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**To cite this article:** Dimelu, M. U., Agbo, C., and Igbokwe, E. M. (2011). Pattern of alcohol consumption and its effects on livelihood in selected rural communities of Enugu state, Nigeria. Asian Journal of Agriculture and Rural Development, 1(2), 69-79.



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### Abstract

The study examined alcohol consumption and its effects on economic and social livelihood of selected rural communities of Enugu State. One hundred and twenty randomly selected alcohol consuming heads of households and sixty four purposively selected non-alcohol consuming heads of household were used. Data were collected using structured interview schedule and analysed using percentage. Alcoholic beverages available were palm wine (100%), beer (100%), local gin (100%), spirit (89.2%), and burukutu (41.7%). Respondents indicated preference for palm wine (50.0%). Choice of alcoholic beverage was a function of several factors namely availability, ability to produce the alcohol, cost and others. Effects of alcohol consumption were evident by less commitment to livelihood activities, household's welfare, incidents of violence and others. The study recommends that policies should be enacted to regulate proliferation and operation of alcohol enterprises in the rural areas. More importantly is the regulation of the type of alcohol marketed in the communities. Also government should promote programmes that target improved livelihood strategies and empowerment of rural people to enhance diversification of the rural economy.

Keywords: Alcohol, livelihood, rural, social, consumption

# Introduction

Alcohol has been widely consumed since prehistoric times by man as a component of the standard diet, for hygienic or medical reasons, for its relaxant and euphoric effects, for recreational purpose, for artistic inspiration, as aphrodisiacs and for other reasons. Some drinks have been invested with symbolic or religious significance suggesting the mystical use of alcohol; for example, in the Christian Eucharist and on Jewish festivals (particularly, Passover).

Globally, alcoholic beverage consumption patterns vary considerably among different countries and even among ethnic groups within the same country. The variations in drinking patterns according to Bennett *et al.* (2004) include for example, the types of beverage consumed preferentially, occasions on which it typically occurs, drinking levels that are considered moral and population subgroups for whom drinking is considered acceptable. WHO (2004) reported that alcohol beverage preference of a particular area depends on the type of alcoholic beverages produced in the area. For instance beer is preferred in several European and African countries, wine is preferred in the wine producing countries of Europe and spirits are preferred in Eastern Europe, Asia and some island states. The arrack, a traditional drink produced by distilling fermented molasses, raw brown sugar, palm wine, rice or palm sugar is consumed more often in Bangalore region of India. This is followed by palm wine produced from either coconut tree or other palm trees, which has alcohol content ranging from 20 - 40 percent. The third is imported liquors such as whiskey, brandy and rum. Beer is also consumed in the Bangalore region, although less commonly than the three

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types of beverages listed above.

In Mexico some difference exists in the alcoholic beverages preference of various population subgroups. For example, although both men and women drink *pulgue*, women tend to prefer wine. Also young people consume beer and wine more frequently than other alcoholic beverages (Medina – Mora, 2000). Overall, Mexicans currently prefer beer and distilled alcoholic beverages such as *tequila* and rum.

On the contrary, Greenfacts (2006) stated that alcoholic beverage preferences of an area are no longer dependent on the type of alcoholic beverages produced in an area due to increasing importation of beverages other than those produced in the area or country. Consumers are increasingly opening up to beverages other than those produced in their country. Nevertheless, in many developing countries, traditional home made beverages are likely to be cheaper than factory made branded beverages, thus ensuring their continuing popularity, especially among poorer population groups (Ellison, 2005). Specifically, in Africa they tend to be cheaper than factory made drinks.

In Nigeria various types of alcohol are consumed. They range from beer, wine and spirit categories. Some of the alcohols are traditionally produced at the local level. The traditionally produced alcohols include palm wine, burukutu, pito, ogogoro (also known as kindana). These types of local alcoholic beverages produced locally are produced in different sections of the country and beyond. Obot (2000) opined that before the arrival of western factory - made drinks, alcohol consumption was limited to a variety of beverages produced from palm trees and food grains. He further remarked that beer has become the most popular drink in the country, but traditional beverages (palm wine, burukutu, ogogoro, pito) are still widely consumed in both rural and urban area. In Ibadan area of Nigeria, the most commonly consumed alcoholic beverages are palm wine which is produced from the sap of the palm tree and beer (Oshodin, 1999). Generally, throughout Nigeria native gin distilled from raffia palm wine is popular.

For a long time however, consumption of alcohol has been strictly regulated by traditions, social

norms, religion, natural limitations and laws. In the last two decades, global alcohol market is expanding particularly into developing countries. In many developing countries alcohol is often more easily available than clean drinking water. Today many big multinational brewers sell a lot of their products - beer-to many parts of the world and their share of the global market is increasing (Abderhalden, 2007). They make massive marketing efforts aimed particularly at new user groups such as young people, women and ethnic groups who traditionally did not drink. As a consequence, new drinks and drinking habits are being globalized across different continents and sections of the population. For example young people in developing countries are increasingly drinking and displaying the same harmful patterns of drinking-'binge drinking' common among people in developed countries. voung Consequently drinking habits vary from heavy drinking, heavy episodic drinking (binge drinking), alcohol dependent and moderate drinking (WHO, 2004)

The increase in alcohol consumption in many developing nations where health and economic systems are weakest is of particularly great concern. Poor people around the globe are vulnerable even to small changes destabilizing their daily hand to mouth economy. For those living under harsh circumstances, alcohol may seem an easy way out, but the social, economic, health and other problems created by alcohol use are severe additional burdens for poor people The paradox however, is that many developing countries are highly dependent on national revenues from alcohol. Such countries seek to maximize income, but the social costs of alcohol are often overlooked.

In Enugu State there is increase in alcohol beverage drinking spots in various rural communities. Alcohol beverage enterprise is experiencing heavy traffic in terms of new entrants in most rural communities of the state. The operators of these drinking spots are increasingly being patronized by alcohol beverage consumers. Many of the alcohol consumers have formed the habits of going to these spots on daily basis, at working hours and stay into the night. According to Babor and Del Boca (2003) alcohol is not an ordinary commodity; while it is linked with connotations of pleasure and sociability in the minds of many, its use has harmful consequences, particularly on rural households whose livelihood activities are seasonal, capital and labour intensive. The study therefore investigated:

- > alcohol consumption preference pattern in
- rural communities of Enugu State; and
- effects of alcohol consumption on rural
   livelihood, social and health life of rural
- areas

# Methodology

The study was conducted in Enugu State. Enugu North Agricultural Zone was randomly selected out of the three agricultural zones in Enugu State. The zone is known for its involvement in production of highly-sought after palm wine. The population comprised heads of households. A multistage random sampling technique was used. The first stage involved simple random selection of three out of the seven local governments areas (LGAs) in the zone. From each selected LGAs, two town communities were randomly selected using simple random techniques, given a total of six town communities. Two village communities were sampled from each town community by simple random method and a total of twelve village communities were used for the study. A list of heads of households was compiled in each of the selected villages using research assistants. Four informants from the selected village were identified and used to stratified heads of households into alcohol consuming and non alcohol consuming heads of households. Ten alcohol consuming heads of households were selected using simple random techniques, giving a total of one hundred and twenty respondents. Based on the dominance of alcohol consuming heads of households in the area, the available population (64) of non alcohol consuming heads of households was used.

Structured interview schedule was used to collect data for the study. Alcohol preference pattern of the respondents captured issues on availability, preference, factors that influence preference, and others. The respondents were asked to indicate the available alcohol and preference, factors that influence choice of alcoholic beverage, frequency of consumption (number of time) and, income spent on alcohol consumption (#). To elicit information on influence of alcohol consumption on livelihood, data on livelihood activities, social and health life of alcohol consumers were compared with that of non alcohol consumers. Respondents provided answers to questions on absence from work (number of time), number of work place accidents, size of farm (hectare), livestock (number), inputs used, injury sustained in the last 12 months (number), percentage of daily income spent on alcohol consumption road traffic accident in the last 12 months (number), number of spousal beating in the last 12 months, number of children unable to pay school fees, average number of meal per day and others. Data were analysed using percentage.

# **Results and discussion**

# Alcohol preference pattern of respondents

# Alcohol beverage availability and preference

All the alcoholic beverages namely palm wine (100%), beer (100%), local gin (100%) burukutu (41.7%) and spirit (89.2%) were available to the respondents (Table1). However, the most preferred beverage was palm wine (50 %). Only about 25%, 11%, 13 % expressed preference for beer, local gin and spirits/hot drinks, respectively. Quite a small proportion (1.7%) of the respondents preferred burukutu. The result confirmed Oshodin (1999), which reported that in Ibadan area of Nigeria, the most commonly consumed alcohol beverage was palm wine produced from the sap of palm tree. Respondent's preference for palm wine may be associated with its lower alcohol content, access, relatively lower price, popularity as local beverage and sociocultural importance. Above all, palm wine is generally considered as cool or soft drink; while others are regarded as hot or hard beverage. Traditionally, alcohol preference of an area often depends on the type of alcohol beverage produce in the area probably due to their relatively lower price. On the contrary, GreenFacts (2006) opined that alcohol beverage preference of an area is no longer dependent on the type of alcohol beverage produced in the area due to increasing importation of beverages. Nevertheless, homemade beverages are expected to be cheaper thus, ensuring continuing popularity particularly among poor population group (Ellison, 2005).

### Factors that influence choice of alcohol beverage

The respondents indicated that choice of alcohol beverage consumed was influenced by availability (53%), ability to produce the beverage type (50 %), cost/relative prices (46.7 %) and prestige (43.3%) (Table1). Lesser proportion (25.0, 33.3, and 16.7%) of the respondents was influenced by taste, suitability for the body and advertisement, respectively. Generally, the findings reveal that choice of alcohol beverage is a function of a mix of factors. Although, alcohol beverage preference of a particular area depends on the type of alcoholic beverages produced in an area (WHO, 2004), the study confirms that access, relative prices, popularity. and sub group are also determinants.

#### **Frequency of alcohol beverage consumption**

Result in Table 1 shows that 29.2% of the respondents consumed alcohol everyday of the week, while about 42% engaged in alcohol consumption for 2.-6 days in a week. Only 4.2% of the respondents consumed alcohol once a month. Overall, majority (70.8%) are frequent consumers of alcoholic beverages. This suggests

harmful (binge/heavy episodic) pattern of drinking. According to Babor and Del Boca (2003) binge drinking is mostly common among young people in developing country .Often individuals attend such level of drinking for social reasons. Health (2001) reports that it was identified as a predominant reason for drinking by people from a range of cultures in the developed and developing worlds. However, the social, economic and psychological consequences particularly on children and spouse are great. Also time spent while drinking often competes with the time needed to carry on family life. .But more serious is the number/mix of alcohol consumed and how they are consumed.

### Daily income spent on alcoholic beverages

Table 1 shows that majority (64.2%) of the respondents spent between 41 and 80 percent of their income on buying alcoholic beverage. A lesser number (27.5%) spent 1 to 40 percent of their daily income on alcohol; while about 8% spent greater than 81 percent in buying alcoholic beverages. Most of the respondents spent more than half of their daily income in purchasing alcoholic beverages.

| that influenced preference, frequency of consumption and income spent on alcohol |      |  |
|--|------|--|
| *Alcoholic beverage available  | %    |  |
| Palm wine  | 100  |  |
| Larger beer/stout  | 100  |  |
| Local gin  | 100  |  |
| Burukutu   | 41.7 |  |
| Spirits (other hot drinks)   | 89.2 |  |
| Preference   |      |  |
| Palm wine  | 50.0 |  |
| Larger beer/stout  | 25.0 |  |
| Local gin  | 10.8 |  |

Table 1: Percentage distribution of respondents by alcohol beverage availability, preference, factors

| Burukutu  | 41.7 |
|---|------|
| Spirits (other hot drinks)                            | 89.2 |
| Preference  |      |
| Palm wine   | 50.0 |
| Larger beer/stout                                     | 25.0 |
| Local gin   | 10.8 |
| Burukutu  | 1.7  |
| Spirits (other hot drinks)                            | 12.5 |
| *Factors that influence choice of alcoholic beverages |      |
| Cost  | 46.7 |
| Taste   | 25.0 |
| Availability  | 53.3 |
| Ability to produce the beverage type                  | 50.0 |
| Advertisement   | 16.7 |
| For prestige  | 43.3 |
| Good for the body                                     | 33.3 |
| Frequency of consumption of alcohol                   |      |
| Every day of the week                                 | 29.2 |
|   |      |

| Asian Journal of Agriculture and | Rural Development, | 1(2)2011: 69-79 |
|----------------------------------|--------------------|-----------------|
|----------------------------------|--------------------|-----------------|

| 4-6 days in a week                       | 23.3 |
|--|------|
| 2-3 days in a week                       | 18.3 |
| 1 day in a week                          | 8.3  |
| 2-3 days in a month                      | 16.7 |
| Once a month                             | 4.2  |
| Percentage daily income spent on alcohol |      |
| 1-20                                     | 10.8 |
| 21-40                                    | 16.7 |
| 41-60                                    | 36.7 |
| 61-80                                    | 27.5 |
| 81-100                                   | 8.3  |

\*Multiple responses

Source: Survey, 2009

This shows an uneconomical diversion of scarce within one month. No doubt, consistent occurrence of economic resource that could otherwise be used for this can precipitate domestic violence, indebtedness, and more useful needs of the family. In a similar study of broken homes, abandonment of children and poor alcohol use among two districts in Botswana, nutrition of households. Molamu and McDonald (2006) reports that a significant proportion of household income was spent on liquor and as a result less cash was available for food, clothing and other essential This confirms Assunta (2002) which items. opines that a rural labourer could spend his monthly salary in drinking

# Effects of alcohol consumption on livelihood activities

#### Absence from work place

Results showed that 35% of alcohol consumers compared to 79.7% of non-alcohol consumers were regular in the work place (Table 2). A significant proportion (56.7%) of alcohol consumers were absent from work place for 1 - 15days in the past 12 months; while only 18.8% of non-alcohol consumers reported being absent from work place for similar days. Alcohol consumers exhibited absence from work place more than the non alcohol consumers. The finding is in corroboration with Klingemann and Gmel's (2001) which asserts that people with alcohol dependence and problem drinkers have higher rates of sickness-associated absence than other employees. He also noted that a number of studies have demonstrated an association between heavy drinking or alcohol abuse and unemployment. Similarly a study conducted in Ghana and Nigeria among farmers shows that absenteeism from farms, loss of productivity and farm accident were the major concern of heavy drinkers of alcohol (Yaro, 2006). Absence from work place rural communities is particularly among detrimental to the economic activities of the respondents given the agrarian economy of the rural sectors. Frequent absence from work will certainly affect productivity and subsequently income. It is possible that the days of absence from work place fall within the critical period of on-farm or off farm activities. Thus, its attendant consequences on the livelihood of the respondents are not farfetched.

## Number of work place accident

Majority (65.0%) of non-alcohol consumer had not experienced accidents in the work place, while only 23.4% of alcohol consumers expressed similar view (Table 2). Quite a significant number (76.6%) of alcohol consumers had work place accident between 1 and 9 times in the last 12 months. More alcohol consumers recorded accident in their work place. Accidents of any form could negatively affect productivity because time and money are involved in treating the victim. Moreover, such a situation may result to permanent incapacitation and sometime death of the victim, which invariably culminate in social and economic deprivation of the concerned family. Room et al. (2002) also note that specific intoxicated events can also have lasting consequences through home accident and family violence. Harmful drinking of an employee may result in accidents and this according to Osiatynska (2004), causes severe damage to the coworkers and the work place.

#### Size of farm land cultivated (hectare)

Most (75.0%) alcohol consumers and about 64.0% non-alcohol consumers cultivated 1 to 2 hectare of farm land. About 21% of alcohol consumers cultivated between 3 and 6 hectare, while a greater proportion (37.6%) of non-alcohol consumers allotted the same size of farmland to farming. The study revealed that respondents are largely involved in production; however, the non-alcohol consumers are more committed to production. It is possible that the alcohol consumers might have taken to drinking for the purpose of relaxation, feeling of happiness and cheerfulness. According to Saunders (1998) relaxation was one of the psychological benefits of drinking. Unfortunately, most times this degenerate into binge drinking which is associated with, hyper-activity, sickness, sleeping and clumsy, and irresponsible behavior (Bennett et al., 1998). Above all, time spent while drinking often competes with the time needed to carry out economic activities.

#### Use of inputs

Table 2 shows that non-alcohol consumers (78.1%) used inorganic inputs more than the alcohol consumers (45.0%). Also lesser proportion of alcohol consumers adopted pesticides (25.0%) and herbicides (12.5%) as against 31.3% (pesticides) and 25.0% (herbicides) of non-alcohol consumers who utilized similar inputs. However, improved seeds were used by greater percentage of alcohol consumers (22.55) compared to non-alcohol consumers (17.2%). Generally, the non-alcohol consumers are more responsive to the use of modern improved technologies for enhanced production. It is not surprising because alcohol consumption competes with other needs both in terms of time and income. Worst still, often priority is accorded to expenditure on alcohol particularly by alcohol dependant even to the detriment of necessities of life. Although adoption of improved technologies may be both time and capital intensive, heavy dependence on traditional practices is very limited for improving productivity.

#### Number of livestock kept

Sheep, Goat and Pigs). A greater number (42.5%) of alcohol consumers compared to 39.1% of non-

alcohol consumers were not engaged in rearing of sheep. The alcohol consumers (50.7%) kept between 1 and 8 sheep, while only 46.9% of nonalcohol consumers reared the same number of sheep. Goat production was more popular among non alcohol consumers than alcohol consumer. About 69% non alcohol consumers reared 1 to 8 goats, while 47.4 % alcohol consumers kept the same number of goats.

Furthermore pig production was not very popular among both consumers (86.6%) and non consumers (78.2%). Only about nine percent of consumers and non- consumers each had 1 to 5 pigs. The finding reveals that both respondents are involved in rearing livestock. The alcohol consumers however, showed greater interest in rearing sheep probably because it is practically less labour and capital intensive. According to Holtzer (2007) drinking establishments and/or clubs serve as a place to gather, a center separate from the world environment and from home. Thus alcohol consumers may not have sufficient time and adequate technical know-how required for sustained production of some livestock. Moreover, they are also prone to frequent disposal of livestock to make up for many competing needs. Chicken

Table 2 further shows that majority (56.3%) of non-alcohol consumers kept between 1 and 10 local breeds of chickens compared to alcohol consumers (28.35). However, a greater proportion (45.0%) of alcohol consumers had 11 to 40 local chikens, while about 27% of non-alcohol consumers reared similar number. Greater number of alcohol consumers are involved in local chicken production. It is not surprising because rearing of local chicken requires less attention, time, labour and other resources. Unlike nonalcohol consumers, the alcohol consumers spend considerable time and days in drinking, thus may not be deeply committed in economic/household activities that are resource intensive. On the other hand, chicken rearing is traditionally a female dominated activity and this could explain the low proportion of respondents rearing chickens,

### Effects of alcohol on social life of respondents

Effect of alcohol consumption on social life of consumers were discussed in terms number of

times sustained injury, spousal beating, quarrel with neighbors and others.

# Number of times sustained injury in the last 12 month

Table 3 shows that majority (81.35) of nonalcohol consumers had not sustained injury ; while about 485 of alcohol consumers had no injury in the last 12 months. Similarly, greater number (46.75) of alcohol consumers as against 19.7% of non-consumer sustained injury 1 to 6 times. There is no doubt that injury sustained by alcohol consumers Similar studies by Osiatynska (2004) and Garland (1999) is likely associated with binge drinking. reported that alcohol consumption is responsible for nearly 60 per cent types of disorder and injury. Also a survey conducted in the United States of America found that farm residents who drank more frequently had significantly higher farm work injury incidence rates than others who consumed less frequently (Stallones and Xiang, 2003). However, Grant and Litvak (2004) opined that pattern of drinking is what best predicts whether they will experience positive or negative consequences of their alcohol consumption. According to the authors what is important is how a person drinks. Nevertheless, high incidence of injury by consumers ultimately leads to financial drain and lower agricultural activities.

#### Frequency of road accident

The non-alcohol consumers (85.9%) and alcohol consumers (51%) indicated that they had not been involved in any road traffic accident. A greater proportion (45.9%) of consumers and lesser number (14.0%) of non consumers expressed involvement in road traffic accidents between 1

and 6 times. The result reveals that more alcohol consumers have been victims of road traffic accident, than non-consumers. At times, such accidents may lead to permanent incapacitation of the victim and/or death leading to social and economic deprivation on the family.

### Number of spouse beating

Substantial number of non-alcohol consumers (43.8%) and lesser number of alcohol consumers (28.3%) indicated that they had not experienced spousal beating. About 37% of consumers compared to 35.9% of non-consumers owned up having cases of spousal beating for 1 to 4 times in the last 12 months. Generally both categories of respondents experienced spousal beating in their homes; however, greater proportion (71.7%) of alcohol consumers experienced such ills. The result is consistent with Osiatynska's (2004) who reported that alcohol consumption leads to family conflicts often related to domestic violence. Also a study conducted in Nigeria showed a strong association between domestic violence and alcohol use. Alcohol use was involved in 57per cent of the cases in which a husband stabbed a wife (Obot, 2000).

## **Regularity of quarrel with neighbours**

The non alcohol consumers (51.6%) compared to consumers (21.7%) revealed that they had never been involved in quarrels with neighbours. Quite a significant proportion (31.7%) of consumers reported cases of conflict with neighbours very often, while only about 2% non consumers had similar experience. Overall, majority (78.3%) of alcohol consumers as against (48.5%) non consumers had been involved in quarrel with neighbours, though in varying degrees.

| Table 2: Percentage distribution of respondents based on effect of alcohol consumption on li | velihood |
|--|----------|
| activities   |          |

| Livelihood activities                   | <b>Consumers (N = 120) %</b> | Non consumers (N 64) % |
|---|------------------------------|------------------------|
| No of days away from work since last 12 |                              |                        |
| months                                  |                              |                        |
| None                                    | 35.0                         | 79.7                   |
| 1– 5 days                               | 17.5                         | 7.8                    |
| 6– 10 days                              | 19.2                         | 6.3                    |
| 11 – 15 days                            | 20.0                         | 4.7                    |
| 16 – 20 days                            | 8.4                          | 1.6                    |
| Number of work place accidents          |                              |                        |
| 1-3                                     | 23.4                         | 65.6                   |

| 4-6       25.0 $34.6$ $7-9$ $33.3$ Size of farmlands cultivated (hectares) $1-2$ $75.0$ $64.1$ $3-4$ $16.7$ $31.3$ $5-6$ $4.2$ $6.3$ $7-8$ $2.5$ $4.7$ $9-10$ $1.7$ $1.6$ Use of inputs (multiple responses) $1.7$ $1.6$ Inorganic fertilizer $45.0$ $78.1$ Pesticides $25.5$ $17.2$ Industrially produced feeds $12.5$ $25.0$ Improved seeds $12.5$ $25.0$ Number of livestock kept $18.3$ $23.4$ Number of livestock kept $5-8$ $39.1$ $1-4$ $32.2$ $26.6$ $5-8$ $18.3$ $20.3$ $8-12$ $7.0$ $14.1$ Goat $7.0$ $14.1$ Goat $5.6$ $78.2$ $1-4$ $30.8$ $15.6$ $5-8$ $16.6$ $53.1$ $9.2$ $9.4$ $6-10$ $4.2$ $12.4$ <th></th> <th></th> <th></th>  |                                    |      |      |
|---|------------------------------------|------|------|
| Size of farmlands cultivated (hectares) $1-2$ 75.0       64.1 $3-4$ 16.7       31.3 $5-6$ 4.2       6.3 $7-8$ 2.5       4.7 $9-10$ 1.7       1.6         Use of inputs (multiple responses) $10$ 1.7         Inorganic fertilizer       45.0       78.1         Pesticides       25.5       25.0         Improved seeds       22.5       17.2         Industrially produced feeds       18.3       23.4         Veterinary Drugs       10.8 $10.8$ Number of livestock kept $5-6$ $5-8$ None       42.5       39.1 $1-4$ 32.2       26.6 $5-8$ 18.3       20.3 $8-12$ 7.0       14.1         Goat $10.4$ 30.8       15.6 $5-8$ 16.6       53.1 $9-12$ 4.2       6.3         Pig $-1-5$ 9.2       9.4 $0-5$ 9.2       9.4       6-10       2.4         Domestic fowl $-10$ 28.3       56.3 <td></td> <td></td> <td>34.6</td>   |                                    |      | 34.6 |
| 1-2       75.0 $64.1$ $3-4$ $16.7$ $31.3$ $5-6$ $4.2$ $6.3$ $7-8$ $2.5$ $4.7$ $9-10$ $1.7$ $1.6$ Use of inputs (multiple responses) $unorganic fertilizer$ $45.0$ $78.1$ Pesticides $25.0$ $31.3$ Herbicides $12.5$ $25.0$ Improved seeds $12.5$ $25.0$ $17.2$ Industrially produced feeds $18.3$ $23.4$ Veterinary Drugs $10.8$ $Veterinary Drugs$ $10.8$ $Veterinary Drugs$ $10.8$ Number of livestock kept $81.3$ $23.4$ $22.5$ $39.1$ $1-4$ $32.2$ $26.6$ $5-8$ $18.3$ $20.3$ $8-12$ $7.0$ $14.1$ $60at$ $51.6$ $55.6$ $5-8$ $16.6$ $53.1$ $9-12$ $4.2$ $6.3$ $9.1$ $4.2$ $6.3$ $9.4$ $6-10$ $4.2$ $6.6$ $7.5$ $9.2$ $9.4$ $6-10$ $4.2$ $9.4$ $6-10$  |                                    | 33.3 |      |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$  |                                    |      |      |
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| Use of inputs (multiple responses)         Inorganic fertilizer       45.0       78.1         Pesticides       25.0       31.3         Herbicides       12.5       25.0         Improved seeds       22.5       17.2         Industrially produced feeds       18.3       23.4         Veterinary Drugs       10.8       10.8         Number of livestock kept       5       39.1         1-4       32.2       26.6         5-8       18.3       20.3         8-12       7.0       14.1         Goat       14.1       10.6         None       48.4       25.0         1-4       30.8       15.6         5-8       16.6       53.1         9-12       4.2       6.3         Pig       1       12.4         None       86.6       78.2         1-5       9.2       9.4         6-10       4.2       12.4         Domestic fowl       12.4       10.9         None       28.3       56.3         1-10       28.3       56.3         11 - 20       20.8       10.9         21 - 20       14.2 <t< td=""><td>7-8</td><td>2.5</td><td>4.7</td></t<> | 7-8                                | 2.5  | 4.7  |
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| Pesticides25.031.3Herbicides12.525.0Improved seeds22.517.2Industrially produced feeds18.323.4Veterinary Drugs10.8Number of livestock keptSheepNone42.539.11-432.226.65-818.320.38-127.014.1Goat $\mathbf{Wome}$ 48.425.01-430.815.65-816.653.19-124.26.3Pig $\mathbf{Wome}$ 42.26.3None86.678.21-59.29.46-104.212.4Domestic fowl $\mathbf{Wome}$ 22.510.91-1028.356.311-2020.810.921-2014.29.431-4010.06.3  | Inorganic fertilizer               | 45.0 | 78.1 |
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| $\begin{array}{cccccccccccccccccccccccccccccccccccc$  |                                    | 42.5 | 39.1 |
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| $\begin{array}{cccccccccccccccccccccccccccccccccccc$  |                                    | 48.4 | 25.0 |
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| $\begin{array}{cccccccccccccccccccccccccccccccccccc$  |                                    | 86.6 | 78.2 |
| $\begin{array}{c cccc} 6-10 & 4.2 & 12.4 \\ \hline \text{Domestic fowl} & & & \\ \hline \text{None} & 22.5 & 10.9 \\ 1-10 & 28.3 & 56.3 \\ 11-20 & 20.8 & 10.9 \\ 21-20 & 14.2 & 9.4 \\ 31-40 & 10.0 & 6.3 \\ \hline \end{array}$   |                                    |      |      |
| Domestic fowlNone $22.5$ $1-10$ $28.3$ $1-20$ $20.8$ $21-20$ $14.2$ $31-40$ $10.0$  |                                    |      |      |
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| $\begin{array}{cccccccccccccccccccccccccccccccccccc$  |                                    | 22.5 | 10.0 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$  |                                    |      |      |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$  |                                    |      |      |
| 31 – 40 10.0 6.3  |                                    |      |      |
|   |                                    |      |      |
| 41-50 4.2 6.3   |                                    |      |      |
| Source: Survey 2009   |                                    | 4.2  | 6.3  |

Source: Survey 2009

In line with the findings, negative impacts of alcohol drinking were reported to include domestic violence, loss of wealth, indebtedness, less of social prestige and a loss of relationship with neighbours (www.add- resources. alcohol and drug problem 79584 en.html.), and disruption of neighborhood harmony (Osiatynska, 2004) This seems to contradict several assumptions and/or findings that alcohol consumption increases social network (Saunders, 1998) and that sociability was identified as the predominant reason for drinking by people from a range of culture in the developed and

developing countries. According to Holtzer (2007) drinking tends to bind people together be it from shared experience, proximity with others in a drinking environment, or as a symbol of acceptance into a peer group.

Lyons *et al.* (2005), however, reported from a survey of social well-being and health in south Wales that views among surveyed respondents on whether drinking expanded a person's social network were mixed. Whereas the majority (65 per cent) of respondents was of this opinion, substantial minority (27 per cent) stated it did

not enhance one's social circle and indeed not restrict it, especially if drinking became a frequent event. Practically, social network in terms of number of friends and acquaintances and a person's connectedness can be enhanced (Saunders, 1998) but the extent to which it extend to neighbor is questionable. Dhital, (2001) Concludes that impact of alcohol included double violence, loss of wealth and indebtedness, loss of social prestige and bad relationship with neighbours.

# Number of children unable to pay school fees

Majority (59.4%) of non-alcohol consumers were able to pay school fees for all their children, while only about 29% of consumers expressed ability to do so. In other words 70.9% of consumers against 40.6% of non alcohol consumers were unable to pay school fees for their children. This is practically possible because alcohol consumption is associated with diversion of scarce resource to alcohol which could have been otherwise used for meeting important family needs. According to Bonu (2004) alcohol use can reduce household income through morbidity associated with drinking habit among the consuming individual, resulting in increasing medical expenditure and loss of income due to lost wages and sometimes resulting in the premature death of sole wage earners in a household. Children affected are exposed to early child labour, and hardship and at high risk of problems.

## Number of meals households take

Table 2 shows that greater number (70.3 %) of non alcohol consumers had square -meal per day, while about 335 of consumers' households had similar meal status. A significant proportion (30.8%, 36.7%) of consumers provided meal twice for their households, once and respectively. On the contrary, only 15.6% and 14.1% non consumers ensured once and twice daily meal for their households, respectively. The result revealed that households of non alcohol consumers were better fed compared to that of alcohol consumers. This is supported by Molamu and McDonald (2006) who reported that child neglect is an increasing problem when parents are intoxicated so early in the day that they are not able to prepare food for their children, even if there is food available A concern according to the study is that some parent will sell food to buy alcohol while others will give alcohol to their children as a food substitute and to starve off hunger. Other reasons include diversion of income, poor commitment to household livelihood strategies and spousal conflict. Ensuring household food security among rural communities in particular is a global, national and community concern. Involvement of household heads in alcohol consumption /episodic /heavy dependent remains a threat to actualizing this and goal of other development interventions.

# Conclusion

Alcohol dependent or episodic/binge drinking particularly among rural communities are increasing in an alarming level. While many rural communities are decimated with alcohol business enterprise, the populace is increasingly exhibiting new patterns of drinking. The findings show that among beverages available, palm wine was the most popularly consumed. The result indicated an episodic altitude to alcohol consumption with a significant proportion of income committed to it. Choice of alcohol beverage largely depended on availability, ability to produce the beverage and cost. The alcohol consumers were less committed to livelihood strategies and amassed a lot of social and health problems for themselves and their household. Alcohol consumption leaves several negative consequences on rural livelihood evidenced by low involvement in economic activities, the proportion of income spent in alcohol, absenteeism, work place accident, disharmony with neighbours, spousal biting and others The study therefore recommends that policy makers and development planners should enact policy to control the proliferation and operation of alcohol enterprises in rural communities. More importantly is the regulation of the type of alcohol marketed. The need for orientation of rural people on the attendant consequences of episodic/binge drinking is also expedient. Government should promote programmes aimed at improving rural livelihood strategies and empowerment of households to help cushion the effect of alcohol consumption

on individual and households.

| Social and health life                                 | <b>Consumers (N = 120) %</b> | Non consumers (N 64) % |  |
|--|------------------------------|------------------------|--|
| Number of times sustained injury in the last 12 months |                              |                        |  |
| None   | 48.3                         | 81.3                   |  |
| 1-3 times  | 30.0                         | 16.6                   |  |
| 4–6 times  | 16.7                         | 3.1                    |  |
| 7–9 times  | 5.0                          |                        |  |
| No of road traffic accident(s) in                      |                              |                        |  |
| None   | 51.7                         | 85.9                   |  |
| 1-3  | 36.7                         | 10.9                   |  |
| 4-6  | 9.2                          | 3.1                    |  |
| 7-9  | 2.5                          |                        |  |
| No of spousal beating in the la                        |                              |                        |  |
| None   | 28.3                         | 43.8                   |  |
| 1-2  | 23.4                         | 28.1                   |  |
| 3-4  | 13.3                         | 7.8                    |  |
| 5-6  | 35.0                         | 20.3                   |  |
| No of children unable to pay so                        |                              |                        |  |
| None   | 29.1                         | 59.4                   |  |
| 1-5  | 37.5                         | 28.1                   |  |
| 6-10   | 16.7                         | 7.8                    |  |
| 11 – 15  | 9.2                          |                        |  |
| 16 - 20  | 7.5                          | 1.6                    |  |
| No of meals the household ta                           | kes per day on average       |                        |  |
| Once   | 30.0                         | 15.6                   |  |
| Twice  | 36.7                         | 14.1                   |  |
| Thrice   | 32.5                         | 70.3                   |  |
| Regularity of quarrel with neighbor                    |                              |                        |  |
| Very often   | 31.7                         | 1.6                    |  |
| Often  | 23.3                         | 3.1                    |  |
| Occasionally   | 10.8                         | 6.3                    |  |
| Seldom   | 12.5                         | 37.5                   |  |
| Never  | 21.7                         | 51.6                   |  |
| Source: Survey 2009                                    |                              |                        |  |

 Table 3: Percentage distribution of respondents based on the effects of alcohol consumption on social

 Life

Source: Survey 2009

Views and opinions expressed in this study are the views and opinions of the authors, Asian Journal of Agriculture and Rural Development shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.

## References

- Abderhalden, I. (2007). The Globalization of Alcohol Abuse. *Bulletin Von Medium Schweiz*, 06, November.
- Assunta, M. (2002). *The alcohol problems in Malaysia*. The Globe, 2001-2002, special issues 4, 18-21.
- Bennett, I. A., Janca, A., Grant, B. F., & Sartorius, N. (2004). Boundaries between normal and pathological drinking: A cross-cultural comparison. *Alcohol Health and Research World*, 1(3), 192-194.
- Bennett, L. A., Campillo, C., Chandra, C. P., Shekar, C. P., & Gureje, O. (1998). Alcoholic beverage consumption in India,

Mexico and Nigeria. *Alcohol, Health and Research world*, 22, 245-250.

- Babor, T. F., & Del Boca, F. K. (2003). *Treatment matching in alcoholism*. Cambridge University Press.
- Bonu, S. (2004). Household tobacco and alcohol use and child health: An exploratory study from India. *Health Policy*, 70, 72-75.
- Dhital, E. (2001). Alcohol and drug in Nepal: With reference to children. Kathmandu, Child Workers in Nepal concerned center.
- Ellison, R. C. (2005). Importance of patterns of alcohol consumption" Circulation 2000, 112 -925 pp. 3818 – 3819.
- Grant, M. and J, Litvak (eds.). (2004). *Drinking patterns and their consequences*. Washington, Taylor and Francis.
- Greenfacts, (2006). Scientific facts on alcohol: information on our three level structures. (http://www.greenfacts.org/en/alcohol/retr ievedon3/5/08.
- Garland, (1999). *Medieval feminist forum*. 33(1), 51-52. Available at: http://ir.uiowa.edu/mff/vol33/iss1/9.
- Holtzer, C. (2007). *Critical steps to developing a unified theory of alcohol use*. Unpublished masters thesis presented to the school of Public Health, University of Pittshurgh. pp. 18-32.
- Klingemann, H., & Gmel, G. (eds.) (2001). Mapping the social Consequences of Alcohol Consumption, Dorddrecht, Kluwer Academic Publishers.
- Lyons, R. A., Lo., S. V., Monaghan, S. & Little page, B. N. (2005). Moderate drinking improves health. *British Medical Journal*, 310-326.
- Medina-Mora, M. E. (2000). Mexico. Alcohol and Emerging Markets: Patterns, problems and Responses. by M. Grant. (ed). Philadelphia: Brunner/Mazel. pp. 263-264.
- Molamu, L., & MacDonald, D. (2006). Alcohol abuse among the Basarwa of the Kgalagadi and Ghanzi Districts in Botswana. *Drugs: Education, Prevention and Policy*, 3(2), 145-152.
- Obot, I. S. (2000). The Measurement of drinking patterns and alcohol problems in Nigeria. *Journal of Substance Abuse*, 12(1 – 2),

169-175.

- Oshodin, O. G. (1999). Nigeria. In D. B. Health. (ed.) *International handbook on alcohol and culture*. West report, C. T: Greenwood press, pp. 217-223.
- Osiatynska, E. (2004). Alcohol and Health, http://64.233.169.104/seach?9=cache: NAUDQBGESYJ.www.q4q.nl/alcohol/bo ok.pdf and h... retrieved on 28/1/08.
- Room, R., Jernigan., D., Calini\_Marlatt, B., Gureye, O., Makela, M., Marshall.
  (2002). Alcohol in Developing Societies: A Public Health Approach. *Finnish Foundation for Alcohol Studies in Collaboration with the World Health Organization*, pp. 79-114.
- Saunders, J. B. (1998). *Defining beneficial patterns of drinking: A clinical perspective.* Paper presented at the second International conference on drinking patterns and the consequences, a thematic meeting of the Kettil bruun society, perth.
- Stallones, L., & Xiang, H. (2003). Alcohol consumption pattern and work related injuries among Colorado farm residents. *American Journal of Preventive Medicine*, 25(1), 25-30.
- World Health Organization (2004). *Global status report on alcohol*, Geneva. <u>www.add.resources.org</u> retrieved on 10/3/08.
- Yaro, J. A. (2006). Is deagrarianization real? A study of Livelihood activities in rural Northern Ghana. *Journal of Modern African Studies*, 44(1), 125-150.