

**IMPACT OF TSUNAMI ON ALCOHOL
ABUSE IN COASTAL CHENNAI,
TAMIL NADU, INDIA**

SUMMARY REPORT

**C-DOT (Community Development
Organization Trust), Chennai
TNTRC, Chennai
UNDP**

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1. Executive Summary

This report is a summary of the methodology and findings of the Impact of Tsunami on alcohol abuse in coastal Chennai, Tamil Nadu India. The study was conducted to assess the extent of abuse of alcohol and its impact on the population at Tsunami affected coastal areas of Chennai. The study was conducted between the end of 2005 and in the first part of 2006 for UNDP. C-DOT (Community Development Organization Trust), Chennai had conducted this study and was funded by TNTRC and UNDP. The research consultancy was undertaken by Dr. L. S.S. Manickam, Hon. Director, Centre for Applied Psychological Studies, and Dr. Josh Basil.

The C-DOT in Chennai intended to assess the extent of alcohol abuse among the men population, to analyze the impact of Tsunami on the drinking behavior of those who abuse alcohol, to evaluate the impact of the drinking behavior on the women to examine the effect on adolescents to assess the effect of the alcoholism on the children and to explore the needs of the population in relation to drinking behavior in the coastal areas of Chennai. The core indicators on which the data were collected included the behavioral indicators related to alcohol drinking behavior. The measurements of indicators received in this study serve as a baseline indicator for providing services and guideline for plan of action in the Tsunami affected coastal areas of Tamil Nadu.

The data was provided not only by those who are have drinking behavior, but also by the significant members in the family- the women, the adolescents and children in the community. The criteria for establishing alcohol dependence was based on the International Classification of Disorders (ICD-10).

Methodology

Sample and research design: The sample consisted of 320, drawn from two regions, one from locally displaced population and the other from temporarily displaced population who were affected by the tsunami. The two regions were from the Chennai, Tamil Nadu. Proportionate sample was drawn from the population of the two regions. An equal number of adults, (both gender) adolescents and children (both gender) were included. The sample was drawn from 4 different strata-Adult men, Adult women, Adolescents and Children and the data about the index person in the family/household was gathered. The data was collected through interview using a survey schedule and through focus group discussion after the initial discussions with the key community members.

Implementation: Qualitative exploratory research was conducted with the people in the community and other professionals working in the area of alcohol dependence to gain information to the questionnaire development. After pretest, the interview schedule was used for collecting the data. The implementation team had received extensive training in data collection and a supervisory team monitored the quality of data collection. Informed consent was obtained from the participants and in case of adolescents shared informed consent was obtained from both the participant and one of the parents. In case of children, the informed consent was obtained from the parents.

Findings: Among the Tsunami affected coastal population majority of the adult men 74.06% were having drinking behavior and 52.8% were dependent on alcohol. The age of onset of drinking was reported to be 10 years and the duration of drinking was 14.6 years. They were abusing branded liquor and majority, 51.05% were abusing illicit liquor also. There was a decrease in consumption immediately after Tsunami and it increased when the relief money was disbursed. Though it was reduced, the current consumption was higher than the quantity of intake before Tsunami. However, 19.39% reported that the behavioral problems of the index persons worsened after Tsunami, though there is no change in 61.8% of them. The average income of the total sample was Rs. 1970.47 and on an average they were spending Rs. 840.40, 42.65% of their monthly income and 20.63% of them were financially dependent on the women. In addition, majority of them, 81.88% were experiencing one trauma response or the other and 34.37% were 'using' alcohol to cope with the trauma. As a result of drinking behavior, the women, adolescents and children were having different types of impact and the major ones were the psychological abuse and physical abuse by the index persons. The common emotional reactions felt by them were frustration, anger and increased irritability.

Plan of Action: Majority of the sample interviewed including the index persons had expressed the need for drinking and 28.17% wanted the index persons to take treatment. Since there are no treatment centers that are easily accessible, establishing a de-addiction centre with sufficient staff for counseling need to be provided. The 'de-addiction' centers often focus on the addiction related issues. Since majority of the adult population are experiencing trauma, the possibility of other members in the community also would need trauma counseling. Apart from the de-addiction counseling there is a need to focus on the other areas of help trauma counseling, counseling focused on economic independence, vocational counseling and empowering the women, especially the adolescent girls in the community should be the priorities. People centre approach in providing alternate ways of engaging the leisure time activities and provision of services within the community would be most helpful. The snowball effect could help build healthy communities among the fishing and non fishing coastal population.

2. INTRODUCTION

The coastal people of Tamil Nadu, who were affected by Tsunami of December 26, 2004 had added trauma of different types of loss and local displacement. Some of them were locally displaced temporarily whereas some others had to be relocated for safety reasons. While some of them could get back to their original place of living there are several families who are yet to be rehabilitated on permanent basis. In this process people had undergone and some were still undergoing through different types of hardships and trauma other than the trauma of Tsunami. The problem of drinking behavior is likely to be aggravated due to the increasing stress, though its abuse was minimized immediately after the disaster, when people were rushing for safety and stabilization.

One of the questions that researchers ponder over is the influence of disaster on the coping mechanisms and its influence on the behavior. It would be worth exploring the impact of Tsunami on those people who are already having problems related to alcohol drinking, that got aggravated as a result of the trauma.

C-DOT, is a community development organization, based at Chennai and working with the coastal population in Tamil Nadu. C-DOT aims at the comprehensive development of the coastal population. It was observed that the development activities initiated by the NGO's were being adversely affected by the increased incidence of alcohol related issues in the coastal areas. Moreover, the traumatic event of Tsunami had ruined the growth of the development process. Therefore it was decided to study the impact of alcohol dependence on the community in the context of Tsunami. It was also conceptualized that identifying the magnitude of the problem among the coastal population and the extent it affected the community would help plan strategies for further action. While working with the coastal population, different sections of people in the community expressed frustration on the unattended issue. Hence a study was conducted to explore the extent of the problem and its impact in order to plan intervention strategies for the community. The data would also help plan strategies of intervention in the coastal areas of Tamil Nadu, worst affected by the Tsunami.

It is worth exploring the impact of Tsunami on the coastal population in Chennai in relation to the alcohol-related problems and the trauma. Since family is a key factor in the Indian culture, the impact of drinking behavior on the members of family, including the women, adolescents and children requires investigation.

C-DOT a community-based organization explored the unattended serious disease of alcoholism and its relation to trauma.

3. METHODOLOGY

3.1 RESEARCH TEAM

Design team	Prof. L.S.S. Manickam and Dr. Joshi Basil
Research Consulting Team	Dr. K.V. Sreenivasan, Psychiatrist. Mr. Satheesh Chandran, Social Work. Dr. Immanuel Thomas, Prof. of Psychology. Dr. B.H. Helen Joy, Educationalist.
Research Team Leader	Prof. L.S.S. Manickam
Research Co-coordinators	Mr. B. Senthil and Mr. N. Suresh Kumar
Field Study Team	Mr. Amal Thomas, Mr. D. Vijayaraghavan, Mr. G. Arul Kumar, Ms. S. Gomathi, Mr. Raja and Ms. Rajeswari
Data Analysis and Report Writing	Prof. L.S.S. Manickam and Dr. Joshi Basil

3.2 OBJECTIVES

3.2.1 Major Objective

To assess the extent of abuse of alcohol and its impact on the population at Tsunami affected two coastal areas of Chennai.

3.2.2 Specific Objectives

- 1.To assess the extent of alcohol abuse among the male population.
- 2.To analyze the impact of Tsunami on the drinking behavior of those who abuse alcohol.
- 3.To evaluate the impact of the drinking behavior on the women.
- 4.To examine the effect on adolescents.
- 5.To analyze the effect of the alcoholism on the children.
- 6.To explore the needs of the population in relation to drinking behavior.

3.3 RESEARCH DESIGN

3.3.1 Stratified Random Sampling.

Stratified random sampling was used. The first stratum was the regions I and II.

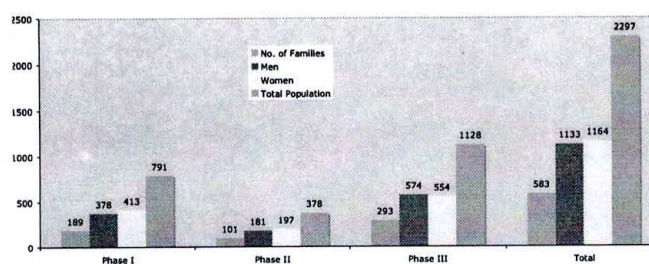
3.3.2 Sample

Two coastal areas were chosen.

3.3.2.1. Region I- Locally Displaced Population

One of them was Ennore, where people were living in 3 housing settlements and housed 2297 population. The people at Ennore, who were living near Kasimedu, were shifted after Tsunami for safety reasons. Initially they were resettled at Kargil Nagar, which was a low-lying area.

However, the flood havoc in November-December, 2005 displaced them again and the Government resettled them at the presently occupied place at

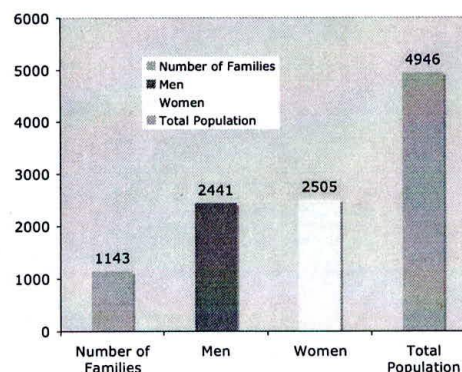


Ennore. The three settlements were maintained like a close community. But since the housing areas were not provided with boundary walls fully, outsiders and social miscreants could easily creep in.

3.3.2.3 Region II

This coastal area is a belt that houses 4946 population. This area was hit by Tsunami and the loss of people in this area was estimated to be 57. The people who were on the seashore on temporary sheds were affected

and the survivors resettled in safer region. But the people who were living in permanent houses were also affected. They had loss of lives and property, and many of them ran for their life during the tide. But majority of the houses were inhabitable with severe and trivial maintenance. Majority of the people in this area came back to their own houses. In other words, this area has population who are still living near the sea, as they had lived before Tsunami. Except for the clearance of the sea shore occupation where some people used to brew illicit liquor, the people are back to their 'normal' functioning.



There is no clear-cut demarcation between the neighboring coastal communities, except the bylines. It is not an exclusive community and it is within the city limits of Chennai.

3.3.3 Rationale for choosing the areas

The coastal communities were worst affected by Tsunami compared to other geographical areas of Chennai.

Region I Ennore, was chosen since it houses people who were locally displaced from coastal area.

Region II Srinivasapuram is also a coastal area, but the population in this area was temporarily dislocated, but could occupy their own houses where they were living before Tsunami.

Moreover, C-DOT had been working with these communities addressing their various issues including livelihood and rehabilitation. The rapport of the NGO with the community would also help collect the data that are very personal.

3.3.4. Exploratory Sample Survey

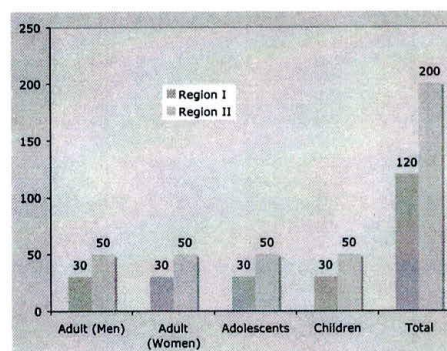
It was decided to interview stratified samples from the population from region I and Region II.

3.3.5. Focus group discussion

It was also decided to conduct a focus group discussion with specific questions.

3.4. Sample Size and Description of the Sample

From region I, 30 samples of the each stratum of adult men, adult women, adolescents and children were drawn. From region II, 50 samples of each stratum were drawn. Equal representation of both genders was provided for adolescents and children. Proportionate sample was drawn from the population of the two regions.



From the region I, a sample of 120

was drawn and in region II the sample consisted of 200. The second stratum was the age group. An equal number of adults, (both gender) adolescents and children (both gender) were included. The sample was drawn from 4 different strata-Adult men, Adult women, Adolescents and Children.

3.5 Tools

Interview as a method was chosen since majority of them were found to be illiterate. The semi-structured interview would also facilitate free flow of conversation that would ease the process of data collection.

3.5.1. Interview Schedule

Interview schedule was prepared to collect the data in discussion with the research team that constituted two clinical psychologists and one psychiatrist who had worked in the area of de addiction. Though several screening scales are available to screen the problem of alcohol, in order to assess the impact of alcoholism on women and the families, an interview schedule was preferred. The items were finalized after several round of discussions. It was tried out in a setting other than the study area and the appropriate modifications were made.

The tool had separate components for assessing the impact on women, adolescents and children.

Often the substance dependent persons tend to deny their drinking and its impact on spouse and children. Hence it was decided not to ask the dependent persons about the impact of their own behavior on specific issues of children and adolescents.

The following were the components of the tool.

<p>Adult Men</p> <ol style="list-style-type: none"> 1. Personal Data 2. Family status 3. Impact of Tsunami (Personal loss, Personal hurt, Physical loss) 4. Trauma responses, 5. Coping with the Trauma) 6. Pattern of Drinking 7. Quantity of in take 8. Number of days of drinking 9. Money spent 10. Type of drink 11. Attributed reasons 12. Dependence on alcohol (Physical dependence, Psychological dependence, Increased tolerance and Craving) 13. Family 14. Health 15. Abstinence 16. Relapse timings 17. Other substances 18. Need 19. Leisure 20. Leisure activities 21. Leisure availability 	<p>Women</p> <p>in addition to the above, the following components were added.</p> <ol style="list-style-type: none"> 1. Effect of drinking 2. Change in behavior(before Tsunami and After Tsunami) 3. Emotional reactions 4. Effect on Children 5. Current Concerns <p>Adolescents</p> <ol style="list-style-type: none"> 1. Effects of drinking 2. Change in behavior(before Tsunami and After Tsunami) 3. Emotional reactions 4. Effects on Mother 5. Current Concerns <p>Children</p> <ol style="list-style-type: none"> 1. Effects of drinking 2. Change in behavior(before Tsunami and After Tsunami) 3. Emotional reactions 4. Effects on Mother 5. Current Concerns
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3.5.2. Focus Group Discussion

Specific questions were designed for the Focus Group Discussion by research team.

The Research Questions For The Group

1. What is the extent of problem drinking in their community?
2. What is the attitude towards drinking alcohol?
3. How has it affected them?
4. What impact it had made on the spouses and children?
5. What are reasons stated for alcohol use or abuse?
6. How Tsunami has influenced the pattern of alcohol abuse?
7. What is the community's perceived need in tackling the issue of abuse of alcohol?

4. RESULTS

4.1 Profile of the respondents

The sample consisted of 320 respondents. The sample was drawn from region I Ennore (N 120) and region II, Srinivasapuram (N 200). It consisted of 80 adult men, 80 adult women, 80 adolescents (40 from each gender) and 80 children (40 from each gender). The sample characteristics are given below.

4.1.1 Adult Men

The age ranged from 21 to 73 years and the mean age was 39.98. There is no significant difference between the two samples in relation to age. The Educational level of the sample at Srinivasapuram was higher than the one at Ennore. When both were taken together, almost half of the population had education up to 6 – 10 years of schooling. Though the two regions were in close proximity to the urban area, the reasons for the educational level remaining low requires further exploration. The majority of the sample was engaged in unskilled (23.75%) or semi-skilled job (32.5%). But 31.25% were engaged in fishing and they were from region I. However there were 6 (7.5%) of the sample that were engaged in occupations like trading or maritime related jobs. On an average, majority of them earned between Rs. 2001 to Rs. 3000 every month and the average income was Rs. 2237.50. Majority (71, 88.75%) were married and there was no widower or separated men. 71(88.75%) hailed from nuclear family and only 9 (11.25%) were living in joint families. The majority of the sample had family income above Rs. 2000 per month, though it was irregular. However 26.25% (21n) had income less than Rs. 2000 per month.

4.1.2. Adult Women

A sample of 80 adult women was interviewed from the region I and II. Their mean age was 31.69 years and the age ranged from 20-52 years. Thirty six (45%) of them were illiterate. However majority of them had schooling from 1 to 10 years. The women at region II were more literate than the women at Region I. A significant number of them were housewives (35, 43.75%). However majority of them (56.25%) were engaged in some work or the other. Their earning capacities were less since many of them were employed in unskilled job or in small scale vending. Sixty three (78.75%) were married, 7(8.75%) were widowed, 1 (1.25%) was separated and 9 (11.25%) were unmarried. Sixty one (76.25%) hailed from nuclear family units, 5(6.25%) were from extended family and 14(17.5%) were from joint family units. It showed that the majority of the sample has income above Rs. 2000. per month. There was only one (1.25%) who had income below Rs. 1000. However there were 4 (5%) who had income above Rs. 5000.

4.1.3 Adolescents

The age ranged from 13 –19 years and the mean age was 15.74 years. There were equal number of males and female of 40 each. The adolescents had education above 6-10 years of schooling. However 3 (3.75%) were illiterate and 14 (17.5%) had education only 1-5 years of schooling. Majority, (79, 98.75%) hailed from nuclear families. Only 1 (1.25%) hailed from extended family. The majority of the sample had come from families with income above Rs. 2000 per month.

4.1.4 Children

The average age was 10.69 years and their mean age ranged from 7 – 12 years. There were 40 boys and 40 girls. All the children were attending schools and were studying in class 2 – 7. Majorities of them were in classes 1 – 5. Out of the 80, 67(83.75%) hailed from nuclear family units. 7(8.75%) were from extended families and 6 (7.5%) were from joint families. Compared to the adult population, children reported that the family size was large. Majority of the sample belonged to families that had income above Rs.2000 per month, though it was irregular. However 21(26.25%) were from families with income between Rs. 1001 – 2000 and 12(15%) reported that their family income was above Rs. 5001.

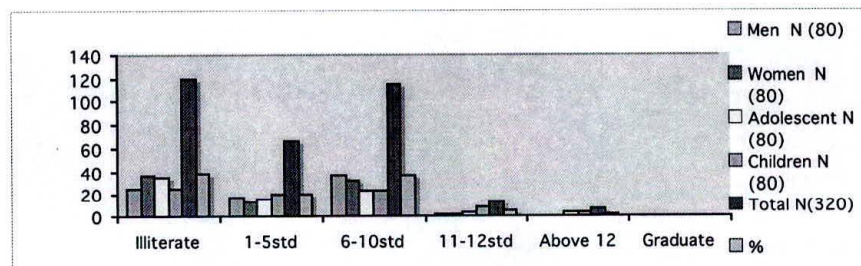
4.2. Profile of the Index Persons (Data from the 320 respondents)

4.2.1. Age

The mean age of the index persons was 38.66 years. The age of the index persons ranged from 20 to 73 years. The mean age of the index persons provided by the adolescents were higher, whereas those provided by the children were low. Since the children were in the age group of 8-12, it is likely that the parent's or the relative's age would be younger than the total sample.

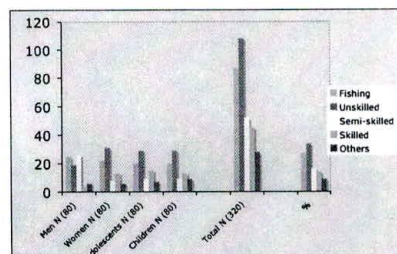
4.2.2. Education

Majority of the index persons were educated. However, 37.5% of the index persons were illiterate. The predominance of the illiterate persons was from region I. There was no one who had education at the college level.



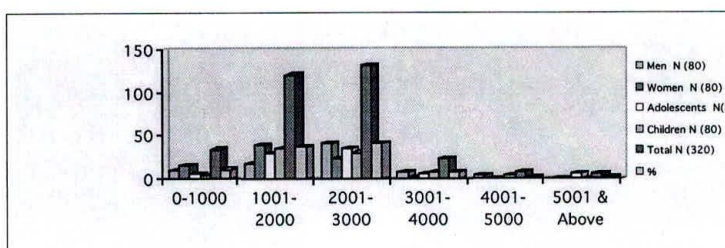
4.2.3. Occupation

27.19 % were occupied in fishing, and majority of them were from region I. But the total sample showed that majority of them were employed in unskilled or semiskilled occupations. A small percentage of 14.06 were occupied in skilled job. Similarly 8.75% were engaged in self-employment or maritime job.



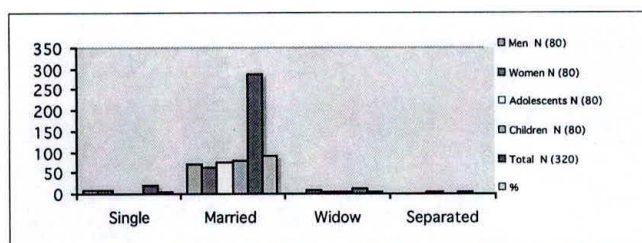
4.2.4. Income of the index person

Majority of the index persons had income between 2000-4000. However, 10.62% had income below Rs. 1000 per month. The average income was Rs. 2070.



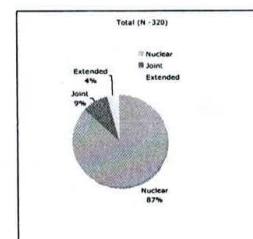
4.2.5 Marital Status

Majority (89.38%) of them were married, 5.62% were single, 4.06% were widowed and 1.56% were separated.

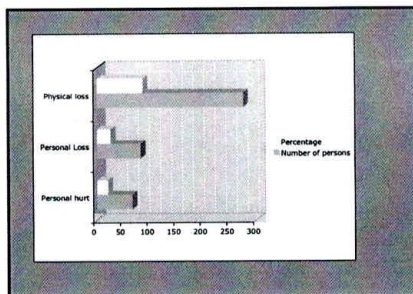


4.2.6 Family Unit

86.88% hailed from nuclear families, 9.1% were from joint families and 4.1% belonged to extended families.



4.2.7 Impact of Tsunami

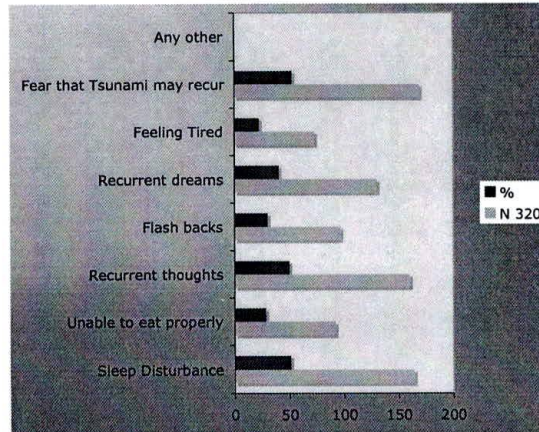


25.62% had personal loss. Men from region I had more personal loss when compared to the men from region I. The sample of Men reported personal loss more than the other samples. The personal loss included loss of friends, other than relatives. Therefore men would have reported more personal loss than perceived by the other samples.

More men than the other three groups reported personal hurt to the index persons. Out of the 320 men, 20.63% had personal hurt. 85.93% had lost their household articles (HA), and 49.1% their houses. Considerably low percentage lost their most valuable articles (MVB) and 13.12% reported loss of pets. Personal hurt was affected in more number of people when compared to physical loss and personal loss. The women reported that the number of index persons having physical loss was more when compared to personal loss and physical hurt. However the impact of personal loss is likely to be more traumatic than the physical loss.

4.2.7.1 Trauma (Extent of Trauma)

The mean percentage showed that 81.88% are currently experiencing one trauma response or the other. The adolescents reported more number of the index persons having trauma responses, whereas children reported the lowest number of people with trauma. However significant number of men also reported having trauma from both the regions.



4.2.7.2 Trauma responses

Out of the trauma responses, 52.88% of the index persons were reported to be having fear of another Tsunami. Since 27.19 % of the total population were involved in sea related occupation or fishing, it is likely they are

venturing in to the sea with this fear, which could emotionally affect them adversely in the long run.

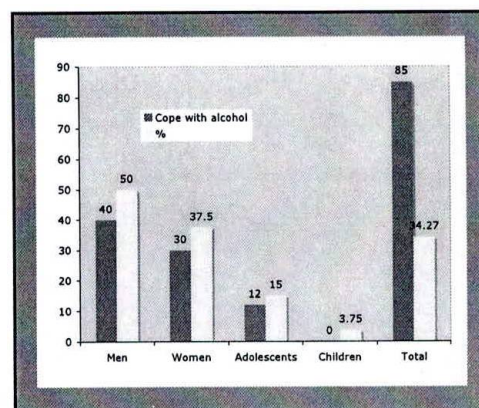
The majority of the index persons were reported to be having sleep disturbance (51.25%) and recurrent thoughts (50%). When the data of the men alone were considered, sleep disturbance, recurrent thoughts and fear of Tsunami predominated. Since one or the other trauma responses were present in 81.88% (table in the previous page, 13.7.4) of the adult men who were also involved in sea related job, it can be concluded that the adult men require professional help for getting over the trauma. Disaster preparedness programs may be arranged in the community in order to allay the fear of Tsunami. Those who are intensely affected may be provided with specialized counseling services.

Trauma

While narrating the trauma responses of the index persons, some of the children talked about their own trauma also. Some of them did not know whether the index persons were having trauma responses or not. Therefore, it is likely that the trauma responses reported by them about the index persons may not be very accurate. Since, the adults themselves and the adult women had also reported similar trend in the extent of trauma of the index persons, the data provided by children may represent the trauma response of the adult men.

4.2.7.3 Coping

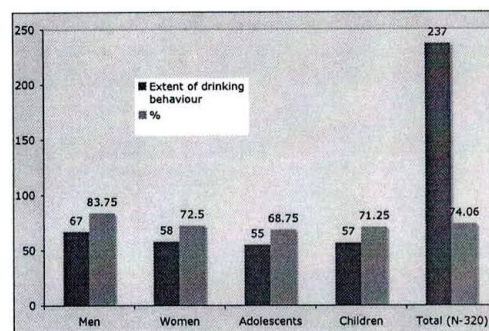
50% of the men reported that they were abusing alcohol to cope with the trauma. This is a significant observation, which substantiates the need for providing intervention programs for coping with the trauma. There is a need to provide psychological forms of treatment to get over the trauma. 37.5% of the women also reported that the index persons were using alcohol to cope with trauma, which is a significant percent of the population. When all the strata were considered, 34.27% were using or abusing alcohol to cope with the trauma.



4.2.8 Extent of Alcohol Abuse

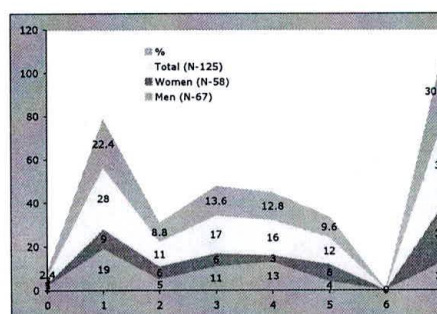
The percentage of people with drinking behavior was 74.06. The number of men (83.75%) from both the regions with drinking behavior was more than that of the other three groups.

Women during the focus group discussions reported that more than 90.48% of the men of the total population having drinking behavior. Even in the men's group, during the focus group discussions, the percentage of people with drinking behavior was reported to be 90.48. Probably the present finding that 74.06% of the coastal population abusing alcohol may be a more accurate estimate.



4.2.9 Number of days of drinking

66 (52.8%) of the sample with drinking behavior were abusing alcohol on four or more than 4 days in a week and were having alcohol dependence disorder.



4.2.10 Duration of Drinking

Men reported the average duration of drinking as 17.62 years, which was significantly higher than what the women reported. The average duration of the drinking when the sample of men and women were combined together was 14.6 years.

Sample	Minimum	Maximum	Average duration of Drinking
Men (N=67)	1	54	17.62
Women(N=58)	2	30	11.12
Total(N=125)	1	54	14.6

There is a wide variation in the maximum duration of drinking as reported by women and men. Men reported the drinking period to be more than 54 years. The number of people who started drinking after Tsunami was as low as 1 (0.8%), and may not be attributed to Tsunami alone.

4.2.11 Age of onset of Drinking

The minimum age of drinking reported by men in both the regions was 10. The women also reported that the index persons had started drinking during their adolescent period. This is a significant observation, which may warrant to plan prevention programs for the adolescents.

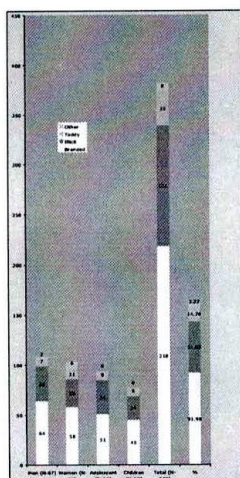
	Minimum age	Maximum age	Average age
Men (N-67)	10	43	22.47
Women(N-58)	14	39	18.59

Late onset drinking could be related to the existing co-morbid psychiatric disorder, mainly depression. Careful psychiatric screening might help identify those with co-morbid disorders. As long as one continues to abuse alcohol, it may not be easy to identify the underlying disorder or the co-morbid condition as alcohol could camouflage the mental status.

Though the adult men and women reported the onset of drinking during the adolescent and childhood days, none of the adolescents who were interviewed reported having drinking behaviour. The women or the men did not report any member in their family below 20 years 'using' or 'abusing' alcohol. It is likely that the adolescents might be experimenting with 'alcohol' as reported by the adult men.

4.2.12 Type of Drink

While 91.98% of the samples were abusing branded liquor, 51.05% were abusing illicit liquor. 14.76% were abusing toddy and 3.37% were abusing other types of liquor, other than the common illicit liquor.



More number of index persons from region I were abusing illicit liquor. One of the reasons could be its availability and the second could be the cost factor. Third reason could be the increased content of ethyl alcohol in the illicit liquor that produces quick intoxication. But the health hazards of abusing the illicit liquor are often neglected.

The locally brewed substances in unhygienic conditions had led to several hooch tragedies within the state and outside. However, there appears to be no regulatory mechanism to

check the illicit brewing and trading. Abrupt stopping without rehabilitating or providing alternate employment to those who are involved in the illicit liquor brewing and trading could harm the 'harmony' within the community. People participatory programs, without affecting those engaged in the 'cottage industry' and reducing the consumers through promoting alcohol free life style might be helpful.

Toddy

Toddy is also considered as a 'health drink' by some, since the palmyrah juice, a variant form tapped from the same tree is traditionally considered as a 'health drink'. But with fermenting, the percentage of content of ethyl alcohol increases and that leads to intoxication. However, toddy sold in the coastal areas is often adulterated in order to get more 'kick' and leads to health hazard.

4.2.13 Current Quantity of intake

The adolescents and children were not aware of the quantity of intake the index persons. However there was significant difference in the quantity of intake as reported by those who abused alcohol (286.92 ml.) and the women (414.92 ml.).

Even the reported quantity by men showed that they were abusing alcohol in excessive quantity. The average quantity of current intake per day was 346.72 ml of alcohol.

Sample	Current quantity of intake in ml.	N*
Men (N-67)	286.92	65
Women (N-58)	414.92	57
Total (N-125)	346.72	122*

4.2.14 Pattern of alcohol Consumption

The index persons were abusing 329.64ml before Tsunami, 229.18ml immediately after Tsunami, 407.14 ml when the relief money was disbursed and 346.72ml currently. The average quantity of alcohol the index person consumed a day, before Tsunami was reported to be 329.64ml. And there was not much variation in the report of men and

women. Immediately after Tsunami, the women felt that the men were drinking much less, as low as 139.82ml.

Period	Before Tsunami	Imm.After Tsunami	When relief money was paid	Current consumption
Men	325.38 (N-65)	318.54(N-58)	466.76(N-51)	286.92(N-65)
Women	333.89(N-57)	139.82(N-56)	347.51 (N-56)	414.92(N-57)
Average	329.64 (N-122)	229.18(N-114)	407.14(N-107)	346.72(N-122)

But men did not report much decrease in their level of consumption. Men especially at region II, continued drinking, irrespective of the traumatic event and the personal loss, but the average quantity of intake reported by men and women showed a remarkable decrease in quantity. When the relief money was paid, the quantity went up to 407.14 ml per day. However men reported much higher quantity than women.

There were people who had spent 100% of the relief money that they received on alcohol. But it is not sure whether they shared the drink with friends or they drank for themselves.

The average quantity of current intake was 346.72 ml, which is significantly higher than the intake before Tsunami. But the report of the men alone suggested a decrease in quantity. This decrease in quantity could be due to the fact that 2 of them (67N) were not drinking currently and some of them had reduced their quantity of drink due to health reasons.

4.2.15 Financial Analysis

The average income of the index person as reported by men was Rs.2237 and the income reported by women was Rs. 1662. The money spent was Rs. 891.42 and Rs. 755.54 respectively of their monthly income. The average income of the total sample was Rs. 1970. 47 and on an average they were spending Rs. 840.40. that was 42.65% of their monthly income.

Money spent	Average Income	% spent on alcohol	Amount spent
Men (N-67)	Rs.2237.50	39.84	Rs.891.42
Women (N-58)	Rs.1662.00	45.46	Rs.755.54
Total (N-125)	Rs.1970.47	42.65	Rs.840.40

4.2.15b Relief Money and Spending on alcohol

Out of the 102, who had received the relief money and had the drinking behaviour, 35.29% did not spend any money on alcohol. 64.71% spent the

money on alcohol in varying proportions from 1-100%. However, 7.24% spent all the money they received as relief on alcohol.

4.2.16 Financial Dependence

20.63% of the men depended on the money earned by the spouse and 16.88% depended on their friends, 2.5% depended on the relatives and 1.87% depended on other sources.

This was an additional burden on the 20.63% of the women population, in the coastal areas. 20.63% of the women probably had to earn money to run their family and in addition they had to financially support the index persons who were abusing alcohol.

4.2.17 Health

52.32 % of the total sample had reported that their health had been affected. Adolescents reported more number of index persons having health problems, whereas men themselves reported it to be as low as 26 (38.81%).

In the total sample that was abusing alcohol, majority (52.32%) had health problems.

From the public health perspective, this is a significant observation that could have bearing on the health providers, health economists and policy makers.

4.2.18 Family

Out of the four strata of sample, the sample of adult men and women were considered. 6.25% had suspicion, 34.4% quarreled at home, 33.12% physically abused the spouse and 13.8% physically abused the children.

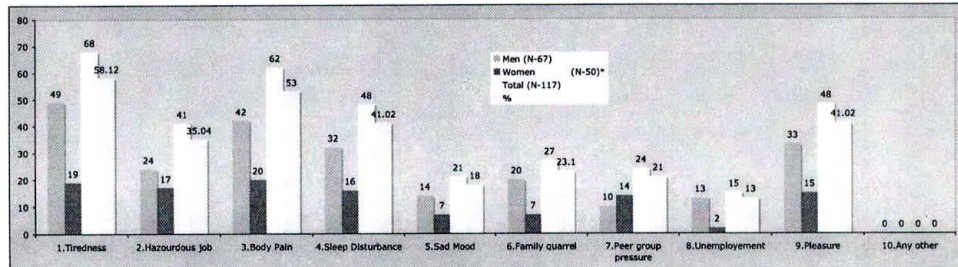
However there was a significant difference between the report of men and women. The women sample reported that 8% of the index persons had suspicion, 44% physically abused their spouse and 17.32% physically abused their children. Fewer men reported problems in all the areas.

Probably this is due to their denial (a defense mechanism) or it could be manifestation of neuropsychological impairment that occurred as a result of long duration of abuse of alcohol that they were not able to retrieve the information. Or it could also be due to the phenomenon of 'black out' where in they do not recollect the events or their actions during the period of high intoxication.

4.2.19 Attributed Reasons

(As perceived by the index persons)

In the rank order, men tend to perceive tiredness, (49) body pain (32) pleasure (33) and sleep disturbance (32) as the major reasons for their drink. The women on the other hand reported that the index persons had attributed it to, body pain (20) tiredness, hazardous job and sleep disturbances.



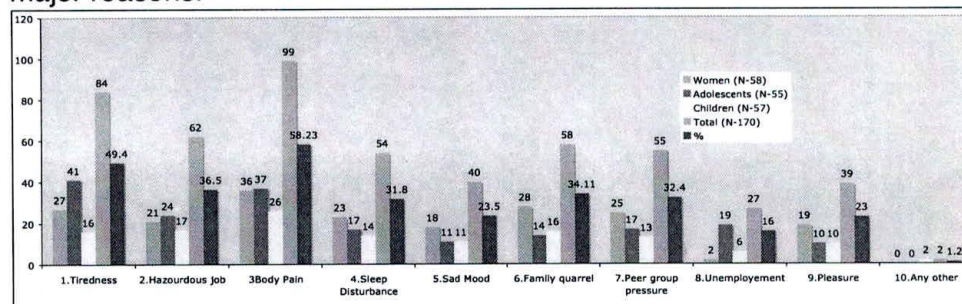
* 8 women did not know the perception of the index persons.

The average percentage showed that tiredness (58.12%) body pain (53%) pleasure and sleep disturbance (41.02%) to be the important reasons for depending on alcohol.

These may point to the need for detoxification and pharmacological management of the dependent persons.

4.2.20 Attributed reasons by others

As perceived by women, adolescent and children, body pain (58.23%) tiredness (49.4%) hazardous job and family quarrel (34.11%) were the major reasons.



But 31.8% perceived that drinking may be due to sleep disturbance and 32.4% attributed it to peer pressure. Peer Pressure and pleasure being the attributed reasons by children and adolescents may point to the need for intervention among them.

Most often the significant family carer or member of the dependent persons are considered to be reliable persons to give an accurate account of the index persons. Out of the 57 children, 26(45.61%) felt that the index

persons drink due to body pain. 17 (29.82%) felt that they drink to cope with work hazard and 16 (28.07%) felt that they drink due to tiredness. These observations may generate a positive attitude towards drinking of alcohol in children. It gives the impression that alcohol is a substance that smoothens the body, and the children when they grow up are likely to use the same rationale when coerced to use alcohol or other substances.

14(24.56%) felt that they drink due to sleep disturbances and 11(19.29%) attributed it to sad mood. These observations of children point to the need for evaluating the addicted persons for any co-morbid psychological disorders. This demands for educating the children and the family members of the alcohol dependent persons about the co-morbid conditions and to help them identify and seek treatment for those conditions, which often goes unnoticed.

2(3.5%) felt that the drinking behaviour was due to their "dependence". These children may be trained to peer educate about the illness concept of alcoholism, which may be an effective way of transforming a community that thinks alcohol abuse is the 'tradition' and the 'norm'.

4.2.21 Abstinence

49.6% have abstained in the past, which is a positive sign. The reasons for abstinence are usually health related. When the dependent persons get admitted in the hospital for health reasons or seek the consultation with the physician, on their advice one may abstain.

Men (N-67)	Women (N-58)	Total (N-125)	%
37	25	62	49.6

Or the relapse could be related to religious orientation-like stopping alcohol before the pilgrimage or as part of a religious ritual. However, unless the dependent person is provided with adequate counseling to adapt a healthy life style and support systems, the possibility of relapse is quite high.

4.2.22 Duration of Abstinence

9.6% of those with drinking behaviour abstaining for more than a year are also a significant observation. The reason for abstaining or how they were able to maintain their drug free life was not enquired in to.

Duration of Abstinence	Men (N-67)	Women (N-58)	Total (N-125)	%
0	18	30	48	38.4
Less than 1 month	28	9	37	29.6
1-6 months	9	11	20	16
7-12 months	3	5	8	6.4
More than 1 year	9	3	12	9.6

If there are persons with skills for providing support to others among those who were abstaining, they may be effectively used to help other dependent persons for recovery. Studies had shown that recovering dependent person could effectively function as peer counselors, since they know the 'hard way' of maintaining the sobriety. However the number of people who could not abstain for more than 6 months was as high as 68%.

4.2.23 Relapse Timings

Among those who relapsed, more men reported relapse after Tsunami, and in total 31.2% had relapsed after Tsunami, whereas only 12.8% had reported relapsing before Tsunami. The assumption that tsunami had led to relapse may not be very accurate, since there are various reasons for relapse.

Sample	No Relapse	Relapse after Tsunami	Relapse after Tsunami
Men (N-67)	38	25	2
Women (N-58)	30	14	14
Total (N-125)	68	39	16
%	54.4	31.2	12.8

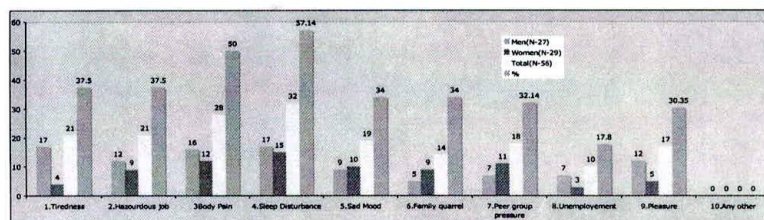
However the significance of Tsunami for causing a relapse cannot be minimized since the index persons had reported sleep disturbance, sad mood and other trauma responses. The trauma responses they still experience could explain the high rate of relapse after Tsunami.

4.2.24 Attributed reasons for Relapse

52.14% had attributed sleep disturbance as the reason for relapse. When compared to the reasons by all the groups, sad mood (34%) comes as the fifth reason in the rank order for relapse, apart from body pain, tiredness and hazardous job. The physical comfort during the initial period of abstinence does not last long. Either the co-morbid problems surfaces or the craving for alcohol crops up or the overwhelming peer pressure, which the recovering person is not able to resist, or the behavioral cues might lead to

relapse, unless the person and the family members bring about life style

changes. In order to bring about life style changes to the dependent person and the family carer or carers, professional support or a social support network is very helpful.



Relapse of Treated Alcohol Dependent Person

One of the men was treated twice for alcohol dependence but he was continuing to abuse alcohol. However the possibility of a co morbid psychiatric problem cannot be ruled out. It was not sure whether the reason for the relapse was the added trauma the person underwent which may be complicating the dependence behaviour.

4.2.25 Types of other substances Abused

Of the total sample of 320, 64.38% were reported to be abusing tobacco. It appeared that when compared to alcoholism, less percentage of people were abusing tobacco.

The gateway drugs like hans, pan parag and the other tobacco related products were also being abused by 18.75% and 17.5% respectively. Some of them abused different types of substances at the same time.

Other substances	Tobacco	Ganja	Hans	Pres-Drugs	Others
Men (N-80)	49	4	23	0	18
Women(N-80)	48	2	23	0	14
Adolescents (N-80)	65	3	12	0	6
Children (N-80)	44	1	17	0	18
Total (N-320)	206	10	60	0	56
%	64.38	3.13	18.75	0	17.5

3.13% are probably addicted to ganja. Ganja (cannabis) induced psychosis is a condition that could affect the mental health of the person, though it does not have any withdrawal features. From a preventive perspective, the addictive nature of the substances should be informed to the community, especially to the adolescents. For those who were addicted, treatment strategies need to be planned and they have to be followed up, like other alcohol dependent persons. If any co-morbid psychiatric disorders had set in, those also need to be treated. Only a comprehensive treatment would help them recover from the addiction.

Smoking cessation programs and other substances cessation programs may have to be initiated for those who are addicted. Preventive programs targeting the adolescents and children could in the long run pave way for a drug free community

4.2.26 Money spent for other addictive substances

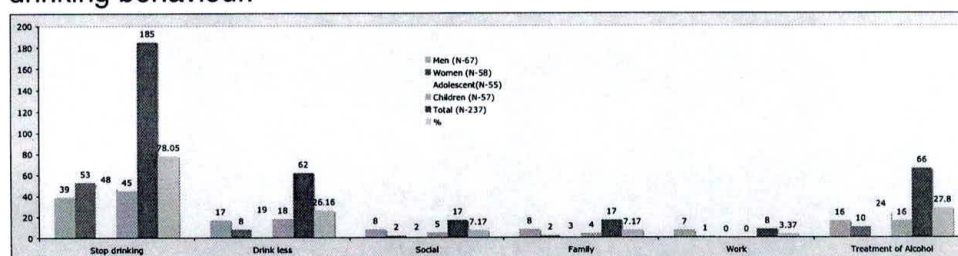
The average amount spent for the substances before Tsunami was Rs. 15.09 and immediately after Tsunami, it decreased to Rs.12. When the relief money came in, it got to its peak with the men spending Rs.21 on average for the substance.

Period	Before Tsunami Rupees	AfterTsunami In Rupees	Relief money In Rupees	Currently In Rupees
Men (N-80)	11.28	11.89	19.13	11.23
Women (N-80)	18.9	12.26	23.22	22.4
Total (N-160)	30.18	24.15	42.35	33.63
Average	15.09	12.1	21.2	16.8

Though it reduced to Rs.17, which is currently spent for the substance, it is much higher than what they were spending before Tsunami. And the average amount spent per month for other substances is about Rs.510.

4.2.27 Need in relation to drinking behavior

78.05% of the sample wanted the index persons to stop drinking. However among the men, a good number (26.16) preferred to drink less quantity than to stop drinking. Some of them (7.17%) wanted their drinking not to affect the social functioning or family life, but wanted to continue their drinking behaviour.



Out of the 237, (27.8%) wanted the index persons to seek treatment for the dependence on alcohol. Adolescents and children appeared to be keener than the index persons to get the dependent persons treated. Sixteen (28.17%) children wanted the index person to take treatment to get out of the dependence. Significantly a considerable number of children were aware of the treatment for alcohol dependence disorder. The children who have awareness about the treatment of alcohol dependence can be provided with further training to educate their peer group about the same. Probably they may also be able to motivate the index persons to seek treatment.

What about those who do not want the index persons to stop drinking?

One possibility is that the adolescents and children feel that those men who were drinking only once in a week need not stop their drinking

behaviour. But since which social drinker could or could not be moving on to the phase of dependence is unpredictable, it is important to educate the community especially the children and adolescents about the hazards of experimenting with alcohol.

The adults reported that some of them started drinking as early as their 10th age. Some of the adolescents who could be experimenting with the alcohol would have justified themselves with the drinking behaviour of the index persons.

Children appeared Helpless

Children seemed helpless when asking about need in relation to drinking, "Will he listen to us if we say?" Another one commented, "He will stop when he wants to." Another one said, "He drinks at home in front of us and if we ask him to stop he would beat us"

But the fact that 78.05% wished that the index persons need to change the drinking behaviour is a positive sign and could facilitate in motivating the index persons to take action to achieve a drug free life style.

4.2.28 Leisure

54.06% of the total sample in the region I and region II reported the availability of leisure time of the index persons.

4.2.29 Leisure activities

While 22.81% were interested in hobbies, 21.87% preferred alternate employment. The leisure activities of games and literary activities were preferred by 17.5% and 18.75% respectively. But majority of them had not reported any leisure activity, though 54.06% reported that they have leisure time.

Leisure activities	Men (N-80)	Women (N-80)	Adolescents (N-80)	Children (N-80)	Total (N-320)	%
Alternate employment	26	13	16	15	70	21.87
Engage in play/ games	12	10	22	12	56	17.5
Hobbies	13	26	18	16	73	22.81
Reading/literary activities	17	4	31	8	60	18.75
Any other	15	0	4	0	19	5.93

It is also possible that the population at region I got locally displaced and they are yet to explore new types of leisure activities at the new housing settlement.

Population at region II, majority of them work in unskilled and semiskilled jobs and were unable to find an appropriate leisure activity.

Since 74.06% are having drinking behaviour, replacing the problem behaviour with a pleasurable leisure activity / behaviour assumes great importance.

4.2.30 Leisure Availability

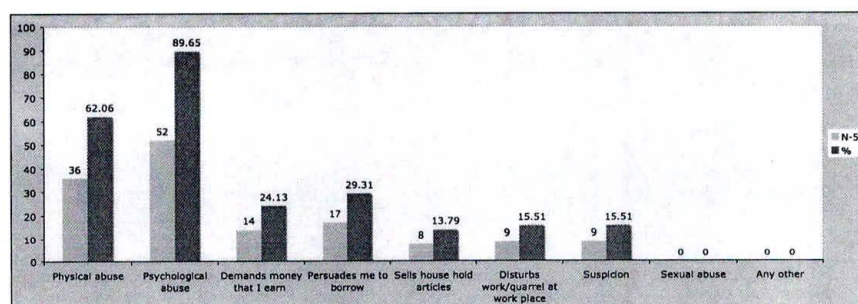
However, even among those people, who are interested in leisure activities, the availability of the activities in the community does not tally with the interest in all the areas. Only 19.06% reported the availability of leisure activities like alternate employment and hobbies. 14.68% reported about the availability of facilities for engaging in play and games and 4.68% reported the availability of facilities for reading and literary activities.

Availability of facilities	Men (N-80)	Women (N-80)	Adolescents (N-80)	Children (N-80)	Total (N-320)	%
Alternate employment	11	23	12	15	61	19.06
Engage in Play/Games	8	5	23	11	47	14.68
Hobbies	7	15	18	11	61	19.06
Reading/Literary activities	13	0	2	0	15	4.68
Any other	13	0	2	0	15	4.68

Provision of leisure activities would not only help the recovering persons who are addicted to substances, but also those are sober. Moreover it would facilitate the adolescents and children to learn to engage their leisure time effectively from early days of their development.

4.2.31 Effects on women

89.65% of the women reported psychological abuse and 62.06% reported physical abuse. In contrast, only 28.57% the men reported that they physically abused their spouse.



Some of the impacts of the drinking behaviour of the index persons are related to the economic aspects of drinking. 29.31% reported that they were being persuaded to borrow money, 24.13% reported that the index persons demanded money that they earned and 13.79% were worried about behaviour of selling of house hold articles, mainly for the drink. In addition, the work of the women was also affected since 15.51% of the index persons disturbed or quarreled at the work place.

Focus of Counseling to Women

In some situations the personality traits of the women could be a stumbling factor in maintaining the alcohol free life of the addicted person. Some of them may need training to evaluate and correct themselves, which can be part counseling focused on women. The behavior of the women/wives of the alcohol dependent persons surfaces more prominently, when the treated alcohol dependent person is followed up along with the spouse over a period of time.

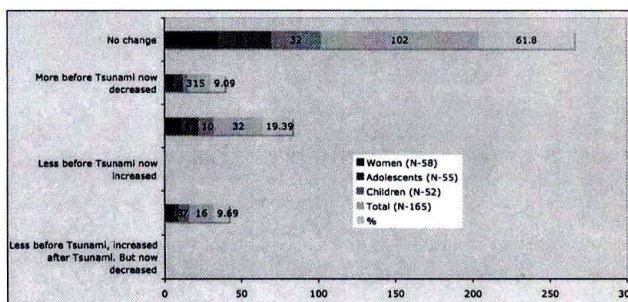
Whether it is part of the suspicion (15.51%) that prompted the men to give trouble at the work place of the women or whether the craving for money to get the drink is not sure. However the impact is felt in diverse ways, and it not only affects the self-esteem of the women, but also in the economic front.

4.2.32 Change in behavior after Tsunami

61.8% of the women, adolescents and children reported that there had been

no change in the behaviour of the index persons before and after Tsunami.

However, 19.39% reported worsening of the problems after Tsunami and another 9.69% reported worsening of the problems, but currently the problems are decreased. However 9.09% felt that the behavioral problems were more before Tsunami and the problems had decreased following the event.

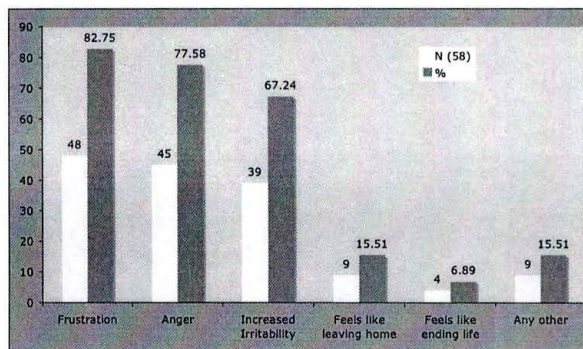


4.2.33 Emotional reactions of women

The emotional reactions of women showed that 48 (82.75%) of them were frustrated. 45 (77.58%) had expressed anger as an emotional reaction and

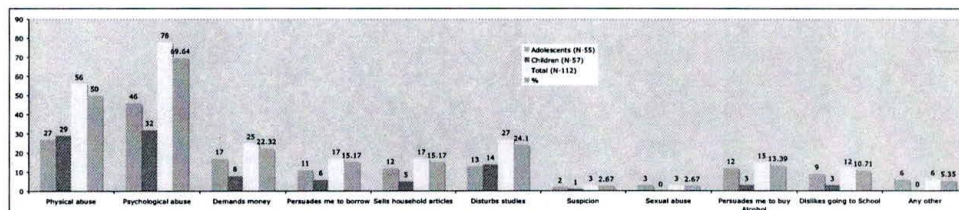
39 (67.24%) had increased irritability. Nine (15.51%) of them felt like leaving their homes. In addition 4 (6.89%) had suicidal ideations. Nine (15.51%) had different emotional reactions that included being very sad about the state in which they are.

The emotional reactions of the women could be independent of the drinking behaviour of the index persons. However research had shown that the wives of alcoholics, as result of living with their husbands who have long history of drinking tend to develop different emotional disorders.



4.2.34 Effects on Children & Adolescents

69.64% of the adolescents and children reported psychological abuse and 50% of them reported physical abuse also. In contrast only 9.52 % of the men had reported physical abuse of their children.



Effects on Children

In contrast to adults' report, 32 (56.14%) of the children reported psychological abuse and 29(50.87%) reported physical abuse by the index persons.

14 (24.56%) also reported that their studies being disturbed by the dependent person and that is of great concern. In a community where the literacy rate is quite low and traditionally considers drinking as a 'norm', the possibility of drinking affecting the education of the future generation is very high. 8(14.03%) reported that the index persons demanded the money earned by the mother, and 6(10.52%) reported that they or their mothers were persuaded to borrow money.

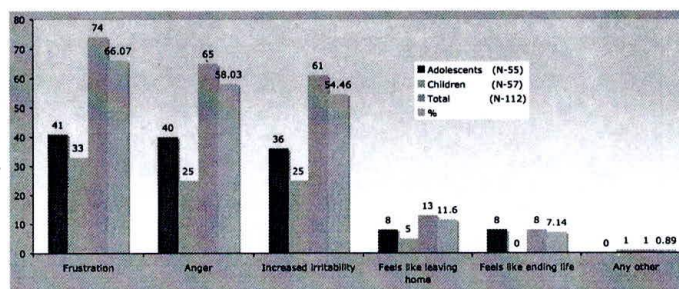
Though the men did not report about selling household articles, 5(8.77%) reported that the index persons do sell the household articles for drinking. 3(5.26%) reported they being asked to procure alcohol and an equal number disliked going to school, though there is no school refusal.

Healthy Disciplining of Children

In contrast to the reports of the adults, the children reported that the index persons abused them psychologically and physically. Corporal punishment is considered as the 'right' of the parents by many sub-cultures in Indian setting. However, educating the parents against using physical punishment at the moment is a Herculean task. Though, physical punishment can cause great harm to children, there are many parents who request the teachers to give physical punishment even for trivial reasons to their children are attending schools. "Healthy Disciplining of Children" is a topic for discussion to be included in the treatment program of alcohol dependent persons and their families. It may be included as a topic during the training of women groups in the "neighborhood" meetings in the community.

4.2.35 Emotional reactions of Adolescents & Children

Frustration (66.07%) is the predominant emotional reaction of children, followed by anger (58.03%) and heightened irritability (54.46%).



However 11.06% felt like leaving home and 7.14% had suicidal rumination. The suicidal rumination was seen among adolescents but children had not

expressed any idea. One of the children was very depressed. Childhood depression is a possibility since the children of alcohol dependent

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persons, are likely to develop emotional disorders of various nature, the predominant one being depression.

The emotional reactions of children have to be addressed. In addition to the trauma of the tsunami the children experiencing physical abuse and psychological abuse of the father who is dependent on alcohol are likely to hinder their emotional growth.

Programs on 'How to live with an alcohol dependent person' may have to be initiated, if the addiction persons refuse to get treated and choose to continue their drinking behaviour.

Adolescent Leaves Home

One of the adolescents reported that he absconded from home because of father's alcoholism and was brought back by the relatives. He felt like committing suicide also. But he came back home because of mother's plea.

Adolescent Who Retaliates

Another adolescent reported that he had to beat up his father, who is alcoholic to prevent him from physical assault of his mother. He said, "No other effort to control his drinking is effective".

4.2.36 Current concerns

The women and adolescents were worried about their future, whereas children were not that concerned about their future at the moment. The concern of children was more about the mother. While the women were more worried about the health of the index persons, adolescents and children seem to be less concerned about it. Women were anxious about the children too.

4.3 Focus Group Discussion

On the day of visit to the community at Ennore, the people at one of the house settlement (Phase II) were highly disturbed. The women and men were vehemently complaining about an incident that occurred the previous day. Mr. A a young person from the community after getting drunk tried to molest an adolescent girl and the youth was caught by the men in the community and was warned. In the ruffle, another adult member in the community was physically hurt on the head. The injured person lodged a complaint with the local police the next day morning. When Mr. A came to know about the police complaint against him, he along with a group of friends from another housing colony got drunk and threatened the community that, “ all of you will be killed if you protest”. The community members complained to us that they did not receive any protection from the police and therefore they were worried about the safety and security of women folk. They asked, “How will we go to sea when the security of our women folk is at risk? How can we be peaceful when we are in the deep sea?”

When the Focused Group Discussion was held later, this issue came up in both the groups of men and women. Therefore it was easy to open up the topic of alcohol dependence and its impact in the community.

4.3.1 Men's Group at Ennore (Region I)

Since it was held on a Sunday those who were occupied in other occupations other than fishing also were present. 21 members from the community participated. Their age ranged from 21 to 64 years.

4.3.2 Women's Group at Ennore (Region I)

From this area, 19 women in the age range of 20 to 54 years participated. In the women's group the initial theme of discussion was about the incident that had happened. Many women were weeping and expressed the concern that, “If this is happening to our grown up daughters in this colony, what safety do we have here. This has happened to one girl and what is going to happen to our children and us. Is it the way to respond to an issue that was brought to the notice of the authorities? If some one can get drunk and bring in his friends who are also drunk and do whatever they want to do and threaten us that they would thrash all of us, how will our men go to the sea peacefully”?

4.3.3 Men's Group at Srinivasapuram (Region II)

20 men took part in the group and their age ranged from 22 to 48 years. The extent of drinking was high. But many were hesitant to talk about it. Since many of them were engaged in different work settings, they felt that alcohol abuse was not a problem of serious concern. Many felt that though it sometimes led to absenteeism and frequent hospital visits, it had not affected their health or caused any psychological problems to them.

The Story of a young unmarried man

One unmarried young man reported that, "Many of us living here are unable to forget the event. We are not scared that Tsunami would come again or not. But I lost my elder sister and we could not save her" He moved to tears. On further enquiry he reported that even now he is unable to sleep properly, gets up in the middle of the night, and is unable to forget the issues. " But how can we get over these issues? The only resort is alcohol and I continue to drink from morning till I sleep in small quantity when I am not engaged in work. My friends also follow the same pattern. Further enquiry, he reported " I was listening to a favorite song of mine when Tsunami occurred. Even after so many months, whenever I hear that song again, I get some kind of fear. It is difficult for me to bear that. But if I am intoxicated, I can withstand that".

4.3.4 Women's Group at Srinivasapuram (Region II)

This is a predominantly non-fishing population. The loss of life and property was quite high, but most of them could get back to their homes after maintenance. Out of the 20 women who attended the meeting, 18 (90%) were married and excepting one, all of their marital partners (17, 85%) were reportedly abusing alcohol.

4.3.5 Major Observations

1. The extent of drinking was widespread and was considered as an acceptable behaviour by the men.
2. The men had different psychological trauma reactions.
3. The men had psychological dependence on alcohol, but did not recognize it as part of the dependence.
4. The men and women were equally worried about the security and safety of the adolescent girls among the locally displaced population. But they failed to see the relationship between drinking and the drunken behaviour.
5. Availability of the illicit liquor and its trading within the settlements posed a problem to the community in the housing settlements.
6. The women were concerned about the drinking behaviour and the verbal abuse of men.
7. As a result of living with addicted persons for a long period of time, they also reported change in their behaviour, which in turn led to marital problems.
8. The women were worried about the harm drinking behaviour may cause to the children, especially when the children became fearful while seeing the father who comes home intoxicated.
9. Though men did not perceive the need for treatment, the women felt that some action has to be taken to stop the drinking behaviour of men.

10. The women at Region II felt the need for providing treatment facility at close proximity to help addicted persons within the geographical area and the neighborhood communities.
11. Apart from the treatment of alcohol dependence a need was felt to provide counseling services to help the men to cope with the trauma.

5. KEY FINDINGS

- 5.1 Among the coastal sample 74.06% were reported to be having drinking behaviour. It is likely that 74.06% of the coastal population is having drinking behaviour.
- 5.2 Among the people with drinking behaviour, 52.8% of them have alcohol dependence. Probably 52.8% of the coastal population is dependent on alcohol.
- 5.3 There was a wide variation in the duration of drinking and the age of first drink was reported to be 10 years.
- 5.4 91.98% of the sample of people with drinking behaviour were abusing branded liquor, 51.05% were abusing illicit liquor. 14.76% were abusing toddy and 3.37% were abusing other types of liquor, other than the common illicit liquor.
- 5.5 The average quantity of current intake per day was 346.72 ml of alcohol.
- 5.6 The study showed that the index persons were abusing 329.64ml before Tsunami, 229.18ml immediately after Tsunami, 407.14 ml when the relief money was disbursed and 350.92ml currently.
- 5.7 The average income of the total sample was Rs. 1970. 47 and on an average they were spending about 42.65% of their monthly income which is Rs. 840.40.
- 5.8 20.63% of the index persons financially depended on the spouse and it is an additional burden on them to earn money to run their family and financially support the index person who is abusing alcohol.
- 5.9 In the total sample that was abusing alcohol, 53.32% had health problems.
- 5.10 On an average 6.25% of those with drinking behaviour had suspicion, 34.4% quarreled at home, 33.12% physically abused the spouse and 13.8% physically abused the children. There was a significant difference between the report of men and women and fewer men reported problems in all the areas.
- 5.11 The index persons attributed that tiredness (58.12%) body pain (53%) pleasure and sleep disturbance (41.02%) to be the important reasons for depending on alcohol.

- 5.12 As perceived by women, adolescent and children, body pain (58.23%) tiredness (49.4%) hazardous job and family quarrel (34.11%) were the major reasons.
- 5.13 Though 9.6% of the index persons could abstain for more than 1 year in the past, 68% could not keep their abstinence for more than 6 months.
- 5.14 More men reported relapse after Tsunami, and in total 31.2% had relapsed after Tsunami, whereas only 12.8% had reported relapsing before Tsunami.
- 5.15 2.14% had attributed sleep disturbance as the reason for relapse. When compared to the reasons by all the groups, sad mood (34%) comes as the fifth reason in the rank order for relapse, apart from body pain, tiredness and hazardous job.
- 5.16 8.05% of the sample wanted the index persons to stop drinking.
- 5.17 Out of the 237, (27.8%) wanted the index persons to seek treatment for the alcohol drinking behaviour.
- 5.18 Of the total sample, 67.7% were reported to be abusing tobacco. It appeared that when compared to alcoholism, less percentage of people were abusing tobacco.
- 5.19 The gateway drugs like hans, pan parag and the other tobacco related products were also being abused by 19.7% and 18.42% respectively. Some of them abused different types of substances at the same time.
- 5.20 3.28% of the total population was probably addicted to ganja.
- 5.21 There is a marginal increase in the money spent for procuring other addictive substances before Tsunami (Rs.15.09) and currently (Rs 16.80).
- 5.22 However among the men, a good number (26.16%) preferred to drink less quantity than to stop drinking.
- 5.23 Some of them (7.17%) wanted their drinking not to affect the social functioning or family life, but wanted to continue their drinking behaviour.
- 5.24 Adolescents and children appeared to be keener than the adults to provide treatment to the index persons for stopping the drinking behaviour.

- 5.25 The fact that 78.05% wished that the index person to change the drinking behaviour is a positive sign and could facilitate in motivating the index persons to take action to achieve a drug free life style.
- 5.26 While 22.81% were interested in hobbies, 21.87% preferred alternate employment. The leisure activities of games and literary activities were preferred by 17.5% and 18.75% respectively. But majority of them had not reported any leisure activity, though 54.06% reported that they have leisure time.
- 5.27 Since 74% are dependent on alcohol, replacing the drinking behaviour with a pleasurable leisure activity assumes great importance.
- 5.28 Only 19.06% reported the availability of leisure activities like alternate employment and hobbies. 14.68% reported about the availability of facilities for engaging in play and games and 4.68% reported the availability of facilities for reading and literary activities.
- 5.29 Among the sample, 61.8% of the women, adolescents and children reported that there had been no change in the behaviour of the index person before and after Tsunami.
- 5.30 The women, adolescents and children, 19.39% reported worsening of the problems after Tsunami and another 9.69% reported worsening of the problems, but currently the problems were decreased.
- 5.31 However 9.09% felt that the behavioral problems were more before Tsunami and the problems had decreased following the event.
- 5.32 With respect to the effect of alcohol drinking behaviour, 69.64% of the adolescents and children reported psychological abuse and 50% of them reported physical abuse also. In contrast only 9.52 % of the men had reported physical abuse of their children.
- 5.33 The emotional reactions of women showed that 48 (82.75%) were frustrated. 45 (77.58%) had expressed anger as an emotional reaction and 39 (67.24%) had increased irritability. Nine (15.51%) of them felt like leaving their homes. In addition 4 (6.89%) had suicidal ideations. Nine (15.51%) had different emotional reactions that included being very sad about the state in which they are.
- 5.34 Regarding the impact of Tsunami, 25.62% had personal loss, 20.63% had personal hurt. 85.93% had lost their household articles (HA), and 49.1% their houses. Considerably low percentage lost their most valuable articles (MVB) and 13.12% reported loss of pets.

- 5.35 The data showed that 81.88% were experiencing one trauma response or the other.
- 5.36 Among the adult men sample, 50% of them reported that they were abusing alcohol to cope with the trauma.

6. PLAN OF ACTION

6.1. EDUCATION ABOUT ALCOHOL DEPENDENCE DISORDER (‘Illness’ concept of Alcoholism)

- 6.1.1 Majority of the women, adolescents and children want the index persons to stop the drinking behaviour. Some of the dependent persons are also motivated to stop their drinking behaviour.
- 6.1.2 Probably they are not fully aware about the treatment programs that are available. In one of the focus group discussions, when one of the women narrated her efforts in getting her husband being treated and he being sober for 8 months, only one person showed interest to know more about it.
- 6.1.3 It is imperative to educate the target population about the treatment facilities so that they could access the treatment.
- 6.1.4 This is also supported by the fact that women and other groups also think that the drinking behaviour is due to tiredness, body pain or work similar to the addicted persons. This might hinder the motivation programs in helping the dependent person and the family members to seek professional help for de addiction and counseling.
- 6.1.5 Some of the women, adolescents and children wished that the index persons reduce their quantity of intake or the drinking pattern so that their livelihoods is not affected. This points out to the fact that educative programs be conducted in the coastal area to motivate the women and the children about the need for treatment to help the addicted persons to be sober and to rebuild their lives.
- 6.1.6 The second preferred objective of the dependent persons is to achieve controlled drinking. However in Indian situation, it has been observed that controlled drinking, as a treatment objective does not seem to be a desired one, since many of them are finding it difficult to maintain control over their drink, even though they are re-trained in controlled drinking. (Manickam and Kuruvilla, 1989)

6.2 ESTABLISHING DE ADDICTION CENTRE

- 6.2.1 Establishing de addiction centers in the area would help not only the population of the study area, but also the neighborhood coastal community that is likely to be affected by the alcohol abuse.
- 6.2.2 One of the methods in maintaining alcohol free life is the contact the treatment centre or the support people at the treatment center establishes with the person the dependent person and their key family members.

- 6.2.3 Establishing a treatment center at a place that is accessible to the community members would ensure the continued support that a recovering alcohol dependent person requires.
- 6.2.4 The de addiction centers may also take care of the co morbid psychiatric disorders that go undetected in alcohol dependent persons because of their continued use of alcohol.
- 6.2.5 The services of member of Alcohol Anonymous and Al-Anon could be utilized to strengthen the programs.

6.3. ESTABLISHING COUNSELING CENTRE-Counseling for economic independence

- 6.3.1 The counseling centre also has to introduce innovative approaches.
- 6.3.2 Provide alternate banking facilities or micro economic planning system that would ensure financial stability for the fishing community. The fishermen tend to 'finish off' the money that they earn.
- 6.3.3 If adequate banking or saving facilities are available link between the community members and the banking institutions may be facilitated.
- 6.3.4 Alternate /Substitute Livelihood- Co-operative ventures could be initiated that would ensure the participation of members of the community and inclusion of all the community members to ensure economic freedom.
- 6.3.5 Majorities of the families have financial difficulties and the policy of subsidizing services or disbursing further money could again lead to increased intake of alcohol as seen at the time of delivery of relief money following Tsunami. Therefore different strategies may have to be planned with the participation of the community in giving economic freedom.

Men wanted to know about smoking cessation program

Some of the men who were not abusing alcohol but abusing other addictive substances like tobacco also expressed their desire to stop its abuse and wanted to know the method of stopping. They were asking about the centers available for stopping their smoking behavior and whether there is any 'medicine' available for stopping the smoking behavior.

6.4 TRAUMA OF TSUNAMI-Counseling for overcoming trauma

- 6.4.1 The counseling services should aim at resolving the trauma-related issues, along with counseling for alcohol dependence.
- 6.4.2 It has been observed that among a considerable number of persons, the relapse has occurred after the Tsunami and they also have traumatic responses that are unresolved and the impact of trauma appears to be unresolved.

6.4.3 Professional help through counseling may help them get over the trauma which may facilitate a drug free life style.

6.5 WOMEN-Counseling to empower women

Focus of Counseling to Women

In some situations the personality traits of the women could be a stumbling factor in maintaining the alcohol free life of the addicted person. Some of them may need training to evaluate and correct themselves, which can be part counseling focused on women. The behavior of the women/wives of the alcohol dependent persons surfaces more prominently, when the treated alcohol dependent person is followed up along with the spouse over a period of time.

6.5.1 Most of the de addiction centers in India take a family oriented approach and aim at involving the spouses of the dependent persons in the treatment programs.

6.5.2 There is an increased need for emotionally supporting the women in these geographical areas.

6.5.3 A significant number of them are affected not only economically, but they seem to be affected physically and emotionally.

6.5.4 Though they seem to have reconciled to the fact that alcohol abuse is the norm, instilling a hope might help them take care of themselves and their children.

Deliberate Self-Harm of Women

A young lady who was separated from her husband attempted suicide twice, once after Tsunami. Another widow whose husband died 7 years ago due to excessive use of alcohol attempted suicide.

6.5.5 Their emotional reactions and the concerns demands professional help to cope with the alcohol dependent persons.

6.6 ADOLESCENTS-Adolescent Counseling

- 6.6.1 To help them break the cognition that ' alcohol as a substance is the means to cope with personal problems', which they have been hearing from their childhood days.
- 6.6.2 To instill confidence in them by providing living skills training and facilitate them to develop alternate ways of earning their livelihood apart from their tradition employment
- 6.6.3 To educate them about the ill effects of alcohol and to keep them away from using alcohol and other substances.
- 6.6.4 The adolescent girls were anxious about their safety and future and require counseling to cope with stress of day-to-day living.

Diverse issues affect adolescent girls

Adolescent Girls narrated different stories. Though the interview was time limited, they wanted to continue and share their problems. The threat of rape was felt among them, especially after an incident of attempt to rape had happened in the settlement. They felt insecure, "Any thing can happen to us at any time and there is no one to protect us!" (since the father is either at sea or comes home drunk). They were anxious about what would happen each day.

Some of the questions they raised were,

"Will I get married ?"

"Why was I born ?"

"I have number of problems and to whom can I share?. This is not only my problem, many of us are experiencing this."

Regarding drinking behaviour one of them said,

" They only have to stop it and what can we do about it?"

6.7 CHILDREN-counseling to Children

- 6.7.1 Children are equally traumatized and require professional help to get over the trauma.
- 6.7.2 The children have to be provided help to cope with the stress caused by their father's behaviour under intoxication.

6.8. TRAINING OF LAY COUNSELORS

- 6.8.1 The counseling center may aim at training lay counselors of both the genders who could provide services like, identifying the dependent persons, motivating them and the family members for taking treatment and providing social support to those who were treated to keep their sober life style.
- 6.8.2 The lay counselors from the community would be easily accessible for the addicted persons when they have craving for alcohol or while they are in crisis.
- 6.8.3 Those who are abstaining for more than a year and who have the skills for effective communication may be trained as peer counselors.

- 6.8.4 Children and adolescents who have understanding about the 'disorder' concept of alcohol dependence may be trained as peer educators.

6.9 COMMUNITY PARTICIPATION

- 6.9.1 The participation of all the community members has to be ensured to make the program successful since the 'norm' of the community is to 'use alcohol'.
- 6.9.2 Striving a community towards a drug free society is a difficult task.
- 6.9.3 There could be strong opposition from the within and outside, since the community members are influenced tremendously by the neighboring community which equally follows the same pattern. One could expect a positive snowball effect, provided, the programs are planned strategically.

6.10 RECREATION FACILITIES

- 6.10.1. Leisure time management is an important component of a successful treatment program.
- 6.10.2 Appropriate facilities for recreation should be ensured within the community, that are culture specific and need based.
- 6.10.3 Adequate space needs to be provided for the recovered persons as well as others in the community to access different recreational facilities at different time periods.

6.11 PEOPLE CENTRED APPROACH

- 6.11.1 A balanced people centered approach should be evolved since a number of external factors interplay.
- 6.11.2 Alcohol is offered as reinforcement for different services provided.
- 6.11.3 So there is a possibility of strong opposition within the community, even though the women, adolescents and children could be supportive.
- 6.11.4 A well-designed Project Implementation Plan (PIP) that would take care of the culturally and religiously diverse population might help the program achieve the objectives.

6.13 AVAILABILITY

- 6.13.1 Majority of them depend on the liquor shops or the illicit liquor that are available nearby.
- 6.13.2 None of the sample interviewed or who participated in the FGD suggested the closure of the shops or stoppage of selling of illicit liquor in the housing areas.
- 6.13.3 This is a complicated issue since many in the Region I are depending on the illicit liquor that is less expensive and is easily available and accessible.

- 6.13.4 The people involved in brewing and trading have to be rehabilitated by providing alternate employment since many of them would be jobless if this is stopped abruptly.
- 6.13.5 Unless the government/policy makers take a strong step, it would be difficult to stop the trade since many of the abusers also are likely to support the traders.