

CHAPTER-V
CULTURE CONTACT AND CHANGES

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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 foods 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 Resin 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 resin 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.