

Country Profile on Alcohol in Papua New Guinea

by
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1. INTRODUCTION

Papua New Guinea (PNG), the largest country in the Pacific Islands with a population of approximately 4 million people in 1997, became independent of Australia in 1975. PNG comprises the eastern half of the main island of New Guinea, together with an assemblage of major and minor islands mostly located further to the east, and including the large islands of New Britain, New Ireland and Bougainville. PNG is extremely diverse linguistically and culturally, having over 800 mutually unintelligible languages and nearly as many separate cultures. The country is also made up of great many different natural environments that range from coral atolls just above sea level to snow-clad mountain peaks of over 4,000 metres in elevation.

Blessed with rich natural resources, PNG's economy relies heavily on the mining of gold, copper and other metals and on substantial reserves of petroleum and natural gas. These resources have been developed mostly by transnational corporations in joint ventures with the national government. Export crops of coffee, cacao and copra also are important. At least three-fourths of the populace resides in rural areas and engages in subsistence agriculture, or in a mix of this with small holder cash cropping. The two largest cities are Port Moresby (the national capital), located on the south coast, and Lae, situated on the east coast at the terminus of the Highlands Highway. The latter is the major road system in the country and it links the five Highlands provinces to Lae's seaport. Air and sea transport are at least as important as land transportation, and many parts of the country can only be reached via aeroplane or ship. There are nineteen provinces, each with its own provincial government, and most of these establish and regulate the laws pertaining to the availability and control of alcoholic beverages. Every province has at least one town that serves as the provincial capital, and several such towns have grown rapidly in recent years, although all remain much smaller than Lae and Port Moresby. Nevertheless, these towns form the transportation and communication hubs and marketing centres for their surrounding areas, factors that are pertinent to the distribution of alcoholic beverages.

Prior to colonization by Great Britain and Germany in the late nineteenth century, Papua New Guineans practised a variety of traditional non-deistic religions based mostly on animistic beliefs. Along with colonialism came Christian missionaries, and while active conversion continues in some of the more remote parts of PNG, most

citizens are Christians. The great majority of them belong either to mainline Protestant denominations or the Catholic Church; however, evangelical Christian churches have made substantial inroads to this domination in the past twenty years. Such churches, along with others like Seventh Day Adventists, actively preach against the use of alcoholic beverages, and most of their members avoid alcohol.

2. A BRIEF HISTORY OF ALCOHOL IN PNG

All available historical records indicate that the people of PNG, like other Pacific Islanders, had no knowledge of beverage alcohol before contact with Europeans in the nineteenth century (see Marshall, 1980 for evidence in support of this). Nowhere in the country did people manufacture traditional alcoholic beverages. However, by the late 1830s or early 1840s in New Ireland, the Admiralties, and possibly the Gazelle Peninsula of New Britain, islanders learned of rum from visits by European ships and from the beachcombers who began to live among them (*Ibid.*: 2). Gold miners, and *beche-de-mer* and pearl fishermen, primarily from Queensland, entered the coastal and island areas of southeast Papua in considerable numbers by the 1870s and 1880s, and by the turn of the century their drinking exploits were legion (Monckton, 1921; Nelson, 1976; Roe, 1962). By 1901, stores in the mining settlements were licensed to sell liquor to the foreigners, but it appears that little if any alcohol made its way to Papuans (Marshall, 1980). In part, this was because of immediate measures taken by the Crown to protect indigenous interests after Britain declared a Protectorate over Papua in October 1884. Indeed, the first ordinance enacted following annexation in 1888 was the Arms, Liquor and Opium Ordinance designed to keep Papuans from obtaining these commodities (Oram, 1976).

Similar conditions were obtained in German New Guinea to the north with trade in alcoholic beverages banned by decree of the imperial chancellor after Germany took possession of the area in October 1884, and via a series of regulations issued in 1887 that included a prohibition on the sale of liquor to "natives" (Marshall, 1980). This prohibition remained in effect after Australian soldiers took over the colony in September 1914. In spite of the early influence of whalers and beachcombers in the New Guinea Islands, there was little demand for alcohol and the right to drink did not emerge as an issue during the German administration.

In both British (and later, Australian) Papua and in German New Guinea alcohol was available to whites, while access to it was controlled for "coloured persons" (e.g. Chinese and Malays), and prohibited to the indigenous people. This prohibition policy based on skin colour that began in the 1880s was maintained throughout the colonial era, and "by the late 1950s the perceived racist overtones of the privilege to drink legally became a burning issue in Papua and New Guinea" (Marshall, 1980). The right to drink became caught up in anti-colonialism and the movement for self-government and independence, and these historical events surrounding access to alcoholic beverages continue to influence the ways such drinks are used and symbolized today.

Until World War II, when Japanese and Allied soldiers shared drinks with their Papua New Guinean counterparts, alcohol was not much of an issue in either Papua or New Guinea. Leadley (1976) claimed that New Guinea Islanders often drank illegally produced alcohol before the war but “managed to keep the affair quiet” and avoid government attention (cf. Schwartz and Romanucci-Ross, 1974). He also noted that the Japanese occupation forces taught the Tolai people of East New Britain to make both fermented and distilled home-brew from coconut sap, bananas, pineapples and sweet potatoes, and that the Japanese themselves produced *sake* (rice wine) at Vunairima on the Gazelle Peninsula. But this activity was localized to one small area of what is now PNG.

In 1942 Japan captured most of the New Guinea Islands and a considerable portion of the north and east coasts of the main island, and numerous battles between Japanese and Allied forces were fought in PNG with great losses on both sides. Papua New Guineans in the war zones also suffered deaths, injuries and serious disruption to their lives, although the war had a relatively light impact in the Highlands and in what are now Gulf and Western Provinces. Following World War II, the Australian military unification of Papua and New Guinea was continued under the Papua-New Guinea Provisional Administration Act of 1945. The pre-war prohibitions against access to alcohol by the indigenous people were likewise continued unaltered, as if the impact of the war on people's perceptions of the outside world (including alcoholic beverages) remained unchanged.

But, of course, matters were changed forever by this cataclysmic event, and pressure for changes of many sorts began to build during the 1950s in PNG as elsewhere in the colonized areas of the Pacific (Marshall, 1980). A Select Committee of the Legislative Council was appointed in 1955 to consider a proposal that was contained in the 1955 Native Liquor Bill to issue drinking permits to certain Papua New Guineans. The administration accepted the Committee's recommendation that the issue be deferred for a period of three years, and complete prohibition continued in Papua and New Guinea. From this time onward, though, the issue of the right to drink gained ever-greater attention. Its political volatility was exacerbated, and its racist underpinnings were clearly exposed to view in 1956, when “open-go” drinking without permits became possible for the minority of “mixed-race” persons in the Territory (Burton-Bradley, 1968).

An administrative committee again reviewed the subject of liquor laws in 1957, but once more nothing came of this. By April 1959, Papua New Guineans were the only South Pacific islanders for whom there was a blanket ban against alcohol of any kind. Joined as it was with other forms of institutionalized racism, “as the decade of the 1950s drew to a close, the right to drink had become a major, perhaps *the* major, issue on which was focused much of the resentment Papua New Guineans felt toward their colonial rulers” (Marshall, 1980).

The 1960s was a time of change in the liquor laws of several Pacific Island colonies, and pressures grew on the Australian administration to liberalize the drinking law. In

July 1962, a Liquor Commission was appointed to explore the matter and make suggestions to the government for changes in the law. The debate surrounding this action was very emotional, even before the Commission began to meet in August. Hearings were held in East New Britain and New Ireland, in the towns of Madang and Wewak on the north coast, in the Highland centres of Goroka and Mt. Hagen, and in Lae and Port Moresby, and the Commission's report was presented in mid-October 1962. The recommendation was to repeal the ordinance that had maintained prohibition since the 1880s and to pass a new, comprehensive liquor law for the Territory, with transitional legislation to be enacted immediately that essentially allowed any male or female over age 18 to drink. Such interim drinking laws were approved by the Legislative Council in late October and took effect on 2 November 1962. Finally, after approximately 75 years of restrictions, Papua New Guineans had the legal right to drink alcoholic beverages.

A new permanent ordinance legalizing drinking came into effect on 26 September 1963, and less than a decade later (in 1971) the government convened a Commission of Inquiry into Alcoholic Drink to assess alcohol's impact. That Commission found, on the whole, that the dire predictions of mayhem and social dislocation had not come to pass. Not long thereafter PNG gained its independence from Australia in 1975, by which time the act of drinking together had come to symbolize equality, and beverage alcohol (especially beer) had become a highly desired prestige commodity (Marshall, 1982a). Following independence, the Organic Act of 1977 decentralized many government functions, one of which was liquor licensing, and by 1981 twelve of the nineteen provinces had passed their own Liquor Licensing Acts (Marshall, 1982b). Subsequently, in 1979 the PNG national government made funds available to the Institute of Applied Social and Economic Research (IASER) to conduct a detailed study of alcohol use and abuse in the country. Carried out during 1979-1981, this project resulted in numerous publications (e.g. Marshall, 1982c), and in a set of formal recommendations presented to the national and provincial governments (Piau-Lynch, Sumanop & Marshall 1981). In 1990, the PNG Ministry of Health and the Western Pacific Regional Office of the World Health Organization jointly sponsored a follow-up assessment of alcohol's impact on the country, by which time a variety of familiar alcohol-related problems had begun to take their toll (Marshall, 1990).

3. TYPES OF ALCOHOLIC BEVERAGES AVAILABLE

Lager beer is by far and away the most popular kind of alcoholic beverage consumed in PNG, mostly that manufactured by South Pacific Brewery (SP) at its facilities in Port Moresby and Lae. Imported beer, which comes mainly from Australia and Japan, accounts for only a very small portion of all beer consumed (see Marshall, 1982b; 1990 for statistical summaries). After beer, rum and Scotch whisky are the most popular alcoholic beverages among Papua New Guineans. Bacardi Light Puerto Rican rum, an

Australian brand called Rhum Negrita, and Johnnie Walker Red Label Scotch are the most widely consumed of these. White wines, primarily from Australia, enjoy some popularity among the small number of modern, educated, urban women who drink regularly.

"Jungle juice", a distillate of fermented fruit first introduced to New Guinea Islanders by whalers and beachcombers in the mid-nineteenth century, is still made in small quantities in that region. Likewise, a few men continue to drink methylated spirits ("meths"), a practice that likely predates World War II on the Gazelle Peninsula of New Britain and in the vicinities of Port Moresby and Lae (see below).

4. THE PRODUCTION OF ALCOHOL

South Pacific Brewery (SP) began operation in Port Moresby in 1952, and greatly expanded its production following the November 1962 legalization of drinking by Papua New Guineans. Since before 1962 SP has been a subsidiary of Tiger Brewery of Malaysia, itself a subsidiary of Heineken Brewery of the Netherlands. SP absorbed a second expatriate-owned brewery established in 1958, in 1965-1966. Yet a third foreign-owned company began to brew beer in PNG in 1971-1972. After struggling unsuccessfully to gain much market share this brewery entered into a consortium with the major Philippine brewer, San Miguel, and by 1974 the latter was in full control of the company (for details of the first twenty years of brewing in PNG see Wylie, 1975). After marketing blitzes and a series of beer price wars in the early 1980's, SP bought out San Miguel's PNG holdings in February 1983. Since that time SP has continued to produce and market San Miguel in PNG under a licensing agreement.

Before 1985 all distilled alcoholic beverages sold in PNG were imported; however, in that year Fairdeal Liquors, with Malaysian capital and high-level sponsorship in PNG, was granted a first ever licence to manufacture distilled beverages within the country. The primary motivation for this commercial venture was to side step PNG's steep excise duty on imported liquor. Fairdeal arranged to import raw ingredients, for which excise duties were much lower, and to then "assemble" various beverages at its plant in Port Moresby. These beverages included a number of international brands produced under formal licensure agreements, and more importantly, Fairdeal's own local Gold Cup brands. These latter beverages, gin, rum and whisky, sold for approximately half the price of comparable imports (Marshall, 1990).

Soon after Fairdeal began operation in 1985 the company began to market 38 ml plastic sachets of Gold Cup beverages at a price of 30 each (approximately US 25 cents). Coupled with the much cheaper price of their own brands, this seemed to contribute to a nationwide increase in consumption of distilled beverages of nearly 17 000 gallons in 1985 over 1984. In October 1985 the Prime Minister requested that Fairdeal withdraw the plastic sachets after they had been on the market for only two months. This request followed a public outcry over the easy access the sachets gave children to hard liquor, and the company complied (Marshall, 1990). Late in 1986 the national government increased the excise duty on Fairdeal's imported raw ingredients by 1,200%, an action

that led the company to temporarily close its plant (*Ibid.*). Despite this government action, Gold Cup brands still cost approximately half the price of imports in 1990.

The SP Brewery in Port Moresby supplies its products, which now include San Miguel, to the southern half of the country (Papua) via the road system that emanates from Port Moresby and, more importantly, via coastal shipping. Beer brewed in the SP brewery in Lae reaches the New Guinea Islands and the north coast provinces primarily from ships that sail from Lae. Beer from the Lae facility also is trucked up the Highlands Highway to the five Highlands provinces that contain nearly a third of the country's population. Before San Miguel lost out to SP in 1983, it was at a distinct disadvantage in marketing its product because it only had a brewery in Port Moresby. This meant that all San Miguel beer sold in the Highlands and the northern and New Guinea Islands provinces had to be shipped from Port Moresby, which added considerably to their costs when compared to SP's with their strategically located Lae brewery. Today, SP runs distribution depots in most major towns, from which they sell beer to local licensees who, in turn, sell it to the public.

5. ALCOHOL AVAILABILITY, MARKETING AND ADVERTISING

Alcoholic beverages are widely available in most parts of PNG today, although a few isolated rural pockets remain where they are very difficult to obtain mainly because of transportation problems. Since drinking was made legal for Papua New Guineans in November 1962, the number of licensed premises in the country has grown very rapidly (Marshall, 1982b). Such outlets nearly doubled in number from a 1958 baseline year during prohibition to 1963, more than doubled again between 1963 and 1969, more than doubled once more from 1969 until 1978, and then began to grow exponentially following the Organic Act of 1977 and the decentralization of liquor licensing. From well under 200 licensed premises Territory-wide in 1960 before de-prohibition, the number of licensed premises reached over 2,100 nationwide in 1980 and was way beyond 2,500 a decade later (Marshall, 1982b; 1990).

This overview of the increase in alcohol availability masks a truly phenomenal growth in the number of licensed premises in certain provinces. For example, in Chimbu Province these increased from 20 in 1975, to 307 in 1980, to 472 in 1985; and in East Sepik Province they went from 56 in 1975, to 140 in 1980, to 300 in 1985. Numerous unlicensed outlets also exist in many parts of PNG from which purchases can be made outside of existing hours of sale or in defiance of periodic liquor bans. Although recommendations were made in 1990 (Marshall, 1990) for provincial governments to control the continued expansion of liquor licenses, to make the issuance of liquor licenses more consistent nationwide, and for the police to shut down black markets, none of these recommendations seems to have been acted upon.

PNG has had reasonably strict laws governing the advertising of alcoholic beverages since 1977, with relatively minor restrictions having been imposed three years earlier (Conroy, 1982). Such advertisements are not permitted in newspapers and other print media, on the radio, or on television. Legal advertising is restricted to licensed

premises and to officially sanctioned sponsorships of sporting events and athletic teams. One consequence is that the outside walls of licensed premises often are covered with advertisements for imported and domestic brands of alcohol, accompanying those for tobacco products and soft drinks. Another is that billboards for SP and San Miguel beer routinely encircle rugby and soccer stadia, and beer logos also appear on the jerseys of teams the breweries sponsor.

The primary way the breweries have gotten around these advertising restrictions is to establish widely recognised colours and designs for their products. Thus green and yellow are known to represent SP beer (often accompanied by a "happy face" uttering, "Have a nice day"), while red, black and white symbolize San Miguel (usually arranged in a particular traditional art motif). Neither colour combination directly mentions beer or alcohol, but every adult knows exactly what these colours stand for. The breweries often provide licensees with either free green and yellow or red, black and white paints with which to paint the exterior of their buildings. As a result, a majority of licensed premises in the country is bedecked in one or the other of these colour combinations.

6. PATTERNS OF ALCOHOL USE

As a generalization, those who live in or within easy access of PNG's cities and towns have much greater opportunity to drink and tend to drink more often than their rural counterparts. This generalization must be qualified, however, by whether the rural areas can be reached easily by road or sea, and by whether people live in a province that has encouraged the establishment of licensed premises in rural village areas.

The basic pattern of drinking in PNG is that males drink beer in groups of other men, usually beginning in their mid- to late teens. Men typically do not drink every day, but when they do drink weekly or fortnightly their goal is to get drunk. This frequently results in a day-long or weekend-long binge, "during which they drink until the alcohol runs out or until they pass out, whichever happens first" (Marshall, 1990). Sizeable quantities of beer (12 or more bottles) are drunk at a sitting. Drunkenness is widely held to be an excuse for otherwise socially unacceptable behaviour, and drunken belligerence and brawls are a common accompaniment of drinking bouts.

In urban areas much drinking takes place in bars, taverns and drinking halls, although groups of men also gather out of doors to drink informally in wooded areas, near beaches (if it's coastal) or in and around their homes (e.g. Herdt, 1982; Smith, 1982). In rural areas men may begin a drinking bout at hotel pubs in town and then carry alcohol with them as they make their way home to the village (Grossman, 1982), drink in area taverns (Strathern, 1982), imbibe in the village drinking clubs that have been established in some provinces (Roscoe, 1982; Sexton, 1982; Sumanop, 1982), or consume alcohol at competitive feasts and exchanges, or at parties (Boyd, 1985; Darrouzet, 1982; Grossman, 1982; Warry, 1982). In some parts of the country village drinking may simply occur as an informal weekend pastime (Carrier, 1982; Schwartz, 1982; Sexton, 1982).

Many rural men had their first exposure to alcohol when they hired on as contract labourers on plantations that are located mostly on coastal or island areas (Hayano, 1982; Josephides and Schiltz, 1982; LiPuma, 1982). Although alcohol has become more available in rural areas since 1980, at that time there were still parts of the country where it was extremely difficult to obtain (e.g. Hayano, 1982; Lepowsky, 1982; LiPuma, 1982; McDowell, 1982; Ploeg, 1982; Zelenietz and Grant, 1982), where villagers eschewed its use (Josephides and Schiltz, 1982), and even places where *no one* had yet experienced alcohol (Poole, 1982). In addition, many rural people either do not yet participate in cash cropping or do so only minimally, with a result that a lack of cash may also limit their access to alcohol.

In many rural parts of PNG, beer, and occasionally other forms of commercially made alcohol, has entered traditional competitive exchange relations among kin groups (e.g. Roscoe, 1982), something that is especially true in the Highlands (Grossman, 1982; Sexton, 1982; Warry, 1982). There a carton of beer often is referred to as "little pig," and alcohol use appears to increase during and after the seasonal coffee flush when people have more cash and hold most of their exchange ceremonies (Dernbach and Marshall n.d.). The consensus at the IASER Alcohol Conference, from which *Through a Glass Darkly* emanated, was that beer mediates between the modern cash economy and the traditional prestige economy. Cash is used to buy beer, which is then "exchanged via traditional avenues and patterns of gifting to demonstrate power, achieve higher status, reciprocate previous prestations and advance political careers" (Marshall, Piau-Lynch and Sumanop, 1982). This use of beer to convert "cash into prestige via exchange is a distinctive feature of alcohol use in contemporary Papua New Guinea" (*Ibid.*). While drinking is mostly a male activity in PNG, some women occasionally imbibe and there do not seem to be any formal rules to prevent their drinking in most parts of the country (e.g. Carrier, 1982; Chowning, 1982; McDowell, 1982; Montague, 1982; Reay, 1982; Sexton, 1982). Nevertheless, there is a widespread belief in PNG that women who drink are sexually available or promiscuous, and most PNG high school students in an attitudinal survey thought that women should not drink (Wilks, Callan and Forsyth 1985). That rural women typically abstain is reported in nearly all of the chapters in *Through a Glass Darkly*, and these ethnographic observations are also supported by survey research in both rural and urban populations.

For example, in their survey of the drinking histories and consumption habits of 677 PNG high school students with an average age of 16 years, Wilks and Callan (1984a, 1984b) found that 39% of males but only 14% of females had tried drinking. Moreover, male and female students together were in general agreement about close relatives who drank: 57.6% reported that their fathers used alcohol, while only 3.3% said that their mothers did so. Likewise, 39.4% said they had brothers who drank, while fewer than 1% indicated that their sisters did so. Two of the three self-reporting survey samples gathered in Port Moresby as part of the IASER Alcohol Project included women: those from the University of Papua New Guinea (UPNG) and Burns Philp (BP), the country's largest commercial firm. Concerning these samples, of the UPNG women students who filled out the questionnaire, 84.2% classified themselves as nondrinkers; the same is true for 89.4% women in the BP sample. Thus 86.5% of the

urban women for whom data are available are abstainers....By contrast, only 22% of the males surveyed reported themselves to be nondrinkers (Marshall et al., 1985).

It seems clear that the great majority of PNG women either do not drink alcoholic beverages at all or do so very rarely. It should therefore come as no surprise that gender figures importantly in the debate surrounding alcohol use in PNG as it does elsewhere in the Pacific (e.g. Marshall and Marshall, 1990). This matter will receive further comment in the next two sections of this report.

7. ALCOHOL-RELATED PROBLEMS

There has been a widespread perception for a long time that alcohol has spawned or exacerbated various problems in PNG. Some of this attitude goes back to colonial rationalizations for prohibition and some of it is a legacy of the ambivalence about alcohol on the part of Europeans who played a role in the colonial and post-colonial politics of PNG. Representatives of many of the Christian churches that are so influential in this new nation actively champion some of it. Whatever its precise sources, as Robin Room observed more than fifteen years ago, "Papua New Guinea is plainly a society that is worried about its drinking" (1982), and this national attention "reaches far beyond the church and women's groups that are identified conventionally as the locus of such concerns" (*Ibid*).

In the Conclusions to *Through a Glass Darkly* the situation in PNG in 1981 was described as "poised on the brink" of social, economic and health problems associated with alcohol abuse. While the authors of that chapter opined that such problems had "not got out of hand yet," they went on to suggest that then-present trends were worrisome and pointed in a troubling direction (Marshall, Piau-Lynch and Sumanop 1982). A decade later, in a report to WHO and the PNG government, the senior author of that earlier chapter reported that "it appears that the country has gone over the brink. It has developed a number of major alcohol-related problems" (Marshall, 1990). Six of these problems will be sketched below: (a) an apparent association between alcohol use and resurgent "tribal fighting" and related violence; (b) the role of alcohol in domestic violence; (c) the economic opportunity costs of expenditures on alcohol; (d) the negative health consequences of heavy alcohol intake; (e) the role of alcohol in motor vehicle crashes; and (f) the continued consumption of non-beverage alcohol.

7.1 Tribal Fighting

Over the past quarter of a century, after two decades of colonially imposed pacification in the Highlands region of PNG, there has been a resurgence of tribal fighting. Based upon the conventional wisdom that alcohol use *causes* violence, this renewed fighting has produced a variety of government responses, one of which has been periodic bans on the sale and consumption of beverage alcohol (Dernbach and Marshall, n.d.; Piau-Lynch, 1982; Talyaga, 1982). These bans have only slightly reduced the incidence of tribal fights, in part because they have been based on false premises of causality (see Iamo & Keran 1991). That there is often an *association* between alcohol

use and insults, altercations and vehicular accidents that may lead to the outbreak of tribal fights, however, is not in dispute (see, e.g. Strathern, 1982; Warry, 1982). Thus alcohol often contributes to or becomes an excuse for situations that result in intergroup hostilities, but drinking per se does not cause these battles.

7.2 Domestic Violence

As with tribal fights, so with domestic violence: alcohol use by men does not *cause* them to beat their wives or, much less frequently, their children. But when men return home after drinking and get into arguments with their wives, the beatings they mete out are often much worse than when they are sober. Based on a review of the major newspapers in PNG from January 1981 to March 1990, Marshall estimated that at least 25 women are beaten to death by their husbands each year, and this surely underestimates the problem (1990). But, of course, domestic violence more often results in injury than in death, and a study by Ekeroma (1986) provides a glimpse of this.

Ekeroma completed a 10-week survey of 94 victims who presented themselves at Angau Memorial Hospital in Lae due to spouse beating during 1981-1982. Six of these women required hospitalization, and 30% of the cases he examined were alcohol-related (thus 28 victims, 2 of whom were hospitalized, were alcohol-related). Given the relative brevity of this survey, and the fact that it reports information from only one location in the country, the magnitude of the problem makes an impression. And these figures also draw attention to a prominent reason that so many PNG women hold strong anti-alcohol views.

7.3 Economic Costs

The economic opportunity costs of expenditures on alcoholic beverages received much attention in *Through a Glass Darkly* (e.g. Darrouzet, 1982; Grossman, 1982; Marshall, Piau-Lynch and Sumanop, 1982; Schwartz, 1982; Sexton, 1982; Warry, 1982). To the extent that in the early 1980's "rural Papua New Guineans presently put a higher value on the prestige economy than on the modern cash economy" (Marshall, Piau-Lynch and Sumanop, 1982), this valuation "confounds efforts at real economic development (in the Western sense), for Western notions of the rational investment and expenditure of money do not necessarily hold in the traditional prestige economy" (*Ibid.*). Even allowing for this, however, husbands and wives often argue over spending money on beer *unless* the beer is to be contributed to exchanges that will benefit the entire family. Often, though, men arrogate control of cash and just spend it on drink for themselves and their cronies. Such expenditures are strongly resented and widely criticized by women, who would rather spend the money on trade store goods, school fees, and the like. Indeed, in one well described instance, women banded together, gained control over cash produced by their own labour, and instituted a special women's savings system known as *Wok Meri* "women's work" (Sexton, 1982).

Since many rural Papua New Guineans continue to rely primarily on their gardens for food, and on the local environment for housing materials and other daily needs, the cash they earn from cash crops or wage labour is largely disposable income. Given this, it is easy to argue that they should be able to spend such money any way they want, even on a (from a Western point of view) nonproductive commodity that is as expensive as beer in PNG. But to the extent that provincial and national governments in PNG “are serious about the overall, long-term economic development of the country, the fact that a great deal of the country's earned wealth...is literally 'trickling away' should be a cause for concern” (Marshall, 1990), as it is a huge economic loss to national development.

7.4 Physical Consequences

Human beings everywhere are subject to a variety of negative physical health consequences that result from chronic, long-term consumption of large amounts of ethanol beverages. In addition, alcohol dependence often has a psychiatric or mental health component for many heavy drinkers. Those who abuse alcohol also are at greater risk of accidents and injuries associated with their intoxication.

Writing in the mid-1970's, a little over a decade after de-prohibition, the first psychiatrist to serve in PNG reported that “although there are instances of acute alcoholism and drunkenness among the Papua New Guinean people...in my experience there have been no cases of the three major alcoholic mental disorders [delirium tremens, alcoholic hallucinosis, and Korsakow psychosis]” (Burton-Bradley, 1976). This conclusion was based on records of over 2600 mental patients admitted to the Laloki Psychiatric Centre between 1962 and 1974. Burton-Bradley attributed the failure to find any cases of alcoholic psychosis in Papua New Guineans at that time to the absence of chronic, continuous, heavy drinking over a long period of time.

A few years later, however, various warnings were being sounded concerning the physical and mental health consequences of alcohol abuse in PNG. Having served as a WHO consultant to PNG in 1984, another psychiatrist, Wolfgang Jilek, warned that the great increase in consumption levels during the 1970's and 1980's, and particularly the heavy drinking by many members of the national elite, meant that alcohol abuse was already causing major psychosocial problems. On the basis of his observations he predicted that alcohol abuse may “become the main mental health problem for the peoples of the South Pacific and cause significant mortality among them” (1987).

Using information on the pattern and amount of alcohol consumption in PNG from 1960 to 1980 and a set of assumptions about drinkers' age and gender, Marshall attempted to show that “those who consume beer in PNG tend to imbibe it in substantial quantity”-- an average of 220 litres per capita in 1979-1980 (1988). He then noted that many alcohol-related physical ailments such as cirrhosis and cancer take years to develop, and moreover, that PNG's overburdened and understaffed health service does not have the time, energy or facilities to diagnose such problems. Marshall concluded by speculating that “There is every reason to believe that the physical health costs of excessive drinking will begin to weigh more heavily on Papua New Guineans

in the years ahead" (1988), and that "there is no reason to think that Papua New Guineans, among all humankind, will be uniquely spared these illnesses." (*Ibid.*)

In fact, by 1990 many of the symptoms of clinical alcoholism, such as neuropathology, delirium tremens, blackouts and memory loss, alcoholic hallucinosis and alcoholic psychosis, were being treated in Papua New Guineans by physicians at Port Moresby General Hospital (PMGH) (Marshall, 1990). It also seemed likely by that time that alcoholic hepatitis and alcoholic cirrhosis existed in a considerable number of chronic heavy drinkers in PNG, "but that they go undiagnosed either because the victims do not present themselves at hospitals before they die or because the latter condition is masked by malarial damage to the liver" (*Ibid.*).

In a retrospective study of postmortem records at PMGH, Sinha, Sengupta and Purohit (1981) looked at all trauma deaths for the 1976-1980 period. In addition to alcohol's contribution to traffic fatalities (see below), they found that 21% of those who died from axe or stab wounds had a Blood Alcohol Level (BAL) >80 mg/100 ml, and that nearly 20% of blunt injury victims had BALs at this level or higher.

7.5 Motor Vehicle Crashes

High BALs also predictably play an important role in fatalities resulting from motor vehicle crashes in PNG. In an analysis of alcohol's involvement in such crashes, Wyatt (1980) examined only postmortem records for traffic fatalities recorded at PMGH for 1975-78 (N=121). Eighty-five percent of the victims were males, two-thirds of whom were ages 20-39 years, and Wyatt obtained BALs for 76% of the total sample over age 10 (N=85). This revealed that 5 of the 15 dead drivers, 69% of the male pedestrians killed, and a number of dead passengers had BALs >80 mg/100 ml. Sinha, Sengupta and Purohit (1981) corroborated Wyatt's findings. Based on the postmortem records from PMGH for all trauma deaths between 1976 and 1980, they discovered 86% were male, 82% below age 35, and found evidence of recent alcohol ingestion in 85% of the drivers involved in traffic crashes. The great majority of those killed in traffic crashes (including pedestrians) in the Port Moresby area were young men who had been drinking shortly before their death. Shepherd (1980) gathered figures at the Goroka Hospital in Eastern Highlands Province over five months in 1979, and showed that a third of all trauma admissions resulted from road accidents, with alcohol implicated strongly in these.

Between 1967 and 1979 PNG experienced a more than fourfold increase in road traffic fatalities, and in 1979 alcohol consumption was a factor in at least 20% of these cases (60 deaths) (Bouraga, 1980; Marshall, 1988). As one result of a collaboration among the Royal PNG Constabulary, the Department of Transport, and the Overseas Unit of the Transport and Road Research Laboratory of the United Kingdom, a technical memorandum was prepared on the cost of road traffic crashes in PNG (Transpotech, 1986). Using a formula that they specifically tailored to PNG, Marshall calculated the Kina cost of alcohol-related road crashes, estimating that such crashes cost the country K5.6 million in 1988, with a strong probability of a greater amount in 1989 (1990).

7.6 "Meths" Drinking

The final alcohol-related problem to be reviewed here is the consumption of non-beverage alcohol. There is continued use of methanol, especially that contained in methylated spirit or "meths" (95% ethanol and 5% methanol), and this practice seems to be concentrated mainly in coastal and lowland areas of the country (Marshall, 1988). There is extreme variation in individual response to a given quantity of methanol (Naraqi et al., 1979; Scrimgeour, 1980), and thus drinking "meths" is a kind of Russian roulette which may lead unpredictably to death or blindness in some who do so. Perhaps it is this unpredictability that has contributed to the mystique that surrounds this substance for at least to some drinkers (Pataki-Schweizer, 1976). Whatever the case, between 1983 and 1990 at least eleven persons were killed and thirteen blinded or otherwise permanently impaired from drinking "meths" in PNG (Marshall, 1990). Equally tragic, and equally preventable, are the results of consumption of pure methanol or a combination of methanol and isopropanol (Naraqi et al., 1979; Scrimgeour, 1980). Such drinking typically occurs out of ignorance that there are many kinds of alcohol, most of which are highly toxic and usually more lethal than the consumption of "meths".

8. CURRENT RESPONSES

Given the relatively short period of time during which it has been legal for Papua New Guineans to drink, it is perhaps not surprising that treatment and prevention programmes are not yet highly developed. The government has mounted two major efforts to assess alcohol's impact: first, the 1971 Commission of Inquiry into Alcoholic Drink during the colonial period, and second, the 1979-1981 IASER Alcohol Project post-independence. These efforts have been supplemented by jointly sponsored consultancies with WHO's regional office in Manila, and by a contract to the National Research Institute from the Highlands Secretariat to evaluate alcohol's role in law and order problems in that region of the country.

Through the Ministry of Health the government operated an Alcohol Rehabilitation Centre at Sogeri, outside Port Moresby, for a number of years. Unfortunately, this facility was closed in 1987 for want of funds and no proper facility exists in PNG for treating chronic alcohol dependence. Although many of the churches active in PNG preach against alcohol use by their members and take outspoken public stands in the media against alcohol, none of them operate treatment programmes and their efforts at prevention lie primarily in the development of educational materials.

A major means for attempting to intervene in what are perceived to be alcohol-related problems has been the imposition of temporary liquor bans by both the national and provincial governments. These have ranged from nationwide election day and holiday bans of a few days' duration to a three year long ban in Enga Province from 1981 to 1984 (Wormsley, 1987). Bans of several months' duration have also been common in various Highlands provinces (Dernbach and Marshall, n.d.; Piau-Lynch, 1982). While

these bans usually have not completely prevented drinking because of black markets, they do appear to have had at least one positive preventive impact.

The 1986 Highlands liquor ban appears to have produced a positive public health benefit. It lowered the percentage of serious alcohol-related traffic crashes (those involving fatalities and/or hospitalization for injuries) in the four provinces that honoured it, while the province that did not experience a rise in the percentage of such crashes (Marshall, 1990). From 1986 to 1988, the two Highlands provinces with continued liquor bans (Enga and Southern Highlands) had no overall increase in serious alcohol-related traffic crashes, whereas those without continued liquor bans (Eastern and Western Highlands and Chimbu) had substantial increases. The benefit from these reduced traffic crashes is not only the obvious one of fewer deaths and injuries with related medical costs, but also fewer compensation demands by relatives of the victims against those perceived to have caused the crashes. A failure to meet compensation demands of this sort frequently leads to an outbreak of tribal fighting between the two groups.

9. CONCLUSIONS

Papua New Guineans made no traditional alcoholic beverages, and colonially imposed prohibition worked effectively for 75 years to keep them from drink. The legal consumption of alcoholic beverages by Papua New Guineans has only been possible for 35 years, and people in many parts of the country have had easy access to alcohol for far fewer years than that. A result of this is that PNG represents an unusual instance of a country still in the early stages of developing its relationship to alcohol.

Alcohol's associations with equality, modernity, and the cash economy have all contributed toward making it a highly desired commodity, especially by men. Its incorporation into traditional intergroup exchanges and ceremonies mean that it often mediates between the cash economy and the prestige economy, giving it a perhaps unique position in the economic relations in a modern nation state. At the same time, the fact that alcohol production and marketing in PNG lies ultimately in the hands of transnational alcohol corporations suggests that in the long run the situation in PNG will come to resemble that in many other new nations of the world.

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