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## **Effects of Miraa (Khat) on Socio-Economic Outcomes in Wajir County**

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## Abstract

Miraa (khat) consumption poses significant socio-economic challenges in Kenya, particularly in Wajir County, diverting household income, exacerbating poverty, and reducing productivity. Approximately 4.1% of Kenyans aged 15-65 years are current khat users, with higher prevalence in Eastern and North Eastern regions. The habit affects not only individuals but also the broader workforce and community, leading to reduced economic output, increased poverty, and social inequality. This literature review examines the socio-economic negative effects of miraa consumption, highlighting its impact on household income, productivity, and mental health. The Wajir County Miraa and Other Substances Control Act, 2025, is a critical intervention aimed at regulating miraa trade, promoting responsible consumption, and providing rehabilitation services. Recommendations include regulating miraa trade, banning muguka, promoting alternative livelihoods, and conducting awareness campaigns to mitigate the socio-economic consequences of miraa consumption.

### 1. Introduction

Miraa (khat) consumption poses significant socio-economic challenges in Kenya, particularly in Wajir County. Regular use diverts household income, exacerbates poverty, and reduces productivity. Regular consumption diverts a substantial portion of household income toward purchasing khat, often at the expense of essential needs such as food, education, and healthcare (Wangu et al., 2018; Patel, 2015). Among university students, habitual khat use correlates with reduced engagement in academic or economic activities, fostering dependence on family resources or casual employment (Kamenderi et al., 2025). This financial diversion can exacerbate poverty and social inequality in regions where khat is heavily consumed. Furthermore, the habit's impact on productivity extends to the broader workforce, with absenteeism, reduced labor output, and diminished entrepreneurial participation being commonly reported. As such, khat use represents both an individual and systemic economic challenge, underscoring the importance of regulation, awareness campaigns, and alternative livelihood programs to mitigate its socio-economic consequences (Nyavanga, 2018; NACADA, 2022).

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According to recent data, approximately 4.1% of Kenyans aged 15–65 years are current khat users, with higher prevalence in the Eastern and North Eastern regions, including Wajir (Kamenderi & Muteti, 2019). This pattern underscores the urgency of implementing localized interventions that address both prevention and rehabilitation. The widespread use of khat in Kenya is not merely anecdotal but is robustly documented in national surveys. According to the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA, 2022), one in every 28 Kenyans aged 15–65 years, representing an estimated 964,737 individuals, were current users of khat. The consumption is heavily gendered, with one in every 14 males being a current user compared to only one in every 143 females, highlighting a significant public health issue concentrated among men (NACADA, 2022). Regionally, the Eastern region bears the highest burden with a 9.6% prevalence rate, followed by North Eastern (7.2%) and Nairobi (4.9%) (NACADA, 2022). This data confirms that khat use is a pervasive national challenge, with Wajir County, located in a high-prevalence zone, facing a disproportionate impact that demands immediate legislative action.

Khat use in Kenya exhibits substantial regional variation, with the North Eastern and Eastern regions recording the highest prevalence and awareness rates. NACADA (2022) reported that spontaneous awareness of khat was 42% nationwide, with 39% aware of miraa and 23% aware of muguka. Urban areas showed higher awareness than rural areas, while males consistently demonstrated higher overall awareness compared to females. The North Eastern region, in particular, had 86% awareness of khat use. These regional disparities suggest that interventions must be context-specific, targeting areas with high prevalence while addressing cultural acceptance of the practice. High awareness does not necessarily translate to reduced usage; instead, it highlights the normalization of khat consumption and the potential economic and social costs associated with habitual use, including reduced productivity, diversion of household income, and increased vulnerability to other substance use (NACADA, 2022).

The link between khat use and reduced economic productivity is strongly evidenced by usage patterns across age groups. The highest prevalence of current khat use is found among individuals aged 25-35 (4.8%) and 18-24 (4.7%), which are the most economically active cohorts in the Kenyan population (NACADA, 2022). This demographic represents the core of the national workforce, and their habitual consumption directly undermines workplace efficiency. Studies have consistently found that chewing khat leads to reduced productivity as users are engaged in the habit instead of working (Goldsmith et al., 2015; Magarsa et al., 2013). The County Government must therefore actively discourage substance abuse among its employees and implement policies that penalize being under the influence at work to safeguard public service delivery and set a community standard.

The Wajir County Miraa and Other Substances Control Act, 2025, signed by H.E the Governor, FCPA Ahmed Abdullahi in December 2025 marks an important step in strengthening efforts against drugs and substance abuse in Wajir County. The law sets clear rules for the sale and distribution of Miraa, including the requirement that all trading takes place in designated areas and away from schools, places of worship, and health facilities. Furthermore, the legislation is a critical intervention to mitigate the socio-economic impacts of khat consumption. Its implementation, guided by evidence, is essential to safeguarding the well-being and productivity of Wajir County's population.

## 2. Socio-Economic Negative Effects of Miraa (Khat).

Miraa and muguka chewing is also both a social and public health problem. The disastrous socioeconomic and health consequences of the youth indulging in miraa and muguka chewing are enormous. Consumption of miraa and muguka is something that most youth in the region are engaging in, and is affecting their social and economic life. Miraa and muguka chewing has also brought out another problem with other substances as the majority of those who abuse miraa and muguka will also end up abusing either alcohol or marijuana. Although those who trade in miraa and muguka supplement their household income, it can be said that for the chewers, who are the majority, there is a significant effect on household income in that a huge part of their income goes to purchasing the substance and other accompaniments. The above is in agreement with authors like Patel (2015) and Nyavanga (2018) who also found out that miraa chewing leads to the dissipation of household income, leading to increased poverty. It can also be concluded that miraa chewing has led to a substantial reduction in workplace productivity.

The economic strain on households is aggravated by the phenomenon of polydrug use, where khat serves as a gateway or companion to other addictive substances. National data indicates that 1 in every 15 Kenyans aged 15-65 years is currently involved in polydrug use, often combining khat with alcohol or tobacco. This multiplier effect disastrously increases household expenditure on drugs; for instance, the 2024 university study highlighted that alcohol and cannabis are frequently used alongside other substances, with 1 in every 11 students using smoked cannabis. This pattern of multiple substance consumption deepens poverty levels as a larger fraction of disposable income is consumed by addiction rather than being channeled into education, nutrition, or wealth-creation activities (NACADA, 2022; NACADA, 2024).

The financial drain on households is exacerbated by the high awareness and accessibility of these substances. The 2022 NACADA survey reveals an overwhelming 88% overall awareness of khat among Kenyans aged 15-65, with miraa specifically known to 86.6% of the population and muguka to 70.7% (NACADA, 2022). This near-universal awareness, particularly in rural areas (87%) and among males (88.4%), normalizes consumption and facilitates easy access. When combined with the finding that a significant portion of users are in their prime working years (ages 18-35 show the highest lifetime use at 6.9%), it becomes clear that a substantial amount of potential household income is being diverted from essential needs like food, education, and healthcare to sustain khat habits (NACADA, 2022; Wangu et al., 2021), thereby perpetuating a cycle of poverty. According to a report by the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) in 2023, Miraa and Muguka were listed as drugs and the most commonly abused substances by Kenyans aged 15-65 years. The national survey on the “Status of Drugs and Substance Use (DSU) in Kenya, 2022” indicates that One in every 28 Kenyans aged 15 – 65 years (964,737) were currently using khat. One in every 14 males aged 15 – 65 years (856,283) and 1 in every 143 females (108,454) were currently using khat. The report indicates that Eastern region had the highest prevalence of current use of khat (9.6%) followed by North Eastern (7.2%) and Nairobi (4.9%).

According to a survey conducted by NACADA in 2017, 18.2% (4,913,254) of Kenyans aged 15-65 years are currently using at least one drug or substance of abuse; 12.2% (3,293,495) are currently using alcohol; 8.3% (2,240,656) are currently using tobacco; 4.1% (1,106,830) are currently using miraa / khat; and 1.0% (269,959) are currently using bhang/ cannabis. Recent national surveys

indicate that khat consumption remains a significant public health concern in Kenya. The 2016 follow-up study by Kamenderi and Muteti (2019) showed that among Kenyans aged 15–65 years, 12.2% were current alcohol users, 8.3% used tobacco, 4.1% used khat, and 1% used cannabis. Lifetime khat use was more prevalent among males (11.4%) than females (1.5%), and the Eastern and Coast regions recorded the highest prevalence rates (18.2% and 11.6%, respectively). Although these figures suggest a slight downward trend compared to previous surveys, the burden of substance use disorders remains substantial, requiring targeted prevention and treatment strategies. These findings highlight that khat, including miraa and muguka, is not merely a recreational habit but a socio-economic issue affecting productivity, household income, and public health (Kamenderi & Muteti, 2019; NACADA, 2022).

Nearly half of Kenyan university students have experimented with at least one drug or substance in their lifetime, a new report by the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA). The report by NACADA (2025) reveals that students reported significant use of miraa (10.1%), muguka (9.9%), smoked cannabis (14.9%), and cannabis edibles (11.9%). The threat to Kenya's future human capital is starkly evident within its universities, which are far from being drug-free environments. A recent, comprehensive study by Kamenderi et al. (2025) found that a staggering 45.6% of university students had used at least one drug or substance in their lifetime, with 26.6% being current users. Alarmingly, khat use is rampant, with 10.2% of all students—equating to one in ten—using either miraa or muguka in the past month (Kamenderi et al., 2025). The problem is more acute in public universities (12.0%) and among male students (13.0%). This high prevalence among the educated youth signifies a massive loss of productivity, intellectual potential, and a looming public health crisis, as these individuals are likely to carry substance use disorders into the professional workforce.

Several other studies including Goldsmith et al (2015) and Magerssa et al (2013) have also found that chewing of miraa leads to reduced productivity because the chewers are engaged in the habit instead of working. Additionally, the overall effect of miraa chewing reduces household income. Rise in criminal activities, anti-social behaviours and insecurities in most areas have been associated with increased abuse of substances, and is now a global concern. Attacks on businesses and individuals associated with drug abuse have a negative impact on the viability of enterprises, economic stability, which, in turn, affects, societal prosperity. A study by United Nations Office on Drugs and Crime focusing on youth crime and substance addiction in Nairobi found the users had stolen money to buy drugs. A significant number of the study participants said that young people in Nairobi use sex to get drugs, alcohol, food, or clothing. Crime rates appear to peak in general population samples during late adolescence, which coincides with the period of initiation to substance use.

Recent empirical data reinforces the concern regarding lost productivity among the future workforce. A 2024 study targeting university students revealed that 10.2% of students had used khat in the month prior to the study, with a higher prevalence among male students at 13.0% compared to females. Crucially, the study established a direct correlation between substance use and academic disruption, noting that drug use was associated with students failing to sit for exams or continuous assessments, missing classes, and getting involved in disciplinary issues. This disruption in human capital development at the university level poses a long-term threat to the economic stability of the county, as the most educated segment of the population enters the

workforce with pre-existing substance dependency issues (National Authority for the Campaign Against Alcohol and Drug Abuse [NACADA], 2024).

Other reports indicate that most of the youth who abuse miraa and muguka are engaging in criminal activities in order to sustain their habit. It has been found that the more the youth engage in the habit of chewing the substance, the lazier they become and are not able to engage in economic activities. This effectively creates more people dependent on the few actively involved in economic activities. With time, and if this habit is not checked, there is likely to be recorded decreased national economic activities with a reduced GDP and more people slipping through the cracks into poverty. Miraa consumption and trade have been associated with increased school dropout rates, particularly among the youth. Some studies suggest that miraa use may affect cognitive function and academic performance.

A study in Kibwezi on the effect of muguka chewing by the youth indicated that the wellbeing of the youth is a growing area of concern, especially when associated with drug and substance abuse. This is a worldwide concern as captured by various bodies such as the World Health Organization, governments, and Non-Governmental Organizations (NGOs). The socio-economic burden of khat consumption is further compounded by its detrimental impact on mental health, which directly diminishes an individual's economic output. National findings have established a strong relationship between the use of psychoactive substances and depressive disorders, with past-month users of khat showing a higher prevalence of depressive symptoms compared to non-users. Specifically, the 2022 national survey indicated that substance use disorders, including those related to khat, are significantly associated with mild to severe depressive disorders, which necessitate costly medical treatment and rehabilitation. Consequently, households are forced to divert scarce resources from investment and development toward managing mental health conditions induced by habitual khat use (NACADA, 2022).

A report by Wangu. et .al noted that some families in North Eastern Kenya use more than a third of their disposable income on purchasing muguka, meaning that the family has to forego some critical things like good diet and education. This means that the government should stop actively promoting the growth and trade of miraa but should rather begin controlling the same. This is because with more youth and adults indulging in the habit, the government's efforts of pulling out more people from poverty will not succeed. This will also lead to more negative effects like increased crime, poor healthcare, and decreased focus on development as more resources are focused on mitigating the effects.

According to Aden et al muguka, like many abused substances, places a heavy toll on family relationships. If a child perceives the primary caregiver to be distant, the child will develop a sense of insecurity, which might morph into fear thus driving them to substance use or even suicide.

Muguka chewing is associated with abuse of other substances including alcohol and marijuana. Marijuana is a banned substance in Kenya and its possession, use or sale is a felony. This suggests that many youths are likely to be incarcerated for using it. The youth who chew muguka especially those addicted to the substance will spend most of their time idling in the chewing

'bases', which means they have no time to work to fend for their families or take care of their own basics. This creates tension between them and their families sometimes resulting in domestic violence. Because they are not able to afford the muguka they require every day, these youths may engage in criminal activities such as muggings and stealing in order to get money to buy the drug.

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Some of the youth may sell family property to afford their daily doses of muguka thus creating family conflicts. The foregoing is likely to contribute to increased insecurity in the community.

A study conducted among Somali youth living in Eastleigh, Nairobi Kenya in 2018 found that miraa use was high (47.9%) and was more prevalent among males, those with lower educational level, the single (including the divorced and separated) and those born out of Eastleigh. It also found that miraa use was more prevalent among those whose parents were not married, living alone, with friends, relatives, parents and relatives, the unemployed, those running businesses, the self-employed and those whose families had lower income. This study found a high prevalence of miraa use of 47.9%. This is similar to other previous studies, among Australian youth immigrants from Africa, 44.2%, among individuals in the USA, 35%, but lower than those reported by patients entering HIV treatment in Ethiopia, 65%.

### **3. Wajir County Miraa and other Substances Control Bill, 2025**

In December, 2025, Wajir County Governor signed the Wajir County Miraa and Other Substances Control Act, 2025. The piece of legislation seeks to comprehensively address the growing socio-economic and public health impacts of substance abuse—particularly the use of miraa (khat) and muguka—within Wajir County. The law is designed to regulate the production, sale, and consumption of miraa by introducing a structured framework that promotes responsible trade, protects vulnerable groups, and enhances rehabilitation and awareness efforts. Specifically, the legislation proposes to designate controlled areas for miraa trading, require registration and licensing of miraa distributors and retailers, and ensure full compliance with established public health and safety standards. It prohibits the sale and distribution of miraa to minors and restricts its trade within the vicinity of educational, healthcare, and religious institutions, recognizing the need to safeguard these sensitive environments from the negative influence of substance use.

In addition to regulatory measures, the act underscores the importance of social and health interventions by mandating the establishment of rehabilitation centers across all constituencies within the county. These centers will provide counseling, treatment, and reintegration services to individuals affected by substance use disorders, aligning with national strategies aimed at reducing the socio-economic burden of drug and substance abuse.

The law's objectives are threefold: first, to regulate the sale and distribution of miraa and related substances in order to prevent substance abuse and its associated socio-economic challenges; second, to enhance public health and safety through control of the miraa trade, including compliance with zoning and licensing requirements; and third, to provide care, treatment, and rehabilitation services for individuals suffering from substance use disorders. By doing so, the county aims to mitigate the negative effects of miraa consumption, such as declining productivity, household income diversion, and increased social vulnerability—effects well documented in prior studies across Kenya (Goldsmith et al., 2015; Nyavanga, 2018; NACADA, 2022).

At the implementation stage, the County Executive Committee Member (CECM) responsible for health and public administration is tasked with designating miraa trading zones in consultation with local communities and law enforcement. All miraa distributors and traders will be required to register with the County Executive Committee, ensuring traceability and accountability within the miraa supply chain. More importantly, the County Executive will oversee the establishment of rehabilitation and awareness programs in each constituency, integrating community-based approaches and evidence-based treatment practices. Through these initiatives, the act reflects a

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proactive and holistic approach—combining regulation, enforcement, prevention, and rehabilitation—to safeguard the wellbeing, productivity, and economic stability of Wajir County’s population.

The necessity for this law in Wajir County is underscored by the high regional usage data. The 2022 National Survey on the Status of Drugs and Substance Use confirms that the North Eastern region records the second-highest current Khat use prevalence nationally at 7.2%, only surpassed by the Eastern region 9.6 % with Nairobi following at 4.9% (NACADA, 2022). The statistics also reveal a pronounced gender gap in Khat use across the nation, with males demonstrating a much higher lifetime prevalence (11.4%) compared to females (1.5%), and current use standing at 7.0% for males versus 0.7% for females (NACADA, 2022). This suggests that while the societal and family consequences affect the entire community, the direct economic and productivity burdens, including associated crime and anti-social behaviour, disproportionately rest on the male youth population, who are often the primary income earners.

Finally, the legislation is strategically aligned with Kenya’s broader economic trajectory, specifically the Bottom-Up Economic Transformation Agenda (BETA). The national strategic focus emphasizes enhancing the productivity of the labor force to drive sectors such as agriculture and MSMEs. However, the prevalence of substance abuse threatens to erode these gains by diminishing the quality of the workforce. By implementing strict controls on miraa and other substances, Wajir County will be directly contributing to the realization of a sober, healthy, and productive population, which is a prerequisite for sustainable wealth creation and the attainment of the socio-economic pillars envisaged in the nation’s medium-term development plans (NACADA, 2023).

#### **4. Recommendations**

In view of the above findings and appreciating the good work contained in Wajir County Miraa and Other Substances Control Act, 2025, the following recommendations are made for regulation, control and trade of miraa in other parts of the Country.

1. The Kenya Agricultural and Livestock Research Organization describes muguka as a variety of khat/miraa known as *Catha edulis* in botanical terms. "The differences between muguka and khat or miraa is in the levels of Cathines and Cathinones (the chemicals that cause a feel-good effect) on the users," KALRO 2024. As stated by KALRO, the levels of - Cathines and Cathinones and social evidence demonstrates that muguka presents far greater harm. The definition must clearly reflect the differential impact and awareness of the two key variants, Miraa and Muguka, which is supported by recent national data.
2. Emerging trends in substance preferences among the youth provide a compelling evidentiary basis for the differential treatment of Muguka in legislative frameworks. Recent data shows a distinct shift where the usage of Muguka is rivaling, and in some demographics surpassing, that of traditional Miraa. Among university students, for example, the past-month prevalence of Muguka use was recorded at 8.4%, slightly higher than Miraa at 8.2%. This statistical shift confirms that Muguka is rapidly becoming the variant of choice for the younger generation, likely due to its affordability and potency. Therefore, a legislative ban targeting Muguka is not only justified by its chemical profile but is a necessary response to its aggressive penetration into the youth demographic, which

threatens to accelerate dependency rates beyond those historically observed with Miraa (NACADA, 2024).

3. The 2022 DSU Survey indicates that while overall awareness of any Khat variant is high (87.9%), there are clear distinctions: Miraa has a higher national spontaneous awareness (39.3%) than Muguka (22.6%) (NACADA, 2022). Crucially, the prevalence of current use (past month) shows a narrowing gap nationally, with Miraa at 2.5% and Muguka at 1.8%, suggesting that Muguka is rapidly gaining traction. Any law that seeks to regulate trade and usage, the higher chemical potency of Muguka, as noted by KALRO, coupled with its increasing use, justifies the recommended total ban, while Miraa can be subject to strict regulation to manage its existing, but distinct, socio-economic footprint. The recommendation for a total ban on muguka, as opposed to the strict regulation of miraa, is supported by emerging usage patterns, particularly among the youth. While overall national current use is similar (miraa 2.5% vs. muguka 1.8%), muguka use is disproportionately concentrated in urban areas (3.0%) compared to miraa (1.8%) (NACADA, 2022). trend: past-month use of muguka (8.4%) has slightly surpassed that of miraa (8.2%) among students (Kamenderi et al., 2025). This indicates that muguka is becoming the preferred variant for younger, often more vulnerable demographics. Its potent chemical profile, as noted by KALRO, combined with its growing appeal to the youth, presents a far greater and more concentrated public health risk, justifying its complete prohibition. The government as well as other stakeholders must move forward in controlling this vice before it gets out of control because more miraa and muguka chewing might lead to increased alcoholism and more hard drugs amongst our youth, worsening an already worse situation. Efforts must also be made to prevent hard drugs like cocaine and heroin from reaching miraa and muguka chewers. The government must double its efforts in the fight against drug trafficking
4. The government must provide incentives that discourage the youth from abusing miraa and muguka. As has been seen in many studies, the majority of those who indulge in this habit are employed as casuals, meaning they are likely to be earning less and not working full time. More, better opportunities must be provided to this group. Those who earn their living from miraa and muguka trade must be incentivized to engage in its trade diverting to other trades less harmful to society.
5. Those who chew miraa and muguka are more likely to engage in criminal activities, engage in violence, and be incarcerated. We recommend county and national government and other authorities carry out a mass campaign to discourage the use miraa and muguka and set up heavy penalties for those found involved in crimes.
6. Studies have found that miraa and muguka chewing significantly reduces workplace productivity, promotes laziness and inability to participate in economic activities among the youths, and increases worm absenteeism. We recommend that the Government should discourage employees from involving in drugs abuse and punish those who are involved in drugs.
7. Government should support the small scale traders and farmers with both financial and skill support to boost the farming techniques, markets to promote alternative livelihoods.
8. Stakeholders like religious leaders and community organizations among others should constantly engage the youth in forums that point out the harmful effects of drug and substance abuse. This may also involve holding sports activities that divert the youth from

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harmful activities. When everyone in the community does their part, then few if any young people will be involved in chewing miraa and muguka. Parents have the main duty of controlling their children from engaging in this vice. This includes diverting their children to other activities that help in positive development and continuous monitoring what their children are doing. Proactive campaigns should be conducted to create awareness on the side effect of chewing miraa and muguka and drive away from the youth into more beneficial activities and dissuade them from miraa and muguka chewing.

9. Legislation must address modern supply chains that evade traditional physical regulation, particularly online marketing. National surveillance has identified an emerging challenge where drugs and substances of abuse are increasingly marketed and sold through online platforms, with 10% of the general population aware of such digital sales. This 'digital drug trade' allows distributors to bypass zoning laws and age restrictions, delivering substances directly to consumers, including minors. To be effective, control measures must explicitly prohibit the digital promotion and distribution of khat and associated substances within its jurisdiction, aligning with national proposals to regulate or ban the online sale of addictive substances to protect vulnerable groups.

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