

## **10 SUMMARY AND RECOMMENDATIONS**

Attempt has been made to address the issues raised by the Honourable High Court in the light of the findings presented in the report and the inferences drawn thereafter.

### **10.1 Reasons for sudden change in the behaviour of the Jarawas**

#### **10.1.1 Shedding their hostility**

It has been mentioned earlier (Chapter 1:Introduction) that the Jarawas behaved in a friendly manner with the colonisers during the first phase of British settlement in the Andaman islands (1789-1796). In the early years of the second phase of colony (1858 onwards) the Jarawas were described as a “peacefully disposed” people. The Jarawas generally remained aloof of the settlers; only occasionally they wounded some runaway convicts. But the authorities were eager to bring the Jarawas within the fold of ‘friendliness’; one expedition after another was sent into their territory with the purpose. The programme could only succeed in making the aloof Jarawas a hostile people. The intensity of hostility increased since the early years of the twentieth century. The expeditions were no more conducted with the purpose of ‘befriending’ the Jarawas, now those were called punitive. The Jarawas were attacking and killing convicts and policemen. On the other hand their area was being combed, their huts were being destroyed their men were being killed. In addition, the Jarawas were evicted from their land by force and pushed northward to create space for the penal colony. Finally a dividing line between the colonised area and the area occupied by the Jarawas was drawn in 1957. In that year certain areas were declared as ‘Reserve’ for the ‘aboriginal’ people of the islands. Some parts of South and Middle Andaman islands were demarcated for the Jarawas.

Ujjwal Mishra, former Superintendent of Police, Andaman District, has reviewed the developments in years after independence. He traced, how construction of the Andaman Trunk Road acted as a provocation. “We have records available with us since 1946. A cursory glance at these records shows that through the 50’s the number of persons who died or were injured by the Jarawa attacks remained negligible. The few encounters that took place were only with the Bush Police. The decade of the 60’s was remarkably similar in its lack of hostilities. The 70’s saw a spurt in killings and for the first time we have cases where a number of Public Works Department workers and their trucks were being targeted. This coincides with the beginning of the construction of the Andaman Trunk Road. Another significant reason of increase in the types of attack in the 70’s relates to poachers, both in the woods and in the seas who were being increasingly targeted by the Jarawas. This is highly significant because it shows the beginning of an era of poaching and encroachment / settlements as far as the Jarawas were concerned. The 80’s and the 90’s however saw a massive increase in the attacks. In the 80’s and 90’s there have been a total of 189 acts of hostilities against the Public Works Department, Forest officials, Bush Police personnel, etc. This is an extremely high figure when compared to 75 acts of hostilities, which occurred in the 50’s, 60’s and 70’s. The construction of the

Andaman Trunk Road, encroachments and poaching clearly gave cause for the increase of violence on the part of the Jarawas” (2002:14).

Clearly, the reasons responsible for violent conflicts were exogenous for the Jarawas; any respite in or withdrawal of those reasons could result in shedding of hostility on their part. In all likelihood the reasons responsible for hostility became weaker. It started with complete withdrawal of organised punitive expeditions since independence. Whatever conflict that took place with armed forces here and there were primarily isolated local incidents. Then the contact missions since 1974 yielded some cumulative result by the end of the last century. The process, understandably, was triggered by exposure of a Jarawa boy in hospital for about six months. He learnt enough about the non-Jarawas to take home the message that all of them were not designing harm to the Jarawas. Another important factor was, contact of some villagers with the Jarawas on almost regular basis. Most of these people, fishermen and/or poachers, took cue from the contact missions and visited the Jarawa territory in their country boats being equipped with gifts of banana, coconut and pieces of red cloth. Such contacts, exposures, and of course withdrawal of punitive expeditions helped in weakening hostile relation between the Jarawas and the non-Jarawas.

#### **10.1.2 Coming out of their forest abode in broad daylight**

The reasons discussed above are also related to the changed behaviour of the Jarawas; particularly their coming out in non-Jarawa settlement areas during day hours. The Jarawas used to visit those settlement areas in dark hours with purpose of foraging different articles like iron implements, cooked or uncooked food, and metal vessels. In addition, some of the Jarawas had visited the Uttara Jetty and had seen the people of that area even during day hours, when they came there occasionally along with the members of contact team on board their vessel. Undoubtedly, such visits contributed in weakening the fear psychosis of the Jarawas towards the *Eenens*. The places the Jarawas visited since October 1997 were known to them, perhaps they did not trust the people earlier. In the preceding lines it has been discussed how trust was built through years.

It is important to identify the probable push and pull factors. One factor many concerned persons thought of was resource depletion in the Jarawa Reserve. The findings of the present report, by and large, did not support such a view. The resource team have observed that at present plant resources occur in abundance in forests, and the Jarawas are not finding much difficulty in leading their way life. It is also observed, as availability of some resources is seasonal; they shift their habits accordingly.

The Jarawas live in harmony with the nature. This is evident from their method of collection of resources. Whether it is plant or animal resource, Jarawas never destroy the sources of collection. To demonstrate the point they have cited examples. To collect bark for preparation of chest guard, the Jarawas measure the exact requirement, peel off only that much bark and allow the tree to recover. Similarly,

when they collect tubers, they make it sure that they collect them from mature plants only, while young plants are left undisturbed for future use. Likewise, when they have to make bow, they cut just what they need and never destroy the entire *Sageraea elliptica* tree.

The resource survey team noticed sufficiency of floral and faunal resources for the Jarawas. Preponderance of extensive plants and animals in the culture and practice of the Jarawas reflect their exhaustive / extensive knowledge of the local flora and fauna. This is supported by the fact that the Jarawas were acquainted with no less than 150 species of plants and 350 species of animals. The knowledge of the Jarawas about their ecology, occurrence and beneficial qualities of the plants and animals, were quite remarkable. These indicate the importance of forest produce in the subsistence system of the Jarawas. The fact points out that their activities through ages were operative within the deep of the jungles in a manner that was no less than their activities on coastlines. The faunal resource survey team have noted an extensive area with sufficient resource base is essential for a hunter-gatherer nomadic tribe for their subsistence. The size of the Jarawa population at the time of the present study was around 250 and they were living in an area of about 638 sq. km. Therefore the resource base available to the Jarawas was apparently quite sufficient. In the same breath they have cautioned against the probable dangers that can be caused by increasing contact with exogenous people, through which the Jarawas might acquire some ailments/diseases, which had no occurrence earlier in their community. Correspondingly, with the acceptance of modern medicines (and extension of medical assistance by Government Administration), the life expectancy and survival rate of the Jarawas would increase to some extent. It would bring about considerable changes in their overall demographic pattern, psyche and reliance upon their traditional treatment and solutions to illness. Further, accession of alien food items of exogenous people and their easy availability would surely influence the foraging practices and nomadism of the Jarawas.

The presence of resources in the Jarawa territory does not necessarily imply exclusive availability of the same to the Jarawas. The most effective way to check actual availability of the resources was to examine the nutritional status of the people. The nutritional survey carried out in course of the present study indicated that the nutritional status of the Jarawas was satisfactory:

- a. That food was balanced to a significant extent.
- b. Food scarcity was not a problem.

The results of hemoglobin status shows that 71% of the persons from whom blood was collected, had normal hemoglobin status, and only one pregnant woman had severe anemia. This situation reflects that vitamin C, folic acid, vitamin B12, iron and zinc content of the diet were satisfactory for most of them. Sufficient consumption of animal food and fruits was possibly contributing adequately to the above micronutrient requirements of the Jarawas.

On clinical and pathological examination, the physicians have not found any severe morbid condition among the Jarawas that could have pushed them out of their habitat in search of medical intervention. The diseases like measles, malaria were acquired in post-contact situation. In spite of having a high prevalence of Hepatitis B carriers in the population, the affected persons are healthy carriers, showing normal physiological state of body.

As regard the pull factors, when the Jarawas came out at the Uttara Jetty or in villages for the first time, they were asking for food. In those days they were asked time and again, whether they was starving. None of them perhaps. But, still they were asking for cooked rice, biscuits and such other *Eenen* foods. Later, some of the young boys and girls admitted that the boy who stayed long in the hospital told them about those foods. He said that the *Eenens* would definitely give such food, if they were asked. Though alien items of food were major pull factors initially, once the Jarawas came out, the list of alien items became longer and longer. Vehicle and boat rides, dress and ornaments were some of those items.

Basically, the change in behaviour marked the end of a phase of xenophobia that was created by some exogenous factors and again some other exogenous factors helped to make it weak.

### **10.1.3 Accepting the exogenous items from non-Jarawas**

The history of acceptance of exogenous material items by the Jarawas is pretty old. Nobody knows when these people and other islanders of the Andamans, started using iron. But they have perfected the use of the material according to their own needs very effectively. In recent times the Jarawas have learnt about many material items from the non-Jarawas. They have also learnt to keep dogs as pets very recently. The matter has been discussed in the chapter on **Impact of Contact** in some detail. There it has been suggested, all the Jarawas have not uniformly accepted different items of *Eenen* culture. Division of the community in sex and age groups has influenced their behaviour to a large extent. For example, acceptance and use of garments is not equal among all the Jarawas; nor the use of tobacco very uniform in the community.

Another noteworthy feature of the culture contact situation is, in many a cases, acceptance of a particular item is not of very permanent nature. Dog is one example at hand. Earlier most of the Jarawas were crazy about the animal. Later, many of them have realised that feeding the dogs is a huge burden on their type of economy. So they have started discarding the animal.

The other point worth mentioning is that all those boys, who used to spend much of their time in association with the *Eenens*, do not behave in the same way any more. Enmei, the boy who was hospitalised at Port Blair with a broken leg, used to hang around the Uttara Jetty and Kadamtala village since 1998. Subsequently he has rarely been seen outside his habitat. Enmei spends most of his time in association with his own people and is living the life of a

forager. This probably can be related to his growing up, getting married and becoming father of a daughter. The same or similar phenomenon was observed elsewhere, in case of some other individuals. Buhu and Momo, two boys of Thidong, who used to loiter at Middle Strait or the Nilambur Jetty for long hours and sometimes for days, have started spending more time back in their own habitat. Both of them have got married within last one year. This does not mean that the Jarawas as a whole are withdrawing from the association of the *Eenens*. Boys younger than Enmei, Buhu and Momo were found at Jetties or in villages. They, presumably, are still not much burdened with the responsibility of providing food to their people.

In view of the forgoing discussion no final list of cultural items the Jarawas would accept from the *Eenens* could be drawn, they are going through a phase of transition. Another point that emerged is that they are not willing to accept any other way of life at the cost of their own. This is evident from the withdrawal of Enmei and other boys from frequent contact with outsiders and going back to foragers' life.

## **10.2 Suggested Remedial Measures**

Here the remedial measures suggested by different participating organisations are being presented.

### **10.2.1 Social**

1. A foraging community like the Jarawas requires certain preconditions for their healthy survival. One of them is their unhindered access to resources of their necessity. The other one is, allowing them to maintain the social and economic system they have developed in course of a long period of time, because their way of organising the society has an inseparable relation with their immediate environment, their resource base. Perpetuation of such a situation of equilibrium demands minimum (or ideally no) interference from outside, so far their resource base and social/economic organisations are concerned. So a policy of maximum autonomy with minimum interference may be adopted.
2. The above item demands that all possible measures be taken to protect the resources of the Jarawa territory from exploitation by others and make those exclusively available to the Jarawas. This programme may include bringing all kinds of poaching and encroachment upon land to a stop. Measures may be initiated to curb even occasional extraction of such resources by the non-Jarawas, often in the form of minor forest produces.
3. The policy makers may take care of the basic interests of the neighbouring populations as well. This is required in the interest of developing a congenial atmosphere of peaceful coexistence and non-competitiveness over resources between the two populations.
4. The neighbours of the Jarawas should be made aware and sensitised about the Jarawas, about perpetuation of such a classical community of foragers, so unique in the contemporary world. Unless the sensitising campaign is carried out with all

seriousness, one cannot expect judicious, sympathetic, friendly and sensible behaviour from the neighbours of the Jarawas. Success of a policy designed for welfare of the Jarawas would largely depend on co-operation of this neighbouring population, and perhaps a properly sensitised population can extend such co-operation.

5. A policy of minimum interference should identify the areas where selective and limited interference should take place. Foremost among them would be medical intervention, whereby medical help should be extended with the purpose of saving the community from extinction. A policy of judicious intervention may be framed, under which the administration would require taking all possible measures to tackle menaces like measles or malaria. The intervention should be limited in the sense that it should not make the people completely dependent on others even for minor ailments and thus save the indigenous system of Jarawa medicine from extinction.
6. The agencies responsible for designing welfare programmes and for executing the same on the basis of the policies to be framed should be sufficiently equipped to handle the job. Participation of professional anthropologists at two levels of the programme, designing and evaluation, would be required for success of the policy. To ensure that, the Director, Anthropological Survey of India, may be involved at both the levels.

### **10.2.2 Resource**

1. Biological screening and phytochemical investigation on the medicinal plants and bee-repellent plants are desirable.
2. The Jarawa areas are still botanically unexplored or under explored and virgin forests are still existing, particularly along the western coast, which need to be preserved.
3. A flora of the Jarawa Reserve should be brought out by the Botanical Survey of India.
4. At present, the natural resources available to the tribe are in surplus. There is no shortage of food.
5. Planting alien plants in Lakralungta and Spike Island is not advisable
6. Animal food items are available in quite sufficient extent in both aquatic and terrestrial habitats. However, an extensive forest area on the eastern side of South and Middle Andaman has already come under large settlement and exploitation of exogenous people, where the Jarawas lived in the past. Moreover, exploitation of resources in the present Jarawa Reserve by poachers and intruders (both inland and foreign) are evident. This would result in thinning of the resource base in the Jarawa territory. Unless protection is enforced for arresting further depletion of resources, the replenishment of flora and fauna of the Jarawa Reserve will be hampered. For preserving health of the ecosystem and maintaining richness of living natural resources it is suggested to rely solely on the natural regeneration and succession processes, and not on augmentation of any living form.

## **10.2 3 Health**

### **10.2.3.1 Allopathy**

1. The Jarawas have no immunity against new diseases prevalent among the non-tribals contacted. Since prevention is better than cure, all the Jarawa children 0 to 6 years age group need to be immunized against all the vaccine preventable diseases as per the UIP schedule like: BCG, DPT, OPV and measles along with Hepatitis B immunisation.
2. In order to prevent vertical transmission of Hepatitis B and also immunoglobulin to be given to all new-born babies.
3. Regular periodic visit and treatment of prevalent skin diseases by the skin specialist in all the three habitats.
4. An effective anti malarial measures to control transmission of malaria requires to be initiated.
5. There is need to create awareness about cleanliness and maintenance of personal hygiene among the Jarawas. Regular bathing and washing of used clothes is also essential.
6. Malaria prevalent among the Jarawas can be contained by detecting mosquito breeding place around the habitat and introducing anti-larva measures. Mass drug administration to all Jarawas with antimalarials to eradicate hepatic stage of plasmodium vivax. Restriction of entry of migrant workers to the Jarawa reserved areas shall health also reduce the incidence of malaria among the Jarawas.
7. Strengthening of infrastructure in the Jarawa habitat by providing a primary health centre exclusively for the Jarawas at Putatang and three sub-centres namely at Spike Island, R.K. Nallah and Tirur so that the Jarawas can get medical help at their doorstep on demand to avoid large morbidity and mortality among the Jarawas.
8. Both Homeo and Ayurvedic medicines along with their ethnic medicines should be employed before switch on to Allopathic.

### **10.2 3.2 Homoeopathy**

1. Homoeopathic medicine is widely accepted by the Jarawas. During study the homoeopathic medicine has cured diseases, specially acute and among children. Homoeopathic medicine is easy to administer.
2. Only one single, simple medicine is employed at a time in minimum doses (subject to change in some exceptional circumstance).

### 10.2.3.3 Ayurveda

1. Periodic deworming of the Jarawas to eliminate intestinal worms.
2. The branch of Ayurveda medicine, which rejuvenates the body to maintain good health and young age, is called Rasayana Therapy. Rasayana therapy can be done to the Jarawas to increase their life span with good health.

### 10.2.4 Diet and Nutrition

1. In general the common indicators show that the overall nutritional status of the Jarawas is better than that of the mainland Indian population. So no immediate supplementary or therapeutic intervention is needed.
2. Anaemia, which is a major problem in the entire country, is present in Jarawas (particularly women) to some extent but it is by far less than that of the non-Jarawa population. Specially severe anaemia is nearly absent in Jarawas. Hence, right now giving any supplementation or prophylaxis is not recommended. But they should be kept under constant observation and given enough social and resource support to see that it does not increase.
3. The food habit of Jarawas is totally different from that of the normal diet concept. They have exceptionally high fat in their diet with nearly no cereals, leafy vegetables, milk, sugar, jaggary, spices, etc. Hence, it may not be proper to follow the standard norms of intake as per the balanced diet chart for the Jarawas. They should be left to remain as such, as they are acclimatized and used to it.
4. As the report from ZSI and BSI, indicate food resources to be “Plenty” (without any quantification) it may be assumed that if the Jarawa land is kept exclusively for the Jarawas their food security may not be a problem. However, considering that their number may increase, it is recommended to strengthen and replenish the existing animal, plant and fauna of the areas.
5. Alien food was not consumed regularly or in high amounts. Alien food has not been found to be essential at all.
6. Since the entire data was based on standards developed on non-Jarawa population (by ICMR and others) standards for the Jarawa population may be developed to assess and monitor their growth and nutritional status more conclusively in future. These standards may cover the following issues –
  - **Anthropometric** data (Height, Weight versus Age).
  - **Nutritive Value** of the **foods** eaten.

- **Recommended daily allowance (RDA)** following the **Standard dietary practices and intake**, which is **unique** to them.
7. Food values of all Jarawas' food should be estimated in reputed national laboratories along with anti nutritive / anti fertility factors and natural toxicants.
  8. Fat metabolism in the Jarawas should constitute a special area of study.
  9. RDA's of nutrients should be determined for the Jarawas specially.
  10. A Negrito standard of height and weight according to age should be made available or developed.
  11. The Jarawas should be protected from alien foods. In case any special study indicates deficiency of certain nutrients, special forest foods should be introduced to make up the deficiency.
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