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# Yemen Towards Qat Demand Reduction

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**CURRENCY AND EQUIVALENTS**  
(As of May 6, 2007)

**Currency Unit – Yemeni Rial (YR)**  
**US\$ 1 = YR 199**

**FISCAL YEAR**  
**January 1—December 31**

**SELECTED INDICATORS (rounded figures)**

GDP (in billion of US\$, 2005).....	17
Population (in millions, 2005).....	21
GNI per capita (US\$, 2005).....	600
Population below the poverty line (in percent, 2005).....	35
Qat as a share of	
GDP (in percent, constant prices, 2005).....	6
Agriculture (in percent, constant prices, 2005).....	33
Total employment (2004).....	14
Household consumption (in percent, 2006).....	10
Sample population chewing qat (in percent, 2006)	
Men.....	72
Women.....	33
Sample population chewing qat everyday of the week (% , 2006)	
Men.....	42
Women.....	13

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## **Abstract**

This report, based on a household survey conducted in 2006, discusses options for discouraging qat consumption in Yemen. It draws on a survey—the first representative data collection exercise aimed specifically at assessing the qat consumption phenomena—which confirms that the use of this drug is widespread. Qat is consumed by men, women and children; its use is extremely time consuming; it drains the family budget; has adverse health effects; negatively affects work performance and thus contributes to poverty. Weaning consumers from the qat habit will be difficult, because its production accounts for some 6 percent of GDP and 14 percent of total employment. Qat consumption requires around 10 percent of the household budget of all income groups, which comes at the expense of basic food, education and health. To reduce qat consumption, this note recommends a set of economic and non-economic policy measures. These include: increasing the tax burden; building public awareness; incorporating training on the hazards of qat in the school system; enforcing public policies aimed at discouraging qat consumption (e.g., extension of working hours); closing knowledge gaps and developing viable crop diversification programs.

## **Acknowledgement**

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## Yemen Towards Qat Demand Reduction

### Executive Summary

i. **Qat (*Catha edulis*) plays a major economic role in the Yemeni economy.** It accounts for around 6 percent of GDP, 10 percent of consumption, one-third of agricultural GDP, and provides employment for one in every seven working Yemeni. As the predominant cash crop, the income it generates plays a vital role in rural economies. But it also depletes scarce water resources and has crowded out production of essential food crops and agriculture exports.

ii. Until the 1960s, qat chewing was an occasional pastime, mainly for the rich. Now, it is chewed several days a week by a large share of Yemen's population. Widespread qat consumption has grave consequences: its use is linked to widespread child malnutrition and household food insecurity since spending on it pre-empts expenditures on basic foods and essential medicines. The adverse health effects of qat are many and include high blood-pressure, under-weight children (when pregnant women chew qat), cancer (from consuming pesticide residues), and dental diseases. Consumers spend, on average, nearly 10 percent of their income on it, and the physical act of using the drug requires several hours in a day. The culture of spending extended afternoon hours chewing qat is inimical to the development of a productive work force, with as much as one-quarter of usable working hours allocated to qat chewing.

iii. **Discouraging qat use is a complex task.** In recent years, the Government has taken bold steps to initiate a debate on qat (notably the 2002 national conference) and to encourage cultivation of substitute crops. Despite these measures, qat production and consumption continues to rise at a blistering pace. A better understanding of the extent and nature of qat consumption is needed if the Government is to formulate effective policies aimed at encouraging consumers to reduce qat use. What is known about qat consumption is often drawn from small samples and anecdotal observation. To help fill this knowledge gap, a sample survey of qat consumption habits was conducted by the World Bank in April-May of 2006. The survey covered 4,027 Yemenis above the age of 12 in seven of Yemen's 21 Governorates, including the Sana'a Capital Secretariat, Sana'a Governorate, al-Hodayda, Ta'izz, Marib, Aden and Hadhramawt.

iv. **The survey results show that qat is a nationwide habit.** Some 72 percent of Yemeni males reported that they chew qat, compared to 33 percent of females. Most Yemeni's are habitual users—more than half of those who chew do so each day of the week. Moreover, qat use incidence is highest in those parts of the country where it is cultivated or where the consumption habit has a long history.

v. Yemenis start to consume qat during their teenage years, with first use occurring on average between 16 and 24 years of age. Men tend to use qat until they reach old-age, at which point consumption tapers off (as other illnesses set in). By contrast, women tend not to use qat before they are married, and the older they get, the more likely they are to use it. Qat is predominately chewed in the home, and some 75 percent of qat users declare that they chew during their leisure hours. Men are more likely to relax and chew (82 percent), while some 44 percent of the women combine work and chewing.

vi. Most consumers start their qat habit because of peer pressure: Some 66 percent of the men and 72 percent of the women claim that the reason they started to chew qat is because “*all my friends and family chew*”. Those who abstain do so because they are aware of the adverse health effects and the high cost of using qat.

vii. Users do know that qat is harmful to their health. Some 80 percent of all male users and 70 percent of all female users report health disorders that are perceived to be related to qat consumption. In addition, a quarter of all users suffer from chronic sleeplessness that is related to qat use. Practically all of the qat users self-treat these ailments with a range of traditional cures and modern medicines.

viii. **Qat use hampers productivity and directly contributes to poverty.** The enormous amount of time spent chewing qat is time that, in other countries, is typically spent in productive activities. Some 36 percent of the users spend 2-4 hours per day; 35 percent spend 4-6 hours a day, and an astonishing 22 percent spend more than 6 hours a day chewing qat. Most users believe that qat enhances their immediate work performance, but about a third reports that work performance is impaired the day after chewing qat. The overwhelming majority of qat users are aware that its use is costly, and that it has a detrimental effect on their ability to afford basic foods, medicines and other essentials. Some 94 percent of non-chewers and 77 percent of chewers report that qat has a negative effect on the family budget. Tragically, just under a fifth of all qat users are forced into debt to finance their chewing habit.

ix. **Most users believe that qat is bad for them.** More than 70 percent of the respondents describe qat chewing as a “*bad habit*”, that is also bad for the economy and bad for the nation’s image. Users want to “kick the habit” but they cannot. Either because of social pressures, or because of the psychological dependency resulting from prolonged use, users do not feel that they can stop using qat on their own. Some 53 percent of all male and 61 percent of all female respondents declare that Government intervention is necessary to address the qat problem.

x. **What can the Government do?** The Government can begin to take steps to curb the widespread demand for qat. National leaders need to be engaged in campaigns to reduce qat use, and they can start to show their support by vigorously enforcing the policy measures adopted since 1999 to curb the qat habit. In the future, the Government can help discourage qat use by making it a far more expensive habit. If cigarettes are a fair comparator, then consumption can be taxed at a substantially higher rate, and by shifting from ad valorem to specific taxes and by using tax stamps, those taxes could be far more effectively enforced. Over time, the Government can help to convince consumers that qat use is a bad habit and should be stopped. Building on the findings from this survey, a well-targeted public awareness campaign could be launched, to let consumers know more about the adverse effects of qat use, including the fact that most users know it is a bad habit; the vast bulk suffer adverse health effects; it drains user’s budgets and puts them into debt; and that users would like Government help to kick the habit. Information campaigns should initially be targeted to young people, both inside the schools and out, since preventing the qat habit from starting could have a major effect on national demand in a decade or less. Working together with leading NGOs, a combination of a well-targeted public awareness campaign, peer-to-peer education, and positive examples set by leaders and cultural figures could be used to convince consumers, and especially the youth, that qat use is harmful to themselves and society.

xi. Government support is also needed to promote effective substitutes for qat consumption. For youth, there is a pressing need for greater access to sports, youth centers, and cultural activities. For the adult population, the main challenge is to boost employment demand. Policies aimed at making the economy more competitive and conducive to private initiative will increase the opportunity cost of the tremendous amount of time now devoted to chewing qat.

xii. **Research on the causes and consequences of qat consumption, and the behavioural pressures associated with qat uptake is limited in number and scope.** While demand-control interventions are being implemented, parallel research activities into these issues may help to refine the targeting of interventions, such as those designed to improve health information for the poor, for maximum effect. More research is also needed to identify an appropriate package of supply-side measures that could be used to mitigate the likely long-term effects of qat cultivation on employment and rural incomes. A combination of legal reforms, crop diversification measures, improvements in water resource management, and social safety net measures will be required to facilitate the shift in resources that now go into producing qat into other forms of productive economic activity.





## Yemen

### Towards Qat Demand Reduction

#### I. Introduction

1. Qat is a leafy recreational drug that has been widely grown and used in Yemen for centuries. It is a mild stimulant whose effects are closely related to those of amphetamines. While users can become psychologically dependant on it, it is not considered an addictive drug. In recent years, rapidly-growing production and use have led to an intensified debate over qat and its effects on Yemeni society.

2. **Qat and Society.** Until the 1960s, qat chewing was an occasional pastime for the elite. Now, it is chewed several days a week by a large share of Yemen's population. The big change seems to have been in the 1970s and 1980s due to a rapid increase in incomes, the increased profitability of production for farmers; the introduction of tubewells; the rapid improvements in the rural and main road networks, and the increased leisure-time of those who returned from working overseas.

3. Qat chewing is a deeply engrained custom. It has replaced almost all other forms of relaxation and socialising. Its place in society extends far beyond that of recreational drug use—the role of the qat party in Yemeni life has been variously described as: an emblem of social interaction; a group communion; a manifestation of commitment and conformity; a display of reciprocity; an opportunity for conspicuous consumption; and a venue for social competition (Ward 2000).

4. **Qat and the Economy.** Qat plays a major role in the Yemeni economy. Qat's contribution to GDP of around 6 percent (2005), including both its direct and indirect effects, is equivalent to two-thirds of the contribution the oil makes to the economy<sup>1</sup>. One in every seven working Yemeni are employed in producing and distributing qat, making it the second largest source of employment in the country, exceeding even employment in the public sector<sup>2</sup>. The distribution network for Qat is undoubtedly the most advanced in the nation.

5. Yemen's population of 21 million is predominantly rural (73 per cent) and qat is the single most important cash crop. As a crop, qat is much appreciated for its high profitability, its hardiness and drought resistance, and the few husbandry problems associated with it. Farmers also like the fact that qat can be brought to harvest during most months of the year, that it can be harvested in small or large quantities according to the farmer's need for money, and that it brings cash in on the very day of harvest. Qat is predominately grown by smallholders and the bulk of the revenues generated are retained in countryside. Qat represents only 10 percent of cultivated land<sup>3</sup> but generates around a third of agricultural GDP. Nearly one-third of the agricultural labor force is engaged in qat production<sup>4</sup>. It is exclusively cultivated in the highlands and in the eastern plateau. Recent studies show that qat is 10 to 20 times more profitable than competing crops (Ward 2000).

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<sup>1</sup> Ministry of Planning and International Cooperation, Statistical Year Book, 2005.

<sup>2</sup> 2004 estimate of the Ministry of Planning and International Cooperation, Socio Economic Development Plan for Poverty Reduction (DPPR).

<sup>3</sup> 2005 estimate of Ministry of Planning and International Cooperation, Statistical Year Book, 2005

<sup>4</sup> 2004 estimate of Ministry of Planning and International Cooperation, Socio-Economic Development Plan for Poverty Reduction

6. **Qat and Poverty** Yemen is a large, poor country. In 2005, gross national income was estimated at \$600 per capita (Atlas methodology) and around 35 percent of the people were estimated to live in poverty (per 2005 Household Budget Survey estimates). Nearly a fifth of the children are classified as malnourished and more than 70 percent of the women are illiterate. **Qat consumption is one of the key causes of poverty in Yemen.** This is because some 10% of the household budget is used on it, far exceeding household outlays for basic foods, medicines and other necessities (per 2005 Household Budget Survey, Annex 3). In addition, the time devoted to the daily qat chewing session represents an enormous loss of potential income, and there are a wide range of adverse health effects arising from its consumption.

7. While qat cultivation has provided an important source of rural incomes, it has precluded other and more sustainable forms of rural economic activity. The area under qat has expanded 13-fold in the last three decades, displacing exportable coffee, fruits and vegetables, sorghum and other foodstuffs. Exports of other cash crops have fallen while food imports have increased, due to the inroads made by qat in the rural economy.

8. **Qat's role in natural resource use.** Qat cultivation has potentially disastrous environmental effects. Being very water intensive<sup>5</sup>, it reduces not only current production of alternative crops, but also future production because it is mining non-rechargeable fossil aquifers. Water scarcity in Yemen is serious and getting worse, due to a combination of urbanization and rapid growth in the numbers of diesel-powered tubewells used to irrigate qat. Per capita availability of water in Yemen is at 2 percent of world and 10 percent of regional averages. Qat growers usually do not own the aquifers they use nor do they pay any fees or charges for such use. They pump water using subsidized electricity and diesel. Already, one-third of all ground water abstraction is utilized for qat cultivation. Groundwater extraction has reached 130 percent of recharge with agriculture using about 90 percent of the groundwater and within that; qat is the leading source of groundwater depletion. While qat does not require large quantities of inorganic fertilizer, it does remove considerable amounts of plant nutrients from the soil, contributing to soil degradation.

9. **Social and health effects.** Qat use has wide ranging social and health effects. The main psycho-neural effects are said to be wakefulness and suppression of appetite. Proponents view it as a social convention, promoting harmony and providing a forum for collective decision-making. Many business deals are said to be made during qat sessions. Opponents say qat is harmful to health, leads to absenteeism and reduced work effort, reinforces gender segregation, keeps men away from their families, and ultimately impoverishes families. The adverse health effects of qat are many: high blood-pressure, teeth decay, under-weight children (when pregnant women chew qat), constipation, hemorrhoids, hernias, paranoia, and depression. Pesticides used in qat agriculture are a growing cause of cancer due to consumption of pesticide residues. Qat use is also linked to widespread child malnutrition and household food insecurity since spending on it crowds-out household expenditures on basic foods and essential medicines.

10. While the benefits from qat consumption are largely intangible (i.e. fostering social cohesion), the costs certainly are not. On average, consumers allocate nearly a tenth of their household budget to it, while sample surveys find that poor households allocate as much as 28% of their income to it (Lenaers and Gatter 2000). The physical act of using the drug

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<sup>5</sup> In some areas, mainly inter-mountainous planes, qat cultivation is intensive and heavily irrigated by groundwater.

requires several hours in a day. The culture of spending extended afternoon hours chewing qat is inimical to the development of a productive work force, with studies showing that as much as one-quarter of usable working hours may be allocated to qat chewing.

11. **Government policy.** The Government has adopted a cautious policy stance towards qat. Imports are banned, but production is legal and sales are taxed. A few politicians have spoken out against qat, but there has been no coordinated anti-qat campaign. Since 1999, the Government has adopted a number of specific policies aimed at controlling, regulating and taxing qat. So far, these policies have failed to deter growth in either production or consumption. But Government policy has succeeded in fostering public debate about qat<sup>6</sup>, and policy makers continue to seek ways to reverse the alarming spread in qat use.

12. **Discouraging qat consumption is a critical and complex task.** Qat is far too well integrated into the Yemeni economy and society for significant reduction in its cultivation and use to occur in the short-term. Drug demand reduction is best thought of as a long-term task--as experience with tobacco in the west illustrates, it can take decades before large numbers of consumers finally do abandon it.

13. A solid understanding of the nature of and reasons for qat use is needed if Government is to take appropriate steps to discourage its use. Unfortunately, rather little is known, outside of anecdotal evidence, about who actually uses qat<sup>7</sup>. Recently, attempts have been made to analyze national household consumption data to examine patterns in Qat expenditures (see box 1 below). While these findings are instructive, the qat consumption trends identified in the broad national household expenditure surveys appear to suffer from serious under-reporting, making it difficult to reach firm conclusions from surveys that were not intended to focus explicitly on qat use. A great deal is known about the production and distribution of qat<sup>8</sup>, and about its health consequences<sup>9</sup>, but surprisingly, very little is known about the nature and extent of qat chewing; the reasons why consumers do or do not choose to use the drug; who actually uses it; and the influence that qat consumption has within the household, the work place and society at large.

14. A better understanding of qat consumption is needed to inform public policies aimed at reversing growth in demand for this drug. To help close this knowledge gap, a survey of qat consumption patterns, sponsored by World Bank, was undertaken by P. Gatter in mid-

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<sup>6</sup> See the various public debates on the influence of qat in: Yemen Times: "Will qat be Replaced", 17 April 2002; "Poor Yemenis Seek Nirvana with Narcotic Leaf" (March 14, 2003); "qat does not make life a carnival", (30 June 2004); "The Qat Phenomenon and Ideas to Stop its Use" (March 12, 2006), "Yemen has great potential so why has it reached this poor state" (12 August 2006); and "Qat Plantations Consume 40% of Underground Water" (20 March 2006).

<sup>7</sup> Two Italian doctors studied qat consumption in the 1950s and 1960s in Ta'izz City. Based on 12 years of observations from the Ta'izz hospital, they reported that 90 percent of the males over the age of 12 chewed qat, but only 60% were "habitual" chewers. For women, the figures were lower with 59 percent using qat, and only 35 percent considered to be habitual users. (Mancioli and Parrinello 1967). It would be inappropriate to apply the results of their investigation to Yemen as a whole today, given that this study was undertaken in a traditional qat consuming city, the sample was drawn from hospital patients, and its findings are now some forty years out of date.

<sup>8</sup> The seminal report on qat production in Yemen is: FAO (2002): Towards the Formulation of a Comprehensive qat Policy in the Republic of Yemen (Technical Study). Other important studies include those by Amer and Juneid (1996), Milich (1995), Ward et. al. (1998), and Ward and Gatter (2000).

<sup>9</sup> The health implications of qat use have been the subject of investigations spanning several decades. Important research reports on the health implications of qat use include: Alles (1961), Brenneisen et. al. (1990), Halbach (1979), Khalix (1984 and 1987), Kennedy et. al. (1983), Lenaers and Gatter (2000), Lemordant (1983), United Nations (1980), and World Health Organization (1980).

2006. The main findings of that survey are presented in section two of this note. Section three discusses the policy implications of the findings, and sets out a package of policy measures for government to help Yemenis escape the qat habit, and hence to realize their full, drug-free development potential.

**Box 1: Analyzing Trends in Qat Expenditures Using National Household Expenditure Data**

Milanovic (2007) has analyzed data from two late-1990s national household expenditures to examine expenditures on Qat in Yemen and Djibouti. The analysis drew on a subset of the questionnaires collected as part of the 1998 Yemen Household Survey, and for Djibouti, the analysis drew on the 1997 Household Budget Survey.

The results confirm that Qat consumption plays an enormous role in the daily life of households in both countries. Between one-half (in Djibouti) and 70 percent (in Yemen) of all households report that they have at least one user. The results suggest that qat consumption in Yemen is rather flat across income groups, age and between rural and urban users. In Djibouti, by contrast, the findings suggest that qat consumption increases with income, and appears to substitute for food consumption. In both countries, men are found to be much more likely to use qat than women.

Caution should be exercised in interpreting the survey results. There appears to be substantial under-reporting of qat consumption since consumption from home-production is excluded from the survey. In addition, the Yemen survey was launched during a period of time in which Government was actively discouraging qat consumption. Consequently, respondents may have been reluctant to report on actual qat outlays to government surveyors.

*Milanovic, Branko, 2007. Qat Expenditures in Yemen and Djibouti. An Empirical Analysis. World Bank. MPRA Paper No. 1425, posted 10. January 2007, available online at: <http://mpra.ub.uni-muenchen.de/1425/>*

## II. Main Findings of the Qat Consumer Survey

15. The qat consumption survey—covering 4,027 Yemenis above the age of 12—was carried out in seven of Yemen’s 21 Governorates. These included the Sana’a Capital Secretariat, Sana’a Governorate, al-Hodayda, Ta’izz, Marib, Aden and Hadhramawt. These Governorates belong to the northern, southern, coastal, highland and desert regions of the country and include both production regions, as well as those where qat cannot be cultivated. The survey covered the main urban and several rural districts of each Governorate, and included areas where qat chewing had been practiced for hundreds of years (e.g. Ta’izz) as well as those where its use is of more recent origin (e.g. Hadhramawt). A total of 41 out of 332 districts in the country were covered in the survey<sup>10</sup>.

16. The Qat Consumption Survey covered issues of education, chewing habits, expenditures on qat, respondent perceptions about chewing and its effects, and possible alternatives to chewing. The questionnaire was field tested in Sana’a City in April 2006, and after suitable revision, was launched nationwide in April and May of 2006. See Annex 1 for more details about the characteristics of the survey.

### A. Qat Consumption is Widespread

17. **Qat chewing is widespread amongst men and is on the increase amongst women.** An average of 72% of Yemeni males reported that they chew qat, compared to 33% of females (Table 1). The actual proportion of females who chew qat may be higher still, considering that traditional cultural stereotypes discourage women from chewing qat. The survey results confirm that qat consumption is no longer confined to the elite, or dominated by men.

**Table 1: Sample Population Chewing qat by Gender and Governorate  
(in Percent, n=4,017)**

Governorate	Males	Females
Sana'a Gov.	87.0	53.5
Sana'a Capital Secretariat	78.0	53.2
Al-Hodayda	90.0	33.0
Ta'izz	86.1	55.3
Marib	71.3	32.0
Aden	83.2	19.4
Hadhramawt (Wadi)	27.7	4.4
Hadhramawt (Coast)	61.4	1.1
<b>TOTAL</b>	<b>72.0</b>	<b>32.6</b>

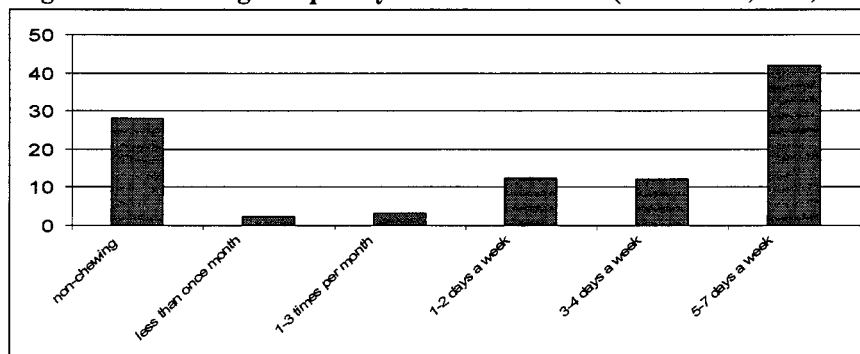
Source: World Bank Qat Consumption Survey, April-May 2006 (Gatter 2006).

<sup>10</sup> The Household Budget Survey of 2005 also covered certain aspects of qat consumption. Preliminary findings of the 2005 Household Budget Survey are used to augment those of the Qat Consumption survey reported in this paper.

18. Yemeni men tend to under-estimate the prevalence of qat chewing amongst women. Husbands reported that just 14% of their wives chew qat, while 33% of the women surveyed reported that they do indeed chew. Various reasons for this difference can be hypothesized. In some cases, husbands may be unaware of the qat chewing habits of their wives. In others, they may simply be hesitant to acknowledge this because of the stigma attached to women's use of qat, particularly in the more tribal parts of the country.

19. **Men display addictive chewing behaviour.** Some 42% of those men who use qat report that they chew every day of the week (figure 1). Of the rest, some 12% chew qat some 3-4 days per week, and the balance chew on 1-2 days of the week or less frequently. Thus, 54% of the Yemeni male population of 12 years of age and above chew qat more than three times a week, and could be characterized as displaying addictive chewing behavior.

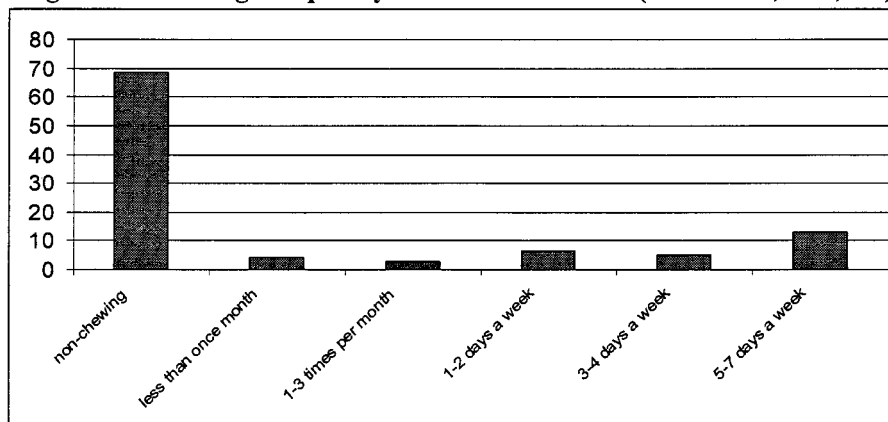
**Figure 1: Chewing Frequency of Yemeni Males (in Percent, n=2,205)**



Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

20. **Women users are also addicted; with one-fifth of all of the women in Yemen consume qat more than 3-4 times per week.** While far less women than men chew qat, the proportion of those who do chew and are habitual in their use of qat is about the same. Some 13% of the women surveyed reported that they chew qat on most days of the week. An additional 7% reported that they chew qat some 3-4 times per week, 4% reported that they chew qat just 1 to 2 days of the week., and 7% report that they chew qat less frequently than 1-2 days per week (figure 2).

**Figure 2: Chewing Frequency of Yemeni Females (in Percent, n=1,774)**

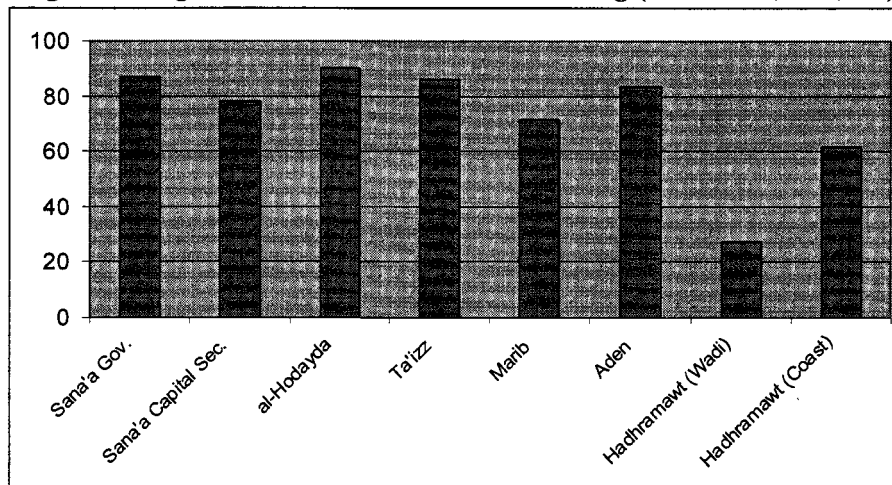


Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

21. **Pronounced geographic differences in qat use.** Areas where qat is cultivated and those where the habit has developed over a long period of time are more likely to report a higher consumption incidence. The survey results show that the incidence of qat use is much higher in qat cultivation areas of the western highlands (Sana'a City and Governorate, Taizz) and in areas where consumption was introduced long ago (i.e. al-Hodayda, Aden), than in areas where qat use is relatively new, such as Marib and Hadhramawt (Table 1).

22. In the traditional qat chewing areas, the vast majority of men report that they regularly chew qat (Figure 3). For example, male qat use ranges from 78% in Sana'a Capital Secretariat to 90% in al-Hodayda. In the areas in which qat use is of more recent origin, such as Marib, male chewing incidence is lower, but has already reached 71%. The Hadhramawt Governorate is the region where the prevalence of male qat use is the lowest, with 61% of the men in the coastal region, and 28% in the interior reporting regular use.

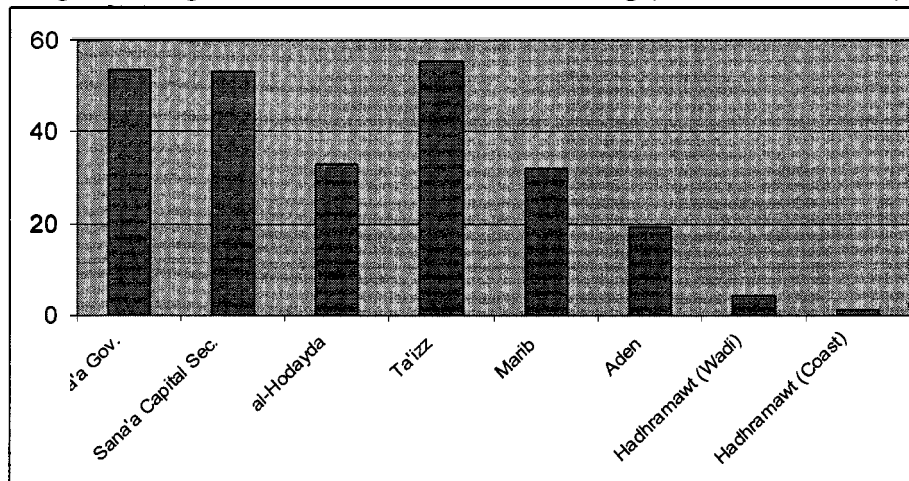
**Figure 3: Regional Differences in Men's Chewing (in Percent; n=2,205)**



Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

23. Geographical differences are more pronounced in terms of women's use of qat (Figure 4). Consumption is noticeably less amongst women in the interior tribal regions. In coastal Hadhramawt only 1.1% of women chew qat while in Ta'izz Governorate as many as 55% are qat consumers. In the highlands chewing incidence was highest, ranging from 53% of women chewing in Sana'a to 55% in Ta'izz. Chewing among women in the coastal and desert areas of al-Hodayda, Aden and Marib is much lower and ranges from 19% in Aden to 33% in al-Hodayda. In the interior of Hadhramawt Governorate, less than 5% of the women report that they chew qat.

**Figure 4: Regional Differences in Men's Chewing (in Percent; n=2,205)**



Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

24. **Yemenis start in their teenage years.** On average, the qat habit starts during adolescence. Where qat consumption is more widespread, and where the habit has developed over a longer period of time, children start consuming it at an earlier age (Table 2). For example, the average age at which consumption started was 16 years in Ta'izz, followed by an average of 17.2 years in Sana'a Governorate, and 17.6 years in the Sana'a Capital Secretariat. The age of first regular qat use was slightly higher in the areas where it is only produced in the more remote highlands (i.e. 17.8 years in Marib and 18.9 years in al-Hodayda). Distressingly, the survey found that children start chewing qat as early as age 5 in Sana'a, and at age 7 in Sana'a city and Aden. The highest starting ages were found in the former south, where qat consumption was either limited by the government to weekends (i.e. 20.9 years in Aden) or where it was completely illegal until reunification (i.e. 21.5 years in Wadi Hadhramawt and 23.6 years in coastal Hadhramawt).

**Table 2: Age of First Qat Use by Region (n=2,225)**

Governorate	Average Age
Sana'a Gov.	17.2
Sana'a Capital Secretariat	17.6
Al-Hodayda	18.9
Ta'izz	16.0
Marib	17.8
Aden	20.9
Hadhramawt (Wadi)	21.5
Hadhramawt (Coast)	23.6

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

25. **Men chew steadily until old age, while women chew more as they get older.** Men start chewing qat at an early age and the proportions of male chewers is relatively stable until the men reach between 50 to 60 years of age. In contrast to women, the proportion of elderly men who chew qat drops markedly. While 16% of men of 51-60 years of age chew qat some 3-4 times per week, only 3% of the men above age 60 chew qat. And while 41% of heavy chewers (i.e. those who use the plant 5-7 times/week) of 51-60 years age chew, just 26% of the men above age 60 report that they are regular chewers (Annex 2).



26. The older the women in Yemen, the more likely they are to chew qat. There is evidence that women tend not to chew before they are married, and thereafter the proportions of those who chew increase as women grow older. The vast majority of the women in the age category of 12 to 20 years in the survey sample were unmarried, and the proportion of those who were found to chew was just 18%. The incidence of chewing then increased steady over the different age groups of women surveyed, with some 55% over the age of 60 reporting that they do chew qat. Just 3% of the women below 20 years of age chew qat more than 3 times per week, compared to 11% of women between 21-30 years of age, 18% of women between 31-40 years of age, and 29% of women above 60 years of age (Annex 2). It appears that social pressures are successful in discouraging young women from using qat. These pressures tend to ease once women are married, and this is reflected in a tendency for women's consumption to rise as they get older.

27. **Home is where they chew.** Nearly half of Yemeni males (49%) and females (44%) chew qat at home (Table 3). Some 21% of the men and 7% of the women chew mostly with friends away from home. A further 13% of males and 4% of females chew mostly at weddings or funerals.

**Table 3: Qat Chewing Location (in Percent; 2,027 males, 711 females)**

Place		Male	Female	Average
Leisure	At home for leisure (with family, friends or alone)	48.8	43.9	47.5
	With friends for leisure (neither at home nor at work)	20.6	7.2	17.1
	At weddings or funerals	13.0	4.1	10.7
<b>Subtotal</b>		<b>82.4</b>	<b>55.2</b>	<b>75.3</b>
Work	At home while working	4.8	12.2	6.8
	At workplace together with colleagues (while working)	2.1	1.8	2.0
	Alone at workplace while working or while making business deals	9.9	30.4	15.2
<b>Subtotal</b>		<b>16.8</b>	<b>44.4</b>	<b>24.0</b>
Other	Other Locations	0.8	0.4	0.7

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

28. **Women work and chew, while men relax and chew.** Most of the men chew qat during time that is considered leisure, while just under half of the women combine work, in the household or on the farm, with qat chewing. Overall, some 75% of qat users declare that they chew during their leisure hours. Of this 44% of the women report that they chew qat while working, compared to just 17% of the men.

## B. Reasons for Chewing and Abstaining

29. **Why start? Most consumers report that they start their qat habit because of peer pressure** (Table 4). Chewing is a very social habit and practically all Yemeni afternoon gatherings take place around a qat chewing session. Some 66% of the men and 72% of the women claim that the reason that they started to chew qat is because "*all my friends and family chew*". Lack of alternative leisure activities also plays a role in the decision to start using qat. Some 19% of the men and 10% of the women claim that they started to use qat because "*there was nothing else to do.*" A number of men state that they started chewing because it enables them to work (8.6%) or study (3.4%) more effectively. Some 9% of the women reported that they started to use qat because their husbands asked them to.

**Table 4: Reasons Why Consumers Start to Chew qat (in Percent, n=2,148)**

Reason / Gender	Males	Females
All my friends and family chew	65.6	72.4
There is nothing else to do	19.0	10.0
To be able to work	8.6	2.3
In order to study	3.4	2.6
Because my husband wants me to	0	9.0
To alter my mood	0.9	0.7
To attend weddings or funerals	0.8	0.2
In order to forget	0.5	0.9
Others	1.3	1.9
<b>Total</b>	<b>100</b>	<b>100</b>

30. **Why use qat.** Men and women have similar reasons for using qat (Table 5). The most frequently observed reasons are that “*it gives me strength*” (12% of male and 14% of female respondents), “*it makes me more alert*” (12% of men, 12% of women), “*it helps me concentrate*” (14% of men, 10% of women), because my friends chew (9% of males and 8% of women), and simply because “*I like it*” (9% of men, and 11% of women). Qat is also used, by some, as an escape from the pressures of daily life. Some 6% of men and 7% of women named relief from depression as a reason for chewing, and another 5% of men and 7% on women claimed that it *helps them to forget*.

**Table 5: Reasons Why Consumers Use Qat  
(in Percent; n=7,232 - more than one response was possible)**

Reasons	Males	Females
I like it	9.0	10.8
It gives me strength	12.3	13.8
It makes me more alert	11.8	11.5
It removes depression	6.0	7.1
It makes me forget	4.5	7.2
It removes hunger	1.5	2.8
It relaxes me	5.7	4.5
It helps me concentrate	13.6	9.6
For social interaction	8.0	7.0
For academic attainment	4.4	2.9
For professional attainment	4.7	2.8
Is good for my health	2.1	4.7
Because my friends chew	8.9	8.0
There is nothing else to do	3.6	3.6
Others	4.0	3.9
<b>Total</b>	<b>100</b>	<b>100</b>

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

31. Users clearly do not use qat for its health benefits. Indeed, just 2% of the male respondents and 5% of the female respondents reported that they use qat because it is perceived to be good for their health. Moreover, and in stark contrast to popular folklore, just 2% of the male respondents reported that qat use is an aphrodisiac or performance enhancer.

32. **Why some abstain? Most of Yemen's non-chewers claim that they don't use qat for health** (35% of men, 33% of women) (Table 6). The second most important reason for abstaining is the high cost of using qat. Some 27% of male non-users and 19% of female non-users claim that they don't use qat because it would be a waste of money to do so. Religious reasons also play an important role in the decision to abstain from qat use. Nearly a quarter of the respondents claim that they don't use qat because the Qur'an would prohibit it, either as an intoxicant, or because spending on it could be considered a sinful waste and an extravagance. Interestingly, some 23% of the women don't use qat because they don't like the taste of its bitter leaves, while just 11% of the male non-users cite taste as a reason for abstaining.

**Table 6: Reasons Why Consumers Abstain from Qat**  
(in Percent, n 2990)

Reason	Male	Female
Health reasons	35.2	33.4
Financial reason	27.2	18.5
Religious or legal-religious ( <i>Sharia</i> ) reasons	24.4	23.2
Don't like taste	11.0	23.4
Others	2.1	1.5
Total	100.0	100.0

### C. Qat Use Adversely Affects Health and Family Life

33. The epidemiology of qat use has been subject to extensive study. While qat is still used in traditional Yemeni medicine to combat melancholy, to treat cold and diabetes, its adverse effects on human health are well-known. These include sleeplessness, constipation, gum disease, teeth decay, and pesticide poisoning.

34. **Adverse health-effects of qat use are widespread.** The results from this survey confirm that the adverse effects of qat consumption are widespread----some 80% of all male users and 70% of all female users report health disorders that they perceive are related to qat consumption<sup>11</sup>. Some 29% of male and 23% of female users are reported to suffer from sleeplessness, with its negative implications for day-after work performance, social relations and psychological well being.

<sup>11</sup> . The preliminary findings of the 2005/2006 Household Survey confirm the seriousness of the adverse Qat health effects. According to the Household Survey, Qat users spent an average of 886 Riyal for the three months prior to the survey on medicines and health treatments compared to just 440 Riyal for non-users.

**Table 7: Consumer Perceptions Regarding the Health Effects of qat**  
(in Percent, n =3,948 more than one answer was possible)

Effects on your health	Male	Female
No effect	20.0	30.2
Sleeplessness	29.1	23.0
Constipation	18.4	15.0
Other Gastrointestinal disorders	14.0	14.5
Oral disorders	12.7	9.5
High blood pressure	5.6	7.4
Other Illnesses	0.2	0.3
Total	100.0	100.0

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

35. A large share of the Yemeni population is reported to suffer from hemorrhoids, which is closely linked to qat consumption. In the survey, some 18% of male users and 15% of female users were found to be affected by constipation. Other gastrointestinal disorders were reported by a further 14% of male and 15% of female qat users. An additional 6-7% of the respondents felt that qat was a cause of their high blood pressure.

36. Qat chewing can have adverse effects on the gums of chewers since it is chewed for hours and the leaves have a high content of acidic tannins. Pesticide residues aggravate this problem and a number of cases of oral cancer have been associated with qat chewing. In this survey, some 13% of male qat users and 10% of female qat users were reported to suffer from a variety of oral disorders.

37. **Consumers self-treat qat-related health disorders.** Over 80% of all chewers report that they treat themselves by different traditional and “modern” means to combat the unwanted side effects of qat use (Table 8). An overwhelming number of respondents drink milk (43% of male and 33% of female users) to combat sleeplessness, a traditional remedy used for many generations in Yemen. Some 26% of male and 24% of female users force themselves to eat dinner, despite the loss of appetite resulting from qat use. Eating after qat use helps to overcome the effects of the acidic tannins that can cause gastrointestinal disorders and constipation. Between 5-7% of all users consume sweets and/or fruits to boost their blood sugar level, while approximately the same proportion take medicines to overcome various adverse health side effects arising from qat consumption.

**Table 8: Ways Consumers Treat Adverse Health Effects of Qat**  
(in Percent, n = 3,426 more than one answer was possible)

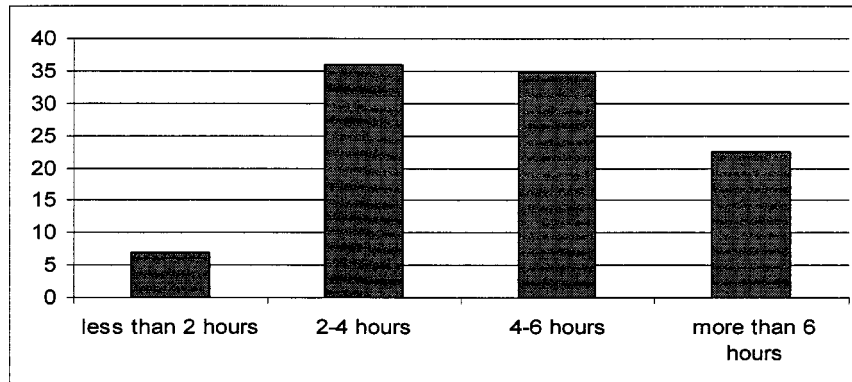
Treatment	Male	Female
Do not treat myself	10.5	19.7
Drink milk	43.3	33.4
Have dinner	26.2	24.0
Eat sweets	6.9	6.2
Eat fruit	5.3	6.6
Take medication	5.2	7.1
Others	2.7	3.0

38. **Household stress.** Many Yemenis claim that qat consumption is one of the main reasons for family breakdowns, since continued absence of one or both of the partners from home during the afternoon and evening hours, as well high qat expenditures causes severe stress on the families. Indeed, some 53% of male and 60% of female chewers believe that qat chewing is a source of friction within the family. Moreover, as many as 29% of women respondents reported that qat is “*sometimes*” a cause of conflict with their spouse and a further 8% reported that conflicts “*often*” arise due to qat use. Men, on the other hand, believe that qat consumption does not necessarily lead to family conflicts. Some 18% of the male respondents were reported to “*sometimes*” have qat-related family conflicts, and just 6% reported that they *often* had disputes with their wives over qat.

#### **D. Qat Use Drains Productivity and Fuels Poverty**

39. **Qat use is extremely time consuming.** Qat users spend close to one-third of their waking hours chewing (Table 3 and Figure 5). Much of this is time that workers in other low-middle income countries would spend engaged in productive activities. Only 7 percent of qat users spend less than 2 hours a day chewing. Some 36% of the users spend 2-4 hours per day; 35% spend 4-6 hours a day, and a whopping 22% spend more than 6 hours a day chewing qat. In urban areas, afternoons are effectively lost to qat chewing, particularly in the public service and in the services sector. The fact that only 24% of chewers work while chewing, whereas the overwhelming majority of Yemenis (75%) chew during their leisure time and are either at home or with friends, is added evidence of a tremendous national productivity loss (see Table 3 and Figure 5).

**Figure 5: Amount of Time Spent Chewing Qat Per Day  
(in Percent of total Chewers)**



Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

40. The amount of time devoted to qat chewing also varies by region. In al-Hodayda, for example, just 13% of the respondents chew for more than 6 hours per day. In Aden, by contrast, more than 33% of the respondents chew for 6 hours or more per day. In regions where the qat habit is of more recent origin, the evidence suggests that those who chew do so for a longer period of time each day (Table 9).

**Table 9: Duration of Daily Qat Chewing by Region (in Percent) (n=1,666)**

Governorate	less than 2 hours	2-4 hours	4-6 hours	more than 6 hours
Sana'a Gov.	3.7	43.8	28.3	24.2
Sana'a Capital Secretariat	12.4	42.7	30.3	14.6
al-Hodayda	16.2	39.7	31.2	13.0
Ta'izz	6.9	45.6	27.6	19.9
Marib	4.5	34.3	37.1	24.2
Aden	2.9	22.9	41.0	33.3
Hadhrmawt (Wadi)	2.7	36.6	42.9	17.9
Hadhrmawt (Coast)	4.5	23.1	45.5	26.9
<b>Average</b>	<b>6.9</b>	<b>36.0</b>	<b>34.8</b>	<b>22.4</b>

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

41. **Qat has mixed effects on work performance.** There is anecdotal evidence that qat chewing may lead to better same-day work performance, but that it also leads to a loss of sleep and thus to reduced work performance the next day. This is, in fact, what the majority of Yemeni chewers believe. Some 78% of the male chewers and 69% of the female chewers believe that qat chewing boosts their immediate work performance (Table 10). Only 6% of the male and female chewers believe that it hinders work performance, while 16% of the male chewers and 25% of the female chewers report that it has no effect on work performance. While many Yemenis reported that there was no effect of qat on their work performance the next day (60% of female and 43% of male users), nearly one third of all male users and more than a fifth of all female users report that they experienced negative effects on their work performance from chewing qat the previous day (Table 11). Hence, for many qat users, the day-after effects of sluggishness, sleepiness, and an inability to concentrate off-set the more immediate energy boost that qat consumption brings.

**Table 10: Effect of Qat on Immediate Work Performance  
(in Percent; n=2,275).**

Effect	Male	Female
Better	78.1	69.3
Worse	6.2	5.7
No Effect	15.8	25.0

**Table 11: Effect of Qat on Day-After Work Performance  
(in Percent; n=2,297)**

Effect	Male	Female
Positive	25.2	18.4
Negative	31.7	21,5
No Effect	43.1	60.1

42. In addition to diverting time that could be devoted to productive activities, qat also contributes to poverty by pre-empting a substantial share of the household budget. National household expenditure surveys (Table 2, Annex 3) show that 9 to 10 percent of household expenditures are devoted to buying qat throughout all income classes. Amongst the poor, outlays on qat are greater than, for example, private expenditures on health or education.

43. During the survey period, the daily pay of day laborers averaged YR400 per day, while the daily pay of civil servants was closer to YR1000 per day. The cost of a daily portion of qat ranged from YR200 to YR2000 depending on quality and location, with an average price of about YR450 per day<sup>12</sup>. For the most habitual users, it is not uncommon for half or more of the daily wage to be devoted to buying qat.

44. Yemeni consumers are aware that qat consumption crowds-out other essential household expenditures. Some 94% of non-chewers and 77% of chewers report that qat has a negative effect on the family budget. Close to two-thirds of all of the women, and about half of the men believe that they are unable to pay for qat and meet the other essential needs of the household at the same time. In the poorer regions, the trade-offs between qat consumption and the resources required to meet basic needs is far more pronounced. In coastal Hadhramawt, for example, some 87% of the women believe that families will be unable to afford qat and meet other essential family requirements. In Wadi Hadhramawt, 77% of the men share this view.

<sup>12</sup> Gatter, Peer (2006 forthcoming); A Survey of Sana'a Qat Markets during 2000 and 2005.

**Table 12: Population Who Cannot Afford Qat and Meet Their Basic Needs**  
(in Percent; n=3,523)

Governorate	Male	Female
Sana'a Gov.	34.5	47.6
Sana'a Capital Secretariat	44.3	48.5
al-Hodayda	32.5	58.9
Ta'izz	32,5	58,9
Marib	48.1	55.8
Aden	39.6	54.3
Hadhramawt (Wadi)	76.7	80.2
Hadhramawt (Coast)	51.4	86.5
<b>TOTAL</b>	<b>48.4</b>	<b>62.0</b>

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

45. **The Qat debt trap.** For some families, the qat habit leads down the road to a never-ending cycle of indebtedness. Close to a fifth of all families are forced to borrow simply to finance their qat habit. Some 18% of all male qat users and 17% of all female qat users reported that their families were forced to borrow to finance regular qat purchases.

46. 2. **Qat crowds out spending on basic needs.** What are the opportunity costs, within the household, of the money that is spent to buy qat? To answer this question, respondents were asked to assess what it is that they would purchase if extra funds were available (Table 13). One-fifth of all of the respondents replied that they would spend additional funds on food, and another fifth gave priority to basic medicines; another 15% reported that they would spend the extra money on consumer goods; while 14% would use additional funds to augment savings. Another 14% of the respondents would devote additional resources to their children's education; and another 11% would use the funds to help relatives in need or to support the poor. Just 4% of the respondents said that they would use additional monies to buy more qat.

47. **Qat and governance.** Qat also contributes to poverty by fostering what the population perceives to be a climate conducive to corruption. Empirical evidence based on cross-country comparisons shows that corruption has large, adverse effects on private investment and economic growth, and that more corrupt governments are less likely to spend on education and poverty reduction<sup>13</sup>. It is particularly revealing that some 95% of all of the survey respondents believe that qat chewing leads to corruption in Yemen, in one form or another.

<sup>13</sup> Paolo Mauro, 1996, "The Effects of Corruption on Growth, Investment, and Government Expenditure," IMF Working Paper 96/9. Washington D.C.



**Table 13: What would respondents purchase if they had more funds?**  
(in Percent; n=8,218 – more than one answer possible)

	Number	Percent
Medication	1,687	20.5
Food	1,569	19.1
Consumer/ Luxury Goods	1,194	14.5
Save it	1,168	14.2
Education	1,167	14.2
helping relatives/ the poor	906	11.0
qat	309	3.8
Others	218	2.7
Total	8218	100.0

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

### E. Consumers Need Government Help To Kick the Habit

48. **Qat chewing is a bad habit.** personal Consumers are well aware that qat has adverse and social consequences (Table 14). They believe it is generally a bad habit. Some 96% of non chewing males and 92% of non-chewing females describe qat chewing as a “bad habit”. What is especially striking is that some 72% of Yemeni men who chew qat and 69% of the chewing women share the same opinion. While most of the consumers don’t believe that qat chewing is against religious law, one-fifth of the Yemeni chewers do believe that they are committing a sin by chewing qat.

**Table 14: Consumer Perceptions of Qat Chewing**  
(in Percent; n=54,461 - more than one response possible)

Chewing qat is	Chewers		Non Chewers	
	Male	Female	Male	Female
A bad habit	71.9	69.4	95.8	92.4
Forbidden by religion	20.8	21.3	64.7	50.7
Shameful	29.4	28.2	77.0	64.1
Irresponsible	41.7	47.1	79.9	69.6
Bad for the family budget	74.6	78.4	94.4	90.3
Causing friction in family	53.4	59.7	89.7	77.1
Causing domestic violence	40.0	51.1	85.7	69.3
Leading to neglect of children	49.1	55.1	90.7	75.7
May cause divorce	36.4	44.2	82.0	66.9
Bad for health	78.7	77.5	96.6	92.6
Bad for Yemen's economy	78.5	82.1	93.3	89.4
Destroying social values and moral	63.8	68.8	93.0	84.1
Causing corruption	71.8	69.9	94.6	86.6
Causing poverty	86.0	85.5	97.8	95.9
Bad for Yemen's image	81.3	81.7	97.1	90.5

Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006).

49. **Qat harms the economy.** Most Yemeni’s believe that qat use has adverse effects on the economy. Some 75% of the users and 94% of the non-users report that qat places a heavy strain on the family budget. A similarly high proportion feels that qat use has adverse economic impacts and that its production and trade creates opportunities for corruption. A substantial share of the respondents (86% of users and 98% of non-users) feel that qat is an important cause of poverty, and moreover, that its use is bad for Yemen’s national image.

50. **Qat is believed to harm health and family life.** The vast majority of Yemeni's believe that qat use has negative health effects (i.e. 78% of users, and 95% of non users) and contributes to the erosion of positive social values (i.e. 66% of users and 86% of non users). Most believe that destroys social values and moral (64% of users and 93.0% of non-users). Just over half of all users believe that qat contributes to tensions within the family, while between 77-90% of non-users believe this to be the case. Users are equally divided on the question of whether or not qat contributes to domestic violence, neglect of children and divorce, while non-users overwhelming believe that it does so.

51. **Help wanted.** If consumers know that qat is bad for them, and moreover bad for society as a whole, why don't they just stop? The answer to this is simple---they can't. Either because of social pressures, or because of the psychological dependency resulting from prolonged use, consumers do not feel that they can stop using qat on their own. *Some 53% of all male and 61% of all female respondents declare that Government intervention is necessary to address the qat problem* (Table 15). Amongst those who support Government intervention, the vast majority stated that they would welcome some form of legal restriction on qat use. Only 37% of the men and 24% of the women didn't want any government intervention at all, and about 10-15% of the respondents had no view on this matter.

**Table 15: Should the Government Limit Qat Chewing?**  
(in Percent; n=3,889)

	Men	Women
Yes	53.2	61.2
No	36.5	24.1
I don't know	10.3	14.7

52. Respondents were also asked to identify feasible alternatives to qat consumption (Table 16). A large number of the respondents were unable to identify any suitable alternatives, itself a sign of the unique role that qat consumption plays in everyday life. Of those who did respond, about half felt that the creation of greater economic opportunities, either in paid employment or in cultivating qat substitutes, could be a far better use of their time. About one-quarter of those who did respond to this question felt that the Government could help by investing more in alternative leisure time activities. It is also important to note that very few felt that an outright ban on qat consumption would be a feasible option.

**Table 16: Respondent's Suggestions for Possible Alternatives to Qat**  
(n=4,372 - more than one answer possible)

Alternatives		Total	
		No.	%
<b>Leisure and Social Interaction</b>	Do sports or take walks	450	10.3
	Spend more time with family on friends	119	2.7
	Watch TV	65	1.5
	<b>Subtotal</b>	<b>634</b>	<b>14.5</b>
<b>Economic Activities</b>	Find a job and increase my income	1,170	26.8
	Work at home or in the field	48	1.1
	Cultivate other crops	654	15.0
	<b>Subtotal</b>	<b>1,872</b>	<b>42.8</b>
<b>Learning</b>	Attend vocational Training	123	2.8
	Go to mosque or read the Qur'an	75	1.7
	Read or study	62	1.4
	Listen to lectures	70	1.6
	Go to an internet café	9	0.2
	<b>Subtotal</b>	<b>339</b>	<b>7.8</b>
<b>Consumption Alternatives</b>	Eat more, especially fruit	33	0.8
	Use alcohol or other drugs	8	0.2
	Chew gum	6	0.1
	Drink tea	12	0.3
	<b>Subtotal</b>	<b>59</b>	<b>1.3</b>
<b>Government Initiatives</b>	Create more leisure opportunities (sports facilities and clubs, parks, libraries, etc.)	1,038	23.7
	Invest in infrastructure (electricity, hospitals, mosques, factories, etc)	51	1.2
	Ban and prevent the cultivation of qat	11	0.3
	<b>Subtotal</b>	<b>1,100</b>	<b>25.2</b>
<b>Others</b>	Nothing can be done	194	4.4
	Sleep	46	1.1
	Save money or help the poor	40	0.9
	Leave Yemen	10	0.2
	I don't know	78	1.8
	<b>Subtotal</b>	<b>368</b>	<b>8.4</b>

### III. Discouraging Qat Consumption

#### A. Implementing Past Policy Decisions

53. **Responding to NGO initiatives, the Government has begun to take actions to curb qat consumption.** Qat is the only agricultural commodity whose sale is subject to taxation, and its production is discouraged by exclusion of qat farmers from agricultural services, including research, extension, and public credit and irrigation improvement projects. Qat is prohibited from use in government offices; police and soldiers are forbidden to use qat while on duty; and some qat markets have been moved outside of the city centres. The Government has introduced the five day week and longer working hours, both aimed specifically at discouraging qat use. The Government of Yemen also carried out five years ago an extensive review of the qat situation, the findings of which were discussed in a national conference in April 2002. Stemming from this conference, a series of new decrees were passed, including policy measures aimed at discouraging harmful pesticide use in qat production, promoting alternative crops, and enhancing access to alternative recreational facilities<sup>14</sup>.

54. Implementation of the post 2002 reforms has proven difficult, particularly in the face of stiff resistance from influential qat traders and producers. As of mid-2006, qat is once again being chewed openly by the military in uniform and in public buildings from which it was banned in 1999. Efforts to relocate qat markets to the outskirts of the main cities have stalled, and qat chewing sessions appear to start earlier each day and to continue for much of the day.

55. The still widespread use of qat, as the results of this survey attest, imply that stronger policy measures will be needed to curb its use. Public policies aimed at combating qat must, however, contend with the fact that it is an integral part of Yemen's cultural endowment, that it plays a vital role in rural economies, and that the income flows from qat production are a key source of local government revenues. A further problem with qat is the way in which control over its production and distribution is exercised. Those who grow qat are so powerful that there is a high political risk to efforts made to campaign against it. Moreover, those with a vested interest in the qat status-quo have proven to be extraordinarily effective in circumventing policies aimed at curbing its use.

56. The Government is fully aware of just how difficult it will be to combat qat. According to the Third Five Year Socio Economic Plan for Poverty Reduction (DPPR): "the Government intends to address the qat phenomenon in an objective, informed and gradual fashion, while striking a balance between its economic, social, health and environmental aspects (p.6)." Emphasis in the DPPR is accorded to water conservation and to the introduction of new cash crops, both of which could be expected, with the passage of time, to encourage farmers to shift resources out of qat production<sup>15</sup>.

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<sup>14</sup> This included a decree on pesticide use (Cabinet Decree No. 135 of 2002) aimed at improving consumer safety. It calls for (a) inspection campaigns on chemicals in all governorates; (b) confiscating and destroying smuggled chemicals; (c) checking legally imported chemicals for validity and conformity with the established specifications; (d) maintaining a record of registered pesticide importers and conducting spot checks on them.

<sup>15</sup> Ministry of Planning and International Cooperation. 2006. Yemen's Third Socio-Economic Development Plan for Poverty Reduction (2006-2010).

57. While the general trend has been for a rapid increase in qat cultivation, some success has been registered in crop substitution, albeit on a small scale. Since 1999, the Ismaeli Bohra community in the Haraz region has successfully replaced qat by other economic activities and has uprooted over 200,000 qat trees. Alternative income generation activities include the cultivation of coffee, almonds, mangos, as well as goat herding, beekeeping, embroidery and sewing. There has been also investment in rural transport systems. An assessment of the strengths and weaknesses of the Bohra project could be used as the basis for a more comprehensive qat substitution program<sup>16</sup>.

58. It may, however, be difficult to dislodge qat from highland cropping systems. Efforts to promote water conservation techniques in the World Bank assisted Sana Basin project have resulted in farmers expanding the area allocated to qat cultivation. Similarly, efforts aimed at phasing out diesel subsidies have resulted in farmers putting more, rather than less, emphasis on qat cultivation, because of its superior profitability.

59. Over the past three decades, Yemeni farmers have shown themselves to be responsive to market forces when it comes to decision-making. Lands have been diverted to qat production because of growing market demand, a well-organized distribution system, and above all, the fact that profits to qat production and returns to labor were far superior to that of any other competing cash crop. Encouraging farmers to divert resources from qat cultivation may be difficult, particularly given the high profits that the crop attracts. In the long-run, an important way of reducing the profitability of the crop would be to adopt economic and social policies that trigger a reduction in consumer demand.

## **B. Directions for Future Policy Dialogue**

### **Lessons from International Experience**

60. International experience with drug demand reduction provides some lessons that can usefully be applied in the Yemen context, given recent interest within Government to reinstate efforts to address this major development challenge. The Political Declaration adopted by the UN member states at the General Assembly Special Session on the World Drug Problem in 1998 recognises that drug demand reduction is indispensable in solving the drug problem. It identifies a set of agreed principles for Government's to adopt in their efforts to support the reduction in drug use demand (Box 2). Many low income countries have incorporated drug demand reduction elements into their national drug control strategies. Experience to date with drug demand reduction efforts in low income countries suggests that both awareness building and risk reduction is needed to effectively reduce demand. In all cases, communities must play an active role in defining the drug problem and finding a suitable solution. Experience also shows that different approaches are required for different groups in addressing different needs and situations<sup>17</sup>.

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<sup>16</sup> See Gatter (2005) for a preliminary review of the Ismaeli Bohra community qat substitution program.

<sup>17</sup> United Nations Office for Drug Control and Crime Prevention. 2002. Lessons Learned in Drug Abuse Prevention, A Global Review, New York.

## **Box 2: Principles of Drug Demand Reduction**

The UN Declaration of Guiding Principles of Drug Demand Reduction (1998) include:

- An integrated approach to solving the drug problem should be adopted and should consist of a balance between drug demand reduction and supply reduction
- Demand reduction policies shall:
  - aim at preventing the use of drugs and adverse consequences of drug abuse
  - provide for and encourage active and coordinated participation of individuals at the community level
  - be sensitive to both culture and gender
  - contribute towards developing and sustaining supportive environments
- Demand reduction strategies should be based on a regular assessment of the nature and magnitude of drug abuse and drug-related problems in the population
- Demand reduction programmes should cover all areas of prevention, from discouraging initial use to reducing the negative health and social consequences of drug abuse
- A community-wide participatory and partnership approach is crucial to the accurate assessment of the problem, the identification of viable solutions and the formulation and implementation of appropriate policies and programmes
- Demand reduction efforts should be integrated into broader social welfare and health promotion policies and preventive education programmes
- Demand reduction programmes should be designed to address the needs of the population in general, as well as those of specific population groups, with special attention being paid to youth
- Information utilised in educational and prevention programmes should be clear, scientifically accurate and reliable, culturally valid, timely, and tested with a target population
- States should place appropriate emphasis on training policy makers, programme planners and practitioners in all aspects of the design, execution and evaluation of demand reduction programmes and strategies
- Demand reduction strategies and specific activities should be thoroughly evaluated to assess and improve their effectiveness. The results of these evaluations should be shared.

*Source: Special Session of the General Assembly Devoted to Countering the World Drug Problem Together, 8-10 June 1998: Political Declaration; Guiding Principles of Drug Demand Reduction; and Measures to Enhance International Cooperation to Counter the World Drug Problem.*

61. A key lesson from international experience is that once there is a strong negative stigma attached to drug use (and abuse), new users will be discouraged from starting, and demand amongst already established users will fall. Experience worldwide shows that efforts to address drug reduction require long time-frames, and persistent support from national leadership. But while the benefits take time to accrue, international experience provides unambiguous evidence that deeply engrained attitudes can be changed. For example, in the 1950s, tobacco consumption was viewed as glamorous and prestigious in most of the high-income economies. After five decades of concerted demand-reduction policies, cigarette consumption in the OECD nations is widely discouraged (Box 3).

### **Box 3: OECD Tobacco Consumption: From Glamour to Social Stigma**

Anti-smoking groups, along with many government health departments have attempted to counter the advertising of tobacco by creating their own advertisements to highlight the negative effects of smoking. The earliest commercials mainly focused on the increased risk of lung cancer and the problems associated with passive smoking. However, they have become increasingly hard-hitting and more targeted to youth over the years, with some campaigns now centred around decreased physical attractiveness.

Public funding has played an important role in public campaigns to discourage smoking. The British government spent £31 million in 2003 as part of their anti-smoking campaign. In 2005 the European Union launched the "For a life without tobacco" campaign in all its constituent countries to help people quit smoking.

Laws implementing bans on smoking have been introduced by many countries in various forms over the years, to complement cigarette taxes and public awareness campaigns. Italy banned smoking from the 10th January 2005 in all enclosed places except private homes and specifically designated areas satisfying strict technical conditions. Despite initial skepticism, the measure was well accepted and is generally respected. France will ban smoking from February 2007 in all public places, and opinion polls suggest that 70% of people support the ban. Scotland prohibited smoking in all enclosed public places on March 26, 2006, after the Smoking, Health and Social Care Act took effect. England and Northern Ireland have both prohibited smoking in all enclosed public places starting in 2007.

Experiments with outdoor smoking bans in specific contexts, especially in public or government-owned spaces, have begun. California bans smoking in all buildings open to the public. Additionally, California prohibits smoking within 20 feet of any door or window of any government building within the state. Smoking has been banned in Tokyo's Chiyoda Ward since October 2002. In addition, there are some 60 other municipalities in Japan which have regulations to ban or discourage people from smoking on the street.

*Source Tobacco Advertising. 2006. [http://en.wikipedia.org/wiki/Tobacco\\_advertising](http://en.wikipedia.org/wiki/Tobacco_advertising), and Smoking Ban. 2006. [http://en.wikipedia.org/wiki/Smoking\\_ban](http://en.wikipedia.org/wiki/Smoking_ban)*

### **Elements of a Qat Demand Reduction Agenda**

62. **Securing the Support of National Leadership.** Past experience suggests there is a need to engage the top leaders, at all times, in a campaign to discourage qat consumption. The office of the Presidency, the Parliament, and local government leaders all must be informed and involved in campaigns to discourage qat use. Ensuring that national leaders have access to the findings of this survey, and are aware that the majority of consumers want Government's assistance to help them reduce qat consumption, would be a good start towards building a solid base of leadership support. Bearing in mind, however, that qat is regarded by many as a unique element of Yemeni culture, international agencies should be seen as supportive of local initiatives to curb consumption while being respectful of Yemen's unique cultural endowments.

63. **Enforcing the post-1999 Reforms.** Renewed efforts to enforce policy reforms launched since 1999 to reduce qat consumption would send a signal to the population that

Government leaders are aware of the need to take steps to curb excessive qat consumption. This would include enhanced enforcement of public policies aimed at prohibiting qat consumption in public buildings and by serving military officers; ensuring that government office hours last until 3 pm in the afternoon; and actively relocating qat markets out of the city centers. In particular, a policy of zero-tolerance for the use of qat during working hours, and leaving the place of work before the end of statutory work hours, both for public servants, the army and the police, would send a powerful signal to the population-at-large that qat consumption will no longer be allowed to undermine the effective operation of the public service.

64. **Increasing the Tax Wedge.** One way of reducing qat demand is to simply make qat more costly to consume. As the price of a commodity rises, the quantity demanded shall fall. Raising taxes on qat can serve to reduce demand, and therefore also lower margins to traders and producers. Although it is widely presumed that qat consumption is price inelastic, the results of various socio-economic surveys suggest that consumption is fairly elastic up until the highest income brackets.

65. Qat remains lightly taxed, because the nominal rate is low, and enforcement is plagued by avoidance, fraud and ineffective tax administration. Although Qat is taxed at a nominal 20% ad valorem rate, the effective tax rate is much lower--at just 3 to 4% of the value of final consumption. Boosting the tax rate, and substantially improving tax enforcement, could help serve to deter excessive consumption, particularly amongst the poorer segments of society. In addition, five percent of what is actually collected is, by law, contributed to the Government's Fund for Youth and Sports. Increasing the tax take could therefore automatically boost resources available for alternative leisure activities.

66. Worldwide, tobacco is taxed at a far higher rate than qat is taxed at in Yemen in order to discourage consumption. In high-income nations, taxes amount to two-thirds or more of the retail price of a pack of cigarettes. In the lower-middle income countries, by comparison, taxes amount to about half of the retail price of a pack of cigarettes<sup>18</sup>. This suggests that taxes on qat use could rise substantially in order to discourage use.

67. In designing an effective qat tax system, the government needs to take into account several factors, including the possible impact of smuggling, the purchasing power of the local consumers, rates in neighbouring countries, and, above all, the ability and willingness of the tax authority to enforce compliance. Since the primary purpose of the tax is to discourage qat consumption, a strong case can be made for specific taxes (i.e. based on quantity) that would impose the same tax per bag sold instead of an ad valorem tax. Specific taxes are easier to administer than ad valorem taxes because it is only necessary to determine the physical quantity of the product taxed, and it is not necessary to determine its value. The use of tax-stamps can also assist in ensuring that qat taxes have been paid, and that that goods that have paid the tax appropriate for one jurisdiction are not shipped to another.

68. To be effective, any government that decides to implement a vigilant qat control policy must do so in a context in which the decision has broad popular support. While it might seem that qat consumers would be strongly opposed to qat control, the reality is strikingly different: the findings of this survey show that qat consumers want the government to

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<sup>18</sup> World Bank. 1999. *Curing the Epidemic: Governments and the Economics of Tobacco Control*. Washington D.C. <http://www1.worldbank.org/tobacco/reports.htm>



intervene to curb consumption. They are especially concerned that their children not take-up the habit, and they want the Government to help foster a social setting in which qat consumption is stigmatized and alternatives to its use are promoted.

69. **Building Public Awareness.** Another way that the Government could discourage qat consumption is to inform consumers about the adverse consequences arising from prolonged use. All market economies suffer from information failure---i.e. consumers simply don't have all the facts. In the face of information failure, the Government plays an important role in helping consumers make an *informed-choice* about the products that they consume. At this juncture, there is a crying need for Government to provide Yemeni consumers with information about the hazards of qat consumption, both to themselves and to society as a whole, and to provide positive role models as advocates for change. A well-focused information campaign could build on the findings of this survey, as well as other sources of scientific information on the health, productivity loss and poverty impacts of qat consumption. Likewise, information on the adverse effects of qat consumption should be introduced in the education curriculum, and mainstreamed into health awareness programs. Endorsement by leading public figures of the merits of breaking the qat habit, peer to peer education, and involvement of the private sector in social marketing campaigns should all be considered as components of a multi-pronged strategy for building well-informed, public awareness and understanding.

70. **Preventing Youth from Starting the Habit.** Public awareness campaigns should be designed with the specific interests of different age groups in mind. The survey results suggest that qat consumption begins in the teenage years. The Government has an important opportunity to help prevent the qat-habit from forming by targeting information campaigns specifically to the youth population. In 2006, the Yemeni soccer team dropped out of the Asian Games in Qatar because they knew they would fail a drug test. Incidents such as this, together with the findings of the Qat Consumer Survey, could serve as the basis for an information campaign aimed at convincing the youth that qat consumption is not in their best interest. Efforts should also be made to involve civil, religious and tribal leaders who appeal to youth in such outreach campaigns. Targeted efforts to prevent qat consumption could payoff rather quickly, in terms of reducing demand, since nearly half of the Yemeni population is below age 15.

71. There may also be opportunities to scale-up public awareness efforts piloted by civil society organizations. On a small scale, several NGOs have recently been active in fostering public awareness about the hazards of qat consumption. These include the Ta'izz based "Anti qat Association" (AQA) (*Jami'a Muwajihah Adrar al Gat*), the Sana'a based Afif Cultural Foundation (*Mu'assasa al-'Afif al-Thaqafiya*) and its associated National Society for Combating Qat Disadvantages (NSCQD) (*al-Ja'miat al-Wataniya li Muwajihat Adrar al-qat*), the Aden Society for Combating Qat (*Jam'iat Makafahat al-qat*), and the Ibb based Friends without Qat (*Asdiqa' bi la qat*). The Government could work in partnership with these NGOs and build on the lessons learned from their outreach efforts to scale-up a more wide-ranging public awareness campaign.

72. **Developing Alternative Recreational Facilities.** One of the findings of the 2002 Qat Conference was that there was a pressing need for expanding access to recreational facilities for young people so that they would have a viable alternative to the ubiquitous qat party. The findings from this survey support that conclusion. In addition to peer pressure, one of the reasons that young people give for starting to use qat is that there is a perceived lack of

alternative recreation facilities. Improving access to sports facilities, youth centers and boosting public financial support for youth-oriented cultural activities could help to provide alternatives for the leisure time of the youth.

**73. Stimulating Private Sector Development to Boost Employment.** The greater the employment demand, the less likely consumers are to allocate their increasingly valuable time to qat consumption. Just under half of the respondents identified the need to expand economic opportunities as a way of encouraging a reduction in qat use (Table 16). Public policies aimed at boosting competitiveness, building human capital, and enhancing the private sector enabling environment can make an important contribution to reducing qat consumption by boosting the demand for labor, and therefore by raising the opportunity cost of the many hours that laborers devote to consuming qat. Certain policies aimed at boosting macroeconomic stability and competitiveness, such as the gradual reduction in diesel subsidies, will also free-up resources that can be used for financing measures aimed at reducing qat demand. In addition, a phased elimination of the diesel fuel subsidy would boost qat production costs since diesel fuel is used to power the tubewell pumps that irrigate qat<sup>19</sup>.

**74. Supply-side Challenges.** There is a need to identify viable crop diversification programs, if viable substitutes for qat in the rural economy are to be created. In the highlands, many other crops could be cultivated, but there is little evidence that such substitutes could generate profits or employment equivalent to that which qat cultivation and marketing provide. Efforts to combat drug cultivation in other countries have tended to require a combination of laws restricting production, crop diversification programs, programs that ban harmful pesticides and tax other agro-chemicals, and safety-net measures. There is a need to anticipate and mitigate the adverse economic effects of what could become a secular decline in demand, given the importance of qat in both employment and in the rural economy. More research is necessary to identify an appropriate package of supply-side interventions---i.e. legal measures, agriculture, pesticide-control and water resource programs, and safety net interventions (such as the use of Social Funds and Public Works Programs) that could be used to mitigate the employment and rural income effects of declining qat demand.

**75. Addressing Knowledge Gaps.** While epidemiological research into the consequences of qat consumption has a long history in Yemen, and much is known the short-term health effects of qat use, the biological and social impacts of prolonged use are not well understood. In addition, with the recent upsurge in pesticide use on qat, more research is needed on the impact of pesticides in pregnant women, lactating mothers, and their off-spring.

**76. Drug use by a group of people is rarely caused by a single factor.** Identification of the nature and type of drug abuse in a certain target group should precede and inform any drug abuse prevention intervention. Compared to the numerous epidemiological studies, research on the causes and consequences of qat consumption, and the behavioural pressures associated with qat uptake are limited in number and scope. While demand-control interventions are being implemented, parallel research activities into these issues may help to refine the targeting of interventions, such as those designed to improve health information for the poor, for maximum effect. Evaluation should be integrated into qat reduction policies, projects and

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<sup>19</sup> Domestic diesel prices remain far below world market levels and total subsidies are estimated at 10 percent of GDP. The 2005 experience suggests the merits of boosting diesel prices in a series of steps, and with accompanying pro-poor measures aimed at mitigating the adverse social impact of price increases. Diesel prices were raised in one step from YR 17/litre to YR 45/litre in 2005, which triggered demonstrations, riots, loss of life and destruction of property. In response, the government rolled back the price increase to YR 35/litre.

programmes from the outset, and should continue throughout. This will help to establish evidence of effectiveness and fuel learning processes intrinsic to the success of the demand reduction effort.

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## Annex 1: The Qat Consumer Survey Sample

In each governorate, between 400 and 600 individuals were interviewed (Annex Table 1). Overall, a total of 4,027 Yemenis above the age of 12 were interviewed, of which 1,807 were females (45%), and 2,220 males (55%). This was equivalent to 0.07% of the over-12 year of age population in the sample governorates<sup>20</sup>. Of those interviewed, 1,909 persons or 47% were urban dwellers, while 2,118 persons or 53 % lived in rural areas. Some 44% of the participating females were single, 55% were married and the remaining 2% were divorced, separated or widowed. Of the male participants, 33% were single, 59% were married and 8% were divorced, separated or widowed. In terms of educational achievement, some 12% of the male and 35% of the female respondents were reported to be illiterate.

Every effort was made to ensure that the data was reliable. The survey was implemented by 72 locally-recruited surveyors, with an average of 10 surveyors recruited per governorate. The surveyors were divided equally between men and women. They were formally trained prior to conducting interviews and were carefully supervised by an experienced field coordinator. In each district, random selection of households was undertaken after approval to undertake the survey was secured, with the assistance of local NGOs, from representatives of the local security forces. While ensuring that the sample was truly random, attention was paid to locating sufficient numbers of female and elderly respondents, to securing interviews in remote villages, and to reassuring respondents that aim of the survey was to gather information, and was not in any way related to recent radio broadcasts that had discussed the possibility of outlawing qat<sup>21</sup>.

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<sup>20</sup> CSO Statistical Yearbook 2003, p. 29 and 30, and preliminary results of the 2004 Population Census, Statistical Yearbook 2004, p. 30.

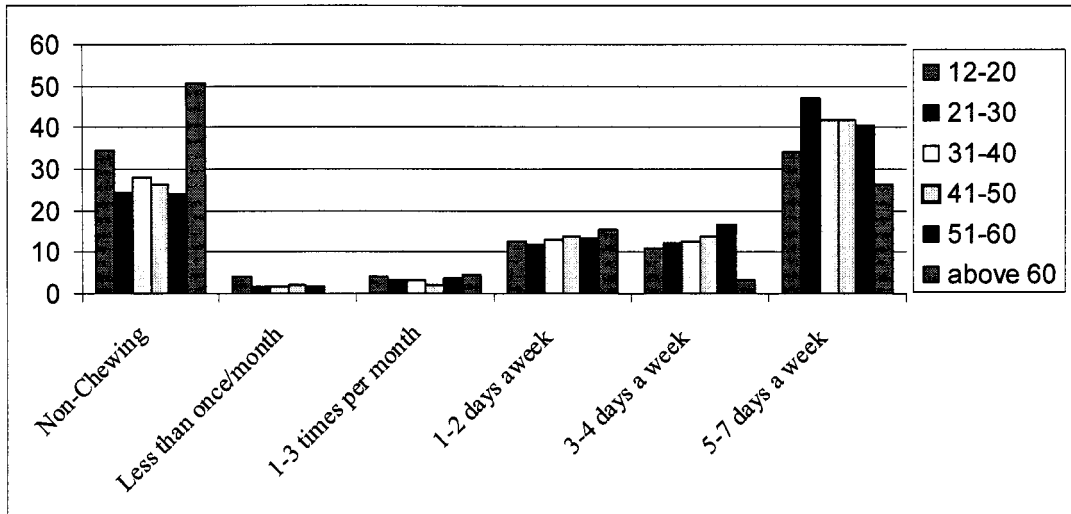
<sup>21</sup> The survey coincided with broadcasts of al-Arabiyya and al-Jazira on qat in Yemen. These programs apparently voiced concerns about qat consumption and stated that a condition for Yemen to join the Gulf Cooperation Council should be the outlawing of qat. Respondents were reassured that this survey was unrelated to the accession to the Gulf Cooperation Council, or to any other effort aimed at banning qat use.

**Annex 1, Table 1: Survey Areas and Number of Participants by District and Gender**

Governorate	District	Gender		Total
		Male	Female	
Sana'a Gov.	Bani Hushaysh	56	34	90
	Bani al-Hareth	36	16	52
	Jihana	28	29	57
	al-Hayma al-Kharijiyya	11	14	25
	Bani Matar	77	31	108
	Bilad al-Rus	39	37	76
<b>Total</b>		<b>247</b>	<b>161</b>	<b>408</b>
Sana'a Capital Secretariat	al-Thawra	22	33	55
	Old city	54	42	96
	Ma'in	30	35	65
	Libiyya City (part of Bani al Hareth)	7	16	23
	Safiya	5	4	9
	al-Tahrir	47	47	94
	Saba'in	40	28	68
<b>Total</b>		<b>205</b>	<b>205</b>	<b>410</b>
al-Hodayda	al-Hodayda Old City	1	60	61
	al-Mina	16	13	29
	al-Hawk	67	32	99
	al-Haly	20	35	55
	al-Marawa'a	49	61	110
	Mansuriyya	53	31	84
	al-Luhayya	64	62	126
<b>Total</b>		<b>270</b>	<b>294</b>	<b>564</b>
Ta'izz	Sala	26	25	51
	al-Qahira	36	34	70
	al-Mudhaffar	18	24	42
	Maqbana	77	61	138
	Saber	31	46	77
	Mawiya	50	40	90
	Dimnat-Khadir	57	63	120
<b>Total</b>		<b>295</b>	<b>293</b>	<b>588</b>
Marib	Marib City	128	104	232
	Harib	28	36	64
	Sirwa	40	59	99
	al-Juba	51	45	96
<b>Total</b>		<b>247</b>	<b>244</b>	<b>491</b>
Aden	al-Burayqa	167	104	271
	al-Mansura	39	16	55
	Dar Sa'ad	34	40	74
	Khormaksar	53	38	91
	al-Shaykh Uthman	78	35	113
<b>Total</b>		<b>371</b>	<b>233</b>	<b>604</b>
Hadhramawt (Wadi)	Sey'un	85	100	185
	Tarim	106	29	135
	Shibam	74	31	105
	al-qatn	79	43	122
<b>Total</b>		<b>344</b>	<b>203</b>	<b>547</b>
Hadhramawt (Coast)	al-Mukalla	131	107	251
	al-Rayda wa Qusay'ir	64	38	102
	Burum	46	29	75
<b>Total</b>		<b>241</b>	<b>174</b>	<b>415</b>

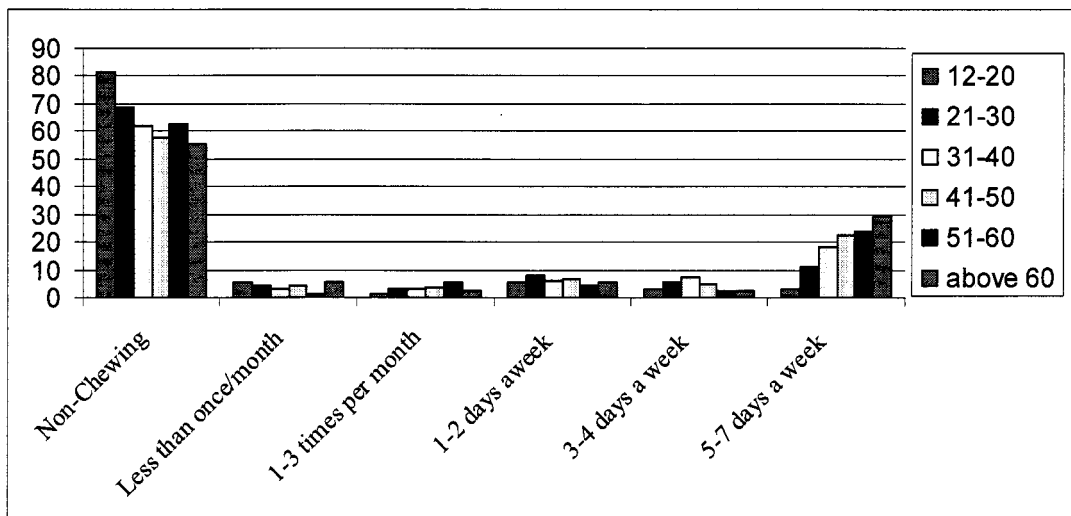
**Annex 2: The Relationship Between Age and Qat Chewing Frequency for Men and Women**

**Annex 2, Figure 1: Age and Chewing Frequency among Yemeni Males**  
(Percent on left; age categories by color codes)



Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006) .

**Annex 2, Figure 2: Age and Chewing Frequency among Yemeni Females**  
(Percent on left; age categories by color code)



Source: World Bank Qat Consumption Survey, April-May 2006, (Gatter 2006) .

### Annex 3: Household Expenditure on Qat

**Annex 3, Table 1: Distribution of Household Expenditure  
(in Percent, 2005)**

	Urban	Rural	Total
Cereals and their Products	7.1	14.6	11.8
Legumes	0.6	0.6	0.6
Vegetables	3.1	3.5	3.4
Fruits	2.3	2.6	2.5
Meats, Poultry, Fish, Eggs	11.2	11.8	11.6
Milk and Dairy Products	1.8	8.5	6.0
Edible Fats and Oils	0.7	1.3	1.1
Sugar & its Products	1.3	2.4	2.0
Condiments & Spices	0.7	0.7	0.7
Tea, Coffee, Cocoa	0.4	0.7	0.6
Mineral Water & Soda Drinks	1.1	0.7	0.8
Tobacco	1.7	1.6	1.6
Qat	11.0	10.3	10.5
Other Non-food Items	57.1	40.9	46.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Household Budget Surveys 2005

**Annex 3, Table 2: Household Expenditures on Qat  
By Income Deciles  
(% of household income, 2005)**

Deciles	Urban	Rural	Total
1	6.7	8.8	8.6
2	8.2	9.3	9.1
3	7.8	10.0	9.6
4	8.9	10.1	9.8
5	9.5	10.7	10.4
6	9.6	11.2	10.8
7	10.1	11.1	10.8
8	10.2	10.7	10.6
9	10.9	11.6	11.3
10	11.2	10.5	11.0
<b>Total</b>	<b>9.9</b>	<b>10.3</b>	<b>10.2</b>

Source: Household Budget Surveys 2005





*A Qat market in the Tihama*



*Young reddish Qat shoots*



*Qat chewing at a wedding ceremony*



*A Qat chewer in al-Hodayda*

