospitals could be affecting them too.

These are all the evidences for the reason the Jarawa people are coming
out. Resource crunch cannot be the reason for their coming out.
Considering that this pure race of humans who have lived for millions of
years as hunter gatherers have been very resourceful in spite of
competing with other groups of their own kind and constant territorial
change for thousands of years.

Preliminary ecological survey and study assessment results show that
the wetland ecosystems and associated habitats in the Reserve are the
most pristine and diverse compared to the rest of the Andaman Islands,
not including Little Andaman island. These include the last remaining
extensive habitats for the endangered Andaman teal and other wetland
birds in the Andaman Islands. Teals were seen in almost all creeks and in
open marshes along the west coast of South and Middle Andaman
Islands. Some of the creeks support the best viable populations of
crocodiles and their best nesting habitats. Yerata tila jig, one of the
extensive creeks in south Middle Andaman, has the most extensive nypa
palm (Nypa fruiticans) habitats in the Andaman archipelago.

There is an urgent need to enforce territorial laws and boundaries, more
than trying to keep the Jarawa people within the Reserve. An all out effort
should be taken up to keep outsiders and poachers away from the
Reserve. All encroachments should be removed, including temporary
forest camps within the Reserve for collection of forest produce by
settlers and Departments. Forces such as the Coast Guard and the Navy
could assist enforcing the five km coastal waters regulation specified in the notification. While patrolling, they can keep out poachers and fishermen from the five km boundary of coastal waters along the Jarawa Reserve. To implement this immediately, the Administration and the Fisheries Department should make an island wide announcement through radio, TV and posters for all fishermen and settlers, informing them that it is illegal to fish or anchor within the five km limit of coastal waters along the Jarawa Reserve. This would greatly help the Forest Department who do not have the infrastructure, manpower or the funds for policing coastal and remote areas to curb poaching. Vehicular traffic through the Andaman trunk road should be regulated and planned till an alternative is implemented.

The Anthropological Survey of India with a very specialized team of experts should be constituted, with autonomy, to deal with issues relating to the Jarawa people. Enforcement can be looked after by the Forest Department with a committee of specialists for monitoring. The Jarawa people are probably the last people, who need welfare, policing or management. There is an urgent need to look into welfare requirements of the settlers living around the Reserve and a need to formulate an eco-development programmes and alternative sources of income. Pig, deer and fish farming are alternatives that should be encouraged at village levels as these farming operations and methods have been tested and proven successful in other parts of the world.
REFERENCES


Portman, M.V. 1899. A history of our relations with the Andamanese (Reprinted 1990). Asian Educational Services, New Delhi, India.


Tribal Territories
The Wildlife Trust of India (WTI) is a non-profit conservation organization committed to initiate and catalyse actions that prevent destruction of India's wildlife and its habitat. In the long run, it aims to achieve, through proactive reforms in policy and management, an atmosphere conducive to conservation. WTI works through building partnerships and alliances and its strengths lie in its willingness to work with innovative conservation techniques like acquiring land for wildlife and rescue and rehabilitation.

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