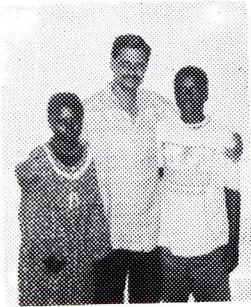


ABOUT THE AUTHOR



The author with Emne
and Chela

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- I. *Growth and Development of Tirumala - Tirupati as a Dimention of Indian Civilization*. 1991. Anthropological Survey of India, Calcutta.
- II *The Sacred Complex of Tirumala - Tirupati : Structure and change*. 1993. Intitute of South Indian Studies, Madras.
- III *People of India - Pondicherry* 1994, Co-edited with Dr. K.S. Singh. Anthropological Survey of India, Calcutta.
- IV *Futurology - Forecasting and Assessment*. 1996. New Century Book House, Madras.
- V *The Endangered Aborigines and Environment of Andaman and Nicobar Islands*. 1998. Pondicherry University, Pondicherry.
- VI *Strategic Planning for the Future Development of the Tribes in India*. 1999. Pondicherry University, Pondicherry.

ACTION PLAN TO SAVE

THE JARAWA

An Anthropological
Perspective to Conserve the
Endangered Stone Age
Aborigines



T. SUBRAMANYAM NAIDU

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Indo-German Co-operation on Anthropological Studies



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Typeset & Printed at
Guru Dhakshin Printers
57, Bharathi Nagar,
Pondicherry - 605 008.



Cover photo : **Anopiyale** - The Jarawa God

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PREFACE

The Jarawa and the Sentinel of Andaman Islands are the only two aboriginal population belonging to stoneage living in the world with out any contact from the outside world. They are physically and culturally distinct population estimating 500 Jarawas and 400 sentinelse individuals. Inhabiting in the Western coast of Middle and South Andaman by the Jarawas, and the Sentinel in the North Sentinel Island. The Sentinel is the only tribe till to date absolutely isolated in the world.

The Jarawa a small Negrito primitive hunting, fishing and gathering tribe are under continuous exploitation since 1856. The establishment of the penal settlement by the British in 1857 and followed by the establishment of the settlements for the convicts in 1947, the establishment of refugees settlements from 1960 and the construction of the Andaman Trunk Road (ATR) are the important threats faced by the Jarawa over a period of time, which finally leading to the total extinction of the Jarawa tribe.

Presently the Jarawa are in disarray, and no longer they are going to be isolated from the surrounding non-tribal populations. The story of Jarawa is one that has been repeated throughout the contemporary tribal world, a society that has lived in isolation for ages suddenly falters into the survival problem. The need of the hour is to follow to implement Nehrus (1952) vision of tribal development:

"We must approach the tribal people with affection and friendliness and come to them as a liberating force. We must let them feel that we come to give and not to take something away from them. That is the kind of psychological integration India needs. If, on the other hand, they feel you have come to impose yourselves upon them or that we go to them in order to try and change their methods of living, to take away their land and to encourage our businessmen to exploit them, then the fault is ours, for it only means that our approach to the tribal people is wholly wrong. The less we hear of this type of integration and consolidation of the tribal areas, the better it will be

We ought to be careful about appointing officers anywhere, but we must be doubly so when appoint them in tribal areas. An officer in the tribal areas should not merely be a man who has passed an

examination or gained experience of routine work. He must be a man with enthusiasm, whose heart understands the problem it is his duty to deal with

It is far better to send a totally uneducated man who has passed no examination, so long as he goes to these people with friendship and affection and lives as one of them. Such a man will produce better results than the brilliant intellectual who has no human understanding of the problem. The man who goes there as an officer must be prepared to share his life with the tribal folk. He must be prepared to enter their huts, talk to them, eat and smoke with them, live their lives and not consider himself superior or apart. Then only can he gain confidence and respect, and thus be in a position to advise them",

The present work is a short account of the Jarawas problems of survival and the issues related to their conservation. The present book is prepared to help the administrators, policy makers, politicians and the local people involved in the conservation of the Jarawa tribe to solve the present crises of Jarawa coming out from the forest reserve on to the road, jetties and to the villages.

After going through the first three chapters of the book the reader will realise the way of life of the Jarawa and how hard they are fighting in day to day life for their survival.

The author based on his many years of anthropological experience tried to bring out the theories behind for the coming out of the Jarawa from the reserve forest. The analysis in the chapter IV may clear the doubts of administrators, scientists and the people why the Jarawa is on the road.

The author has developed Jarawa Conservation Project (JCP) in the chapter V to solve the immediate issues of the Jarawa and put forward a long range plan for the conservation of the Jarawa.

The reader may find that the author has often been harsh in his criticism and presentation with some case studies. This brief report of the cases are require to bring pressure on the Government, to take necessary steps to protect the Jarawa population.

It is quite natural that experts in the field of Anthropology and administration will find many gaps and mistakes in this first attempt of developing JCP Plan for the conservation of the Jarawa tribe. The author

will be grateful if they are pointed out to him. An eventual revised Plan, in case there is a need for it, will then make the necessary corrections and fill the gaps left in this first attempt.

Repeated field visits to the Jarawa over an extended period allowed me to come to know the Jarawa population, the availability of the natural resources in the Jarawa reserved forest. I owe special debts of gratitude to Sri I.P. Gupta the Lt. Governor, Andaman and Nicobar Islands for giving me the opportunity to prepare the Jarawa resource map and to discuss with him on the Jarawa issue.

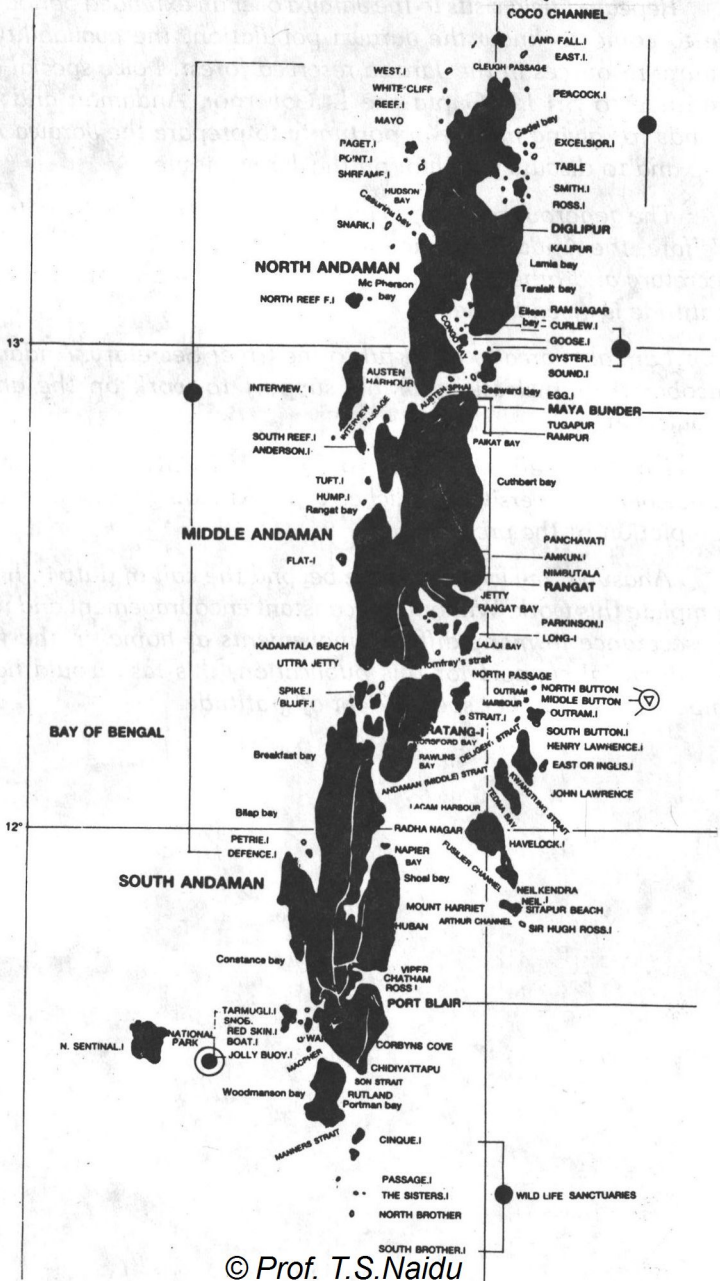
The generous support given by Mr. A.S. Awaradi, Secretary Tribal Welfare, the Andaman Adim Janjati Vikas Samiti (AAJVS) Executive Secretary and other officials, is well recognized and my deep sense of gratitude is given to them.

I am also greatly thankful to the Chief Secretary, Andaman and Nicobar Administration for his support to work on the aboriginal population.

I am gratefully thankful to Prof. V.T. Patil, Vice-Chancellor, Pondicherry University, Pondicherry, for extending me help in successful completion of the present work.

Anasuya, my wife has gone beyond the call of duty in helping to complete this work. Without her constant encouragement and relentless perseverance in many difficult movements at home, in the field and the financial support for this publication, this task would have been impossible. I owe her special debt of gratitude.

ANDAMAN & NICOBAR ISLANDS



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Jarawa settlement on the West Coast

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CHAPTER I

INTRODUCTION

The most important global issues of the 21st century is the rapid disappearance of the few remaining aboriginal tribal populations. The disappearance, entails an irreversible loss of cultural institutions and in many cases actual physical extinction of the food gathering hunting societies, which raises scientific and humanistic questions of the most urgent sort how to save these aboriginal population.

This preliminary document is the outcome of my expeditions made to study the Jarawa population since 1996 onwards and my recent expedition to the Jarawa settlements. This careful analysis of the sudden destabilization of the Jarawa, a Negrito group in the Andaman Islands, provides important insights into these questions. Traditionally nomadic forest food gatherers and hunters, the Jarawa inhabit the interior of Middle and South Andaman, where their hunting and gathering economy was once, finely tuned to their tropical environment and relatively undisturbed by outside influence. But as a result of the establishment of the colony by the Britishers, Japanese people and the rehabilitation of main land people the Jarawa has been disturbed to a great extent. As the consequences of the changes in the island ecosystem and expansion of the outside human activities have reverberated through the fabric of Jarawa society and culture, they have paid dearly, they are declining in number and many elements of their traditional culture have been lost. Indeed many Jarawas have already disappeared, and it seems to be unlikely that many others will survive long into the next century.

ADOPTIVE DIFFICULTIES

Many studies documented, that tribal people, in all parts of the world have for centuries suffered from the adverse effects of the expansion of "civilization" into their traditional territories. Tribal suffering as the result of European colonial expansion and later, incorporation into modern nation - states, has ranged from habitat despoliation to disease and malnutrition to the decline of traditional cultural practices to outright tribal extinction. The literature on these process is voluminous and includes both case studies (e.g., Cipriani 1966; Turnbull 1972; Wagel 1977; Von Furer - Haimendorf 1982; James Eder 1987; Naidu 1998) and more general assessments (e.g. Davies 1977; Bodley 1982; Goodland 1982).

It is observed that the Jarawa are in serious adaptive difficulty because of many problems. The adaptive failure would presumably occur when a peoples solutions for dealing with life's problems were no longer "valid", it is not readily apparent how to assess validity or how to distinguish problem solving for living. The emphasis on adaptation as successful coping with lives problems was defined by Baker can be considered in this situation. Baker defines adaptation as:

"An adaptation is simply an biological or cultural trait which aids the biological functioning of a population in a given environment. thus, it includes such aspects as a population's health, ability to feed itself adequately, functional capability in its physical environment and reproductive performance. This definition encompasses the more precisely defined forms of adaptation used in genetics and the adaptability responses which are denoted by such terms as acclimatisation. However, it stops short of encompassing sociocultural adjustments which do not have demonstrable effects on human biological functions." (1984:2)

This definition has the advantage of implicitly specifying what will be taken as evidence of adaptive of adaptive failure presumably, it occurs when a population's biological and cultural traits are inadequate to support its "biological functioning". That is, to maintain its health, its subsistence, and its reproductive performance. These are the criteria by which one can able to assess how well the Jarawa population is functioning, furthermore, specifically juxtaposes against the concept adaptation the important concept stress. According to him "stresses are defined as those natural or cultural environmental forces which potentially reduce the population's ability to function in a given situation". (ibid :2) This concept provides the crucial casual link, between biological malfunction and wider patterns of cultural disruption. The significance of such disruption is visible, in turn in a final important attribute of Jarawa's relatively strict definition of adaptation it specifies that certain particular cultural tracts are involved with adaptation, namely, those that demonstrably affect biological functioning.

The presence of psychological distress is another possible index of societal ill-health or malfunction, on that has, infact also been employed by anthropologists. Savishinsky's (1974) study of the Hare Indians focused on the manner in which contact-relates experiences have exacerbated endogenous social and psychological stress loads, with a heightened incidence of mental illness or psychopathology (as defined by the people themselves) being indicative of severe adaptive difficulty (pp. 217-219).

Similarly, Bruner (1976 : 242), examining the kinds of adaptations that the Toba Batak have worked out with the modern world, takes their apparent "lack of internal stress" (i.e., psychological stress) as prima facie evidence that they are "successfully adjusting". The use of the absence of psychological distress as a criterion for adaptive success offers the advantage of being relatively non-paternalistic. According to this, in effect, if people are satisfied with their new lives, who are we to question their well-being? Treating the aboriginal primitive tribals as victims of the changes going on around them obscures their frequent complicity in the detribalization process. Numerous case studies and well documented studies of tribal destruction following establishment on tribal lands of homesteads, logging or encroachments, poachings, killing of the tribes or large scale projects in clearing the forests where such intrusions brought land expropriation, habitat destruction, epidemic disease, or even genocide, tribal peoples literally are victims (for such a perspective on the difficulties of tribal Philippine peoples, see McDonagh 1983). But many contemporary cases of detribalization do not involve such dramatic or readily identified external factors. "Rather, less visible forces associated with the political economics of modern nation states - market incentives, cultural pressures, new religious ideologies - permeate the fabric and ethos of tribal societies and motivate their members to think and behave in new ways. These new ways of thinking and acting are often dysfunctional with respect to individual and tribal welfare; that is, by their own changing behaviour, values, and preferences, tribal peoples bring many of their difficulties on themselves.

It should be noted that this assertion does not establish blame but, again, points out a crucial shortcoming in the victims-of-progress model; proposed by James Eder (1987). It diverts attention from the very processes of individual choice and change that must be understood if we are genuinely to assist tribal peoples in distress. Many anthropologists would argue, of course, that tribal peoples are entitled to embrace change, if they want to, on their own terms. But the model provides little room for them to make free choices with respect to change and even less guidance for determining whether these choices are 'well informed'. To be sure, difficult questions are involved. How do we distinguish voluntary from coerced choices? At what point will we conclude that tribal peoples must bear the consequences of their behaviour, even if those consequences include tribal disappearance? But if these are difficult questions, they are best met head on, unconstrained by a paternalistic, even ethnocentric model that celebrates tribal societies as essentially good and sees the rest of the world as essentially evil.

THE INDIAN CONSTITUTION AND THE NEHRU VISION OF TRIBAL CONSERVATION

The Indian Constitution, adopted on January 26, 1950, visualized a policy of progressive acculturation for the tribal communities of India. The government promoted development, education and health care for tribal peoples. Their rights were to be respected by integrating them into the national government. Those tribes, such as the Andamanese, who were considered "backward" would receive special attention for their development (Fuchs 1973 : 289). Tribes designated for this plan were placed under the heading of "Scheduled areas." There was no specific definition for what constituted a scheduled area or Scheduled Tribes. Under article 341 and 342 of the Indian Constitution, the President has the power to list the scheduled tribes in each union territory and state. Under the Andaman and Nicobar Islands Scheduled Tribes Order of 1959, six tribes were listed as " scheduled ." Four of the six are located in the Andamans, and these are the Andamanese (Great), the Sentinelese, the Jarawa, and the Onge (Census of India 1971 : 1). Policies toward these scheduled areas, carried with them two objectives. The first was to allow tribal peoples to maintain their rights, and the second was to promote the development of these areas through education and economic assistance (Hasnain 1982 : 148).

The Indian Government, no doubt, felt that its policy towards tribal peoples was, and is, enlightened and in their (the tribals') best interest. Politicians like former Prime Minister Nehru had clear ideas on how tribal groups would be treated in independent India. In the following quote, Nehru outlines his philosophy for the foundation of tribal policies:

1. People should develop along the lines of their own genius and we should avoid imposing anything on them. We should try to encourage in every way their own traditional arts and culture.
2. Tribal rights in land and forest should be respected.
3. We should try to train and build up a team of their own people to do the work of administration and development. Some technical personnel from outsider will, no doubt, be needed, especially in the beginning. But we should avoid introducing too many outsiders into tribal territory.
4. We should not over-administer these area or overwhelm them with a multiplicity of schemes. We should rather work through, and not in rivalry to, their own social and cultural institutions.

5. We should judge results, not by statistics or the amount of money spent, but by the quality of human character that is evolved (Chaudhuri 1982 : 312).

The present analysis and to the theoretical contribution, is an attempt to focus on the wellsprings of individual behaviour. Large anthropological literature on the impact of modernization on tribal societies, however valuable it is for documentary purposes, has contributed relatively little toward the construction of a more adequate theory of human adaptation and cultural change. Many Anthropologists pay top service to anthropological truisms about the centrality of individual decisions in cultural evolution but in fact treat individuals as helpless (and hapless) bystanders in the change process.

My concern in this endeavour is an attempt how best we can able to help to conserve the Jarawa - a stone age population.



The Middle and South Andaman - The Jarawa reserve forest .



The Jarawa hunting
Roasting the fish on the fire
The settlement in the interior forest-wooden buckets with honey

CHAPTER II

THE JARAWA AS THEY ARE

The original inhabitants of the Andaman Islands were a little known group of Negritos, whose origins there are not fully understood. Carleton Coon suggests that these Negrito populations represent a subspecies of the original Australoid peoples that inhabited the land exposed during the last glaciation (Coon 1965 : 179-185). This could place the habitation of the Andamans at over 20,000 B.C. The end of the Pleistocene era marks the end of the last glacial period. As a result of the rising sea level, the people inhabiting the Andamans were cutoff from the mainland. This protected them from the Mongoloid expansion which was also occurring at this time. This expansion led to the disappearance or marginalization of the original Negrito populations (Coon 1965 : 179). Other Negrito populations are : the Aetas of the Philippines, and the Semang and Senoi of the Malayan peninsula; some questionable Negrito groups are the thought to live in Western New Guinea and the island of Sumatra (Moinar 1983 : 62).

The Archaeological evidence is also lacking to determine the prehistory of the Andamans. Scientists suggest the great antiquity of habitation on the islands (Cipriani 1962, Dutta 1963, Radcliffe-Brown 1948, etc.), yet no dates are of the terrible destruction wreaked upon the Andamanese by the British, Cadell was still moved to remark: "Nothing can exceed the kindness with which they have been treated by the successive officers who have had charge of them, namely, Homfray, Corbyn, Man, Godwin Austen, and Portman" (Administration Report for 1883-84).

According to Radcliffe Brown the word Yerewa or Jarawa is apparently derived from Aka-Bea dialect of the Great Andamanese which means stranger or other people. Nowadays the Jarawa have been popularised as a hostile tribe as to its extremity it may be said that the hostility becomes the synonym to the Jarawa.

It has been reported that the Jarawa was the first tribe which became friendly with the Britishers in 1790, just after the start of the first panel settlement in 1788-89. The Jarawa was then inhabiting the Southern side Andaman (present Port Blair). After the second panel settlement of 1858, the Jarawa enemy Aka Bea became friendly with the Britishers the Jarawa

did not like the idea that the new settlers should be friendly with their enemy groups. The situation gave rise to a regular feeling of hostility among the Jarawa to outsiders. Actually the partiality shown by the then administration to Aka Bea Da tribe provoked the Jarawa who become hostile. The Ariotos were even given fire arms to slaughter the hostile Jarawa. They were given iron pieces and files to prepare arrows to be used against the Jarawa. The Jarawa got scared of the increasing strength of the Great Andamanese supported by the Britishers and migrated to the North. Besides the forest which they had sheltered and sustained hunting and food gathering since time immemorial were destroyed.

It was in the year 1873 that the Jarawa made the first raid on a settlement. These raids have not been stopped till today. The Jarawa continued their attacks against the settlement and the British increased the strength of reprisals against them. In 1905, under Temple's successor, W.R.H. Merk (Merk was the first British civil servant to hold the post, all previous superintendents had been commissioned military officers), The Bush Police was established. Merk reports:

"The Bush Police, formed in October 1905, consists of 20 Andamanese; two of them are armed with guns and the remainder with bows and arrows. They are, usually, stationed at the Port Blair Home to be ready at short notice, when required to hunt runaway convicts, or any Jarawas who may molest convicts in the outskirts of the settlement (Administration Report for 1906-1907)."

The Bush Police became an important part of the settlement. Aside from the duties outlined above, they were used often in punitive raids against the Jarawa. The institution of the Bush Police remains active to the present. It has been mentioned that about 89 encounters took place with the Jarawa between 1946 and 1963. The non-Jarawa killed many Jarawa and the Jarawa killed fifteen non-Jarawa.

The Jarawa are inhabiting in the Western region and coastal belt of South and Middle Andaman islands. At present they inhabit in the reserve forest area from Lakra Lungta to Chnotalingbang Bay, stretching longitudinally over a distance of about 25 km. In the South Andaman they inhabit from Tirur area upto Spike Island along the West coast.

Physical characteristics

Like other Andaman tribes the Jarawa also belong to the Negrito stock and are medium statured, with black skin and frizzy hair. The hair of

the children is dark reddish-brown and of the adults black and tightly curled. They are well-built but lean, without any extra deposition of fat on their bodies. Their teeth are clean, with abrasions, and very strong. The tongue is spotted with pinkish follies and the Jarawa are capable of tongue rolling. The nails are strong and well formed, projecting a little beyond the finger tips. Body hair is absent both in males and females. The head is medium sized with less occipital bulging and the cheekbones are not prominent. The dark skin colour has no variation in the exposed and unexposed body parts. The eye slits are straight. The ear lobes are attached, with valiation of the intermediate type. Lip thickness is medium and slightly averted. The chin is oval and the nose is depressed at the root with a flared wing. The foot is flat.

Social organization

Family is the smallest social unit among the Jarawa. A family consist of a male, a female and their unmarried children. Adult children don't stay with their parents. Children of ten years or above stay away from the parents (in the community hut)

Like the other Negrito tribes, Jarawa society is also characterised by its band organization. A band consists of 20-30 members moves from place to place. The Jarawa band has two types of camps. The base camp and the hunters camp. Base camp is the head quarter of the Jarawa. The hunter camp is not permanent, they are constructed near to the water sources. There is a community hut at the base camp in addition to a number of family huts. The hunter's camp is purely temporary lasting only few weeks in contrast to the longer lasting base camp, Jarawa carry the fire along with them whenever they shift their camps.

The Jarawa community and hunting huts are different from each other in size, and the way of construction also. The family hunts are small in size without walls and made of two pairs of pillars, taller (1.5 mts) frontal and shorten (0.5 mts) stern posts. These two pairs of posts carry one each principal rafter. The principal and rafters support a series of secondary rafters, thatch is put over. These secondary rafters are tied with the help of rattan (Awaradi, 1996). The community hut is dome shaped 4-5 meters long and 3-4 meters wide canes are used to build the roof, over which thatch is put. Thatch is dome shaped and reaches the floor all around except in the front providing the exit.

Dress and ornaments

Jarawa are generally naked, Jarawa women wear cummerbund, tail-neck-sash, armsash, head-vault-sash, shell and fruit necklace and the men put on abdomen bark-belt. The cummerbund is a waist girdle of plant fibre cord. The tail-neck sash is made of yellowish strips of a plant leaves, which hung for their back as a tail reaching the heels. The arm-sash and head-vault-sash are made of plant fibres. The Jarawa women wear often the shell necklace. They paint their face with red *Wrrda*. The abdomen bark-belt is worn by adult Jarawa men.

A head band known as *aonotahe* is made of tender palm leave. Necklaces are prepared mainly with shells is like common dog-whelk and different species of the Neritidae family and also cowries of the Icypraeidae family. These are prepared out of shells and cowries of different sizes and shapes.

Armllets are identified as *oetahe* and are used by both men and women. They are made out of palm leaves. Waist girdles are worn only by women and are known as *wayetatie*. Sometimes, the Jarawa women and men paint their entire body from face to legs with white clay. Besides making geometrical designs with hands on the forehead, face, chest, arms and legs, they use palm leaf stencils for making designs.

Material culture

Jarawa material culture is simple and minimum. There are two broad categories of Jarawa material culture, one relating to their subsistence and the other their adornment. Bows and arrows are the most important items of Jarawa material culture. Their bow is a wood strip measuring about 100-120 cms long and 5-7 cms, wide with plane ventral and convex dorsal surface. The bow string is made of fibres. Their arrow is about 60-70 cms long with two parts, shafts and head, i.e. wood or iron. The wood arrows are previously used before the invention of iron.

In earlier days they obtain iron from the seashore where it is available in plenty as adrift material. But nowadays they obtain iron from the settlers house and the construction areas.

Settlement pattern and social organisation

A Jarawa camp consists of series of leaf shelters (see photographs) with different sizes and shapes. The shelters are cone shaped and flat

shaped constructed by placing palm fronds over a triangular or square for work of six to eight poles that are positioned on the ground. Each nuclear family has its own shelter and hearth. The shelters are a varying distances and randomly located with respect to one another. Fairly steep slopes are sometimes favoured, the palm leaves are used for flooring purpose. Camps are located almost anywhere but are always near a water source, whether a riverbank, stream or seep.

The camp size and duration varies with resource availability, season and inclination. The Jarawas are living in small bands consisting of 20 to 30 individuals. The Jarawa camp in a particular location till the depletion of the local resources or tire of the are. Then the Jarawa moves other place in the forest and establish a new camp. According to the information gathered from the Jarawas it estimates 93 forest camps in all the three regions. The table 2.1 shows the distribution of the Jarawa forest camps in the three areas. The memory of Jarawas estimates 8 to 10 residential moves per year, is consistent with ethnographic observations of other, more isolated Southeast Asian hunting gathering populations. Rai observed local groups of Agta to change residence 20 times per year (1982: 105-107) and Kelly, estimates that Aeta bands shift residence 22 times annually and Semang bands 26 times annually (1983 : 280-281)

Resource Utilization

The Jarawa get their food resources in three major resource zones such as the forest, fresh water rivers, streams and along the seashore. The first two zones are important. Tropical forests contain numerous useful plants and animals, the rivers provide a variety of protein foods. The Jarawa also extensively utilizes the coastal resources.

Gatherings

Most of the carbohydrates of the Jarawa diet is coming through the food gathering. They collect the yams, tubers fruits and honey. Different types of yams and tubers are consumed. Each is seasonal and favours a particular zone. Generally women and children gather yams, tubers and fruits. Honey collecting is a male activity.

Fishing

Streams, creeks provide a good amount of animal protein that the Jarawa consumes on a daily basis. They use different techniques to exploit aquatic food resources such as fish, turtle, crabs and mollusks.

Table 2.1 Distribution of Jarawa Forest Camps

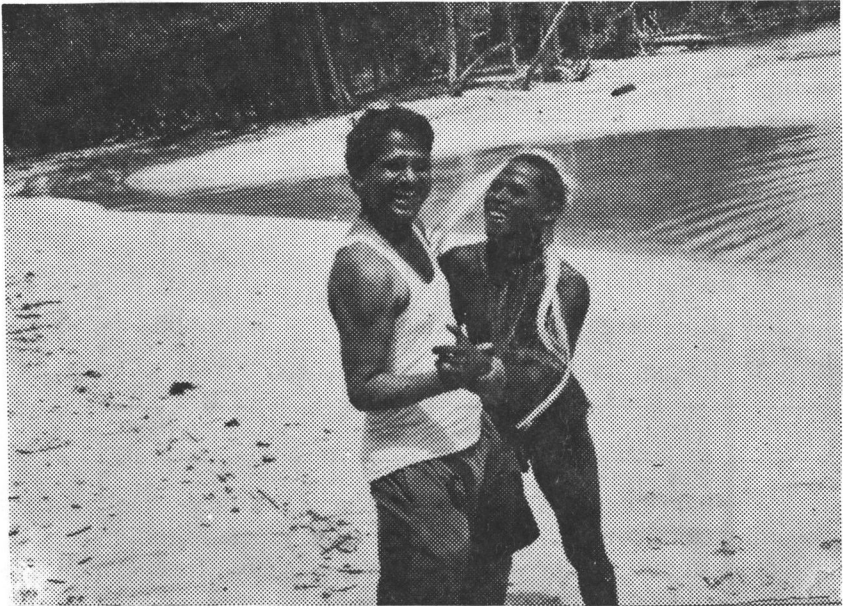
Sl.No.	Kadamtala	Baratang	Tirur
1.	Ole (Emne village)	Thulukochada	
2.	Thanma	Choteacada	Tavo
3.	Holachanane	Vuyenga	Alaini
4.	Holachanane	Thalukachada	Totavikichin
5.	Bothiyetta	Mothebuthue	Vuchikan
6.	Thanethaig	Seethojada	Tatukaile
7.	Nadoama	Peela	Tanma
8.	Yulele	Perla	Tanbohacho
9.	Piyahya	Ohrlar	Openuim
10.	Ochavopodha	Cheepaitha	Thanmachivliya
11.	Vathapo	Verve	Totamojekar
12.	Thothahaid	Pechele	Tava
13.	Devathanade	Eechal	Thanmatoile
14.	Apethalagada	Thuci	Eetha
15.	Chada ika		Thoraitha
16.	Totavag		Tottobha
17.	Battibelai		Tangnagieb
18.	Totasupeer		Untokale
19.	Uthaloulopene		Tomulu
20.	Uliithabawain		Keneanga
21.	Chowkbahe		Thalahe
22.	Dhefee		Talaongne
23.	Mahotale		Enahatte
24.	Gnananumu		Seehole
25.	Mahotole		Yathauvatha
26.	Luluattegane		Uttahoglevag
27.	Apeeviga		Totault
28.	Attavan		Ene teelepa
29.	Orothambodhabu		Thanmayongemana
30.	Kadetholate		Chowka
31.	Edbooth		Poyya
32.	Tatiyenga		Teeding
33.	Thomdande		Thanmag
34.	Hoinga		Toosha
35.	Yenoachada		Tota
36.	Engnai		Dhageeta
37.	Palevale		Thothiyaletth
38.			Meengab
39.			Thathidebha
40.			Maod
41.			Mopadetatte
42.			Tethala

Hunting

For obtaining forest animals they use a variety of methods. Culturally religiously, wild pig is the most important. It is the only wild animal considered in the ritual activity of the Jarawas. The Jarawa uses bow and arrow to hunt the pigs. Generally 3 to 5 men participate in pig hunting after identifying the pig at a time all the men shoot the arrows on the pig, generally the pig collapses on the spot. They are experts in using the bow and arrow in hunting.

Trade of Exchange

No evidences are available that the Jarawas are even having the barter system. To be sure, the Jarawas are surviving only by hunting, food gathering and fishing.



The author with the Jarawa band head -
establishing a bond of affection and understanding

CHAPTER III

THE PROBLEMS OF SURVIVAL

I. Demographic Evidence

Here I tried to investigate, in effect how the Jarawa population is disappearing at a faster rate. Population ecology or the measure of adaptation is the ability of a population to persist, that is to reproduce itself in numbers equal to or exceeding the rate of mortality. Any population decline is not necessarily pathological, the demographic changes are necessarily adaptive or contributory to successful persistence. Territorial abandonment, instability, and sustained decline, in addition to outright extinction, are all acceptable indicators of a population failure to persist and hence to adopt - successful (Swedlund 1978 : 144-145)

In my estimation the Jarawa population may be around 500 to 550 in all the three areas. The following table shows the estimated Jarawa population by area wise.

Table: 3.1 Estimated Population of Jarawa

S.No.	Area Name	Areawise distribution		Total
		Male	Female	
1	Tirur (South Andaman)	80	100	180
2	Baratang (Middle Strait, R.K. Nallah of South Andaman)	45	55	100
3	Kadamtala (Middle Andaman)	100	150	250
TOTAL		225	305	530

The Jarawa population is disappearing at a faster rate there are several factors involved, my close examination shows that the fertility and mortality are not the reasons for depopulation. The major factors involved in depopulation are:

- i) Indiscriminate killing of the Jarawas (especially males) by the Burmese and Thailand poachers. Many Jarawa men were killed

- by the Burmese and Thailand poachers in the areas of Middle Andaman. It is noticed one fourth of the women (out of 23 women examined 6 women are widows) are widows, on enquiring came to know that the Burmese/Thailand poachers killing the Jarawa
- ii) Jarawa men were also killed by the crocodiles while crossing the creeks.
 - iii) Many Jarawas were killed by the local settlers (poachers)
 - iv) Food poisoning is also an important factor for the death of the Jarawas.
 - v) The health problems, the terminal illness often cited is the stomach with dysentery or loose bowels, *amoebic* dysentery to severe infestations of intestinal parasites. I was told some of the death are because of high fever. During my stay with the Jarawas I noticed all the above mentioned diseases.

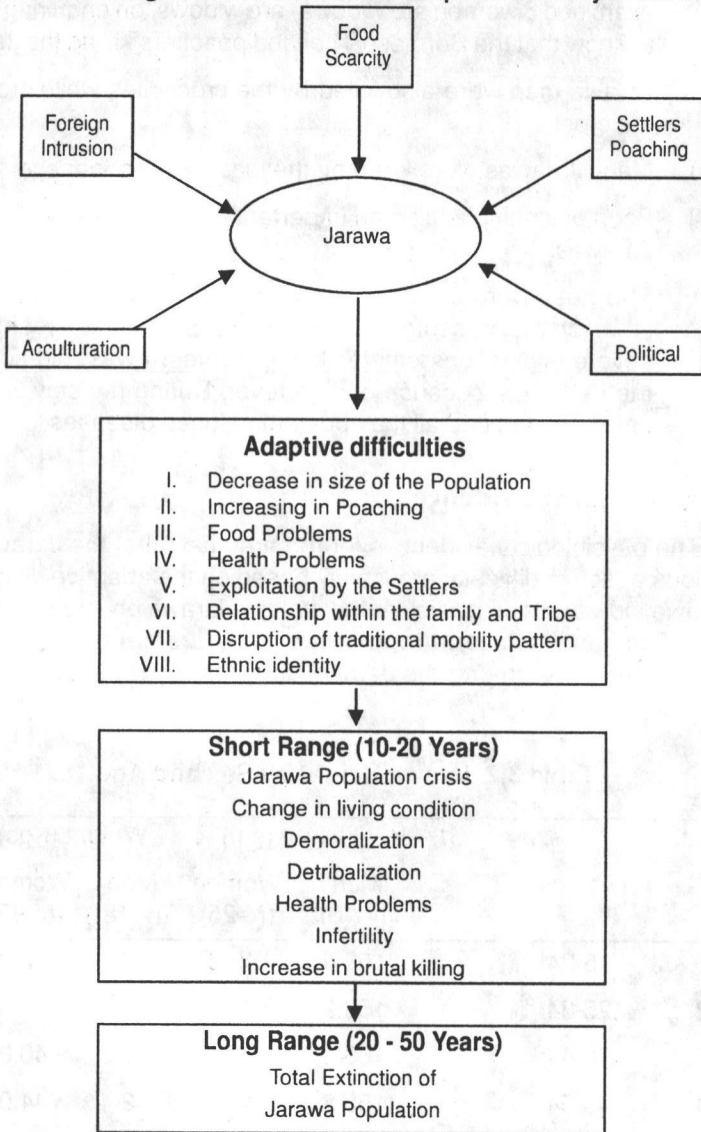
II. Physiological Evidence

The physiological evidences for the argument that the Jarawa are in serious adaptive difficulty are mainly based on the adaptive difficulties of Jarawa individuals, in particular the state of Jarawa physiological well-being. The results of anthropometric measurements and clinical observations made among the Jarawa shows that the Jarawa are well built, strong and healthy.

Table 3.2 Jarawa Height by Sex and Age

S.No.	Age	Height (cm)		Weight (Kgs)	
		Men (n=18)	Women (n=25)	Men (n=18)	Women (n=25)
1.	15-24	156.4	149.8	52.6	48.6
2.	25-34	158.2	147.6	56.4	50.5
3.	35-44	160.5	145.6	50.6	46.0
4.	45-54	155.8	149.4	48.4	44.0
5.	55-64	154.4	151.6	45.5	38.2
6.	65 and above	152.8	146.2	44.7	36.8

Fig. 3.1 Increasing Levels of Stress and Adaptive Difficulty of the Jarawa



The good health conditions may help to account for some of the characteristic features of subsistence and Jarawa demography. The Jarawa are hard working for their subsistence, because of the scarcity of food in the forest, all men and women except the pregnant and old women go in food gathering and hunting from morning to evening.

The health status of the Jarawa also depends on the food availability in the Jarawa reserve forest and, the health status varies according to the seasonal variation. The table 3.2 gives the Jarawa height, weight by sex and age.

III. Social Stress

The concept of stress has not been extensively utilized in anthropology, but it plays an important role in the adoption of changing environment of the Jarawa society. Every day social stress that effect the Jarawa society as they go about their lives are all ultimately experienced by individuals, but the primary social contexts of these stresses vary widely.

The immediate stress is the settlers interference and increasing contact with the Jarawas which has already been discussed, they so directly affect the contemporary subsistence crises. The fig 3.1 shows the increasing levels stress and adaptive difficulty of the Jarawa.

The interference of the foreign poachers is another stress the Jarawas are facing. The Jarawa are not sure that they will come back and see the family if they go on a big game. Always the foreign poachers becoming a threat to their life. As a result the Jarawas are avoiding to go for hunt and food gathering in the threatened areas.

Acculturations the anthropologists long-standing notion for cultural loss. The deculturation occurs in a situations of high "acculturative stress" and entails loss of cultural identity and a "negative relation" to wider, dominant society (Berry: 13-17). The Jarawa population have in fact been started deculturated by contact with outsiders particularly officials and local settlers who act as friends for poaching.

The increasing scarcity of food stress may bring down the Jarawas for detribalization, and the jarawa or going to face the ethnic crises in due course of time. The adaptive difficulties which are facing by the Jarawas may lead to the survival difficulty.

IV. Living conditions

Most of the Jarawa are getting their drinking water from stream or seep which are always near to their settlements. Water courses are regularly used for washing, bathing and defecating. Thus contaminated drinking water is one likely cause of gastrointestinal disease. The unhygienic method of garbage disposal of waste around the huts and defecating near the house yards is another unhygienic practice which the Jarawas are practicing. Flies abound in such areas are likely contaminate unguarded food. Gomes (1982 : 37-38) and Turnbull (1983 : 148-149) also mentions that the unhygienic water procurement and sanitation practices likely promote the spread of infections diseases among the Semang and Mbuti pygmy.

Depopulation and the notion of threshold population size

The present Jarawa population is estimated around 500 to 550 persons, particularly intriguing in view of the attention that has been considered as a magic number in hunter - gathering demography (Birdsell 1968; Lee and Devore 1968). Recent demographic studies shows that the figure 500-600 is more appropriately be regarded as a minimum below which continued endogamy becomes increasingly difficult (Eder 1987 : 126).

Adams and Kasakoff (1976 : 156-157), while recognizing the significance traditionally assigned the number 500, report that the majority of ethnographically known endogamous human breeding populations are larger than 500 and range from 850 to 55,000.

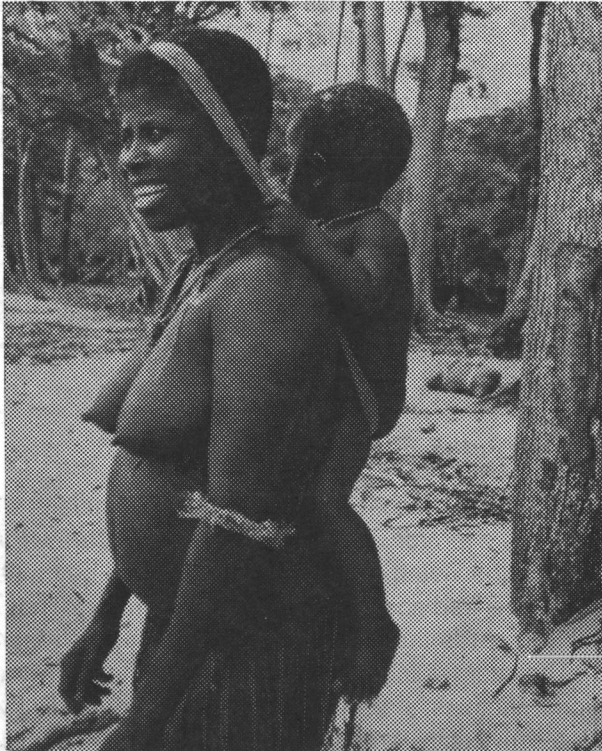
MacCluer and Dyke (1976) in their study of the minimum size of endogamous populations by summarizing an earlier review of the relevant literature by Livi (1949), who

"concluded on the basis of observed population size that populations of fewer than 300 individuals are unlikely to survive; that populations of 300 to 500 individuals are in a state of disequilibrium, on the borderline between survival and extinction; and that, in general, population sizes had to exceed 500 in order to insure survival." (P.1).

The basic notion is the simple one that the number of potential marriage partners for each marriageable individual is inversely related to group size and as group size diminishes (at least in small groups), such individuals begin to experience increasing difficulty in locating marriage partners (McFarland 1970).

In practice, of course, all sorts of restrictions besides actual group size affect the availability of marriage partners. Much of the recent research on the subject concerns how these other restrictions - in particular, the incest taboo - would interact with absolute breeding numbers to produce thresholds of different sizes, depending on the number and severity of the restrictions in question, below which population survival would be threatened. The hypothetical population of 500 to 600 persons (a threshold below which the Jarawa were then falling) would indeed be faced with extinction like the Great Andamanese (Naidu 1998).

The other causes of disability and death among the Jarawa besides are the occupational hazards associated with the hunting - gathering life (Howell 1979 : 54-59). Snake bites, falling from trees, being gored by wild pigs, victimising for crocodiles while crossing the creeks, accidents with weapons - are the things that make Jarawa life dangerous.



Jarawa women, her husband was shot dead by Burmese poachers

CHAPTER IV

WHY JARAWA IS ON THE ROAD?

In Andaman islands the word 'Jarawa' has become synonym to hostility and nudity. The Government of India and Andaman and Nicobar administration are trying to make friendly relations with the Jarawa.

Before the advent of non-tribals in Andaman islands, the Great Andaman was inhabited fully by the Great Andamanese and the Jarawa. The non-tribals are encroaching tribal land, particularly the Jarawa land. Further, under the economic development, they started the resource mobilization by exploiting the basic natural resources of the Andaman islands, the forest and its wealth, by establishing roads, and jetties. The Andaman Trunk Road from Port Blair town in the South Andaman to Diglipur in the North Andaman Island is constructed. The forests were cleared by felling, heavy machinery, high charge blasters and huge man power were employed for laying the road. Labour camps were constructed. This human habitation in the Jarawa territory exploited the resources available there around.

Before the arrival of the settlers, the entire forest produce like fruits, roots and honey were utilized by the Jarawa only. The forest area with its flora and fauna is indispensable for subsistence of hunting and gathering tribe. The extensive forest land on the Eastern side of Middle and South Andaman islands were occupied by settlers, and this had pushed the Jarawa into the Western belt.

REASONS OF HOSTILITY

The Britishers and the ancestors of the Andaman Indians started a settlement in the Jarawa territory in South Andaman. The Jarawa, in those days, used to live in the South of South Andaman and they must have resented such unauthorized encroachment on their territory. They initially reacted by drifting towards the North. This drift was out of resentment, anger and fear. The later feelings grew further when the Jarawa noticed that their traditional enemies, the Great Andamanese were siding with the Britishers and the convicts in various hostile encounters against Jarawa. The Jarawa started considering all the non-Jarawa of Andaman as their enemy.

The formation of convict settlement in the areas possessed by Jarawa for centuries gave a shock to them. Later on other communities like the Karens, Mapillas, Burmans, Bhandus and the Bengalis from Bangladesh also settled down in vast areas after clearing the forest. From March 1942 to October 1945, the Japanese forces did not even spare the jungle dwellers who were aerially bombarded on the basis of some initial hostile encounters. The Jarawa should have felt that these aerial bombardments were aimed at exterminating them. It was observed that the degree of hostility of Jarawa towards outsiders has always increased corresponding to the pressures on them, stifling their existence.

The Jarawa found the outsiders as disturbing intruders who were aligned with their traditional enemies. They were engaged when the outsiders took away their women and innocent children without any fault of theirs. In addition to the capturing of children and women, the raiders indirectly threatened the existence of the Jarawa. In most of the cases the members of expedition and raiding parties did indiscriminate collection of the Jarawa tools, artifacts and other belongings. Such attempts were carried out when the Jarawa were not present in their settlement. Whatever little the Jarawa preserved in their huts were taken away and when the Jarawa happened to return their settlement they found the huts (Mann 1973 : 207) empty. The situation could easily be compared to "stealing" and "looting". To an outsider, the taking away of bow and arrow from Jarawa huts is a very minor affair. But for a Jarawa it is a very major issue because he derives his food with the bow and arrow by hunting and fishing.

The appearance of outsiders on the territory of Jarawas led to the denial of age-old rights and privileges. This was done in more than one way: Firstly the areas of their mobility were shortened. Secondly the area of the forest which gave them various kinds of products to eat, was reduced because of the deforestation done for various purposes. They had the impression that the increasing deforestation would be most harmful to them and ultimately they may find no forest to roam about. This background made them put a resistance to all those who were found connected, directly or indirectly to deforestation. The alien population were not satisfied merely with the cutting down of the forest, but they also encroached upon Jarawa food material. Lot of people have been doing hunting in the forests which the Jarawa have always recognised as the encroachers into that territory. This activity, in conjunction with deforestation, aggravated and flared up the bitter feeling of Jarawa to all outsiders.

The fear, pressure and force of alien people kept the Jarawa shifting from one region to another. In fact they were living in Southern part of South Andaman. Under compulsion their movements started towards North to their original habitations, with the increasing activities like construction of roads, settlement of villages, felling the forest etc.

The Jarawa continue to raid the settlements of refugees and labourers engaged in road building. A road has facilitated further encroachment of non-tribals into Jarawa territory. Indiscriminate destruction of forest on both sides of the road was done. The Jarawa are furious that the road is being laid in their territory because it has further reduced their area of foraging. This road called the Great Andaman Trunk Road, links the three main Andaman islands (North, Middle and South). Because of the intervention of late Prime Minister, Mrs. Indira Gandhi, the work on this road was stopped for some time, but it was completed in the year 1994.

Jarawa raids on the settlements are frequent in summer. They are even seen approaching the settlers wells during the day for fresh water. Further more, in their raids they have also started taking food such as bunches of bananas, coconuts etc from the fields (Bhatt, 1987). All this suggests that the Jarawa are facing a scarcity of food and water in the summer months. Due to large scale deforestation adjacent to the Jarawa, perennial water sources within the Jarawa territory quickly dry up and the forest becomes barren. Poaching by then settlers within Jarawa territory has increased and many poachers have been attacked and killed by the Jarawa. The Jarawa guard their food resources carefully but the poachers often take their revenge on them. The Jarawa movements were intensified till they reached their present positions. The forest were now inhabited by the Jarawa, has been declared as reserved one. Every shift in the past caused many hardships to the Jarawa. After abandoning their old huts, they had to go in for new ones.

Since October 1998 the Jarawas have started coming to the Kadamtala Jetti during day time. In the beginning only few men used to come, then they were not seen upto the end of November 1998. From December 1998 the frequency of Jarawa coming to the Jetti has increased. While returning from Jetti they used to collect the banana from the settlers gardens. In the same period two other areas such as Tirur and Middle strait, also the Jarawa started coming. The Jarawas used to come to the villages to collect the coconuts and bananas. In Middle strait the Jarawa are coming on to the Andaman Trunk Road (ATR) stopping the vehicles for collecting the food items and for travelling in the motor vehicles upto

the Jetti and R.K. Nallah. The young Jarawa boys used to cross the creek by swimming from Gandhi Ghat Jetti to Uttara Jetti and goes to the Baratang police station to get the cooked rice from them. This practice of coming out is increasing day by day. In the Middle strait the problem is very serious. The Jarawa constructed a temporary hut on the road side, from morning to evening they are coming on to the road, stopping all the vehicles and getting into the vehicles. The Jarawa are crazy to travel in the vehicles and to get varieties of food from the travellers.

It is observed that, the Jarawa are very much curious to know the functioning of the vehicles, boat and they are crazy in travelling in the vehicle and boat. The Jarawa youth are interested to dress like the plain people, wearing pants and shirts. They also like to wear bead necklaces and chains.

The Jarawa from Kadamtala and Tirur areas are coming weekly twice or thrice to the villages for collecting the bananas from the agricultural forms of the settlers and return immediately to the forest. It is also observed the Jarawa youth, young children (both male and female) extending very good co-operation/response and expressing inclination to learn many things from me.

The Jarawa are very intelligent, their memory is great, It is surprised to hear after 18 months of gap of my visit to Lukra Lungta they can recognise me and remember my name. They called me by name Naidu *milale* (friend welcome to our place).

There are many factors associated for the Jarawa to come out from the forest reserve areas. The Jarawa waged war and attacks the Britishers and the Japanese, they sustained the aerial bombardment of the Japanese; people. In that situation also they never came-out of the Jungle to be friendly with the outsiders. It appears there are serious multiple factors associated, for the coming out of the Jarawa, from the jungle the factors are:

- 1. Theory of Emne**
- 2. Theory of Foreign intrusion**
- 3. Food Scarcity**
- 4. Encroachment**
- 5. Water Problem**
- 6. Loss of Ethnomedicine**
- 7. Loss of Movement Passages**
- 8. Theory of Realisation**
- 9. Theory of Multiple Factors**

1. THEORY OF EMNE:

There is a strong notion among many local people that the Jarawa boy Mr. Emne is the main person who brought the Jarawa from the jungle. Emne a Jarawa boy aged 18 years found in Kadamtala area on 12th May 1995 with his leg broken. On 15th May 1995, he was admitted in the hospital at Port Blair. He was kept in the hospital for a period of one year for the treatment, after getting cured of the leg, he left the Lukra Lungta area where he lives. It is presumed that Mr. Emne might have informed to the Jarawa that the 'People are very good and they are not enemies to the Jarawa'. This message of Emne can be considered as one of the factors supporting Jarawa's coming out of the Jungle.

2. THEORY OF FOREIGN INTRUSION

The foreign intrusion especially the Burmese and Thailand people are an important factor for the coming-out of the Jarawa from the Jungle. The Burmese and Thailand people are entering into the Jarawa reserved forests illegally for pouncing and illegal cutting of the costly wood. The pouncing generally includes crocodile, turtle catching, collection of sea cucumber, fish, wild boars, deers etc.,

The Jarawa never like the outsiders entering into their territory. The Burmese and Thailand poachers used to kill the Jarawas. The discussion with several settlers and Jarawas shows that many Jarawa men were killed by the Burmese poachers during the attacks. In the year 1996, 14 Jarawa men were shot with the Gun and killed by the Burmese Poachers; the dead bodies of the fourteen Jarawa were left on the rope swing in 1996. After six months the skeletal remains of the fourteen Jarawa were noticed. On inquiry with the Jarawas of Middle Andaman the medicine man was also killed by the foreign poachers.

At the time of collection of the names of the articles the picture book of primary students was shown. When they saw the photograph of a helicopter they started describing in their own language how the helicopter came and attacked the group at Fowl Bay, four men Anhama, Tenhame, Talavaha and Panchamegi were killed, one man Taahaedeyama got injured on the stomach and another women lost the eye. The Jarawa also told

that the Jarawa shot the pilot of the helicopter. They say the helicopter crashed down and fell into the sea with all the crew in the helicopter, dead. The photograph shows the Burmese boats caught by the police when they were illegally poaching in the Jarawa reserved area at Kadamatala region, on 29th January 1999.

The interference of the Burmese and Thailand people in the Jarawa territory no doubt plays a major role for the coming-out of the Jarawa to find a secured place for their survival.

3. FOOD SCARCITY

There is no doubt the Jarawa are facing shortage of food in their forest reserve, because of the following reasons:

- 1) Illegal poaching, of wild boars monitor lizard and collecting of the forest food resources by the settlers and foreigners.
- 2) Illegal fishing, turtle catching etc., in the coastal areas where Jarawa people are living.

The number of incidents and attacks occurred over a period of time shows clearly that the settlers are responsible for the food shortage of the Jarawa.

Many Jarawas were killed by the settlers during the encounters when poaching in the Jarawa territory. The Jarawa never kills a settler without any reason. In the absence of the Jarawa, the settlers used to steal their articles, honey and amber. Knowing this the Jarawa used to attack in the nights the poachers house and used to kill them. To escape from the Jarawa killing the settlers are using electrocution method for killing the Jarawa. One such case was noticed, in Tirur area. A poacher came to know that he is going to be killed by the Jarawa because of his illegal poaching in their area. To escape from the Jarawa attack he made a live electrical wire fence around his house for killing the Jarawa in the night. It so happened that his own son who went for hunting came in the midnight and died by holding the live electrical wire. There are many shocking incidents which happened in the Jarawa region, which affect us to the core.

4. ENCROACHMENT

Encroachment is also one of the major crises that the Jarawa are facing. Encroachment of land creates resentment, conflict and tension among the Jarawa. The opening of the Jarawa area for the outsiders created a feeling of insecurity among the Jarawa and in protest the Jarawa tried to hunt back the outsiders whenever they found the opportunity. There are many incidents which led to damage or casualties among the settlers. But little is known about the Jarawa casualties. The census of India, 1961 data shows that, there were as many as 89 cases of Jarawa raids between 1946 and 1963. Of these in 10 cases, 14 settlers lost their lives, 5 Jarawas were killed and 3 captured.

The construction of the Andaman Trunk Road through South and Middle Andaman brought a large number of labourers into Jarawa land and also disturbed the area by way of felling of trees, blasting by explosives, construction of labour camps, etc. The entry of a large number of people from outside also led to an increase in the incidence of poaching in the Jarawa area. Thus, almost from the very beginning of the second panel settlement, the Jarawa were hardly allowed to remain undisturbed in their own territory. Sarkar mentions that "they were under constant threat of losing their own territory because of several measures taken by the British authorities during the panel settlement and the present national government in implementing development projects. Under such circumstances, they had two alternatives; either to surrender to the larger society, or to continue to strive ferociously to maintain their independent existence" (1987 : 50). Since they still have some territory of their own for hunting and gathering, even if they have been under constant threat of annihilation for generations, they have opted to retaliate in their own way against external pressures. Hence, their unfriendly attitude towards outsiders.

5. WATER PROBLEM

With increasing encroachment in and around the Jarawa area, due to the establishment of new settlements, timber extraction, and the construction of the Andaman Trunk Road that runs through the reserved forest areas, the Jarawa's hunting and gathering areas have shrunk and the number of sweet water sources reduced, causing them a lot of hardship, particularly during the dry months. In the Middle and South Andaman the water resource areas were occupied by the migrate settlers.

As such the Jarawa were pushed into the deep Jungle where the water resources are scanty. It is observed that the Jarawa are facing water problem for drinking.

During summer months the problem is severe. Many Jarawa camps are located near the seep side, the water in the seeps are available during rainy days. During summer they dry-up, so Jarawas are facing acute water shortage problem. The Jarawa used to die because of gastrointestinal disease because of consuming the contaminated water from seeps and canals.

6. LOSS OF ETHNOMEDICINE

The Jarawas are having their own ethnomedicine for curing the diseases which is generally practiced by a medicine man. The general medicine which are applied to the body by all the Jarawa protect the insect bite. In Tirur and Baratang they have the medicine man. In Kadamatala area the Jarawa medicine man was killed by the Burmese poachers. Presently there is no medicine man is available to cure the diseases of the Jarawa in the Kadamtala area. It is observed many of them are suffering with fever (high temperature) stomach pain etc.

Non availability of the medicine man is also one of the reasons for the Jarawa coming-out of the jungle to get the treatment from the hospital located at kadamtala and Port Blair. They are accepting and giving good response for the treatment given by the doctors. So it is true the Jarawas are facing many problems for their survival.

7. LOSS OF MOVEMENT PASSAGES

Due to rehabilitation and encroachments of the Jarawa area, the Jarawa lost their passages for free movements in the jungle to go from one place to the other in search food. Due to the loss of passages, they have to cross the creeks by swimming. During crossing the creeks by swimming they are victimising to the crocodiles. The husband of Thayebi and Emne's sister's husband died in the crocodile accident.

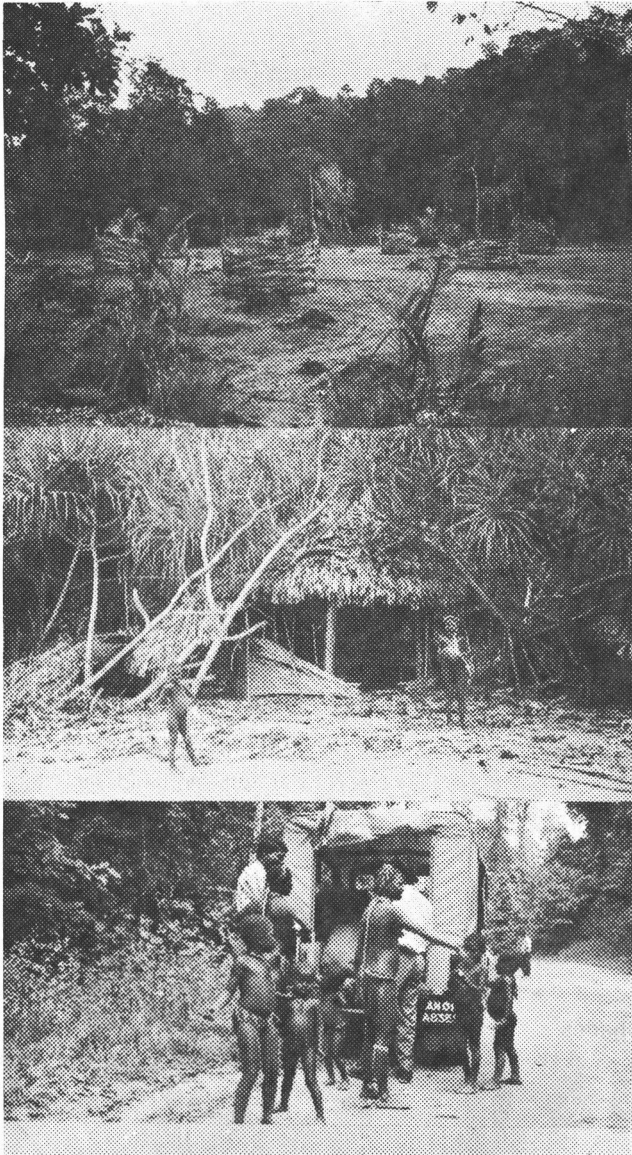
8. THEORY OF REALISATION

Since 1790 the Jarawa are fighting against the British, Japanese, and finally with the migrant settlers. Due to continuous fighting in protecting their territories many Jarawa men, women and children died. My observations show in every area the female population is more compared to the men. It is observed many women are widowed. Very few men are available in the age of fertility. Bush Police played a major role in the efforts that were made after independence to establish friendly relations with the Jarawa. The Bush Police used visit the Jarawa area to drop the gifts like coconut, pieces of iron, strips of red cloth etc., as a token of friendship. The attempts made by the contact party over a period of time, and Emnes impact on the Jarawa also might have played a greater role that the Jarawa realised that the officials who are visiting them frequently are friends and there is no more threat to their life from the settlers. So the Jarawa might have decided that they should also join the main stream of civilization, so that they can survive. Other wise they will perish, because of the foreign intrusion, health and food problem.

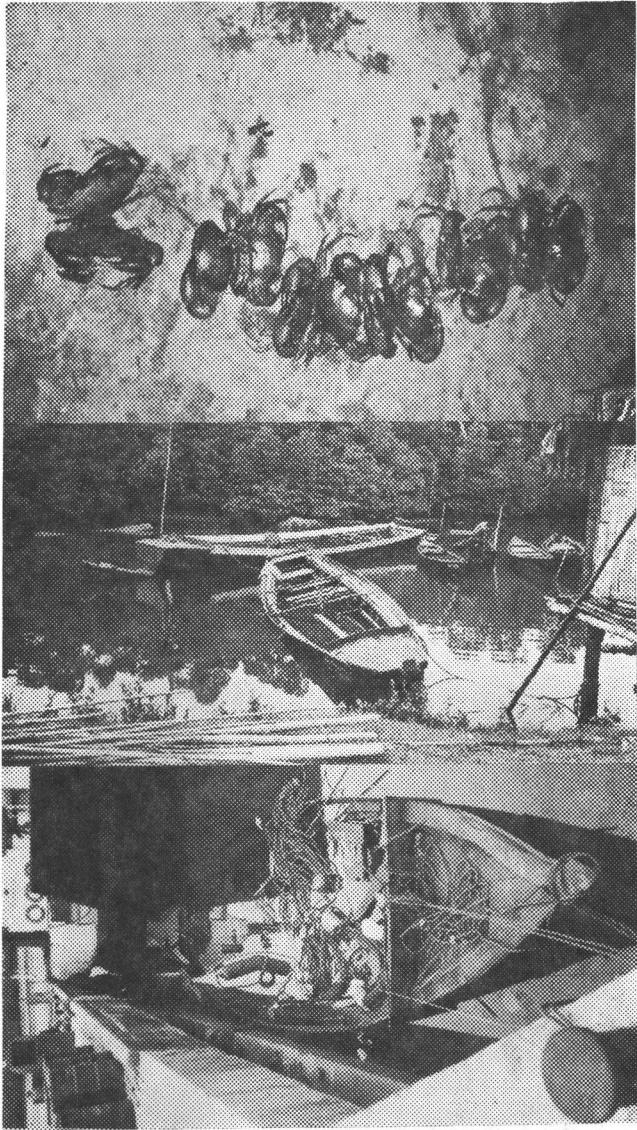
9. THEORY OF MULTIPLE FACTORS

According to the theory that there are many factors which are associated for the coming-out of the Jarawa from the jungle on to the road. The multiple factors associated are threat from the foreign intrusion, scarcity of food and water, death of medicine man, establishment of friendship over a period of time by the contacting officials, Emne's impact, and finally the realization of the Jarawas, that there is no more threat to life from the settlers.

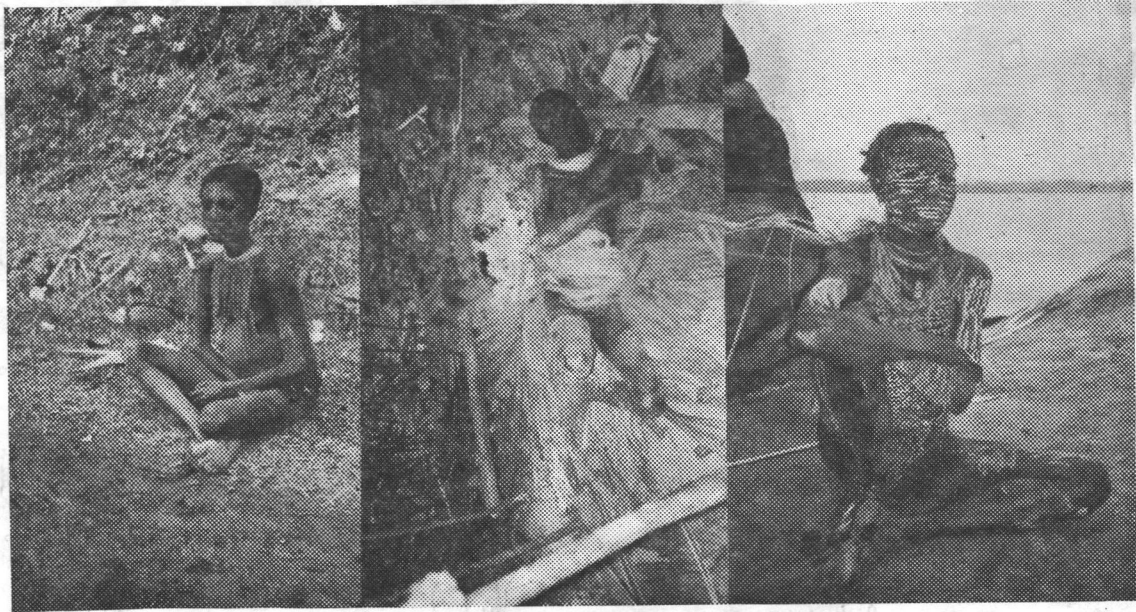
In one of the discussions with Emne and other Jarawas friends a question was asked to them "you (Jarawa) are not afraid about us (including the local settlers and officials) ? In reply they said "We (the Jarawa) are not afraid about you people, instead you are afraid on seeing us". It shows that, they are so confident that there is no more threat to their life.



AAJVS welfare measures, plantation, house constructions and food distribution - needs a different approach and method.



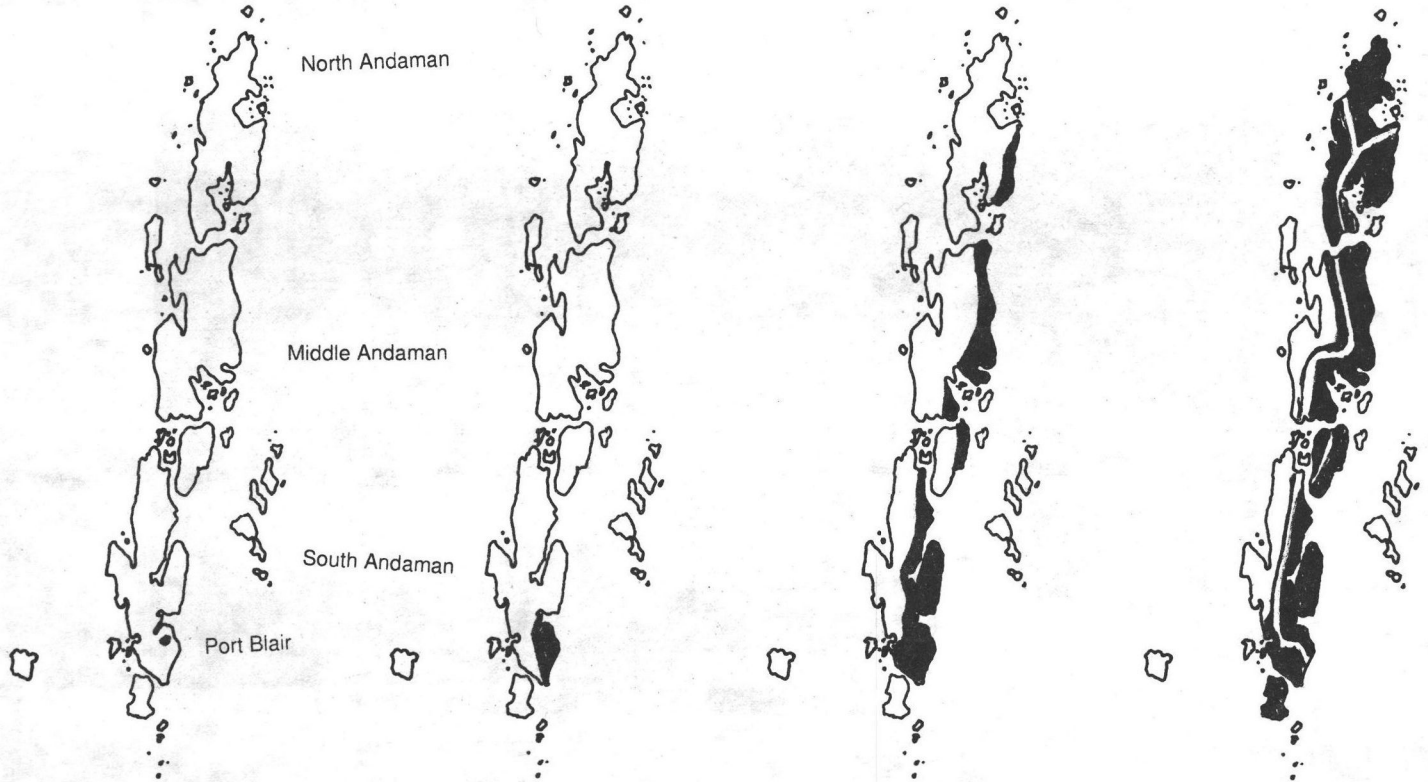
Poaching of crabs by the local settlers(Top)
Confiscated Burmese boats at Kadamtala on 29th Jan '99.
Photo shows the oxygen cylinders and tubes used for
exploiting the Jarawa food resource



The need of the hour is to provide the health facilities - Photos showing Jarawa with health problems.

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Maps showing the encroachment of Jarawa Reserve over a period of time - 1857-1999



Upto 1857
The Jarawa lived freely

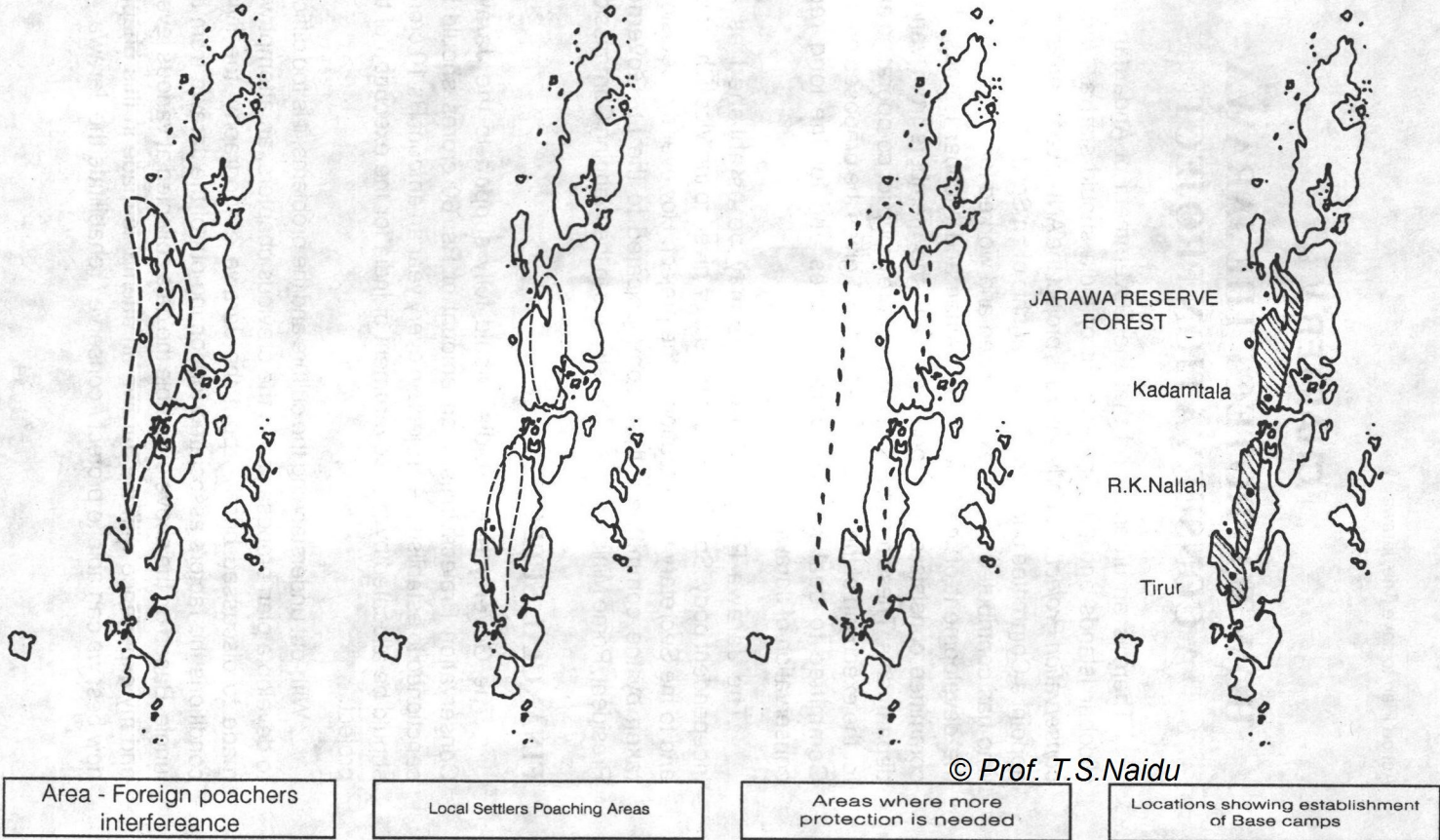
1859 - Establishment of Penel settlement,
1896 - 1910 Cellular Jail convict settlement

1947-1960
Extension of settlements -
non tribal population - 1,97,975

1961- 1998
Refugees - Migration -
construction of ATR - pop. 2,41,453

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Maps showing the areas of Poaching by Settlers and Foreigners in the Jarwa Area



CHAPTER V

HOW TO PROTECT THE JARAWA - A CONSERVATION PROJECT

There is an urgent need that the Government of Andaman and Nicobar Islands and the Government of India should start a "*Jarawa conservation Project*". To undertake this project the ANI government should appoint a Committee under the Chairmanship of an Social Anthropologist who has contributed or well experienced and worked for a long time for the development of the tribes in Andaman and Nicobar Islands. The committee consists of Anthropologists and the members from various departments. These members will form a core group for co-operating and for the execution of the project. The figure 5.1 gives the proposed project Committee to deal with the Jarawa crises and for the long range conservation of Jarawa.

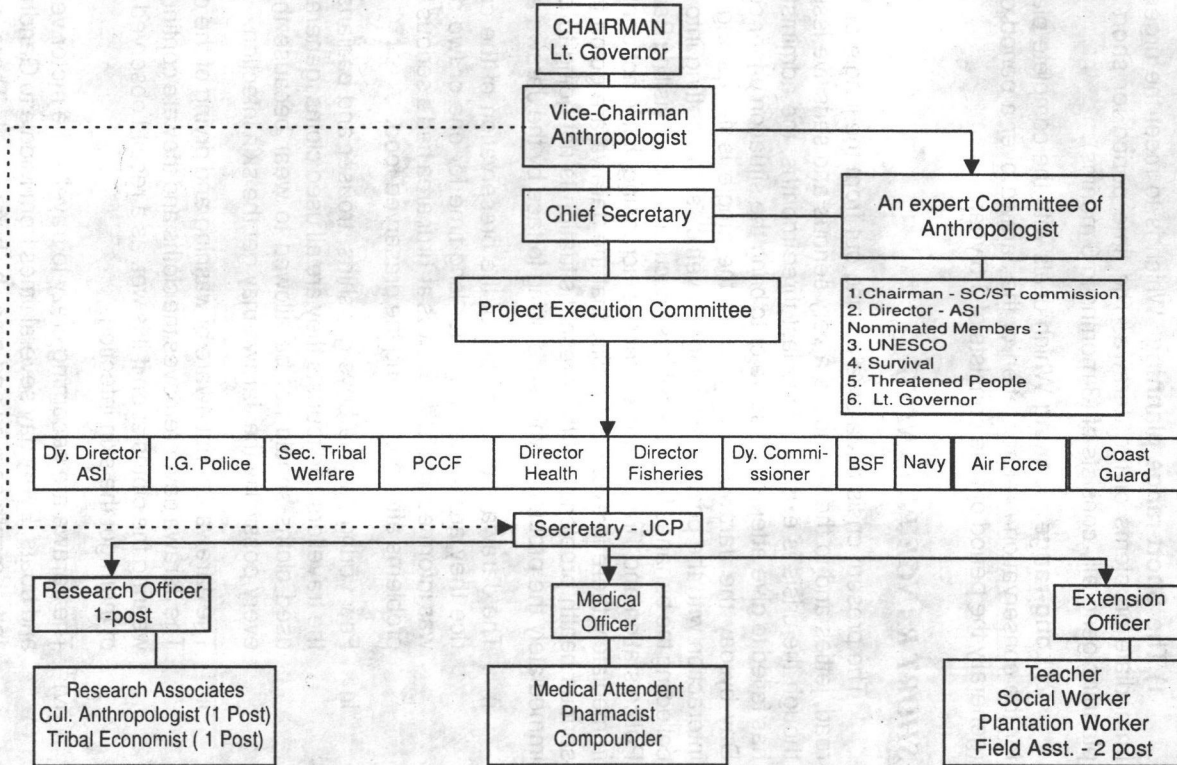
The Jarawa Project Committee may be established as an independent body. Special powers should be given to the Vice-Chairman and to the Secretary for execution of the project. However the decisions taken by the committee will be communicated to the Lt. Governor, President, Prime Minister, Home Ministry and to the Planning Commission.

FINANCIAL SUPPORT

The Government of India should fully support to the Jarawa Conservation Project. Initially an amount of Rs. 60 crores should be sanctioned to establish the project. In every year an amount Rs 10 crores should be allocated by the Government of India for the execution of the project.

With-out understanding the culture and the problems, it is too difficult to develop a plan proposal, so in the previous chapters, an attempt was made to discussed briefly about the Jarawa ethnography, the living conditions the factors associated for coming-out of the Jarawa from the jungle. Based on the above preamble the data collected at various levels, and my experience with the Jarawa an attempt is made in this chapter how best we can able to protect / conserve / rehabilitate the Jarawa.

Fig. 5.1 Proposed Jarawa Conservation Project (JCP) Committee



The proposed Jarawa Conservation Project is divided into two Plans:

1) The Short-range planning Which is to meet the urgent and immediate problems of the Jarawa. The time period for short range planning generally consists of (3 months to 6 months).

2) Long-range planning Which deals with the complete planning for the conservation / rehabilitation of the Jarawa over a period of time (generally the period of time consists of 3-5 years)

SHORT RANGE PLANNING

The present crisis of Jarawa coming out from the jungle on to the road, jetties and to the villages is a very serious and sensitive issue. As though the crisis is existing since last three months, the administration has failed to give attention to solve or to bring the situation under control. Day by day the Jarawa coming-out of the jungle is increasing. Their interaction with the people, stopping the vehicles and getting into them, collecting the bananas from the settlers agricultural fields, visiting Baratang Police station and Tirur for cooked rice is increasing. If it is not controlled immediately there is every possibility that the Jarawa are going to face serious health problems. If the present situation is not going to control immediately the problems which are going to face by the Jarawa are:

- i) The Jarawa are not aware of the preservation of the cooked rice they are preserving it for long time for one or two days. I was informed that few Jarawas at Tirur area had a serious health problems after consuming the preserved food.
- ii) Few young Jarawa boys got shirts, trouser and banians from the travellers and tourists they are all used cloths, generally the used cloths should not be allowed to wear because there is every possibility the Jarawa may get the skin infection.
- iii) The Jarawa are not aware of washing and drying of the cloths. The Jarawa never removes the cloths and they are continuously wearing the cloths even if it is wet, as a result I observed some of them got the skin infection.
- iv) The Jarawa are becoming crazy to travel in the motor vehicles and boats. Every day several times from Middle to Gandhi ghat Jetti they are coming and going by bus or truck. There is every possibility the Jarawa may be killed in accident or get injured.

- v) There is every possibility in due course of time the Jarawa may enter into the urban areas and villages in day time and they may take the belonging and may kill the people who is going to protest against them.
- vi) We must give them a measure of protection in the Jarawa area, so that no outsiders can take possession of their lands or forests or interfere with them in any way except with their consent and goodwill.

The immediate steps to be taken to control the present crisis is to introduce the short range plan proposed to stop coming Jarawa on to the road, Jetties and villages of are:

- i) Immediate action should be taken not to issue the temporary permits for tourists / private cars, vans, buses. The tourist are creating a big problem in Baratang area.
- ii) Strict patrolling is necessary from R.K.Nallah to Gandhi Ghat Jetti.
- iii) Immediately the sign boards should be displayed in all the Jarawa areas mentioning "tress passers will be prosecuted, photography prohibited, food and cloths are prohibited to give the Jarawa etc.
- iv) No vehicle should be allowed to go from evening 4 pm to morning 7 am. in the Middle Strait road.
- v) Presently Jarawa are getting different kinds of food (which are fried in oil containing sugar and salt) from the tourists and travellers which are very harmful for the Jarawa. If the consumption variety of food continues, definitely the Jarawas are going to get different types of diseases.
- vi) Presently the AAJVS is providing banana and coconuts. The excess consumption of banana and coconut is also dangerous. The excess consumption of the bananas may lead to the breathing problem, cold and bronchitis infection. The excesses consumption of coconut leads to the colostril problem.
- vii) Presently none of the outsiders knows the Jarawa language to inform them which is good and bad, what to do and what not. So there is an urgent need to educate the Jarawa about what to do and what not. To get this successful a team of young Jarawa

boys and girls from the three different areas should be chosen, the table gives the tentative list of the boys and girls from three different areas proposed for education.

Table 5.1 List of Boys and Girls proposed for Education

Male		Female	
1.	Thaigna	1.	Kulre
2.	Cheethu	2.	Yoko
3.	Thalu	3.	Thithapale
4.	Bolu	4.	Yoko
5.	Thant	5.	Ook
6.	Shanpapu	6.	Tiyale
7.	Biltale	7.	Haneha
8.	Thenme	8.	Movade
9.	Napuie	9.	Thayab
10.	Chathuyetho	10.	Moba
11.	Mahe	11.	Yogale
12.	Dhagna	12.	Thayebi (Widow)
13.	Lana	13.	Rani
14.	Talu		
15.	Pulue		
16.	Nohav		
17.	Momoav		

All the boys and girls be given two pairs of clothes, a bag to keep their articles, a mirror, soap. The boys and girls should be taken in a separate bus / van to Port Blair to show them how we are living and what the civilization is . The Jarawa are very much interested to know about us and our civilization. They should be kept in a separate building, there they should be taught (with the help of Emne) the basic things about bathing, cleaning of the clothes, drying of clothes, cooking food, eating food, preservation of food etc.,

The Jarawa is very sharp in learning the language, they are very co-operative, so there may not be any problem to educate them the Hindi language.

The selected boys and girls should be taken every day to show different educational institutions museums, student hostels, Police and Military parades, so that they can able to understand the way of life how we are living.

This practice should be continued for a period of 15 to 20 days, after establishing a good rapport confidence, through these young boys and girls we can able to control the Jarawa coming-out from the Jungle on to the road, jetties and villages.

Through the friendship we can able to know the problems the needs and reasons for coming-out the Jarawa from the Jungle.

It is also proposed to establish a temporary base camps at Middle Strait first and later at Lakra Lungta and Tiurur areas. In the base camps it is proposed to involve the Jarawas in cooking, cleaning the vessels, cloths, medical treatment, settlement cleaning by way of participation. So the base camp helps to control the Jarawas not only coming on to the roads and to the villages but also helps to a greater extent to educate the Jarawa on health and hygiene.

The short range Action Plan may definitely help the administrators for immediate control of the present crises.

LONG RANGE PLANNING

The long-range planning includes a systematic development of the Jarawa tribe. The major developmental issues associated in the long range planning are:

1. *Conservation of the natural resources*
2. *Rehabilitation*
3. *Health improvement*
4. *Educational planning*
5. *Economic development*

1. CONSERVATION OF NATURAL RESOURCES

The ecosystem within which traditional 'primitive' societies are surviving are necessarily those that are particularly well suited to the ways of life practiced by the members of the primitive societies. The Jarawa primitive society living in Middle and South Andaman are ecosystem dependent, meaning that they occur within a single ecosystem, or utmost they are making use of few ecosystems, and all are subject to the ecological controls within one ecosystem. In contrast the dominant cultures in these areas drawing the resources of the biosphere and there is every possibility that they can override the normal controls within any single ecosystem.

This had made possible for the disruption or destruction of the components of an ecosystem than is possible to an ecosystem dependent Jarawa tribe. The indigenous cultures have developed in such a way as to provide for an ecological balance between people and the environment, this balance is upset by interference from biosphere dependent cultures. Such a kind of dependency by the outsiders, there is every possibility that the indigenous people will be effected with food shortage, population growth, health and they gain access to technologies not previously available, which in either case leads to disruption of the systems within which the Jarawa had previously coexisted.

The ecosystems occupied by the Jarawa aboriginal tribal population is also the place in which the greatest members and variety of the larger wild animals of the world also survive. This wild life provides either the principal sustenance or at least an important emergency reserve of food or other materials for indigenous people.

Before establishing the colonial rule, the Jarawa were dwelling South, Middle and North Andaman. The Jarawa now occupy an are of 642 sq. Km. earmarked as Jarawa Reserve on the western coast of South and Middle Andaman Islands (AAJVS 1977 : 32). The territory of Jarawa diminished to a greater extent.

A substantial amount forest area of Andaman islands was brought under revenue for the settlement of refugees under the Government rehabilitation and colonization programmes, with concomitant programmes related to building up of infrastructure facilities like roads, water supply electricity supply etc., Apart from these authorised programmes the illegal encroachment of the forest reserve by the migrants has increased to a great extent in the areas of Kadamtala and Tirur there by reducing the Jarawa territory. The encroachments are still continuing.

The Jarawa who once inhabited in a vast area of Great Andaman from Rutland Island in South to North Andaman have now been pushed to the western coast of South Andaman and Middle Andaman.

There is a great need to conserve the present existing Jarawa Reserve because the main subsistence of the Jarawa is hunting, fishing and gathering. The Wild boar and monitor lizard are the main game for the Jarawa. The population of wild boars are not available, nonetheless it has been declared as endangered species. The illegal poaching of the wild boars by the settlers has resulted shortage of food to Jarawa.

Honey is an important source of food for the Jarawas, the cleaning of forest and raising of agricultural crops by the settlers has also resulted the bee flora. The Jarawa generally fish in the shallow coastal waters and creeks. They never fish in the high sea. The fish and mollescans turtle are the predominant marine sources of food for the Jarawa. The Burmese, Thailand and few migrant settlers from the near by areas are pouching illegally these resources, there by the Jarawa are finding very difficult to get their food.

There is a great need to conserve the Jarawa reserve forest . The conservation of the reserve forest of Jarawa helps not only conserving the flora and fauna but also it takes care of the Jarawa for long living. The following suggestion are made for the conservation:

- i) The entire territory of Jarawa reserve should be fenced as proposed by Awaradi (1990) a "Buffer Zone" can be developed to protect the Jarawa and the ecosystem.
- ii) The territory should be given to the Border Security Police (BSF) to protect the illegal entry into the Jarawa Reserve.
- iii) Strict vigilance should be made in the creeks and on the entire coast of Jarawa reserve by the coast guard / Indian Navy.
- iv) Periodically the Indian Airforce should conduct an aerial survey in protecting from the foreign poachers.
- v) Coast Guard controlling points should be established at Flat Island and at Spike Island. So that the trespass upon the Jarawa territory from the sea front shall also be stopped by regular patrol along the Western coast. The Coast Guard the Navy should maintain constant vigil on the foreign and inland poachers. The Indian Coast Guard has the base in Port Blair and has number of speed motor vessels to guard the Jarawa reserved coast. To guard the Jarawa reserved coast it is proposed that the Coast Guard should establish their camps at Spike Island and Flat Island.
- vi) To safe guard the Jarawa territories, resources and Jarawa people, the help of Indian Air Force, Navy and Military may be sought for a period of atleast five years.
- vii) The outsiders, who illegally cross the boundaries for poaching should be punished seriously (at least minimum 10 years imprisonment may be given)

- viii) Awareness should be created among the inhabitants of the Islands about the importance and value of the Jarawa population and the need for the conservation of the Jarawa by way of mass communication.

2. REHABILITATION

The Jarawa may not withstand destabilization forces particularly exploitative forces of the mainstream the poachers . After becoming Jarawa friendly since last three months the unauthorised poachers are visiting the Jarawa with gifts and are easily exploiting them and the innocent Jarawa are becoming victimised of the powerful exploitative elements. Steps should be taken to stop the exploitation. The first step is to prevent the exposure of the Jarawa with their present state of culture to the mainstream culture till they are equipped for coexistence, without being victims of exploitative forces. As a step the illegal poachers / tourists contacting the Jarawa should be prohibited by preventing all unauthorised movements of the poachers / tourists in the Western coastal waters of South Andaman and Middle Andaman islands. The BSF and the Coast Guard should prevent such contacts. Awaradi (1990) in his Master Plan proposed to develop a "Buffer Zone" around the settlement area, to protect the Jarawa. This proposal may be considered to keep the poachers away from the interference of the the Jarawa Reserve.

There is a need to develop of base camp in the beginning at the Lakra Lungta, then it may be extended to Tirur and Baratang areas. Extension officer will be the in-charge of the base camp under him there will be a Medical Assistant, Teachers, Plantation worker, Anganwadi worker and Social worker.

The function of the base camp are :

- i) To identify the natural resources available in the Jarawa area
- ii) To prepare a resource map
- iii) To identify the basic requirement of the Jarawas
- iv) Based on the requirement to construct the houses by involving the Jarawas in the construction
- v) To identify and develop the water resources and to provide safe drinking water.
- vi) To provide nutrition food to the pregnant, lactating women and to the children upto 5 years old.

- vii) To identify the land suitable for plantation.
- viii) If the situation is congenial and the Jarawas are interested to have the houses, the project can take-up construction of the houses according to their desire and at the needy places.

3. HEALTH IMPROVEMENT

There is an urgent need to look into the health problems of the Jarawas. The Jarawas in the interior areas are suffering with diseases. As I have already mentioned that the Jarawa medicine man in Kadamtala area was killed by the Burmese poachers. Presently there is no medicine man is available to cure their diseases, so there is an urgent need to establish a Jarawa Health Centre in all the three areas, with Medical Attendant and a Pharmacist. The Medical Officer will be incharge for all the three areas. He will be visiting periodically to all the three areas. The health management strategy proposed by Awaradi (1990 : 179-181) may be considered.

Among the acute diseases are the infections of the respiratory system, gastro intestinal infections, skin infection and fever. Among the chronic diseases few of them are suffering with parasitic nutritional anaemia.

4. EDUCATIONAL PLANNING

There is an urgent need to give education for Jarawa survival. The Jarawas are showing good response in learning, they are very intelligent, and are having great memory power. It may not be a big problem for Jarawa to learn Hindi. It is proposed to start a Primary School at Lakra Lungta area in the beginning with two teachers, then it may be extended to Tirur and Baratang areas. The Jarawa should be educated in the following areas:

- i) They should be taught Hindi language, it is easy for them to learn Hindi. During my field work, I observed the young Jarawas already started talking few Hindi words. Two Jarawa girls learnt to sing two lines of a Hindi song.
- ii) The Jarawa are very co-operative they should be taught in participating the way of cleaning clothes, drying the cloths, cleaning the habitation, cooking, preservation of food and disposal of the waste.

- iii) The Jarawa should be taught about their territorial rights, the constitutional provision, the resource management and the conservation of the resources.
- iv) Jarawa should be trained to use boat as a mode of transportation, especially in creeks crossing. Because many of them are victimising to crocodiles when they are crossing the creeks by swimming.
- v) Some of the Jarawa boys shown interest that they wanted to be like a police, I suggest that some of the Jarawa adult boys may be given police training, so that they can able to safe guard their people and resources by themselves.

5. *ECONOMIC DEVELOPMENT*

There is a great need to develop the economic status of the Jarawa. They should not be made to depend totally on the Government for their food and become lazy like the Onge and Great Andamanese Tribe. Care should be taken that the developmental programmes should be introduced in a systematic and by phased manner, not in a hurried manner.

- i) First they should be taught about the barter system of economy.
- ii) In the barter economy only the accepted food articles like banana, coconut, rice implements, vessels etc., recommended by the Jarawa Project Committee should be provided.
- iii) The cloth is one of the demanded commodities, only cotton cloths should be provided to the Jarawa. The cloths recommended are cotton loose half-pants and bush shirts for men, cotton loose midi and a loose shirt for women.
- iv) Their fishing technology should be increased by providing gill-nets and boats. Over a period of the time identified Jarawa men may be provided the mechanised boats and bigger gill-nets for fishing. The services of Directorate of Fisheries Department may be seeked for the fisheries development of the Jarawa.
- v) The Jarawa should be involved in horticulture plantation. The forest department is already involved in plantation in the Jarawa

Reserve Forest. A separate cell in the forest department should be started for implementation of scheme more vigorously.

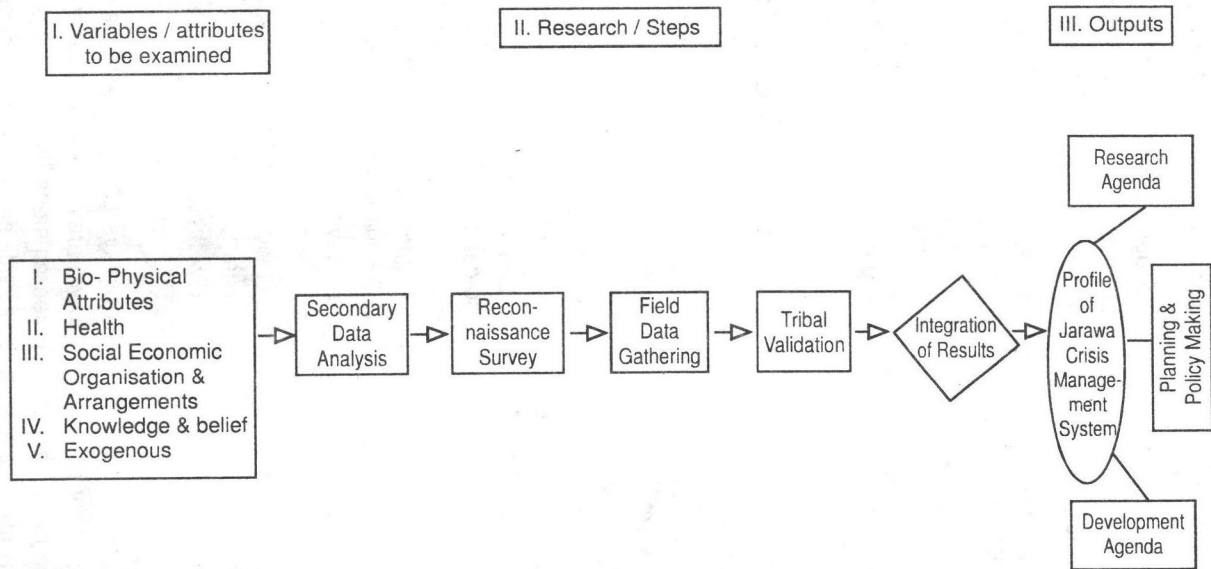
- vi) It is also recommended to identify certain patches of land which are suitable for horticulture. The identified tropical fruits, vegetables should be allowed to grow in these areas.
- vii) Aerial broadcasting of the seeds (Awardi 1990 : 173-174) may be considered. Before broad casting of the seeds, it is necessary to identify the different ecological zones and the type of plantation suitable for the ecological zone.
- viii) In all the economic developmental activities the Jarawas should be involved.

JARAWA CONSERVATION MANAGEMENT SYSTEM - A MODEL

In many tribal societies, a dualistic system of resource management exists. An informal management system, devised and implemented by the tribal society of resource users, often coexists with a formal government management system. Often, the non-tribals are unaware of the informal systems as these are not easily observed or understood. Some of these systems have worked well at meeting the management objectives of the tribes and at achieving the ecological sustainability, social equality and economic efficiency. The tribal societies can be developed without disturbing the existing informal systems. Ostrom (1992) stated that : "If a people has lived in close relationship with relatively small common pool resources over a period of time, they have probably evolved some system of limit and regulate use pattern.... . Before one imposes new rules on local systems, enquiries should be made to determine if some rules and customs do not already exist if customs and rules do exist, study these carefully in order to understand how they affect use pattern over time" (293-318).

The three components which plays a major role in the conservation and development process of Jarawa are I contextual variables and their attributes to be examined II Research steps III expected output. The fig 5.2 presents the data acquisition / verification scheme to appraise existing Jarawa resource management system

Fig. 5.2 Data acquisition and Verification Schemes for Jarawa Development



I. The Variables to be Examined

The bio-physical attributes which pertain to the Jarawa dependency for their subsistence both on forest and on the marine environments, are important determinants of the biological productivity and sustainability of the forest and marine resources in a given area. These include the status of the forest and coastal habitats and the state of resource exploitation. To help define the status of the subsistence stock, emphasis should be given to species they hunt and fish.

The health attributes focus on the different types of diseases existing among the Jarawas, pattern of curing the diseases and the extent of ethnomedicine practice and the belief system among the Jarawa.

The attributes of social, cultural economic conditions and characteristics include, religions beliefs and practices; traditions and customs; the degree of social, cultural, economic and locational heterogeneity or homogeneity. The impact of poachers on the resources utilization also includes.

The exogenous variables includes the sudden shocks which change or affect the survival of the Jarawa. They are recent (i.e., dated to within the last three years) but the Jarawa management system should be put into an historical time frame.

II Research Steps

The second component pertains to research steps. These are :

1. Secondary data analysis, 2. reconnaissance survey
3. field data gathering and 4. tribal validation.

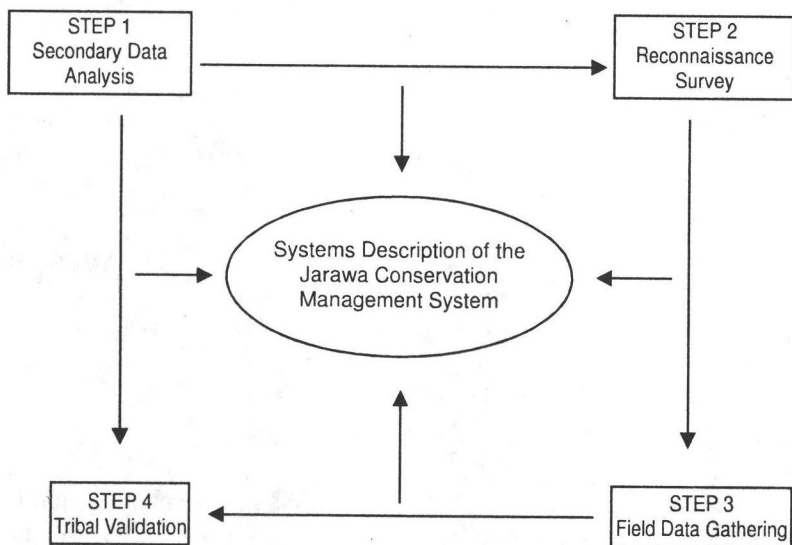
The four steps process is very important and it takes long time for analysis and report submitting.

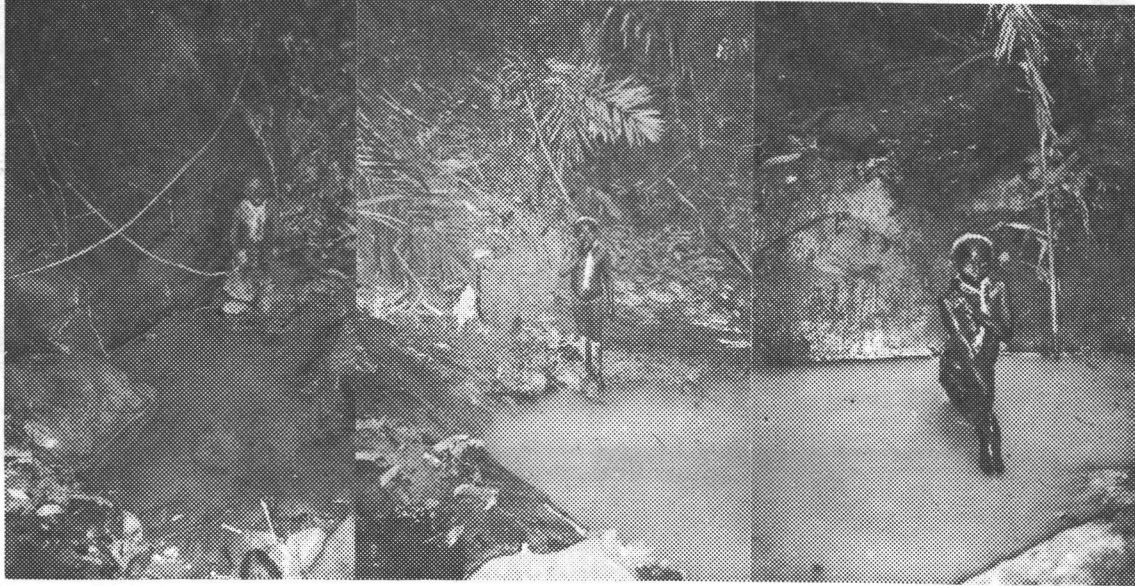
The four steps becomes a series of generating and verifying data for the given set of relevant attributes under examination. The Fig.5.2 provides a system description of the Jarawa conservation management system.

III. Expected Output

The third component refers to the outputs to be generated at the end of the exercise. Data collected from the secondary and primary sources will be integrated to produce a technical report. The document, which may be entitled as "The Profile of the Jarawa conservation management systems". The report consists of four sections: the basic profile of the Jarawa; the institutional analysis of the resource management system; the health and demographic problems of survival and the recommendations related to planning / policy making, research and development. The development recommendations will indicate the investment areas to be concentrated for the development of the Jarawa aborigines.

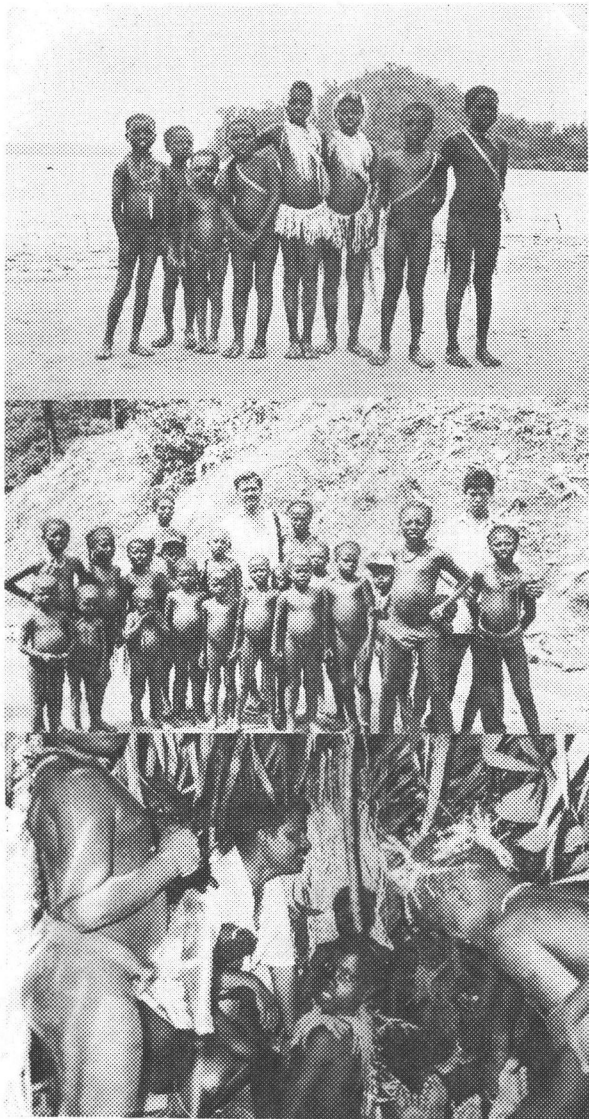
JARAWA CONSERVATION MANAGEMENT SYSTEM



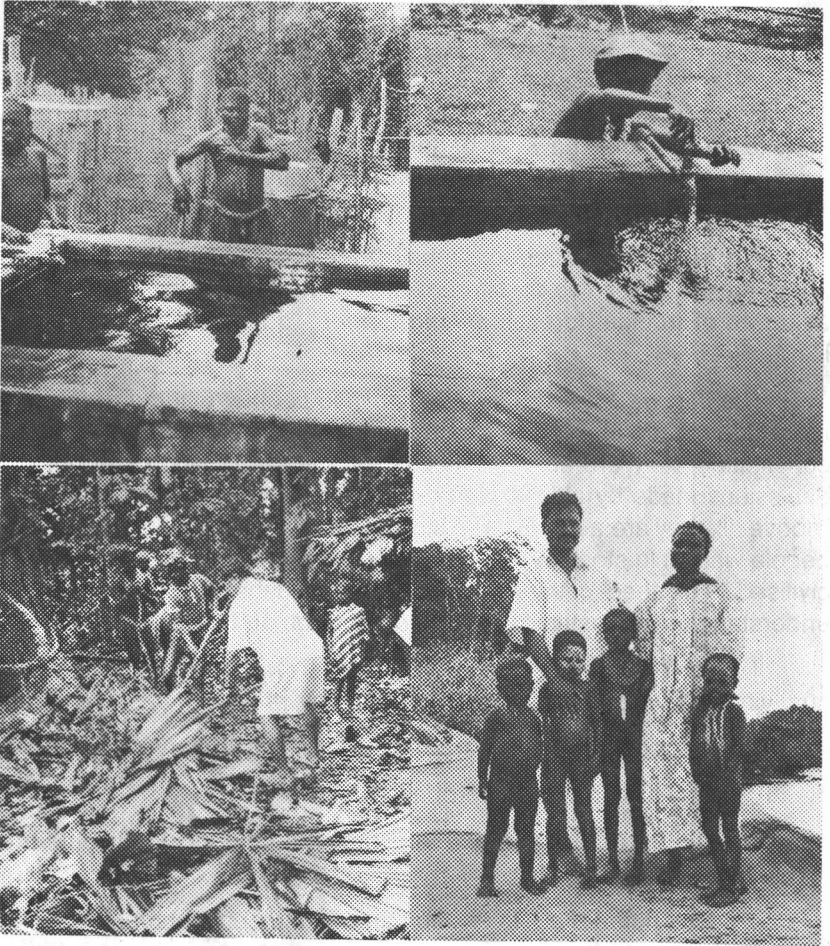


The seep water using for drinking and bathing - many Jarawas are suffering with gostrointestinal diseases - The need of the hour is to provide protected drinking water.

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The Jarawa are extremely disciplined people - The need of the hour is to understand the Jarawa, educate them, make them understand and establish a bond of affection and understanding.



Participatory education method can be followed to educate the Jarawa, taking bath, cleaning the settlement to learn, health and hygiene. (Right down) Thayeebi a widow - her husband was killed by the crocodile.

CHAPTER VI

JARAWA SURVIVAL

Based on the observations in my conclusions I can able to argue, that the Jarawa some how "do better" in the circumstances that confront them, despite the presence of genuine adversity, they perhaps survive and even prosper.

We have to learn enormous amount from their indigenous inhabitation about the way they live in different environments. The knowledge and attitudes of tropical forest dwelling hunter - gathers like Jarawa are instructive.

The Jarawa are extremely disciplined people. Often a great deal more democratic than most others in India. Even though they have no constitution, they are able to function democratically and carry out the decisions made by elders. Nehru in his address (1952) mentions that "above all, they are a people who sing and dance and try to enjoy life; not people who sit in stock exchanges, shout at each other and themselves civilised." The need, of the hour, is to understand the Jarawa, make them understand us and establish a bond of affection and understanding.

If we co-operate the hunter - gatherer Jarawa have every chance of surviving as hunter - gathers and of living well, provided:

- i) their economic resource zone and spiritual territory is conserved;
- ii) they are provided appropriate medical aid;
- iii) the brutal killings of the foreigners and the local residents are stopped;
- iv) their number are in equilibrium with their environment;
- v) they should not be demoralized;
- vi) the government extends all the constitutional rights.

The full area of economic territory forest and coastal zones used for hunting fishing and gathering should be brought under the military control for providing a rich resources zone for the Jarawa.

Medical aid is very much essential, especially as some diseases they will be suffering will have been introduced since the earliest contact

with other people. However, there is a danger that medical aid is given in ways other than compensatory, when it can become a form of cultural aggression displacing indigenous medical techniques and materials.

Contact generally causes a decline in the population. It is of course highly desirable that the population rise to the pre-contact norm and then re-stabilize (assuming, of course, that it was indeed stable beforehand). Unfortunately, contact can also destroy the cultural controls that formerly kept the population in equilibrium with its environment. The only way of preventing this is to allow the people in question to retain its social structure, materia medica and so on.

Robert Allen (1975) mention that "nine times out of ten, however, the social structure collapses, sometimes because the population falls so low that certain kin and other alliance groups are wiped out, sometimes because of unnecessarily hasty attempts to integrate the people into the dominant economy, sometimes because of prohibitions on certain forms of behaviour (for example, religious). The greatest enemy appears to be demoralization -- a loss of faith in their own way of life -- caused by any of the above events, or even by a feeling of importance when confronted by superior technology and such abundant evidence of great material wealth". Since there have been relatively few attempts to do anything other than assimilate, integrate or destroy (sadly, too often synonymous) tribal people, we do not really know what to do about this, than to be very careful about giving gifts once friendly contact has been established, and to make it quite clear that we regard their culture as equal to ours and in certain respects superior.

In von Furer-Haimendorf's (1982) analysis, the Apa Tani's "harmonious integration into the economic and political structure of the wider Indian society". Which stands in marked contrast to the "gloomy picture" in the rest of tribal India, owes in large part to their continued "freedom from oppression and exploitation" by outside peoples (ibid. : 286, 295). That they are still "masters of their own house" reflects a self-conscious government policy to integrate them into a wider political system without disrupting the traditional social order. This goal was achieved by promoting education and by granting the Apa Tani considerable autonomy to run their own affairs while protecting them, with legal measures, from land alienation and economic exploitation by non-tribal settlers (ibid. : 295-298).

Dispite changes that occurred in "traditional culture", all of these peoples somehow managed to preserve their own identity, a condition typically cited as both evidence for and cause of successful adaptation. In other words, these peoples know who they are and, accordingly preserve their dignity and self-esteem (e.g., Tonkinson 1974 : 147; Bruner 1976: 243).

The new settlements in the Andaman Islands are growing at a faster rate because of transportation and communication facilities. The growing population has made Jarawa reserved land easily accessible to illegal homesteaders. The Bush Police who is supposed to prevent poaching, illegal use of Jarawa land, entry by unauthorized personnel into Jarawa territory etc. The Bush Police appears to be not effective as poachers hunting for deer and wild boar on Jarawa territory are reported to regularly kill any Jarawa they encounter including women and children. Myka (1993) mentions about the activities which are fast changing. "The jarawa have no say; if encroachments is not stopped they will die. There is mad hunt going on. Let us grab their land (the Jarawa). People think those people are just like animals. In the British period that was reserved area, now so many people encroach. The Jarawa come to us for friendly relations. They want to hunt and have fresh drinking water. This doesn't mean we should clear away the forest and build huge buildings. The government should take them (The Jarawa) into consideration. Corruption, you see, is a big problem, they (the settlers) give money to those jungle officers and they encroach" (124).

Illegal entry into the Jarawa territories and merciless killing of the Jarawas by the Burmese and Thailand poachers should be controlled by seeking the special assistance of Indian Navy and by establishing Coast Guard or Naval bases at Spike Island and Flat Island.

Immediate efforts should be made to learn the Jarawa language and also the Jarawa should be taught the Hindi language, so that the Jarawa can able to communicate their problems / requirements easily with the officials. The AAJVS should request the Central Institute Indian Languages to submit the Jarawa report on Jarawa language immediately so that the researchers and officials can make use of the language.

There is every possibility we can save the Jarawa hunter - gatherers with the support of people, Government and conservationists joins together. A unique area of Jarawa tropical forest can be conserved, while at the same time assuring the Jarawa their way of life. In 1951 Chengappa

the Chief Commissioner expressed his view in protecting Andaman tribes while I agree we should not try to disturb the normal conditions of life of these tribal people, I feel it to be the duty of the state to see at least that they are brought to human level. It would be worth while putting some Social Anthropologist on the job. They would atleast be able to suggest steps for improvement of their living conditions" (Census of India 1951: XLIX).

There is an urgent need to organise an international seminar at Port Blair, by inviting the eminent Anthropologists and scientists from India, experts from International organisations / Universities and the involvement of United Nations Organisations such as UNESCO, WWF, IUCN, Survival International, IUEAS, Society for Threatened Peoples etc., are very much important to develop a Jarawa Conservation Project and to implement it in a better way for the conservation of the Jarawa.

I have written at length; to present before you (an Anthropological perspective) and for this I apologize. But I have done so because, I think it is valuable for the government, the administrators, policy makers and to the scientists to have a clear idea of what is happening to the Jarawa and how to bring the situation under control immediately and for a long range planning for the conservation of the Jarawa and the environment.



Jarawa drinking stream water

THE JARAWA LANGUAGE

An attempt has been made to prepare Jarawa language with English equivalents, the list of words may help the administrators and the researchers for easy implementation of the Jarawa Conservation Project.

English	Jarawa Language	English	Jarawa Language
Jungle	tapewa.	Arrow (pig)	ocekalewar
Creek	iniquawor	Clothes	anonanga
Sea	bilowa,	Gun	ubadang
Wet	terga	Rafter	idoag
Cold	anja-anja-wa	Iron	thanma tanhi
Lough	tanga, bawato	Medicine	kalower
Cry	wana	Butterfly	popo
Sing	goga	Crab	akko
Tomorrow	kokator	Pig	wowa, owawa
Small	pone-gaga	Boar	dahivago
Big	Hutugaga	Banana	chonela
Go	penewa	Coconut	dag,
Come	laha	Honey	latowa
Eat	tite	Milk	kago
Drink	incho	papaya	thalao
Give	-i-	Yam	matohatang
Bite	itha	Leaf (used for fever)	arroca
Bring	tainge	Flower	ohago
Call (verb)	lawe, lewa	Daughter	wayower
Carry	pa-per, ka-to	Drink	incho
Fire	tu-o-wa, Tuhava	Hair	anotewa
Ash	wuewa	Husband	agiwa
Pregnant	tayoma,	Sister	waniwer
Arrow (fishing)	Toma	Jarawa	iirinda
Arrow (iron)	batoi	Onge	Yoono
Arrow head	piboan	civilian	iine

English	Jarawa Language
water	iin
Woman	linaab
Old man	iingaaw
Old woman	iingyaab
Old person	iingamaame
Young woman	oggiyaab
Child	isele
Pregnant woman	Inyoom
path/road	iisiile
there	luwaa / luwaaya
I	mi
you	ni
Good	iisye/diisye
Bad	biti bit
Who/ What	oone / oonaadu
How	ka unna
Mother	Kaayoe / kaaysegi
Father	ummi
Wife	ariaabe
Chain	csenuhuwa
Cot	uyaagi
Umbrella	ettokku
Bag	taawokeya
Deer	kaatopyaal
Turtle	uukale
Elephant	teeyuuti
Camera / photograph	Innotobiine
Star	cilrpe
moon/	taape

English	Jarawa Language
Sun	eheeyu
Earth	tootaale
Sky	paanna
Mosquito	iino
Frog	iitr
Cow	wrpaayti
Cat	oontoonyete
Bucket	saanle
Stomach	Iniie
Fish	naapo
Hen/egg	nooha
Axe	tootaale
Ship / boat	taa / taan
Bottle	etta
Jungle potato	gigiyu / gigi
Hot	ulluuga
Pegion	oorko
Paste	wrrrda
Jack fruit	aap
Sweat	ootagiile
Skin	atti
Night	tee doow
One	wrrrya
Two	naxya
Hut	caada / chada
Bow	aaw / aa
Well	toomo
Unwell / sick	ullrriido
Fishing net	booto
Cloud	uuyiyu
Python / snake	toop

English	Jarawa Language
Name	Attiba
Boy	Daa
Girl	tooyd
Man	lInnaagi
Water	iini
Young man	oggid
Afterwords	aaIRD
Rain	uuwd
Air / Wind	Piink
My friend	Miitijiile
Yellow paste decorated on the face	Wrrrda / Wrrda
Pain	aayhu
Wood	Taanaadu
Inside	iibrle
Hear	Buute
There	Luwayya / luwaa
Far away	Waanodda
Good	dissye
Child	Isele
Tall / stout / big	uutu
Short / Small	poona
Cloth	kaanaapo
Well	toomo
Anus	Tiiaalaai
Lip	Inimu
Teeth	Inovhood
Head	Innoota
Tongue	Innaata
Back of the	

English	Jarawa Language
head	Innoteere
Back	Inino
Testis	Iniikwe
Penis	lInnaaw
Vagina	Iniwaaja
Buttocks	lInnatow
Nail (of finger)	Inopeyta
Skin	qtti
Palm	Inopaanna / Inopaannaiwe
Nose	Ininjabow
Spit	Thuva
Urine	lchato
Nail	nopetta
Latrine	ennuva
Thumb	Innoppota / Inoboota
Knee	Inolaah
My leg	miitlrihuwa
Someones eye	Ineeebu
Someones nose	Ininaayabo
Neck	Inaanigiito
Forearm	Inipe
Hind arm	Inipoheca
Wrist	Inoonya
Finger	Inoome/Inoomd
Eye lid	Inebootaatii
Eyebrow	Ineje tittwkwe
Stomach	Inniffee
Foot	Inuu
Chest	Innaakoeta
Eyebrows	Inepotiituu Ru

English	Jarawa Language	English	Jarawa Language
Eyelids	Inepootaabi	Hammer	toosyaan heda
Mustach	Inimutuukl	Prik axe	toosyaa kwaaca
Tongue	Innadal	Bottle	etta
Hand	Inniipiil /Inniipiill	Cooking vessel	bunsun
Armpit	Iniibl	Spear	paato
Octopus	Inine bineebe	Chappal	weeta
Elephant	Teeyuudt	Rope	patta
Deer	Kaatopyaadl	A kind of tree whose leaves are used for thatching the hut	Maakwaa
Fish	Napo	An implement of the economic activity	Taahitye
Crab	aagaay	Eagle	waa raw
Shark	aatlwd	Wood pecker	Koolo
Crocodile	lruge	Honey bee	uuhiye
Dog	Wrr	Centiped	taayeta
Cat	oontconyete	Verbs	
Serpent	ciilani	To sleep	omo
Lizard	tiipe	To go (home)	uuni
Ant	suuwi	To go	prr / prrt
Mouse	uwys / Tuuy	To return	allema
Jungle potato / tuber	gigiya / gigi	To urinate	ljjrle
Topioca	gigipaaytiikwa	To drink	iinjowa
Jack fruit	aap	To defecate	iinuwa
Spear/Harpoon	Toosyalita	To stand	togune
Necklace	toopuwulu	To get up/arise from the bed	oote
Pot	taantoyere	I know	minneelaana
Ring (finger)	Inooataah	I don't know	minnaaya siga
Axe	tootaale	To eat	tii ta

English	Jarawa Language
To kiss	iimuuncowa
To walk	caawaaya
To run	Inaapeala
To be down	tuulg
To open	Ideykaagil
To close	Inaaliyete
To dance	Inuka saa sa
To give / to take	ennaaluwa
To carry / to take	linniye
To sit down	Inaata
To Jump	excaloote
To pluck	ewaato
Give me/I want	maahi iiya
To climb	caagiya
To spit	tuuwa
To throw away	appiina piina
To cut (with knife)	ticciloowa
To rotate	iilaaya
To roast	ooseba
To shoot	taaykwa
To swim	laaraa
To see	liba
I write / draw	moobyaaale
To cut with knife / sickle	oy krciya
To move	attiye
To speak	aaholla / aahoba
To bathe	iintrha
To break	ollaaha
To clap	kwinaaha
How is it ?	kaa unna ?

English	Jarawa Language
What did you eat ?	oonaadr tiita ?
It is bad	ya pone-bitiehja- toha-wa
It is broken	Ya bito-jiba
He cooks	Ya na ne-ago
To cut (of flesh)	engne
To cut (of wood)	tit
It is heavy	o-na-to-ago
Pour water	Ya-igno di-pu-aga
It is raining	Ye-in-gna
He sings	Ya-go-ga-ba
He sleeps	Ya omo hago
He smiles	Ya joko kaha-o- deh
I want water	mai-igno-incho- wa
Wash your hands	nga-gno-betaya
The man is- eating a banana	ya joko di chomena tit-ago
The man has- fever	ya joko ka ha thule-ba
The man is- sick	ya joko ka ha tule-bu
The sun is- rising	e-he-wa di bertiago
The sun is- setting	chewa di aya chapa ago
I will come- tomorrow	ya kokater joko biche-ago
It is above	ya tota tawa di ha ebu
It is below	ya tu ta tawa-di- ha-ebu

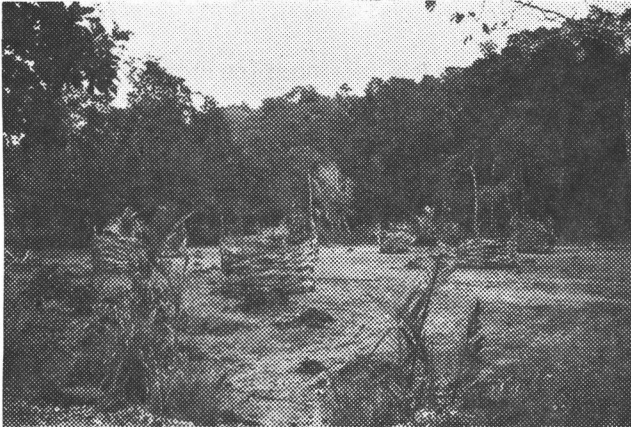
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AAJVS welfare measures, plantation, house constructions and food distribution - needs a different approach and method.