

**SOCIO-CULTURAL MANIFESTATION OF *JARAWA* RESERVE:
A STUDY ON INTERACTION BETWEEN *JARAWA* AND THEIR
NEIGHBOURING COMMUNITIES OF ANDAMAN ISLANDS**

*Thesis submitted to the University of North Bengal for the
degree of Doctor of Philosophy (Ph.D.) in Anthropology*

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DECLARATION BY THE CANDIDATE

The thesis entitled "*Socio-cultural Manifestation of Jarawa Reserve: A Study on Interaction between Jarawa and their Neighboring Communities of Andaman Islands*" submitted by me for the award of the degree of Doctor of Philosophy (Ph.D), is an original work and has not been submitted so far in part or in full, for any other degree or diploma of any University or Institution.

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This is to certify that AMIT KUMAR GHOSH, a registered Ph.D. candidate of the Department of Anthropology, University of North Bengal (vide letter no. Ph.D/Anthro.(427)/1472/R-2014 dated-26.09.2014) has completed writing of his Ph.D. thesis titled "***SOCIO-CULTURAL MANIFESTATION OF JARAWA RESERVE: A STUDY ON INTERACTION BETWEEN JARAWA AND THEIR NEIGHBORING COMMUNITIES OF ANDAMAN ISLANDS***" for the award of Ph.D. degree from the University of North Bengal, under my supervision.

During his Ph.D. work, he has fulfilled all the requirements of doing Ph.D. as stipulated in the relevance provisions of the Ph.D. regulation (New) and as per new ordinance of this University.

This is also to certify that he has carried out the Ph.D. work at the Department of Anthropology, University of North Bengal and his thesis is based on the result of both primary and secondary sources of data which he has collected through fieldwork and secondary sources respectively. This is his original work and has not been submitted so far in part or in full, for any other degree or diploma of any other University or Institution. He has also incorporated all the suggestions made or given by me. I am forwarding his thesis for the award of Ph.D. degree in Anthropology form University of North Bengal.


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II

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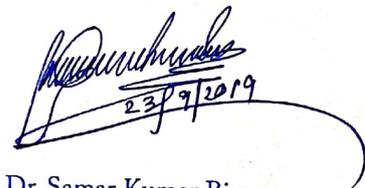
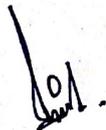
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RESEARCH PROPOSAL (ABSTRACT) FOR PROPOSED PH.D. WORK

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A STUDY ON INTERACTION BETWEEN JARAWA AND THEIR
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Introduction

The Jarawa Reserve is an area of about 1028 km² spread along with the western coast of Middle and South Andaman. The area is also known to be inhabited by one of the four Negrito communities of Andaman Islands namely Jarawa. The present day Jarawa territory has been declared as reserved area by Andaman and Nicobar administration and popularly known as Jarawa Reserve (notified by ANPATR/3(1)/1,1956/57 and further modified by notification No. 107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW(PF) dated-15.09.2004).

Regardless of today's Jarawa Reserve, from historical time being, the Jarawa territory was not a static geographical area. Moreover, due to different historical specific and contextual specific reasons, it was subjected to continuous change and shift. Today the area which is inhabited by Jarawa is a recent phenomenon, probably not more than two centuries. According to the study of Brown¹ (1922), Jarawa were distributed in Ruthland Island and Southern most parts of Great Andaman Island. Due to different colonial forces and other different reasons, they were pushed further northwards and occupy the present position. He also stated that "there can be no doubt the Jarawas are the descendants of emigrants who at some time in the past made their way across from the Little Andaman and thrust themselves in upon the inhabitants of Ruthland Islands and the South Andaman, maintaining their footing in the new country by force of arms" (Brown, 1922: 13).

Andaman and Nicobar group of Islands with a geographical area of 8298 sq. km consists of 572 islands and islets spread in Bay of Bengal at a distance of about 1200 km from the any cost of mainland India. It is the series of islands extending from Cape Negrais of Myanmar at north to Achin head of Sumatra at south. It stretches between 6° to 14° North latitude and 92° to 94° longitude. The Andaman group of islands are also known to be

¹In the original book '*The Andaman Islanders*' the author has mentioned his name as A. R. Brown. Though the author is popularly known as A.R. Radcliffe-Brown, but for this particular reference, the pattern/style of the original book has been followed.

inhabited by four Negrito populations namely Jarawa, Great Andamanese, Onge and Sentinelese.

The Andaman islanders are divided into several groups with differences of language and culture. There are two main divisions viz. Great Andaman group and Little Andaman group. The Great Andaman Group includes all natives of Great Andaman Islands with the exception of those of interior of the South Andaman who are known as Jarawa. The Little Andaman Group includes all inhabitants of Little Andaman, those of North Sentinel Islands and the Jarawas of South Andaman. These two different divisions exhibit many differences of language and culture (Brown, 1922: 11). According to Mukhopadhyay (2010), only in recent years we came to know from the people that they call them *Ang*². It has been argued that Aka-Bea, one of the Great Andamanese tribes used to refer the *Ang* as 'Jarawa'. So, Brown rightly assumed that "the natives of Little Andaman refer to themselves as Onge (men). It is probable that the so-called Jarawa of the South Andaman have the same word" (Brown, 1922: 12).

At present the Jarawa (*Ang*) are residing in South and Middle Andaman areas along with the west coast and dense forest. Their area of habitation has been declared as tribal reserve by the Andaman administration. According to official record (unpublished) of Andaman Adim Janjati Samity, the total population of Jarawa (*Ang*) on July 2011 was 381, having male 196, female 185 and sex ratio was 944. Excluding few exceptional cases, till 1997, Jarawa (*Ang*) avoided any interaction with the non-Jarawa migrant population, who have settled down in the vicinity of their habitat in indifferent phases.

Proposed Study Area

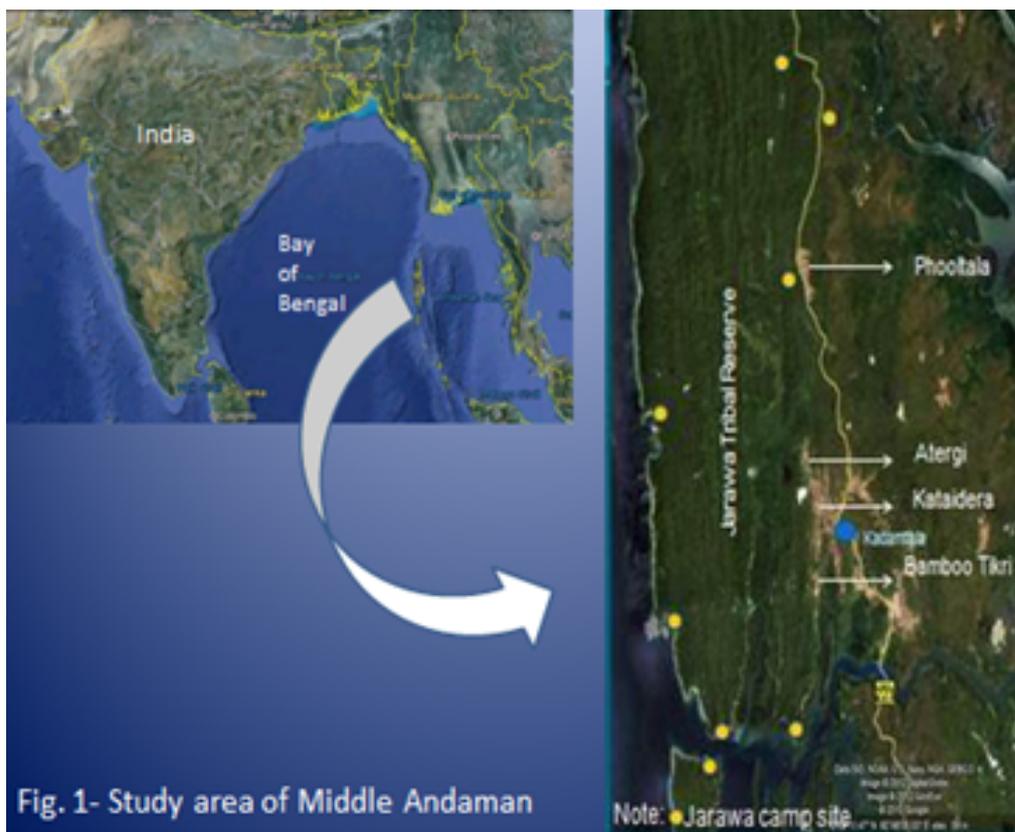
Study is proposed to be conducted among the Jarawa (*Ang*) and settlers of Middle Andaman areas. Different *chaddas*³ (camp sites) of Jarawa (*Ang*) namely Julanpatthar, Lakralunta, Tanmad, Philip Nala and Dhani Nala and some adjacent non-Jarawa villages near Jarawa Reserve namely Bamboo Tikri, Kataidera, Atergi, and Phooltala are proposed to be studied. All the four non-Jarawa villages come under Kadamtala Gram Panchayat of Rangat tehsil,

² Only in recent years (2001 onwards) researchers came to know from the Jarawa that they call themselves *Ang*. It has been argued that Aka-Bea, one of the Great Andamanese tribes used to refer the *Ang* as 'Jarawa'.

³ *Chadda* is Jarawa term for their camp site or traditional hut in Jarawa dialect.

Middle Andaman. These villages are mainly inhabited by Bengali population and their prevalent primary occupation is agriculture.

The Jarawa Reserve of Middle Andaman is often broadly called Kadamtala area. The proposed study area was inhabited by 152 Jarawa (*Ang*) (male 82, female 70), having sex ratio 854 and they live in the dense forest of the Tribal Reserve along with the western coast (Andaman Adim Janjati Samity, 2011). To study interaction between Jarawa (*Ang*) and non-Jarawa, four above mentioned fringe villages of Kadamtala area are proposed to be studied. According to unpublished official record of Directorate of Health Services of Andaman, it was found that on December 2011 total population of those four selected non-Jarawa villages was 2323 (male 1174 and female 1149) of which total population of Bamboo Tikri, Kataidera, Atergi and Phooltala were consequently 236 (male 115 and female 121), 326 (male 166 and female 160), 672 (male 351 and female 321) and 1089 (male 542 and female 547).



Review of Literature

Studies on Andaman communities may broadly be categorised in two phases: (i) Pre-independence phase and (ii) Post-independence phase. The golden age of Andamanese

studies during the British period began with the work of two major administrators E.H. Man (1870s, which was published in 1882) and M.V. Portman (1880s, which was published in 1899) and ended with the departure of Radcliffe-Brown in 1908. Studies in post-independence phase are mostly conducted by Anthropological Survey of India, Andaman administration and other scholars.

Among the pioneer scholars, Man (1882) in his book '*On the Aboriginal Inhabitants of the Andaman Islands*' first studied a systematic, reliable and ethnographic account of traditional Andamanese life and culture. His work on the inhabitants of the Andaman Islands, deals almost exclusively with the two southern groups of Andamanese, the Aka-Bea and Aka-Bale. He also briefly mentioned about the presence of Jarawa and their relationship with the neighbouring Andamanese communities. After that Portman (1899) mentioned far more historical information than his earlier counterparts and revealed different new aspects of Andamanese life, their behavior and their reactions in face of different outsider's intrusion. He also mentioned different historical specific and contextual specific aspects of contact and conflict situations of Jarawa and non-Jarawa communities. Brown (1922) in his famous book '*The Andaman Islanders*' revealed a detail, systematic and ethnographic account of Andamanese life and customs. With his structural-functional approach, he elaborately studied the social organisation, ceremonial customs, religious and magical beliefs, myths and legends of Andamanese. Moreover, he also tried to interpret it systematically. Despite the unfriendliness of Jarawa community, he quite accurately assumed about the origin, distribution and affinity of Jarawa and other inhabitants of Andaman Islands.

After independence, Cipriani (1959) in his article '*The Jarawa Problem*' briefly mentioned about the unfriendliness of the Jarawa community and its consequences. Mann (1973) briefly discussed about the so called Jarawa hostility, their relationship with the neighbouring communities and some other aspects of contact and conflict. Sarkar (1989) in the monograph entitled '*Jarawa*' depicted an ethnographic account of Jarawa material culture. He also briefly discussed about different other socio-cultural aspects of the community viz. habit and habitat, lifestyle and livelihood, contact and conflict etc. Awaradi (1990) came forward with a master plan for welfare of primitive tribes of Andaman and Nicobar Islands. As a policy maker he systematically mentioned a long term plan for welfare and prosperity of Jarawa. Among the more contemporary scholars and researchers, Pandya (1990, 1993, 1998, 1999, 2002 and 2010) in his series of articles and books studied some aspects of culture contact and conflicting situations of Jarawa. In his famous book '*Above the*

forest' he studied the ethnoanemology, cosmology and the power of ritual of Andamanese and the book *'In the forest*' he illustrated the visual and material worlds of Andamanese. Naidu (1999) also tried to suggest the probable action plan to save the Jarawa community. Mukhopadhyay et al. (2002) and Mukhopadhyay (2010) in their edited book entitled *'Jarawa Contact: Ours with them and theirs with us'* combined different relevant articles on the contemporary contact and conflict situations of Jarawa and their neighbouring communities. In the article *'Society and Economy of the Ang: A preliminary Appraisal'* he extensively studied the society and economy of Jarawa (Ang). Cooper (2002) in her book *'Archaeology and History: Early Settlements in the Andaman Islands'* has depicted extensive archaeological excavations in the Andaman islands leading to the first reliable C14 dating of Andamanese kitchen midden. Furthermore, Andaman administration (2003) in the *'Report of the expert committee on Jarawas of Andaman'*, reveals a multidisciplinary study on different aspects of Jarawa community viz. society and culture, economy, resources in Jarawa territory, nutrition, health, impact of contact etc.

Moreover, globally different researchers have conducted studies on different hunter-gatherer communities of the world on various situations of culture contacts and interactions. Among them Elkin (1951) analytically studied the reaction and interaction of hunter-gatherer people with the European settlement in Australia. Lee et al. (1968) in their book *'Man the Hunter'* which was the outcome of the conference 'Man the Hunter' (1966), laid the foundation for anthropological study of modern hunted-gatherers. Shallins, (1972) in his much debated book *'Stone Age Economics'* critically studied the economy of different hunter-gatherer societies around the world and mentioned different types of reciprocal relationships of the said communities. He also mentioned hunter-gather society as 'original affluent society'. Leacock et al. (1982) depicted political and historical account of hunter-gatherer people with special reference to the band society. Woodburn (1982) in his famous article *'Egalitarian Societies'* studied systematically the primitive economy of hunter gatherer society and opined the concept of immediate return economy and delayed return economy.

So, the review of literature reflects that there are very few related studies on the proposed topic entitled "Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their neighbouring communities of Andaman Islands". Moreover, it is intended to utilize reports (published and unpublished) of different committees, individual scholars submitted to different departments and institutions. Official

notifications, reports of the Andaman and Nicobar administration on Jarawa and along with the web materials available through internet will also be taken into consideration for preparation of the proposed research work.

Scope of the study

Compared to the other hunter-gathers of the world, till today, Jarawa (*Ang*) exhibits minimum interaction with the outsiders. Historically they were more isolated and unfriendly (so called hostile) towards the neighbouring communities and outsiders. So, they use to maintain a self-sufficient, traditional way of life from time immemorial. Being adapted to the tropical rain forest ecology and being a nomadic hunter-gatherer community, their society and culture exhibits remarkable difference with the neighbouring settler communities who have been settled around the Jarawa (*Ang*) territory in different phases after independence. Socio-cultural milieu and world view of Jarawa (*Ang*) is also remarkably different from their neighbouring settler communities.

But the scenario changed drastically after October 1997, when few groups of Jarawa (*Ang*) came into the contact with the neighbouring communities in open day light and they started to visit different neighbouring villages. More bartering relation was established with the selective individuals of the settler communities. Different cultural traits or elements of non-Jarawa communities started to introduce in Jarawa (*Ang*) society and culture. Unlike the days of unfriendliness, the desire to make bartering relation is often come from the Jarawa (*Ang*). So, it can be assumed that their culture is prone to be more influenced due to interaction with neighbouring settler communities. In this context, there are very few in-depth studies (especially at cognitive level) to reveal and explain emic views of different contemporary situations of interaction between Jarawa (*Ang*) and non- Jarawa communities.

As, the review of literature reflects that the existing literatures in the subject “Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their neighbouring communities of Andaman Islands” are still scanty. So, there is enough scope to study the emic view of both Jarawa and neighbouring non-Jarawa communities on the culture change and emerging realities coming out of the interaction between the communities. Moreover, there is also a scope to review different theories of culture change viz. cultural evolution, cultural diffusion and acculturation etc. The proposed study will also assess changes in Jarawa culture and society due to different situations of culture contact and may

assist the policy makers and administrators to plan a decentralised and people centric sustainable plan for both Jarawa and their neighbouring communities.

Objectives of the Study

To conduct any research study, objectives are always of enormous importance and it drive the researcher to prove or disprove hypotheses. The Jarawa is a vulnerable tribal group of Andaman Islands and they are living in isolated dense tropical rain forest areas. From time immemorial, they were fully detached from the so called main stream communities. But now-a-days, sporadic bartering interactions have been established and they are acquiring different cultural traits and elements of dominant neighbouring communities. Though they are maintaining their own way of life but it cannot be ignored that they are on the way of change. In this regard, there are lot of research scopes in this area but to conduct this particular research work the main objectives of the proposed study are –

1. To study the notion Jarawa territory in different historical specific and contextual specific situations.
2. To study the changing perception of Jarawa about their neighbouring settler communities and vice-versa.
3. To study the prevalence of barter relationship between Jarawa and non-Jarawa communities and to analyse it's type, extend and impact.
4. To study the emerging issues coming out of the interaction between Jarawa and their neighbouring communities.
5. To review different theoretical aspects of culture change among the hunter-gatherers.

Hypothesis

Hypothesis is always of immense importance for any research work and following hypotheses are proposed for the present study-

1. Culture change in a hunter-gatherer or a foraging society (Jarawa) is not merely due to single operational force of culture change; moreover, it is a complex, multidimensional and dynamic process.
2. As bartering relation of the Jarawa (*Ang*) is basically exchange of different need based, contextual specific, outside non-Jarawa elements or commodities to which they

are fond of or addicted and cannot manufacture from their available forest resources, it may lead them from so called self-sufficiency to dependency.

3. In a situation of culture contact, explicit aspects of hunter-gatherer culture are more susceptible to change than the implicit aspects of culture.

Research Methods

Methodological issue to study any hunter-gather community (viz. Jarawa) is always of immense importance. Proposed study would be conducted among the Jarawa (*Ang*) and their neighbouring settler communities of Middle Andaman areas. Different *chaddas* (camp sites) of Jarawa (*Ang*) namely Julanpatthar, Lakralunta, Tanmad, Philip Nala and Dhani Nala and some adjacent non-Jarawa villages near Jarawa Reserve namely Bamboo Tikri, Kataidera, Atergi, and Phooltala are proposed to be studied. As language often become constrain for in-depth study especially at cognitive level, thus, emphasis will be given to learn the Jarawa language. Being a nomadic hunter-gatherer community, different methodological approaches must have to be adopted to study Jarawa and settlers separately. Emphasis will be given on ethnography, survey, case study and observation methods. Information on socio-cultural, economic and basic demographic profile of the settlers (villagers) will be collected by using following anthropological tools and techniques: interview, focused group discussion, case study, observation and household census schedule (for selected households). Besides these, information on culture contact, bartering relation and emerging issues will be collected by observation, case study, key informant interview, focused group discussion and social mapping etc. In case of Jarawa (*Ang*), data would be collected by adopting following tools and techniques: observation (including participant observation and disguised observation), case study, genealogy, interview (structured and unstructured), group discussion and social mapping etc. Besides these photography and GPS instrument will also play a significant role to conduct the study.

Tentative Chapterisation

1. Introduction
2. The Jarawa Territory: Historical Manifestation and Present Situation
3. Neighbouring Communities: Past and Present
4. Scenario of Culture Contact
5. Prevalence of Barter Relationship: Extends and Impacts
6. Impact Analysis of Culture Contact and Emerging Issues

7. General Observations and Conclusion
8. Bibliography

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No. Ph.D/Anthro. (427) / 1472/R-2014

Date: 26/09/2014
13/10

To
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Sir/ Madam,

Your name has been registered for the Ph.D. degree as per New Ordinance of this University for five years with effect from 26/9/2014. The title of the thesis being **SOCIO-CULTURAL MANIFESTATION OF JARAWA RESERVE: A STUDY ON INTERACTION BETWEEN JARAWA AND THEIR NEIGHBOURING COMMUNITIES OF ANDAMAN ISLANDS.** Any discrepancy of the title of the thesis as mentioned above may please be informed to the office of the undersigned immediately on receipt of this letter.

B. Paul 26.9.14
Registrar (Offg.)

**SOCIO-CULTURAL MANIFESTATION OF *JARAWA* RESERVE:
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*Thesis submitted to the University of North Bengal for the
degree of Doctor of Philosophy (Ph.D.) in Anthropology*

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CHAPTER I

INTRODUCTION

CHAPTER-I

INTRODUCTION

1.1 The Archipelago

Andaman and Nicobar group of Islands with a geographical area of 8298 square kilometre consist of 572 islands and islets, spread in Bay of Bengal (Dhingra, 2005). It is located at a distance about 1200 km from the any cost of mainland India. The Andaman and Nicobar Islands form part of a long, irregular chain that seems to continue from the Eastern Himalayan ranges extending from Cape Negrais of Myanmar at North to Achin head of Sumatra at South. It stretches between 6° to 14° North latitude and 92° to 94° East longitude. The length of the entire archipelago from Myanmar to Sumatra extends about 1100 km. The name 'Andaman' is probably derived from the term '*Handuman*', the Malay form of the term lord 'Hanuman', treating the islands as the abode of the Hindu mythological monkey people. Extending about 700 km, the major portion of this archipelago comes under the union territory of Andaman and Nicobar Islands of Indian Republic. There are two broad divisions of Islands namely Andaman group of Islands and Nicobar group of Islands which are separated by 139 km wide and 1399 mt deep see channel called Ten Degree Channel (so called because the 10th North parallel passes through it). The Andaman and Nicobar Islands are located at the eastern side of the Bay of Bengal and are comparatively more closure to Myanmar and Malaya Peninsula than the mainland India. Andaman Islands lie 944 km from the mouth of Hooghly river and merely 192 km from Cape Negrais of Myanmar. Notably, out of these 572 islands and islets, only 38 islands are inhabited of which 26 are in the Andaman group and 12 are in the Nicobar group.

1.2 The Autochthonous People

The Andaman and Nicobar Islands are also well known for being inhabited by six unique tribal communities namely the Sentinelese, the *Jarawa*, the Onge, the Great Andamanese, the Shompen and the Nicobarese. Out of these six tribal groups, the first four tribal groups have Negrito physical features and the latter two are of Mongoloid physical feature. Except only Nicobarese, all the above five tribal communities are also categorised as Particularly Vulnerable Tribal Groups (PVTG). Interestingly, the above mentioned four tribal groups namely Sentinelese, *Jarawa*, Onge, Great Andamanese with Negrito physical features are inhabited in the Andaman group of Islands and tribes with mongoloid physical feature namely Nicobarese and Shompen are the inhabitant of the Nicobar group of Islands. The wide spread Ten-degree channel between Andaman Islands and Nicobar Islands distinctly separated these two groups of Autochthonous peoples.

The Andaman and Nicobar Islands have found a distinct place in the accounts of sailors, travellers and traders since early historical period and records have been found from writings of Ptolemy in the Second Century, Chinese in the Seventh Century, the Arabs in Ninth Century and the Europeans in the 13th Century onwards (Mathur, 1968: 7). However, a chronological and detailed account about the Islands and its inhabitants have been found since 1858 onwards when the British occupied the Islands second time for penal settlement at South Andaman. Prior to these colonisation, the Andaman Islands were the exclusive habitat for the autochthonous people with Negrito physical features. Moreover, at the end of the 18th Century onwards, with the attempt of the formation of the penal settlement an inflow of the foreign people has started. This invasion of outside

population was primarily from different parts of main land India. As these people were from different parts of India, their diverse social and cultural attributes gave a fabric of heterogeneity and diverse culture to this archipelago.

According to Brown (1922), the Andaman Islanders are divided into several groups having differences in their dialect and culture. There are two main divisions which may be referred as the Great Andaman Group and the Little Andaman Group respectively. The Great Andaman Group includes all the natives of Great Andaman Islands (*Great Andamanese*) with the exception of those of interiors of the South Andaman, who are known as *Jarawa*. The Little Andaman Group includes all the inhabitants of the Little Andaman Island (*Onge*), those of North Sentinel Island (*Sentinelese*) and the *Jarawa* of South Andaman. So, according to him, in spite of their present location at Great Andaman Island, the *Jarawa* comes under the Little Andaman Group. These two different divisions of Andaman Islanders exhibit many differences of language and culture. On the other side, the natives of the Great Andaman Group were divided into ten different sub-tribes with distinctiveness in their dialect and cultural attributes. The following were the list of ten sub-tribes of *Great Andamanese* passing from north to south - *Aka-Cari*, *Aka-Kora*, *Aka-Bo*, *Aka-Jeru*, *Aka-Kede*, *Aka-Kol*, *Oko-Juwoi*, *A-Puchikwar*, *Akar-Bale*, *Aka-Bea*. Though most of the above mentioned Great Andamanese Groups were extinct during the last two centuries and only few surviving groups are settled at Strait Island by the Andaman Administration. Historically, the *Aka-Bea* was the immediate neighbouring community of *Jarawa* and they were residing in a stage of continuous conflict and clash.

The *Jarawa* are one of the four Negrito groups of the Andaman Islands inhabiting in the western part of the South and Middle Andaman Islands. Presently, the *Jarawa* territory

is of approximately 1040 square kilometre and popularly also known as '*Jarawa Reserve*'. As on November, 2017, the total population of the *Jarawa* was 496. Their primary source of livelihood are hunting of wild animals and sea turtles; gathering of tubers, fruits, honey, turtle eggs, other edible resources and fishing in shallow sea, creeks and streams. They collect both the terrestrial and aquatic resources. They pursue their livelihood with the help of simple tools and technology which includes bow and arrow, traditional handmade fishing hand-net, digging rod, adze, metal knife, machete, wooden bucket, cane baskets etc. As perceived by the *Jarawa*, they are notionally divided into three broad territorial groups namely *Tanmand* or Kadamtala area group, *Thidong* or Middle Strait area group and *Boiab* or Tirur area group. The *Tanmad* group are inhabited in the southern part of Middle Andaman Island, while *Thidong* and *Boiab* groups are inhabited in the northern and southern part of the South Andaman Island. Being isolated since thousands of years, the tribal population of Andaman and Nicobar Islands are considered as one of the purest isolates and often they are regarded as one of the ancient living genepool of human evolution. Physically, they are short in stature with black skin and frizzy/woolly hair. Being one of the ancient Asiatic Negrito isolates, there are some biological and cultural parallels of these Andaman tribes with the other South-East Asian Negrito populations such as *Semang and Batek* of Malaysia Peninsula and the *Aeta* of Philippines.

Due to different kinds of vulnerability and contacts with the dominant non-tribal neighbouring population brought about a rapid change and decline of population among two tribal communities of the Islands namely Onge and Great Andamanese. The other tribal population such as the *Jarawa* have been experiencing a gradual decrease in their territory and resources due to continuing expansion and encroachment of the forest areas

by the settlers. As mentioned in the Table 1.1, presently the *Jarawa* confined to the western part of the Middle and South Andaman Islands with a total population of 496, the Onges are in the Dugong Creek areas of the Little Andaman Islands with a population of 120. While the Great Andamanese have been resettled at the Strait Island having a total population of about 70 which also includes the non-tribals married with Great Andamanese. The Sentinelese are in the North Sentinel Island with an estimated population of 50 individuals only. Historically, the relationship of the Andaman tribes with the outsiders was of disbelief and antagonistic. After initial resistance, the Great Andamanese and the Onges were forced to come in a reciprocal relationship with colonial rulers but the relationship with other two tribes (*Jarawa* and Sentinelese) continued to be unfriendly even after the Independence also. After decades of contact missions, the Andaman Administration ultimately succeeded in befriendng the *Jarawa* in October 1997 but Sentinelese are till continued to live in isolation without any outside interventions. Notably, the acceptance of friendliness has in turn proved to be a curse for those Andaman tribes and their population have significantly decreased due to different kinds of vulnerability.

Table 1.1: Population distribution of five PVTGs of Andaman and Nicobar Islands

Sl. No.	Name of Tribe	Location	Tribal Reserve (in sq. km.)	Population							
				1951	1961	1971	1981	1991	2001	2011	2017
1	<i>Jarawa</i>	Middle and South Andaman	1040.84	50*	500*	NE	31	280*	240*	380	496
2	Onge	Little Andaman	403.37	150*	129	112	94	95	96	101	120
3	Sentinelese	North Sentinel	59.674	NA	50*	NE	NE	100*	39*	50*	50
4	Great Andamanese	Strait Island	6.01	23	19	24	26	45	43	44	70
5	Shompen	Great Nicobar	853.19	20*	71	92	23	250	398	229	238*
TOTAL			2363.08	243	769	228	174	770	816	804	974

Source: Field survey during 2011 to 2017 and AAJVS, 2017

*Estimated population

NE- Not Enumerated

Regarding, origin and migration of the *Jarawa* and other Andaman tribes, till date there is no concrete scientific evidences to say with authority that how and when these tribes appeared in this archipelago. There are different hypothesis and views put forth by

different anthropologists and scholars. Due to their distinctive languages and history of isolationism, the Andaman Islanders are often popularly known as a group of 'Palaeolithic Survivals' who might represent the direct descendants of an early wave of human migrants passing through the region (Thangaraj et al., 2005). The archaeological record of the Andaman Islands is limited and does not extend beyond the first millennium BC (Cooper, 2002). Studies based on mtDNA analysis enabled us to evaluate the competing hypotheses of peopling the Andaman Islands which varies from about 24 kya to 45 kya (Barik et al, 2008). The materials obtained from the excavation of the kitchen midden sites (shell mounds) are an assemblage of shells, pottery, implements, equipments etc. buried in successive layers. The kitchen midden sites of Beehive Island and Chouldhary are considered to be the earliest foot prints of human occupancy of the Islands (Dutta, 1974). Chatterjee (1952) excavated one kitchen midden site at Beehive Island of Middle Andaman. Cipriani (1966) also carried out study of these shell mounds. The Mesolithic culture of the Andaman Islands was often associated with the pottery. When the archaeological findings of Andaman are compared with those of the South-East Asian excavations, it reveals the existence of Andaman Islanders may be earlier than 300 B.C. Moreover, the archaeological evidences suggest establishment of a cultural association between the Andaman Islands and South-East Asia in ancient period. Intriguingly, the Great Andamanese oral tradition also reveals the myth of a period when they used to inhabit in a large landmass where there were many other people speaking the same language and large animals were found in that area. Then there was a great catastrophe that submerged the large landmass with man and animals (Portman, 1899). Thus, it was assumed that Andaman tribes were migrated to the present territory from South-East Asia in distant past either by sea or land route. Regarding spreading of the four tribes namely Great Andamanese, *Jarawa*, Onge and Sentinelese in

different islands of the Andaman are till mysterious and enigmatic. It is assumed that the nomadic nature of these tribes leads their movements to different islands or some of them were drifted to present habitat by the sea waves while moving from one place to other in their canoes. Their movement further south below Little Andaman was most probably hindered due to the presence turbulent and wide spread ten-degree Channel.

1.3 Non-Tribal People

Apart from the tribal population, the Andaman Islands are being inhabited by the people who came or were brought to Andaman Islands during the colonial period of British. The convicts of the penal settlements have settled in the nearby areas by bringing their family members from the mainland or by getting married with the convict women. They are now called as Local Born community. They are a heterogeneous community involving people from different parts of India having different languages and ethnicity. The settlements of these Local Born Communities have grown particularly in and around the Port Blair and South Andaman. Being migrated from different parts of India and speaking different languages they have become an integrated community and the Hindi became their spoken language as an integrating communication force. Apart from the Local Born, a few groups of Bhanus from central India and Mophlas from Kerala were also brought by the colonial rulers as convicts and settled them at the adjacent areas of *Jarawa* territory of South Andaman. Burmese and Karens were also brought from present day Myanmar and settled in these Islands. Except the Karens who were settled at the northern part of Middle Andaman, all other above mentioned groups were brought to the Islands as a convict. After completion of their tenure of conviction and in post-colonial scenario, very few of them opted to go back to their native place. Moreover,

many of the convicts were permitted to bring their family members from the Mainland India. Erstwhile the agriculture was the basis of their economy. Now a days many of them are engaged in other sources of livelihood such as service, business, transport etc. Immediately after independence, Government of India along with rehabilitation department of West Bengal and Andaman Administration decided to launch a scheme for resettlement of East Pakistan refugees at Andaman Islands. With the view of all round development of the Islands, it was decided to resettle both in agriculturist and non-agriculturist category. Under this scheme a total of about 4164 people (931 families) were settled during 1949 to 1955 at the vicinity of *Jarawa* territory (Table 4.2). Huge forest coverage in and around *Jarawa* territory was cleared for the purpose of providing land to the settlers. It was proposed to allot 10 acre of land (5 acre plain paddy land and 5 acre of hilly land for horticulture) to each family who were settled under agriculturist scheme. About 1,42,920 acre of land in and around the *Jarawa* territory were cleared and allotted during 1949 for the above mentioned refugee rehabilitation scheme (Table 4.5).

1.4 Concept of Hunter-Gatherer

Defining a true hunter-gatherer is a difficult task. Any evolutionary definition may confine hunter-gatherer to those populations with strictly Pleistocene economics i.e., no metal, firearm, dogs, or contact with non-hunting cultures. Unfortunately, such a definition would effectively eliminate most of the today's hunter-gatherer (Lee and Devore, 1968). Hunting-gathering refers to subsistence based on hunting of wild animals, gathering of wild plant foods and fishing, with no domestication of plants, and no domesticated animals except the dog. In contemporary theory this minimal definition is

only the starting point in defining hunter-gatherers (Lee and Daly, 1968). Some basic features of hunter-gatherer society are:

- Most of the hunting and gathering people live in the *band or groups*, a small- scale nomadic group of fifteen to fifty people (may be varied) often related by kinship. Band societies are found throughout the Old and New Worlds and share a number of features in common.

Jarawa are also living in band or group. After family band is the basic unit of their society. Number of members in a particular band is subjected to seasonal variation, availability and accessibility of resources and other factors.

- They are relatively *egalitarian*. Leadership is less formal and more subject to constraints of popular opinion than in village societies governed by headmen and chiefs.

Egalitarianism is also one of the basic features of *Jarawa* society. No dominant leadership have been found among the *Jarawa*. Leadership is very much formal and they believe in freedom to live.

- *Mobility* is another characteristic of band societies. People tend to move their settlements frequently, several times a year or more, in search of food and resources.

Jarawa roam the forest in search of different resources and periodically shift from one *chadda* (camp site or settlement area) to another. This mobility is usually subjected to on availability and accessibility of resources.

- Another characteristic is the remarkable fact that all band-organized peoples exhibit a pattern of *concentration and dispersion*. Rather than living in uniformly sized groupings throughout the year, band societies tend to spend part of the year dispersed into small foraging units (especially during dry season in case of *Jarawa*) and another part of the year aggregated into much larger units (during rainy season for *Jarawa*).

While defining hunter-gatherer, it must be considered that many of the contemporary foragers practice a kind of mixed subsistence which includes gardening in tropical South America, reindeer herding in northern Asia, trading in South/Southeast Asia and parts of Africa. Lee and Daly (1999) propounded that modern hunter-gatherers are typically characterized by a cluster of traits and subsistence is one part of a multi-faceted definition of hunter-gatherer. Social organisation forms a second major area of convergence. While cosmology and world view as a third faced. All above three sets of criteria have to be taken into consideration in defining and understanding hunting and gathering communities today. The fundamental unit of social organisation of most hunting and gathering community is the 'band' which is a self-sufficient small nomadic group of fifteen to fifty people related by kinship. Band organisations are found throughout the hunter-gatherers of the Worlds and share a number of common characteristics. A fourth characteristic common to almost all band societies is territoriality which includes common access to resources of a particular territory. It is further characterized by rules of reciprocity and commensality. Sharing is often recognized as a common trait and the central rule of social interaction among hunters-gatherers (Kent, 1993). The most prized resources are shared among the constituent families of a band. The hunter-gatherer's perception of the environment is as the 'giving environment' which is often

considered as plenty and bountiful. It is found among many hunter-gatherers who perceive the environment around them as their home and all the sources as good things (Bird-David, 1990).

1.5 Review of Literature

Studies on Andaman communities may broadly be categorised in two phases: (i) Pre-independence phase and (ii) Post-independence phase. The golden age of studying Andaman Islanders began during the British period with the work of some administrators-cum-scholars namely E.H. Man (1870s, which was published in 1882), F.J. Mouat (1863), C. Boden Kloss (1902) and M.V. Portman (1880s, which was published in 1899) and ended with the departure of Brown in 1908. Studies in post-independence phase were mostly conducted by Anthropological Survey of India, Andaman administration and other scholars.

Among the pioneer scholars, Mouat (1863) in his book entitled '*The Andaman Islanders*' published some ethnographic accounts of the life and culture of the Andaman Islanders. The writing was primarily based on his observation and assumptions about the native people and landscapes. The work principally reflected the interpretation of his daily tour diary and travel experiences. Meanwhile, he also narrated his experiences of interaction with some of the native people and their material cultural attributes. Kloss (1902), another administrative-cum-scholar in his book '*Andaman and Nicobars*' described his accounts of travel experiences and expeditions in different island of Andaman and Nicobar archipelago. He briefly mentioned about the flora, fauna, physical environment and ethnology of these Islands and their inhabitants. Man (1882) in his book '*On the Aboriginal Inhabitants of the Andaman Islands*' first studied a systematic, reliable and ethnographic account of traditional Andamanese life and culture. His work on the inhabitants of the Andaman Islands, deals almost exclusively with the two southern groups of Andamanese, the Aka-Bea and Aka-Bale. He also briefly

mentioned about the presence of *Jarawa* and their relationship with the neighbouring Andamanese communities. After that Portman (1899) in his monumental work '*A History of Our Relations with Andamanese*' extensively and chronologically mentioned the historical accounts of the native Islanders than his earlier counterparts. He revealed different aspects of Andamanese life, culture and their reactions towards different outsider's intrusion. He also mentioned different historical specific and contextual specific aspects of contact and conflict situations of *Jarawa* and non-*Jarawa* communities. Brown (1922) in his famous book '*The Andaman Islanders*' revealed a detail, systematic and ethnographic account of Andamanese life and customs. With his structural-functional approach, he elaborately studied the social organisation, ceremonial customs, religious and magical beliefs, myths and legends of the Andamanese. Moreover, he also tried to interpret it systematically. Despite the unfriendliness of *Jarawa* community, he quite accurately assumed about the origin, distribution and affinity of *Jarawa* and other native inhabitants of Andaman Islands.

After independence, Cipriani (1959) in his article '*The Jarawa Problem*' briefly mentioned about the unfriendliness of the *Jarawa* community and its consequences. Cipriani (1966) also discussed in detail the culture and economy of the Onges and the Great Andamanese. Bose (1964) in his study among the Onge, has described the foraging pursuits of the Onge of Little Andaman Island. Mann (1973) briefly discussed about the so called *Jarawa* hostility, their relationship with the neighbouring communities and some other aspects of contact and conflict. Sarkar (1989) in the monograph entitled '*Jarawa*' depicted an ethnographic account of *Jarawa* material culture. He also briefly discussed about different other socio-cultural aspects of the community viz. habit and habitat, lifestyle and livelihood, contact and conflict etc. Among the recent studies on the tribal communities of the Andaman Islands, the studies on the Great Andamanese by Chakravarty (1990), the Sentinelese by Pandit (1990), the

Onges by Basu (1990) are noteworthy to mention. Awaradi (1990) came forward with a master plan for welfare of primitive tribes of Andaman and Nicobar Islands. As a policy maker he systematically mentioned a long term plan for welfare and prosperity of *Jarawa*. Among the more contemporary scholars and researchers, Pandya (1990, 1993, 1998, 1999, 2002 and 2010) in his series of articles and books studied some aspects of culture contact and conflicting situations of *Jarawa*. In his famous book '*Above the Forest*' he studied the ethnoanemology, cosmology and the power of ritual of Andamanese and the book '*In the Forest*' he illustrated the visual and material worlds of Andamanese. Naidu (1999) also tried to suggest the probable action plan to save the *Jarawa* community. Mukhopadhyay et al. (2002) in their edited book entitled '*Jarawa Contact: Ours with them and theirs with us*' combined different relevant articles on the contemporary contact and conflict situations of *Jarawa* and their neighbouring communities. Mukhopadhyay (2010) in the article '*Society and Economy of the Ang: A preliminary Appraisal*' has extensively described the society and economy of *Jarawa*. Dutta (1974) and Cooper (1990, 1992, 1994) have tried to determine antiquity of the Andaman Islanders on the basis of their studies on kitchen midden resemblance found in different parts of the Islands. Cooper (2002) in her book '*Archaeology and History: Early Settlements in the Andaman Islands*' gives a detailed account of extensive archaeological excavations in the Andaman Islands and provide us the first reliable C14 dating of Great Andamanese kitchen midden resemblance. Furthermore, Andaman administration (2003) in the '*Report of the expert committee on Jarawas of Andaman*', reveals a multidisciplinary study on different aspects of *Jarawa* community viz. society and culture, economy, resources in *Jarawa* territory, nutrition, health, impact of contact etc. Consequently, some relevant studies were also conducted among the hunter-gathers and foragers of mainland India. Among them few noteworthy studies are on Birhor subsistence pattern by Sinha (1958) from the cultural ecology point of view. Adhikari (1984) studied the

emic view of Birhor community. The hunting-gathering mode of subsistence of Nayaka of Karnataka was thoroughly studied by Bird-David (1992). She has also systematically analysed the process of changes in the Nayaka economy due to their contacts with outsiders.

Moreover, globally different researchers have conducted studies on different hunter-gatherer communities of the world on various situations of Subsistence, livelihood and culture. Modern studies on hunting and gathering communities may be traced back to the momentous works of the 1930s. The essay by Julian Steward (1936) on '*The economic and social basis of primitive bands*' in which he explored resource exploitation and dynamics of band organisation. Another his important study '*Basin-Plateau Aboriginal Socio-political Groups*' where he scientifically analysed the functional relationship among the different aspects of their culture and environment (Steward, 1938). He also emphasised on the patterns and processes of cultural change with special reference to the hunter-gatherer community. Elkin (1951) analytically studied the reaction and interaction of hunter-gatherer people with the European settlement in Australia. Lee and De Vore (1968) in their edited book '*Man the Hunter*', laid the foundation for anthropological study of modern hunted-gatherers. The book was the outcome of the propound conference '*Man the Hunter*' (1966). In his another study on *the Bushmen of Kalahari*, Lee (1969) has examined the foraging pursuits of the Bushman of Africa. Consequent to the publication of *Man the Hunter* in 1968, a new paradigm of hunter-gatherer studies was started which leads to series of researches which includes the following works. The worth mentioning among them are by Damas (1969), Balikci (1970), Bicchieri (1972) on the Netsilik Eskimo. Watanbe (1973) on the Ainu subsistence, Marshall (1976) on the !Kung, Lee (1979) on the !Kung San, Suttle (1990) edited hand book on North American Indian etc. Shallins (1972) in his much debated book '*Stone Age Economics*' critically studied the economy of different hunter-gatherer societies around the world and

mentioned different types of reciprocal relationships of the said communities. He also mentioned hunter-gather society as 'original affluent society'. Leacock et al. (1982) extensively studied the political and historical aspects of hunter-gatherer with special reference to the band society. Woodburn (1982) in his famous article '*Egalitarian Societies*' studied systematically the primitive economy of hunter gatherer society and opined the concept of immediate return economy and delayed return economy. Villoro (1982) and Deloria (1995) have studied the worldview of the hunter-gatherer and concluded that it is the result of the collective wisdom and experience of generations in local or regional set up and contextual history. Bird-David (1990) has described that most of the foraging groups consider the environment rich and affluent which they often considered as 'giving environment'. A significant development in hunter-gatherer research through the study of foraging strategies. Winterhalder and Smith (1981) provided a detailed account and the application of the 'Optimal foraging theory' with respect to the hunter-gatherer subsistence behaviour. On the basis of this theoretical model they concluded that the hunter-gatherers seek to maximize their chances of finding food with the least and minimum effort. The hunter-gatherers exhibit a kind of economic rationality in their subsistence strategies and foraging methods. Bettinger (1991) also emphasised on further theoretical formulation of the Optimal foraging theory. Further studies on hunter-gatherers of South American rainforest (Kaplan and Hill, 1992), Central Australia (O'Connell and Hawkes, 1981, 1984), Arctic region (Smith, 1991) were also based on the perception provided by 'Optimal foraging theory'. Bailey and Peacock (1988) studied the foraging pattern of *Efe* Pygmies in the *Ituri* rain forest of Northeast Zaire. The study by Stearman (1991) on the *Yuqui* foragers in the Bolivian Amazon and by Bahuchet (1988) on pygmy foraging peoples of Congo basin reversals socio-geographical variations in different rainforests of the world. In their study on the Batek community of Malaya Peninsula, Endicott and Bellwood (1991) concluded that small nomadic groups of foragers

can live of forest resources only. This is due to their foraging strategy which rationally considered the availability, seasonality and density of the resources.

Regarding studies on culture contact and its consequent impacts on foragers and non-foragers, many researchers have studied contextual situations. The study by Cooper (1946), revealed about complete disappearance of *Tehuelche* and *Puelche* peoples by 1880s from the Pampas of Argentina because of war and diseases. In another study by Bodley (1999) depicted the impact of colonisation and capitalisation on extinction of small scale populations worldwide. Lee (1984) studied the livelihood and survival challenges among the Bushman in the modern world after partly adopting the sedentary agriculture. Due to depletion of resource base, introduction of new tools and techniques and competition with the other dominant neighbouring population, the traditional Bushman were bound to confront different kind of challenges to persevere their livelihood. Ndagala (1988) has pointed out major threats to the Hadza tribe due to land alienation and commercial hunting. He also systematically analysed the consequences and impact of the above mentioned threat on the Hadza hunter-gatherer.

So, the above mentioned review of literature gives a comprehensive idea about different studies on hunter-gatherer in different contextual specific and historical specific situations. It also reveals that the study of interaction between any hunter-gatherer and their neighbouring communities is of immense importance and dynamic in nature. This review of literature also reflects that there are very few related studies on the proposed topic entitled “*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their neighbouring communities of Andaman Islands*”. Moreover, it is also intended to consult reports (published and unpublished) of different committees, individual scholars submitted to different departments and institutions, official notifications, reports of the Andaman and

Nicobar administration on *Jarawa* and web materials available through internet etc. for preparation of this dissertation.

1.6 Scope of the Study

Compared to many other hunter-gatherers of the world, till today, *Jarawa* exhibits minimum interaction with the outsiders. They are pursuing much self-sufficient and self-reliant livelihood with minimum dependency on outside elements. Since hundreds of years, the *Jarawa* territory was never being a static geographical area, rather it was subjected to continuous alteration and shift. Henceforth, the *Jarawa* were also subjected to acclimatise to their new socio-geographical environment. From historical time being they have confronted their dominant neighbouring communities namely Great Andamanese, colonial rulers, different settlers from mainland India, Ranchis (Oraon, Munda, Kharia) of Chotanagpur plateau, Karens of erstwhile Burma (Mayanmam) who were settled in the Middle Andaman, Bhantus of Central India and Mophlas of Malabar region (Kerala) who were settled in the South Andaman etc. The antagonistic relationship between *Jarawa* and their neighbouring communities led them to live as an isolated community. In spite of several attempts by the Administration for befriending the *Jarawa*, till October 1997 the relationship between *Jarawa* and their neighbouring communities were antagonistic. But the scenario changed drastically after 1997, when few groups of *Jarawa* came into the contact with the neighbouring communities in open day light and they started to visit different neighbouring villages. Ever since, sporadic bartering interactions have been established with selected members of the neighbouring communities. They are acquiring different cultural traits and elements from dominant non-tribal neighbours. Though they are maintaining their own way of life but it cannot be ignored that they are on the way of change. The impact of this culture contact is dynamic and multifaceted. Being a Particularly Vulnerable Tribal Group (PVTG),

Jarawa are more prone to the adverse effect of the culture contact and bartering exchange. In this context, there are very few in-depth studies to reveal the emic views of *Jarawa* and non-*Jarawa* communities on different contemporary situations of interaction. Consequently, the review of literature also reflects that the existing literatures are till scanty on the subject of the present study entitled “*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their Neighbouring Communities of Andaman Islands*”. So, there is enough scope to study the emic view of both *Jarawa* and their neighbouring communities on the issues of culture contact and emerging realities. A systematic and analytical study of the bartering relationship, its type, extends and impact may also be of immense importance. Moreover, a theoretical review on different aspects of culture change among the hunter-gatherer and foragers may also be pursued during this study. Further, the study may also assist the policy makers and administrators to plan a decentralised and people centric sustainable plan for both *Jarawa* and their neighbouring communities in Andaman Islands.

1.7 Research Questions

The present study entitled “*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their Neighbouring Communities of Andaman Islands*” intended to find out some rational and empirical answer to the following research aspects.

1. The socio-cultural factors which led the *Jarawa* to shift their territory continuously since last two centuries. As, the written historical records revealed the shifting of *Jarawa* territory from South to Northwards, what was the probable impacts on the *Jarawa* therein.

2. Having antagonistic relationship with most of the neighbouring communities, how the *Jarawa* have maintained the isolation from the outside world. The reasons of developing such an antagonistic relationship with the neighbouring communities may also be enquired.
3. As, now a day *Jarawa* have developed bartering relationship with many selected individuals of the neighbouring non-*Jarawa* villages, we may find out the emic view of the *Jarawa* regarding this the bartering desire.
4. Being a Particularly Vulnerable Tribal Group (PVTG), the *Jarawa* are more prone to the adverse effect of the culture contact and bartering relationship. These adverse effects may be identified and its impact on *Jarawa* society and culture may be assessed through this study.
5. Andaman administration with the assistance of Andaman Adim Janjati Vikash Samiti (AAJVS) and Tribal Welfare Department have started different developmental interventions among the *Jarawa*. What are the positive and negative impact of these development programmes on *Jarawa* may be assessed through this study. Whether development programmes have any effect on the seasonal movement and resource utilisation of *Jarawa* within their territory.
6. Most of the bartering items of *Jarawa* are related with the traits or elements of non-*Jarawa* material culture. So, impact of non-*Jarawa* material cultural trait on *Jarawa* material culture and its consequences are to be studied systematically.

1.8 Objectives

Objectives of any research work are of immense importance and it drives the researcher to prove or disprove any hypothesis. Objectives often reflect the kind and extends of the

research. It also drives the researchers to streamline his findings and to reach the conclusion.

In view of above mentioned discussion, following are the objectives of the present study.

1. To study the notion of *Jarawa* territory in different historical specific and contextual specific situations.
2. To study the prevalence of barter relationship between *Jarawa* and non-*Jarawa* communities and to analyse it's type, extend and impact.
3. To study the emerging issues coming out of the interaction between *Jarawa* and their neighbouring communities.
4. To study the changing perception of *Jarawa* about their neighbouring settler communities and vice-versa.
5. To study different aspects of culture change among the *Jarawa*.

1.9 Hypothesis

Hypothesis is always of immense importance for any research work and following hypotheses are proposed for the present study-

1. Culture change in a hunter-gatherer or a foraging society (*Jarawa*) is not merely due to single operational force of culture change; moreover, it is a complex, multidimensional and dynamic process.
2. As bartering relation of the *Jarawa* is basically exchange of different need based, contextual specific, outside non-*Jarawa* elements or commodities to which they are fond of or addicted and cannot manufacture from their available forest resources, it may lead them from so called self-sufficiency to dependency.

3. In a situation of culture contact, explicit aspects of hunter-gatherer culture are more susceptible to change than the implicit aspects of culture.

1.10 Study Area

Presently, the *Jarawa* territory includes 1040 sq km area of dense tropical rain forest located along with the West coast of South and Middle Andaman Islands. The present day *Jarawa* territory has been notified as a 'Reserved Area' under clause (2) of article 243 of the of Indian Constitution (notified by ANPATR/3(1)/1,1956/57 and further modified by notification No. 107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW(PF) dated-15.09.2004). So, the *Jarawa* territory is popularly also known as '*Jarawa Reserve*'. In accordance with the *Jarawa* perception, their territory is broadly divided into three territorial groups namely *Tanmand* or Kadamtala area group of Middle Andaman Islands, *Thidong* or Middle Strait area group and *Boiab* or Tirur area of South Andaman Island. The *Jarawa Reserve* and its neighbouring areas of Middle Andaman Island are often broadly termed as Kadamtala area. As on November, 2017, the total population of the *Jarawa* was 496 (Male-263, Female-233). According to the Buffer zone notification (2013) of Andaman administration, there were altogether 30 neighbouring non-*Jarawa* villages located within the 5 km radius of the *Jarawa Reserve*. Since 2011 to 2017, overall fieldwork was conducted among all the above mentioned three territorial groups of *Jarawa*. Considering the wide spread geographical landscape, the study area was restricted for the convenience. Hence, for the present research work, the study area has been limited to the *Tanmad* area or Kadamtala area of Middle Andaman Islands only. Extensive fieldwork was also conducted among the neighbouring non-*Jarawa* villages of Kadamtala area. The study area was inhabited by 189 *Jarawa* (male 99, female 90), having sex ratio 909. They live in

the dense tropical rain forest of the *Jarawa* Tribal Reserve. The *Jarawa* Reserve in the Middle Andaman is surrounded by 10 major neighbouring villages (Buffer zone notification, 2013) having total population of 8426 (Census, 2011). To study interaction between *Jarawa* and non-*Jarawa*, two neighbouring non-*Jarawa* villages namely Phooltala and Bamboo Tikrey were selected. Both the selected non-*Jarawa* villages are geographically contiguous to the *Jarawa* Reserve having maximum bartering contacts with *Jarawa*. Both the villages come under Kadamtala Gram Panchayat, Rangat Tehsil, North & Middle Andaman district of the union territory Andaman and Nicobar Islands. Detailed household survey was conducted in both the selected non-*Jarawa* villages. The village Phooltala and Bamboo Tikrey are inhabited by different settler communities and are numerically dominated by Bengali population. Their prevalent primary occupation is agriculture which also includes horticultural activities like areca nut and coconut farming. Majority of them came from erstwhile East Pakistan under the refugee rehabilitation scheme of the Government during 1949 to 1954. During the present study on 2017, total population of Phooltala was 134 (male 66, female 68) while the total population of Bamboo Tikrey was 220 (male 112, female 108). Being a nomadic hunter-gatherer, all the 189 *Jarawa* were studied during different phases of fieldwork since 2011 to 2017. Different *chaddas* (camp sites of *Jarawa*) namely *Oleg* (Lakralunta), *Hiulele*, *Elago*, *Hochu*, *Uli Julanpatthar*, *Tanmad*, Philip Nala and Dhani Nala etc. were visited and studied.

Fig. 1.1: Location of Andaman and Nicobar Islands



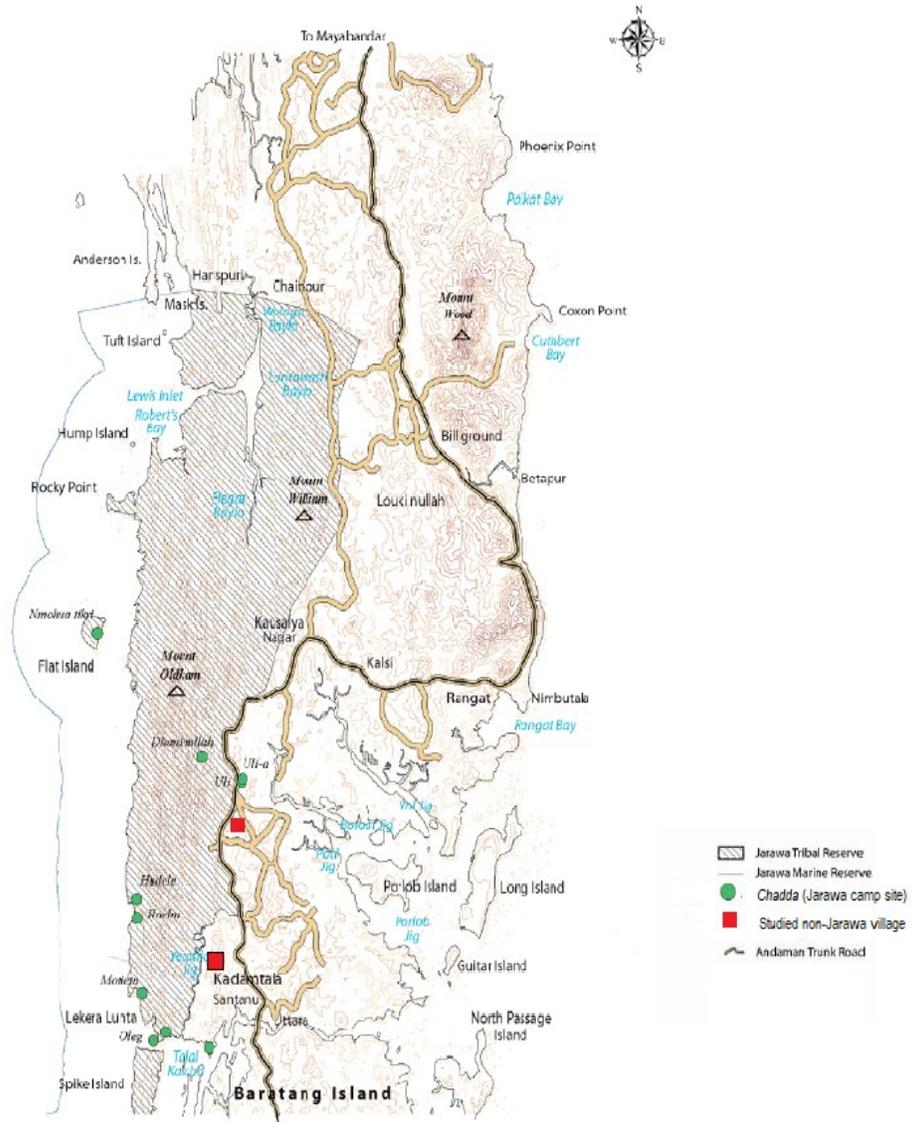
Fig. 1.2: Study area of Middle Andaman Islands



● Chadda (Jarawa camp site)

Non-Jarawa Villages - Phooltala and Bamboo Tikrey

Fig 1.3: Jarawa Tribal Reserve and Study Area of Middle Andaman Island



Source: UNESCO (2010) and Field Study (2011-2017)

1.11 Research Methods

Methodological issue to study any hunter-gather community often deserve a special attention and utmost importance. It has already mentioned that the study was conducted among the *Jarawa* and their neighbouring settler communities of Kadamtala area of Middle Andaman Island. Hence, different *Chaddas* (camp sites) of *Jarawa* and two neighbouring non-*Jarawa* villages were also were studied. The study was conducted in different phases since 2011 to 2017. Altogether, fieldwork was conducted for more than 120 days. Special attention was given for round the year study to cover all the seasonal variations in different aspects. The study area was inhabited by 189 *Jarawa* (male 99, female 90). All the *Jarawas* of *Tanmad* area were studied during different phases of fieldwork and relevant data was collected from them. In case of settlers (non-*Jarawa*) all the households of the two selected villages namely Phooltala and Bamboo Tikrey were systematically studied. As language often become constrain for in-depth study especially at cognitive level, thus, emphasis was given to learn the *Jarawa* language. Prolonged fieldwork and studying different handbooks on *Jarawa* language were immensely assisted in this regard. Being a nomadic hunter-gatherer community, different methodological approaches were adopted to study *Jarawa* and non-*Jarawa* communities separately. Emphasis was given on ethnography method. Moreover, other anthropological methods namely survey, case study and observation were taken into consideration. Data on socio-cultural, economic and basic demographic profile of the settlers (villagers) were collected by using anthropological tools and techniques like interview, focused group discussion, case study, observation and household survey etc. Besides these, information on culture contact, bartering relation and emerging issues was collected by observation, case study, key informant interview, focused group

discussion and social mapping etc. In case of *Jarawa*, data was collected by conventional Anthropological tools and techniques namely observation (including participant observation and disguised observation), case study, genealogy, interview (structured and unstructured), group discussion and social mapping etc. Besides these photography and GPS instrument also played a significant role during the study.

1.12 Organisation of the Study

To pursue the research work more systematically and scientifically, the present study has been organised into the seven chapters. The first chapter provides details pertaining to the basic research design with introductory note about the archipelago, the autochthonous people, non-tribal people, concept of hunter-gatherer, review of already existing literature, scope of the study, research questions, objectives of the study, study area, research methods, organisation of the study.

Afterwards, the second chapter reveals a holistic idea about the *Jarawa* society and culture in terms of their territory and resources. It includes discussion on concept of *Ang*, *Enen* and *Ono*; social organisation of *Jarawa*; subsistence economy, rite-de-passage, material culture, worldview, population details, territorial groups or bands, territory, territoriality, buffer zone and Andaman trunk road.

The *Jarawa* territory with special reference to the pre-independence manifestation have been discussed in the third chapter. This very aspect is discussed under the following sub-categories- earliest contact with *Jarawa*, population distribution, territorial conflicts with Great Andamanese, punitive expedition of *Jarawa* hunting, encroachment of *Jarawa* territory, exploitation of forest resources etc. this chapter

primarily dealt with different historical circumstances related to the dynamics of *Jarawa* territory.

The fourth chapter related with different manifestations of *Jarawa* territory with regards to post-independence scenario. This chapter includes creation of *Jarawa* Tribal Reserve under constitutional provisions; Refugee rehabilitation programme around *Jarawa* Reserve; Bush police to protect the settlers from *Jarawa*; the Andaman trunk road, its history and consequences; scenario of contact, conflict and mutual hostility; establishment of friendly contacts; expert committee on *Jarawa* behaviour; *Jarawa* policy 2004; Buffer zone issue and lastly different developmental initiatives by Andaman administration have been discussed and analysed.

The contextual situations of the neighbouring non-*Jarawa* villages have been discussed in the fifth chapter. Based on primary data obtained from household survey, this chapter reflects empirical situation of the non-*Jarawa* communities residing at the fringe villages near *Jarawa* Reserve. It includes population details, livelihood, developmental initiatives, forest resource extraction, contact with the *Jarawa*.

Further moving ahead, the sixth chapter systematically depicted the scenario of culture contact and changes in *Jarawa* society and culture. The sixth chapter is the crux of this dissertation. Dynamicity of bartering relationship and culture contact is elaborately discussed through the writing in this chapter. Based on empirical data, this chapter includes discussion on following topics– Bartering relationship, Impact on neighbouring communities, Impact on *Jarawa*, Impact on forest resource, Impact on food habit, impact on health and hygiene, impact on subsistence, impact on aesthetics, domestication of animal and plants, impact of language, addiction for tobacco and alcohol consumption and last of all sexual exploitation.

Finally, the seventh chapter provides the summary of major findings derived from the study. The conclusion of this research incorporated the emic view of both *Jarawa* and neighbouring communities regarding dynamics of *Jarawa* territory. Overall discussion of this concluding section have systematically justified the objectives of the study and attempted to provide a scientific answer to the different research questions. Lastly, it also reveals the scope of further research and limitations of the study.

CHAPTER-II
THE *JARAWA* (*ANG*)

CHAPTER-II

THE *JARAWA*

2.1 Concept of *Ang*, *Enen* and *Yono*

Only in recent years we came to know from the *Jarawa* that they call themselves as *Ang*. It has been argued that Aka-Bea, one of the Great Andamanese tribes used to refer the *Ang* as '*Jarawa*'. As during early period of British colonisation the Great Andamanese tribes used to be the jungle guide for different administrators and surveyors who picked-up the term *Jarawa* to refer this particular group of Jungle dwellers of South Andaman and Rutland Island. So, in Great Andamanese dialect, the *Negrito* inhabitants other than them, were referred as *Jarawa*.

So, till recently it was not known to us that by what term *Jarawa* used to refer themselves. During the present study also it has been found that *Jarawa* refer themselves as '*Ang*' which means people. This term is uniform to all the territorial groups of *Jarawa*. Simultaneously in *Jarawa* dialect, there are different terms to refer different groups of people. All the non-*Jarawa Negrito* people of Andaman Islands are referred as '*Yono*'. Hence, it has been found during the fieldwork that *Jarawa* recognised the photographs of Great Andamanese, Onge and Sentinelese as '*Yono*'. All the outsider non-Negrito people are collectively referred as '*Enen*'. Though the term *Enen* is a generic term to refer all the non-Negrito outsiders, there are separate terms to refer the communities like Ranchi (Oraon, Munda, Kharia), Burmese etc. Understanding about these terms may help us to recognise the emic views of the community.

During the present study voice of few *Jarawas* were recorded during pronunciation of the name of their own community i.e. '*Ang*'. It is noteworthy to mention that their pronunciation of '*Ang*' often heard like '*Ong*' which is quite close to the pronunciation '*Onge*' (the

‘Negrito’ inhabitant of Little Andaman). So, Brown (1922) was rightly assumed that ‘The natives of Little Andaman refer to themselves as Onge (men). It is probable that the so-called *Jarawa* of the South Andaman have the same word.’

2.2 Social Organisation

The basic unit of social organisation among most of the hunter-gatherer communities is ‘band’ which often referred as a small-scale nomadic group of ten to forty people related by kinship. The *Jarawa* is an endogamous community and they maintain their identity through their unique dialect, socio-cultural traits, belief, customs, territorial affinity and subsistence activity etc. They never violated their rules of endogamy in any event of marriages and till date they have maintained their purity of blood. Unlike other many hunter-gatherers of the world they still reveal the earliest form of human society. They live in local territorial groups or bands without any prominent central leadership. Leadership is quite informal among them. They show respectful attitude towards the elderly persons and decisions are often taken unanimously with the consent of other members. Being a nomadic hunter-gatherer, the social organisation of *Jarawa* is primarily regulated through their nomadism, subsistence and resource utilisation. The society is regulated by different prohibitions and prescriptions. Every grown-up *Jarawa* is a self-sustained and individual entity. They believe in freedom of life and nothing is forcefully imposed on any individuals. After individuals, the family is the fundamental unit of *Jarawa* society followed by ‘band’, ‘territorial groups’ and ‘*Jarawa* community’ as a whole.

2.2.1 Family

Likewise, many other societies, family is the fundamental unit or basic structural and functional unit of the *Jarawa* society. Family is generally consisting of husband, wife and their minor Children. *Jarawa* children (both boys and girls) after attaining the age

of eight to ten, they started to stay separately from their parents. They started to live in separated dormitories or groups. The boys group is called *lepale* and the girls group is known as *abile*. *Lepale* is composed of pre-adolescent, adolescent boys and young unmarried boys. Widower may also join the *lepale* till further remarriage. Similarly, the girls group (*abile*) is constituted with pre-adolescent, adolescent and young unmarried girls and widows. The system of *lepale* and *abile* is the *Jarawa* custom of socialising their children and youths. They also learn their foraging way of subsistence through this system. But at the same time they never cut off their linkages with their parents and other relatives. As we know that *Jarawa* refer their huts or camp sites as '*chadda*'. On the basis of size and number of dwellers, there are three different kinds of *chaddas* namely community huts (*chadda thuma*) or permanent huts, semi-permanent huts and temporary huts. Altogether ten to fifteen families may stay in a community hut. Space and place allotted to each families, *lepale* and *abile* are fixed and demarcated. There are separate hearths or fireplaces for every families and groups. Apart from the family hearths, there are common hearths at the centre of the community huts. In a vacant community hut, number of inhabited families may be counted by locating the hearths and demarcated areas within the hut. Monogamy is the prevalent in *Jarawa* marital system and predominantly their families are of nuclear type. Generally, they establish a separate family immediately after the marriage. All the families staying in a *chadda* are invariably related by kinship which may be either affinal or consanguineal type. Often these families move together during their nomadic mode of subsistence.

2.2.2 Band

Consequent to the family, the next social unit among the *Jarawa* is the band or local groups. One of the basic unit of social organisation among most of the hunting and gathering communities is the band which may define as a small-scale nomadic group

of fifteen to fifty people related by kinship. Throughout the world, the band societies share a number of common features. Firstly, they are relatively egalitarian and leadership is less formal. Mobility is another prime characteristic of band societies. People tend to move their settlements frequently or several times a year. This movement is basically related with resource utilisation or in search of food. Thirdly, people of all band-organized communities exhibit a pattern of concentration and dispersion or fusion and fission. Instead of living in uniformly sized groupings throughout the year, band societies tend to spend part of the year dispersed into small foraging groups and another part of the year aggregate into much larger groups. Territorial affinity is another characteristic feature of the band societies. It is further characterized by rules of reciprocity.

In case of *Jarawa* the bands or local groups are also constituted with fifteen to fifty individuals or more. It also includes nuclear families, *lepale* (boy's groups) and *abile* (girl's groups). Being a nomadic hunter-gatherer tribe of dense tropical rain forests of Andaman Islands, fusion and fission within the band is quite common. Generally, we may find bands are divided into smaller groups in dry season and aggregated band with large number of individuals are commonly found during the rainy season. This concentration and dispersion of bands are primarily dependent on availability and accessibility of food resources. It may happen that different families of a band or local group may divide themselves in smaller groups and proceed in different directions. Then they may reassemble at somewhere different place at later. But undoubtedly, there is a systematic and calendric pattern in this seasonal movement. Each families and bands have their systematic plan of resource utilisation and seasonal movements. It has also been found that most of the bands or local groups are composed of two to five kin groups who are related by either consanguineally or affinally.

2.2.3 Territorial Groups

The next larger social unit among the *Jarawa* is the 'territorial groups'. The territorial groups are generally composed of several bands or local groups. As perceived by the *Jarawa* and in accordance with their notional territorial classification the entire *Jarawa* community may be divided into three notional territorial groups namely *Boib*, *Thidong* and *Tanmad*. So, the entire 1040 square kilometre area of *Jarawa* Reserve of South and Middle Andaman Islands is notionally classified into three territorial groups i.e *Boiab* (Tirur area), *Thidong* (Middle Strait area) and *Tanmad* (Kadamtala area). Territories of the *Boiab* (Tirur area) and *Thidong* (Middle Strait area) are contiguous to each other while the third territory, i.e., *Tanmad* is situated on a separate Island. Movement of different groups of the *Jarawa* are territory specific in terms of their hunting and gathering activities. But this rule is not applicable for social purposes like marriage alliances and visit to the *chaddas* of relatives. It clearly indicates that each group has access only to its own territorial resources while inter-territorial sharing of resources is strictly prohibited for each of the three territorial groups. It also reveals a prominent understanding of possession of resources of each territory at the territorial group level. Inter-group marital and reciprocal relationship is quite strong and well established among different territorial groups. Members of different territorial groups frequently visit their relatives and in-laws as a guest. Bartering exchanges do take place among the *Jarawa* different territorial groups. Being divided into different territorial groups also secure their primary rights of resource utilisation in a particular territory. Without the consent of members of respective territorial groups, they never violate this territorial regulation of resource utilisation.

2.3 Subsistence Economy

Subsistence economy is often described as a non-monetary economic system which mostly dependent on natural resources to provide basic needs of a community through hunting, gathering, fishing and subsistence agriculture. The term 'Subsistence' also indicates self-sufficiency which means supporting oneself at a minimum level. In a subsistence economy surplus is minimum. *Jarawa* is an example of classic hunter-gatherer community and their livelihood is based on hunting, gathering, fishing and honey collection. In *Jarawa* system of subsistence, hunting is primarily pursued by male folk while gathering is dominated by the female members. Simultaneous pursuance of hunting and gathering ensure the food security of the community in case any scarcity. The *Jarawa* practice hunting, gathering and fishing with very simple tools and technology. There are only few finger counted implements used by the *Jarawa* for their subsistence. Further, the implements for hunting, gathering and fishing may also be categorised as traditional implements and non-traditional (often improvised) implements. Traditional implements include bows (*aav*), arrows (*patho*), traditional knife (*tohad*), small fishing hand nets (*batho*) etc. Often the non-traditional implements are improvised in accordance with its function and adaptability. Non-traditional implements include hunting trap, machete, fishing hook and line, iron hook etc. Similarly, traditional gathering implements includes cane basket (*taika*), wooden bucket (*uhu*), adze etc. Moreover, gathering also require some non-traditional items like machete, axe, digging rod (*satang*), plastic bucket etc. So, the subsistence of *Jarawa* is primarily based on hunting, gathering and fishing which require a detailed discussion with reference to their territory and resources.

2.3.1 Hunting

In spite of thick coverage of tropical rain forest, the *Jarawa* Reserve has lack of faunal diversity. There are only few animals to be hunted by them. The most

preferable and primary game animal is wild pig (*wowo*) followed by monitor lizard (*urug*). Apart for *wowo* and *urug* *Jarawa* also hunt sea turtle which is quite seasonal and frequently cited during winter season (November to February). Though the wild pig and monitor lizard is available throughout the year but there is a seasonal variation in terms of frequency of availability and accessibility. They have different kind of arrows (*patho*) to hunt different kind of animals. Even they used to assign different names to those arrows. Making of all the above mentioned traditional hunting, gathering and fishing implements are their regular activity. One can assume *Jarawa* as an artisan tribe while preparing those implements. Notably, there is prominent division of labour based on gender. Preparing of bow, arrow, traditional knife, wooden bucket, chest guard and any other iron related works are primarily pursued by male members. While the preparing of cane basket, fishing hand net, bark fibre rope etc. are female dominated job. Broadly speaking preparing of hunting related implements are male dominated work and gathering related implements (except wooden backed) are dominated by the female folk. Nothing is absolute rigid in the hunter-gatherer society. Always there are some exceptions based on functionality. Females were of often cited doing decorative and binding work associated with wooden bucket while males were occasionally observed doing weaving work of the fishing hand net. Except iron pieces, all the raw materials are collected by the *Jarawa* from their natural resources within their territory.

The most preferable and primary game animal is wild pig (*wowo*). Hunting of wild pig is often an individual or group endeavour performed by the male members only. Hunting is considered as a hazardous and risky job and it also requires long travel while chasing the hunt. So, hunting may keep away the hunters from their *chaddas* for a longer duration which may be from morning to afternoon or even up to evening.

Hence, it is often not feasible for the *Jarawa* women and mothers for such a precarious job which may detach them from their children for longer duration. The traditional wisdom of *Jarawa* assists them to find out the wild pig in the dense vast tropical rainforest. They are also well versed with the hotspots of the wild pigs. Wild pigs are often cited in the marshy land of the interior dense forest. With their traditional wisdom *Jarawa* can easily identify the foot trails of the wild pigs. Hunting expeditions usually start in the morning. A fully equipped individual hunter or the group including adolescent or young boys move into the jungle to locate the pigs, following the foot prints, smell and other remnants like faeces, food particles etc. They proceed and approach carefully as the long tusked boar may become ferocious. After citing the hunt, they prefer to reach at the proximity. During group hunting they communicate each other by different signs through gestures. The group members try to take position from different angles. Usually, they shoot an arrow from a short distance about 10-20 metres. After contact with the outsiders, now a day, they often take support of dogs to surround the pigs from different sites so that hunting operation becomes easy. As a natural instinct of the dog, they try to trap the pig in the long extended buttress roots of gigantic trees. In group hunting the man whose arrow strikes the pig first is regarded as principal hunter. After killing the pig, the main hunter or any senior member of the team cut open the abdomen of the pig with traditional knife (*tohad*) and removes the inedible parts like intestine, stomach and other different portions of alimentary system and lungs etc. The delicious parts like liver and heart are taken out and again kept in the hollow abdomen after cleaning. After that they fill the hollow abdomen of that pig with the tender leaves of *Liquala peltata* (locally known as *Selai patti*). Then the pig is entirely fastened with bark threads for carrying it to the settlement. They have their own system of sharing mechanism and division of labour for processing and consuming of hunted animals.

After consuming the pig, they have a tradition of keeping the mandible and skull of that pig's skull as a memento or hunter's trophy. They decorate the mandible and skull by tiding it with cane thread and hang it near the ceiling of the *chadda* at their dwelling place in a decorative manner. The accumulation of round the year collection of these pig's skull indicates the superiority of that hunter. This tradition also has some animistic value and super natural believe of prosperity and expectation of good hunt for the future.

Apart from wild pig, *Jarawa* do hunt monitor lizard and sea turtle. No separate hunting expeditions are set out for these. Once cited monitor lizards are often hunted by chasing or by shooting arrow or striking by knife (*tohad* or machete). Consuming meat of monitor lizard is tabooed to the pregnant women. Similarly, once cited the sea turtles in the shallow lagoons they often hunt it with the help of detachable arrow. Egg laying sea turtles are hunted in the sandy sea shore. Both the sea turtle and monitor lizards are consumed by after boiling or roasting.

2.3.2 Gathering

In *Jarawa* subsistence gathering is often associated with the women folk. Generally, gathering includes collections of wild fruits, tubers, turtle eggs, grub larvae, different shells and molluscs etc. Though honey collection is often considered as a part of gathering, but considering its importance, extends and utility for the *Jarawa* society, honey collection has been considered as a separate mode of subsistence. So, *Jarawa* subsistence related to honey collection with reference to the territory, resources, traditional knowledge has also been discussed separately. Gathering is a very important component of *Jarawa* subsistence and livelihood. It often ensures the food security among them. In case of any failure in hunting by men, gathering and fishing etc. by the women helps the community to survive. So, to assure their food security,

Jarawa never depends on a single means of livelihood or subsistence. Depending on seasonal variations, availability and accessibility of resources hunting, gathering and fishing are pursued simultaneously. Gathering is also performed individually or in groups. As the items of gathering are subjected to the seasonal variation, availability and accessibility *Jarawa* also shift their camp sites (*chadda*) accordingly. While visiting neighbouring non-*Jarawa* villages for different bartering urges, they also pluck different fruits and edible items from there. *Jarawa* also consider this collection as a part of gathering. The groups may compose of females of different age groups or adolescent females etc. Generally, females do not spend much time in gathering pursuance. They usually spent two to four hours either in forest or sea shore or creeks to collect the gathering items like wild tubers, fruits, berries, shells and molluscs, turtle eggs, grub larvae etc.

2.3.2.1 Collection of tuber

In *Jarawa* cognition there are four different varieties of wild tubers available in the forest. The varieties of wild tubers are *cheo*, *chigi*, *nadohata* and *bugi*. *Cheo* and *chigi* are the most preferred and scantily available in the jungle. This classification is primarily based on typology and preference. The wild tubers *nadohata* and *bugi* are the least preferred and more abundantly available. The least preferred wild tubers like *nadohata* and *bugi* may have high content of raphides which leads to itching in the mouth and throat. Maturity and availability of wild tubers are subjected to seasonal variations. Generally, it is collected during dry season October-November to March-April. Consumption of wild tubers meets their carbohydrate needs. The tubers are collected with the help of digging rod, adze and machete. In order to ensure the sustainability, they never destroy the entire plants while collection of tubers.

During digging up the tubers with the implements, the roots at base of the tuber are generally left which consequently grow as new plants with tubers.

In *Tanmad* area (Kadamtala) wild tubers are abundantly available in the deciduous forests located nearby the non-*Jarawa* villages. So, *Jarawa* are more frequently cited during the dry season (season of collecting wild tubers). They even set-up temporary *chaddas* (camp site) at the fringe areas. Incidences of bartering contacts are also raised many folds during this period. They even collect areca nuts, coconuts, banana, guava, mango etc. from the plantation areas of non-*Jarawa* villages.

2.3.2.2 Collection of grub larvae

The grub larvae are one of the most preferred and delicious food items for *Jarawa*. It is frequently found during the rainy season (May to October) and collected from the rotten tree trunks. As perceived the *Jarawa*, there are two types of grub larvae namely *pathen* and *ono*. This typology is primarily based on colour and appearance. *Pathen* is whitish in colour and *ono* is blackish in appearance. They preferably consume both *pathen* and *ono* either raw (live) or after slightly roasting it. *Jarawa* are so fond of these *pathen* and *ono* that they sometimes cut full grown trees for allowing the grub larvae to grow. Two examples may be cited in this regard. Firstly, while collecting wild jack fruits (*aab*), often they cut and fell down fully grown trees along with the fruits. Then they collect the *aab* for further processing and consumption. But they left the huge tree trunks to be rotten during rainy season. Consequently, *pathen* and *ono* are generated there. Secondly, it has also been observed that during the set-up of new camp site (*chadda*), some trees are cut and felled. These

felling of trees during collection of wild jack fruit and setting up of new camp sites serves some purposes like (1) it allows the sunlight to reach the *chadda*, (2) the felled tree trunks soon started to decompose under the hot and humid condition of the tropical rain forest which facilitates the germination and growth of grub larvae, (3) felling of large trees creates a hole in the forest canopy which accelerate the growth of small saplings to regenerate the biodiversity.

2.3.2.3 Collection of wild fruits

Different seasonal fruits and berries are part of *Jarawa* diet. *Jarawa* consume different varieties of fruits and seeds. Most of these seasonal fruits are available during dry seasons to early rainy season (March to June). Collections of these different fruits are mainly performed by the female members of the society. Most of the small fruits are consumed on the spot on their way by both male and female. These wild fruits include cane fruits (*panato*) different citrus fruits (*loge, gini, homa* etc), wild banana, wild mango (*Mangifera andamanica*), wild jack fruit (*aab*) cycus fruits (*amin*), pandanus fruit, Nipa fruit (*thuiya*), Garcinia fruit (*wakkam*) etc. They also habituated and fond of different non-traditional fruits like coconut, banana, guava, jack fruit, mango (*Mangifera indica*) etc. These exotic fruits are collected during their visit to the non-*Jarawa* neighbouring villages.

2.3.2.4 Gathering from sea shore

Gathering of different edible marine resources are often found around the shallow lagoons, sandy sea shores and creek areas. Gathering of sea resources includes turtle eggs, different mollusc like trochus, turbo, giant clams, conchs,

bivelbs, cowries etc. Likewise, other different gathering items, gathering of marine resources are also dominated by female members. Male members and couples were also observed to collect these edible marine resources while proceeding for marine fishing. These items are accumulated in the cane basket or hand net for carrying towards the *chadda*. Most of the marine gatherings are consumed after boiling.

2.3.3 Fishing

Though women may not take part in hunting but they do fishing of variety of fishes in the shallow lagoons, creeks and streams. *Napo* is the blanket term to refer fish in *Jarawa* dialect. They also have separate names for different types of fishes. Though there is a gender division based on fishing methods and fishing implements, fishing is equally pursued by both male and female members. The fishing arrows of *Jarawa* are different from the hunting arrows. It's really amazing to observe *Jarawa* while shooting arrow to the moving fish and how they overcome the effect of refraction of light which do not allow the human eyes to identify the exact location of any underwater objects. *Jarawa* men do fishing with bow and some special type of pointed wooden arrow (*Tochau-thad*) or needle like iron arrow pointed arrow (*tochau-thom*). Fishing activity is generally performed during low tide. The women use hand net (*batho*) to catch fish from shallow waters, creeks and streams. They used to collect both marine and sweet water fishes. Usually women do fishing in groups including the adolescent and young. Fishing by couple together is also a common practice. Principal implement of women fishing is hand net (*batho*). They use hand net for trapping fishes, crabs etc. The group fishing has an advantage over individual fishing. Compared to the group fishing, success rate is less in the individual fishing. Group fishing is generally carried out in blockaded channels, creeks and marshy areas during the low tide. During the group fishing, the females form a semi-circle and drive the fish towards a corner. Once the fishes have been

cornered, they put the hand net at the escape routes. *Jarawa* consume fish mostly by boiling or roasting.

2.3.4 Honey collection

Though honey collection is often considered as a part of gathering mechanism but considering its importance, extends and utility for the *Jarawa* society, honey collection has been considered as a separate mode of subsistence. So, subsistence based on honey collection was taken a case study to understand dynamics of forest resource utilisation by the *Jarawa* in their territory i.e. *Jarawa* Tribal Reserve. *Jarawa* subsistence related to honey collection with reference to the territory, resources, traditional knowledge have also been discussed accordingly. Throughout the world honey is symbolically associated with different aspects of societies and cultures. Honey is an inseparable component of *Jarawa* society and culture. It contributes as a major food item for the *Jarawa* for about half of the calendric year when other foremost food resources are of scanty. Moreover, honey-*Jarawa* relationship may be observed from their every activates starting from searching of bee-hive to marking it, collection procedure to consumption pattern, storing procedure to use of by-products, social dynamics to medicinal use etc. Use of different herbs as bee repellent during honey collection and dynamicity of its application is also of immense importance with regards to their territory and resources. In *Jarawa* cultures, honey is not only associated with food but it also extends far beyond regarding its use as a foodstuff. In songs, myth, aesthetics, world view, group dynamics folk belief honey is frequently associated.

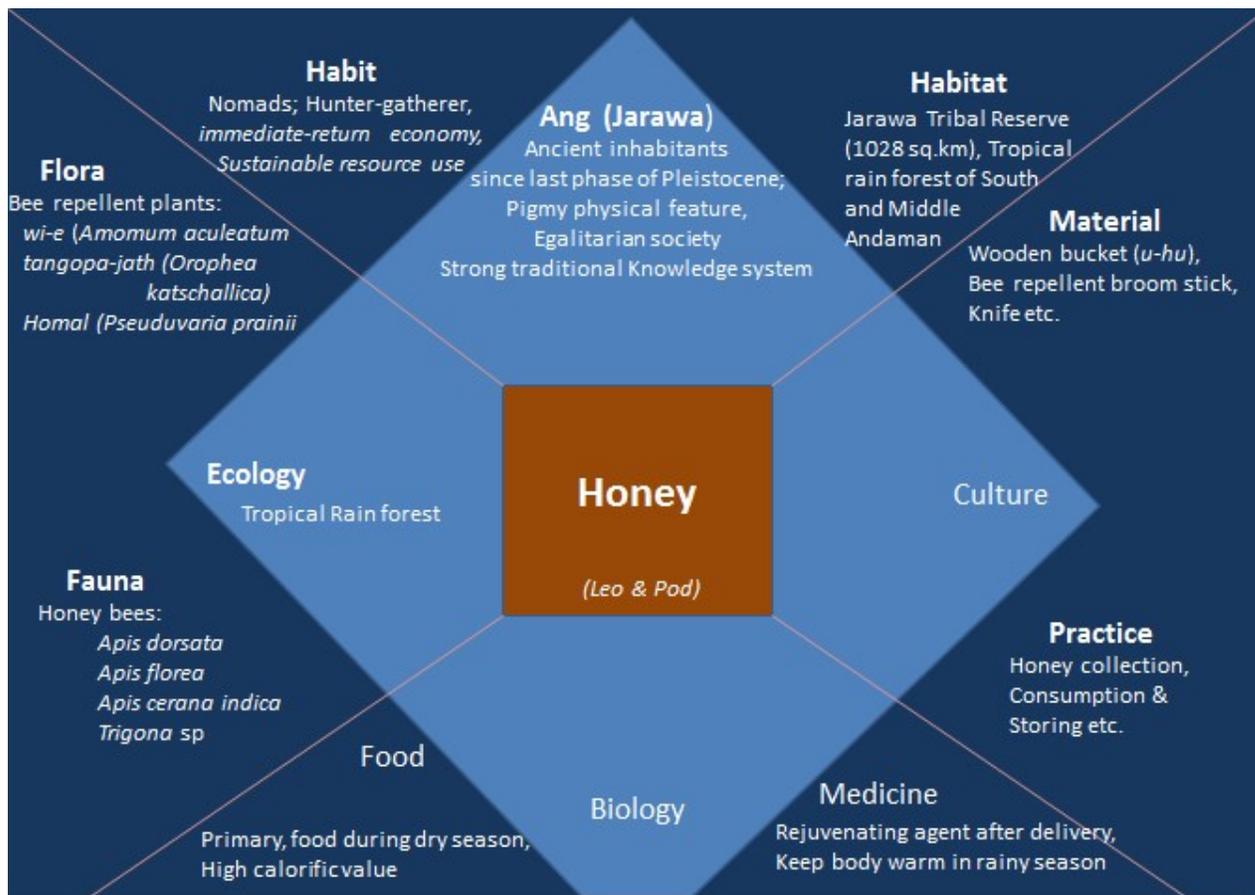


Fig. 2.1: Schematic representation of Jarawa-honey relationship.

2.3.4.1 Honey Varieties and Sources

In *Jarawa* cognition there are mainly two types of honey viz. *Leo* and *Pod* which is collected and consumed by them.

2.3.4.1.1 *Leo*

It is derived from white honeycombs generally made by big honey bees i.e. *Apis dorsata* (Maa, 1953, considered the *A. dorsata* of Andaman islands as *Megapis dorsata*). Colour of *Leo* honey is similar to the common honey which is known to all. The colour and taste of *Leo* is subjected to seasonal variation

and generally dependent on the type of flower from which nectar was collected. *Leo* is found to be suspended in open branches of tall trees in forests and it is more frequently found in the deciduous forest patches. As it is already mentioned in *Jarawa* cognition *Leo* is not only the sweet liquid content (honey) of the bee hive but it also includes honey comb and larvae. To them the Sweet liquid content (honey) of bee hive is called *inteo*, larvae are *ajim* and the wax is known as *otthab*. They consume *inteo* along with *ajim* and *otthab*. After consumption of *inteo* and *ajim*, the chewy *otthab* is kept aside and accumulated in a specified place. The *otthab* contains elements of bee wax and it has many other utilities like polishing bow, *u-hu* (wooden bucket) etc. (Plate 3)

2.3.4.1.2 Pod

It is obtained from blackish or brown honey combs made by small, black and stingless bees. Colour of *Pod* is dark chocolate to brown. It is found in the hollow tree trunks in the forest. Compared with the *Leo*, honey content (*inteo*) of *Pod* is less. *Jarawa* are also fond of *Pod*. As the honey bees of *Pod* don't have any sting, it is less hazardous to collect. The only effort to put is to climb the tree and cutting or digging the tree trunk but often the main obstacle is the height of the tree. *Jarawa* were observed to cut a whole tree the search of *Pod*.

Two other native honey bees beside *Apis dorsata* are *Apis florea* and *Trigona* sp. *Apis dorsata* is the chief honey bee in the islands and is the most important source of honey. It is also the chief pollinator of plants in the region. *Apis dorsata* is a migratory wild bee of pan-Asiatic distribution. These bees make a single large comb on the open branches of tall trees in the in the forest

or generally inaccessible high perches (Singh, 1975). *Apis dorsata* is dreaded as the most vicious and vindictive insects on earth they can chase intruders in swarms over long distances. Their stings are very painful, indeed are sometimes fatal to man and animals. During the monsoon season the bees nest in deep forests for apparent protection from the heavy rains with their accompanying gales. During the dry season, they migrate and nest in open and flowering areas. Due to their aggressive nature, migratory habits, and easy excitability any unprotected approach or manipulation of the hives makes hazardous (Dutta et al., 1985). Besides the above mentioned honey bees, study report of the expert committee on *Jarawas* of Andaman (2003) also mentioned the name of *Apis cerana indica* as a honey bee in the *Jarawa* territory.

2.3.4.2 Significance of Honey

Honey is the second most preferred food item for *Ang* (*Jarawa*) followed by *wowo* (meat of wild boar). For collection, storage of honey and keeping, carrying other articles also, they even prepare wooden buckets called *u-hu*. Report of the expert committee on *Jarawas* of Andaman (2003) reveals that the buckets are prepared from the wood or bole of *Pajanelia longifolia*, *Oroxylum indicum* and *Sterculia villosa*. Moreover, honey is an integrated part of their life and it has immense significance in their society and culture.

2.3.4.2.1 As precious food

Since, their economic pursuits completely depend on collection and hunting of various natural resources. An inventory on food related natural resources had prepared in the same area during various seasons of 2000; which revealed that

honey is the most potential food resource among the *Jarawas*; during the early-dry (February) and pick-dry (April) season. Honey, itself contributed 56.94 per cent of total procured food items during early dry season and 50.47 per cent of total procured food items during pick-dry seasons, more in compare to wild-boar during those seasons. Hence, collection of honey is more conducive for maximizing the net calorie return than any other accessible natural resources during entire summer. Seasonal variation, accessibility, abundance and calorific values in combines have insisted them to develop and nurture intrinsic traditional knowledge regarding honey collection. Honey, its' potentiality; cultural norms for procurement and other relevant practices do also endorse traditional way of sustenance of the natural resources, within the locality.

2.3.4.2.2 Medicinal value

Despite it's' food value, honey has immense medicinal value in the society. In their traditional practice expectant mothers are only to be provided honey during on-set of delivery to facilitate smooth delivery of the baby; as they believe that regular consumption of honey during third trimester of pregnancy; would help in growing-up *kidu* (the foetus) inside the womb. Even after successful delivery; mothers are provided the honey, as the first ever natural food item as rejuvenating natural resource.

2.3.4.2.3 Social dynamics, sharing and gender role

Moreover, honey is also predominantly the second most food item which is also shared among the group members; but extend of its sharing is lesser than

the flesh of wild boar. There are marked gender role in foraging activities. A few economic pursuits (e.g., hunting of wild boar) are exclusively male's job. However, both male and female do participate in collection of matured bee-hive from the tree. Women are also expert in instant tree climbing and collect honey-comb as fast as possible before larvae and pupae get matured and left the hive. Women do follow necessary precautionary measures during collection of bee-hive.

2.3.4.2.4 Norms and taboos

They often consume honey in group and there are certain norms and taboos related to different aspects of honey. Consumption of honey is prohibited after sun-set; as this is considered being 'hot' food item. Despite its food value and medicinal value as well, consumption of honey is strictly prohibited during menstruation period for maiden girls; as they believe that consumption of honey during those days, may increase vitality. Feeding honey is also prohibited to infants till weaning semi-solids initiate to them. Consumption of honey inside hut is also prohibited for avoiding infestations of insects inside. They take away honey-bucket out-side hut and consume it. When that course will over, they again wrap residue and hang it again properly. After having honey and honey-comb, taking bath is compulsory not only to wash down sticky substances but also to maintain immediate thermo-regulatory process inside the body due to huge consumption of honey-juice and combs.

2.3.4.2.5 By-products

Jarawa consume honey along with the larvae and honey comb but they do not ingest the Honey-comb wax. Chewed honey-comb ultimately became small

solid portions of wax that finally dry those in sun and store for further multifarious uses in domestic use. Honey squeezed wax pieces keep carefully and those reuse as bio-fuel while lighting traditional torch, set fire (with little wet fire-woods) in rainy seasons. Those also use for shining of wooden-bow and protection from moisture. Moreover, thorough polishing with honey-comb wax also ensures elasticity and durability wooden-bow. They do melt accumulated wax pieces and apply it on honey-buckets to seal cracks.

2.3.4.3 Collection of Honey

Jarawa are the nomadic hunter-gatherers live in groups or band. Depending on certain factors, the groups or bands migrate from one place to another after a certain period of time. Number of member in a particular group and duration of staying in a certain place is basically depended on the availability and accessibility of resources. On the other hand availability of resources is depended on seasonal variations. That's why during dry season large groups are divided in to small groups and migrations of groups are more frequent than the rainy season. Regarding subsistence there are three ways of procuring food i.e., hunting, gathering and fishing. Collection of honey comes under the gathering process.

Jarawa recognize *aludan* (flowers of Gurjan i.e. *Dipterocarpus Sp.*) very well, as the primary flowers for rich source of honey in the forests. They even have very clear cognitive categories to identify various parts of a flower like *athitong* (calyx); *olaag* (corolla), *ethithelaag* (androecium), *unpothathangna* (gynoecium), *unthaothod* (ovary) and *withopad* (androecium and gynoecium in combine). They know, that honey bees fly and sit on *the olaag* and collect honey from *withopad*.

The honey season generally started during the last week of November and it continues up to May or before the onset of the monsoon. Honey is dispersedly found all over the forest but it's more abundant in and around deciduous forest patches.

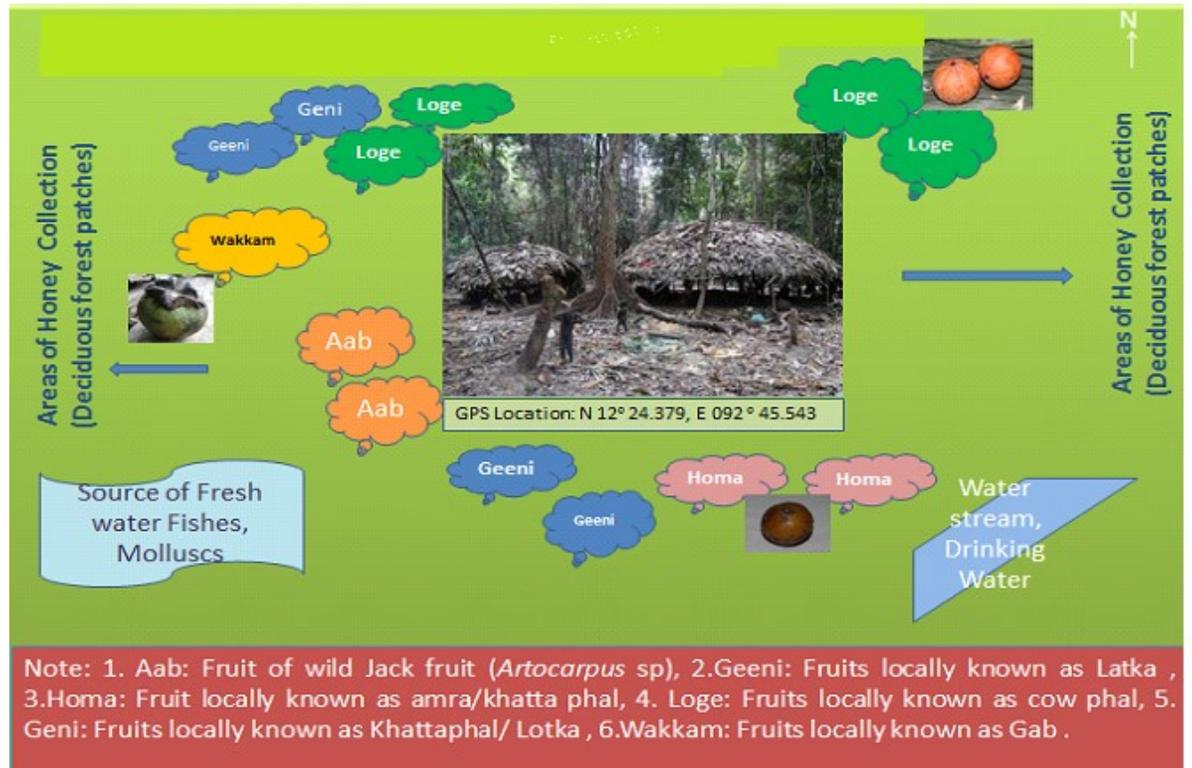


Fig. 2.2: Notional distribution of honey collection areas and other forest resources around the Jarawa *chadda* during peak dry season (April-May)

2.3.4.3.1 Belief and practices

Generally separate expeditions are setup for honey collection during the season of honey collection (November-December to April-May). For that type of expedition they equipped themselves with bee repellent plants, wooden bucket (u-hu) for carrying honey, knife etc. Usually they search the forest in small expedition team (2-5 members) who are often kin members. During the

pick honey collection season they can search the forest more than five kilometre radius from their camp site. Sometimes it was observed to spend nights outside their original camp site.

Amongst natural food resources, honey is the most favorite and targeted foraging items among the *Jarawa*; in view of its food value, abundance, medicinal use and reuse of its' bi-product in day to day life. Blooming of flowers in evergreen forests, seasonally convey the on-set of honey-season around their habitat. Hence, the flowering season brings a lot of joy to them. They sing song expressing happy mood and dance together, adorned with flowers. A very popular song of that type is mentioned bellow:

“uu leloo waayaayi uu leloo waayaayi

uu leloo waayaayi uu leloo waayaayi

liya thadaavedi uu leloo waayaayi

liya thadaavedi uu leloo waayaayi

he lee Ie lee he lee Ie lee” (Srinathan, 2002)

2.3.4.3.2 Identification and marking

During the honey search operation at first they try to locate the bee hives in the deep forest. With acute knowledge of the landscape and vegetation of the area, they usually search flying honey bees or its faeces at the forest floors or on the leaves. Even humming of bees in the forests make them understand to locate the tree, where bee hive is grown and continuous drizzling of honey

from bee-hive confirms its maturity. With the help of any of these signs, they search the forest and locate the bee hives. Once a matured honey-comb is identified by any individual; he/she immediately put some identification mark at that particular tree. To mark that identified bee hive they cut few shrubs around that the tree and it symbolizes possession of that honey-comb as well as honey of that particular tree to a specific person. The right or privilege to collect honey from that particular tree belongs to that person only who had first located the bee hive. The norm is not to collect honey from any bee hives which has already been identified or marked by others. After identifying the mature bee hive, they initiated the process to collect honey from that tree.

2.3.4.3.2 Impact of lunar cycle

Honey is abundant during December to May. However, its quantum increase with successive months and April onwards, natural production of honey decreases gradually. Even, quantum of natural production of honey also varies with lunar cycle of the months. Honey collection frequency increases and decreases with waxing and waning of moon respectively. As, days approach towards full-moon; *Jarawas'* foraging activities mainly emphasis on honey collection from forests around almost every day. Each family do collect plenty of honey during this period.

2.3.4.3.3 Collection procedure and use of herbs

From ancient times smoking of bee hives has been the worldwide most popular method practised to procure honey from honey bees. This method of honey collection often kills the bees and causes about total loss of the brood, thereby seriously disturbing the ecological balance. The negrito communities

of Andaman Islands are known to use certain plants as bee repellent during the collection of honey. The method of using smoke to collect honey was probably unknown to them. Different studies reveal that there is striking similarities of honey collection procedure among the *Jarawas* and Onge. Thothathri (1966) first reported that *Orophea katschallica* Kurz (Annonaceae) was used by the Onges of Little Andaman to collect honey from the forests, a fact later confirmed by Bhargava (1983). The Onges chew the leaves of the plant and smear the juice mixed with their own saliva on their bodies. They then climb the trees, reach the hives, and spit the juice mixed with saliva in the form of a coarse spray on the hives. The bees fly away from the comb without stinging the honey collectors. The honeycombs are cut and the honey is gathered (Dutta et al., 1985).

Coming to the *Jarawas*, the honey collection procedure is quite similar with that of Onge. The plant (*Orophea katschallica*) used by Onge as bee repellent is also known to the *Ang* (*Jarawas*) and they called it '*tangopa-jath*'. Beside '*tangopa-jath*' another two types of bee repellent plants used by the *Ang* (*Jarawas*) are '*homal*' (*Pseuduvaria prainii*) and '*wi-e*' (*Amomum aculeatum*). Sometime combinations of two or more plants are also applied as bee repellent during honey collection. For example, sap of leaves and stem of '*wi-e*' (often mixed with saliva) applied on body and to spit on bee hive. At the same time leaves of *kekad* (another bee repellent plant, bark of which was also used to make chest guard) are tightly packed with the many ribbon like bark of *homal* (*Pseuduvaria prainii*) to prepare a bee repellent broom stick. Branch of ribbon like bark thread of *homal* (*Pseuduvaria prainii*) can also be used as head gear to remove the stinging honey bees from facial parts. This

broom sticks are used to remove the remnant honey bees from the bee hive after the spitting of sap of *wi-e* (*Amomum aculeatum*). Leaves of '*tangopa-jath*' (*Orophea katschallica*) are also can be used as broom stick to remove honey bees from the bee hive. But when we come to preference, *wi-e* got the first place among the other bee repelling plants. Most of the time sap of stems and leaves of '*wi-e*' got the first preference for the *Ang* (*Jarawa*) as bee repellent.

Before climbing to the tree for honey collection, they rub the sap (often mixed with saliva) of *wi-e* on the face and exposed body parts and started to chew the stem of that herb. Juice of the stem is mixed with saliva and eventually the mixture spat with force on the beehive. Immediately the honey bees started to fly away from the bee hive. Within few seconds most of the bees left the place leaving the naked bee hive with few remaining honey bees. The remnant honey bees are removed with the help of that bee repellent broom stick and cut off the bee hive with the help of a sharp knife. Dutta et al. (1983) discovered that the stem sap of *Amomum aculeatum* Roxb. (Zingiberaceae) acts as a tranquiliser for the giant rock bee and the slightly aromatic sap vapour completely tranquilising the vindictive worker bees. They become so docile that they do not sting even when bare fingers are moved among them. In absence of '*wi-e*', two other bee repellent plants viz. *homal*, *tangopa-jath* are also can be used in a similar fashion and as it is already mentioned combination of applying two or more bee repellent plants in a single operation can also be observed.

2.3.4.4. Consumption Pattern

In *Jarawa* perception honey (*Leo* and *Pod*) is not only the sweet liquid content of bee hive but it also includes honey comb and larvae. They consume both types of honey along with the larvae and honey comb. Practices related to honey consumption do follow several traditional wisdoms in terms of cultural prescriptions and prohibitions. *Jarawas* do follow very flexible meal schedule. They do not intake foods in bulk at a time, like to surplus-based societies. They consume foods intermittently; whenever they feel hungry. Consumption of honey along with larvae and portion of honey-comb is unique. Any time of the day, anybody of a family can have honey. Any other member of the family and close kin may participate together. People sit together around the honey bucket; and insert palm into the honey-juice to soak thoroughly and then lick it. Simultaneously, they cut some portion of honey-comb and suck honey from it. Then they relish chewing comb along with honey, some larvae and wax. Chewed honey-comb wax do not ingested and ultimately became small solid portions of wax which is kept aside. It has observed that *Jarawa* adult consume not less than 1000 - 1200 ml. pure honey-juices at a time and the minors are 300 - 500 ml. honey-juices respectively along with larvae and wax-fat. In that way, during the period of abundance, they consume honey twice to thrice a day.

They consume within a day or two of harvested honey at a time. Again they collect fresh one. Frequency of harvesting honey-comb and quantum of honey consumption, supplemented to daily diet indicates affluence of natural resources in terms of species density of flowering plants and honey-bees in around the '*Jarawa* Reserve' during dry season, thus does not to share or exchange with band members, as sharing of food items is common in case of certain food resources; particularly which are enrich in animal protein.

2.3.4.5 Storing of Honey

During flowering season (honey collection season), *Jarawa* do engage in harvest honey as much as possible. They collect plenty of honey regularly. After collection of honey-comb, they carry it to hut and keep it cover with *pe-pe* (selai-patti, *Licuala peltata*) till the harvest consumed.

2.3.4.5.1 Temporary storing

Storing of fresh honey in bucket does not follow squishing of honey-comb. They simply put the comb into bucket. Honey juice gradually comes out. Combs are cut into few pieces according to space of the bucket. Temporary preservation technique of honey is different from under-earth preservation technique. Honey bucket categorically covers with processed leaves. A few branches of pá-pá (selai-patti, *Licuala peltata*) initially fold it and hold it into diminished flame of firewood oven till water contain ooze out from leaves and dried up fully. Primarily honey is high-value (calorific) food resources during dry-seasons; which can ferment, coming in contact with water particles/moisture by any means. In view of nature of honey, they wrap maw of the bucket tightly with those processed *pe-pe* (selai-patti, *Licuala peltata*), tied with bark-fibers and then keep honey bucket hanging, usually from lean-to type ceiling of hut.

2.3.4.5.2 Storage for future

In accordance, *Jarawa* store a portion of honey, which used to collect during the peak dry season. For such purpose honey used to put in wooden buckets (u-hu), then tightly wrap that bucket with tender leaves of selai-patti (*Licuala peltata*) and then store that bucket underneath the soil (select some area, where soil type is sandy-loam and contain less moisture). Before placing that bucket (filled with honey), they used to place layers of the same leaves on the floor as well as cover the surrounding walls of the digging hole to prevent soaking/pouring of water to the bucket. Those buckets are retrieved during rainy season. It has observed, the retrieved honey was fermented in anaerobic storing condition, probably due to its high calorie fructose and glucose content. Though it's not like *mead* (alcoholic beverage prepared from honey) but just partially fermented. Fermented honey used to consume in small quantum during rainy season; while their habitat receive heavy shower almost without break. That fermented honey helps them to maintain warmth in body. Honey, which generally consumed as high-energy producing food item during dry season, then it used for medicinal purpose during the rainy season.

As honey is an important item of bartering exchange with the non-*Jarawa* neighboring communities, the above discussion reflects the intricate relationship between *Jarawa* and honey. Moreover, it also indicates importance of *Jarawa* Reserve and its rich biodiversity for the survival of this Particularly Vulnerable Tribal Group (PVTG). Ongoing culture contact and bartering relationship with the non-*Jarawa* neighboring communities may be of utmost detrimental for both the *Jarawa* and their territory.

2.3.5 Sharing in subsistence economy

Sharing of resources among the community members is an important component of any hunter-gatherer society and the *Jarawa* is not an exception. Distribution of territorial groups (*Boib, Thidong and Tanmad*) of the *Jarawa* ensures resource utilisation at the territorial level. It ensures that all the members or bands of a particular territory have right to access the natural resources of that particular territory. At the band level, the edible resources collected by an individual or a family or a group are brought to the *Chadda* (*Jarawa* campsite) and generally shared systematically among the family or group members or band. Meat of the wild pig (*wowo*) is the most preferred and precious food item among the *Jarawa*. There is a particular pattern and norms for sharing the meat of the game animals. In group hunting meat is shared almost equally to all the participated members. In addition to his normal share, the head of the *wowo* is always given to the main hunter. Depending on the quantity of hunted animals, meat is shared among all the families and group members. When quantity of hunting is more, the meat is distributed to all the family members of that *Chadda*. Same rule is followed in the individual hunting also. In case of individual hunting sharing quantity of meat is subjected to the proximity of the kinship. Regular supply of protein to all the members is in the *Jarawa* society is ensured through sharing of meat of the wild pig, monitor lizard and turtle etc. The meats of the game animals are regularly shared from a communal hearth and each household is given a portion of the meat. In case of individual hunting, generally, the hunter's family gets the larger share while other families of that *Chadda* get comparatively smaller share of the meat. Sharing is also considered as a social mechanism to ensure food security to every member of the *Chadda*. The individual hunters may find it rationale to share excess food items which they cannot consume. For the individual hunter and his family, food sharing is mechanism of securing food for future. So, in case of any failure in hunting in future, he may deserve the surplus of other hunters. As flesh of wild pig (*wowo*) is the most

preferred of all food items, the *Jarawa* always share this item as a survival strategy. Marriage between different territorial groups is quite common. They occasionally visit *chaddas* of the relatives and in-laws of other territorial groups. During these visits the guest used to bring several gifts like food items, implements and other resources which are plentiful in their territory. While returning they again carry back different resources to their territory as offered by the host. *Jarawa* never consider the visitors as a burden to them. Visitors also participate in food collection and hunting expeditions. They also share their collections and hunted animals with other members of that group. So, sharing is an important mechanism among the *Jarawa* to maintain their subsistence and food security.

2.4 Resources in the *Jarawa* territory

As perceived by the *Jarawa*, resource distribution in their territory may be classified into five categories namely *Titon* (deep forest), *Chanhanap* (valley area), *Tagid* (marshy land), *Pileh* (sea shore) and *Howa* (freshwater streams). The resources in the *Jarawa* Reserve include both terrestrial and aquatic resources. The aquatic resources may further sub-divided into three categories viz. marine resources, creek resources and fresh water resources. Under the Andaman and Nicobar Island (Protection of Aboriginal Tribes) Regulation 1956, all the resources of the *Jarawa* territory have been reserved for the *Jarawa* only. But many poachers and villagers from neighbouring areas illegally entered into the *Jarawa* Reserve to exploit different resources. Resources which are illegally collected and utilised by the non-*Jarawa* have been discussed later. Broadly, the resources gathered by the *Jarawa* may further be classified as edible resources and non-edible resources.

2.4.1 Edible Resources

Kumar (2009) have conducted a detailed study on the resources in the *Jarawa* territory. The edible resources (both plants and animals), which are perceived and collected by the *Jarawa*, have been discussed in the following lines.

2.4.1.1 Edible plant resources

There are numerous plant species available in the '*Jarawa* Reserve', which are yet to be fully documented. The edible plant resources of the *Jarawa* may be classified in three broad groups namely (a) tubers, (b) fruits, pulp and tender leaves and (c) seeds. Apart from that based on the importance and utility the edible plants are further categorised into three categories viz. major foods, minor food and supplementary foods. There are only few plant species which provide for major part of *Jarawa* diet in a different season. These plants are wild jack fruit (*aab*), Nipa fruit (*Thuiya*) and Cycus fruit (*amin*). Apart from that honey is also one of the major food item which is from plant resources through large bees. Minor foods include those plants which are eaten in less quantity compared to the above mentioned plant resources. Minor plant food resources also scantily available in the *Jarawa* Reserve. As mentioned by Kumar (2009), as gathered by *Jarawa*, there are about fourteen minor food resources which includes *Artabotrys speciosus*, *A. lakoocha*, *Baccaurea ramiflora*, *Alamus andamanicus*, *Diospyros andamanica*, *Ficus racemosa*, *Garcinia cowa*, *Mangifera andamanica*, *Pinanga manii*, *Donax canaeformis*, *Pometia pinnata*, *Terminalia catappa*, *Sterculia rubiginosa* and *Entada redeedei* etc. After that, the supplementary plant resources are also not gathered and consumed regularly. These are consumed on the spot as and

when found during their foraging movements. Seasonal fruits and the shoots of the tender plants come under this category. Both minor and supplementary foods are consumed in less quantity and usually at the place of collection itself. These edible plants are the prime source of carbohydrate, vitamins and other micro nutrients for the *Jarawa*. Most of the fruits are eaten fresh and raw. exceptionally, there are few plant resources which are processed before eating. These are the seeds of the wild jackfruit (*Artocarpus chaplasi*) locally known as *aab* and the *Cycas rumphii* locally known as *amin*. The seeds of the wild jackfruits (both ripen and tender) are processed. They put the seeds of wild jack fruit in a net bag and bury it under muddy creek for about two to three weeks. Afterwards, it is taken out and dried in sun light before consumption. The seeds of the *amin* (*Cycas ramphii*) are also kept into saline water of sea for about one to two weeks before consuming it. As perceived by the *Jarawa*, the intention behind these processing of *aab* and *amim* is to remove the toxin content in these seeds.

2.4.1.2 Edible animal resources

The edible animal food items are collected from both terrestrial and aquatic resources of the *Jarawa* Reserve. The terrestrial animal resources primarily include wild pigs (*wowo*), monitor lizards (*urug*), grub larvae (*pathen and ono*), honey (*leo and pod*) and a few species of birds and other animals. The resources of the aquatic ecosystem comprise of turtle (*ugale*), turtle eggs (*ugale ugane*), fish (*napo*), crab (*haga*), molluscs, crustaceans etc. As reported by Kumar (2009), there are about 82 edible animal resources consumed by the *Jarawa* and *Jarawa* Tribal reserve is one only source of these animal food resources for *Jarawa*. All the above mentioned animal food resources are

collected by either hunting, gathering and fishing. All these resources are again subjected to seasonal variation, availability and accessibility. The flesh of the wild pig (*wowo*) is the most preferred and relished of all. So, *wowo* has a very significant role in *Jarawa* society and culture. Aquatic resources of *Jarawa* generally consist of different types of fish (*napo*), crabs (*haga*), shells, molluscs, turtle (*ugale*) etc. Most of the aquatic resources are again dependent on seasonal variation. The aquatic animal food resources of *Jarawa* may be classified into three categories namely major food resources, minor food resources and supplementary food resources. The major foods of the *Jarawa* consist of meat of wild pig (*wowo*) and monitor lizard (*urug*), bivalve shells, turtle eggs and different species of fish. Significantly, the honey (*leo* and *pod*) is also included in the major foods which is derived in combination of plant resources and animal resources. Under the category minor animal food resources, the animals which are eaten in less quantity compared to the major foods, may be included. Different sea animals like trochus, turbo, giant clam etc, grub larvae (*pathen* and *ono*), prawn, certain species of fish and crab are included in this category. The supplementary animal food resources include those animals which are not eaten frequently in any season. Rather, they occasionally consume animal foods items are sea cow, lobster, birds and certain species of shell and fish etc. Apart from the above mentioned edible plant and animal resource, drinking water is one of the most important resources for the *Jarawa*. They always consider the source of drinking water while setting up of new camp site (*chadda*). Moreover, all the community huts of the *Jarawa* are located nearby the fresh water streams.

2.4.2. Seasonal variation of resources

All the above mentioned food resources in the *Jarawa* territory are subjected to the seasonal variations. Nevertheless, the availability and accessibility of resources are also the key factors for their subsistence. In *Jarawa* cognition, seasonal variation is primarily based on wind directions in associated with occurrence and disappearance of different flora and fauna. They also have their animistic believe on seasonality and resources. So, broadly there are three seasonal categories of different food resources of *Jarawa*.

1. Rainy season or Season of South-West wind (mid of May to mid of October):
This is the prime monsoon season in Andaman Islands. During this season, wild pigs (*wowo*) and Monitor lizard are abundantly available in the dense tropical rain forest. The seeds of *amin* (*Cycus rumphii*) and *thuiya* (*Nipa fruticans*) and some seasonal fruits and tubers are also available during the rainy season.
2. Winter season or transitional season or season of North Eastern wind (November to February): this is the high time for collection of honey (*leo* and *pod*) and turtle eggs etc followed by hunting of pig and turtle and fishing. Often honey collection is the major subsistence activity during this season. This is also the pick season for collection of different varieties wild tubers.
3. Dry summer season or season of alternative winds (March to mid of May): After April onwards honey collection gradually started to decrease. This is the pick time for collection of wild jackfruit (*aab*). The fruits of wild jackfruits are collected in large quantity during dry summer season. Different citrus fruits are plentifully available during this season. Compared to the other seasons, food resources are occasionally available during this season.

2.4.3 Non-Edible Resources

Apart from the food resources, there are many non-edible resources used by the *Jarawa* to pursue their livelihood. Most of the non-edible resources are related to their material culture and aesthetics. The non-edible resources related to the *Jarawa* material culture are primarily consists of different plant resources. The non-edible usages of plant resources are predominantly for shelter (*chadda*), medicines, ornamentations and aesthetics, repellent for honeybee and implements (bow, arrow, wooden bucket, cane basket, hand net, traditional knife, machete, adze etc.) etc. As noted by Kumar (2009), there are at least 85 plant species which are used for these for non-edible purposes. In addition to the non-edible plant resources, there are a few non-plant resources which are immensely significant for the *Jarawa* society and culture. Ochre (red and white), iron and metal utensils etc. are worth to mention. Red and white ochres are used ritualistic body painting while the iron is used to make hunting, gathering and fishing implements. This is noteworthy to mention that many bartering items received from non-*Jarawa* neighbouring communities may also be categorised as non-edible items or resources. These item includes plastic containers, torch, battery, match box, safety pin, cosmetics, mirror, aluminium dekchi etc. *Jarawa* also receive some metal items, iron pieces, utensils, cloths etc. from the Andaman Adim Janjati Vikash Samity (AAJVS), an organisation under directorate of Tribal Welfare, Andaman Administration.

2.5 Material Culture

Jarawa are primarily dependent on natural resources to fulfil their material needs of different cultural attributes. Most of the raw materials of their material culture are derived directly from nature which are being utilised in a sustainable way. As per studies on mitochondrial DNA, *Jarawa* are living in these islands since about thirty thousand years (Barik etal, 2008)

and since then they are maintaining their subsistence way of life. They even select their camp site (*chadda*) depending on the availability and accessibility of natural resources for food, shelter, drinking water and other material resources. Being a society with immediate return economy, they do not believe in the storing of resources for future. Resources are collected only on the basis of immediate requirement basis. Thus their technique of resource utilisation is much sustainable and eco-friendly. They collect different forest resources for the immediate material cultural requirements for shelter (*chadda*); hunting, gathering and fishing implements like bow, arrow, knife, fishing implements etc.; dress and ornaments; household articles like wooden bucket; cane basket etc.

2.5.1 Chadda

The *Jarawa* term *chadda* is quite general in nature and it indicates traditional huts, shelters, camp site, habitation site etc. Shelter is one of the basic requirements of the human beings. As constructed and perceived by the *Jarawa* there are three different types of traditional huts (*chadda*) namely temporary hut or *chadda tutime*, semi-permanent dome shaped hut or *chadda huthu* and big community hut or *chadda thuma*. They basically differentiate different types of huts depending on its construction and use. A small lean-to-type temporary huts used by a single nuclear family is known as *tutime chadda* or temporary hut. A semi-permanent hut may be of oval or round shaped and medium size which may be inhabited by two to five families. This kind of medium sized semi-permanent huts are known as *chadda huthu*. Big community hut or *chadda thuma* may be inhabited by five to fifteen families. Apart from the centrally located common hearth or fireplace, there are separate hearths for each and every families residing in the community hut. *Lepale* or boys group and *abile* or girls groups are also allotted separate demarcated space in the community hut. The size of is approximately about length-5 feet, bredth-5 feet and

height-5 feet. Structurally it is made from locally available braches and thatched with cane leaves or a kind of palm leaves (*Liquala peltata*). Roofs of every temporary huts are very sloppy and almost touching down the ground. Usually temporary huts are located in a linear manner at the sea shore and non-linear manner in the deep forest. Linear type temporary huts are generally blocked at the backside and helps to protect from sea winds. Both men and women take part in collection of materials and construction of huts. *Jarawa* never allow to extinguish the fire at the hearths. Fire is used cooking, keeping the hut warmth and keeps insects and wild animal away from the huts. So, the *Jarawa* construct huts made of different parts of plant. Based on the size and structure, the *Jarawa* huts may again be classified in two categories namely the large bee-hive type huts and lean-to type huts. While the former is a community hut or *chadda thuma* which is bigger in size and stronger. The latter is individual family hut, small in size. During construction of huts, the plant products are used as poles, strips and for thatching purposes. As mentioned in the report of the expert committee on *Jarawa* behaviour (2002), the *Jarawa* generally use stems of plants like *Mussaenda macrophylla*, *Baccaurea ramiflora*, *Knema andamanica*, *Leea angulata*, *Antidesma velutinum*, *Sterculia alata*, *Lagerstroemia*, *Areca triandra*, bamboo etc. The selection of the plants generally dependent on the availability and accessibility in that particular area. For thatching purpose, the leaves of *Licuala peltata*, *Daemonorops kurzianus*, *Caryota mitis*, *Calamus grandis*, *Calmus pseudorivalis*, *Daemonorops* and *Musa sapientum* plant species are used. Interestingly, the *Jarawa* were never seen using the leaves of the *Nypa fruticans* or *thuiya* for thatching purpose while the other tribes of the Andaman and Nicobar Islands use it quite frequently. For making bark strips *Antidesma velutinum* (*Euphorbiaceae*), *Anodendron manubrium* (*Apocynaceae*), *Calamus longisetus* (*Areaceae*), *Sterculia villosa* and *Dendrobium* *sps.* (*Orchidaceae*), *Desmos dasymaschalus* (*Annonaceae*), *Hibiscus* (*Malvaceae*),

Pterocymbium tiliaceous tinctorium (Sterculiaceae), *Combretum latifolium* and (Combretaceae) *Calamus* etc plant species are utilised. For twigs they generally use *Combretum* plant species. The floor of the huts, particularly the place demarked for sleeping is usually covered with leaves of *Licuala peltata* or *Pterospermum acerifolium*.(Plate no. 12, 13 and 14)

2.5.2 Dress and ornaments

Traditionally, the *Jarawa* adorn themselves with various kinds of natural objects like sea shells, clay, leaves, barks, flowers and fruits etc. The *Jarawa* have high aesthetic value. They wear girdle made from finely dissected tender leaves of plants. Besides, they also wear ornaments made of seasonal flowers. These ornaments include headband, necklace, garland and armband. Recently they have added cotton and woollen threads and plastic beads along with their traditional objects. Though both male and females adorn themselves with above mentioned different objects, but frequency and tendency of adornment among the females are comparatively more. Ornaments are primarily prepared by the female folks. Broadly the ornaments of *Jarawa* may be classified in two categories namely short-term or temporary ornaments and long-term ornaments. The short term or temporary ornaments are made of seasonal flowers, barks, tender leaves and fruits etc. on the other hand the long-term or semi-permanent ornaments are made of different sea shells and cowries, cotton and woollen threads, plastic beads etc. Generally, the ornaments are used as neckless, headgear, armbands and waist girdle etc. the temporary ornaments are often named after the plants from which the materials are collected. Women of all age groups are very fond of decorating themselves with different seasonal flowers. Each and every *Jarawa* individuals including male, female and children of all age groups decorate their face

and body with a particular kind of white clay known as *ood*. After consuming meat of wild pig (*wowo*), monitor lizard (*urug*), turtle etc., they invariably smear their face and body with *ood* or white clay. Afterwards they make designs and different patterns on it. Certain specific geometric line designs like wavy, criss-cross and strait line are some predominant designs in this regard. The patterns and designs are made with freely with fingertips, nails, shells or occasionally with wooden stencils known as *thomtang*. Before the contact situation in 1997, *Jarawa* did not use any attire to cover their body parts. In recent years some of them use to wear cloths occasionally and particularly during their visits to the neighbouring non-*Jarawa* communities. All kinds of cloths and fabrics including woollen threads are known as *Kangapo*. In general, they do not feel shy to be without cloths. Concept of wearing clothes in the hot and humid tropical environment is quite alien to them. Somehow, the sense of wearing cloths have been imposed on them. Cloths are generally collected through their bartering exchanges and from the AAJVS (Government welfare agency). Further, many of them collect cloths not only for the purpose of wearing them, but also to make ornaments from different parts of it or from the threads. (Plate 6)

2.5.3 Implements

Jarawa pursue their subsistence activity with the help of simple tools and technology. Some of the major traditional implements of *Jarawa* for hunting, gathering and fishing are bow (*aaw*), arrow (*patho*), knife (*tohad*), fishing net (*botho*), fishing arrow (*thom*) etc.

2.5.3.1 Bow (*aaw*)

The prime indigenous implements used for hunting and fishing are the bow and arrow. The size and length of the bow is subjected to physical structure and strength

of the user. Generally, the length of the bow used by an adult male varies from three feet to four feet. Locally known as Chooi tree wood (*Sagarea elliptica*) is the most preferred for making of bow. *Jarawa* refer this tree as *tothaan-tang*. Being a deciduous tree *tothaan-tang* is dispersedly and scantily available in the *Jarawa* Reserve forest which is primarily a tropical rain forest. In order to procure the same wood they often compelled to travel long distances. Desirable portion of the tree is cut with the help of machetes and shaped it using that machete and adze. After that, they smoked it and dried it in the sun for several days. The final shape of the bow is attained after the minute retouching with the traditional knife (*tohad*). Notches (*othopale*) are cut at each end and both sides of the shaft by knife to fix the bow string. The bow string, locally called *betho* is made from long strip of bark fibre of climber plants known as *way* or *tigule*. It is twisted through its length and is tied permanently in one side notch of the bow. While at the other end of the string a loop is formed to fix it in the other end of the bow shaft during operation. The bow is polished with wax mixed with resin. It is generally, designed and engraved with knife and painted with red ochre mixed with wax or saliva. Bow is used for hunting, fishing and also for self-defence. Bow making is predominantly done by male and is mostly used by them. (Plate 8)

2.5.3.2 Arrow (*patho*)

The *Jarawa* use different types of arrows for different purposes. Depending on material, the arrows may be of two types namely wooden arrow (*tochau-thad*) and arrow with iron tip. Both the shaft and point of the *tochau-thad* is made of areca nut wood. Before the invention and use of iron, *tochau-thad* was the prime hunting equipment of the *Jarawa*. Till date it is occasionally used for fishing and other minor hunting purposes. Whereas, in accordance with name, the arrow with iron tip is made

with iron point and bamboo shaft. Further, on the basis of size, shape and functionality, the arrows may be of different types like arrow for pig hunting (*tochaluhe-thad*), arrow for hunting of monitor lizard (*tochaluhe-patang*), arrow for fishing (*tochu-thom*), arrow with detachable arrowhead (*taheeya-patang*) etc. Each and every arrow has two basic parts namely the body or the shaft and the arrowhead. The shaft the known as *theenang* which is made of strait bamboo stick. The length of the arrow is generally varies from two feet five inches to three feet. Arrow making is a long process and the iron for the same is either procured from the nearby settlements or supplied by Andaman Adim Janajati Vikas Samity (AAJVS) of Andaman administration. It is known that the tribes of Andaman Islands used to collect iron from ship wrecked along with coastal areas. To make the arrow head, as it has been found, the *Jarawa* mostly used the blade of spade. They cut the spade into conical pieces, generally six to seven inches in length and one inch in breadth (butt end). The iron pieces are given shape of arrowhead by hammering and further cutting with the chisel. The technique of tempering of iron is unknown to them and they never use the fire to prepare the iron implements. Afterwards it is further sharpned on a piece of stone (*chadauli*). Once the arrowhead is ready to fix on a bamboo shaft (*theenang*), it is tied with the fibre string which is made from the fibre of a orchid plant known as *wibo*. Thereafter, the tied portion (*thopijaya*) is fixed with wax and the shaft is smoked and straightened. The sharp point of the iron arrowhead is known as *tuhetang* while the sharp ages are called *ichale*. Except the extraction of the orchid fibre, all the works related to the arrow making is performed by the male members.

2.5.3.3 Traditional knife (*Tohad*)

The *Jarawa* traditional knives (*tohad*) have multipurpose role in different activities of hunting, gathering and preparing of different material cultural items. The shape of

tohad is quite resemblance to the shape of willow leaf. It does not have a separate handle which is continuous with the knife. Generally, *tohad* is of different size are commonly used for cutting the flesh of hunted animals, extracting bark fibres, preparing leaf and thread ornaments, making and finishing of shaft of the bow and arrow, wooden basket, cane baskets etc. Method of making traditional knife is relatively similar with the arrow head. It is made either from iron or aluminium. Female folks are mostly found to use aluminium knife for making ornaments, fishing net and cane basket. The edges of iron knife are made extremely sharpen with pointed sharp tip and working edges. The flattened butt end of *tohad*, is thick unsharpened and covered with bark fibre which is warped with brown threads of an orchide (*Dendrobium sp.*).

2.5.4 Chest guard (*Kekad*)

Earlier the chest guard (*Kekad*) was used by adult male during hunting and raiding expeditions. They used to keep traditional knives (*tohad*) by inserting within folds of chest guard. It seems that wearing of chest guard may be related with the hostile relationship with the colonial rulers and neighbouring communities. *Jarawa* believe that multilayer chest guard has the potential to resist any striking arrows or even bullets. It also protects their chest and abdomen from injury which may occur during any hunting and raiding expeditions. After post contact scenario in 1998, nowadays, we may rarely observe any *Jarawa* wearing chest guard at any time. *Kekad* is made of a single bark strip derived from a tree known as *kekad* tree (*Sterculia villosa* or *Planchonia andamanica*). Depending on physical structure of the user, thick bark strips measuring about seven to eight feet in lengths and eight to ten inches in breadth cut out from that tree with the help of machete. The outer rough surface of the bark is

further peeled off and the bark sheet is properly cleaned. Then it is kept for few days and sundried. The bark sheet is further retouched with traditional knife (*tohad*) to attain the desired finish shape. The edges are stitched with soft bark threads in a criss-cross pattern. After that the bark thread is roundly bended and folded in three layers. It is smoked and the outer surface is decorated with red juice of *bailatha* plant (*Myristica andamanica*) or pigs blood and red ochre. The chest guard (*kekad*) is predominantly prepared and used by men folk only.

2.5.5 Wooden bucket (*uhu*)

Traditional wooden bucket is generally used for collecting and storing honey, storing of household articles, keeping pork and to carry household belongings during periodic movements etc. the *Jarawa* term for this traditional wooden bucket is *uhu*. It is a dugout hollow wooden block of tree trunk. *Jarawa* refer this special kind of tree as *thaad*. So, to prepare the wooden bucket (*uhu*), wood of the *thaad* plant (*Pajanelia longifolia*, *Oroxylum indicum* and *Sterculia villosa*) is used. Making of wooden bucket is an exclusively adult male activity. The *uhu* is made from a solid log of the above mentioned soft wood which is scooped with help of some chisel like iron implement. The bark is peeled off and the outer surface of the wooden bucket is slightly charred over fire. Thereafter, natural wax (derived from honey comb) is coated at the both inside and outside of the bucket to avoid any leakage and also to increase the durability and longevity of the wooden bucket. For the carrying purpose, a long bark strip is tied at the both side of the mouth of the basket with the help of wrapping cane strips. (Plate 3)

2.5.6 Cane basket (*taika*)

The *Jarawa* also use cane basket (*taika*) for collection of fruits, tubers, shells, fishes, flower, leaves and other foraging items. These baskets are of various sizes and essentially conical in shape with wide mouth and narrow bottom. Circular rims are made from thick stripes of red cane (*Korthalsia sp.*) while the frame is made of fine stripes of another variety of cane (*Calamus sp.*). Thin and flexible cane stripes are systematically tied around the rim with the help of wrapping threads. A long bark thread or strip is tied at the both side of the mouth of the basket for the carrying purpose. Making of cane basket is primarily female dominated job but males are also cited to assist them. Being a gathering implement, cane baskets are mostly used by the female folks.

2.5.7 Resin torch (*Pone*)

The *Jarawa* term for resin torch is *pone*. It was used during night time for moving from one place to other. To prepare the resin torch the semi-powdered resin of some particular trees (*Parishia insignis* and *Canarium euphyllum*) put into the leaves commonly known as *selai patti* (*Licuala peltata*). Afterward, the leaves are rolled and tightened with the bark threads or cane stripes. A thin coating of clay is applied on the outside of the torch to prevent the leaves from burning quickly. The resin torch is one of the one of the significant material cultural items which is adversely effected to culture contact and bartering relation with the neighbouring non-*Jarawa* communities. Due to intervention of match box and modern torch light, nowadays, *Jarawa* are rarely preparing and using any traditional resin torch (*pone*). Even the younger generation are least bothered about the vanishing trend of *pone*.

2.5.8 Fishing hand net (*Botho*)

A fishing hand net or *botho* is generally prepared and used by the ladies for fishing during low tide and to carry small light weight items during shifting of camps. It's circular working end or mouth is made of a long and narrow piece of cane which is bend to form a circle. The ends crossing each other of that circle are tied while another end of the cane stick is left extended to form a handle. *Botho* is knitted with threads prepared from fine bark fibre or fibre of orchid stem. The threads are weave around with the help of a small bamboo knitting needle. The knots used are quite similar to the fisherman's knot. To make the *botho* long lasting and durable, a mixture of wax and resin is polished on its threads. Nowadays, it has been observed that instead of bark fibre, *Jarawa* are often using common nylons threads obtained from the sea shore or from the neighbouring non-*Jarawa* communities.

2.5.9 Ochre (*Ood* and *Alam*)

Ochres are primarily used for body painting and to colour different implements. The *Jarawa* use two types of ochres namely *ood* or white ochre and *alam* or red ochre. Both the *ood* and *alam* are naturally available in the *Jarawa* territory. *Odd* is a white or grey colour clay like thing which is mixed with pig fat or water to make paste. Then the paste is applied on the face and other body parts like chest, arms thighs etc. After applying the white clay paste (*ood*), different designs and patterns are made on the face and body parts in a decorative and aesthetic fashion. Generally, designs and patterns like wavy, strait line, zig-zag and criss-cross etc. are made with the help of finger tips and stencils. Generally, couples used to make these face and body paintings of each other. Other members also assist each other in the body painting. There is different spiritual and ritualistic believe behind the body painting with the

ood or white clay. After consuming the meat of wild pig (*wowo*), it is compulsory to apply the *ood* on the face and body. The same rule is also fairly applied after eating the monitor lizard, turtle, fishes and molluscs etc. Being animistic, the *Jarawa* believe in different spirits of both benevolent and malevolent. To get rid of the malevolent spirit of the eaten animal, they invariably smear the *ood* (white clay) on their face and body after consuming the *wowo* (meat of wild boar) or any other animal or fish. They also believe that the smearing of *ood* will also hide the smell of the consumed animal. Apart from *ood* they also occasionally apply red ochre or *alam* to paint their face and body. Moreover, *alam* is also used to colour different implements like bow, arrow, wooden bucket etc. They also believe that both the ochre (*ood and alam*) have medicinal and healing properties.

2.5.10 Iron and metals

Iron and metals are very precious for the *Jarawa* society and culture. The iron and other metals like aluminium and steel etc. are used for making different kinds of arrowheads, traditional knife (*tohad*) and digging rod etc. These implements are of immense importance for the *Jarawa*. Since when, the *Jarawa* are using iron implements and what were the probable source of the metals are quite hypothetical and mysterious. As iron is not naturally available in the Andaman Islands, it can be assumed that earlier they might have collected iron from wreckage and parts of broken ships washed away at the shore. But since the colonial age and after settlement of nearby non-*Jarawa* villages, *Jarawa* used to collect the iron and metals from neighbouring villages. Undoubtedly, acquisition and use of iron has substantially effected their hunting and gathering way of subsistence. As informed by many elderly *Jarawa* men that during pre-iron era, they used to have only pointed wooden arrows made with the wild areca nut wood for the hunting, self-defence and attacking

purposes. Nowadays, they do not know about any other easy source for iron and metals other than the nearby non-*Jarawa* villages or AAJVS or left out abundant railway track inside the forest. They also acquire metal utensils for storing, cooking and other household purposes from the fringe villages through bartering exchange or from Andaman Adim Janjati Vikas Samiti (AAJVS), an organisation under the Tribal welfare department. During field work, it has been observed to prepare traditional knife (*tohad*) from different utensils. Flat and thin utensils alike steel plates are cut and further modified as *tohad*. This is also noteworthy to mention that *Jarawa* do not know the technique of tempering the metal with fire. So, they prepare their metal tools and implements with hammering and sharpening techniques only.

2.6 Rite-de-passage

The rite-de-passage vis-à-vis the ceremonies of life cycle rituals, beliefs and customs are associated to mark the important transitional period of each and every individual's life. Rituals and believes related to birth, puberty or initiation ceremony, marriage, and death etc. reveal the socio-cultural milieu and reciprocity of any community. The existing rituals which are being observed by the *Jarawa* also play a significant role in their Society. In a nomadic hunter-gatherer community like *Jarawa*, it starts from birth and continued till death or even through believe and practices after death also. Moreover, animistic believe of *Jarawa* is somehow reflected in each and every aspects of life cycle rituals, customs and believe.

2.6.1 Birth

The birth of a child is significant because it determines not only one's membership in the society but also ascribe with the status and affiliation with the particular kinship

system. Regardless of gender stereotype, birth of a child is pride and joyful moments for the both the parents and the society. Though the adult *Jarawa* individuals are well aware of the basic biological reasons of pregnancy and child birth, but they also have believe that the blessings of their ancestors and the supernatural power are the prime cause for a woman to get pregnant (*kidu aaleum*). They recognise the cessation of regular menstrual cycle (*cheng mameya*), followed by the tendency of vomiting etc as a common symptoms of pregnancy. During pregnancy every women must have to follow certain social prohibition and prescriptions in her daily life. Prohibitions and taboos are more vigorously followed during the first pregnancy. These prohibitions include that she has to abstain to consume honey (both *leo* and *pod*), meat of monitor lizard (*urug*), turtle (*ukale*) etc. and any non-traditional food items received from the non-*Jarawa* (*enen*). Moreover, though she is allowed to go to forest for foraging activities but she cannot climb trees for honey collection, she cannot decorate herself with any non-traditional ornaments. During the advance stage of pregnant, a temporary hut is constructed at the corner of the camp side (*chadda*) or an extended temporary living space at one corner of the communal hut where husband and wife are allowed to stay for a certain period. The temporary hut or living space is specially built with a raised wooden floor which is about four to five feet in length and breadth. The floor is usually made up of areca nut planks or wood and supported by four comparatively strong wooden pillars. The floor is covered with tender leaves of *selai patti* (*Liquala peltata*) and fire places are set at sides of the floor to keep the space / hut warm. During delivery, except husband, no male members are allowed to stay there. Generally, elderly women, experienced mothers, teenage girls and husband assist in delivery process. When labour pain started, they give a massage or light pressure on the abdomen with a piece of fresh bark of some particular plant. Simultaneously they also give foment to the abdomen of the would be mother by

heating their palm on fire. Further the husband or any other experienced women collect the amniotic fluid (*chelo oten*) of the expectant mother and massage her abdomen in a up to downward motion. After the birth of the baby, one of the women cleans the baby with soft tender leaves and cut the umbilical cord with a traditional knife (*tohad*) and knot it. In accordance to the *Jarawa* tradition, the new born baby is ritualistically feed with little drops of pig's fat oil which is taken through the middle finger and touch it the mouth of the new born. This custom is known as *echo-hobo*. After that the baby is allowed to feed the colostrum or milk (*kug*). The mother is not allowed to consume honey for about a month and no other food restriction is imposed on her. Liquid fat of wild pig or monitor lizard are applied to massage the newborn baby. The baby is mostly dependent on breast feeding till the dental formation. The first stage of weaning is started with little quantity of wild pig's fat and honey followed by boiled or roasted soft tubers, fish etc. Often it has been observed that the baby is breast fed by the other mothers of that band / local group, when the mother is away for some foraging or fishing activities. Gradually the teenagers, elders and other group members share the responsibility of brought up the children. The infants are carried suspended on the back as a head load with the help of a bark fibre band. Acculturation of *Jarawa* a children take place in a familiar social environment and in the lap of nature. On attaining the age of eight to ten years or so, hardly any *Jarawa* children are seen to live or share the sleeping places of their parents. They started to stay and live along with their respective peer groups or dormitories namely *lepale* for the boys and *abile* for the girls.

2.6.2 Lepa ceremony

Jarawa is a classical nomadic hunter-gatherer community of tropical rainforest of Andaman Islands and hunting is predominantly a male specific job. Consequently,

Lepa is a male specific ceremony of attaining the adulthood of an adolescent boy. In *Jarawa* perception, an adolescent boy can only attain the adulthood after hunting a *wowo* (wild pig) by his own effort. *Lepa* is highly desired and most awaited social ceremony for each and every grown-up youth, their parents and society as a whole. *Lepa* may also be termed as initiation ceremony of an adolescent boy or man for attaining socially recognised adulthood. Physically a *Jarawa* man can attain the age of thirty or fifty but without *lepa* he will not be socially recognised as an adult. *Lepa* is also quite mandatory before marriage also. After hunting the wild pig for the first time an elaborative and ritualistic ceremony along with songs and dances conducted in that *chadda* (camp site). Everyone praise and embrace for the heroism and effort of hunting a wild pig by his own effort. A group fest is organised on that occasion. *Ood* or white clay is smeared on his face and body which is well decorated with different patterns and lines. The hunted pig is roasted or boiled then liver and some fatty portion is offered to him. The skull and mandible of the hunted pig has immense importance for any *Jarawa* hunter. As per their legendary beliefs and custom they abstain from destroying the hunted pig's skull and mandible, rather they preserve it. After cleaning, it is tied with cane stripes in a decorative fashion and hanged near the sleeping place of that hunter. As a result, huge numbers pig's skulls and mandibles are found to be hanged from the thatched roofs of the community hut. these are kept as a memento or hunter's trophy. They also believe that it will praise their ancestors and benevolent spirits for further and consequent good hunting. Consequent to the *lepa* ceremony, the name of that hunter is changed and a new adulthood name is given to him. So, each and every *Jarawa* hunter has two names, firstly, a childhood name and secondly an adulthood name after *lepa* ceremony.

Culture contact and bartering relation with neighbouring non-*Jarawa* communities has also adversely affected different traditional customs and ceremonies like *lepa*.

Earlier, the hunted animal used to be roasted on fire during *lepa*. But nowadays, it is often boiled in large aluminium container (*buchu*). Young *Jarawa* boys also learned the technique of laying rope trap from the poachers to catch the wild pig. In some cases, *lepa* was observed after catching the wild pig in non-traditional rope trap followed by shooting the arrows. Due to extensive poaching of wild pigs and other forest resources, in future *Jarawa* may suffer from a socio-cultural shock of not being *lepa* or socially not attaining adulthood. The similar situation has already been observed among the Onge of Little Andaman Island.

2.6.3 *Upemame* ceremony

Contrary to *lepa* ceremony, *upemame* is a female specific ceremony of attaining the menarche. So, attainment of the first menstrual cycle is of immense significance for any *Jarawa* girl, her parents and the society as whole. Consequently, different prohibition and prescriptions are imposed on her from the very first day of menarche. Except in the early morning, her movement is restricted for going to the forest and sea. A separate raised wooden platform is prepared at the *abile chadda* (female dormitory) with the planks of wild areca nut wood. In case of temporary hut, the wooden platform may also be prepared at the ground. Tender leaves are spread in that wooden platform and the girl is said to remain sited or slept there only. The leaves are to be replaces in every morning. A mixture of *alam* (red ochre) and wild pig's fat is smeared on her face and body. She is not permitted to take bath during the entire period of menstrual cycle. Smearing and decorating with *ood* or white ochre is also prohibited. Foods like meat of wild pig (*wowo*) and honey (*leo and pod*) are forbidden to consume. She has to subsist primarily on fish, molluscs, tubers and fruits etc. However, the restrictions are less vigorously implied during the successive menstrual cycles.

On fourth or fifth day or after the completion of the cycle, she is allowed to take bath and consume *wowo* (meat of wild pig), especially the fatty portion. In accordance with the *Jarawa* custom, she has to take a small baby on her lap and prayed to their ancestor and benevolent spirits for their blessings of attainment of fertility and reproductivity. During the evening she is well decorated with *ood* (white ochre), flowers, tender leaves and allowed to sit in an open space of the *chadda* (community hut or camp site). All the women and girls of that camp site also adorn themselves with flowers, tender leaves etc. and the *upemame* is celebrated with songs and dance. With different myths and stories, the girl is taught about the importance of attaining adulthood and reproductive age. Though premarital sex is quite common among the *Jarawa*, she is also informed about different do's and don'ts in this regard. However, except children, no male member take part in this ceremony.

2.6.4 Marriage

Jarawa are strictly endogamous community and monogamy is the common rule of marriage. They believe in prefixed marriage in which marriage is fixed during the early childhood by their parents and relatives. Consanguinity is forbidden among the *Jarawa*. So, proposed bride or groom should not have any direct kinship relation. Different consanguinal and affinal kins of both the parents play a pivotal role in search and selection of the prospective bride or groom. Once the prospective bride and groom are selected, both the parents and their relatives in presence of other elderly persons mutually declare the selected children as prospective bride and groom. Preferably, marriage is fixed before the age of six to seven. As the children grown up and after attaining the age of eight to ten years, they started to live separately in their respective *lepale* or *abile* (boy's dormitory or girl's dormitory). They move freely to

the jungle and sea shore for their hunting and gathering activities. Being a prefixed couple, premarital sexual relationship is quite common. In case of any untoward incident of death of the prospective husband before marriage, the girl is often unable to find a suitable mate to marry. Preferable, she has to marry a boy who has also lost his betrothed bride before the actual marriage. Otherwise, the only option left for the girl to marry a widower of the local group or the community, irrespective of his age. Often the young unmarried *Jarawa* women without having any prospective husband have to suffer a lot including sexual exploitation by the youths and widowers. In case of marriage, *Jarawa* do not consider age in terms of years. It is important whether the prospective bride or groom have attained the socially recognised adulthood ceremony (*lepa* or *upemame*) or not. Generally, the age at marriage among them is around 16-19 years for the boys and 13-16 years for the girls. Consequent to the declaration of the prospective bride and groom, on attaining the socially desired adulthood, the date and place of the actual marriage is again fixed by the parents and relatives. *Jarawa* do not observe extensive and elaborative ceremony of marriage. It is as simple as *lepa* or *upemame*. A grand community feast of *wowo* (meat of wild pig) along with songs and dance is organised. The prime theme of the songs is to seek blessings from their ancestral and other benevolent spirits for the prosperous and productive married life. Both the bride and groom are decorated with *ood* (white clay) and in presence of all the community members and elderly persons, the bride is ritualistically sit on the lap of the groom for few minutes. In *Jarawa* dialect the husband and wife are termed as *wagi* and *wangab*. Just after the marriage, the new couple (*wagi-wangab*) is shifted to their new *chadda* (*hut or living place*). They usually practice post marital patrilocal residence but the reverse (matrilocal residence) has also been observed in some cases. The newly married couples are often found together to pursue the gathering and fishing activities.

2.6.5 Death

The *Jarawa* comes under the category of Particularly Vulnerable Tribal Group (PVTG) and numerically, they are much more vulnerable than many other PVTGs in India. As on November, 2017, total *Jarawa* population was 496. For such a vulnerable community death of any individual is of immense concern and significance. Being a nomadic hunter-gatherer community, they have to live a very harsh and troublesome life for their subsistence and sustenance which may lead to any untoward incidents and death of the individuals. As reflected in the table 2.3, there are only three elderly individuals with the age of above sixty years. It indicates that most of the *Jarawa* people die before attaining the age of sixty. Every adult and elderly *Jarawa* individual are self-sustained and self-relied entity. In *Jarawa* society no one is burden on each other. Like most of the society, death of any kin member or relative is a matter of great sorrow and painful. Being animistic, they believe in the spirit of the deceased person and other supernatural phenomenon. But they rarely express their sorrow in the form of extensive gesture and loudly crying. Their expressions in this regard are quite calm, quiet and empathetic with few drops of tears. They perceive their ancestral spirits as benevolent. So, in *Jarawa* cognition death is end of the physical body only, but the spirit is immortal which roams the forests, creeks and sea. Moreover, death rituals of the *Jarawa* reveal their intricate relationship with nature and their territory. In accordance with their customs, they have different death rituals based on the nature of death, gender and age of the deceased person. In case of any death of any new-born or children, they used to bury or keep the death body near the buttress roots of a gigantic tree in the dense forest and partially cover it with leaves and creepers. In case of any adult male or good hunter they use to tie the body tightly

with bark fibres in sitting position by folding his legs, so that the knees come closer to the chin and hands kept suspended close to the feet. The body is kept in the arch or hollow space of the buttress roots of any gigantic tree. The body inside the arch of the buttress roots is covered with leaves, creepers and small wooden logs and partially covered with soil. If the deceased person is a male or a good hunter, some of his used articles like bow (*aaw*), arrow (*patho*), knife (*tohad*), chest guard (*kekad*) etc. are kept on his grave. But if the deceased is female some of her regular used ornaments and household items are kept. After returning from the so called burial place, they used to smear their face and body with *ood* (white clay). They also remove all the household belongings, implements of that deceased person from the hut and thrown or kept in the dense forest or creeks or streams. Afterwards, the entire group or band will leave the camp site (*chadda*) and abandoned the area for about a year. However, some close kin member may occasionally visit that burial place till the complete decomposition of the body. Then as per their unique custom, they collect some pieces of bones like mandible, collar bones, finger bones etc. which are to be worn by any close relatives of the deceased person. Generally, the mandible and collar bones are tied with bark threads and worn as necklace. The small finger bones are worn as waist girdle for several weeks or months to mark the mourning or affection to the deceased person. In this regard this is noteworthy to mention that based on this observation of wearing human bones and mandibles, some travellers and scholars during pre-colonial and colonial period, have mentioned the tribes of the Andaman Islands as cannibals.

One of the secret rituals of *Jarawa* community is their practice of ritual killing or honour killing of unwanted babies. In *Jarawa* cognition, they have different categories of these unwanted babies for their society. Firstly, any child born out of any illegitimate sexual relationship. So, the new born child of any unmarried women,

widow etc. will come under this category. The second category of unwanted babies includes, the new born children with any congenital physical impairment or suffering from any incurable diseases etc. Thirdly, any children born out of any illegitimate sexual relationship with *enen* (non-*Jarawa*, non-negrito outsiders). In accordance to their custom, within a few days after the birth of the above mentioned unwanted or illegitimate babies, decision is taken for this ritual killings or sending the baby to the *thaluawa chadda* which they believe as a heavenly abode. Generally, the, *thaluawa chadda* is located inside the dense forest and hillocks. With the mutual consent of the parents and community members, an elderly person (being a mediator of the supernatural power) takeaway the baby to the dense forest of some hillocks and left the baby helplessly to die. *Jarawa* have their own supernatural and spiritual justification behind this ritual killing. Feasibly, custom may be related with the harsh, troublesome and nomadic way of subsistence which may not allow to survive an illegitimate child with mother only. Moreover, any handicapped child may be a burden for the entire family or band in terms of their nomadic and hunting-gathering livelihood. To keep the purity of blood may also be one of the reasons for the ritual killing of babies under the third category. As *Jarawa* rarely talk much about this secret ritual, the above mention logic of this ritual may be of mere assumption and detailed further research is required to be conducted.

2.7 Population Details

As it has already been mentioned in the Chapter-I (Serial number 1.10) that study was conducted since 2011 to 2017, the following demographic details are of November, 2017.

Table 2.1: Area wise distribution of family and population among the total *Jarawa* of Andaman Islands

Area or territorial groups	Number of family	Population
Kadamtala (<i>Tanmad</i>)	43 (38.70)	189 (38.10)
Middle Strait (<i>Thidong</i>)	39 (35.10)	188 (37.90)
Tirur (<i>Boib</i>)	29 (26.10)	119 (24.00)
Total	111 (100)	496 (100)

(Figures in the parenthesis indicates per cent age)

Table 2.1 reveals that out of three territorial groups namely Kadamtala (*Tanmad*), Middle Strait (*Thidong*) and Tirur (*Boib*), the study area Kadamtala (*Tanmad*) is inhabited by the highest number of *Jarawa* family (38.70 %) and population (38.10 %). while the Tirur (*Boib*) has the lowest number of *Jarawa* family (26.10 %) and population (24 %).

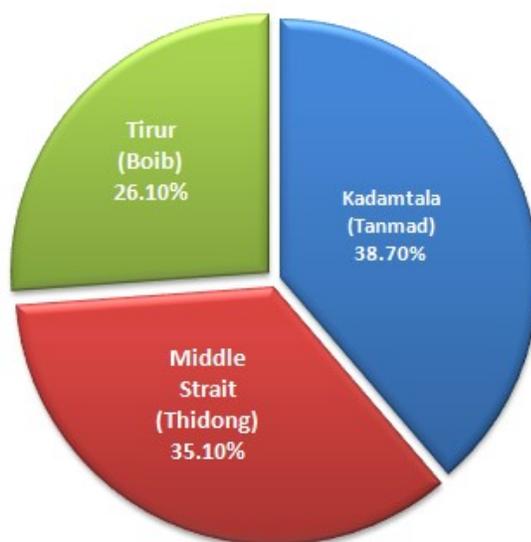


Fig. 2.3: Diagrammatic representation of area wise household distribution among the *Jarawa* (as mentioned in the table-2)

Table-2.2: Area wise gender distribution of total *Jarawa* population

Area or territorial groups	Gender		Total	Sex Ratio
	Male	Female		
Kadamtala (<i>Tanmad</i>)	100	89	189 (38.10)	890
Middle Strait	105	83	188 (37.90)	790

(Thidong)				
Tirur (Boib)	59	60	119 (24.00)	1016
Total	264	232	496 (100)	879

(Figures in the parenthesis indicates per cent age)

The table 2.2 depicts gender wise male, female distribution of population in three territorial groups of *Jarawa*. Moreover, it shows that the overall sex ratio of total *Jarawa* population is 879 which is quite lower than the national and state level sex ratio. Among the three territorial groups, there is remarkable differences sex ratio (890, 790 and 1017). Further in-depth study is required to explain this significant variation.

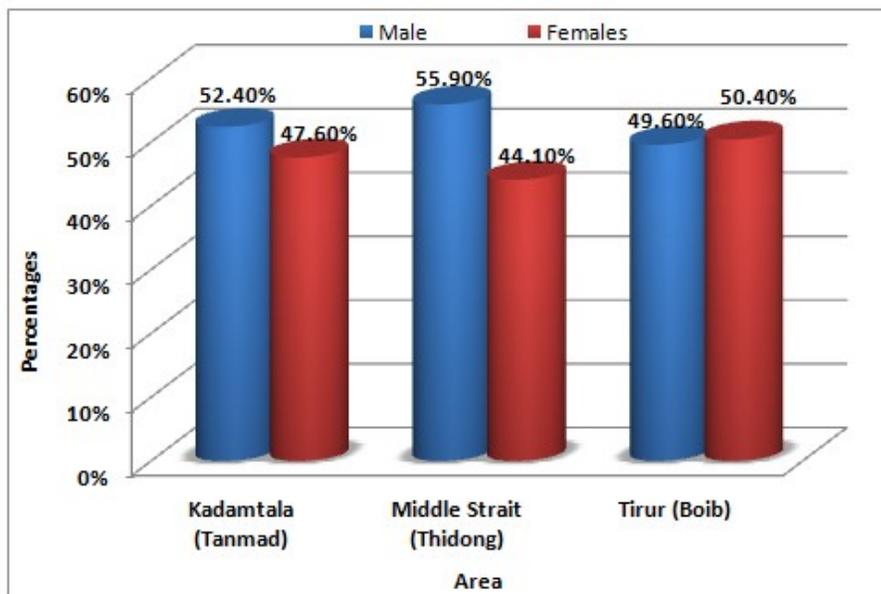


Fig. 2.4: Diagrammatic representation of area wise male-female distribution of *Jarawa* population

Table 2.3: Age group wise population distribution among the *Jarawa* of Kadamtala (*Tanmad*) area

Age Group (Years)	Frequency	Per cent age
<1	3	1.6

1 to 9	65	34.4
10 to 19	31	16.4
20-29	38	20.1
30-39	22	11.6
40-49	11	5.8
50-59	16	8.5
60-69	3	1.6
>70	0	0
Total	189	100

The table 2.3 reflects age group wise population distribution among the *Jarawa* of *Tanmad* area. Significantly, it shows that 34.4 per cent of the *Jarawa* population of that area is under the age of 10 years which reflects the positive tendency population growth. Moreover, the adolescent and younger generation between 10-29 years constitute the 36.5 per cent of the total population which further reflects the growth prospect of the *Jarawa* population.

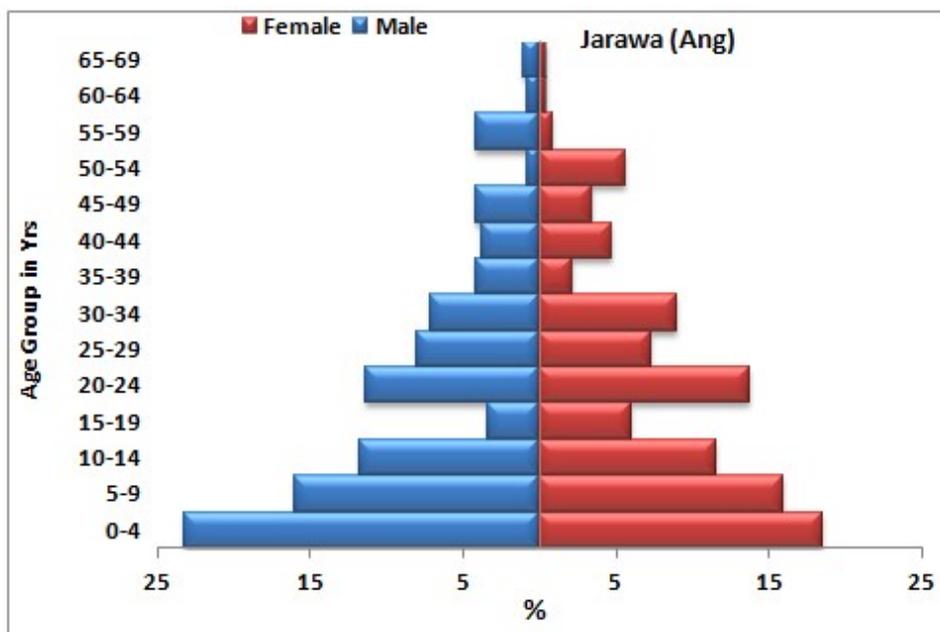


Fig. 2.5: Diagrammatic representation of population pyramid among the *Jarawa* of Kadamtala (*Tanmad*) area.

The broad base of the population pyramid clearly indicates the growth tendency of the *Jarawa* population. As the population data is based on the recent survey of November, 2017,

the sudden decline in the population at the age group 15-19 years is quite parallel to the year 1998-2003. Notably, in 1998 first time *Jarawa* came in a mass friendly contact with the outsiders and neighbouring non-*Jarawa* villagers. Afterwards, up to 2003, the situation was quite tensed, haphazard and uncontrolled. Due to frequent culture contact, *Jarawa* livelihood was significantly affected during that period, since the *Jarawa* policy was enacted in 2004.

Table 2.4: Age group wise distribution of head of the family among *Jarawa* population of Kadamtala (*Tanmad*) area

Age Group (Years)	Number of head of the family	Per cent age
10-19	0	0
20-29	14	32.60
30-39	13	30.20
40-49	5	11.60
50-59	9	20.90
60 and above	2	4.70
Total	43	100

Significantly, the above table shows that out of the 43 families of the study area, 62.80 per cent families' head are below the age of 40 years.

Table 2.5: Marital status among the *Jarawa* population of Kadamtala (*Tanmad*) area

Marital status	Number of <i>Jarawa</i> individual	Per cent age
Married	81	42.9
Unmarried	104	55
Widow	3	1.6
Widower	1	0.5
Total	189	100

Table 2.6 : Gender wise distribution of marital status among the *Jarawa* population of Kadamtala (*Tanmad*) area

Marital status	Male	Female	Total
Married	41 (41.00)	40 (44.94)	81(42.85)
Unmarried	58 (58.00)	46 (51.68)	104 (55.02)
Widow	NA	3 (3.37)	3 (1.60)
Widower	1 (1.00)	NA	1 (0.58)
Total	100 (100)	89 (100)	189 (100)

(Figures in the parenthesis indicates per cent age)

Table 2.7: Distribution of *Jarawa* families of Kadamtala (*Tanmad*) area having bartering relation with non-*Jarawa* community

Area	Total number of family	Number of family do not have bartering relation with the non-<i>Jarawa</i>	Number of family having bartering relation with the non-<i>Jarawa</i>
Kadamtala (<i>Tanmad</i>)	43	8 (18.60 %)	35 (81.40 %)

The above table is focused on the number of *Jarawa* families having and without having bartering relation with the non-*Jarawa* neighbouring communities in the study area i.e. Kadamtala area (*Tanmad*). The survey of the *Jarawa* families reveal that 81.40 per cent *Jarawa* families did bartering exchange during last one year in the study area which is quite significant and alarming with respect to their socio-cultural changes. On the other hand, altogether 18.60 families did not maintain any bartering exchange during last one year. These families are mostly residing in the interior forest and rarely come in the nearby non-*Jarawa* villages.

Table 2.8: Distribution of frequency of bartering exchange among the *Jarawa* household of Kadamtala (*Tanmad*) area

Area	Total number of family	Number of family having bartering relation with the non- <i>Jarawa</i>	Frequency of Bartering (in last one year)		
			Low (once in a year)	Moderate (once in six months)	High (once in a month)
Kadamtala (<i>Tanmad</i>)	43	35	10 (28.75 %)	16 (45.71%)	9 (25.71%)

The table 2.8 is particularly showing the frequency of bartering exchange with the neighbouring non-*Jarawa* communities. In this particular aspect, the frequency is measured in terms of number of bartering exchange made by any member of that particular family during last one year. The frequency of barter is further categorised as low (minimum once in a year), high (minimum once in last six months) and high (minimum once in every month). It has been found that out of 35 *Jarawa* families having bartering relation, 45.71 per cent families come under the category of moderate frequency of bartering exchange, 28.75 per cent families with low frequency and surprisingly 25.71 per cent *Jarawa* families did bartering exchange at least once in every month. So, the situation is quite alarming in terms of culture contact scenario between the *Jarawa* and neighbouring non-*Jarawa* communities.

2.8 The *Jarawa* Reserve

After Indian independence in 1947, the Andaman and Nicobar Islands are included under the administrative control of the Government of India. It took about a decade to frame a regulation for the protection of *Jarawa* and their territory. The ‘Andaman and Nicobar Protection of Aboriginal Tribes Regulation’ (ANPATR) came into existence in 1956. Most

of the areas which were inhabited by *Jarawa* declared as reserved area by the Andaman and Nicobar Administration (notified by ANPATR/3(1)/1, 1956/57). The reserved area includes entire areas along with the west coast of South Andaman and Middle Andaman including coastal water up to 3 km starting from the mouth of Constance Bay to the Louis Inlet Bay. The *Jarawa* territory was further modified by different notifications and de-notification by Andaman Administration [107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW(PF) dated-15.09.2004]. Significantly, the Andaman Trunk Road (ATR) which is cutting across the *Jarawa* territory has been excluded from the *Jarawa* Reserve. Previously existing 200 metre belt from central line of Andaman Trunk Road has also been minimised to 30 metre on the either side of the Andaman Trunk Road. The *Jarawa* Reserve is also extended towards coastal waters up to a distance of 5 Km from the high tide water mark line on the western side of the South and Middle Andaman Islands from Constance Bay to Lewis Inlet Bay. After the administrative notification in 2004, the *Jarawa* Reserve was again extended to an area of 1028 km² and in 2017 the Reserve area extended up to 1040 km² spread along with the western coast of Middle and South Andaman Islands. Apart from that special wards for the *Jarawa* at the Primary Health Centre at Kadamtala and Tusnabad are also included in the *Jarawa* Reserve. A scrutiny of the different notification reveals that this increase in the territory is only notional increase in the Reserve area but it does not have much relevance for the *Jarawa* as they have had been exploiting that area even prior to the notifications. So, the declaration of *Jarawa* territory as demarcated '*Jarawa* Reserve' may be treated as a protective mechanism to safeguard their territory and resources.

2.9 Buffer Zone

Recently, the most debated and politicised issue regarding *Jarawa* territory was 'Buffer Zone'. With the view of all-round protection of *Jarawa* vis-à-vis their territory and to regulate the harmful effect of culture contact with the outsiders, the Andaman administration in 2007 declared the area up to 5 km radius adjacent and contiguous to the entire *Jarawa* Reserve starting from Constance Bay of South Andaman to Lewis Inlet Bay at Middle Andaman as Buffer Zone. Many villages of different Gram Panchayats of South Andaman and Middle Andaman Islands came under this Buffer Zone declaration. Establishment and operation of different commercial, tourism activities were regulated and restricted in the buffer zone villages. Primarily, livelihoods of all the villages were seriously affected due to this declaration. Tremendous social and political agitations were raised by the settlers. Consequently, a negative attitude towards the *Jarawa* was developing among the buffer Zone villagers. Many villagers were of opinion that the *Jarawa* are the sole responsible for this negative impact on their livelihood. Subsequently, this Buffer Zone declaration was amended and re-notified in 2013 and with some partial modification which declared to exclude 30 villages and entire seaward side of west of South and Middle Andaman from buffer zone. This re-notified Buffer zone also excludes most of the settlement villages near to the *Jarawa* territory.

2.10 Andaman Trunk Road

One of the most contentious decision was taken by the Andaman and Nicobar administration in the late sixties. In order to develop the land communication between the North and South Andaman Islands, administration decided to construct a road namely Andaman Trunk Road (ATR). Since after the independence, under the Refugee Rehabilitation scheme the Government has established many settlement villages in different places of North Andaman, Middle Andaman and South Andaman Islands. Since the capital city Port Blair is located at

the South Andaman Island, it was of utmost priority for the administration to establish suitable communication between all the inhabited islands of Andaman. Due to different difficulties of sea transport like turbulent weather during monsoon season, time consuming and troublesome sea journey etc. were prejudiced the authorities to such a decision of land communication different nearby islands through the *Jarawa* territory. Being migrated from mainland India, Myanmar and Sri Lanka, the road communication was the most preferred means of transportation for the settlers also. So, the ATR was planned to connect the four major Islands namely South Andaman i.e Baratang, Middle Andaman and North Andaman from the Chiriya Tapu in the Southernmost part of South Andaman. Construction of the 333 km long ATR began in late sixties and work continued in different phases and finally became fully operational in 1989. The road has length of 107 km in South Andaman and 226 km in the Middle and North Andaman (Sarkar, 2015). The decision seems to be taken with the view to introduce smooth communication facilities for the settlers of the different islands. Different portions of the ATR were designed to pass through the *Jarawa* Reserve area in South and Middle Andaman Islands. Many heavy machineries and large numbers of labourers for clearing of forest and construction of the road were brought to the construction places in the *Jarawa* territory. A number of labour camps along the proposed road were established. Invariably, the introduction of such huge machineries and labour force severely disturbed the ecological equilibrium in which the *Jarawa* livelihood was accustomed. They were probably traumatised with the unprecedented noise which have not been experienced in distance past. As the ATR was cutting across the *Jarawa* territory from South to North, it prevented free movements of the tribe to from west to east and vice versa. Thus, it detrimentally affected the resource accessibility and resource utilisation of *Jarawa* in their territory. Large scale felling of huge trees, frequent movement of heavy machines, use of explosives and construction of labour camps at different work sides must have multiplied the vulnerability of this small community. They have been virtually concerned within considerably less forest area than

they had enjoyed during the colonial rule. As a natural instinct to protect their habitats and resources, they occasionally raided the labour camps situated within the *Jarawa* territory. They tried to prevent construction of the road in their own ways. On several occasions they put barricades at the work head with the message for the labourers not to proceed further for clearing their resource areas. However, under the protection of armed police, the barricades used to be cleared and construction work continued. It was alleged that the labourers used to put electrified wires encircling their camps that have taken many lives of the tribes. Even then they did not give up obstructing the work of ATR. They conducted attacks on the labourers and other workers causing many casualties, whenever opportunities came, also destroyed many of their camps of those road workers. A section of people in Port Blair and many in the mainland raised their voices in protest of construction of ATR through the *Jarawa* Resource areas. Regular clashes between the *Jarawa*, settlers and construction workers was quite common. Several incidents of conflicts and clashes had taken place on the road since the 1970s and continued up to 1997 when the scenario changed drastically and the *Jarawa* came into a mass friendly contact with the outsiders. Exact numbers of *Jarawa* killed during the construction of ATR probably never be revealed, be it by electrocution, bullets or other means. Attacks on different labourers, Bush Police, trucks and buses by the *Jarawa* were merely a form of resistance towards the outsiders' intrusion into their territory.

In this regard it is notable that in 1952, a study to assess the feasibility of further resettlement of Bengali refugees from the then East Pakistan to the South and Middle Andaman Islands was conducted by Dr. Surajit Chandra Sinha, then an upcoming young Anthropologist. The study revealed that Dr. Sinha was also not in favour of further resettlement of the refugees in the vicinity of the *Jarawa* territory, especially in South Andaman. The report states that "these small numbers of *Jarawa* hold a very extensive territory from North West of South Andaman to South West of Middle Andaman and are a menace to extension of refugees'

resettlements in South Andaman. So long as friendly relation is not established with these aboriginals through active effort of the Anthropologists, the only way open is to keep them confined within a specific territory as *Jarawa* Reserve Area” (Sinha, 1952). The territory covering virtually entire Northern part of South and Middle Andaman Islands was declared as Tribal Reserve in 1956 through a Government notification (ANPATR/3(1)/1, 1956/57)). The reserved area includes entire areas along with the west coast of South Andaman and Middle Andaman including coastal water up to 3 km starting from the mouth of Constance Bay to the Louis Inlet Bay. The *Jarawa* territory was further amended by different notifications and de-notification by Andaman Administration [107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW(PF) dated-15.09.2004]. Significantly, the Andaman Trunk Road (ATR) which is cutting across the *Jarawa* territory has been excluded from the *Jarawa* Reserve. Previously existing 200 metre belt from central line of Andaman Trunk Road has also been minimised to 30 metre on the either side of the Andaman Trunk Road. The *Jarawa* Reserve is also extended towards coastal waters up to a distance of 5 Km from the high tide water mark line on the western side of the South and Middle Andaman Islands from Constance Bay to Lewis Inlet Bay.

Regarding impact and consequences of Andaman Trunk Road (ATR), this is noteworthy to mention that primarily it was constructed not for the benefit of the *Jarawa*. It was the interest of the immigrant people of the dominant societies, which often receive attention of the State since demand of the majority needs to be honoured in a democratic country. Consequences on small and already vulnerable community like *Jarawa* are often ignored. The unrevealed and underlined simple logic is that numbers matters in democracy. So, for a handful 400 odd *Jarawa* individuals, the development process of the larger society with lakhs of people cannot be suffered. Introduction of the ATR through the *Jarawa* territory essentially devastated the life and culture of the tribe. They had to ultimately give up their antagonistic relationship with the encroachers and intruders to their territory which often protected them from many

unknown alien vices of culture contact. Consequences of showing friendly gesture were almost similar to that of Great Andamanese and Onge. Several untoward activities like movement of vehicular traffic, frequent visit of outsiders including tourist, poaching and supply of alien food items etc. have been in operation in the *Jarawa* territory. These would likely to push the *Jarawa* to a stage of total dependency on the larger dominant societies. Lakhs of tourists with thousands of vehicles are passing through the ATR every year with the hope to get a glimpse of the *Jarawa*. Tour operators also motivate the tourists for the road journey through the *Jarawa* Reserve. This so called *Jarawa* tourism became very popular among most of the visiting tourists. This chaotic journey through ATR have immensely effected the livelihood of the *Jarawa* to a great extent. Apart from that ATR also facilitated different poachers to increase their accessibility and movability inside the dense forest in *Jarawa* territory which have a direct impact on depletion of *Jarawa* resources.

2.11 Chapter Summary

This chapter basically dealt with thick ethnographic description about the very little known and vulnerable tribal community i.e. *Jarawa* in terms of their livelihood, Society and Culture. . This empirical ethnographic description is the baseline to understand the dynamic changes therein in terms of Jarawa territory and territoriality. Overall this chapter include aspects regarding concept of *Ang*, *Enen* and *Yono*, social Organisation, subsistence Economy, fishing, honey Collection, resources in the Jarawa territory, seasonal variation of resources, Material Culture, rite-de-passage, population details, Jarawa Reserve, buffer zone and Andaman Trunk Road (ATR). This chapter also emphasised on the aspects of material culture like traditional huts (*chadda*), dress and ornaments, implements namely bow (*aaw*), arrow (*patho*), traditional knife (*tohad*), chest guard (*kekad*), wooden bucket (*uhu*), cane basket (*taika*), resin torch (*pone*), fishing hand net (*botho*), ochre (*ood* and *alam*) and iron and metals which are

subjected to rapid change with the influence of culture contact. It also includes many preliminary information regarding social organisation of the *Jarawa* which is till grossly unknown to the academic world. It also laid the foundation of relevant discussion in terms of the objectives research question of this particular Ph.D dissertation.

CHAPTER III

THE *JARAWA* TERRITORY: NEIGHBOURING COMMUNITIES AND PRE-INDEPENDENCE MANIFESTATIONS

CHAPTER III

THE *JARAWA* TERRITORY: NEIGHBOURING COMMUNITIES AND PRE-INDEPENDENCE MANIFESTATIONS

A careful reading of different historical documents and literatures on Andaman Islands reveals that both territory and the identity of Jawara were not so static. During colonial period also, the Jawara territory was not a fixed geographical area. However, due to different historical specific and contextual specific reasons, it was subjected to continuous change and shift. So, for further understanding about the notion of Jawara territory and its pre-independence manifestations, one has to go deep into the history of colonising the Andaman Islands, dynamicity of relationship with the different native tribes and policy of the colonial rulers towards the Jawara.

According to Man (1883), *Jarawa* are those native individuals inhabiting Little Andaman and southern portion of Great Andaman. He mentioned that during his trips Little Andaman also visited, but all our efforts to conciliate the *Jarawa* (or inhabitants of that island) with their offshoot in South Andaman have hitherto proved fruitless (Man, 1883: xxii). So, together termed Onge and *Jarawa* as '*Jarawa*. The term 'Onge' may be not in use to refer the inhabitants of the Little Andaman during that period.

Today the area which is inhabited by *Jarawa* is a recent phenomenon, probably not more than two centuries. According to the study of Brown (1922), *Jarawa* were distributed in Rutland Island and Southern parts of Great Andaman Island (Map-3). Due to different colonial forces and other different reasons, they were pushed further northwards and occupy the present position. He also stated that 'there can be no doubt the *Jarawa* are the descendants of emigrants who at some time in the past made their way across from the Little Andaman and thrust themselves in upon the inhabitants of Rutland Islands and the South Andaman, maintaining their footing in the new country by force of arms' (Brown 1922, 13).

Mukhopadhyay (2010) stated that only in recent years we came to know from the people that the *Jarawa* call themselves as 'Ang'. It has been argued that Aka-Bea, one of the Great Andamanese tribes used to refer the 'Ang' as 'Jarawa'. So, Brown (1922) rightly assumed that 'the natives of Little Andaman refer to themselves as Onge (men). It is probable that the so-called *Jarawa* of the South Andaman have the same word'. As the present author has worked both among the *Jarawa* and Onge tribes, consequently it has been found during the fieldwork that the Onge's pronunciation of the word 'Onge' is quite close to the *Jarawa*'s pronunciation of the word 'Ang'. Cipriani (1966) during his fieldwork in 1950s found that *Jarawa* were living in the dense tropical rain forest of South and Middle Andaman. He also stated that a few roads radiated from Port Blair, but none of the roads penetrate more than twenty kilometre and a well maintained police cordon were stretched across the island from east to west to prevent *Jarawa* infiltration.

So, from the above discussion it seems that during last decade of eighteenth century (1790s) the *Jarawa* territory was spread over the vast areas from Rutland Island to South Andaman (including the coastal areas Port Blair). But when second time the penal settlement was established in 1858, no *Jarawa* were found near the coastal areas of Port Blair. They were confined inside dense tropical forest areas of South Andaman and the entire coastal areas was under the control of Great Andamanese. It was assumed that *Jarawa* faced the problem of depopulation due to some diseases acquired from the people of the first penal settlement, thus they were pushed into the deep forest by the Great Andamanese (*Aka-Bea*). Situation changed drastically when second time the penal settlement was established at Port Blair in 1858. At that time the *Jarawa* were restricted to be inhabited in the interior, hilly and dense tropical rain forest areas of South Andaman. They were almost surrounded by Great Andamanese who were residing at all the coastal areas. But after 1858, the Great Andamanese population started decline rapidly mainly due to spreading of some contagious diseases acquired from

the settlers. In 1901, numbers of Great Andamanese was reduced to only 600 and in 1961 to a mere 19 (table-1.1). Such a rapid decline in the Great Andamanese population also created a vacuum space for the *Jarawa* at South and Middle Andaman areas.

The movement of the *Jarawa* in the Middle Andaman seems to be a recent phenomenon. Middle Andaman was never known to be part of *Jarawa* territory until recently. This area was the exclusive territory of Great Andamanese tribes like *Oko Juwoi*, *Aka Kol* and *Aka Kede* etc (Map-3.2). The period when *Jarawa* entered into the Middle Andaman Islands is not exactly known but it can assumed to be somewhere in 1890 to 1910 (Portman, 1899 and Brown 1922). One of the earliest settlements in Middle Andaman Island was Bonnington (present day Mayabunder) and a little village called 'Webi' inhabited by Keren community (settled from Myanmar) created in 1925. Some old Keren still recount incidents of sighting *Jarawa* around their village and nearby mangrove creeks. During the second world war when the Andaman and Nicobar islands were Japanese occupation (1942-1945), the *Jarawa* territories of South Andaman was indiscriminately bombarded which pushed *Jarawa* to spread different areas of South and Middle Andaman areas to occupy the present position.

3.1 Earliest Contact with Jawara (Pre-colonial period)

The Andaman Islands have found place in the writings of travellers, sailors and traders since long, much before the colonial control over these Islands. For example, the description about the Island of Buzacat by Claudius Ptolemy in the Second Century A.D. was probably the Andaman Islands. While the Chinese mentioned about this archipelago, in their writings during the Seventh Century, while the Arabs in the Ninth Century and the Europeans in the Thirteen-Century (Mathur, 1968). The significant theme in almost all the above mentioned accounts was the cruel nature and the demonic appearance of the cannibal inhabitants of the Islands. The Arabs mentioned that "the people on this coast eat human flesh quite raw... their

countenance and eyes frightful; their feet are very large ...” (Portman, 1899:51). Marco Polo’s description was also quite interesting: “The people are no better than wild beasts and I assure you all the men of this Island of Angamanian have heads like dogs, and teeth and eyes likewise; in fact, in the face they are just like big mastiff dogs ... they are a most cruel generation, and eat everybody that they can catch, if not of their own race" (Portman, 1899: 52). Passing by traders and visiting travellers might have observed the Andaman Islanders from distant places which might have led them about this illusion about the physical feature, appearance, and nature of the inhabitants of the Andaman Islands. On the other hand, there was no such confusion in the neighbouring countries of South-East Asia. Again, according to Portman (1899), the Andaman Islands were not as isolated as the travellers have depicted about it. Pirates from the neighbouring South-East Asian countries often used to roam the shores and creeks of these Islands as harbours or hiding place. They often looted ships sailing through the sea and sometimes they engaged themselves to collect edible birds' nest, shark fin, sea cucumber and tortoise shell etc. The most valuable catch for them were the Andaman Islanders who were sold as slaves in different parts of South-East Asia.

3.2 Contacts and territory during Colonial Occupation (1789 to 1947)

Historical and Anthropological accounts of different authors like Mouat (1863), Man (1883), Portman (1899), Kloss (1903), Brown (1922) and Cipriani (1966) revealed that the geographical area of *Jarawa* territory was subjected to continuous change and shift. So, any discussion on the historical manifestations of *Jarawa* territory may include the history of colonising the Andaman Islands, dynamicity of relationship among the different native tribes and their relationship with the outsiders.

As it has been already mentioned that the area (fig. 4.1) which is presently inhabited by *Jarawa* is a recent phenomenon, probably not more than two centuries. According to the

study of Brown (1922), *Jarawa* were distributed in Rutland Island and Southern parts of Great Andaman Island (fig. 3.2). Due to different colonial forces, other different push and pull factors, they moved further northwards and occupy the present position. In due course, they have completely vacated the Rutland Island. Until the end of the eighteenth century there is no written account of any attempt to establish a settlement in Andaman Islands by any outsiders. In 1788 the erstwhile British East India Company commissioned Lieutenant Archibald Blair to establish a settlement at Andaman and convicts were sent as labourers. The first settlement in the Andaman Islands was established in September, 1789 in South Andaman at harbour now known as Port Blair, but then called Port Cornwallis. In 1792 the settlement was shifted from the first site to the harbour at the North Andaman now known as Port Cornwallis. The transfer was made with the idea of creating a naval base for which the newly selected place was thought to be much ideal. Unfortunately the new site proved to be inappropriate and unhealthy due to different tropical diseases and malaria. Ultimately, the scheme was abandoned in 1796 and convicts were transferred to Penang and settlers returned to India.

The British colonial rulers again considered the question of colonizing Andaman during mid-nineteenth century. At the end of Indian Mutiny in 1857, the company found themselves with a large number of prisoners and it was decided to create a new penal settlement at Andaman. The site of the first settlement of 1789 in the South Andaman was chosen for that purpose and named as Port Blair. The Penal Settlement was established on March 1858 and has been in existence ever since. The Second Penal Settlement in Andaman Islands was established after the acceptance of 'the Report of a Committee' formed to give its suggestion, regarding reoccupying the Andaman and Nicobar Islands and establish penal settlement by the British colonial rulers. Remarkably, there were penal settlements already existing in this part of the

continent established by the British namely, Benkulen in Sumatra followed by Singapore, Penang and some places in Myanmar (erstwhile Burma) (Majumdar, 1975).

Throughout the colonial period, a series of events took place that shaped the history of the Islands and brought a great variety of changes in the human population, Socio-cultural fabric and environment of the Andaman and Nicobar Islands. Establishing a penal settlement in the Andaman Islands leads the British government towards two emergent issues. First and foremost was the general policy to be adopted towards the aborigines and secondly, the creation of a suitable machinery of administration for the Islands. In view of the aborigines as primitive and cruel, the Court of Directors formulated a policy of behaviour towards the aborigines. The British officials were told ‘all possible precautions may be taken to protect the aboriginal inhabitants of the Andaman Islands from the collision with convicts, which, it is not too probable will be triggered on both sides and which once commenced are so likely to end in the extermination of the weaker race’ (Mathur, 1968: 69). Whereas, all ten sects of the Great Andamanese and the Onge had come under the colonial influence of the British within the few years of the establishment of the second Penal Settlement at Port-Blair in 1858, the *Jarawa*, nevertheless, did not accept the superficial friendly gesticulation of the British. The *Jarawa* suffered violence because of the punitive expeditions sent by the British Administration against them for their disinclination to be friendly with the new settlers and their unwillingness to submit to new arrangements. The *Jarawa* continued with their defensive posture until the latter half of 1997 when they voluntarily came in the friendly contact with the Non-*Jarawa* neighbouring communities.

The discourse and manifestations of the contacts of the *Jarawa* with Non-*Jarawa* may broadly be categorised discussed in three comprehensive time phases namely (1) contacts

during 1858 to 1900, (2) contacts 1901 to 1939 and (3) contacts during the Japanese occupation between 1942 and 1945.

3.2.1 Contacts during 1858 to 1900

During the first phase of the penal settlement the *Jarawa* behaved in a nonchalant manner with the colonizers in contrast to the Aka Bea-da tribe (one sect of the Great Andamanese Tribe). Even during the initial years of the second penal settlement, the *Jarawa* remained comparatively inoffensive. The British learnt about the hostility of the *Jarawa* around 1863 when Topsy, the Great Andamanese girl staying at the 'Andaman Home' told the Reverend H. Corbyn that there were the tribes in the interior jungle of South Andaman namely '*Jarawa*' who were hostile not only to the Andamanese but also to the British and warned him not to proceed to their settlement (Majumdar, 1975: 87). Though, he failed to understand the explanations behind their hostility, in the annual report for the year 1872-1873, General Steward wrote that the *Jarawa* 'seem to be peacefully disposed, whereas the Little Andaman Islanders habitually kill or attempt to kill, everyone that lands on their shores" (Portman, 1899: 716). The *Jarawa* attacked the settlement for the first time in the year 1872. However, the situation turned to be worst in the following years and hostility with *Jarawa* increased drastically in which hardly there was a year passed without violent conflicts between the *Jarawa* and the Non-*Jarawa* (Census of India, 1931: 14). In the latter years of the nineteenth century, several punitive expeditions were sent against them. It resulted in the killing of many *Jarawas* that further worsen the situation and to add fuel to the fire, the Great Andamanese were used to catch and befriend the *Jarawa* overlooking the fact that the Great Andamanese, particularly the Aka Bea-da, were traditionally at enmity with the *Jarawa*. The fundamental idea was that it would help

establish friendly relations with the *Jarawa* as this method had contributed partially in the general efforts of establishing friendly contact with the Great Andamanese and the Onge. The basic strategy was to catch the *Jarawa*, bring them to Port-Blair, keep them in 'Home' at Port Blair, give them gifts and then send them back. Even this method did not fruitful in case of Jarawa. For example, the British Administration succeeded in capturing one *Jarawa* man with the help of the Great Andamanese in March 1885 and he was kept in Port Blair. The *Jarawa* kept begging the Great Andamanese to kill him by throttling or cutting his throat, and rejected all overtures of friendship (Portman, 1899:60). By sending armed personnel into their territories, a people with friendly disposition were pushed to abject hatred, and the British Government refused to learn any lessons from it. The British Administration was thinking of invading the Jarawa territory and catching them alive with the help of armed police and convicts. By the end of the Nineteenth Century, the situation had further worsened. Surprisingly, few British officials even opined for complete extermination of the *Jarawa* people with the help of British Army.

3.2.2 Contacts during 1901 to 1939

After the superannuation of Mr. Portman in 1900, the conciliatory strategy which was followed till 1900 for the *Jarawa* was kept in abandoned. As a result, the hostility on both sides aggravated. The *Jarawa* were even resisting with all their might establishment of any settlements in their territory. In turn, the settlers and British authority were attacking the *Jarawa* more frequently. The turnaround from a policy of protecting the tribes from collision with the settlers and thus saving the indigenous people from extermination was complete when in 1905 a 'Bush Police Force' was formed with friendly Great Andamanese as members with a Burmese Jamadar in-

charge of it. The job of the Bush Police Force was to hunt the *Jarawa* and the runaway convicts too (Mathur, 1968). In one such expedition by Captain West in 1925, as many as 37 *Jarawa* were claimed to have been shot dead (Census of India, 1931: 16). With each passing year, the number of the punitive expeditions sent inside the *Jarawa* territory was intensified. Consequently, the feeling of hostility in the *Jarawa* against the outsiders was further fuelled. Later at some point of time, it was felt that the most effective way to conciliate the *Jarawa* was to 'capture them in large numbers, tame them and then sent them back as messenger of peace'. One such expedition, organised in 1939 by McCarthy Commandant, Civil and Military Police, was considered to be successful as they could capture one young *Jarawa* woman with three of her children (Census of India, 1961: 104). However, in the following years such expeditions could not be carried out because of the Japanese occupation of these islands during Second World War.

3.2.3 Contacts during Japanese Occupation (1942 -1945)

Andaman and Nicobar Islands were under Japanese occupation from March 1942 to October 1945. The Japanese were interested to fortify the entire coast but the *Jarawa* made their work difficult on the west coast of the Andaman. Consequently, the *Jarawa* areas were reported to have been machine gunned from air because two Japanese soldiers had allegedly been killed at the hands of the *Jarawa* (Sarkar, 1993: 104). Though nothing is known about the casualties the *Jarawa* suffered in that attack, it did enhance their hatred towards the outsiders.

According to Portman (1899), the first documented contact with the *Jarawa* was available in the writings of Lieutenant Colebrook which also reveals that during 1790's the natives to

whom people of Lieutenant Blair's settlement of South Andaman developed friendly relationship and whom they took to Car Nicobar and Kolkata were actually the members of South Andaman *Jarawa* tribes. The description of their habits, weapons, utensils, vocabulary etc. also supported this point. From the members *Aka-Bea* tribe, the author also came to know that in former time *Jarawa* used to be more numerous and powerful than they were then and they inhabited the southern part of the harbor of Port Blair, the western part, and much of the neighboring interior. Many 'Kitchen-Middens' on the shores of Port Blair have been pointed out to him as the sites of *Jarawa* habitats. The *Aka-Bea* further proved their contentions by showing that some shell heaps which contained the refuses of articles consumed by *Jarawa* but *Aka-Bea* never touched those. According to him it was probable that some diseases were introduced among them by the people of Lieutenant Blair's settlement which reduced this them considerably in numbers and thus enabled *Aka-Bea* to obtain the upper hand. It would appear as if the Onge group of tribes had at one time inhabited as one body the whole of the country from Little Andaman to Port Blair and had passed from one island to another freely. The people on Rutland Island would make excursions in their canoes during the calm weather (Portman, 1899).

So, it was evident that during first effort of British colonization during 1790s, the *Jarawa* were distributed in most of the today's Port Blair areas like Haddo, Navy Bay, and the creeks running south of Viper islands and appeared to be fairly numerous. The fact that how the tribes (*Jarawa*) with whom Lieutenant Blair had good terms, became unfriendly (so called hostile) during later years. Nothing is known about the period between 1797 to 1858. But when Andaman were re-occupied in the latter years (1858), the *Aka-Bea* were far more stronger and numerous tribe and had occupied the whole of the land around the harbor of Port Blair, driving the *Jarawa* into the interior of the island and fighting with them whenever they met.

3.3 Territorial Conflict with Great Andamanese (*Yono*)

Historically, the *Jarawa* and the Great Andamanese were living in a continuous state of territorial conflict among themselves. Both the *Jarawa* and *Aka-Bea* (a group of Great Andamanese tribe), were inhabiting the same area of South Andaman Island. While Great Andamanese were occupying the majority of the coastal areas, the *Jarawa* were often pushed into the interior jungles and hillocks. Significantly, the term *Jarawa* (which means ‘the others’) was used by the Great Andamanese tribe who were often accompanied the colonial rulers during their expeditions in the forest.

Primarily, the reason of conflict was to occupy different resource of forest and coastal areas. It has been evident that both *Jarawa* and Great Andamanese were living in a notionally demarcated territory of South Andaman which was quite volatile due to antagonistic relationship between the above two communities. One such evidence of territorial conflict was mention in the writings of Portman (1899) where he mentioned that many ‘Kitchen-Middens’ on the shores of Port Blair have been pointed out to him as the sites of *Jarawa* habitats. The *Aka-Bea* further proved their contentions by showing that some shell heaps which contained the refuses of articles consumed by *Jarawa* but *Aka-Bea* never touched those. According to him it was probable that some diseases were introduced among the *Jarawa* by the people of Lieutenant Blair’s settlement (1789-17996) which reduced this them considerably in numbers and thus enabled *Aka-Bea* to obtain the upper hand.

3.4 Punitive Expeditions and atrocities on the *Jarawa*

While all ten groups of the Great Andamanese and the Onge tribe had come under the influence of the British colonialism within the few years of the establishment of the second Penal Settlement at Port-Blair in 1858, the *Jarawa*, however, did not accept the friendly proposition of the British. The *Jarawa* suffered violence because of the punitive expeditions

sent by the British Administration against them for their unwillingness to be friendly with the new settlers and their unwillingness to submit to new arrangements.

In one such expedition by Captain West in 1925, as many as 37 *Jarawa* were claimed to have been shot dead (Census of India, 1931). With each passing year, the number of the punitive expeditions sent inside the *Jarawa* territory increased. Consequently, the feeling of hostility in the *Jarawa* against the outsiders was further fuelled. Later at some point of time, it was felt that the most effective way to conciliate the *Jarawa* was to 'capture them in large numbers, tame them and then sent them back as messenger of peace'. One such expedition, organised in 1939 by McCarthy Commandant, Civil and Military Police, was considered to be successful as they could capture one young *Jarawa* woman with three of her children (Census of India, 1961: 104). However, in the following years such expeditions could not be carried out because of the Japanese occupation of these islands during Second World War.

After the Independence, under the new policy of the Indian Government, the legacy of large scale and organised state violence and policy of punitive expedition towards the *Jarawa* was entirely given up. The British used to conduct punitive expeditions against the warring tribes. Though some information are available on the number of persons (of expedition party) killed in such war but it was never known as how many of the tribesmen were wounded in the war and afterwards succumbed to their injuries. However, it certainly disrupted their sex and age structure and that had implication on their overall population (Sarkar, 2015).

The *Jarawa* were the second one to display protest against the British colonial expansion in the Andaman Island. The first recorded attack by the *Jarawa* on the settlement of the British was in 1872. The situation took a tum for worse in the following years and the hostility scaled-up. The reasons, which forced the *Jarawa* to be hostile, were intrusion in their

territory, punitive action against them by the British and the employing of the Great Andamanese, which happened to be their traditional enemy of the *Jarawa*, against them by the British. British followed some reconciliatory approach toward the aborigines between 1880 and 1900 when the Portman was the Officer-in-Charge of the relation with the tribes of Andaman Islands. However, after his retirement, the reconciliatory approach toward the aborigines was abandoned and more punitive expeditions were carried out against the *Jarawa*, which resulted in to killing of many *Jarawa*.

The nature of contacts in post-Independence phase witnessed certain changes and had impacts of some events, which followed the Independence. In the first major change, the policy of sending punitive expedition was abandoned, and the habitat of the *Jarawa* was declared as a restricted territory and named as '*Jarawa Reserve*'.

3.5 Clearing of Forest, Timber Extraction and Encroachment

Immediately after the establishment of penal settlement in the year 1858, a huge area of the forestland was cleared during 1864 to 1901 in different phases for establishing villages of the life imprisoned convicts and for cultivation and livelihood. Soon 59.7 hectors of forest was cleared and the same under the plough cultivation. Clearing of forest continued around present day Port Blair. About 293 hector of forest was cleared of which 143 hector was cultivated in 1864 to 1865. By 1879, 139 hector of forest had been cleared and 355 hector was brought under cultivation. More area used to be cleared every year for cultivation. During 1881, 1884, 1901 in total 4219 hector, 9081 hector, 10198 hector of forest which were primarily under the *Jarawa* territory was cleared for cultivation. As a result the territorial groups of the present Great Andamanese and *Jarawa* became the worst affected. Besides the original inhabitants like the *Jarawa* and the Great Andamanese, the South Andaman Islands were populated by decedents of the convicts known as the 'Local born' and

few others of the Andaman Administration. Communities like Mophlas, Bhandus and the Karens were brought to these Islands in the years 1921, 1926 to 1928 and 1925-1927 respectively. After the famous Mophla rebellion in 1921 in Malabar of Kerala, the rebellion prisoners were sent to the Cellular jail in Andaman. After some time they were made free and allowed to settle down in villages South Andaman Island at Bambooflat, Stewartgunj, Wimberlygunj etc. The Bhandus were ex-criminal tribe in Uttar Pradesh. Being pursued by the salvation army, large group of them voluntary came to the Andaman between 1926-1928. They established villages at Anikhet, Caddlegunj and Ferrargunj on the hillocks. The Karens are the only community who settled in the Andaman on their own initiatives after carefully choosing their area of settlement in the Middle Andaman at a place known as 'Webi' (Sarkar, 2015). Most of the villages were located at the Vicinity of the Jarawa territory during that point of time. The tribes of the Islands were always under direct pressure being attacked for the work of establishment of administrative settlement and villages for the convicts and development of infrastructure throughout the settlements and adjacent areas. Such development programmes necessitated clearing of forest through a large area that was foraging ground of the hunter-gatherer tribe namely *Jarawa*. The effort to exploit the resource areas of the *Jarawas* and the Great Andamanese, occasionally resulted in clashes. The British administration took this opportunity and engaged the Great Andamanese to guide the armed security personnel into the foraging areas of these semi-nomadic tribes. Occasionally the armed personnel used to be sent to attack the *Jarawa* deep in the forest and demolish their shelters wherever found. The *Jarawas* did not like infiltration of outsiders from the very beginning. When they saw their enemy (Great Andamanese tribe) with the armed security forces, subsequently they considered both these aggressors as their enemy. As a result, they occasionally unleashed attack on the people of the villages that came up around the small administrative centre of Port Blair.

Hence, establishment of villages in and around Port Blair and Jarawa territory at the first instance and followed by creation of habitats by the Mophlas, Bhantus, Burmese and Karens etc resulted in movements of people within the forest areas that jeopardized the age old rights of these tribes towards exclusive utilisation of forest resources for their day to day requirements. The tribes, who have been living a nomadic life in the deep forest, in the hilly tracts, were also under threat from exploiting forest resources freely with the advent of such migrant population. Clearing the forest before 1947 and also after independence was primarily related with the policy of populating these Islands. As a part of the rehabilitation programme of refugees of the erstwhile East Pakistan (now Bangladesh) and also from Srilanka, forest measuring 828.28 hector, 202 hector and 1117.64 hector were cleared in the South, Middle and Little Andaman respectively. Extraction of timber for commercial purpose was always in vogue in Andaman Islands.

In brief account of the tribal situation that prevailed in the Andaman during colonial rules indicates beyond any doubt that tribes of these Islands had to face tremendous pressure in their resource areas that also seriously disturbed their mental setup. The Initial reaction of the *Jarawa* and Great Andamanese as we have noted during the British rule were of confrontation that all times culminated in hostility with the newly arrived people. In course of time, the territorial groups of the Great Andamanese and the Onges gave up hostility and gradually lost their rights over the forest resources to an significant extent. However the *Jarawas* continued with the unfriendly behaviours that helped in protection of their rights over their resources.

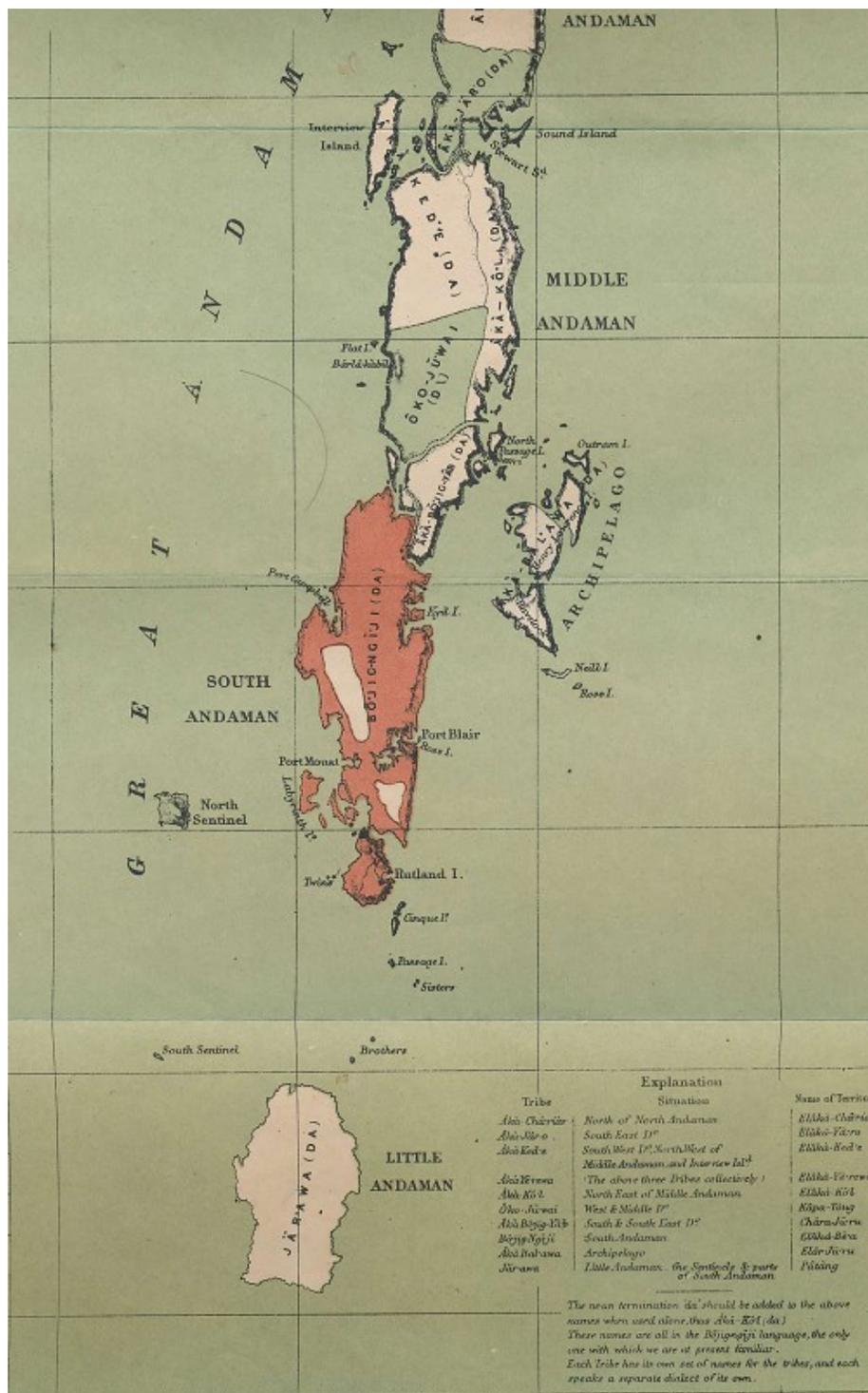


Fig. 3.1 Distribution of tribal population in South and Middle Andaman Islands during 1870's (Source: Man, 1883)

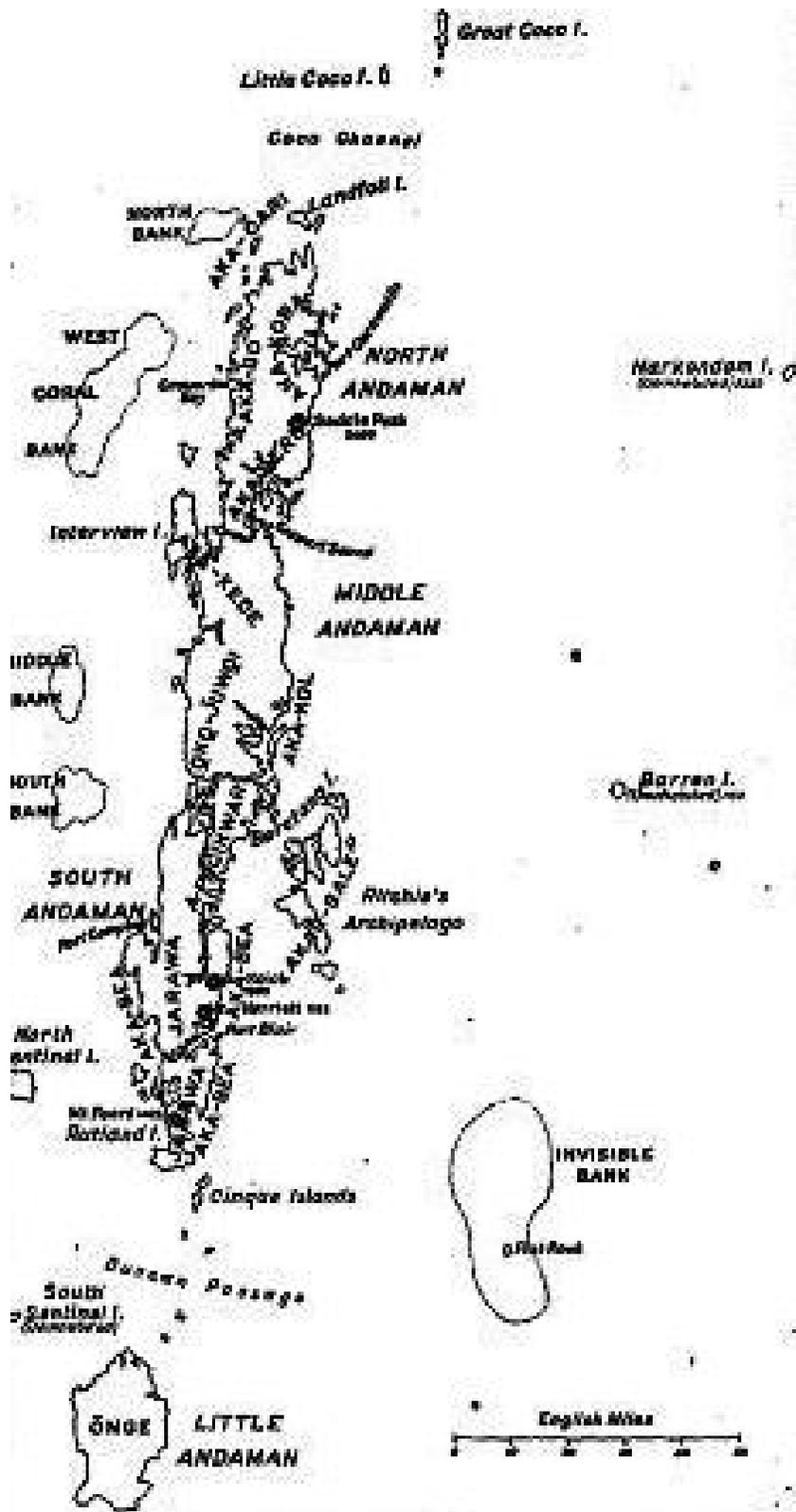


Fig. 3.2: Distribution of tribal population in South and Middle Andaman Islands during first decade of twentieth century (Source: Brown, 1922).

3.6 Chapter Summary

The present chapter entitled 'The *Jarawa* Territory: Neighboring Communities and Pre-Independence Manifestation' was broadly dedicated to discuss and depict the dynamic aspects of *Jarawa* territory during colonial occupation in Andaman Islands. It was also focused on the dynamicity of relationship between *Jarawa* and their neighboring communities with special reference to the territorial conflict.

This particular chapter was broadly divided into five sub-chapters namely, Earliest Contact with Jarawa Contacts and territory during Colonial Occupation, Territorial Conflict with Great Andamanese (*Yono*), Punitive Expedition of Jarawa Hunting and Clearing of Forest, Timber Extraction and Encroachment. The first sub-chapter dealt with the evidences and writings on the pre-colonial contacts with the Andamanese as whole and *Jarawa* in particular. Significantly, almost all the known description during this particular period depicts cruel nature and demonic appearance of the cannibal inhabitants of the Andaman Islands. The second sub-chapter on the contacts and territory during colonial occupation narrated the series of discourses happened during the different phases of colonial occupation (1858 to 1947) and its consequences. In the third chapter, emphasis was given to find out the aspects of territorial conflict and relationship between Jarawa and their traditional immediate neighbouring community Great Andamanese. Notably, the chapter also highlights who both the above mentioned tribes were fighting with each other for their territory, resources and survival. The heinous incidences of punitive expeditions of *Jarawa* hunting and its consequences was systematically discussed in the fourth sub-chapter. It also reveals the different atrocities against the *Jarawa* and why they keep themselves isolated from the rest of the world. Lastly, the sub-chapter dealt with the conflict of resources and territory in terms of clearing of forest, timber extraction and encroachment. Overall the present chapter leads the

foundation for the next chapter (chapter IV) on the ‘Jarawa Territory: Neighbouring Communities and Post-Independence Manifestation’.

CHAPTER-IV

THE *JARAWA* TERRITORY: NEIGHBOURING COMMUNITIES AND POST-INDEPENDENCE MANIFESTATIONS

CHAPTER-IV
**THE *JARAWA* TERRITORY: NEIGHBOURING COMMUNITIES AND POST-
INDEPENDENCE MANIFESTATIONS**

In the preliminary two years after the Independence of India, the situation remained more or less same as it was during colonial period. Soon the series events took place in the independent India which made substantial impact on the *Jarawa* people and their territory. One of the most significant events among these events was opening of the Islands for the rehabilitation of the refugees from the erstwhile East Bengal (now Bangladesh). Development of the situations and its manifestation have been discussed the following manner.

4.1 The *Jarawa* Reserve

After Indian independence in 1947, the Andaman and Nicobar Islands are included under the administrative control of the Government of India. It took about a decade to frame a regulation for the protection of *Jarawa* and their territory. The ‘Andaman and Nicobar Protection of Aboriginal Tribes Regulation’ (ANPATR) came into existence in 1956. Most of the areas which were inhabited by *Jarawa* declared as reserved area by the Andaman and Nicobar Administration (notified by ANPATR/3(1)/1, 1956/57). The reserved area includes entire areas along with the west coast of South Andaman and Middle Andaman including coastal water up to 3 km starting from the mouth of Constance Bay to the Louis Inlet Bay. The *Jarawa* territory was further modified by different notifications and de-notification by Andaman Administration [107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW(PF) dated-15.09.2004]. Significantly, the Andaman Trunk Road (ATR) which is cutting across the *Jarawa* territory has been excluded from the *Jarawa* Reserve. Previously existing 200 metre belt from central line of Andaman Trunk Road has also been

minimised to 30 metre on the either side of the Andaman Trunk Road. The *Jarawa* Reserve is also extended towards coastal waters up to a distance of 5 Km from the high tide water mark line on the western side of the South and Middle Andaman Islands from Constance Bay to Lewis Inlet Bay. After the administrative notification in 2004, the *Jarawa* Reserve was again extended to an area of 1028 km² and in 2017 the Reserve area extended up to 1040 km² spread along with the western coast of Middle and South Andaman Islands. Apart from that special wards for the *Jarawa* at the Primary Health Centre at Kadamtala and Tusnabad are also included in the *Jarawa* Reserve. A scrutiny of the different notification reveals that this increase in the territory is only notional increase in the Reserve area but it does not have much relevance for the *Jarawa* as they have had been exploiting that area even prior to the notifications. So, the declaration of *Jarawa* territory as demarcated '*Jarawa* Reserve' may be treated as a protective mechanism to safeguard their territory and resources.

4.2 Refugee Rehabilitation Programme

Immediately after independence, Government of India along with rehabilitation department of West Bengal and Andaman Administration decided to launch a scheme for resettlement of East Pakistan refugees at Andaman Islands. With the view of all round development of the Islands, it was decided to resettle both in agriculturist and non-agriculturist category. Under this scheme a total of about 4164 people (931 families) were settled during 1949 to 1955 at the vicinity of *Jarawa* territory (table-4.2). Huge forest coverage in and around *Jarawa* territory was cleared for the purpose of providing land to the settlers. It was proposed to allot 10 acre of land (5 acre plain paddy land and 5 acre of hilly land) to each family who were settled under agriculturist scheme. About 1,42,920 acre of land in and around the *Jarawa* territory were cleared and allotted during 1949 for the above mentioned refugee rehabilitation scheme (table-4.5).

In the first batch 202 families were rehabilitated on March 1949 and settled in a liner fashion mostly closed to road at the Tsunabad–Manpur- Colinpur-Temple Myo- Herbatabad-Tirur areas of South Andaman at the edge of *Jarawa* territory (table-4.1). Similarly on the other hand about 1397 number of families were settled around the *Jarawa* territory in Middle Andaman during the period from 1953 to 1959 (table-4.3). Suddenly, the *Jarawa* found themselves surrounded by many alien neighbours and dynamics of *Jarawa* territory changed ever since. Soon the land allotted to the settlers become insufficient for their livelihood and they realised the utility of the bountiful forest resources of *Jarawa* territory. Gradually they started to encroach the adjacent forest areas for horticultural activities and many of them involved in poaching of forest resources like timbers, wild boar, deer, fishes, crabs, honey and other minor forest produces.

Altogether during the year 1949 and 1959, 68 villages of the refugees consisting of 2328 families having a total population of 10,018 individuals were established in the South and

Middle Andaman Islands (Table 4.23 and Table 4.3). Though rehabilitation of the huge number of refugees was need of the situation but rehabilitation in and around the *Jarawa* territory may also be viewed as a kind of invasion in the *Jarawa* territory. Before the above cited settlement, the forest coverage in the Andaman Islands was much thicker and wide spread. As, it was very difficult to get any large patch of cleared land, the forests coverage and resource base of the *Jarawa* was the prime target and indiscriminately cut for the settlement of refugees. During the rehabilitation programme, the refugees were brought the Andaman Islands in different batches. As it is already mentioned that initially some parts of the South Andaman Island were selected for rehabilitation programme due to because of the readily available cleared land near the administrative Headquarters at Port-Blair. The first batch of 202 families was rehabilitated in March 1949 (Table. 4.2). Each of the rehabilitee families was provided with certain facilities and grants. They were given an ex-gratia grant of Rs. 1,050/-, a recoverable loan of Rs. 1,730. Apart from that a total of 10 acres of land, of which five acres for paddy land and five acre hilly land for horticulture (Sen, 1962). In addition to this land, each family was given some homestead for construction of houses and other uses. During a span of seven year from 1949 to 1955, overall 931 families were rehabilitated in different villages of South Andaman like Homfregunj, Herbertabad, Guptapara, Wimberlygunj and Shoal Bay (table 4.2). Notably, all these villages are contagious to the *Jarawa* territory.

An analogous process of encroachment of the *Jarawa* territory was repeated in the Middle Andaman island during the second phase of rehabilitation between 1953 to 1956 and more than 1300 families were rehabilitated. Within a period of seven years (1953 to 1959), about 1397 families were rehabilitated in six batches and 32 villages in different parts of the Rangat Valley, stretching from Betapur to Uttara. Altogether 5854 individuals were settled and

overall 7398 acre of paddy land were allotted at the vicinity of *Jarawa* territory in Middle Andaman Island (Table. 4.3). Consequently, each family was provided with Rs. 2000/- as loan in addition to the usual allotment of 10 acres of land. This area has certain special features like fertile soil, abundant rain, and perennial sources of fresh water, which attracted more settlers and leads to subsequent migration in the fringe villages of *Jarawa* Reserve.

Table 4.1: Year and State of origin of Settlers (family) in Andaman during 1949 –1961

Year	West Bengal	Kerala	Madras	Burma	Mahe & Pondicherry	Ranchi
1949	202					
1950	119					
1951	78					
1952	51					
1953	97					
1954	438	35		5		
1955	390	37	4			
1956	357	42				
1957	221	5	8		4	
1958	194	6				
1959	217		14			120
1960	250	44	17			64
1961	235	14				13
Total	2849	183	43	5	4	197
Grand						3281

Total						
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Source: Dhingra (2005)

Table 4.2: Year wise rehabilitation programme in South Andaman

Year	Number of villages established	Number of families rehabilitated	Population settled	Area allotted for paddy cultivation (acres)
1949	6	202	830	1530
1950	10	265	1165	1765
1951	4	114	554	625
1952	8	123	595	789
1953	-	-	-	-
1954	3	97	400	575
1955	5	130	620	735
Total	36	931	4164	6019

Source: Rehabilitation in South Andaman, unpublished report of Andaman Administration (1956)

Table 4.3: Year wise rehabilitation programme in Middle Andaman

Year	Number of villages established	Number of families rehabilitated	Population settled	Area allotted for paddy cultivation (acres)
1953	3	198	812	1439
1954	12	438	1810	1905
1955	7	264	1157	1725
1956	8	400	1729	1884

1957	-	-	-	-
1958	1	88	807	400
1959	1	9	39	45
Total	32	1397	5854	7398

Source: Rehabilitation in South Andaman, unpublished report of Andaman Administration (1961)

Table 4.5: Assessment of land available for allotment in Great Andaman in 1949 (in acres)

Name of Island	Flat land for Paddy	Slopping land for terraced paddy	Grazing & Garden land	Land for coconut farming	Total
North Andaman	7490	13500	14290	4430	39710
Middle Andaman	25305	28600	13600	4525	72030
Baratang	2160	7500	5600	2040	17300
South Andaman	3100	5550	4200	1300	14150
Total	37785	55150	37690	12295	142920

Source: Dhingra (2005)

4.3 Bush Police

The genesis of establishing Bush Police Force was laid down by different expeditions and punitive measures taken by the colonial administration against the *Jarawa* with the assistance of the Great Andamanese. Since 1858, different British administrators very tactfully used one hunter-gatherer community (Great Andamanese) of the island to fight against the other

hunter-gatherer community (*Jarawa*). Often these jungle expeditions teams were engaged to hunt or caught the *Jarawa* and escaped convicts in the dense tropical rainforest of Andaman Islands. This hunting expedition team was not so far institutionalised before the year 1905.

Finally British administration in the Islands decided to establish a 'Bush Police Force' in 1905 and it was formed with friendly Great Andamanese tribe as members and Burmese Jamadar as in-charge. Later, different tribes of Chotanagpur region who were brought to the Andaman Islands primarily as forest labour, were also included in this Bush Police Force. The job of the Bush Police Force was to hunt and capture the *Jarawa* and the escaped convicts too. In one such atrocious expedition by Captain West in 1925 claimed to hunt or shot dead as many as 37 *Jarawa* (Census of India, 1931: 16). With the help of institutionalised Bush Police Force, in each passing year, the number of the punitive expeditions sent inside the *Jarawa* territory increased manifold. Consequently, the antagonistic feeling among the *Jarawa* against the outsiders was further deep-rooted. Afterwards, the policy of *Jarawa* hunting was partially modified and it was felt that the most effective way to conciliate the *Jarawa* was to capture them in large numbers and bring them at the 'homes' in Port Blair. Then tame them and then sent them back as messenger of peace. One such experiment was organised in 1939 by McCarthy Commandant, Civil and Military Police, was considered to be successful as they were able to capture one young *Jarawa* woman with three of her children (Census of India, 1961: 104). The Bush Police Force played a key role in such expeditions and experiment. However, in the following years such expeditions could not be carried out because of the Japanese occupation of these Islands during Second World War.

After independence, the same colonial legacy carried for quite a few years. It have been mentioned that the Bush Police Force also included the tribes from the Chhotanagpur region

who had been brought in the Islands as labourers and later found jobs in the Forest Department and Bush Police. Since most of the time they were posted in or around *Jarawa* areas, they built huts in the jungle in the lack of any other proper residential amenities. Some of these settlements are namely Jirkatang-2, , Kesri Dera, Jirkatang-7, Beach Dera, Putatang, Bamboo Tikri, Sippi Tikri etc. During refugee rehabilitation scheme (1949 to 1961), hundreds of villages were established at the vicinity of the *Jarawa* Reserve. Soon, contact and conflict started between *Jarawa* and settlers of the rehabilitated villages. Different administrative measures were adopted to protect the villagers. Bush police Force was further strengthening and different forest camps were also established. By that time the Bush Police Force was no more a group of game trackers and hunters. In 1961, it was manned by 35 Jamadars, 311 Constables and 1 Inspector from 44 camps along the periphery of the *Jarawa* Reserve. In addition, the Forest Department also maintained 150 constables accordingly (Census of India, 1961). Notably, both the forces were armed and in exigencies they were instructed to open fire on the *Jawara*. Besides giving protection to the Non-*Jarawa*, one of the aims of the Bush Polish was to keep a watch on the movement of the *Jarawa*. Hence, due the growing antagonistic relationship with the *Jarawa*, the British Government established Bush Police Force to contain the *Jarawa* and to protect the settlers and convicts. As such, several outposts of the Bush Police Force were established on the periphery of the *Jarawa* territory. Many of these out posts continued to exist even in the post-Independence period (map 4.2). After 1997, when the *Jarawa* became friendly with the Non-*Jarawa*, the name of the Bush Police Force was changed and now it is known as the *Jarawa* Protection Force. Only few outposts of the *Jarawa* Protection Force exist now primarily at the entry and exit points of the *Jarawa* Reserve along with the Andaman Trunk Road (ATR).

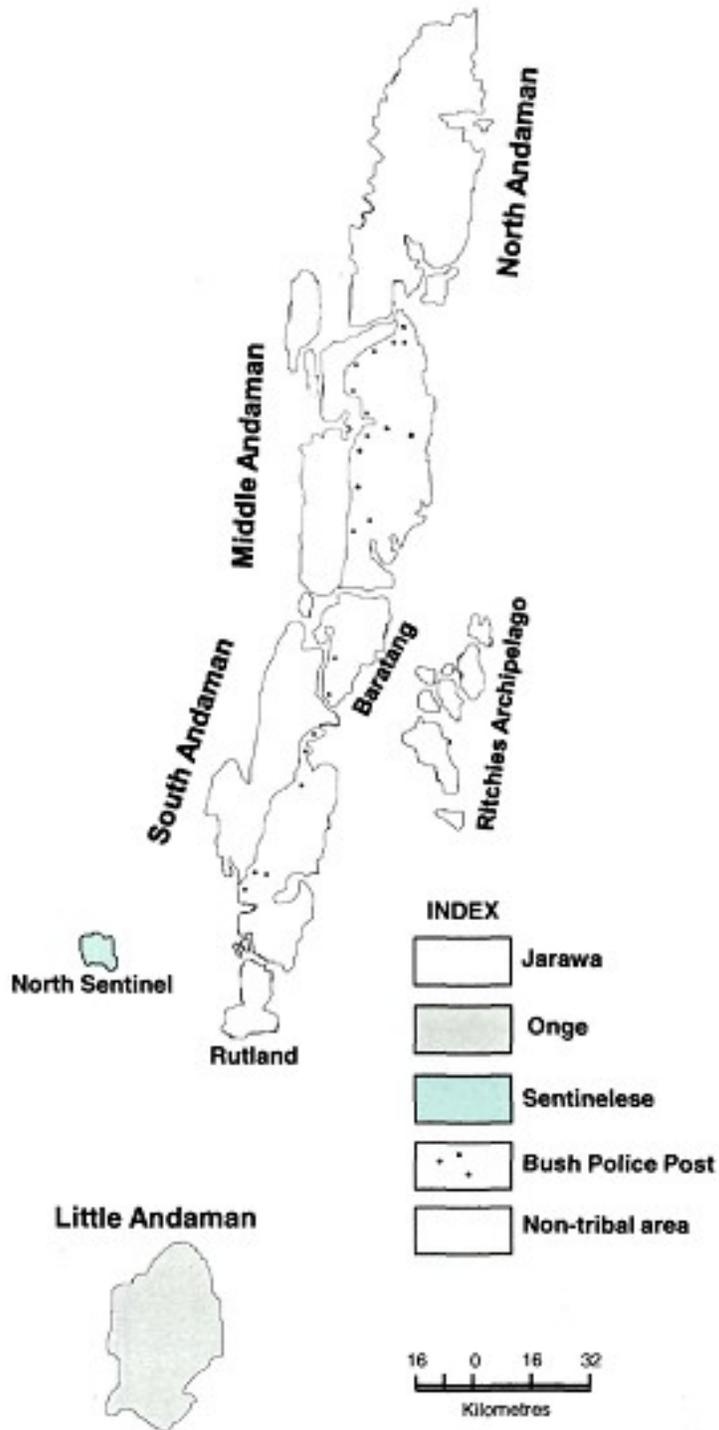


Fig. 4.2: Distribution of Bush Police posts nearby *Jarawa* Tribal Reserve in 1961 (Source: Kumar, 2009).

4.4 The Andaman Trunk Road

After the independence, under the refugee rehabilitation scheme the Government has established many settlement villages in different places of North Andaman, Middle Andaman and South Andaman Islands. Moreover, as the capital city Port Blair is located at the South Andaman Island, it was of ultimate priority for the administration to establish suitable communication between all the rehabilitated areas of South Andaman, Middle Andaman and North Andaman. One of the most controversial and impactful decisions was taken by the Andaman and Nicobar administration in this regard during late sixties. In order to develop the land communication between the North Andaman, Middle Andaman and South Andaman Islands, administration decided to construct a ambitious road namely Andaman Trunk Road (ATR). Due to different difficulties and hassles of sea transport like turbulent weather during monsoon season, time consuming and troublesome sea journey etc. were prejudiced the administration to take such a controversial decision of land communication through the *Jarawa* Reserve areas. As most of the settlers were migrated from mainland India, Myanmar and Sri Lanka, the road transportation was the most preferred means of communication for them. Hence, the ATR was planned to connect the four major Islands namely South Andaman, Baratang, Middle Andaman and North Andaman from the Chiriya Tapu in the southernmost part of South Andaman. Construction of the 333 km long ATR began in late sixties. The work continued in different phases and finally became fully operational in 1989. The road has length of 107 km in South Andaman, 226 km in the Middle and North Andaman (Sarkar, 2015). This administrative decision was primarily taken with the view to facilitate smooth communication for the settlers of the different islands.

Different portions of the ATR were subjected to pass through the *Jarawa* Reserve area in South Andaman and Middle Andaman Islands. Many heavyweight machineries and large numbers of labourers for clearing of forest and construction of the road were brought to the

construction places in the *Jarawa* territory. Numerous labour camps and transit areas along the proposed road were established. Consequently, the introduction of such huge machineries and labour force severely disturbed the ecological balance in which the *Jarawa* and their livelihood was accustomed. They were probably traumatised with the unexpected extreme noise which has not been experienced in distance past. As the ATR was cutting across the *Jarawa* territory from South to North along with the dense resource base forest areas, it prevented free movements of the tribe to from west to east and vice versa. Hence, construction of ATR detrimentally affected the resource availability and accessibility of resource utilisation of *Jarawa* in their territory. Large scale felling of huge trees, use of explosives and construction of labour camps at different work sides, frequent movement of heavy machines, must have multiplied the vulnerability of this small community. After rehabilitation of refugees at the vicinity of *Jarawa* territory and construction of ATR, the *Jarawa* were practically dealing within a considerably less forest areas than they had enjoyed during the colonial rule. As a natural instinct to protect their habitats and resource base, they often raided the labour camps situated within the *Jarawa* territory. They tried their level best to prevent construction of the ATR by their own ways. On several occasions they put barricades at the work head with the symbolic message not to proceed further for clearing their resource areas. In spite of, under the protection of armed police, the barricades used to be cleared and construction work continued. It was alleged that the labourers used to put electrified wires or fencing encircling their camps that have taken many lives of the tribes. Even then they did not give up obstructing the wok of ATR. They conducted attacks on the labourers and other workers causing many casualties, whenever opportunities came, also destroyed many of their camps of those road workers. A section of people in Port Blair and many in the mainland raised their voices in protest of construction of ATR through the *Jarawa* Reserve areas. Regular clashes between the *Jarawa*, settlers and construction workers

was quite common during those days. Several incidents of conflicts and clashes had taken place on the Andaman Trunk Road since the 1970s and continued up to 1997 when the scenario changed drastically and the *Jarawa* came into a mass friendly contact with the outsiders (Kumar, 2009). Exact numbers of *Jarawa* killed during the construction of ATR probably never be disclosed due to different administrative reason and absence of real evidence. But probably hundreds of *Jarawa* were either killed or injured by electrocution, bullets or other means. Attacks on different labourers, Bush Police, trucks and buses by the *Jarawa* were merely a form of resistance towards the outsiders' intrusion into their territory, resource base and livelihood.

In this regard it is notable that a study to assess the feasibility of further resettlement of Bengali refugees from the then East Pakistan to the South and Middle Andaman Islands was conducted in 1952 by Dr. Surajit Chandra Sinha, then an upcoming young Anthropologist. The study reflects that Dr. Sinha was also not in favour of further resettlement and rehabilitation of the refugees in the vicinity of the *Jarawa* territory, especially in South Andaman. The report states that “these small numbers of *Jarawa* hold a very extensive territory from North West of South Andaman to South West of Middle Andaman and are a menace to extension of refugees' resettlements in South Andaman. So long as friendly relation is not established with these aboriginals through active effort of the Anthropologists, the only way open is to keep them confined within a specific territory as *Jarawa* Reserve Area” (Sinha, 1952). The territory covering about entire Northern part of South Andaman and Southern part of Middle Andaman Islands was declared as Tribal Reserve in 1956 through a Government notification (ANPATR/3(1)/1, 1956/57)). The reserved area incorporated entire areas along with the west coast of South Andaman and Middle Andaman including coastal water up to 3 km starting from the mouth of Constance Bay to the Louis Inlet Bay. The

Jarawa territory was further amended by different notifications and de-notification by Andaman Administration [107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW(PF) dated-15.09.2004]. Significantly, the Andaman Trunk Road which is cutting across the *Jarawa* territory has been excluded from the *Jarawa* Reserve. Earlier existing 200 metre belt from central line of Andaman Trunk Road has also been minimised to 30 metre on the either side of the Andaman Trunk Road. The *Jarawa* Reserve is also extended towards coastal waters up to a distance of 5 Km from the high tide water mark line on the western side of the South and Middle Andaman Islands from Constance Bay to Lewis Inlet Bay for further protection to this vulnerable tribal people.

Impact and consequences of Andaman Trunk Road (ATR) is a much debatable and controversial issue. This is noteworthy to mention that primarily it was constructed not for the benefit of the *Jarawa*. It was the interest of the rehabilitated people of the dominant societies, which often get attention of the Administration. Demands and aspirations of the majority needs to be honoured in a democratic country. Consequences on small and already vulnerable community like *Jarawa* are often neglected and ignored. The unrevealed and underlined simple logic is that numbers matter in democracy. So, for a handful few hundreds of odd *Jarawa* individuals, the development process of the larger society with lakhs of people cannot be compromised. Introduction of the ATR through the *Jarawa* territory essentially devastated the life and culture of the tribe. They ultimately give up their antagonistic relationship with the encroachers and intruders to their territory. The territory and isolation of *Jarawa* often protected them from many unknown alien vices of culture contact. Consequences of showing friendly gesture and culture contact were almost similar to that of Great Andamanese and Onge. Several unwanted activities like movement of vehicular traffic, frequent visit of outsiders including tourist, poacher and supply of alien food items etc. have been in operation in the *Jarawa* territory. These would likely to push the *Jarawa* to a stage of

complete dependency on the larger dominant societies. Lakhs of tourists with thousands of vehicles are passing through the narrow passage ATR every year with the hope to get a glimpse of the *Jarawa*. Tour operators also encourage the tourists for the road journey through the *Jarawa* Reserve. This so called *Jarawa* tourism became very popular among most of the visiting tourists (Kumar, 2009). Though the journey is always with a convey system with some limited and scheduled timings, but narrow passage of the ATR through the *Jarawa* Tribal reserve often leads to traffic jam in the reserve forest. This chaotic journey through ATR has immensely affected the livelihood of the *Jarawa* to a great extent. Moreover, ATR also facilitated different poachers to increase their accessibility and movability inside the dense forest in *Jarawa* territory which in turn have a direct impact on depletion of forest resources and livelihood.

4.5 Contact and Conflict and Mutual Hostility

As the *Jarawas* were not in a mood to establish any meaningful friendly contacts with the outsiders due to their past bitter experiences, the same situation of contact and conflict continued during also the post-independence era. The first and foremost concern for the Andaman Administration was to find an way out that would pave the ways for establishing some kind of trust and faiths among the *Jarawas* about the outsiders. The most significant change in the nature of intervention at that stage was replacement of punitive expeditions of the Colonial rulers with the welfare measure and to take initiatives befriending the unfriendly tribal populations. With this view the Bush Police personnel used to conduct periodical visits or contact missions to the *Jarawa* areas in the west coast of Middle Andaman for roping gifts like coconuts, bananas, pieces of irons and strips of red clothes etc.

Once in 1968, a few *Jarawas* entered in Kadamtala village (Middle Andaman) in a full moon night with the intension of picking up some iron implements. However, the villagers came out to catch them and succeeded to catch hold three *Jarawa* boys. Following the methods adopted during the Colonial rulers, these three boys were brought at Port Blair. However, there was a qualitative difference in achieving the desired goal. They were treated nicely and send back to the forest with large quantity of gifts. Perhaps this had some positive impact and in February 1974, few *Jarawas* showed friendly gestures to a Contact team and communicated by the Bush Police. This positive response encouraged arranging on regular visits to the area. The breakthrough finally came on 5th April of the same year when some *Jarawas* came forward, on their own to greet the members of the contact team. One of them swam across and came on board of the dinghy (country boat) and collected gifts (Pandit, 1989:169-178). It could be treated as a land mark step taken by the *Jarawas* in expressing their trust and faith on a section of the outsiders. It has been already mentioned that after the independence of our country the Andaman Administration initiated some welfare schemes for the betterment of the endangered small tribes of the Islands. All these schemes used to be formulated by the Tribal Welfare Department till 1975. Since, there was a basic difference in the gravity of the situation of these small tribes with other numerically large tribe like the Nicobarese, the Andaman Administration felt that a voluntary agency that would exclusively look after the welfare schemes as well as other issues related to the small tribes would be more effective. A flexible arrangement felt necessary so that procedures and forms did not come in the way of formulation and implementation of these special programmes crucial for survival of the vulnerable tribes of these islands.

Consequently, a voluntary agency namely, Andaman Adim Janjati Vikas Samiti (AAJVS), headed by the Chief Commissioner (at present Lt. Governor) was established and was registered with the Registrar of Joint companies, District of Andamans on 25th March, 1976. After the formation of the AAJVS, a '*Jarawa* Cell' with personnel from Andaman Administration, Bush Police, experts from Health Department and anthropologists from Anthropological Survey of India was constituted to consolidate friendship and to learn *Jarawa* language in a planned way.

The policy of offering gifts made some headway towards easing out of tense relation to some extent with the members of the Contact team. After 1974, a few of this tribe, especially of the *Lakra-lunta* area of Middle Andaman used to show friendly gestures towards the members of the Contact team. They even used to come on the shore without their bow and arrow in their hands. They are intelligent enough to understand how much we are scared of these weapons. Gradually, they started coming to the visiting boat of the Contact team, spend few hours on the boat, behaving like a group of people in pleasure trips, sometimes would insist members of the team to accompany them up to their community hut at a distance from the shore in forest, there they would show their belongings, their items of adornment, with great pleasure and even offer honey to test (Sarkar, 2015). The situation of contact and conflict continued till October, 1997 when a mass of *Jarawa* population voluntarily came in friendly contact with the outsiders. Das (2016) has systematically recorded one hundred and two major incidences of conflicts between *Jarawa* and non-*Jarawa* during post-independence period (1946 to 2000). The above list of incidence also reveals that hundreds of both *Jarawa* and non-*Jarawa* individuals were subsequently killed due to those incidents of conflicts.

4.6 Establishment of Friendly Contacts with the *Jarawa*

During post-independence era, under the new policy of the Government of India, the legacy of large scale and organised state violence and policy of punitive expedition towards the *Jarawa* was entirely given up. The *Jarawa* were given the constitutional status of a 'Scheduled Tribe' along with other five tribes of the Andaman and Nicobar Islands. Their territory was declared a Reserved Territory under the Government of India Forest Act and the Protection of Aboriginal Tribal Regulation of the Andaman and Nicobar Islands. Further, in order to befriend the *Jarawa*, intermittent gift giving operations were started and continued for decades.

As it has been mentioned, in 1968, three *Jarawa* were caught by the villagers of the Kadamtala in Middle Andaman when they had come to pick up some metal implements from the neighbouring non-*Jarawa* village. They were taken to the Port-Blair and kept for a month, then sent back to Kadamtala and subsequently released in the forest. After this incidence, the activity of gift dropping operation in the *Jarawa* territory was increased and systematised. On the 18th February 1974, a gift dropping party, under the supervision of Shiv Prasad Singh, Head Constable, Bush Police, was accosted by a group of *Jarawa* without their weapons and with friendly gesture. This was followed by vigorous efforts to renew contact with the *Jarawa* in the area. On 5th and 10th April 1974, Mr. Bakhtawar Singh, Officer-in-Charge, Bush Police, and other members of the contact team were able to meet the *Jarawa* at *Lakra Lungta* on the west coast of the Middle Andaman (Pandit and Chattopadhyay, 1993: 173). This was followed by frequent contact missions organised by the Andaman Administration. Between 1974 and 1996 numerous visits and contact missions were conducted in the *Jarawa* area. The contact parties often used to visit the western coast of the Middle Andaman in small vessels and make contact with the *Jarawa* on the shore. Primarily, such visits were conducted

on every full moon day and the visitors used to be officials of the local government, doctors and anthropologists. The underlying idea was that the *Jarawa* would be able to understand the regularity of such visits if they were visited on each full moon day, keeping in mind that natural cyclic phenomenon would presumably be intelligible enough to the *Jarawa*. It was also recommended that the visitors should be medically screened to prevent any possible spread of communicable diseases among the *Jarawa* (Awaradi, 1990: 132). During the contact missions the *Jarawa* were gifted with huge quantity of banana, coconut, and pieces of red cloth. The contact missions did succeed in creating some positive impact on the *Jarawa*. After sometime, the *Jarawa* started coming forward on their own to greet the members of the contact team. However, the nascent friendship and amity were interrupted time and again by continuing conflicts with the settlers (Mukhopadhyay, 2002: 24-29). In this way, one comes across ambiguous behaviour of the *Jarawa*, i.e., both friendliness and hostility towards the Non-*Jarawa* after 1974. While on one side the *Jarawa* were hostile to the settlers, forest labourers working in and around the *Jarawa* Reserve and vehicles were passing through the *Jarawa* Reserve via Andaman Trunk Road (ATR), on the other they displayed friendly gesture to the members of the contact team. It clearly explains the fact that the *Jarawa* did not like encroachment in their territory and sharing of natural resources by others as it was the question of livelihood and survival for them. Nevertheless, the *Jarawa* were friendly with members of the contact teams as the *Jarawa* found them to be not encroaching on their territory and destroying it (Kumar, 2009). However, after 1990 the *Jarawa* have also demonstrated more friendly behaviour towards their Non-*Jarawa* neighbours.

4.6.1 *Enmey* episode and mass friendly contacts

In April 1996, a *Jarawa* boy named *Enmey* with broken leg was captured in the Kadamtala area of Middle Andaman when a group of *Jawara* tried to raid at Kataidera village in search

of iron and edible fruits etc. Consequently, he was admitted to the Primary Health Centre at Kadamtala and then referred to G.B. Panth Hospital, Port-Blair, where he received treatment for about six months. After being released from the hospital, Enmei was sent back to the Kadamtala area from where he was released in the *Jarawa* Tribal reserve. The underlying approach of the administration behind this act was that he would carry back to his *Jarawa* people the goodwill gesture and friendship. Following this incident, the contact situation took a decisive turn and the entire situation of contact and conflict changed ever since. Unpredictably, few months later, one day in October 1997, a group of unarmed *Jarawa* appeared at Uttara Jetty of Kadamtala area, Middle Andaman. This incident was a landmark in the history of relationship of the *Jarawa* with the non-*Jarawa*. It marked the end to the phase of mutual hostility and beginning of friendly relations between the *Jarawa* and the non-*Jarawa*. After that eventful day, the *Jarawa* started visiting the neighbouring settlement areas frequently. On the subsequent visits, they started plucking banana and other different food items from the plantation of the settlers and it soon became a regular phenomenon (Kumar, 2009).

4.7 Expert Committee on *Jarawa* Behaviour

Appearance of a group of *Jarawa* with friendly gesture at Uttara Jetty of Kadamtala area on October 1997, consequently, followed by the *Jarawa* of other areas like South and Middle Andaman within a calendric year created a panic among the villagers. The reason of their coming out of their habitats without bow and arrow, extending friendly gesture to non-*Jarawa* became a matter of guess and speculation. No one was prepared to believe that the so called 'hostile' *Jarawa* had actually come out of their forest to interact with the outsiders. It was also difficult to prevent the people of this tribe by the unprepared Government officials.

At this juncture, an advocate of the Kolkata High Court filed a Public Interest Litigation, at the Circuit Bench at Port Blair, seeking an order in nature of *mandamus*, directing the Government to provide all sorts of facilities and rehabilitate them as it was done for the Onges and the Great Andamanese (Sarkar, 2015). She was apprehending that the *Jarawa* are coming out because of food shortage and disease prevailing among them. The notion of food shortage among this tribe is nothing very specific to the concerned advocate. The Circuit Bench at the first instance appointed a special officer with the directives to submit a report on the problems and suggest the ways and means for their rehabilitation and welfare. However, the report was found not satisfactory to the Court and another Expert Committee was constituted in February 2000 by the Circuit Bench. Subsequently, the Circuit Bench further ordered on April 09, 2001, that the Ministry of Home Affairs, Government of India should constitute a Committee of Experts to study and spell out in clear terms:

1. Reasons for the sudden change in the behaviour of the *Jarawa* i.e., shedding the hostility, coming out of their forest abode in broad day light and accepting the exogenous items from non-*Jarawa*.
2. To suggest the remedial measures for the welfare of the *Jarawa*.

Accordingly a Committee of Experts was constituted in July 2001 with the Lieutenant Governor, Andaman & Nicobar Islands as the Convener. The Expert Committee decided to have a study of the *Jarawa* as detail as could be by a multidisciplinary research team in three phases to cover all the seasons of a calendric year. The Departments involved in the survey were Anthropological Survey of India, Botanical Survey of India, Zoological Survey of India,

All India Institute of Hygiene and Public Health, Forest Department, Andaman & Nicobar Administration and Directorate of Health Services, Andaman & Nicobar Administration.

The Committee of Experts submitted its report before the Hon'ble High Court of Calcutta on 28-7-2003. Based on this report and discussions of the anthropologists, sociologists and others of national and international repute generated in two seminars, the Ministry of Home Affairs formulated a policy, plans, and programmes for the *Jarawa*. The policy that was framed on the Andaman Trunk Road, the centre of controversy reads as under:

Regulation of traffic on Andaman Trunk Road

- a. Traffic on Andaman Trunk Road will be regulated strictly limiting the traffic to the essential purposes of public transport, supplies, and emergency evacuation of patients and to ensure that it is an innocent and harmless passage and not a source of trouble to *Jarawa*.
- b. Vehicles on Andaman Trunk Road will be allowed to move only in restricted hours and in convoy under notified speed limit to avert possible road accidents and to avoid any sort of interaction of travellers with *Jarawa*.
- c. Facilities for travel by boat/ ship will be strengthened and transportation or travel by sea will be encouraged.
- d. Maintenance of the Andaman Trunk Road will be carried out by a mobile maintenance team bringing men, machine and materials from Ferrargunj or Jirkatang and carry out the job only during day time.
- e. The tourist traffic on Andaman Trunk Road will be strictly monitored to ensure that there is no interaction between the *Jarawa* and the tourists (Andaman and Nicobar Gazette, December 21, 2004).

4.8 Policy on *Jarawa* Tribe of Andaman Island, 2004

As it has been already discussed that as per direction of the Hon'ble High Court of Calcutta, a committee of experts was constituted by Central Government vide the Ministry of Home Affairs notification number U-14040/24/99-ANL dated-21.07.2001. The Committee of experts submitted its report before the Hon'ble High Court of Calcutta on 28.07.2003. As per the direction of the Hon'ble Court, the central government was required to formulate a Policy, Plans and Programmes in respect of *Jarawa* in consultation with the Lt. Governor of A & N Islands after organising seminars and open discussion with the different experts, Anthropologist, Sociologist etc. Accordingly, the government had organised two such seminars one at Kolkata on 7th to 8th April, 2004 and another at Port Blair on 27th to 28th May, 2004 in which different relevant experts, NGOs and individuals deliberated on various issues related to the *Jarawa* and their wellbeing. The central government in the Ministry of Home Affairs have consequently decided to frame Policy or Guideline for the protection and welfare of the *Jarawa* of Andaman and Nicobar Island with the following objectives in view:

1. To protect *Jarawa* from harmful effect of exposure and contact with the outside world while they are not physically, socially and culturally prepared for such interface.
2. To prepare the compendium of social organisation, mode of subsistence and cultural identity of the *Jarawa* community.
3. To provide medical help to the *Jarawa* to reduce mortality and morbidity in case of sudden infection with diseases to which their systems are unaccustomed.

4. To Conserve the ecology and environment of the *Jarawa* Reserve Territory and strengthen support system in order to enable the *Jarawa* to pursue their traditional modes of subsistence and way of life.
5. To sensitise settler communities around the *Jarawa* habitat and personnel working for the protection and preservation of the *Jarawa* about the need to preserve these ancient community and to value their unique culture and life styles.

According to the policy following strategies to be adopted to fulfil the above objectives-

1. Protection of cultural identity
2. Protection of Natural habitat
3. Protection of health status
4. Regulation of traffic on Andaman trunk Road
5. Codification of *Jarawa* language
6. Institutional arrangements for implementation of different intervention programs and policy implementation.

4.9 Buffer Zone

Recently, the most debated and politicised issue regarding *Jarawa* territory was 'Buffer Zone'. With the view of all-round protection of *Jarawa* vis-à-vis their territory and to regulate the harmful effect of culture contact with the outsiders, the Andaman administration in 2007 declared the area up to 5 km radius adjacent and contiguous to the entire *Jarawa* Reserve starting from Constance Bay of South Andaman to Lewis Inlet Bay at Middle Andaman as Buffer Zone. Many villages of different Gram Panchayats of South Andaman

and Middle Andaman Islands came under this Buffer Zone declaration. Establishment and operation of different commercial, tourism activities were regulated and restricted in the buffer zone villages. Primarily, livelihoods of all the villages were seriously affected due to this declaration. Tremendous social and political agitations were raised by the settlers. Consequently, a negative attitude towards the *Jarawa* was developing among the buffer Zone villagers. Many villagers were of opinion that the *Jarawa* are the sole responsible for this negative impact on their livelihood. Subsequently, this Buffer Zone declaration was amended and re-notified in 2013 and with some partial modification which declared to exclude 30 villages and entire seaward side of west of South and Middle Andaman from buffer zone. This re-notified Buffer zone also excludes most of the settlement villages near to the *Jarawa* territory.

Table 4.6: District wise list of Buffer zone villages nearby the Jawara Reserve

Sl. No	Name of the Buffer zone village or Gram Panchayat	District
1	Hanspuri	North and Middle Andaman
2	Chainpur	
3	Pudumadari	
4	Pareshnagar	
5	Jaipur	
6	Hari Nagar	
7	Duknagar	
8	Kaushalyanagar	
9	Kadamtala	
10	Yeratjig	
11	Santanu	

12	Udaygarh	
13	Entire Baratang Island	
14	Kalatang	South Andaman
15	Shoal Bay	
16	Wright Myo	
17	Malapuram	
18	Jirkatang	
19	Brindaban	
20	Ferargunj	
21	Aniket	
22	Caddlegunj	
23	Tirur	
24	Herpartabad	
25	Collinpur	
26	Temple Myo	
27	Manpur	
28	Mohowa Dera	
29	Tushnabad	
30	Miletilak	

4.10 Developmental initiatives among the *Jarawa*

Developmental initiatives among the *Jarawa* may broadly be classified into two major categories namely policy level initiatives and ground level implementation of those policies.

The first category of developmental initiatives involves much of intellectual inputs often considering the ground level reality. It also incorporates planning and preparing the road map for the ground level initiatives. Often the prejudices of developmental approaches play a pivotal role at the operational level. Generally, in a typical orthodox organisational set up the welfare based approach is predominant over the right based developmental approach. The paradoxical difference between welfare based developmental approach and right based developmental approach is that the first one consider the target group (often a community) as a mere receiver of welfare measures and the second approach consider it as a right of the target group to get those basic amenities in terms of the developmental initiatives. Ideally, any policy level initiatives should be research driven and subjected to regular assessment and consequent amendment. Similarly, every assessment and amendment to be based on the ground level output from those policies.

In terms of policy level intervention among the *Jarawa*, after independence in 1947, it took about a decade to frame a regulation for the protection of *Jarawa* and their territory. The '*Andaman and Nicobar Protection of Aboriginal Tribes Regulation*' (ANPATR) came into existence in 1956. Most of the areas which were inhabited by *Jarawa* declared as reserved area by the Andaman and Nicobar Administration (notified by ANPATR/3(1)/1, 1956/57). The reserved area includes entire areas along with the west coast of South Andaman and Middle Andaman including coastal water up to 3 km starting from the mouth of Constance Bay to the Louis Inlet Bay. The *Jarawa* territory was further modified by different notifications and de-notification by Andaman Administration [107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW (PF) dated-15.09.2004]. As during those days *Jarawa* were not in a friendly relationship and they kept themselves

isolated from the outside world, this policy level intervention primarily attempted to protect their territory and resource base through different protective measures at the ground level.

It has been already mentioned that after independence of our country the Andaman Administration initiated some welfare schemes for the betterment of the endangered small tribes of the Islands. All these schemes used to be formulated by Tribal Welfare Department till 1975. Since, there was a basic difference in the gravity of the situation of these small tribes with other numerically large tribe like the Nicobarese, the Andaman Administration felt that a voluntary agency that would exclusively look after the welfare schemes as well as other issues related to the small tribes would be more effective (Sarkar, 2015). A flexible arrangement felt necessary so that procedures and formalities not to come in the way of formulation and implementation of these special programmes which were crucial for survival of the vulnerable tribes of these islands

Consequently, a voluntary agency namely, Andaman Adim Janjati Vikas Samiti (AAJVS), headed by the Chief Commissioner (at present Lt. Governor) was established and was registered with the Registrar of Joint companies, District of Andaman on 25th March, 1976. The AAJVS gets finance from the Central Government which is channelized through the Andaman Administration. The AAJVS has the following mandates and objectives -

1. To protect the health and prevent the extinction of the Particularly Vulnerable Tribal Groups (PVTG) namely, the Great Andamanese, the Onge, the Shompen, the *Jarawa* and the Sentinelese inhabiting Andaman and Nicobar Islands.
2. To promote the economic and social development of the above mentioned PVTGs.
3. To take a comprehensive view of the problems of these tribal welfare programmes in pursuance of the National Policy for their development.

4. To develop measures for coordination of governmental, institutional and voluntary action for protection of their economic and social environments, essential for their survival and growth.

Almost simultaneously, on the advice of the Ministry of Home Affairs, Government of India, an 'Advisory Committee on Primitive Tribal Groups' was set up with the Chief Commissioner (presently Lt. Governor) as Chairman, Jt. Secretary, Tribal Department, Government of India and eminent anthropologists from Universities and also from the Anthropological Survey of India, as members. Setting up of this Committee facilitates in specific tribal developmental policies and programmes, only for these small tribes. Recommendations of this Committee also became very handy for the AAJVS to incorporate in its programme. After the formation of the AAJVS, a '*Jarawa* Cell' with personnel from Andaman Administration, Bush Police, experts from Health Department and anthropologists from Anthropological Survey of India was constituted to consolidate friendship and to learn *Jarawa* language in a planned way.

During pre-contact situation before October, 1997 any intervention among the *Jarawa* was largely concentrated around different protective measures which includes protection of *Jarawa* territory and their resources. It was primarily implemented by *Jarawa* Protection Force, Forest Department and Tribal Welfare Department. In post 1997 scenario when most of the *Jarawa* came in mass friendly contact, different developmental initiatives also take a paradigm shift. Initially, it was centred on the distribution of items like banana, coconut, iron implements and red cloths etc. But after the implementation of *Jarawa* Policy (2004), some of these intervention programmes were streamlined. Medical intervention also played a pivotal role in this regard to obtain faith of *Jarawa* people and

to increase their demographic growth. Apart from the medical intervention, many other experimental developmental interventions have been initiated during last one decade. Some of the on-going developmental initiatives includes health care, plantation programme, *Ang Katha*, *Ang Sena*, Grain for gain, *Kangapo* project etc. To discuss the ongoing developmental initiatives among the *Jarawa*, the annual report of AAJVS (2016-2017) have been taken into consideration.

4.10.1 Health Care facilities

Generally, *Jarawa* patient are treated at nearby Primary Health Centre (PHC) namely, Tushnabad of South Andaman and Kadamtala of Middle Andaman. Whenever, admitted to any PHC, they are kept and treated in a special ward. When patients required further investigation and expert advice they are referred to G.B. Panth Hospital at Port Blair. On recommendation of the Doctors of the G. B. Panth Hospital, the *Jarawa* patients are taken to the main land (viz. Chennai) for expert advice, further investigation and medical treatment. Two Eco-friendly *Jarawa* ward has been constructed at P.H.C. Kadamtala and PHC Ferrargunj by AAJVS. AAJVS also recruited some ANMs for prompt and direct medical intervention among the *Jarawa* at field level. Two separate tribal wards have been provided by Health Department at PHC Tushnabad and G.B. Pant Hospital, Port Blair. During Last one year (2016-2017), details of patients who were treated in various hospitals are mentioned bellow -

1. Main land : 04 *Jarawa* patients were treated at Sri Ramachandra Hospital, Chennai.
2. PHC Tushnabad : 355 patients (male, female and children)
3. PHC Kadamtala : 118 patients (male, female and children)

4. G.B. Pant Hospital : 89 patients (male, female and children)

4.10.1.1 General observations on Healthcare interventions:

1. *Jarawa* patients are admitted to the hospitals are often accompanied by their nearby relatives whose numbers are varied from 2-5.
2. Ignoring their traditional food habit, two square meals provided to all of them which is similar to the all other patients.
3. Present system of medical intervention among the *Jarawa* does not recognize the traditional medicinal knowledge of *Jarawa* and is based on administration of conventional allopathic drugs. Even no other alternative system of medicines (e.g. Ayurveda) has been introduced yet.
4. No attempt has been made to understand the concept of '*Ulleda*' among the *Jarawa*. '*Ulleda*' is primarily refers to the physical unwellbeing which cannot be synonymous to the medical term 'Disease'.
5. Undoubtedly, medical intervention played a crucial role in befriending the *Jarawa* population and sudden population growth in last two decades. But discontinuity of allopathic drugs (antibiotics) and its different side effects cannot be ignored.
6. *Jarawa* being an immunologically vulnerable and numerically small community, any medical intervention must have to be with due precaution and harmonious with their nomadic, hunter-gatherer livelihood.

4.10.2 Plantation Programme

Tribal Welfare department initiated different plantation programme in the *Jarawa* territory since the initial days of friendly contacts. Generally, plantations are done nearby the *Jarawa* huts due to the thin canopy of rain forest coverage. Often, agriculture Department is providing seedling and forest Department is providing tree guards and labour force in this programme. Impact of plantation programme is clearly visible nearby most of the *Jarawa* community huts.

Table 4.7: Details of Plantations in Tirur, Middle Strait and Kadamtala area during the financial year 2016 to 2017.

Sl. No	Name of the plant	Number of saplings planted in Tirur area	Number of saplings planted in Kadamtala and Middle Strait area	Total
1	Banana	120	490	610
2	Mango	80	45	125
3	Jackfruit	20	70	90
4	Coconut	65	350	415
5	Guava	20	40	60
9	Lemon	0	05	05
10	Tapioca	0	70	70
11	Papaya	0	200	200

12	Orange	0	05	05
13	Mausambi	0	05	05
Total		305	1280	1585

Source: AAJVS (2017)

4.10.2.1 General observations on Plantation programme:

1. All the alien varieties of plants have been planted with lack of consultation with the community members.
2. There are four varieties of wild tubers collected and consumed by *Jarawa* namely Cheo, Bugi, Nadohata and Chigi. Chigi is the most precious and preferred wild tuber which is scarcely available. There are many other traditional variety of fruits (*amin, loge, homa etc.*) preferred by the *Jarawa*.
3. Initiatives may also be taken for plantation of those traditional wild variety of tubers and fruits in consultation and participation of the community members.
4. *Jarawa* are fond of *Chonel* (banana) of a particular variety which is locally known as China Kela. Without understanding the preference of the *Jarawa*, often another variety of banana (Jahaji kela or Singapuri kela) was planted in the *Jarawa* areas under this plantation scheme.
5. So, consultation and participation with the community members should be given prime importance before any developmental initiatives.

4.10.3 *Ang* Katha

Potatang Hotspot / *Anaholey Chadda* in South Andaman was chosen for starting the process of informal schooling among *Jarawa* tribes. The book titled “*Ang* Katha” is in *Jarawa* dialect and in Devnagari script has been inaugurated on 22nd October, 2014 at *Potatang* Hotspot. Four Janjati Sevaks has been engaged as teacher to providing education to the *Jarawa* students and monthly @ 1000/- has been provided to them as incentive. AAJVS has provided school uniform to 143 *Jarawa* students. Monthly 10-12 classes have been conducted at Hotspots namely *Lakra Lungta*, *Phool tala*, *Potatang* and *Tirur* by the Janjati Sevaks of AAJVS. As per the records of AAJVS, average attendance of students is about 80 per cent. Numbers of *Jarawa* students enrolled in this informal educational centre are as follows -

Middle strait area	: 63 students
Kadamtala area	: 68 students
Tirur area	: 31 students

Total	: 162

4.10.3.1 General Observations on ‘*Ang* Katha’ programme:

1. Discussion with the community members (*Jarawa*) reveals that contextual situation regarding number of student participation, frequency of class etc. are quite deviating with the above mentioned facts and figures.
2. Being nomadic hunter-gatherer, *Jarawa Chaddas* dispersedly located in different areas with population strength of about 10-40. Regularly, bringing of children from each and every nearby *Chadda* is quite impractical.

3. Janjati Sevak who are acting as Teacher of *Jarawa* are substantially less qualified to deal with such a sensitive issue. Primarily, they are MTS level field staff having basic recruitment qualification of Matriculation (Class-X). So, they must be properly oriented in this regard or some specially trained teacher may be recruited to deal with such a sensitive and dynamic situation.

4.10.4 Grains for gains

The projects Grains for gains among the *Jarawa* initially started at “*Anaholey Chadda*” from August, 2015 and consequently extended to other areas / hotspots. A sum of 143 children in the age group 5-15 has been recorded by AAJVS at Tirur, Middle Strait & Kadamtala area. Under this project limited quantity of Rice i.e. 1.5 Kg in every 15 days is provided to those children who are so called regularly attending the ‘*Ang Katha*’ school. It would be given to the mother or aunt of that school attending *Jarawa* child only and distributed by the *Jarawa* teenagers at school who are rapidly learning numerical literacy. It must be given in front of a collective and on a prefixed day.

Altogether 2484 Kilograms of rice has been supplied to AAJVS from Directorate of Civil Supplied under BPL Scheme cost of per KG Rice @ 5.76% payment through State Bank of India. 2052 Kilograms of rice has been provided to Tribal Welfare Officer, Kadamtala and 432 KGs rice has been provided to tribal Welfare Officer, Tirur for distribution to the School going *Jarawa* Children under this scheme from August, 2015 to June, 2016.

4.10.4 General Observation on the ‘Grains for Gains’ programme

1. Rice, being a non-traditional food, a Policy decision have to be taken whether rice is to be distributed among the *Jaraws* or not ? If yes, quantity and frequency of that

distribution must have to be decided scientifically with the view of probable impact on health, society and culture.

2. During the study many *Jarawa* informant told that they have sufficient stock of good variety of rice (raw poorny rice) in their storage which they got through bartering. They used to store rice in plastic containers and plastic bottles. According to them quality of the rice which is distributed through this project is of poor quality and less preferred.
3. Often this distribution of rice is termed as Mid-day-meal which has altogether different connotations and manifestations.
4. Hearing about this scheme of rice distribution one key informant of nearby settler village told that this is only instigating the taste buds of *Jarawa* to eat more and more rice which in turn they are acquiring through bartering.

4.10.5 *Ang Sena*

Since the beginning of contact and conflict situation, *Jarawa* always expressed a strong sense of possessiveness towards protection of their territory and resources. There are many incidents in which *Jarawa* caught the intruders or poachers and handed over to the AAJVS officials / Forest Department / Police department. This particular sense of protecting their territory has been mobilised in the form of '*Ang Sena*' under which total six groups of *Ang Sena* are created at Tirur, Middle Strait and Kadamtala area. The prime objectives of the *Ang Sena* is to work with AAJVS field staff in securing the borders of the *Jarawa* Reserve, welfare and protection of their community. AAJVS has provided the

following necessary items to the *Ang Sena* as per list submitted by respective Tribal Welfare Officer, AAJVS.

1. Solar Lamps : 10 Nos.
2. Solar lantern with charger : 06 nos.
3. Jungle Shoe : 23 pairs.
4. Knife : 23 nos.
5. Uniform : 02 pairs to each.
6. Bag : 23 nos.
7. Torch Light : 23 nos.

Besides the above mentioned items, some iron and other metal materials are also provided to *Ang Sena*.

4.10.6 *Kangapo* Project

The *Kangapo* Project has been implemented by AAJVS since October, 2014. In *Jarawa* dialect the term *kangapo* referred to any kind of cloths or clothing materials. As per *Kangapoo* Project some particular types of clothing is to be provided to *Jarawa* only in exchange of their handmade artefacts like basket and honey container. Numbers of cloths provided to the *Jarawa* in exchange of their handmade artefacts are as follows -

- Tirur area: Ninety numbers of cloths to females and twenty numbers of clothes to males have been provided to the *Jarawa* against their handmade artefacts under Kangapoo project.
- Kadamtala area: Sixty numbers of clothes to females and eighty numbers of clothes to male have been provided to the *Jarawa* against their handmade artefacts under Kangapoo project.

At present two outlets are in operation where the *Jarawa* Artifacts were kept for sale. The outlets are Segarika Emporium and Andaman and Nicobar Tribal Research Institute (ANTRI). *Jarawa* Artefacts are also displayed for sale through VSI Airport, Port Blair. As per Annual Report of AAJVS (2017), one Honey container and three baskets have been sold and the respective amount has been transfer to AAJVS account.

4.10.6.1 General observations on '*Kangapo*' Project

Often it was been observed many *Jarawa* wearing the same cloth for several weeks without washing. As a result skin diseases also become more frequent and being treated by doctors. Being non-traditional item, they do not have any traditional way of maintaining the hygiene of the *Kangapo (Cloth)*. Detergent, soap etc. are not supplied to them under any schemes for maintenance of their *Kangapo (cloth)*. So, supplying of cloths without proper orientation regarding maintenance of hygiene of it is not desirable.

As per some tourists of Port Blair, the traditional *Jarawa* handmade basket and wooden bucket which are collected under this project are sold in the market with very high price

(approximately Rs. 2000 to Rs. 4000) which is quite high for most of the visitors in Port Blair.

4.10.7 Discussion on Developmental Initiatives:

According to the villagers of Bamboo Tikrey, *Jarawas* are often cited roaming around the village in search of banana, coconut, and beetle nuts. They often come with some of their forest resources viz. Crab (medium and XL), catfish, resign etc. for bartering. They often demand rice (preferably raw Poorni rice), biscuit, sukha (tobacco), cosmetics etc. According to the villagers there is a seasonal variation regarding their frequency of visit to the villages. They are sporadically cited during rainy season and frequency gradually increased after the rainy season (November to March) when *Jarawa* used to roam around the nearby forest in search of wild tubers which are abundant in the nearby hills (*Tikrey*).

One fisherman of Bamboo Tikrey village informed that it has become very difficult to sustain their livelihood by fishing only due to imposition of Reserve area and Buffer zone. Surprisingly, few *Jarawa* of nearby areas have acquired few non-mechanised dinghy (canoe) from the other visiting fisherman. With the help of that dinghy young *Jarawa* men and boys are roaming around the nearby creeks of unreserved areas also. So, when the fisherman of Bamboo Tikrey and other villages are fishing beyond the reserved areas also, often the *Jarawa* are raiding them and forcefully taking away their fishing implements like net, hooks, lines and food items. They also informed that there are few villagers who often illegally entered into the reserve forest to collect wild pig, crab and other forest resources. In due course they also interact with the *Jarawa* inside the forest and instigate them for bartering. They also fix the probable date and place for consequent bartering.

The villagers of Phooltala informed that situation has changed drastically during last fifteen to twenty years. The village Phooltala was settled during 1970s and is well known for having extreme reciprocal relationship with the *Jarawa*. After they came into regular friendly contact in 1997-1998, *Jarawa* often used to visit Phooltala village for plucking of edible fruits like banana, jack fruit, mango and beetle nut etc. Earlier villagers used to resist the *Jarawa* by shouting and chasing them, consequently *Jarawa* used to ran away. During those days villagers also used to get nominal compensation from AAJVS for their loss. According to the villages, now-a-days *Jawawa* are not running away with shouting and chasing of villagers while plucking of fruits at the villages. They used to pluck the fruits from the courtyards and backyards very firmly and calmly as if it is their prime right to pluck those ripen fruits.

Similar complementary reply was obtained during the fieldwork while interviewing a *Jarawa* man in *Thidong* area (Middle Strait). The villagers also informed that it seems *Jarawa* are keep tracking the maturing and ripening of different varieties of fruits viz. Jack fruit, banana, guava, mango etc. in the garden of each and every household of the village. Villagers are hardly getting any fruit to eat at Phooltala. Often villagers are showing a positive attitude towards the *Jarawa* and said let them take all our fruits as they are eating only and getting relief from their hunger. It is noteworthy to mention that fruits are not the source of livelihood for the villagers. Their prime source of livelihood is cultivation of beetle nut. Situation becomes worst when *Jarawa* used to take away big packets and branches of beetle nuts on behalf of other villagers. It has been reported by the villagers of Phooltala that some of the *Jarawas* are instigated by few fellow villagers to act for their benefit. In return they get desired item in exchange.

One very significant statement made by one of the key informant of Bamboo Tikrey that once he had asked a visiting *Jawara* that this village may be shifted due to the Buffer zone issue.

So, what the *Jarawa* will do for their bartering urges. A noteworthy reply came from that *Jarawa* that they will also go to that area where the villagers will be shifted. Similar kind of reply was recorded from the *Jarawa* of Middle Strait areas during the present study.

Remarkable changes have been observed throughout the present study during last five to six years. During beginning of the study (2011-2012) while visiting different *Jarawa* huts (*Chadda*), I often used to ask ... *Titab?* (meaning what you have eaten). Most of the time the used to reply as *wowo* (wild pig); *leo, pod* (honey); *napo* (fish); *chonel* (banana); *urug* (monitor lizard); *aab* (jack fruit); *cheo, bugi, nadohata* (wild tubers); *omin* (cycus fruit), *thuya* (nipa fruit), *pathen, ono* (edible larvae) etc. On very few occasion they have replied as '*Chawal Titab*' or '*Khana Khana Titab*' (meaning we have consumed boiled rice). But during the final phase of study in 2017, it has been found that most of the *Jawara* families were preparing and consuming rice and more frequently replying to the same question (*Titab?*) as '*Khana Khana Titab*' or '*Chawal Titab*'.

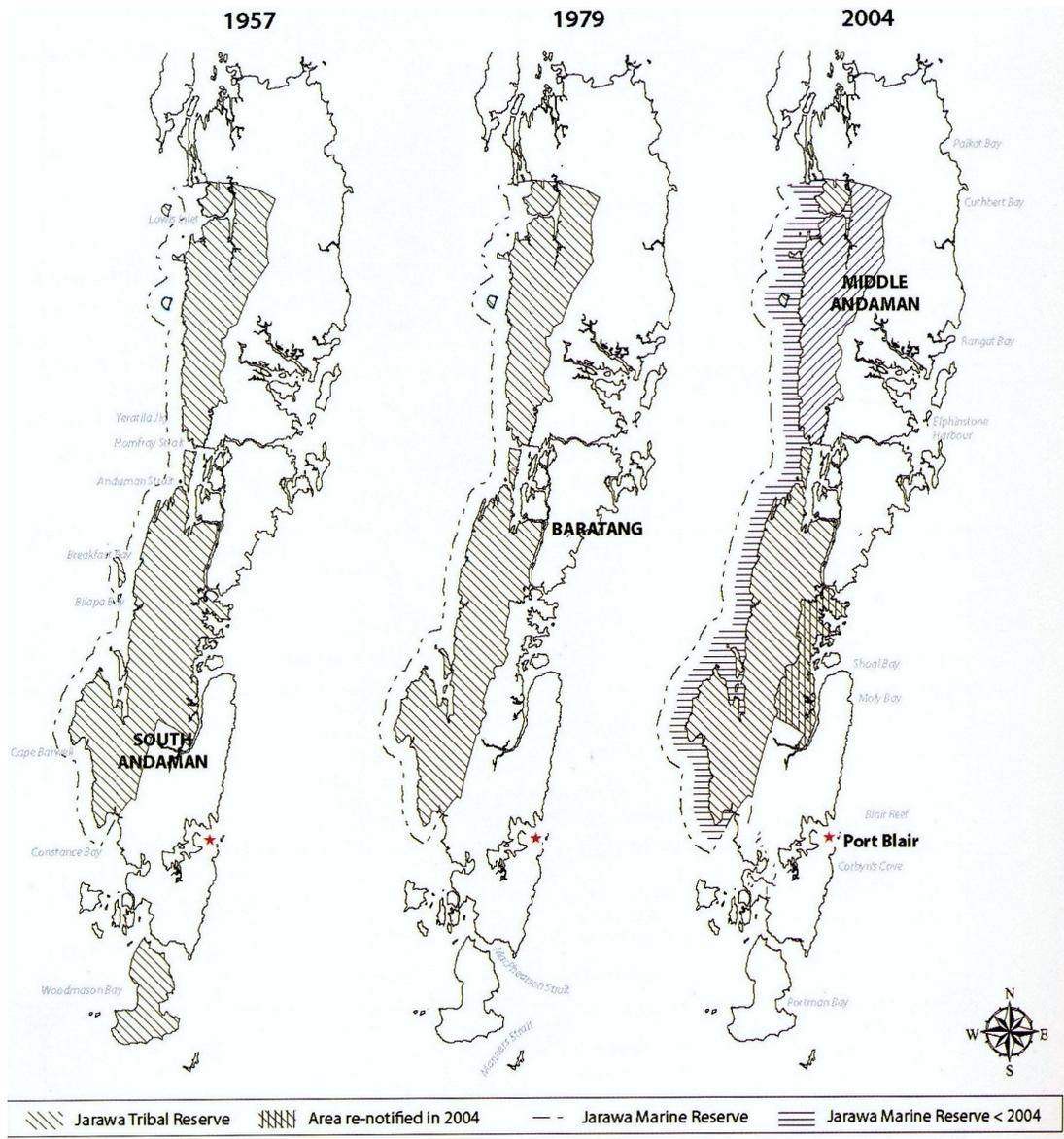


Fig. 4.3 : Changes in the boundary of *Jarawa* territory in 1957, 1979 and 2004

4.11 Neighbouring Communities: The Studied Villages

According to the Buffer zone notification (2013) of Andaman and Nicobar administration, the *Jarawa* Reserve in the Middle Andaman is surrounded by ten major neighbouring villages having total population of 8426 (Census, 2011). To study interaction between *Jarawa* and non-*Jarawa*, two neighbouring non-*Jarawa* villages namely Phooltala and Bamboo Tikrey were selected. Both the selected non-*Jarawa* villages are geographically contiguous to the *Jarawa* Reserve having maximum bartering contacts with *Jarawa*. Both the villages come under Kadamtala Gram Panchayat, Rangat Tehsil, North & Middle Andaman district of the union territory Andaman and Nicobar Islands. Detailed household survey was conducted in both the selected non-*Jarawa* villages. The village Phooltala and Bamboo Tikrey are inhabited by different settler communities and are numerically dominated by Bengali population. Their prevalent primary occupation is agriculture which also includes horticultural activities like areca nut and coconut farming. Majority of them came from erstwhile East Pakistan under the refugee rehabilitation scheme of the Government during 1949 to 1954. Buffer zone notification (2013) of Andaman administration includes altogether 30 neighbouring non-*Jarawa* villages located within the 5 km radius of the *Jarawa* Reserve. Since 2011 to 2017, overall fieldwork was conducted among all the above mentioned three territorial groups of *Jarawa*. Considering the wide spread geographical landscape, the study area was restricted for the convenience. Hence, for the present research work, the study area has been limited to the *Tanmad* area or Kadamtala area of Middle Andaman Islands only. Extensive fieldwork was also conducted among the neighbouring non-*Jarawa* villages of Kadamtala area. The study area was inhabited by 189 *Jarawa* (male 99, female 90), having sex

ratio 909. They live in the dense tropical rain forest of the *Jarawa* Tribal Reserve. The *Jarawa* Reserve in the Middle Andaman is surrounded by 10 major neighbouring villages (Buffer zone notification, 2013) having total population of 8426 (Census, 2011). To study interaction between *Jarawa* and non-*Jarawa*, two neighbouring non-*Jarawa* villages namely Phooltala and Bamboo Tikrey were selected. Both the selected non-*Jarawa* villages are geographically contiguous to the *Jarawa* Reserve having maximum bartering contacts with *Jarawa*. During the present study on 2017, total population of Phooltala was 134 (male 66, female 68) while the total population of Bamboo Tikrey was 220 (male 112, female 108).

List of basic civil amenities at Kadamtala Gram Panchayat area as on 2017

Sl. No.	Facility	No.	Place
1.	PHC	01	Kadamtala
2	Sub Centre	02	Kataidera, Phooltala
3	Govt Sr. Sec. School	01 (581 enrolled)	Kadamtala student
4.	Govt. Middle School	02	Kadamtala Kataidera
5.	Govt. Primary School	05	Phooltala Forestvalley
6	Police Station	01	Kadamtala
7	Post Office	01	Kadamtala
8	Bank	A & N State Co- operative Bank Ltd.	Kadamtala

During initial days of rehabilitation, most of the settlers were primarily involved in agricultural activities. In addition some of them were also worked as agricultural

labourers and wage labour for additional source of income. A few of them got employed as wage labourer in the forest department. Consequently, some of the other migrants who reached Andaman on their own were not allotted any land by the authority and they were engaged in carpentry work with both wood and cane, in addition to their engagement as wage labourer. Due to lack of livelihood opportunities, a few of them started exploiting nearby natural resources of the surrounding forest of *Jarawa* Tribal Reserve areas commercially. This tendency is observed to be multiplied by the time as a undeviating consequence of increase in population over the decades. In the beginning only jobless and landless settlers used to enter into the forest for maintenance of livelihood. Subsequently, later on the people having land and other means of livelihood realized that they could get extraordinary return from forest based activities and also started to venture the *Jarawa* Reserve for poaching

During the time of settlement the amount of land (15 acre) were allocated to the settlers batch who first came to Kadamtala area. Consequently, the Phooltala village area been developed for resettlement of some growing families or 'Badi Family'. Initially 23 'badi' families were settled in Phooltala village at the vicinity of the *Jarawa* Tribal Reserve. Over the period of time population has been increased and member of family also increased and in that area agriculture is the only mean of livelihood. The land allocated to that family has been divided in many parts to cater all the families. Naturally the amount of land for per family now has become very less. Latter on fishing has become another source of income but for fishing activity there are so many restrictions being the buffer zone of the *Jarawa* Reserve area, income from fishing is also limited. Therefore, persons has been compelled to get work as daily labour and some of them naturally getting interested to the *Jarawa* forest area for the forest produce and marine

produce which is easily available there. In Kadamtala and Ultra Panchayat the production of areca nut was 1500 metric ton and production of coconut was 1 lakh number in the last year (as per information from Agriculture department, 2017). With the passing decades, the settlers of Kadamtala area less interested to grow paddy because there getting rice form PDS in less price than the cost of production of paddy. Moreover, as growing of areca nut is more profitable, nowadays, they are planting areca nuts instead of paddy or vegetables.

Table 4.8: Population distribution of studied non-*Jarawa* villages

Name of Village	Number of Family	Population		Total Population	Sex Ratio
		Male	Female		
Phooltala	29	66	68	134	1030
Bamboo Tikrey	47	112	108	220	964
Total	76	178	176	354	988

All together 76 non-*Jarawa* settler families having total population of 354 were studied. The studied village Phooltala and Bamboo Tikrey was inhabited by 29 and 47 families comprising of total population 354. Significantly, sex ratios of both the studied villages are far above the national figure.

Table 4.9: Ethnic Group wise population distribution of studied non-*Jarawa* families

Name of Village	Ethnic Groups			Number of Family
	Bengali	Ranchi	Telugu	
Bamboo Tikrey	33 (70.2%)	12 (25.5%)	2 (4.3%)	47 (100.0%)
Phooltala	27 (93.1%)	2 (6.9%)	0 (0%)	29 (100.0%)
Total	60 (78.9%)	14 (18.4%)	2 (2.6%)	76 (100.0%)

The studied villages were inhabited by three primary ethnic groups namely Bengali, Ranchi (comprising of Oraon, Munda and Kharia etc). Both the villages were numerically dominated by Bengali population.

Table 4.10: Age and gender wise population distribution of Bamboo Tikrey village

Village	Age Group	Gender		Total
		Male	Female	
Bamboo Tikrey	0-4	4 (40.0%)	6 (60.0%)	10 (100.0%)
	5-9	2 (16.6%)	10 (83.3%)	12 (100.0%)
	10-14	12 (60.0%)	8 (40.0%)	20 (100.0%)
	15-19	8 (53.3%)	7 (46.6%)	15 (100.0%)
	20-24	14 (53.8%)	12 (46.1%)	26 (100.0%)
	25-29	10 (55.5%)	8 (44.4%)	18 (100.0%)
	30-34	12 (60.0%)	8 (40.0)	20 (100.0%)
	35-39	8 (61.5%)	5 (38.4%)	13 (100.0%)
	40-44	10 (55.5%)	8 (44.4%)	18 (100.0%)
	45-49	8 (50.0%)	8 (50.0%)	16 (100.0%)
	50-54	5 (71.4%)	2 (28.5%)	7 (100.0%)
	55-59	4 (40.0%)	6 (60.0%)	10 (100.0%)
	60-64	6 (42.8%)	8 (57.1%)	14 (100.0%)

Table 4.11: Age and gender wise population distribution of Phooltala village

Village	Age group	Gender		Total
		Male	Female	
	0-4	3 (42.9%)	4 (57.1%)	7 (100.0%)
	5-9	3 (50.0%)	3 (50.0%)	6 (100.0%)
	10-14	6 (54.5%)	5 (45.5%)	11 (100.0%)
	15-19	5 (31.2%)	11 (68.8%)	16 (100.0%)
	20-24	3 (25.0%)	9 (75.0%)	12 (100.0%)

Phooltala	25-29	5 (71.4%)	2 (28.6%)	7 (100.0%)
	30-34	5 (55.6%)	4 (44.4%)	9 (100.0%)
	35-39	8 (40.0%)	12 (60.0%)	20 (100.0%)
	40-44	6 (85.7%)	1 (14.3%)	7 (100.0%)
	45-49	6 (50.0%)	6 (50.0%)	12 (100.0%)
	50-54	1 (100.0%)	0 (90%)	1 (100.0%)
	55-59	2 (50.0%)	2 (50.0%)	4 (100.0%)
	60-64	4 (40.0%)	6 (60.0%)	10 (100.0%)
	65-69	4 (66.7%)	2 (33.3%)	6 (100.0%)
	70-74	2 (66.7%)	1 (33.3%)	3 (100.0%)
	75-79	1 (100.0%)	0 (0%)	1 (100.0%)
	80+	2 (100.0%)	0 (0%)	2 (100.0%)
	Total	66 (49.3%)	68 (50.7%)	134 (100.0%)

Table 4.12: Educational status of studied non-*Jarawa* villages

Name of Village	Educational Category								Total
	Non-literate	1-5 (Primary)	6-8 (Upper Primary)	9-10 (Secondary)	11-12 (Higher Secondary)	Graduation (Non-Technical)	Post-graduation (Non-Technical)	NA (below 5 years)	
Bamboo Tikrey	48 (21.8%)	40 (18.2%)	49 (22.2%)	36 (16.3%)	22 (10.0%)	15 (6.8%)	0 (0%)	10 (4.5%)	220 (100.0%)
Phooltala	8 (6.0%)	40 (29.9%)	24 (17.9%)	36 (26.9%)	18 (13.4%)	3 (2.2%)	0 (0%)	5 (3.7%)	134 (100.0%)
Total	56	80	73	72	40	18	0	15	354

Name of Village	Educational Category								Total
	Non-literate	1-5 (Primary)	6-8 (Upper Primary)	9-10 (Secondary)	11-12 (Higher Secondary)	Graduation (Non-Technical)	Post-graduation (Non-Technical)	NA (below 5 years)	
Bamboo Tikrey	48 (21.8%)	40 (18.2%)	49 (22.2%)	36 (16.3%)	22 (10.0%)	15 (6.8%)	0 (0%)	10 (4.5%)	220 (100.0%)
Phooltala	8 (6.0%)	40 (29.9%)	24 (17.9%)	36 (26.9%)	18 (13.4%)	3 (2.2%)	0 (0%)	5 (3.7%)	134 (100.0%)
Total	56 (15.8%)	80 (22.59%)	73 (20.6%)	72 (20.3%)	40 (11.2%)	18 (5.0%)	0 (0%)	15 (4.2%)	354 (100.0%)

Among the studied villages 15.8 per cent of the total population was non-literate and rate of higher study is quite low. Moreover, there were not a single individual with post graduate degree. One of the prime reasons behind this may be their economic status and non-availability of any colleges and university at the vicinity.

Table 4.13: Distribution of APL and BPL among the studied non-Jarawa villages

Village	BPL /APL		Total
	APL	BPL	
Bamboo Tikrey	23 (48.9%)	24 (51.1%)	47 (100.0%)
Phooltala	22 (75.9%)	7 (24.1%)	29 (100.0%)
Total	59.2 (65.6%)	31 (40.7%)	76 (100.0%)

As per the PDS record, economic condition of the Phooltala villages is better than the Bamboo Tikrey village. 51.1 per cent families of Bamboo Tikrey were having BPL card while only 24.1 per cent family of Phooltala village were with BPL card.

Table 4.14: Bank account holders of the studied villages

Village	Bank Account		Total
	Yes	No	
Bamboo Tikrey	47 (100.0%)	0 (0%)	47 (100.0%)
Phooltala	28 (96.6%)	1 (3.4%)	29 (100.0%)
Total	75 (98.7%)	1 (1.3%)	76 (100.0%)

The above table indicate that except one family of the Phooltala village, all the families were having active bank account.

Table 4.15: Distribution of beneficiaries of bank loan among the studied villages

village	Bank Loan		Total
	No	Yes	
Bamboo Tikrey	42 (89.3%)	5 (10.6%)	47 (100.0%)
Phooltala	26 (89.7%)	3 (10.3%)	29 (100.0%)
Total	68 (89.4%)	8 (10.5%)	76 (100.0%)

The above table depicts that very few villagers are able to get bank loan for different purposes. For both the villages about 10 per cent families get the bank loan from the nearby State Cooperative bank.

Table 4.16: Fuel use pattern among the studied non-*Jarawa* villages

Name of Village	Fuel for cooking					Total
	Firewood	Firewood & Kerosene	LPG	LPG & Kerosene	Firewood, Kerosene & LPG	
Bamboo Tikrey	22 (46.8%)	12 (25.5%)	5 (10.6%)	7 (14.8%)	1 (2.1%)	47 (100.0%)
Phooltala	10 (34.5%)	6 (20.7%)	5 (17.2%)	8 (27.6%)	0 (0%)	29 (100.0%)
Total	27 (30.0%)	19 (21.1%)	14 (15.6%)	27 (30.0%)	3 (3.3%)	90 (100.0%)

Notably, the above table indicates the forest resource utilisation by the nearby villages. 46.8 per cent families of Bamboo Tikrey and 34.5 per cent families of Phooltala village were only dependent on firewood for cooking purpose. Moreover, 21.1 per cent and 3.3 per cent of the studied families were dependent on Firewood & Kerosene and Firewood, Kerosene & LPG consequently. Only 15.6 per cent families were using only LPG as fuel for cooking.

Table 4.17: Distribution of non-*Jarawa* families on the basis of source of light

Village	Source of Light			Total
	Electricity	Kerosene lamp	Electricity & Kerosene lamp	
Bamboo Tikrey	24 51.1%	5 10.6%	18 38.3%	47 100.0%
Phooltala	14 48.3%	2 6.9%	13 44.8%	29 100.0%
Total	38 50.0%	7 9.2%	31 40.8%	76 100.0%

As a source of light majority of the population was dependent on electricity and in combination of electricity and kerosene lamp. It also indicates frequent power cut in the studied villages.

Table 4.18: Distribution of non-*Jarawa* families on the basis of house type

Village	House type			Total
	Kaccha	Pakka	Semi Pakka	
Bamboo Tikrey	13 (27.6%)	5 (10.6%)	29 (61.7%)	47 (100.0%)
Phooltala	10 (34.5%)	6 (20.7%)	13 (44.8%)	29 (100.0%)
Total	23 (30.2%)	11 (14.5%)	42 (55.3%)	76 (100.0%)

The above table indicated that most of the houses of the studied villages were semi-pakka (55.3) and 30.2 per cent houses were kaccha till the study was conducted..

Table 4.19: Distribution of non-*Jarawa* families on the basis of possession of motorised vehicle

Village	Motorized Vehicle		Total
	No	Yes	
Bamboo Tikrey	34 (72.3%)	13 (27.7%)	47 (100.0%)
Phooltala	19 (65.5%)	10 (34.5%)	29 (100.0%)
Total	53 (69.7%)	23 (30.3%)	76 (100.0%)

The table indicates individual and as well as family mobility of the villagers with the help of motorised vehicle. Moreover, two wheeler motorised vehicle are often used by the poachers

to reach the nearby resourceful areas. Altogether 30.3 per cent families of the studied villages were equipped with motorised vehicle.

Table 4.20: Distribution of non-*Jarawa* families on the basis of possession of cell phone

Village	Cell Phone		Total
	No	Yes	
Bamboo Tikrey	0 (0%)	47 (100.0%)	47 (100.0%)
Phooltala	1 (3.4%)	28 (96.6%)	29 (100.0%)
Total	1 (1.3%)	75 (98.7%)	76 (100.0%)

Except one family in Phooltala village, all the studied families were having cell phone. It was often assumed that most of the poachers are taking advantage of mobile phone network for distribution and marketing of their collected items.

Table 4.21: Distribution of non-*Jarawa* families on the basis of possession of Dinghy

Village	Dinghy		Total
	No	Yes	
Bamboo Tikrey	42 (89.4%)	5 (10.6%)	47 (100.0%)
Phooltala	29 (100.0%)	0 (0%)	29 (100.0%)
Total	71 (93.4%)	5 (6.6%)	76 (100.0%)

Table 4.22: Village wise population of distribution of non-*Jarawa* families on the basis of primary source of income

Village	Primary Source of Income							Total
	Agriculture	Daily Labour	Horticulture (Areca nut)	Fishing	Self Employed	Service	Pension	
Bamboo Tikrey	7 (14.9%)	18 (38.3%)	13 (27.6%)	5 (10.6%)	0 (0%)	2 (4.2%)	2 (4.2%)	47 (100.0%)
Phooltala	11 (37.9%)	7 (24.1%)	8 (27.6%)	0 (0%)	2 (6.9%)	1 (3.4%)	0 (0%)	29 (100.0%)
Total	18 (23.7%)	25 (32.9%)	21 (27.6%)	9 (11.8%)	2 (2.6%)	3 (3.9%)	2 (2.6%)	76 (100.0%)

Regarding primary source of income, the above table indicates that villagers are predominantly dependent on daily wage labour (32.9 per cent), agriculture (23.7 per cent) and horticulture (27.6 per cent). Compared to Bamboo Tikrey, agriculture is more vibrant in the Phooltala villager.

Table 4.23: Village wise population of distribution of non-*Jarawa* families on the basis of other source of income

Village	Other sources of income							Total
	Agriculture	Labour	Horticulture	Fishing	Self Employed	Service	Pension	
Bamboo Tikrey	13 (27.6%)	12 (25.5%)	12 (25.5%)	8 (17.0%)	1 (2.1%)	0 (0%)	1 (2.1%)	47 (100.0%)
Phooltala	8 (27.6%)	2 (6.9%)	17 (58.6%)	0 (0%)	2 (6.9%)	0 (0%)	0 (0%)	29 (100.0%)
Total	21 (27.6%)	14 (18.4%)	29 (38.1%)	8 (10.5%)	3 (3.9%)	0 (0%)	1 (1.3%)	76 (100.0%)

Again regarding other source of income most of the families are dependent on agriculture (27.6 per cent) and horticulture (38.1 per cent).

Table 4.24: Village wise population of distribution of non-*Jarawa* families on the basis of possession of homestead land

Village	Quantum of Homestead land (in sqm)						Total
	<100	101-500	501-1000	1001-2000	2001-4000	>4001	
Bamboo Tikrey	0 (0%)	22 (46.8%)	14 (29.8%)	7 (14.9%)	4 (8.5%)	0 (0%)	47 (100.0%)
Phooltala	0 (0%)	10 (34.5%)	3 (10.3%)	9 (31.0%)	6 (20.7%)	1 (3.4%)	29 (100.0%)
Total	0 (0%)	32 (42.1%)	17 (22.4%)	16 (21.1%)	10 (13.1%)	1 (1.3%)	76 (100.0%)

The above table indicates that majority of the families (42.1 per cent) are having 101-500 sqm of homestead land which was allotted by government under the settlement schemes and no one in the studied villages are landless.

Table 4.25: Village wise population of distribution of non-*Jarawa* families on the basis of possession of paddy land

Village	Quantum of Paddy land (in acre)					Total
	Nil	<1	1.1-3.0	3.1-5.0	>5	
Bamboo Tikrey	19 (40.4%)	11 (23.4%)	9 (19.1%)	6 (12.8%)	2 (4.2%)	47 (100.0%)
Phooltala	8 (27.6%)	2 (6.9%)	16 (55.2%)	3 (10.3%)	0 (0%)	29 (100.0%)
Total	27 (35.5%)	13 (17.1%)	25 (32.9%)	9 (11.8%)	2 (2.6%)	76 (100.0%)

As it has been mentioned that all the settlers families were allotted 5 acre of paddy land during their settlement, as on date total 35.5 per cent of the families are devoid of any paddy land and 32.9 per cent of the families are having 1.1-3.0 acre of paddy land.

Table 4.26: Village wise population of distribution of non-*Jarawa* families on the basis of possession of horticultural land (coconut)

Village	Quantum of Horticultural (Coconut) land (in acre)					Total
	Nil	<1	1.1-3.0	3.1-5.0	>5	
Bamboo Tikrey	13 (27.6%)	16 (34.0%)	11 (23.4%)	5 (10.6%)	2 (4.2%)	47 (100.0%)
Phooltala	17 (58.6%)	6 (20.7%)	5 (17.2%)	0 (0%)	1 (3.4%)	29 (100.0%)
Total	30 (39.5%)	22 (28.9%)	16 (21.1%)	5 (6.6%)	3 (3.9%)	76 (100.0%)

Though it has been mentioned that all the settlers families were allotted 5 acre of horticultural land during their settlement, as on date total 39.5 per cent of the families are devoid of any horticultural land (coconut) land and 38.9 per cent of the families are having less than one acre of horticultural land (coconut).

Table 4.27: Village wise population of distribution of non-*Jarawa* families on the basis of possession of horticultural land (areca nut)

Village	Quantum of Horticultural (areca nut) land (in acre)				Total
	Nil	<1	1.1-3.0	3.1-5.0	
Bamboo Tikrey	32 (68.1%)	11 (23.4%)	4 (8.5%)	0 (0%)	47 (100.0%)
Phooltala	17 (58.6%)	6 (20.7%)	2 (6.9%)	4 (13.8%)	29 (100.0%)
Total	49 (64.5%)	17 (22.4%)	6 (7.9%)	4 (5.3%)	76 (100.0%)

Though it has been mentioned that all the settlers families were allotted 5 acre of horticultural land during their settlement, as on date total 64.5 per cent of the families are devoid of any horticultural land (areca nut) land and 22.4 per cent of the families are having less than one acre of horticultural land (areca nut). Moreover, 5.3 per cent of the studied families have 3.2-5.0 acre of areca nut cultivation.

Table 4.28: Village wise population of distribution of non-*Jarawa* families on the basis of possession of horticultural land (coconut and areca nut)

Village	Quantum of Horticultural (Coconut & areca nut) land (in acre)					Total
	Nil	<1	1.1-3.0	3.1-5.0	>5	
Bamboo Tikrey	12 (25.5%)	14 (29.8%)	13 (27.6%)	3 (6.4%)	5 (10.6%)	47 (100.0%)
Phooltala	10 (34.5%)	6 (20.7%)	8 (27.6%)	4 (13.8%)	1 (3.4%)	29 (100.0%)
Total	22 (28.9%)	20 (26.3%)	21 (27.6%)	7 (9.2%)	6 (7.9%)	76 (100.0%)

Overall as on date total 28.9 per cent of the families are devoid of any horticultural land (coconut and areca nut) land and 7.9 per cent of the studied families have more than 5 acre of horticulture land (both coconut and areca nut) cultivation.

Table 4.29: Village wise distribution of involvement in forest resources collection from *Jarawa* Reserve.

Name of Village	Number of Family	Number of family involved in collection of forest resources from <i>Jarawa</i> Reserve				Remarks
		Firewood	Wooden poles	Fish and crab	Hunted Wild animals and birds	
Phooltala	29 (100%)	25 (86.2%)	22 (75.8%)	17 (58.6)	5 (17.2)	Collection of each forest resources are overlapping
Bamboo Tikrey	47 (100%)	22 (46.8)	14 (29.8)	25 (53.2)	3 (6.3)	
Total	76 (100%)	47 (61.9)	36 (47.4)	32 (42.1)	8 (10.5)	

The above table indicates the pattern of forest resource collection by the villagers from *Jarawa* Tribal Reserve. Firewood is the most predominant forest resources

collected by the 86.2 per cent villagers of Phooltala village. Though entering in the *Jarawa* Tribal Reserve is a punishable offence under the PAT regulation, the villagers are taking risk of it only for the sake of their livelihood.

Table 4.30: Village wise distribution of families involved in bartering interaction with the *Jarawa*.

Name of Village	Number of Family	Number of family having barter relation with <i>Jarawa</i> during last one year	Frequency of interaction			
			Once in a year	Bi-annually	Quarterly	Frequent (Monthly)
Phooltala	29 (100%)	8 (27.6 %)	1 (3.44 %)	0 (0)	2 (6.9%)	4 (13.8%)
Bamboo Tikrey	47 (100%)	12 (25.5%)	4 (8.5%)	3 (6.4 %)	3 (6.4%)	2 (4.2)
Total	76 (100%)	20 (26.3 %)	5 (6.6)	3 (3.9%)	6 (6.6)	6 (6.6)

In terms of quantifying the frequency of barter relationship among the *Jarawa* and neighbouring studied villages, it has been found that altogether 26.3 per cent families of the studied villages have conducted barter at least for once in the last year. Compared to the Bamboo Tikrey village, frequency of barter is more in the Phooltala village.

4.12 Chapter Summary

Systematically and consequently with the earlier chapter, this chapter titled ‘The *Jarawa* Reserve: Neighbouring Communities and Post-Independence Manifestations’ depicted different manifestations related to *Jarawa*, their territory and neighbouring

communities after independence in 1947. This chapter broadly includes altogether eleven sub-chapters namely The Jarawa Reserve, Refugee Rehabilitation Programme, Bush Police, The Andaman Trunk Road, Contact, Conflict and Mutual Hostility, Establishment of Friendly Contacts, Expert Committee on Jarawa Behaviour, Jarawa Policy 2004, Buffer Zone, Development Initiatives and Neighbouring Communities: The studied villages.

All the above aspects under this chapter have been discussed scientifically in a particular time frame. The discussion on developmental initiatives also incorporates different ongoing interventions programmes among the Jarawa namely *Kangapo* Project, *Ang Sena*, Grains for gains, *Ang Katha*, Plantation Programme, Health Care facilities. It also critically discussed the impacts of those above mentioned intervention programmes on the Jarawa society and culture.

CHAPTER-V
CULTURE CONTACT AND CHANGES

CHAPTER-V

CULTURE CONTACT AND CHANGES

5.1 Bartering Relationship

Barter is a method of exchange or reciprocity by which any goods or services are exchanged directly for other goods or services without using a medium of exchange, such as money. Generally, it is bilateral, but may also be multilateral. There is no evidence of any society or economy that relied primarily on barter. But in some hunter-gatherer and nomadic society where monetary system is yet to be in vogue, barter system often plays a vital role to obtain required items from outside. Bartering economy also have some limitations of its own for example, it often need for presence of double coincidence of requirements. For barter to occur between two people, both would need to have what the other wants. Gift Economy is another concept which often found to be in operation in many nomadic and hunter-gatherer society. In gift economy usually found in a society where valuable goods and services are regularly given without any explicit agreement for immediate or future returns. The organization of a gift economy is contrary to the barter economy or a market economy. Informal custom governs these exchanges, rather than an explicit exchange of goods or services for money or some other commodity. Various social theories related to gift economies exist. Some consider the gifts to be a form of reciprocal altruism. Another interpretation is that social status is awarded in return for the gifts. Marshall Sahlins in his book 'Stone Age Economics' (1972), have identified three foremost types of reciprocity:

1. Generalized reciprocity is the exchange of goods and services without keeping track of their exact value, but often with the expectation that their value will balance out over time.

2. Balanced or Symmetrical reciprocity occurs when someone gives to someone else, expecting a fair and tangible return at a specified amount, time, and place.
3. Negative reciprocity is the exchange of goods and services where each party intends to profit from the exchange, often at the expense of the other. Negative reciprocity can involve a minimum amount of trust and a maximum social distance.

Increased contact with outsiders brings about changes in *Jarawa* society and culture. The self-sufficient *Jarawa* society gradually started to depend on different need based, contextual specific outside elements. Barter relation have established between *Jarawa* and settlers. The relationship is basically need based exchange of different commodities.

It has been already mentioned that primarily there are three different territorial groups among the *Jarawa* namely *Boiab* (Tirur area), *Thidong* (Middle Strait area) and *Tanmad* (Kadamtala area). Likewise most of the hunting-gathering communities, in the *Jarawa* there exists a system of reciprocity or gift economy with different groups of *Jarawa* and bartering relationship with the Non-*Jarawa*. Hence, with growing interaction between the *Jarawa* and the Non-*Jarawa* the demand for certain items have raised by both sides. In turn, it has led to the beginning of the barter system which has initiated manifold and dynamic impact on the *Jarawa* Society and culture. The Non-*Jarawa*, who are involved in it are the some selected nearby villagers, poachers, vehicle drivers, tour guides, tourists and sometimes few officials who are posted there or nearby areas of *Jarawa* Tribal Reserve. Generally, the *Jarawa* exchange resin, venison, carb and iron implements particularly bows and arrows in lieu of tobacco, rice, cosmetics, torch, battery etc. Sometimes, they also exchange these articles for colourful cloths and some non-traditional edible items like biscuits and sweets (*mithapoo*).

This kind of barter relation is mostly detrimental for the *Jarawa* because for few small sachets of tobacco and few other items they handed over their bows and arrows and good amount of resins. Hence, it's a typical instance of negative reciprocity in which non-*Jarawa* always intended to exploit the *Jarawa* and desired to have maximum benefit out of this barter. Previously, the *Jarawa* were never found to part with iron implements (arrows) because procuring the iron was difficult and at times hazardous too. Now, with assured supply of iron from the AAJVS and nearby villages, they easily give away their iron implements. In due course of time some sort of barter system have been developed between the *Jarawa* and the poachers also. In order to buy safe passage in the forests, the poachers offer tobacco, *paan*, and eatables to the *Jarawa*. Though initially *Jarawa* do not give them anything directly in exchange of it, but indirectly the poachers get unhindered access to the resources of the *Jarawa* territory. Such bartering is also detrimental to the *Jarawa* as their resource base lay open to the poachers and it leads to depletion of the traditional resource base in the *Jarawa* Tribal Reserve. *Jarawa* may not realise the damages caused to their habitat by such bartering due to their innocence, ignorance and considering nature as bountiful. Therefore, considering the manifold detrimental impacts of the bartering and with the similar past experience with the Onge of the Little Andaman and the Shompen of the Great Nicobar, where they can part with almost any items in exchange of liquor and tobacco, it is necessary to ban any type of gift giving and bartering between *Jarawa* and Non-*Jarawa* (Kumar, 2009). Moreover, proper sensitisation and awareness campaign to be initiated both among the *Jarawa* and non-*Jarawa* accordingly.

Now-a-days, *Jarawa* have a contextual specific mixed reciprocal relationship with the settlers/neighbours. As often the non-*Jarawa* intended to attain maximum benefit at the cost of the other (*Jarawa*), considering the exploiting nature of this reciprocal relationship,

primarily it may be considered as negative reciprocity. But in some specific cases general and balance reciprocity is also observed. Unlike the days of hostility, one notable thing is that the urge of barter is often from the side of *Jarawa* and a reciprocal relationship exists between both the bartering partners. It is also notable that they often select bartering partner from the villagers by the trial and error method where the basic criteria is to get the best deal. Most of the time barter occurs with specific and preselected individuals. *Jarawa* men and women used to come the fringe villages near to the Tribal Reserve with their bartering items and demands for the desired article in exchange. In some cases bartering also occurs on some pre-fixed consent between the partners. They like to barter those required articles which they can't manufacture from the available forest resources or the articles to which they are fond of or addicted.

The bartering items which are flowing inward towards the *Jarawa* are as follows: Rice, Biscuits, Spices and other different food items, Tobacco (Sukha, Jarda etc.), Cloth, Torch and battery, Iron implements, Metal utensils, Safety pin, Mirror, Plastic bottle to keep water, Polythene sheet, Nylon rope, Plastic drum, soap, Cosmetic cream and powder, Artificial ornaments etc. These are few non-traditional items which are bartered from outside, there are many more to mention. The bartering items which are flowing outward from the *Jarawa* (*Ang*) are deer meat, Resin, Mud crab, Prawn, Fresh water Fishes, Other forest resources as demanded by bartering partner.

5.2 Impact of Culture contact on *Jarawa*

Having antagonistic relationship with the traditional neighbouring community Great Andamanese; also with the colonial rulers and settlers, *Jarawa* were living in a comparative isolated situation which in turn protected them from many baneful impacts of culture contact

and acculturation. There was sporadic situation of culture contact during pre-contact situation up to 1997. After the *Enmey* episode and during post-contact situation (October, 1997 onwards), situation changed drastically and *Jarawa* came in mass contact with the non-*Jarawa* neighbouring communities and others. This mass contact led the *Jarawa* susceptible to many detrimental effect of the culture contact. Being numerically small community (about 500 individuals); socio-culturally and immunologically vulnerable, these harmful impacts often increase manifold for the *Jarawa*. As each and every aspect of society and culture is interconnected and interdependent, consequently, any impact on any trait of culture is also percolated through those interconnections and interdependence.

5.2.1 Impact on Material Culture

Two different aspects of culture namely explicit characteristics and implicit characteristics subjected to be influenced with culture contact. The implicit aspects of culture are the underlying values, ethos, norms and behaviour that guide people regarding which behaviours are considered appropriate or inappropriate. Implicit aspects of culture are not subjected to observe merely through necked eyes. Whereas, explicit aspects of culture are the observable behaviours, rituals, symbols and materials of culture which include the way people dress, the kind of food they eat, music, dance, the things that are considered beautiful and ugly etc. Material cultural traits are primarily considered as explicit aspects of culture and known to be much influenced by culture contact. Some aspects of material culture which have greatly influenced among the *Jarawa* by the above mentioned scenario of culture contact are mentioned bellow.

5.2.1.1 Impact on Dress and Adornments

Being inhabited in tropical warm weather, *Jarawa* probably never felt the necessity of any clothing up-to pre-contact situation. Traditionally, the *Jarawa* do not wear any clothes to cover their body parts. Instead, both males and females use various kind traditional attires namely headband, necklace, armband and waistband made of shells, barks, leaves, twigs and flowers to adorn themselves. Moreover, nevertheless both males and females decorate their body parts and face with white clay and red ochre. They also adorn themselves with different types of seasonal flowers and young leaves. During earlier days of contact missions (1980s to 1990s) in Middle Andaman areas different gift items were distributed among the *Jarawa*. By observing their likeness and attraction towards the red cloths, administration started to distribute pieces of red cloths among the *Jarawa* as a token of gift and goodwill gesture. It was observed that the pieces of red cloths or cotton threads were improvised by the *Jarawa* to use it as headband, waist girdle or necklace etc. Obviously, it reflects their sense of aesthetics and adornment. Hence, though they were well versed with the use of cotton threads and bark fibres to adorn themselves but never observed to wear cloths to cover their body parts in general and genitalia in particular before the mass contact situation in 1997. However, in recent years due to frequent contact with the non-*Jarawa*, number of *Jarawa* individuals has been found to wear clothes, particularly whenever they are coming out of the forest. More recently, whenever we have visited the *Jarawa* habitat during last five to seven years, it has been found that most of the adolescent and young girls and boys were wearing some cloths (nighty or night gown for girls and half pants, T-shirts or shirts for the boys) to cover

their body parts. There are different source of obtaining these cloths like hospitals, villagers, poachers, tourists and Andaman administration etc. Ornaments are another gift item which is generally adored by both the gender of *Jarawa* but female folks are found to be extremely fond of different traditional and non-traditional ornaments. Almost all of the *Jarawa*, including those who are not attracted towards the garments, enjoy wearing bead necklace, plastic or metal bangles, rings and trinkets etc. During initial years of post-contact situation in 1998 onwards, whenever any *Jarawa* patients were brought to any medical centre at Kadamtala or Tusnabsd or Port-Blair for treatment, they were given clothes by either the hospital staff or the AAJVS officials as it was felt necessary because the *Jarawa* patients were visually exposed to the Non-*Jarawa* people present in the hospital. Afterwards, when *Jarawa* started to visit neighbouring villages, the villagers often gifted used garments to so called necked *Jarawa*. Notably, the cloths given by the villagers, poachers and some tourists are mostly used ones. Consequently, a barter relationship was developed with some of the villagers and poachers to obtain required cloths and other desired items. The *Jarawa* generally carries all such used garments back to their *chadda* (huts). Primarily, the younger generation is more interested in collecting and putting on such clothes. Among the young generation, particularly, the boys show more attraction towards clothes because they are more frequently visiting nearby non-*Jarawa* villages and public places like jetties, police stations and roaming around Andaman Trunk Road (ATR). In contradiction, the older generation is less frequent visitors to those areas and possess comparatively few clothes. Territory wise analysis revealed that the *Jarawa* of *Thidong* or *Tanmad* possess more clothes

than those of *Boiab* because the contacts with outsiders are comparatively more prolonged and frequent in the case of the former (Kumar, 2009). It also indicates that the longer a *Jarawa* in contact with outsiders, the more clothes he or she has in possession and vice versa. Sense of covering the body with clothes is an induced cultural trait or behaviour for the *Jarawa*. The so called concept of nudity and nakedness of so called modern society may not be applied in case of *Jarawa*. Often it has been quoted that ‘necessity is the mother of invention’. Being isolated and inhabited in tropical warm climatic condition, they probably never felt the requirement of any kind of clothing to cover their body parts. In contrary, after post-contact situation, they came to realise that they are expected by their neighbours (non-*Jarawa*) to put on clothes whenever they are visiting any no- *Jarawa* villages. Traditionally, till date it is not mandatory for a *Jarawa* to wear clothes and this fact can be justified that whenever the *Jarawa* put-up their camp inside the dense forest, away from the villages and road, they rarely wore any clothes. Eventually, many *Jarawa* men and women admitted during the present study that they feel more comfortable without any non-traditional clothing but at the same time they are also fond of non-traditional ornamental and decorative items to adorn themselves. This is a paradoxical situation in which different non-tradition items are accepted by the *Jarawa* society frequently and sporadically but in a selective manner. By imitation the outsiders, though the *Jarawa* has started to use garments but they were unaware to maintain hygiene of those cloths. Even it was observed to wear the same cloths by the *Jarawa* for months without washing it. Actually, they do not have any idea of washing cloths and drying it. Eventually, it brought about many health hazards like skin diseases and

upper respiratory tract infections. It has been mentioned that most of the clothes given by the outsiders (except by the Andaman Administrations) are used ones; hence, the *Jarawa* was more susceptible to different contagious diseases.

5.2.1.2 Impact on Tools and Technology

As we know that *Jarawa* pursue their subsistence activity with the help of simple tools and technology. Some of the major traditional implements of *Jarawa* for hunting, gathering and fishing are bow (*aaw*), arrow (*patho*), traditional knife (*tohad*), fishing net (*botho*), fishing arrow (*thom*) etc.

During pre-contact situation, bark fibre and its threads were exclusively used for making and tiding fishing nets, baskets, wooden bucket etc. Nowadays, they often use nylon threads for making and tiding these items. However, there are some particular items which are still exclusively made with of bark fibre. For example, arrowheads are always tied to the shaft with the fibre of a particular orchid stem. The iron is of prime importance and precious for the *Jarawa* which is not naturally available in their territory. Earlier during pre-contact situation they used to obtain pieces of iron or metal articles from the jetty, ships wreck and the settlements areas of the Non-*Jarawa*. They often used to raid nearby settlement villages during night time to obtain iron implements, metals like aluminium and steel etc. But, recently, they used to get regular and continuous supply of these metal items either from AAJVA or from the villagers through demand or barter exchange. Even nowadays, *Jarawa* can be observed working with hammer, chisel, file and crude anvil

made up of huge chunk of iron pieces derived from colonial railway tracks. As *Jarawa* are not familiar with the heating and melting process of metal, they used to prepare their hunting and gathering implements cutting and continuous hammering only. Even few years back before, the *Jarawa* were quite possessive with their iron implements and they never thought to barter any items in exchange of those precious iron implements. But due to surplus and assured supply of iron, they even barter with their metal implements like arrow, traditional knife etc. to get their desired items like tobacco, rice, cloth, utensils etc. Compared to the pre-contact situation and even with the studies before only few decades, it has been observed that *Jarawa* have started to use rope trap as an improvised device to hunt the wild pig. Interestingly, even if the wild boar was trapped in the snare, they used to shoot arrow to kill that snared pig. Nowadays, they also make use of their domesticated dogs to chase the running boar and to trap it in buttress roots of gigantic tropical trees. Likewise, while hunting with domesticated dogs, ultimately they used to kill the boar by shooting arrows. Hence, changes in the hunting pattern of *Jarawa* also indicates that they are accepting some of the acquired non-traditional techniques (e.g. laying snare, use of dogs etc.) but while killing of the captured boar, it has to be killed by shooting of arrow. Apart from this they also hunt and forage without involving any non-traditional techniques. Notably, uses of snares to trap the wild pigs are more prevalent among the younger generation than the elder generation.

5.2.1.3 Use of utensils

Sarkar (1990) has observed use of metal utensils among the *Jarawa* of Middle Andaman area. Probably, selective *Jarawa* individuals were obtained those metal utensils either from the poachers, villagers or gifted by any earlier contact party of Andaman administration. Traditionally, *Jarawa* do not have any metal utensils. Their traditional cooking method and container may not incorporate boiling of food items. Their traditional wooden container or bucket (*uhu*) is not suitable for boiling and cooking of food items. Instead they used to bake or roast different food items on a crude hearth or pit oven and fire. They even keep the meat or fish suspended on low flame to be dried and preserved in smoke. During post-independence period after rehabilitation of refugee villages in 1950's at the vicinity of *Jarawa* reserve, *Jarawa* used to obtain metal utensils by raiding the nearby fringe villages mostly in moonlit nights. Preferably they used to obtain aluminium utensils. Earlier during pre-contact period, they collected flotsam, bottles, pans, iron pieces etc. from the coastal areas. Even today, it can be observed that huge numbers of plastic bottles, jars, glass items etc. accumulated along the western coast, carried by the waves of seawaters. During recent years, for cooking purpose *Jarawa* have dynamic preference for different kinds of food items. For example, most of the fishes are preferred to be boiled in metal (aluminium) utensils followed by roasting on fire. Whereas, wild jack fruit (*aab*) is preferred to be baked in pit oven hearth. Pork (*wowo*) is preferred to be consumed both by roasting or boiling. Significantly, during a recent visit to a *Jarawa* habitat (*chadda*) in *thidong* area it was noted that a *Jarawa* family was preparing pork curry in a metal pan like the neighbouring villagers. The pork curry prepared by that

Jarawa family also incorporated refined palm oil, salt, turmeric powder, chilli powder and mix masala. The term they were using for that pork recipe in fragmented Hindi was ‘*wowo surua*’. ‘*Surua*’ is the local Hindi term for the any kind of liquid curry or gravy. This very incidence indicated the impact of culture contact on *Jarawa* at different level. Though the impact of this kind of spicy non-traditional foods yet to be studied.

5.2.1.4 Use of Mechanised Dinghy and vehicle

Being a nomadic hunter-gatherer, *Jarawa* regularly shift their campsite based on availability and accessibility of resources. This shifting often required crossing different creeks and streams. Traditionally, they used to prepare crude raft to cross their minimum household belonging, women and children. After the post-contact scenario in twenty first century, they used to get assistance either from AAJVs or local fisherman to cross this creeks and channels by mechanised canoe. This has made their life easier in terms of shifting and migration. Even this assistance of mechanised canoe has extended their mobility inside the *Jarawa* Reserve. Nowadays, it have been observed that they make prior communication with the AAJVS officials regarding their probable date of shifting, so that *Jarawa* can get the above mentioned assistance from AAJVS on due time accordingly. Sometimes *Jarawa* also seek assistance from the AAJVS officials for road transportation during their periodic shifting. This has further increased the resource accessibility of *Jarawa*. Hence, meaning of transportation has immensely altered among the *Jarawa* in recent years.

5.2.1.5 Extinction of Traditional Chest Guard and Resign Torch

Culture contact and acceptance of non-*Jarawa* modern techniques has jeopardised certain aspects of material culture and its related traditional knowledge system of *Jarawa*. Chest guard (*kekad*) and resign torch (*pone*) are some examples in this regard. Earlier the chest guard (*kekad*) was used by adult male during hunting and raiding expeditions. They used to keep traditional knives (*tohad*) by inserting within folds of chest guard. It seems that wearing of chest guard may be related with the hostile relationship with the colonial rulers and neighbouring communities. *Jarawa* believe that multilayer chest guard has the potential to resist any striking arrows or even bullets. It also protects their chest and abdomen from injury which may occur during any hunting and raiding expeditions. After post contact scenario in 1998, nowadays, we may rarely observe any *Jarawa* wearing chest guard at any time. Most probably, guard (*kekad*) has lost its function utility for the *Jarawa* Society after the post-contact situation. Hence, culture contact and establishment of friendly relationship with the neighbouring non-*Jarawa* community leads to extinction of this exceptional trait of *Jarawa* material culture.

Compared to the reason of extinction of chest guard (*kekad*), the primary reason of extinction of resin torch (*pone*) is acceptance of new technology from the non-*Jarawa* community. The *Jarawa* term for traditional resin torch is *pone* which is prepared out of semi-powdered resin derived from resin trees (*Parishia insignis* and *Canarium euphyllum*) by putting into the leaves commonly known as selai patti (*Licuala peltata*). Details in this regard has

already mentioned in the chapter 2.5.7. It was used during night time for moving from one place to other. The resin torch is one of the one of the significant material cultural items which is adversely affected due to culture contact and bartering relation with the neighbouring non-*Jarawa* communities. Due to intervention of match box and modern torch light, nowadays, *Jarawa* are rarely preparing and using any traditional resin torch (*pone*). Notably, even the younger generation are least bothered about the vanishing trend of *pone*.

5.3.2 Impact on Forest Resource

As it has been discussed in the fourth chapter that under this scheme a total of about 4164 people (931 families) were settled during 1949 to 1955 at the vicinity of *Jarawa* territory (table-4.2). Huge forest coverage in and around *Jarawa* territory was cleared for the purpose of providing land to the settlers. It was proposed to allot 10 acre of land (5 acre plain paddy land and 5 acre of hilly land) to each family who were settled under agriculturist scheme. About 1,42,920 acre of land in and around the *Jarawa* territory were cleared and allotted during 1949 for the above mentioned refugee rehabilitation scheme (table-4.5). Almost all the above mentioned areas and villages were established by clearing the forest in and around the *Jarawa* territory. During initial days after rehabilitation, the settlers were primarily involved in agricultural activities. Consequently, some of the settlers and later migrants started to exploit forest resources as alternative source of income and livelihood. With increased population over decades, the tendency to exploit both forests and aquatic resources increased gradually. Initially, only few jobless and landless persons used to explore the forest in search of some additional livelihood. Later, people who had sufficient

land or other means of livelihood also started exploiting the natural resources on a regular basis. Even the cultivators, whenever they were free, entered deep into the forest either for hunting, or for collecting non-timber forest produce. In this way, people were involved in illegal extraction valuable timber and collecting various non-timber forest produce like resin, honey and fruits etc. Besides, they were also involved in hunting of wild boars and deer (Chakraborty and Dinda, 2002). Nonetheless, during pre-contact situation, antagonistic relation between *Jarawa* and settlers act as a natural restriction towards unlimited exploitation of forest resources by the non-*Jarawa*. Nowadays, often friendly relationship between *Jarawa* and poacher act as a catalyst towards further degradation of forest resources.

Illegal extraction of valuable timbers from the *Jarawa* Reserve for making furniture and other wooden objects has become a ready means of earning for many settlers and later migrants of the nearby fringe villages. Moreover, foreign poacher, particularly from Myanmar and Thailand are found to extract different precious and rare timber namely *Padauk* (*Pterocarpus dalbergioides*) and Black Marble woods etc. Even it has been reported that mechanised and sophisticated woodcutters are being used to cut out the desired wooden blocks without felling the tree. In order to attain their illegal task, these poachers often tried to befriend *Jarawa* by offering them some edible items, tobacco or alcohol etc. to avoid resistance from them. Though there are some reported cases in local police stations on illegal extraction of timbers by both local and foreign poachers, but it's extends and impacts are yet not assessed. To fulfil their daily requirements of minor forest produces, the villagers often extract some required resources from the forest areas in and around *Jarawa* Reserve. These minor forest produces include fuel wood, wooden poles, leaves for thatching and cane etc. for building material or making furniture. Apart from that, there are some greedy

merchants who used to engage different persons and poachers to collect forest produce like certain fruits, resins and seeds which have commercial market value. Such indiscriminate extraction of different forest resources may be impacted adversely on *Jarawa* and their resource base.

Deforestation, commercial forestry and encroachment are also major factors which have adversely impacted on the *Jarawa* Reserve as a whole. Construction of Andaman Trunk Road (ATR) through the *Jarawa* Reserve areas of South Andaman and Middle Andaman Islands also leads to large scale deforestation in that area which in turn led to further deterioration of the *Jarawa* resources and livelihood. Initially the notification of Andaman and Nicobar Island Protection of Aboriginal Tribes Regulation (1957) had virtually declared the entire Northern part of the South Andaman Islands as a 'Tribal Reserve'. Afterwards, with an amendment of the notification in 1979, the areas east of the Andaman Trunk Road was excluded from the 'Tribal Reserve'; opened for logging, timber extraction and for the construction of the road (Mukhopadhyay, 2002). The excluded forest of the Eastern portion along the Andaman Trunk Road from Jhirkatang to Middle Strait of South Andaman was utilised for extraction of timber. Further the cleared area was afforested with teak and other commercial species of timber including padauk, teak, didu and other timber wood species. This homogenous afforestation is lack of biodiversity and impacted the *Jarawa* livelihood to certain extent by raising of timber plantations, resource extraction and hunting by the Non-*Jarawa* who had set up of temporary camps in the *Jarawa* territory at Pochang, Poona Nallah and Potatang. The afforestation programme in the *Jarawa* territory was finally condoned after March 1996 when

about 60 to 70 *Jarawa* ambushed on the workers of the Forest Department from three sides by killing two and injuring three of them (Department of Police, 1997).

Encroachment around the *Jarawa* territory has played a significant role in depletion of *Jarawa* resource base. In the absence of a clearly delimited and demarcated boundary of the '*Jarawa Reserve*' and settlement areas, it was very difficult to distinguish the boundary of the '*Jarawa Reserve*' at ground level. Moreover, almost all the rehabilitated villages were settled at the fringe areas of the *Jarawa* territory in South Andaman and Middle Andaman Islands. With the successive descendants and population pressure, many settlers have started to encroach the forest areas at the backyards of their allotted house or horticultural areas. Subsequently, they have cleared the encroached forest area and started horticultural activities which primarily include beetle nut and coconut plantation. As studied by Kumar (2009), primarily encroachment has taken place on two types of land namely, (i) the fringe area of *Jarawa Reserve* and (ii) those parts of the forest, which are not in the *Jarawa Reserve* but contiguous to the *Jarawa* territory. While categorisation of different types of encroachers, notably there are following three types; firstly, the group of those refugees who were migrated from the erstwhile East Bengal or East Pakistan and were rehabilitated by the Government of India under the refugee resettlement and rehabilitation scheme. Over the decades, as their population grew, they felt the requirement for extra land which led them for expansion of their land into the adjacent territory. It has been mentioned that most of the refugee villages are contiguous to '*Jarawa Reserve*' or reserve forest. Example of such villages are Colinpur, Tirus, Manpur, Ferargunj in South Andaman and Kadamtala, Shantanu, Bamboo Tikrey, Atergee, Kataidera and Phooltala in Middle Andaman. Instead of completely clearing

the encroached forest, they have thinned the forest canopy and have planted coconut, areca nut, banana etc. Subsequently, different patches of horticultural areas or plantation areas are grown up in and around the *Jarawa* territory. During post-contact situation and till date, *Jarawa* also exploit the resources (banana, coconut etc.) of those encroached areas. Secondly, the group of those people who were primarily working either in the Bush Police Force or in Forest Department. Field level staffs of both the bush Police and Forest Department were predominantly the migrant people from the Chhotanagpur region who had been brought to the Islands as labourers and later found jobs in these departments. As they were mostly posted in or around *Jarawa* areas, initially they constructed temporary sheds and huts to execute their duties and gradually started to live in those huts. Some of these settlements were Jirkatang-2, Jirkatang-7, Putatang, Beach Dera, Putatang, Bamboo Tikri, Sippi Tikri, Kesri Dera etc. After post-contact situation of 1997, Bush Police was renamed as *Jarawa* Protection Force and consequently most of the above mentioned camps and settlements were condoned. The third category is those people who have migrated to these Islands by their own or through some relatives and known persons in search of jobs and livelihood. This type of migration was stimulated with the improvement of the port to port connectivity with mainland during 1970's and 1980's. As they were not allotted any land by the government, in course of time, most of them have encroached some forest land around the *Jarawa* Reserve.

5.3.3 Impact on Food habit

Traditional food items of *Jarawa* include *wowo* (wild pig); *leo and pod* (honey); *napo* (fish), *enmuthugo* (cat fish); *urug* (monitor lizard); *aab* (wild jack fruit; *cheo, bugi*

and nadohata (wild tubers); *omin* (cycus fruit), *thuya* (*nipa* palm fruit), *pathen* and *ono* (edible larvae) etc. During the pre-contact situation, food items of *Jarawa* were predominantly occupied by the above mentioned traditional food items only. They used to consume those food items either by roasting on fire or baking in a stratified hearth. Though they were observed to consume traditional food items by boiling in metal utensils during 1970's and 1980's by different contact parties of Andaman Administration and Anthropological Survey of India, but it is difficult to imagine that how they used to boil their food items before acquiring those metal utensils.

Culture contact and bartering relationship have impacted havoc on the food habit of *Jarawa*. During initial days of contact mission, the *Jarawa* were gifted with non-traditional food items like banana and coconut etc. But after the post-contact situation in 1997 and onwards, they have more frequently started to consume different non-traditional food items like biscuits, bread, paratha, vada, idli, rice, *mithapoo* (sweet) etc. Nowadays, the *Jarawa* procures many non-traditional food items from the Non-*Jarawa* people through barter. Though, after 1997, some of the above mentioned food items have found their way into the *Jarawa* menu, but none of these items become a part of their staple food or regular diet till the first decade of the twenty first century. Significantly, during the present study from 2011 to 2017, it has been observed that gradually rice and some of other non-traditional food items invaded into the *Jarawa* diet in particular and *Jarawa* society in general. Existing bartering relationship with non-*Jarawa* have played a pivotal role in this significant change. Existing bartering relationship may be also be termed as negative reciprocity as the both the partners expected to get maximum benefit at the cost of other. Often the *Jarawa* are exploited by the non-*Jarawa* neighbouring communities. More recently in November 2017, it

was observed during a fieldwork among the *Jarawa* of Middle Strait area at *Potatung chadda* to cook rice and pork curry in two different metal utensils. Subsequently, after preparing the rice, it was further modified as a kind of fried rice by adding vegetable oil and sprinkling red chilli powder, mix masala, turmeric etc. The pork curry or *wowo surua* was also cooked in a similar fashion like their non-*Jarawa* neighbouring communities. After that the family consumed the above mention dishes in metal (steel) plates. Moreover, after completion of the meal, the steel plates and all other utensils were properly washed for further reuse. Though this particular observation in a single *Jarawa* family cannot be generalised among the *Jarawa* community as a whole, but preparing and consuming of rice is quite prevalent among most of the *Jarawa* families of all the areas. This particular case study itself is an indicator about degree of change in *Jarawa* food habit, extends of barter relationship with the non-*Jarawa* and *Jarawa* ability to imitate other's culture.

5.3.4 Impact on Health and Hygiene

In *Jarawa* cognition, primarily there are three stages of health in terms of bodily comfort and discomfort i.e. *tomo* (normal or healthy), *ulleda* (unwell or sick) and *bechame* (death). They do not have any specific medicine man, instead, most of the elderly person and grown-up individuals often recommends symptomatic treatments which generally include wearing of specific necklace made up of twigs or leaves, barks etc. of some specific plants and creepers. They may also decorate themselves with either white clay or red ochre during *ulleda*. Throughout the world it has been observed that whenever any hunting-gathering group is exposed to the outside world, invariably they suffer from different kinds of some health hazards and infectious diseases. As we know that there are two types of immunity namely innate immunity

and acquired immunity. Being inborn immunities to fight against different antigens, innate immunity is quite similar among the all communities. But acquired immunity is one which being obtained or acquired while fighting with the different infections and pathogens. Acquired immunity helps an individual to fight against subsequent infections. Hence, primarily because of their long isolation from other human groups, certain pathogens or disease causing organisms could not reach them. As a result, such communities never develop immunity in their body against all such pathogens to which they were never exposed. Once friendly contact was established, the *Jarawa* were extremely susceptible to different pathogens to which they are not resistance. Different diseases which are quite common among sedentary mainland populations can be fatal for such hunter-gatherer communities. Notably, earlier the Great Andamanese tribe suffered from epidemic caused by such diseases like measles, pneumonia, syphilis etc. which were largely responsible for rapid population decline of the Great Andamanese and to some extent also for the Onges (Cipriani, 1966). Similar kind of impact was also observed among the *Jarawa* after the post-contact situation in 1997 onwards.

Table 5.1 Diseases identified and treated among the *Jarawa* during initial contact period between 1998 and 2001

Name of diseases	Male	Female	Total	Year of incidence
Community acquired Pneumonia	27	22	49	As per records available between 1998 to 2001
Measles	45	50	95	
Mumps	18	9	27	

Malaria	37	28	65	
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Source: Directorate of Health Services, 2002.

Systematic analysis of the above mentioned information on diseases among the *Jarawa* during just after the post-contact situation from 1998 to 2001 reflects spread and outbreaks of different diseases like pneumonia in 1998, measles in 1999, malaria in 2000-2001 and mums (Table 5.1). Apart from malaria and mums, most of the other diseases are highly contagious. These contagious diseases might not be so prevalent during pre-contact situation before 1997. The outbreak of measles among the *Jarawa* in 1999 was a notable incidence and required special attention for future prevention and necessary action form the implementing agencies. During the outbreak of measles in 1999, the *Jarawa* of the Tanmad and Thidong areas were comparatively quick to seek medical help and therefore due medical assistance were provided to save them. In contradiction, the *Jarawa* of Boiab area were still hesitant to seek any medical help from the Andaman administration. Hence, it was difficult to ascertain the exact numbers of *Jarawa* suffering from measles and died consequently. However, through the field investigation it could be ascertained that that time approximately 25 to 30 *Jarawas* of Boiab died due to measles or secondary infection caused by measles (Kumar, 2009). Moreover, there were few other diseases, which have suddenly increased among the *Jarawa*. These diseases includes anaemia, skin diseases, respiratory tract infection, hepatomegaly, splenomegaly and Hepatitis B etc. are the newly introduces diseases detected among them (Table 5.2). Previously, *Jarawa* were not reported to suffer from any infectious skin diseases, but after 1997 onwards, studies have reflected manifolds increase in the skin diseases. The prime reason behind the sudden spread in the skin diseases may have attributed to mixing of the *Jarawa* with the Non-*Jarawa* and wearing used unhygienic clothes by the *Jarawa*.

Table 5.2 Disease pattern and number of affected *Jarawa* individuals during early contact period (1998 to 2001)

Diseases	Sample size	Number of person affected			Percentage	Remarks
		Male	Female	Total		
Anaemia (WHO criteria)	20	-	-	33	27.5	Nutritional
Chronic Energy Deficiency	96	11	4	15	15.6	Nutritional
Malaria	120	2	0	2	1.6	P. falciparum
Skin infection	231	50	41	91	39.3	Fungal and Bacteria
Respiratory tract infection	231	15	11	26	11.2	Infective
Hepatomegaly	231	-	-	64	27.7	Chronic infection
Splenomegaly	231	-	-	32	13.8	Chronic infection
Hepatitis B carrier stage	120	35	24	59	49.1	Viral

Source: Directorate of Health Services, 2002

As per report of Directorate of Health Services (2002), the laboratory clinical investigation of 120 *Jarawa* blood samples with ELISA method for HBsAg have revealed the presence of deadly diseases among the *Jarawa*. About 49.10 per cent of

the *Jarawa* were found to be HBsAg positive (Table 5.2). It is also known as Hepatitis-B. Eventually, all of them were healthy carrier of HBsAg. However, there may be vulnerability of contracting HBsAg (Hepatitis B) through any non-*Jarawa* who are quite frequently come in contact with *Jarawa* for different purposes including barter. Likewise, laboratory investigation of the blood sample of 231 *Jarawa* reveals that about 27.7 per cent of them are suffering from hepatomegaly while 13.8 per cent from splenomegaly. All the above mentioned diseases detected among the *Jarawa* can be categorised in four types, namely, 1. Nutritional diseases like anaemia and chronic energy deficiency. 2. Infectious diseases namely pneumonia, measles, respiratory tract infection and fungal infection of the skin. 3. Endemic like HbsAg (Hepatitis B) and 4. Other diseases like hepatomegaly and splenomegaly.

Nevertheless, prompt action of allopathic medicines and antibiotics made a significant impact on *Jarawa* cognition towards acceptance of modern medical treatment. Prior to 1997 when the *Jarawa* were not in mass friendly contact with the outsiders, often accept some first aid medical interventions like bandage and ointments for the treatment the injured parts and fungal infected areas of the skin etc. from the members of the contact teams. During those days, *Jarawa* were reluctant to accepted tablets, syrup, or any other oral medicines etc. for their injuries or diseases. But During post-contact scenario after 1997, they became friendly and non-resistant with the medical teams which used to visit *Jarawa* habitat and also often brought *Jarawa* patients to the Primary Health Centres or Hospital at Port-Blair for further treatment. It has acted further as confidence building measures among the *Jarawa* people towards the Non-*Jarawa*. Consequently, it has been observed that the *Jarawa* have no hesitation towards accepting any kind of medicines, either orally or externally. During last two

decades, there have been some positive changes among the *Jarawa* in particular and their society in general. It was observed during the initial phase of friendly contact (1998-1999). Due to massive contact with the non-*Jarawa*, there was an outbreak of pneumonia and measles among the *Jarawa*. During that particular point of time, they were very much hesitant to send alone their fellow members who were suffering from any of these diseases, to any hospital. Moreover from those days it was observed that a large numbers of family members used to accompany the patient, whenever any patient was admitted in the health centre. They were also reluctant to stay in the hospital for more than two to three days. With passage of time, nowadays, the *Jarawa* have developed more faith towards the medical staffs and allopathic treatment. During the present study also It was noted that *Jarawa* patients are admitted to the hospitals are often accompanied by their nearby relatives whose numbers are varied from two to five. Acceptance of modern medical treatment seems to be a very significant development for the welfare of *Jarawa* community as it may be helpful in the treatment of some of the fatal diseases i.e. Hepatitis B to which the *Jarawa* have been found to be carriers. Though the *Jarawa* are the healthy carrier of the hepatitis B, it may be prevented by launching immunization programme among the *Jarawa*. But, considering the foraging and nomadic livelihood of *Jarawa*, periodic immunisation is also a challenging task for the welfare agencies. Some of other new diseases detected among the *Jarawa* are community acquired pneumonia, measles and malaria (*Plasmodium falsiparum*) etc.

Apart from the positive impact of the modern medical intervention, there are some disadvantages also. As we are dealing with an extreme vulnerable and sensitive community, utmost precaution and research driven medical intervention policy have

to be adopted. Often ignoring their traditional food habit, two square meals provided to all of them which is similar to the all other patients. Present system of medical intervention among the *Jarawa* does not recognize the traditional medicinal knowledge of *Jarawa* and is based on administration of conventional allopathic drugs. Even no other alternative system of medicines (e.g. Ayurveda) has been introduced yet. No attempt has been made to understand the concept of 'Ulleda' among the *Jarawa*. 'Ulleda' is primarily refers to the physical unwellbeing which cannot be synonymous to the medical term 'Disease'. Undoubtedly, medical intervention played a crucial role in befriending the *Jarawa* population and sudden population growth in last two decades. But discontinuity of allopathic drugs (antibiotics) and its different side effects cannot be ignored. *Jarawa* being an immunologically vulnerable and numerically small community, any medical intervention must have to be with due precaution and harmonious with their nomadic, hunter-gatherer livelihood.

5.3.5 Impact on Subsistence (Hunting-Gathering)

During pre-contact situation, the isolation and antagonistic relationship with the non-*Jarawa* have in turn protected the *Jarawa* Resource and their subsistence. After the mass friendly contact in 1997 onwards, reciprocal relationship has been established between *Jarawa* and their neighbouring communities. This somehow provided a free access to different poachers and neighbouring villager for immense resources of *Jarawa* territory. In lieu of different forest resources, barter exchanges are conducted for different non-traditional food, intoxicants and ornamental items. A significant study in this regard was conducted by Chakraborty and Dinda (2002) which clearly indicates that different settlers from both landowning and landless households earn part of their livelihood either from fishing or trading of aquatic items like fish, crab,

sea cucumber, lobster and prawn etc. Nowadays, favourite hunting grounds for the poachers are the coastal waters and creeks of the '*Jarawa Reserve*'. They also lay nets pretty closer to the shore and rope trap inside the forest to catch both aquatic and forest resources. 'The *Jarawa Report*' of Anthropological Survey of India (2002) also mention of illegal fishing, hunting, extraction of valuable timber and non-timber forest products from the *Jarawa Reserve* areas and also noted one case in which five persons were arrested along with three dinghies in the western coast with catch of shark, turtle, ray fish, flat fish, king shell and other marine animals. Hence, despite of different legislative measures, indiscriminate extractions of forest and marine resources have already started to impact the *Jarawa* livelihood and subsistence.

5.3.6 Domestication of Animals and Plants

One of the basic criteria of true hunter-gatherer is that they never domesticate any animal or plants. During pre-contact situation before 1997, they were never observed to keep any domesticated pets like dogs. Moreover, likewise the Great Andamanese and the Onge, *Jarawa* never kept pet dogs for hunting during the hostility phase and the reason may be due to the fact they can be easily identified with the barking dogs inside the forest. However, they must have observed the Great Andamanese, Ranchi people and other settlers to hunt wild boar with the help of domesticated hunting dogs. As a natural instinct, dogs used to chase the wild boars and eventually trapped in the huge buttress roots in the forest which eventually make it easier to hunt the animal. Being an intelligent hunter-gather, *Jarawa* might be influenced with this short cut method of hunting. During the post-hostility phase the presence of dogs at *Jarawa* camps was observed for the first time in 1999 in certain parts of Middle Andaman, particularly in Kadamtala area (AAJVS, 1999). According to the people of the

neighbouring villages, puppies were taken away by the *Jarawa* from fringe villages and forest camp settlements. Gradually, they have started to take assistance from the grown-up puppies for accompanying during the hunting expeditions. Gradually, in many cases dogs become an integral part of their hunting expeditions. But within a decade, they felt overburden with the growing populations of the domesticated dogs and started discarding hunting dogs in many expeditions. Instead, nowadays they prefer to lay rope trap to caught wild boar. During initial phase of fieldwork, most of the *Jarawa* household used to accompany one or more domesticated dogs. But, at the later phase of field investigation, notable decrease in the number of domesticated dogs was noticed. Moreover, it was noted in *Potatang chadda* (Middle Strait area) in November, 2017 that some of young *Jarawa* hunters were hiring dogs from an aged man for venturing the forest to hunt wild boar. As mentioned by Das (2016), relationship between *Jarawa* and their dogs are intricate and noteworthy. Dogs have been accepted by the *Jarawa* as a member of their family and band. Both the food and living spare are shared with the dogs and often treated as their children. As mentioned by Kumar (2009), some lactating mothers were found to breastfeed the puppies. However, as it has been mentioned that recently they have developed some aversion towards their domesticated dogs. It may be primarily because of three reasons. Firstly, they have found that the dogs to create more disturbance than convenience for them during hunting expedition as the barking dogs scare away their prey. Secondly, the furs of the dogs soon become full of fleas and louse, which, in tum, begin biting the masters and his family also. Thirdly, may be due to sensitisation of AAJVS workers have explained and convinced the *Jarawa* about the harmful effects of keeping dogs and spread of different diseases. Consequently, many of the *Jarawa* have driven away the dogs from their camps. There are very few dogs left with the *Jarawa* as pet

animal. Moreover, while hunting the prey with pet dogs, it is noteworthy to mention that according to the *Jarawa* cognition, they can only consume meat of wild pig when it was killed with shooting of arrows. Hence, despite of trapping the wild pig either with rope trap or pet dogs, invariably the game animal to be killed by shooting traditional arrow (*patho*).

As *Jarawa* are fond of different non-traditional fruits like banana, jack fruit, coconut, mango etc.; since the beginning of the contact period, different implementing agencies started plantation of those fruit bearing plants in and around the *Jarawa* huts. Initially, *Jarawa* never gave due attention to those alien plants, even they were observed to consume pith of the newly planted or grown-up saplings of coconut plants. During last decade, a systematic and organised plantation programme was started by AAJVS and Tribal Welfare department in collaboration with the Agriculture department and Forest department (table 4.7). Compared to Fieldwork in November, 2011, a notable difference was observed during the last field visits in November, 2017 and June, 2019. Nowadays most of the *Jarawa* community huts and its surrounding areas of *Thidong* (Middle Strait area) and *Tanmad* (Kadamtala area) are often surrounded with different non-traditional fruit bearing plants like banana, coconut, jack fruit, mango, guava etc. Moreover *Jarawa* of those areas are collecting and consuming the yield of those plants. Certainly, they have started to little bit attention and care towards those plants which is quite exceptional for a hunter-gatherer community like *Jarawa*. Though, technically it cannot be termed as domestication of plants by the *Jarawa*, but obviously, they are may be in the process which is quite dynamic in nature.

5.3.7 Impact on Language

Though there are three notional territorial groups namely *Boiab*, *Thidong* and *Tanmad* among the *Jarawa*, but linguistically they were a monolingual community. Their prolonged isolation and antagonistic relationship with the other human groups restricted them to learn any other language. Due to different contact missions since 1974, particularly in *Tanmad* (Kadamtala area), they sporadically picked up a few words of Hindi words like *khana* (meaning food) from the contact parties. Certainly, these goodwill contact missions were restricted to certain parts of the *Jarawa* Reserve and majority of the *Jarawa* population were not in a friendly contact with the outsiders until the mass friendly contact in 1997. During the post-contact periods (1997 onwards), both the *Jarawa* and the non-*Jarawa* have started coming in more regular and prolonged contacts in comparison with previous years. Gradually, bartering relation started between *Jarawa* and non-*Jarawa*. Moreover, bartering exchange often preconditioned with the verbal communication between the partners. Hence, both the partners (*Jarawa* and non-*Jarawa*) have started to learn fragmented and distorted from of *Jarawa* dialect and Hindi from each other. Further, it can be stated that learning and picking up of fragmented Hindi during post 1997 period was the need of the hour for the *Jarawa*. Eventually, some of the AAJVS workers, Anthropologists, policemen and paramedical staffs who were in regular contact with the *Jarawa* also picked up some *Jarawa* words and fragmented *Jarawa* language. Subsequently, those *Jarawa* who were exposed to the outsiders more frequently learned Hindi at faster rate than those interior and shy individuals. Most of the young and adolescent boys of ten to twenty years of age started to speak in fragmented Hindi language better compared to others. Nowadays most of the *Jarawa* can speak in fragmented and communicable Hindi with the out siders. Knowledge of Hindi also

provides certain advantages to the *Jarawa* while interacting with the Non-*Jarawa*. Recently, under the '*Ang Katha*' project some informal schools are in operation in the name of '*Jarawa* Hotspots' at Potatang, Phooltala and Tirur areas. Basic Hindi, numerical ability and livelihood educations are provided to the *Jarawa* children occasionally. These informal schools also played a pivotal role in recent times to enhance the knowledge in Hindi. Hence, most of the children are versed with communicable Hindi language and numerical counting in Hindi. Even a broken knowledge of Hindi puts them in slightly advantageous position while communicating and negotiating with non-*Jarawa* during bartering. The knowledge of Hindi on the part of the *Jarawa* has been proved very effective during medical treatment and medical interventions. Understanding each other's language also facilitates both the *Jarawa* and the medical attendants or Doctors who are able to communicate with each other. Learning of Hindi has yet not affected their own *Jarawa* language because they invariably communicate with each other only in *Jarawa* dialect. The fragmented Hindi is only used while communicating with the out siders. Unfortunately, some of the young *Jarawa* men have also learned some Hindi and Bengali slangs and vernacular or colloquial words from the non-*Jarawa* and occasionally speak those slangs while communicating with those outsiders. Hence, proper sensitisation in this regard for both the *Jarawa* and Non-*Jarawa* is essential to avoid any negative impact on *Jarawa* dialect.

5.3.8 Addiction towards Tobacco and Consumption of Alcohol

Addiction towards different intoxicants like tobacco and alcohol are one of the alarming issues for the welfare agencies and policy makers. Consequent to the post-contact situation and recently, adolescent and teenage *Jarawa* boys are quite

susceptible for addiction of chewing varieties tobacco like *sukha* (fine cut tobacco leaves) and *paan* (mixture of *sukha*, small pieces of areca nuts and lime). They get it from different sources from the outside of *Jarawa* territory. The people of neighbouring villages or the poachers often enter into the *Jarawa* territory to collect and hunt different forest resources like timber, bamboo, cane, fish, wild boar, deer, Andaman teal, mud crab etc. During initial period of contact (1997 onwards), the drivers of different vehicles, lower rank police personnel, forest guards, labours and others have introduced these intoxicants to accomplish of their own vested interest. Initially, *Jarawa* got it from the non-*Jarawa* without exchanging anything rather in expression of friendly gesture or in disguise of *mitajile* (friend). Gradually, the *Jarawa* became habituated and secretly started asking for *sukha* or pan to the suppliers but certainly in exchange of something or to help them in collecting desired forest or marine products. Subsequently, many women also started to take the above mentioned varieties of tobacco on regular basis. Hence, crossing the age and gender barrier, most of the *Jarawa* individuals are addicted to different varieties of tobacco. Consequently, demand of tobacco increased manifold among the *Jarawa* and it became a major item for barter which flows inward towards the *Jarawa*.

Apart from tobacco, another curse of friendly contact between *Jarawa* and non-*Jarawa* can be observed through some recent incidences of consuming alcohol by young *Jarawa* men, particularly who are more engaged in frequent contact with the outsiders. They often receive bottles of alcoholic drinks (foreign liquors) predominantly from the poachers in exchange of highly priced forest resources or in lieu of their assistance to catch or hunt those forest resources. Addiction towards alcohol is also spreading among the peer groups which are quite alarming. Prevalance

of consuming alcohol is comparatively more in the *Boiab* area than the *Thidong* and *Tanmad* area. Devastating impacts of alcohol and tobacco have already been observed in a quite similar historical situation among the Great Andamanese, Shompen and Onge. In different historical specific situations, above mentioned hunter gatherer and nomadic communities of Andaman and Nicobar Islands were exploited at the extreme level only due to their addiction towards different intoxicants like tobacco, alcohol, opium etc.

5.3.9 Sexual Exploitation

Though no one is openly talking about the aspects sexual exploitation of *Jarawa* women, but in times some incidences in this regard was reported in *Boiab* (Tirur area). Unmarried *Jarawa* ladies who are frequently visiting the neighbouring non-*Jarawa* villages for their bartering urges and to exchange some forest resources. They are quite fond on modern non-traditional cosmetic and ornamental items. *Jarawa* ladies are extremely fond of adorning themselves with talcum powders, fairness cream; necklace, armband, headband etc. made up of plastic beads or metal etc. Being a self-reliant community, womenfolk of the *Jarawa* also believe in self-subsistence and they also collect different valuable forest resources like mud crab, resin etc. which are subjected to barter with the neighbouring non-*Jarawa* villagers to get their desired items. Being adapted to the tropical dense rain forest of Andaman Islands, both male and female of *Jarawa* community do not cover their body parts with any kind of garments. Traditionally, women only were wrist girdle made up of bark fibre or sea shells. Hence, *Jarawa* women while visiting neighbouring non-*Jarawa* villages, their exposed body parts made them more susceptible for sexual exploitation. Moreover, pre-marital sexual relationship is quite common among the *Jarawa* boys and girls. So,

often unmarried *Jarawa* ladies fall prey of sexual exploitation by some notorious poachers and habitual offenders. Both officially and unofficially, many incidents of sexual exploitation were recorded and necessary action was taken in accordance with the existing law. But being an isolated and immunologically vulnerable community, the situation is quite alarming and requires utmost attention of law enforcement and implementing agencies.

5.3.10 Impact on territory

Since hundreds of years, the *Jarawa* territory was never a static geographical area, rather it was subjected to continuous alteration and shift. Henceforth, the *Jarawa* were also subjected to acclimatise to their new socio-geographical environment.

During last decade of eighteenth century (1790s) the *Jarawa* territory was spread over the vast areas from Rutland Island to South Andaman (including the coastal areas Port Blair). But when second time the penal settlement was established in 1858, no *Jarawa* were found near the coastal areas of Port Blair. The geographical area of *Jarawa* territory was subjected to continuous change and shift. It has been already mentioned that the area (Map 4.1 and Map 4.3) which is presently inhabited by *Jarawa* is a recent phenomenon, probably not more than two centuries. According to the study of Brown (1922), *Jarawa* were distributed in Rutland Island and Southern parts of Great Andaman Island (Map 3.2). During 1881, 1884, 1901 in total 4219 hector, 9081 hector, 10198 hector of forest which were primarily under the *Jarawa* territory was cleared for cultivation. The colonial rulers established villages at Anikhet, Caddlegunj and Ferrargunj on the hillocks. The Karens are the only community who settled in the Andaman on their own initiatives after carefully choosing their area of settlement in

the Middle Andaman at a place known as ‘Webi’ (Sarkar, 2015). Most of the villages were located at the Vicinity of the *Jarawa* territory during that point of time.

The ‘Andaman and Nicobar Protection of Aboriginal Tribes Regulation’ (ANPATR) came into existence in 1956. Most of the areas which were inhabited by *Jarawa* declared as reserved area by the Andaman and Nicobar Administration (notified by ANPATR/3(1)/1, 1956/57). The reserved area includes entire areas along with the west coast of South Andaman and Middle Andaman including. The *Jarawa* territory was further modified by different notifications and de-notification by Andaman Administration [107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW(PF) dated-15.09.2004]. Significantly, the Andaman Trunk Road (ATR) which is cutting across the *Jarawa* territory has been excluded from the *Jarawa* Reserve. Previously existing 200 metre belt from central line of Andaman Trunk Road has also been minimised to 30 metre on the either side of the Andaman Trunk Road. The *Jarawa* Reserve is also extended towards coastal waters up to a distance of 5 Km from the high tide water mark line on the western side of the South and Middle Andaman Islands from Constance Bay to Lewis Inlet Bay. After the administrative notification in 2004, the *Jarawa* Reserve was again extended to an area of 1028 km² and in 2017 the Reserve area extended up to 1040 km²

Immediately after independence, Government of India along with rehabilitation department of West Bengal and Andaman Administration decided to launch a scheme for resettlement of East Pakistan refugees at Andaman Islands. With the view of all round development of the Islands, it was decided to resettle both in agriculturist and non-agriculturist category. Under this scheme a total of about 4164 people (931 families) were settled during 1949 to 1955 at the vicinity of *Jarawa* territory (table-

4.2). Huge forest coverage in and around *Jarawa* territory was cleared for the purpose of providing land to the settlers. It was proposed to allot 10 acre of land (5 acre plain paddy land and 5 acre of hilly land) to each family who were settled under agriculturist scheme. About 1,42,920 acre of land in and around the *Jarawa* territory were cleared and allotted during 1949 for the above mentioned refugee rehabilitation scheme (table-4.5). In the first batch 202 families were rehabilitated on March 1949 and settled in a liner fashion mostly closed to road at the Tsunabad–Manpur-Colinpur-Temple Myo-Herbatabad-Tirur areas of South Andaman at the edge of *Jarawa* territory (table-4.1). Similarly on the other hand about 1397 number of families were settled around the *Jarawa* territory in Middle Andaman during the period from 1953 to 1959 (table-4.3). Suddenly, the *Jarawa* found themselves surrounded by many alien neighbours and dynamics of *Jarawa* territory changed ever since. Soon the land allotted to the settlers become insufficient for their livelihood and they realised the utility of the bountiful forest resources of *Jarawa* territory. Gradually they started to encroach the adjacent forest areas for horticultural activities and many of them involved in poaching of forest resources like timbers, wild boar, deer, fishes, crabs, honey and other minor forest produces.

5.3.11 Harmful effect of Andaman Trunk Road (ATR)

A detailed account of Andaman Trunk Road is already mentioned in the chapter 4.4 and it clearly depicts the historical and contextual aspects of ATR. Hence, the present chapter will be dealt with the impact of Andaman Trunk Road on *Jarawa* in particular. As it has been mentioned, in order to develop the land communication between the North Andaman, Middle Andaman and South Andaman Islands, administration decided to construct an ambitious and much controversial road namely

Andaman Trunk Road (ATR). Construction of the 333 km long ATR began in late sixties. The work continued in different phases and finally became fully operational in 1989. The road has length of 107 km in South Andaman, 226 km in the Middle and North Andaman (Sarkar, 2015). Different portions of the ATR were subjected to pass through the *Jarawa* Reserve area in South Andaman and Middle Andaman Islands. As a natural instinct to protect their habitats and resource base, they often raided the labour camps situated within the *Jarawa* territory. They tried their level best to prevent construction of the ATR by their own ways. On several occasions they put barricades at the work head with the symbolic message not to proceed further for clearing their resource areas. In spite of, under the protection of armed police, the barricades used to be cleared and construction work continued. It was alleged that the labourers used to put electrified wires or fencing encircling their camps that have taken many lives of the tribes. Even then they did not give up obstructing the work of ATR. They conducted attacks on the labourers and other workers causing many casualties, whenever opportunities came, also destroyed many of their camps of those road workers. A section of people in Port Blair and many in the mainland raised their voices in protest of construction of ATR through the *Jarawa* Reserve areas. Regular clashes between the *Jarawa*, settlers and construction workers was quite common during those days. Several incidents of conflicts and clashes had taken place on the Andaman Trunk Road since the 1970s and continued up to 1997 when the scenario changed drastically and the *Jarawa* came into a mass friendly contact with the outsiders (Kumar, 2009). Exact numbers of *Jarawa* killed during the construction of ATR probably never be disclosed due to different administrative reason and absence of real evidence. But probably hundreds of *Jarawa* were either killed or injured by electrocution, bullets or other means. Attacks on different labourers, Bush Police,

trucks and buses by the *Jarawa* were merely a form of resistance towards the outsiders' intrusion into their territory, resource base and livelihood.

Impact and consequences of Andaman Trunk Road (ATR) is a much debatable and controversial issue. This is noteworthy to mention that primarily it was constructed not for the benefit of the *Jarawa*. It was the interest of the rehabilitated people of the dominant societies, which often get attention of the Administration. Demands and aspirations of the majority need to be honoured in a democratic country. Consequences on small and already vulnerable community like *Jarawa* are often neglected and ignored. The unrevealed and underlined simple logic is that numbers matter in democracy. So, for a handful few hundreds of odd *Jarawa* individuals, the development process of the larger society with lakhs of people cannot be compromised. Introduction of the ATR through the *Jarawa* territory essentially devastated the life and culture of the tribe. They ultimately give up their antagonistic relationship with the encroachers and intruders to their territory. The territory and isolation of *Jarawa* often protected them from many unknown alien vices of culture contact. Consequences of showing friendly gesture and culture contact were almost similar to that of Great Andamanese and Onge. Several unwanted activities like movement of vehicular traffic, frequent visit of outsiders including tourist, poacher and supply of alien food items etc. have been in operation in the *Jarawa* territory. These would likely to push the *Jarawa* to a stage of complete dependency on the larger dominant societies. Lakhs of tourists with thousands of vehicles are passing through the narrow passage ATR every year with the hope to get a glimpse of the *Jarawa*. Tour operators also encourage the tourists for the road journey through the *Jarawa* Reserve. This so called *Jarawa* tourism became very popular among most of

the visiting tourists (Kumar, 2009). Though the journey is always with a convey system with some limited and scheduled timings, but narrow passage of the ATR through the *Jarawa* Tribal reserve often leads to traffic jam in the reserve forest. This chaotic journey through ATR has immensely affected the livelihood of the *Jarawa* to a great extent. Moreover, ATR also facilitated different poachers to increase their accessibility and movability inside the dense forest in *Jarawa* territory which in turn have a direct impact on depletion of forest resources and livelihood. Waves of travellers and tourists started to visit Andaman Islands after the Tsunami, 2004. Nowadays Andaman Islands are one of the most popular tourist destinations for both national and international visitors. Lakhs of tourists are visiting these islands per year during the last decade. Thousands of tourist vehicle are passing through the *Jarawa* Reserve to reach one of the popular tourist destination at Baratang Island. The ATR cut across the *Thidong* area from south to North to reach the Middle Strait which is to be crossed by vehicle ferry. For most of the visitors, visiting Baratang Island is a proxy reason or pseudo motive. The real intention is to see the '*Jarawa*'; the 'primitive'. 'necked', 'stone aged' and 'ancient' human population. They often feel sympathetic for the 'poor' *Jarawa* and consider them as 'hungry', 'vagabonds', 'wanderers' who are begging for food, cloths etc. But studies indicated that in reality, the asking for the food or cloths on the part of the *Jarawa* is not due to the fact they are hungry or there is shortage of resources in *Jarawa* Reserve forest. It is rather an induced habit and the genesis of this attitude is related with earlier contact missions and practice of giving gift by the goodwill mission teams or contact parties. During the contact mission during pre-contact situation (before 1997) the most prevalent practice was to give copious gift articles such as coconuts, banana, red cloths etc. to the *Jarawa* whenever and wherever the contact party was able to contact them in the

sea shore. Moreover, this practice was continued for few years even after the landmark year 1997. But gradually, Andaman administration started to restrain them from supplying of alien food items and gifts. During the initial years of post-contact (1997 onwards), most of the passing by ATR passengers through the *Jarawa* territory used to offer food items and clothing to the *Jarawa*. For the *Jarawa*, asking for foods or any gifts is an extended phenomenon of their natural foraging activity. In this regard this is noteworthy to mention that different studies during 2002-2004, clearly indicated towards bountiful and sufficient food resources in the *Jarawa* territory. Aspect of food scarcity was complexly turned down. *Jarawa* never considered this habit of asking for ‘food items’ or ‘gifts’ as pejorative or derogatory in nature. Hence, whenever a *Jarawa* confronts a passing vehicle he or she used to ask for food or other articles. As ATR is crossing through the *Jarawa* Reserve in multiple places, heavy traffic and chaotic situation of ATR has practically jeopardised the livelihood of *Jarawa*. While passing through from South to North in the *Jarawa* Reserve, Andaman Trunk Road has divided both *Thidong* and *Tanmad* area into two parts i.e. Western and Eastern. In turn, frequent movements of vehicles have restricted the movement of *Jarawa* from West to East and vice versa. While depicting the impact of ATR on *Jarawa*, Bhattacharya (2010) has rightly mentioned that ‘the ATR is like a public thoroughfare through one’s private courtyard’.

5.3 Chapter Summary

The chapter ‘Culture Contact and Changes’, includes most significant finding during the present study. Based on empirical data, it depicts the following aspects namely bartering relationship, impact on material culture which includes impact on dress and adornments, tools and technology, use of utensils, use of mechanised dinghy and vehicle, extinction of

traditional chest guard and resin torch etc. Some other immensely affected aspects are impact on forest resource, impact on food habit, impact on health and hygiene, impact on subsistence (Hunting-Gathering), domestication of animals and plants, addiction towards tobacco and consumption of alcohol, impact on language, sexual exploitation, impact on territory and harmful effect of Andaman Trunk Road (ATR) etc.

CHAPTER-VI
CONCLUSION

CHAPTER-VII

CONCLUSION

In compared to many other hunter-gatherers of the world, till today, *Jarawa* exhibits minimum interaction with the outsiders. They are pursuing much self-sufficient and self-reliant livelihood with minimum dependency on outside elements. Since hundreds of years, the *Jarawa* territory was never being a static geographical area, rather it was subjected to continuous alteration and shift. Henceforth, the *Jarawa* were also subjected to acclimatise to their new socio-geographical environment. From historical time being they have confronted their dominant neighbouring communities namely Great Andamanese, colonial rulers, different settlers from mainland India, Ranchis (Oraon, Munda, Kharia) of Chotanagpur plateau, Karens of erstwhile Burma (Mayanmam) who were settled in the Middle Andaman, Bhandus of Central India and Mophlas of Malabar region (Kerala) who were settled in the South Andaman at the different fringe areas of *Jarawa* territory. The antagonistic relationship between *Jarawa* and their neighbouring communities led them to live as an isolated community. In spite of several attempts by the Administration for befriending the *Jarawa*, till October 1997 the relationship between *Jarawa* and their neighbouring communities were antagonistic. But the scenario changed drastically after 1997, when few groups of *Jarawa* came into the contact with the neighbouring communities in open day light and they started to visit different neighbouring villages. Ever since, sporadic bartering interactions have been established with selected members of the neighbouring communities. They are acquiring different cultural traits and elements from dominant non-tribal neighbours. Though they are maintaining their own way of life but it cannot be ignored that they are on the way of change. The impact of this culture contact is dynamic and multifaceted. Being a Particularly Vulnerable Tribal Group (PVTG), *Jarawa* are more prone to the adverse effect of the culture contact and bartering exchange. In this context, before the

present study, there were very few in-depth studies to reveal the emic views of *Jarawa* and non-*Jarawa* communities on different contemporary situations of interaction. Moreover, the review of literature also reflects that the existing literatures on the subject of the present study entitled '*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their Neighbouring Communities of Andaman Island*' are very scanty. Hence, the present study is an attempt of an preliminary first hand ethnographic research on the dynamic aspect of *Jarawa* Reserve as well as some of their neighbouring non-*Jarawa* communities. Moreover, it also systematically and analytically depicted the bartering relationship, its type, extends and impact may also be of immense importance.

The present Ph.D dissertation titled '*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their Neighbouring Communities of Andaman Island*' is broadly divided into six chapters which are self-contained and interrelated as well. All the chapters are systematically categorised to justify the theme of the research. While categorising different chapters and sub-chapters, the objectives are research questions played pivotal role to support the hypothesis and full fill the objective of this dissertation work. Overall the thesis is divided in six broad chapters namely, 1. Introduction, 2. The *Jarawa* (*Ang*), 3. The *Jarawa* Territory: Neighbouring Communities and Pre-Independence Manifestations, 4. The *Jarawa* Territory: Neighbouring Communities and Post-Independence Manifestations, 5. Culture Contact And Changes and 6. Conclusion.

Firstly, the chapter 'Introduction' laid the foundation stone of the study and it incorporate ten sub-chapters following chapters namely, The Archipelago, The Autochthonous People, Non-Tribal People, Concept of Hunter-Gatherer, Review of Literature, Scope of the Study, Research Questions, Objectives, Study Area, Research Methods and Organisation of the study.

The second chapter dealt with the preliminary and ethnographic description about the key studied community i. e. *Jarawa*. The writing of this chapter is primarily on the basis of first hand ethnographic data collected from the field during the intense and prolonged fieldwork from the year 2011 to 2017 in different phases. This chapter on the *Jarawa* community includes following sub-chapters, Concept of *Ang*, *Enen* and *Yono*; Social Organisation which includes descriptions on family, band and territorial Groups; Subsistence Economy which includes hunting, gatherings like collection of tubers, collection of grub larvae, collection of wild fruits, collection from sea shore; Fishing; Honey Collection; Sharing in subsistence economy, Resources in the *Jarawa* territory which comprises of edible resources, edible plant resources, edible animal resources, seasonal variation of resources, non-edible resources. Afterwards the aspects of material culture of *Jarawa* includes portrayal on their different types of huts (*Chadda*), dress and ornaments, implements like bow (*aaw*), arrow (*patho*), traditional knife (*tohad*), chest guard (*kekad*), wooden bucket (*uhu*), cane basket (*taika*), resin torch (*pone*), fishing hand net (*botho*), ochre (*ood* and *alam*) and iron and metals. Consequently under this chapter the ethnographic description on Rite-de-passage of *Jarawa* incorporates empirical information on birth, *lepa* ceremony, *upemame* ceremony, marriage, death. The next sub-chapters includes present demographic details and brief description on the *Jarawa* Reserve, buffer Zone and Andaman Trunk Road (ATR) which are further discussed fifth chapter on culture contact.

The third chapter on ‘The *Jarawa* Territory: Neighbouring Communities and Pre-Independence Manifestations’ systematically depicted the aspects of *Jarawa* and their neighbouring communities in terms of their territory during pre-independence period. This chapter includes five sub-chapters namely Earliest Contact with *Jarawa*; Contacts and territory during Colonial Occupation which includes contacts during 1858 to 1900, contacts during 1901 to 1939 and contacts during Japanese Occupation (1942 -1945); Territorial

Conflict with Great Andamanese (*Yono*); Punitive Expedition of *Jarawa* Hunting; Clearing of Forest, Timber Extraction and Encroachment.

Subsequently, the fourth chapter titled ‘The *Jarawa* Territory: Neighbouring Communities and Post-Independence Manifestations’ incorporates different post-independence manifestations with special reference to the *Jarawa* territory and neighbouring communities. Findings of this research study have systematically incorporated under this chapter in eleven chapters and different sub-chapters which includes The *Jarawa* Reserve, Refugee Rehabilitation Programme, Bush Police, The Andaman Trunk Road, Contact, Conflict and Mutual Hostility, Establishment of Friendly Contacts, Expert Committee on *Jarawa* Behaviour, *Jarawa* Policy 2004, Buffer Zone, Development Initiatives and Neighbouring Communities: The Studied Villages. This chapter laid the backdrop for the next chapter on culture contact and changes.

The fifth chapter is the most significant and categorically described the thrust are of the present study on *Jarawa* and their neighbouring communities. This chapter entitled ‘Culture contact and Changes’ primarily focused on different socio-cultural changes and its under laying process due to the pertinent problem of culture contact with the non-*Jarawa* neighbouring communities. This chapter includes following sub-chapters namely Bartering Relationship incorporating the conceptual Framework of barter, types of barter, process of barter, items of barter, marketing and supply to the local market etc.; the next sub-chapter on Impact on *Jarawa* (*Ang*) have extensively described in altogether eleven categories namely Impact on Material Culture which contains impact on dress and adornments, tools and technology, use of utensils, use of mechanised dinghy and vehicle, extinction of traditional chest guard and resign torch; the other sub-chapters are impact on forest resource, impact on food habit, impact on health and hygiene, impact on subsistence (hunting-gathering),

domestication of animals and plants, impact on language, addiction towards tobacco and consumption of alcohol, sexual exploitation, impact on territory, harmful effect of Andaman trunk road (ATR).

The Summary and main findings of the study is given in the final chapter titled 'Conclusion' which itself include summary; major findings incorporating self-sufficiency to dependency, changing perception of *Jarawa* about the settlers, changing perception of settlers about the *Jarawa*; review of concepts and theories related to culture contact and change; Conclusions, Limitations of the Study; Scope for further research. This last chapter is followed by Notes and an extensive list of references.

6.1 Summary

Andaman and Nicobar group of Islands with a geographical area of 8298 sq. km consist of 572 islands and islets, spread in Bay of Bengal. Out of these 572 islands and islets, only 38 islands are inhabited of which 26 are in the Andaman group and 12 are in the Nicobar group. The Andaman and Nicobar Islands are also well known for being inhabited by six unique tribal communities namely the Sentinelese, the *Jarawa*, the Onge, the Great Andamanese, the Shompen and the Nicobarese. Out of these six tribal groups, the first four tribal groups have Negrito physical features and the latter two are of Mongoloid physical feature.

Andaman Islanders are divided into several groups having differences in their dialect and culture. There are two main divisions which may be referred as the Great Andaman Group and the Little Andaman Group respectively. The Great Andaman Group includes all the natives of Great Andaman Islands (*Great Andamanese*) with the exception of those

of interiors of the South Andaman, who are known as *Jarawa*. The *Jarawa* are one of the four Negrito groups of the Andaman Islands inhabiting in the western part of the South and Middle Andaman Islands. Presently, the *Jarawa* territory is of approximately 1040 sq km and popularly also known as '*Jarawa Reserve*'. As on November, 2017, the total population of the *Jarawa* was 496. Their primary source of livelihood are hunting of wild animals and sea turtles; gathering of tubers, fruits, honey, turtle eggs, other edible resources and fishing in shallow sea, creeks and streams. They collect both the terrestrial and aquatic resources. They pursue their livelihood with the help of simple tools and technology.

As perceived by the *Jarawa*, they are notionally divided into three broad territorial groups namely *Tanmand* or Kadamtala area group, *Thidong* or Middle Strait area group and *Boiab* or Tirur area group.

Only in recent years we came to know from the *Jarawa* that they call themselves as *Ang*. It has been argued that Aka-Bea, one of the Great Andamanese tribes used to refer the *Ang* as '*Jarawa*'.

The *Jarawa* is an endogamous community and they maintain their identity through their unique dialect, socio-cultural traits, belief, customs, territorial affinity and subsistence activity etc. The basic unit of social organisation among most of the hunter-gatherer communities is 'band' which often referred as a small-scale nomadic group of ten to forty people related by kinship. They live in local territorial groups or bands without any prominent central leadership. Leadership is quite informal among them. The society is regulated by different prohibitions and prescriptions. Every grown-up *Jarawa* is a self-sustained and individual entity. After individuals, the family is the fundamental unit of

Jarawa society followed by ‘band’, ‘territorial groups’ and ‘*Jarawa* community’ as a whole.

In *Jarawa* system of subsistence, hunting is primarily pursued by male folk while gathering is dominated by the female members. Simultaneous pursuance of hunting and gathering ensure the food security of the community in case any scarcity. The *Jarawa* practice hunting, gathering and fishing with very simple tools and technology. There are only few finger counted implements used by the *Jarawa* for their subsistence. Traditional implements include bows (*aav*), arrows (*patho*), traditional knife (*tohad*), small fishing hand nets (*batho*) etc. Often the non-traditional implements are improvised in accordance with its function and adaptability. Non-traditional implements include hunting trap, machete, fishing hook and line, iron hook etc. Similarly, traditional gathering implements includes cane basket (*taika*), wooden bucket (*uhu*), adze etc. Moreover, gathering also require some non-traditional items like machete, axe, digging rod (*satang*), plastic bucket etc. So, the subsistence of *Jarawa* is primarily based on hunting, gathering and fishing which require a detailed discussion with reference to their territory and resources. The most preferable and primary game animal is wild pig (*wowo*) followed by monitor lizard (*urug*).

In *Jarawa* subsistence gathering is often associated with the women folk. Generally, gathering includes collections of wild fruits, tubers, turtle eggs, grub larvae, different shells and molluscs etc. Among the *Jarawa*, gathering primarily includes collection of tubers, edible grub larvae, wild fruits and edible items from sea shore.

Fishing is also one of the major aspects of *Jarawa* subsistence. They also have separate names for different types of fishes. Though there is a gender division based on fishing

methods and fishing implements, fishing is equally pursued by both male and female members.

Though honey collection is often considered as a part of gathering mechanism but considering its importance extends and utility for the *Jarawa* society, honey collection has been considered as a separate mode of subsistence. . Moreover, honey-*Jarawa* relationship may be observed from their every activates starting from searching of bee-hive to marking it, collection procedure to consumption pattern, storing procedure to use of by-products, social dynamics to medicinal use etc.

As perceived by the *Jarawa*, resource distribution in their territory may be classified into five categories namely *Titon* (deep forest), *Chanhanap* (valley area), *Tagid* (marshy land), *Pileh* (sea shore) and *Howa* (freshwater streams). The resources in the *Jarawa* Reserve include both terrestrial and aquatic resources. Broadly, the resources gathered by the *Jarawa* may further be classified as edible resources and non-edible resources. The edible resources of the *Jarawa* include of both animal resources and plant resources. The plant resources are mostly gathered from the terrestrial ecosystem only and animal resources are acquired from both terrestrial and aquatic ecosystems.

The edible animal food items are collected from both terrestrial and aquatic resources of the *Jarawa* Reserve. The terrestrial animal resources primarily include wild pigs (*wowo*), monitor lizards (*urug*), grub larvae (*pathen and ono*), honey (*leo and pod*) and a few species of birds and other animals. The resources of the aquatic ecosystem comprise of turtle (*ugale*), turtle eggs (*ugale ugane*), fish (*napo*), crab (*haga*), molluscs, crustaceans etc.

All the above mentioned food resources in the *Jarawa* territory are subjected to the seasonal variations. Nevertheless, the availability and accessibility of resources are also the key factors for their subsistence. Apart from the food resources, there are many non-edible resources used by the *Jarawa* to pursue their livelihood. Most of the non-edible resources are related to their material culture and aesthetics.

The non-edible resources related to the *Jarawa* material culture is primarily consists of different plant resources. The non-edible usages of plant resources are predominantly for shelter (*chadda*), medicines, ornamentations and aesthetics, repellent for honeybee and implements (bow, arrow, wooden bucket, cane basket, hand net, traditional knife, machete, adze etc.) etc. *Jarawa* are primarily dependent on natural resources to fulfil their material needs of different cultural attributes.

Most of the raw materials of their material culture are derived directly from nature which are being utilised in a sustainable way. They collect different forest resources for the immediate material cultural requirements for shelter (*chadda*); hunting, gathering and fishing implements like bow, arrow, knife, fishing implements etc.; dress and ornaments; household articles like wooden bucket; cane basket etc.

The rite-de-passage vis-à-vis the ceremonies of life cycle rituals, beliefs and customs are associated to mark the important transitional period of each and every individual's life. Rituals and believes related to birth, puberty or initiation ceremony, marriage, and death etc. The existing rituals which are being observed by the *Jarawa* also play a significant role in their Society. In a nomadic hunter-gatherer community like *Jarawa*, it starts from birth and continued till death or even through the believe and practices after death also. Moreover, animistic believe of *Jarawa* is somehow reflected in each and every aspects of life cycle rituals, customs and believe.

In 1788 the erstwhile British East India Company commissioned Lieutenant Archibald Blair to establish a settlement at Andaman and convicts were sent as labourers. The first settlement in the Andaman Islands was established in September, 1789 in South Andaman at harbour now known as Port Blair, but then called Port Cornwallis. In 1792 the settlement was shifted from the first site to the harbour at the North Andaman now known as Port Cornwallis. The British colonial rulers again considered the question of colonizing Andaman during mid-nineteenth century.

At the end of Indian Mutiny in 1857, the company found themselves with a large number of prisoners and it was decided to create a new penal settlement at Andaman. The site of the first settlement of 1789 in the South Andaman was chosen for that purpose and named as Port Blair. The Penal Settlement was established on March 1858 and has been in existence ever since.

A careful reading of different historical documents and literatures on Andaman Islands reveals that both territory and the identity of Jarawa were not so static. During colonial period also, the Jarawa territory was not a fixed geographical area. However, due to different historical specific and contextual specific reasons, it was subjected to continuous change and shift. During the second world war when the Andaman and Nicobar islands were Japanese occupation (1942-1945), the *Jarawa* territories of South Andaman was indiscriminately bombarded which pushed *Jarawa* to spread different areas of South and Middle Andaman areas to occupy the present position

Apart from the tribal population, the Andaman Islands are being inhabited by the people who came or were brought to Andaman Islands during the colonial period of British. The convicts of the penal settlements have settled in the nearby areas by bringing their family members from the mainland or by getting married with the convict women. They are now

called as Local Born community. Apart from the Local Born, a few groups of Bhandus from central India and Mophlas from Kerala were also brought by the colonial rulers as convicts and settled them at the adjacent areas of *Jarawa* territory of South Andaman. Burmese and Karens were also brought from present day Myanmar and settled in these Islands.

Hence, establishment of villages in and around Port Blair and Jarawa territory at the first instance and followed by creation of habitats by the Mophlas, Bhandus, Burmese and Karens etc resulted in movements of people within the forest areas that jeopardized the age old rights of these tribes towards exclusive utilisation of forest resources for their day to day requirements.

Immediately after independence, Government of India along with rehabilitation department of West Bengal and Andaman Administration decided to launch a scheme for resettlement of East Pakistan refugees at Andaman Islands. With the view of all round development of the Islands, it was decided to resettle both in agriculturist and non-agriculturist category. Under this scheme a total of about 4164 people (931 families) were settled during 1949 to 1955 at the vicinity of *Jarawa* territory (table 4.2). Huge forest coverage in and around *Jarawa* territory was cleared for the purpose of providing land to the settlers. It was proposed to allot 10 acre of land (5 acre plain paddy land and 5 acre of hilly land for horticulture) to each family who were settled under agriculturist scheme. About 1,42,920 acre of land in and around the *Jarawa* territory were cleared and allotted during 1949 for the above mentioned refugee rehabilitation scheme (Table 4.5).

An analogous process of encroachment of the *Jarawa* territory was repeated in the Middle Andaman Island during the second phase of rehabilitation between 1953 to 1956 and more than 1300 families were rehabilitated. Within a period of seven years (1953 to

1959), about 1397 families were rehabilitated in six batches and 32 villages in different parts of the Rangat Valley, stretching from Betapur to Uttara. Altogether 5854 individuals were settled and overall 7398 acre of paddy land were allotted at the vicinity of Jarawa territory in Middle Andaman Island (Table. 4.3).

Suddenly, the *Jarawa* found themselves surrounded by many alien neighbours and dynamics of *Jarawa* territory changed ever since. Soon the land allotted to the settlers become insufficient for their livelihood and they realised the utility of the bountiful forest resources of *Jarawa* territory. Gradually they started to encroach the adjacent forest areas for horticultural activities and many of them involved in poaching of forest resources like timbers, wild boar, deer, fishes, crabs, honey and other minor forest produces.

The ‘Andaman and Nicobar Protection of Aboriginal Tribes Regulation’ (ANPATR) came into existence in 1956. Most of the areas which were inhabited by *Jarawa* declared as reserved area by the Andaman and Nicobar Administration (notified by ANPATR/3(1)/1, 1956/57). The reserved area includes entire areas along with the west coast of South Andaman and Middle Andaman including coastal water up to 3 km starting from the mouth of Constance Bay to the Louis Inlet Bay.

The *Jarawa* territory was further modified by different notifications and de-notification by Andaman Administration [107.7/F No. 40.243/78-TW dated-19.07.1979 and No. 159/2004/F. No. 1-752/2002- TW (PF) dated-15.09.2004]. Significantly, the Andaman Trunk Road (ATR) which is cutting across the *Jarawa* territory has been excluded from the *Jarawa* Reserve. Previously existing 200 metre belt from central line of Andaman Trunk Road has also been minimised to 30 metre on the either side of the Andaman Trunk Road.

The *Jarawa* Reserve is also extended towards coastal waters up to a distance of 5 Km from the high tide water mark line on the western side of the South and Middle Andaman Islands from Constance Bay to Lewis Inlet Bay. After the administrative notification in 2004, the *Jarawa* Reserve was again extended to an area of 1028 km² and in 2017 the Reserve area extended up to 1040 km² spread along with the western coast of Middle and South Andaman Islands.

One of the most controversial and impactful decisions was taken by the Andaman and Nicobar administration in this regard during late sixties. In order to develop the land communication between the North Andaman, Middle Andaman and South Andaman Islands, administration decided to construct a ambitious road namely Andaman Trunk Road (ATR).

Different portions of the ATR were subjected to pass through the *Jarawa* Reserve area in South Andaman and Middle Andaman Islands. Many heavyweight machineries and large numbers of labourers for clearing of forest and construction of the road were brought to the construction places in the *Jarawa* territory. Numerous labour camps and transit areas along the proposed road were established. Consequently, the introduction of such huge machineries and labour force severely disturbed the ecological balance in which the *Jarawa* and their livelihood was accustomed.

They were probably traumatised with the unexpected extreme noise which has not been experienced in distance past. As the ATR was cutting across the *Jarawa* territory from South to North along with the dense resource base forest areas, it prevented free movements of the tribe to from west to east and vice versa. Hence, construction of ATR detrimentally affected the resource availability and accessibility of resource utilisation of *Jarawa* in their territory.

As the *Jarawa* were not in a mood to establish any meaningful friendly contacts with the outsiders due to their past bitter experiences, the same situation of contact and conflict continued during also the post-independence era. The first and foremost concern for the Andaman Administration was to find an way out that would pave the ways for establishing some kind of trust and faiths among the *Jarawa* about the outsiders.

With this view the Bush Police personnel used to conduct periodical visits or contact missions to the *Jarawa* areas in the west coast of Middle Andaman for roping gifts like coconuts, bananas, pieces of irons and strips of red clothes etc.

Once in 1968, a few *Jarawa* entered in Kadamtala village (Middle Andaman) in a full moon night with the intension of picking up some iron implements. However, the villagers came out to catch them and succeeded to catch hold three *Jarawa* boys. Following the methods adopted during the Colonial rulers, these three boys were brought at Port Blair.

However, there was a qualitative difference in achieving the desired goal. They were treated nicely and send back to the forest with large quantity of gifts. Perhaps this had some positive impact and in February 1974, few *Jarawas* showed friendly gestures to a Contact team and communicated by the Bush Police.

In April 1996, a *Jarawa* boy named *Enmey* with broken leg was captured in the Kadamtala area of Middle Andaman when a group of *Jawara* tried to raid at Kataidera village in search of iron and edible fruits etc. Consequently, he was admitted to the Primary Health Centre at Kadamtala and then referred to G.B. Panth Hospital, Port-Blair, where he received treatment for about six months. After being released from the hospital,

Enmey was sent back to the Kadamtala area from where he was released in the *Jarawa* Tribal reserve.

Unpredictably, few months later, one day in October 1997, a group of unarmed *Jarawa* appeared at Uttara Jetty of Kadamtala area, Middle Andaman. This incident was a landmark in the history of relationship of the *Jarawa* with the non-*Jarawa*. It marked the end to the phase of mutual hostility and beginning of friendly relations between the *Jarawa* and the non-*Jarawa*. After that eventful day, the *Jarawa* started visiting the neighbouring settlement areas frequently. On the subsequent visits, they started plucking banana and other different food items from the plantation of the settlers and it soon became a regular phenomenon.

As per direction of the Honourable High Court of Calcutta, a committee of experts was constituted by Central Government vide the Ministry of Home Affairs notification number U-14040/24/99-ANL dated-21.07.2001. The Committee of experts submitted its report before the Hon'ble High Court of Calcutta on 28.07.2003.

The central government in the Ministry of Home Affairs have consequently decided to frame Policy or Guideline for the protection and welfare of the *Jarawa* of Andaman and Nicobar Island. Accordingly, Jarawa Policy (2004) came in existence.

Recently, the most debated and politicised issue regarding *Jarawa* territory was 'Buffer Zone'. With the view of all-round protection of *Jarawa* vis-à-vis their territory and to regulate the harmful effect of culture contact with the outsiders, the Andaman administration in 2007 declared the area up to 5 km radius adjacent and contiguous to the entire *Jarawa* Reserve starting from Constance Bay of South Andaman to Lewis Inlet Bay at Middle Andaman as Buffer Zone.

Primarily, livelihoods of all the villages were seriously affected due to this declaration. Tremendous social and political agitations were raised by the settlers. Consequently, a negative attitude towards the *Jarawa* was developing among the buffer Zone villagers.

Likewise most of the hunting-gathering communities, in the Jarawa there exists a system of reciprocity or gift economy with different groups of Jarawa and bartering relationship with the Non-Jarawa. Hence, with growing interaction between the Jarawa and the Non-Jarawa the demand for certain items have raised by both sides. In turn, it has led to the beginning of the barter system which has initiated manifold and dynamic impact on the Jarawa Society and culture.

The Non-Jarawa, who are involved in it are the some selected nearby villagers, poachers, vehicle drivers, tour guides, tourists and sometimes few officials who are posted there or nearby areas of Jarawa Tribal Reserve. Generally, the Jarawa exchange resin, venison, carb and iron implements particularly bows and arrows in lieu of tobacco, rice, cosmetics, torch, battery etc. Sometimes, they also exchange these articles for colourful cloths and some non-traditional edible items like biscuits and sweets (*mithapoo*).

Now-a-days, *Jarawa* have a contextual specific mixed reciprocal relationship with the settlers/neighbours. As often the non-Jarawa intended to attain maximum benefit at the cost of the other (*Jarawa*), considering the exploiting nature of this reciprocal relationship, primarily it may be considered as negative reciprocity. But in some specific cases general and balance reciprocity is also observed.

The bartering items which are flowing inward towards the *Jarawa* are as follows: Rice, Biscuits, Spices and other different food items, Tobacco (Sukha, Jarda etc.), Cloth, Torch and battery, Iron implements, Metal utensils, Safety pin, Mirror, Plastic bottle to keep

water, Polythene sheet, Nylon rope, Plastic drum, soap, Cosmetic cream and powder, Artificial ornaments etc. These are few non-traditional items which are bartered from outside, there are many more to mention. The bartering items which are flowing outward from the *Jarawa (Ang)* are deer meat, Resin, Mud crab, Prawn, Fresh water Fishes, Other forest resources as demanded by bartering partner.

After the *Enmey* episode and during post-contact situation (October, 1997 onwards), situation changed drastically and *Jarawa* came in mass contact with the non-*Jarawa* neighbouring communities and others. This mass contact led the *Jarawa* susceptible to many detrimental effect of the culture contact. Being numerically small community (about 500 individuals); socio-culturally and immunologically vulnerable, these harmful impacts often increase manifold for the *Jarawa*. As each and every aspect of society and culture is interconnected and interdependent, consequently, any impact on any trait of culture is also percolated through those interconnections and interdependence.

Impact of this culture contact and bartering relationship may be prominently observed in different aspect of Jarawa culture and society like on material culture including dress and adornments, tools and technology, use of utensils, use of mechanised dinghy and vehicle, extinction of traditional chest guard and resin torch. Moreover detrimental effect are visible on forest resource, food habit, health and hygiene, subsistence (hunting-gathering), domestication of animals and plants, impact on language, addiction towards tobacco and consumption of alcohol etc. Hence, the Jarawa territory which is presently known as Jarawa Reserve is centripetal to each and every manifestation related to Jarawa.

6.2 Major Findings

In different non-Jarawa fringe villages of the study area, *Jarawas* are often cited roaming around the village in search of banana, coconut, and beetle nuts. They often come with some of their forest resources viz. Crab (medium and XL), catfish, resign etc. for bartering. They often demand rice (preferably raw Poorni rice), biscuit, sukha (tobaco), cosmetics etc. According to the villagers there is a seasonal variation regarding their frequency of visit to the villages. They are sporadically cited during rainy season and frequency gradually increased after the rainy season (November to March) when Jarawa used to roam around the nearby forest in search of wild tubers which are abundant in the nearby hills (*Tikrey*).

Surprisingly, recently most of the Jarawa groups of *Thidong (Middle Strait)* and *Tanmad (Kadamtala)* areas have acquired few non-mechanised dinghy (canoe) from the other visiting fisherman. With the help of that dinghy young Jarawa men and boys are roaming around the nearby creaks of unreserved areas also. So, when the fisherman of the studied Bamboo Tikrey village and other villages are fishing before the reserved areas also, often the *Jarawa* are raiding them and forcefully taking away their fishing implements like net, hooks, lines and food items. They also informed that there are few villagers who often illegally entered into the reserve forest to collect wild pig, crab and other forest resources. In due course they also interact with the Jarawa inside the forest and instigate them for bartering. They also fix the probable date and place for consequent bartering.

The villagers of Phooltala informed that situation has changed drastically during last fifteen to twenty years. The village Phooltala was settled during 1970s and is well known for having extreme reciprocal relationship with the Jarawa. After they came into regular friendly contact in 1997-1998, Jarawa often used to visit Phooltala village for plucking of

edible fruits like banana, jack fruit, mango and beetle nut etc. Earlier villagers used to resist the Jarawa by shouting and chasing them, consequently Jarawa used to run away.

During those days villagers also used to get nominal compensation from AAJVS for their loss. According to the villagers, now-a-days *Jawawa* are not running away with shouting and chasing of villagers while plucking of fruits at the villages. They used to pluck the fruits from the courtyards and backyards very firmly and calmly as if it is their prime right to pluck those ripen fruits.

Similar complementary reply was obtained during the fieldwork while interviewing a Jarawa man in *Thidong* area (Middle Strait). The villagers also informed that it seems *Jarawa* are keep tracking the maturing and ripening of different varieties of fruits viz. Jack fruit, banana, guava, mango etc. in the garden of each and every household of the village. Villagers are hardly getting any fruit to eat at Phooltala. Often villagers are showing a positive attitude towards the *Jarawa* and said let them take all our fruits as they are eating only and getting relief from their hunger. It is noteworthy to mention that fruits are not the source of livelihood for the villagers. Their prime source of livelihood is cultivation of beetle nut. Situation becomes worst when Jarawa used to take away big packets and branches of beetle nuts on behalf of other villagers. It has been reported by the villagers of Phooltala that some of the Jarawas are instigated by few fellow villagers to act for their benefit. In return they get desired item in exchange.

One very significant statement made by one of the key informant of Bamboo Tikrey that once he had asked a visiting *Jawara* that this village may be shifted due to the Buffer zone issue. So, what the Jarawa will do for their bartering urges. A noteworthy reply came from that *Jarawa* that they will also go to that area where the villagers will be

shifted. Similar kind of reply was recorded from the *Jarawa* of Middle Strait areas during the present study.

Remarkable changes have been observed throughout the present study during last five to six years. During beginning of the study (2011-2012) while visiting different *Jarawa* huts (*Chadda*), I often used to ask ... *Titab?* (meaning what you have eaten ?). Most of the time they used to reply as *wowo* (wild pig); *leo, pod* (honey); *napo* (fish); *chonel* (banana); *urug* (monitor lizard); *aab* (jack fruit); *cheo, bugi, nadohata* (wild tubers); *omin* (cycus fruit), *thuya* (nipa fruit), *pathen, ono* (edible larvae) etc. On very few occasion they have replied as '*Chawal Titab*' or '*Khana Khana Titab*' (meaning we have consumed boiled rice). But during the final phase of study in 2017, it has been found that most of the *Jawara* families were preparing and consuming rice and more frequently replying to the same question (*Titab?*) as '*Khana Khana Titab*' or '*Chawal Titab*'.

6.2.1 Self-Sufficiency to Dependency

6.2.4.1 Notion of Self-sufficiency and *Jarawa* Territory

Self-sufficiency refers to the state of not requiring any outside aid, support, or interaction, for survival. Robert Redfield (1955) in his book '*Little Community: View points for the study of Human Whole*', propounded the concept of Little Community with a view to study human whole. He also mentioned the following characteristics of a Little community: a. Distinctiveness, b. Smallness, c. Homogeneity and d. Self-Sufficiency. So, to Redfield, Little Community is also characterised by self-sufficiency. It satisfies all needs of its members from birth to death. It is because of this fact that he has called little community as a cradle to grave arrangements. Marshall Shallins in his book *Stone Age Economics* (1972), described hunter-gatherer as

'Original Affluent society'. The basis of Sahlins' argument was that hunter-gatherer societies are able to achieve affluence by desiring little and meeting those needs/desires with what is available to them. By stepping away from western notions of affluence, the theory of the original affluent society thus dispels notions about hunter-gatherer societies that were popular at the time of the symposium. Sahlins states that hunter-gatherers have a 'marvellously varied diet' based on the abundance of the local flora and fauna. This demonstrates that hunter-gatherers do not exist on a mere subsistence economy but rather live among plenty.

Mode of subsistence of *Jarawa* is predominantly hunting, gathering and fishing which includes hunting of wild boar, monitor lizard; gathering of different forest and sea resources and fishing in shallow sea, creeks and fresh water bodies etc. With few exceptions, hunting is predominantly a male activity and gathering of food resources is mainly the domain of females. Beside the above mentioned resources they also collect raw materials for their different contextual specific needs like preparing *chadda* (hut), bow, *u-hu* (wooden bucket), basket, fibre for rope etc.

Regarding subsistence and economy of hunter-gatherer, a related concept is James Woodburn's notion of immediate-return vs. delayed-return societies. Although both were subsumed under the heading of 'band society', in immediate-return societies food was consumed on the spot or soon after, while in delayed return societies food and other resources might be stored for months or years, with marked effects on social organization and cultural notions of property (Woodburn 1982). In case of *Jarawa* immediate return

economy is prevalent but some evidence of delayed return system of economy is can be observed. For example, preservation of pig fat for future use and processing of *amin* (cycus fruit), storage of honey underneath the soil etc. are few of those. But the noteworthy is that whatever they hunted or gathered, they usually do this by means of simple technology and in an ideal condition they don't need any outside interference for their livelihood. So ideally they used to be true self-sufficient community.



Plate 6.1 Heap of household articles (both non-traditional and Traditional) during periodic shifting.



Plate 6.2 Food (boiled fishes) served in non-traditional plastic tray

Being isolated from rest of the world and probably having antagonistic relationship with surrounding neighbours (i.e. Greate Andamanese, colonisers and settlers etc.) for a long time, there was least probability to develop any reciprocal relationship of *Jarawa* with their neighbours in any historical specific or contextual specific situation. Thus the *Jarawa* society was developed as a Self-sufficient entity. During the period of Hostility, *Jarawa* are assumed to be more self-sufficient than these days. By desiring little and meeting those needs/desires with the available resources might be one of the factors to reach towards so called affluence.

6.2.4.2 Self-sufficiency to Dependency

Increased contact with outsiders brings about changes in *Jarawa* society and culture. The self-sufficient *Jarawa* society gradually started to depend on different need based, contextual specific outside elements. Barter relation have established between *Jarawa* and settlers. The relationship is basically need based exchange of different commodities. Marshall Sahlins in his book 'Stone Age Economics' (1972), have identified three main types of reciprocity:

- Generalized reciprocity is the exchange of goods and services without keeping track of their exact value, but often with the expectation that their value will balance out over time.
- Balanced or Symmetrical reciprocity occurs when someone gives to someone else, expecting a fair and tangible return - at a specified amount, time, and place.
- Negative reciprocity is the exchange of goods and services where each party intends to profit from the exchange, often at the expense of the other. Negative reciprocity can involve a minimum amount of trust and a maximum social distance.

Now-a-days, *Jarawa* have a contextual specific mixed reciprocal relationship with the settlers/neighbours where generalized reciprocity and balanced or symmetrical reciprocity is predominant. But in some specific cases negative reciprocity can also be observed. Unlike the days of hostility, one notable thing is that the urge of barter is often from the side of *Jarawa* and a reciprocal relationship exists between both the bartering partners. It is also notable that they often select bartering partner from the

villagers by the trial and error method where the basic criteria is to get the best deal. Most of the time barter occurs with specific and preselected individuals. *Jarawa* men and women used to come the fringe villages near to the Tribal Reserve with their bartering items and demands for the desired article in exchange. In some cases bartering also occurs on some pre-fixed consent between the partners. They like to barter those required articles which they can't manufacture from the available forest resources or the articles to which they are fond of or addicted. The bartering items which are flowing inward towards the *Jarawa* are as follows: Rice, Biscuits, Spices and other different food items, Tobacco (Sukha, Jarda etc.), Cloth, Torch and battery, Iron implements, Metal utensils, Safety pin, Mirror, Plastic bottle to keep water, Polythene sheet, Nylon rope, Plastic drum, soap, Cosmetic cream and powder, Artificial ornaments etc. These are few non-traditional items which are bartered from outside, there are many more to mention. The bartering items which are flowing outward from the *Jarawa* are deer meat, Resin, Mud crab, Prawn, Fresh water Fishes, Other forest resources as demanded by bartering partner.



Plate 6.3 Non-traditional modern torch light hanging from roof of a *Jarawa* hut.

Most importantly, none of the above mentioned inward flowing bartering item can be produced by *Jarawa*. They are unable to manufacture any of the inward flowing bartered items from their available resources and technology. Besides different socio-cultural impact of this bartering relation, one significant aspect is that as *Jarawa* are unable to manufacture the bartered item, they are gradually becoming depended on bartering partner for continuous and subsequent supply of the bartered item or part of it. For example torch lights (two or three celled), an inward flowing bartered item have already been introduced to the *Jarawa* and it can be found at every *Jarawa* family. Now the question is where will they get the required battery or cell ?, can they manufacture this ? These are few pertinent questions which are applicable to the most of the bartered items of *Jarawa*. So, for the continuous supply of battery or cell for their torch, *Jarawa* are gradually becoming dependent on their bartering partner. On

the other hand this introduction of this modern torch, have already led to abolition of the traditional resin torch from their socio-cultural life. This is a simple example of a single bartering item and similar consequences may happen most of the other inward flowing bartering items also. In this way they are going to be trapped in the periphery of dependency and it is a crucial trend which is bringing about changes in *Jarawa* society and culture. Moreover change is inevitable and culture is resilience. So, in-depth detailed study is required to analyse and understand the consequences of socio-culture contact so that probable adverse impacts can be minimised.

6.3 Conclusions

Dense tropical rain forest, undulating hillocks, puzzling creeks of Jarawa Reserve protected the inhabitants from many vices of culture contact. Nowadays, in post-contact situations and so called 'friendly' relationship with the non-Jarawa has immensely affected their culture and social systems. The extend of barter relation is so deep rooted and based on the aspect of functional requirement that the situation is beyond anyone's control. Moreover, there is no road map depicting and planning for the future of Jarawa and no one knows towards which direction we are going ahead.

As there are very few empirical and field based studies among the Jarawa of Andaman Islands, the present study entitled "*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their Neighbouring Communities of Andaman Islands*" has come out with unique and significant findings which were never put forth before the academic world as a whole. The study was intended to find out some rational and pragmatic answer to some of the research questions which were not attended during scientific study

among this specific community in a particular context. Throughout the different chapters and discussion of the present study following conclusions may be drawn.

Until recently, it was not known to us that by what term Jarawa used to refer themselves. During the present study also it has been found that Jarawa refer themselves as '*Ang*' which means people. This term is uniform to all the territorial groups of Jarawa.

Both the territory and the identity of *Jarawa* were not so static. During colonial period also, the *Jarawa* territory was not a fixed geographical area. However, due to different historical specific and contextual specific reasons, it was subjected to continuous change and shift.

The socio-cultural factors which led the *Jarawa* to shift their territory continuously since last two centuries. As, the written historical records revealed the shifting of *Jarawa* territory from South to Northwards and the probable impacts on the *Jarawa* therein.

Simultaneously in Jarawa dialect, there are different terms to refer different groups of people. All the non-Jarawa *Negrito* people of Andaman Islands are referred as '*Yono*'. Hence, it has been found during the fieldwork that Jarawa recognised the photographs of Great Andamanese, Onge and Sentinelese as '*Yono*'. All the outsider non-Negrito people are collectively referred as '*Enen*'.

During the present study voice of few Jarawas were recorded during pronunciation of the name of their own community i.e. '*Ang*'. It is noteworthy to mention that their pronunciation of '*Ang*' often heard like '*Ong*' which is quite close to the pronunciation '*Onge*' (the negrito inhabitant of Little Andaman). Though Brown (1922) did not conduct any first hand fieldwork among the Jarawa and Onge, this particular finding is subsequently in accordance with the hypothesis in which he assumed that 'the natives of Little Andaman refer to

themselves as Onge (men). It is probable that the so-called Jarawa of the South Andaman have the same word.’

As perceived by the Jarawa and in accordance with their notional territorial classification the entire Jarawa community may be divided into three notional territorial groups namely *Boiab* (Tirur area), *Thidong* (Middle Strait area) and *Tanmad* (Kadamtala area. Movement of different groups of the Jarawa are territory specific in terms of their hunting and gathering activities.

But this rule is not applicable for social purposes like marriage alliances and visit to the *chaddas* of relatives. It clearly indicates that each group has access only to its own territorial resources while inter-territorial sharing of resources is strictly prohibited for each of the three territorial groups.

It also reveals a prominent understanding of possession of resources of each territory at the territorial group level. Inter-group marital and reciprocal relationship is quite strong and well established among different territorial groups. Members of different territorial groups frequently visit their relatives and in-laws as a guest.

Bartering exchanges do take place among the Jarawa different territorial groups. Being divided into different territorial groups also secure their primary rights of resource utilisation in a particular territory. They never violate this territorial basis of resource utilisation without the consent of the other territorial groups.

Andaman administration with the assistance of Andaman Adim Janjati Vikash Samiti (AAJVS) has started different developmental interventions among the *Jarawa*. The positive and negative impact of these development programmes on *Jarawa* have assessed through this study. After the implementation of Jarawa Policy (2004), some of these intervention

programmes were streamlined in which medical intervention also played a pivotal role in this regard to obtain faith of Jarawa people and to increase their demographic growth.

Apart from the medical intervention, many other experimental developmental interventions have been initiated during last one decade. Some of the on-going developmental initiatives includes health care, plantation programme, *Ang Katha*, *Ang Sena*, Grain for gain, *Kangapo* project etc.

Present system of medical intervention among the Jarawa does not recognize the traditional medicinal knowledge of Jarawa and is based on administration of conventional allopathic drugs. Even no other alternative system of medicines (e.g. Ayurveda) has been introduced yet.

No attempt has been made to understand the concept of '*Ulleda*' among the *Jarawa*. '*Ulleda*' is primarily refers to the physical unwellbeing which cannot be synonymous to the medical term 'Disease'.

Under the plantation programme among the Jarawa, all the alien varieties of plants have been planted with lack of consultation with the community members. There are four varieties of wild tubers collected and consumed by Jarawa namely *Cheo*, *Bugi*, *Nadohata* and *Chigi*. *Chigi* is the most precious and preferred wild tuber which is scarcely available. There are many other traditional variety of fruits (*amin*, *loge*, *homa* etc.) preferred by the Jarawa. Initiatives may also be taken for plantation of those traditional wild varieties of tubers and fruits in consultation and participation of the community members.

Jarawa are fond of *Chonel* (banana) of a particular variety which is locally known as China Kela. Without understanding the preference of the Jarawa, often another variety of banana (Jahaji kela or Singapuri kela) was planted in the Jarawa areas under this plantation scheme.

So, consultation and participation with the community members should be given prime importance before any developmental initiatives.

Under the intervention programme '*Ang Katha*', a kind of informal educational programme have been initiated but Janjati Sevak who are acting as Teacher of Jarawa are substantially less qualified to deal with such a sensitive issue. Primarily, they are MTS level field staff having basic recruitment qualification of Matriculation (Class-X). So, they must be properly oriented in this regard or some specially trained teacher may be recruited to deal with such a sensitive and dynamic situation.

Under the scheme of 'Grains for Gains' programme, a limited quantity of rice is being distributed by the implementing agency. Rice, being a non-traditional food, a Policy decision have to be taken whether rice is to be distributed among the *Jaraws* or not ? If yes, quantity and frequency of that distribution must have to be decided scientifically with the view of probable impact on health, society and culture.

Supplying of cloths under the '*Kangapo*' may also be reviewed because often it was been observed many *Jarawa* wearing the same cloth for several weeks without washing. As a result skin diseases also become more frequent and being treated by doctors. Being non-traditional item, they do not have any traditional way of maintaining the hygiene of the *Kangapo (Cloth)*. Detergent, soap etc. are not supplied to them under any schemes for maintenance of their *Kangapo* (cloth). So, supplying of cloths without proper orientation regarding maintenance of hygiene may not be desirable.

Increased contact with outsiders brings about changes in *Jarawa* society and culture. The self-sufficient *Jarawa* society gradually started to depend on different need based, contextual

specific outside elements. Barter relation have established between *Jarawa* and settlers. The relationship is basically need based exchange of different commodities.

Likewise most of the hunting-gathering communities, in the *Jarawa* there exists a system of reciprocity or gift economy with different groups of *Jarawa* and bartering relationship with the Non-*Jarawa*. Hence, with growing interaction between the *Jarawa* and the Non-*Jarawa* the demand for certain items have raised by both sides. In turn, it has led to the beginning of the barter system which has initiated manifold and dynamic impact on the *Jarawa* Society and culture.

There is also seasonal variation regarding their frequency of visit to the villages. They are sporadically cited during rainy season and frequency gradually increased after the rainy season (November to March) when *Jarawa* used to roam around the nearby forest in search of wild tubers which are abundant in the nearby hills (*Tikrey*).

This kind of barter relation is mostly detrimental for the *Jarawa* because for few small sachets of tobacco and few other items they handed over their bows and arrows and good amount of resins. Hence, it's a typical instance of negative reciprocity in which non-*Jarawa* always intended to exploit the *Jarawa* and desired to have maximum benefit out of this barter.

In due course of time some sort of barter system has been developed between the *Jarawa* and the poachers also. In order to buy safe passage in the forests, the poachers offer tobacco, *paan*, and eatables to the *Jarawa*. Though initially *Jarawa* do not give them anything directly in exchange of it, but indirectly the poachers get unhindered access to the resources of the *Jarawa* territory. Such bartering is also detrimental to the *Jarawa* as their resource base lay

open to the poachers and it leads to depletion of the traditional resource base in the *Jarawa* Tribal Reserve.

Now-a-days, *Jarawa* have a contextual specific mixed reciprocal relationship with the settlers/neighbours. As often the non-*Jarawa* intended to attain maximum benefit at the cost of the other (*Jarawa*), considering the exploiting nature of this reciprocal relationship, primarily it may be considered as negative reciprocity. But in some specific cases general and balance reciprocity is also observed.

Two different aspects of culture namely explicit characteristics and implicit characteristics subjected to be influenced with culture contact. The implicit aspects of culture are the underlying values, ethos, norms and behaviour that guide people regarding which behaviours are considered appropriate or inappropriate. Implicit aspects of culture are not subjected to observe merely through necked eyes. Whereas, explicit aspects of culture are the observable behaviours, rituals, symbols and materials of culture which include the way people dress, the kind of food they eat, music, dance, the things that are considered beautiful and ugly etc.

Material cultural traits are primarily considered as explicit aspects of culture and known to be much influenced by culture contact. Most of the aspects of material culture have greatly influenced among the *Jarawa* due to the above mentioned scenario of culture contact.

After post contact scenario in 1998, nowadays, we may rarely observe any *Jarawa* wearing chest guard at any time. Most probably, guard (*kekad*) has lost its function utility for the *Jarawa* Society after the post-contact situation. Hence, culture contact and establishment of friendly relationship with the neighbouring non-*Jarawa* community leads to extinction of this exceptional trait of *Jarawa* material culture.

Compared to the reason of extinction of chest guard (*kekad*), the primary reason of extinction of resin torch (*pone*) is acceptance of new technology from the non-*Jarawa* community. The resin torch is one of the one of the significant material cultural items which is adversely affected due to culture contact and bartering relation with the neighbouring non-*Jarawa* communities. Due to intervention of match box and modern torch light, nowadays, *Jarawa* are rarely preparing and using any traditional resin torch (*pone*). Notably, even the younger generation are least bothered about the vanishing trend of *pone*.

In a situation of culture contact, explicit aspects of hunter-gatherer culture are more susceptible to change than the implicit aspects of culture.

Moreover, bartering exchange often preconditioned with the verbal communication between the partners. Hence, both the partners (*Jarawa* and non-*Jarawa*) have started to learn fragmented and distorted from of *Jarawa* dialect and Hindi from each other. Further, it can be stated that learning and picking up of fragmented Hindi during post 1997 period was the need of the hour for the *Jarawa*.

Consequent to the post-contact situation and recently, adolescent and teenage *Jarawa* boys are quite susceptible for addiction of chewing varieties tobacco like *sukha* (fine cut tobacco leaves) and *paan* (mixture of *sukha*, small pieces of areca nuts and lime). They get it from different sources from the outside of *Jarawa* territory.

Apart from tobacco, another curse of friendly contact between *Jarawa* and non-*Jarawa* can be observed through some recent incidences of consuming alcohol by young *Jarawa* men, particularly who are more engaged in frequent contact with the outsiders. They often receive bottles of alcoholic drinks (foreign liquors) predominantly from the poachers in exchange of highly priced forest resources or in lieu of their assistance to catch or hunt those forest resources.

Addiction towards alcohol is also spreading among the peer groups which are quite alarming. Prevalence of consuming alcohol is comparatively more in the *Boiab* area than the *Thidong* and *Tanmad* area.

Being adapted to the tropical dense rain forest of Andaman Islands, both male and female of *Jarawa* community do not cover their body parts with any kind of garments. Traditionally, women only were wrist girdle made up of bark fibre or sea shells. Hence, *Jarawa* women while visiting neighbouring non-*Jarawa* villages, their exposed body parts made them more susceptible for sexual exploitation. Moreover, pre-marital sexual relationship is quite common among the *Jarawa* boys and girls. So, often unmarried *Jarawa* ladies fall prey of sexual exploitation by some notorious poachers and habitual offenders.

Increased contact with outsiders brings about changes in *Jarawa* society and culture. The self-sufficient *Jarawa* society gradually started to depend on different need based, contextual specific outside elements.

Unlike the days of hostility, one notable thing is that the urge of barter is often from the side of *Jarawa* and a reciprocal relationship exists between both the bartering partners. It is also notable that they often select bartering partner from the villagers by the trial and error method where the basic criteria is to get the best deal.

As bartering relation of the *Jarawa* is basically exchange of different need based, contextual specific, outside non-*Jarawa* elements or commodities to which they are fond of or addicted and cannot manufacture from their available forest resources, it may lead them from so called self-sufficiency to dependency.

Culture change in the hunter-gatherer and a foraging society (*Jarawa*) is not merely due to single operational force of culture change; moreover, it is a complex, multidimensional and dynamic process.

6.4 Limitations of the Study

As we know that any scientific research with utmost detailed it may be, cannot cover all the aspects related to the research problem. Moreover, the study cannot be holistic in true sense until and unless it covers all the aspect of research crossing the bar of discipline. The present Ph.D. research work on “*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their Neighbouring Communities of Andaman Islands*” has been completed in respect to fulfilling its all the objectives and tried to answer the research questions accordingly. Though the study was conducted for quite a long period for about seven years from November 2011 to November 2017 in different phases, obviously there were certain limitations which have mentioned below.

1. As the present study was conducted by the individual and the present Jarawa Reserve is spread over 1040 square kilometre, it was not possible for an individual for the researchers to cover each and every corner of the forest. Though the researcher has visited all the three territorial groups of Jarawa but for convenience of the study, detailed study was conducted among the Jarawa of *Tanmad* area (Middle Andaman) only.
2. Similarly, the neighbouring non-Jarawa fringe villages are also spread accordingly and there are more than thirty villages located at the fringe areas of Jarawa Reserve of which only two were covered in the similar area of Middle Andaman. Hence, all the

non-Jarawa villages were not covered during the study and it was not feasible to for an individual researcher.

3. Though the study was conducted throughout all the seasons of Andaman Islands but dense tropical rain forest and heavy rain during May to September, sometimes obstructed the study.
4. The dense tropical rain forest with thick undergrowth particularly with thorny canes coupled with presence of leaches, extremely undulating hillocks and numerous crocodile infested puzzling creeks had made the field work hazardous which may be considered limitation imposed by the natural environment.

However, it was interesting to conduct the present research within these constraints.

5. Though the researcher have studied different hand books on Jarawa dialect and tried to learn the workable Jarawa dialect during different phases of study, but till date complete understanding of Jarawa dialect yet not attained by anyone. Hence, in few cases assistance was taken from some interpreter and AAJVS worker who are quite fluent in Jarawa dialect and working among the Jarawa for more than fourteen years.

Yet, with the existing knowledge of the scientific community and researchers about the Jarawa dialect, it is quite difficult to work at cognitive level or on myth and mythology related to the present study.

6. Lack of secondary information on this particular topic of present study also made this research challenging and inspiring.
7. As keeping barter relation and interacting in this regard with the Jarawa is a punishable offence for the common people and villagers under the Protection of

Aboriginal Tribe Regulation (PAT), initially most of the informants were hesitant to speak on this particular issue of barter and reciprocity.

6.5 Scope for further Study

Compared to many other hunter-gatherers of the world, till today, Jarawa exhibits minimum interaction with the outsiders. They are pursuing much self-sufficient and self-reliant livelihood with minimum dependency on outside elements. Since hundreds of years, the Jarawa territory was never being a static geographical area, rather it was subjected to continuous alteration and shift. Henceforth, the Jarawa were also subjected to acclimatise to their new socio-geographical environment. Being a Particularly Vulnerable Tribal Group (PVTG), Jarawa are more prone to the adverse effect of the culture contact and bartering exchange. In this context, the present study on “*Socio-cultural manifestation of Jarawa Reserve: A study on interaction between Jarawa and their Neighbouring Communities of Andaman Islands*” have primarily focused to understand different socio-cultural manifestations which are centripetal to the Jarawa territory in general and Jarawa reserve in particular. Moreover the study was focused on its prime objectives, research questions and hypothesis. Though the study was empirical and fundamental in its goal, but there are sufficient scope of further research for different other research questions which were felt unattended during the present study.

1. As we have very scanty knowledge of Jarawa dialect and phonetics, a detailed study may be conducted in this regard which in turn may assist other scholars for their research purpose.

2. Inter-group barter relationship among the three territorial groups of Jarawa was observed for first time during the study and it was never recorded earlier. But there is sufficient scope of further study on types, extend, impact and social utility of this inter group bartering among the Jarawa.
3. Impact of culture contact on the implicit aspects of Jarawa culture was broadly unattended during the present study and there is sufficient research scope for further study.
4. Particularly, there is ample of research opportunity to study the Jarawa and their neighbouring communities in terms of emic view of each other in terms of fast changing scenario of development and sustainability.
5. As a general statement it can be mentioned that our understanding about the Jarawa community is extremely limited and studies in this regard are quite scanty. Hence, there is ocean of research scope in each and every aspect of Jarawa Society and Culture including their Kinship system, Marriage, Social structure, social organisation, political organisation, religion, subsistence, economy, livelihood, worldview etc.

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GLOSSARY

<i>Aab</i>	Wild jack fruit
<i>Aav</i>	Bow
<i>Abile</i>	Group of unmarried adolescent and young Jarawa girls
<i>Ajim</i>	Larvae of honey bee
<i>Alam</i>	White clay
<i>Aludan</i>	Flowers of Gurjan i.e. <i>Dipterocarpus Sp.</i>
<i>Amin</i>	Cycus fruit
<i>Ang</i>	Jarawa call themselves as 'Ang'
<i>Athitong</i>	Calyx of flower
<i>Batho</i>	Small fishing hand nets
<i>Bethee</i>	Bad
<i>Boiab</i>	<i>Jarawa</i> Reserve in Tirur area of South Andaman
<i>Chadda thuma</i>	Community hut of <i>Jarawa</i>
<i>Chadda</i>	Jarawa hut or camp site
<i>Chonel</i>	Banana
<i>Enen</i>	Jarawa term for outsiders
<i>Ethithelaag</i>	Androecium of flower
<i>Haga</i>	Crab
<i>Homal</i>	A medicinal and bee repellent plant
<i>Inteo</i>	Bee hive
<i>Khana-khana</i>	Rice
<i>Kidu</i>	Foetus or embryo of human
<i>Leo</i>	Honey / common honey
<i>Lepale</i>	Group of unmarried adolescent and young Jarawa boys

<i>Napo</i>	Fish
<i>Olaag</i>	Corolla of flower
<i>Ono</i>	Kind of edible larva
<i>Otthab</i>	Wax of honey comb
<i>Pathen</i>	Kind of edible larva
<i>Patho</i>	Arrows
<i>Pod</i>	Honey / brown colour honey
<i>Satang</i>	Digging rod
<i>Sheo</i>	Good / well
<i>Taika</i>	Cane basket
<i>Tanmad</i>	<i>Jarawa territorial group of Kadamtala area</i>
<i>Thangopajt</i>	A medicinal and bee repellent plant
<i>Thidong</i>	<i>Jarawa territorial group of Middle Strait area</i>
<i>Thuiya</i>	<i>Nipa palm plant / fruit, a mangrove plant</i>
<i>Titab</i>	<i>Eat / eaten</i>
<i>Tohad</i>	Traditional knife
<i>Uhu</i>	Traditional wooden bucket
<i>Unpothathangna</i>	Gynoecium of flower
<i>Unthaothod</i>	Ovary of flower
<i>Urug</i>	Monitor lizard
<i>Wakkam</i>	A variety of wild edible fruit
<i>We-ye</i>	A bee repellent plant
<i>Withopad</i>	Combination of androecium and gynoecium
<i>Wowo</i>	Wild pig
<i>Yono</i>	Non-Jarawa negrito people

ABBREVIATION

AAJVS	Andaman Adim Janjati Vikash Samity
PAT	Protection of Aboriginal Tribes Regulation
ATR	Andaman Trunk Road
ANPATR	Andaman and Nicobar Protection of Aboriginal Tribes Regulation
TW	Tribal Welfare
ANTRI	Andaman Nicobar Tribal Research Institute
UNESCO	United Nations Educational, Scientific and Cultural Organisation
TWO	Tribal Welfare Officer
JTR	Jarawa Tribal Reserve

PLATES



Plate 1: A *Jarawa* boy after smearing of traditional white clay (*alam*)



Plate 2: Two *Jarawa* girls carrying their brothers in a traditional manner



Plate 3: *Jarawa* girls consuming honey (*Leo*) from wooden bucket (*u-hu*)



Plate 4: Group of *Jarawa* children



Plate 5: Researcher with his *Jarawa* informant *Enmey*



Plate 6: Group of *Jarawa* boys during leisure time with some non-traditional dress



Plate 7: A *Jarawa* hunter returning with his catch i.e. wild pig (*wowo*)



Plate 8: A *Jarawa* man preparing shaft of a bow (*aav*)



Plate 9: Roasted pig meats are hanging inside a *Jarawa* hut



Plate 10: Pig meats are being roasted on a bamboo platform



Plate 11: *Jarawa* children fishing in a creek with their mother



Plate 12: A *Jarawa* hut at *Tanmad* area of Middle Andaman



Plate 13: A *Jarawa* Community hut

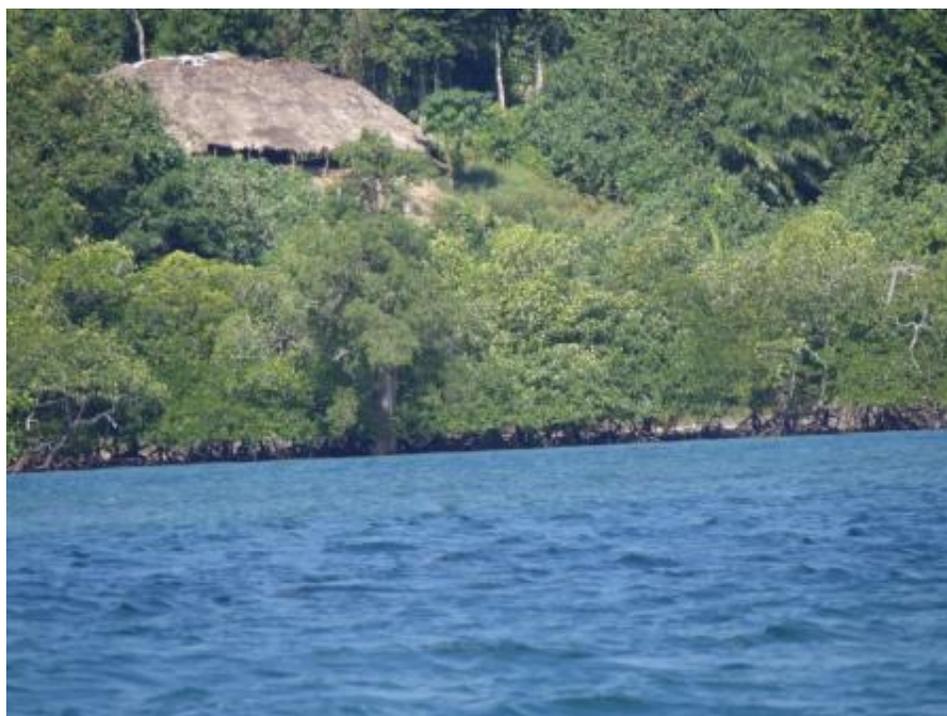


Plate 14: Typical location of a *Jarawa* community hut near sea



Plate 15: A Burmese poaching boat driven in the *Jarawa* territory with a cyclone in 2012



Plate 16: A vehicle ferry at Middle Strait carrying vehicle and passengers near the Jarawa Reserve.