Study on the Impact of Drugs, Alcohol and other Substances Abuse on Food Security and Nutrition in the Agricultural Sector in Kenya

Final Report

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## LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ASDS</td>
<td>Agricultural Sector Development Strategy</td>
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<tr>
<td>AEZ</td>
<td>Agro-ecological Zones</td>
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<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>ARVs</td>
<td>Antiretrovirals</td>
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<tr>
<td>CBOs</td>
<td>Community Based Organizations</td>
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<td>CIGs</td>
<td>Common Interest Groups</td>
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<tr>
<td>CPoDS</td>
<td>Crop producers reporting to be on drugs and/or substance</td>
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<td>DAS</td>
<td>Drugs and Substances</td>
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<tr>
<td>EAPs</td>
<td>Employee Assistance Programs</td>
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<tr>
<td>ERS</td>
<td>Economic Recovery Strategy for Wealth and Employment Creation</td>
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<td>FADC</td>
<td>Focal Area Development committees</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GNP</td>
<td>Gross National Product</td>
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<td>GOK</td>
<td>Government of Kenya</td>
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<tr>
<td>HDI</td>
<td>Human development Index</td>
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<tr>
<td>HIV/AIDS</td>
<td>Human immunodeficiency virus/Acquired Immunodeficiency Syndrome</td>
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<tr>
<td>MoA</td>
<td>Ministry of Agriculture</td>
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<tr>
<td>MoFD</td>
<td>Ministry of Fisheries Development</td>
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<td>MoLD</td>
<td>Ministry of Livestock Development</td>
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<td>NACADAA</td>
<td>National Campaign Against Drug Abuse Authority</td>
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<td>NACC</td>
<td>National Aids Control Council</td>
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<td>NALEP</td>
<td>National Agriculture and Livestock Extension Programme</td>
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<td>NDP</td>
<td>National Drug Policy</td>
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<tr>
<td>NGOs</td>
<td>Non Governmental Organizations</td>
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<td>SIDA</td>
<td>Swedish International Development Cooperation Agency</td>
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<td>SRA</td>
<td>Strategy for Revitalizing Agriculture</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNODC</td>
<td>United Nations Office on Drugs and Crime</td>
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<td>WFP</td>
<td>World Food Programme</td>
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<tr>
<td>IDUs</td>
<td>Injecting Drug Users</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<tr>
<td>LPoDS</td>
<td>Livestock producers reporting to be on drugs and/or substance</td>
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<tr>
<td>PUDS</td>
<td>Persons Using Drugs and/or Substances</td>
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<tr>
<td>WPAY</td>
<td>World Programme of Action for Youth</td>
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<td>SLT</td>
<td>Social Learning Theory</td>
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<tr>
<td>AFC</td>
<td>Agricultural Finance Corporation</td>
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<td>KMC</td>
<td>Kenya Meat Commission</td>
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<td>KCC</td>
<td>Kenya Cooperative Creameries</td>
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<td>ASALs</td>
<td>Arid and Semiarid Lands of Kenya</td>
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Drug and substances abuse has become a common phenomenon in society bringing with it serious socioeconomic challenges. Different sectors are devising methods of handling this delicate issue. The agricultural sector in the country has not been left out. The sector is the backbone of the country’s economy accounting for about 80% of the country’s work force. Agricultural sector also contributes to about 26% of the country’s GDP. However, the sector, among other factors, is greatly challenged by the existence of drug and substance abuse.

It is with the above background that the National Livestock Extension Programme (NALEP) commissioned the consultant, Log Associates, to carry out a study to assess and document the extent, nature and risks associated with abuse of drugs, and other substances and its impact on productivity, food security, health, nutrition within the agricultural industry and the performance of NALEP staff.

In carrying out the study, the consultant adopted participatory and consultative approaches that brought together views of key stakeholders in the agricultural sector. These consultations involved, but were not limited to, farmers (crop, livestock and fisheries), Ministries of Agriculture, Livestock Development and Fisheries, Office of the President and Provincial Administration, the Police Force, Public and private institutions. Among them are those that are involved in curbing drug and substance abuse in the country including the United Nations Office on Drugs and Crime (UNODC) and the National Agency for Campaign Against Drug Abuse Authority (NACADAA). The consultant also referred to several pieces of literature on the subject.

Household interviews through the use of questionnaires were conducted on farmers in 25 districts across the country. These districts had been sampled taking into account the following three features:

- Level of exposure to drugs and substances
- The agro-economic practices in retrospect to the relevant agroecological zones
- Population density as characterized by the given urban or peri-urban or rural setting.

The total number of respondents interviewed using the household questionnaire were 1,483 composed of 1,177 males (79.4%) and 306 (20.6%) females. The urban composition was 46.6% compared to 54.4% from rural districts.

In one stratum, crop producers reporting to be on drugs and/or substance (CPoDS) were about 55% while in the other stratum, livestock producers (LPoDS) reporting the same were 65% - a ten percent rise. Within the CPoDS stratum, 86.4% reported alcohol usage.
in contrast to 70.7% usage in the LPoDS stratum. On the overall, alcohol is the most used substance among producers and in the agricultural sector could be a a serious liability likely affecting key factors of production (land, labour, capital) and entrepreneurship in in a number of ways as indicated below:

**Land:** Drugs and other substances are competing for the scarce land resources in the country. In parts of Eastern province for example, miraa has taken up land that would have otherwise been used for production of food crops. Tobacco growing in parts of Nyanza Province has reduced land available for other crops while cases of bhang cultivation have been reported around Mount Kenya region, among others. In highly impoverished and fragmented farm units, alcohol-prone CPoDS households get predisposed to selling whatever parcels they may have been left and the danger being that part of the proceeds goes into alcohol consumption expenditure.

**Labour:** The youth provide on-farm labour. However, most, are in the range between 16 to 35 years happen to be the most vulnerable to drug and substance abuse. Since most of them are un-employed, they readily access cheaper local brews. The constant use of these brews leads to poor nutrition and general tends to weaken their body physiology thus reducing their productive energy and attention to their farms after consumption of drugs. In the livestock stratum, for example, only 48.1% of the LPoDS who used drugs and other substances were able to continue with their farm activities after exposure spells. this implies that almost half of the labour force (51.9%) either partially provided labour or were unable to work completely. The data reveals that about 14.5% of the land owners countrywide with untitled land parcels could be attributed to labour related constraint. This is likely to be a problem with impoverished producers possessing sizeable farm sizes but with limited access to animal draught or mechanized operations.

**Capital:** Our data show that about 34.6% of the farmers used over KSh. 1000 per month on drugs. If this was to be extrapolated on a national per capita scale, expenditure on drugs and other substances is likely to be costing Kenyan families and the country significantly large amounts of capital that would otherwise be invested in the agricultural production to improve the sector. There were widespread reports of sugarcane, coffee and tea farmers in the country resorting to local brews dens after receiving payments from their crops harvests to squander a large part of their income instead of re-investing in production, entrepreneurships and health.

**Entrepreneurship:** Income in profitable producer undertakings usually comes after success and rarely by the reverse. Producers prone to drug and/or substance use rarely have the patience to walk along the agriculture product value chain both in space and time and hardly seemed to grow out of the land-labour-product-capital-poverty degradation trap. A majority (38.9%) of the sampled respondents who consumed drugs and other substances reported that they would be engaged in various business ventures. Thus their personal and families economic and livelihood situation would improve. They did not
realize that their meagre returns were largely due to inside rather than outside forces and in fact that the inside ones were likely to be partly due low incidence sobriety.

**Field and Office Civil Service in Agriculture:** Key informant interviews with relevant civil service personnel revealed that drug and substance use is a major concern especially among field level staff. The most affected are usually new staff posted to various centres from colleges and universities. These staff yield to influence from their peers because drug and/or substance use is normally a starter on the menu for entry into peer ‘clubs’ of pre- and post welcome recreations. Such social habits tend to firm themselves in new staff with worsening effects that tend to reducing work vigour and rigour. For such affected persons, the longer they are posted at given stations, the more they are likely to underperform in rendering government services to the agricultural sector.

**Issues arising from the findings:**
- What policy measures can be put in place that deal with the 55% and the 65% crop and livestock drug and/or substance dependents so as to reduce the socio-economic and agricultural productivity degradation
- **Land:** Drugs and other substances are competing for the scarce land resources in the country. In parts of Eastern province for example, *miraa* has taken up land that would have otherwise been used for production of food crops. Tobacco growing in parts of Nyanza Province has reduced land available for other crops while cases of *bhang* cultivation have been reported around Mount Kenya region, among others. In highly impoverished and fragmented farm units, alcohol-prone CPoDS households get predisposed to selling their small land parcels and the danger being that part of the proceeds goes into alcohol consumption expenditure.

**Strategies**

Findings suggest that yes there is a drug and substance abuse problem in the country’s agricultural sector. Several strategies at international/global, national, institutional and farm/personal levels which are currently being applied to mitigate and/or cope with the drug and/or substance levels. These strategies are discussed in Chapter Five of this report.

**Conclusions**

The consultant has made the following conclusions in line with the study findings.

**Policy:** Policies that regulate the use of drugs and substance use should be updated. There should be policies in place to handle the local brews which are a threat even to young children. Policy makers should also focus their efforts on addressing administrative disparities of principal’s leadership capacities across urban, suburban and rural setting.

Further, there is need to encourage policies that result in employment creation for the most vulnerable groups such as the youth to reduce the temptation of getting into drugs
for this vital section of the society. Policies that enhance public private partnerships, investments into infrastructure and development of skills among the youth are key to curbing drug and substance abuse in society.

**Institutional Funding:** The government should enhance funding levels to key institutions involved in curbing drug and substance abuse to enable them carry out more awareness campaigns on drugs and substance use both in urban and rural areas through National Agency for the Campaign Against Drug Abuse Authority (NACADAA) and Faith based Organizations.

**Corporate Organisations:** Most Corporate organizations have realized that it is cheaper to get their addicted employees treated rather than recruit and train new members of staff. Thus the treatment and rehabilitation centre has started providing training for major corporations and even individual residential treatment for some corporate leaders who are addicts. Learning from this, various sub-sectors in the agricultural industry such as those in the tea, coffee or sugar sectors can collaborate with treatment organizations to enable their staff get the help they need. to cope with the shock of new job placements.

**Workplace Environment:** Boosting of staff moral to avoid frustrations and adoption of new lifestyles; staff should be provided not just with adequate salaries and wages but also with other social amenities to enable them cope with. Methods already being employed by various organizations, especially the private sector, in enhancing workplace environment and reducing workplace-related stress should be strengthened and adopted by various ministries, government institutions and state corporations.

**Capacity Building and awareness Creation:** Staff training and awareness creation; through collaborative effort with NACADAA and other NGO’s currently engaged in similar activities to create awareness and empower staff with information on drug and substance abuse. Field officers being trained on basic counseling skills especially field managers should also be empowered with basic skills needed to be able to handle their staff and farmers consuming drugs and other substances. Awareness creation in learning institutions through expert presentations, distribution of learning materials and collaboration with other organizations/ institutions will also empower affected staff so as to strengthen their capacity to cope with drug and substance abuse issues.

**Employee Assistance Programs:** Development and adoption of employee assistance programs- Employee Assistance Programs (EAPs) designed to help identify and resolve productivity problems affecting employees who are impaired by personal concerns. Such programs include; confidential screening, treatment referrals and follow-up care. Assuring that workers with substance use disorders receive treatment can help employers save money. Intervening early can prevent the need for more intensive treatment and hospitalizations down the road.
**Governance**: Enhanced governance and enforcement of ethical standards amongst public officers is critical to ensuring that law and order is maintained.

**School system**: Incorporation of drug and substance abuse issues into the school curriculum. This has been done for HIV/AIDS. However, drugs and HIV/AIDS are related as drug use is one of the predisposing factors in HIV/AIDS cases.

**Salient Recommendations**

The consultant has made the following recommendations in line with the study findings:

1) Recognize the seriousness and increase the priority placed on drug abuse as a social problem: develop a series of drug indicators
2) Develop an information base for agricultural planning on the costs of drug and other substance abuse in the agriculture sector: prepare estimates of costs of drug abuse and its impact
3) Expand alternative rural development such as Operation Kazi Kwa Vijana Free From Drugs Agriculture as a means of drug abuse prevention and control: clarify what works in such an alternative development and expand it
4) Increase knowledge of drug abuse problems and effective interventions
5) Communications technology to achieve better transfer and use of information.
6) Increase national collaboration on drugs, and other substance abused
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1.1 The National Agriculture and Livestock Extension Programme (NA:LEP)

The National Agriculture and Livestock Extension Programme (NALEP) is the extension programme of the Ministry of Agriculture (MoA), the Ministry of Livestock Development (MoLD) and the Ministry of Fisheries Development (MoFD). NALEP evolved in 2000 out of the National Soil and Water Conservation Programme that had been supported by SIDA since 1974. NALEP indirectly contributes to the national goal of Vision 2030 through agricultural sector strategies outlined in the Agricultural Sector Development Strategy (ASDS). NALEP is managed by a Coordinator with a multi- and trans-disciplinary technical team of different specializations and skills including:

- Extension management
- Training and coordination
- Collaboration and networking
- Agribusiness and marketing
- Cross-cutting issues and Monitoring and Evaluation

The programme has identified that drugs and substance use can have or might even be having some serious socio-economic implications on the individual (NALEP staff), the working environment and the fragile communities with whom NALEP is currently carrying out its activities.

1.1.1 Drug and Substance Production and Use Problem

In the days gone, drug and substance use was a matter of whisper and caution. Due to increased and more open and widespread use, today there is more awareness of the problems of illicit drugs and drug trafficking than ever before. It is now known that illicit drugs are growing from what originally was perhaps a small problem into a bigger national challenge. Implications of drug and substance production and/or procurement and use in the emerging culture are having far reaching effects and they can extend into rapid changes in political alignment, reduced family and community cohesiveness, increased unemployment and under-employment, economic and social marginalization and increased crime. They also have influences on farmers and communities growing crops for the illicit drug industry in terms of agricultural development in respect of poverty, employment and marginalization.
The drug and substance use problem is also affecting agricultural professionals as well as the farming communities. The problem not only wrecks havoc on individuals in terms of health, nutrition and productivity, it also undermines food security through lowered farm productivity, diversion of financial resources and assets, further deepening poverty and vulnerability.

Often those involved rarely have time and energy to contribute to farm work and consequently offload their responsibility to other family members. Domestic violence and other forms of conflict are characteristic of many families with this problem.

For NALEP to address these issues in partnership with others, it has found it necessary to undertake a national study to establish the nature and extent of the problem. This study is intended to generate concrete information on the prevalence, nature, consequences and mitigation/coping strategies.

1.2 Terms of Reference

The terms of references were thus provided to the consultant to assess and document the extent, nature and risks associated with abuse of drugs, and other substances and its impact on productivity, food security, health, nutrition within the agricultural industry and the performance of NALEP staff and compile a report in retrospect. The Report therefore focuses on agricultural implied Persons Using Drugs and/or Substances (PUDS).

1.2.1 Operational Definitions

Drugs and Substances (DAS): refers primarily narcotic drugs and psychotropic substances but also includes, where appropriate, information on problems related to the abuse of other addictive substances such as alcohol and tobacco.

Illicit drugs; is used to include the narcotic drugs and psychotropic substances listed in the schedules of the Single Convention on Narcotic Drugs of 1961, and that Convention as amended by the 1972 Protocol and the Convention on Psychotropic Substances of 1971. Of the more than 200 controlled substances listed, UNDCP emphasizes opium-heroin, coca-cocaine, cannabis and amphetamine-type stimulants due to their importance for both developing and industrialized countries.

Abuse; is defined as the use of a substance (either licit or illicit) in sufficient quantities and frequently to interfere with a person’s ability to make sound decisions, perform appropriate actions and fulfill his/her responsibilities\(^1\).

\(^1\) The Situation of Alcohol and Drug Abuse in Kenya-2009, NACADAA
Food Security\(^2\): is here thus defined as an existing state "when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."

1.2.2 Interpretation of terms of reference

With the contexts as given, food and nutrition insecurity is interpreted from the terms of reference as that state when drug and substance abuse has a negative impact on persons or communities because they have or are having limited access to adequate nutritious food and as a result are likely to be unhealthy to lead an active life. Suffering from the effects of use in effect reduces efficiency and effectiveness in agricultural product value chain.

1.3 The Conceptual Drug and other Substance Chain of Abuse (DSCABUSE) Framework

The conceptual framework in Figure 1 illustrates three stages of Drug and other Substance Chain of Abuse (‘DSCABUSE’). The boxes represent the problem source points (i.e. the farm as box 1, the hiding place/storage and means of transportation as box 2 and the drug pusher/baron as box 3). The block arrows to the right are the ‘transmission’ lines between the boxes. The line arrows to the left are the vicious cycle enhancing effects. For purposes of this study, it is the sum effect of the boxes plus the arrow types that

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\(^2\) Based on the Food and Agriculture Organization
ultimately as the overall effect worsens can ultimately have a national impact on food security and nutrition in agrarian nation such as this country.

1.4 Specific objectives

With the above as a basis for the study, the specific objectives of the consultancy included:

- To assess and document the nature, extent of the consumption of alcohol drug abuse and other substances, knowledge levels on risk and concrete impacts/effects on food security, health, nutrition-data at on-farm level,

- Assess and document the nature and extent of consumption of alcohol, drugs and other substances among NALEP workers\(^3\) (as the immediate allies of the farming community), their knowledge level on risks, and concrete impacts/effects on job performance and family relations,

- Document mitigation and coping strategies and respective benefits as perceived by different groups and gaps that need to be strengthened,

- Develop a database of organizations currently involved in preventive and mitigation measures and their capacities to address the vice,

- Identify and document mechanisms and strategies for comprehensively addressing the problem,

The DAS supply line is diverse and therefore not exclusive to the production connected to the agricultural sector alone. However, the latter is a primary source for the subsequent DAS production processes that require only plant products. As a common example, cannabis (bhang) and *Miraa* are gathered in the fields for direct use with minimum processing requirements. Such produce may yield natural materials that provide for semi-synthetic processing for converting them into synthetic substances as a final products. The semi-synthetic process may use plant parts such as the coca bush leaves that are processed to make cocaine. Another example is the cannabis resin which is the separated resin, whether crude or purified that is obtained from the cannabis plant.

The third category is entirely artificial as it involves processes which use only manmade chemicals to produce consumable drugs and in which case the narcotic or psychotropic drugs are entirely produced in the laboratory or factory without the benefit of plants and/or natural products as raw materials.

\(^3\) NALEP workers are the staff employed in and deployed by the programme into the field. Data to be disaggregated by- sex, age, education and the cadre at Institutional NALEP staff
With the above conceptual framework in mind, our study hypothesis was that there is no societal drug and substance abuse going on in the country among the farming people and their allies (in box 1) or among those who move drugs from source (box 2) to consumers i.e. among the drug pushers and/or buyers (box 3). There are, therefore, no abuse habits and consequences on food security for any persons, groups or communities in terms of:

(a) lacking access to sufficient, safe and nutritious food for meeting their dietary needs and food preferences and as a result are facing or could face and
(b) Leading inactive and a not-healthy life.

1.5 Purpose of the study

The purpose of the draft report is threefold: first, to examine the nature and risks associated with abuse of drugs, and other substances, secondly, assess its impact on productivity, food security, health, nutrition within the agricultural industry and thirdly, from a broad national perspective, inquire on the extent to which the abuse extends to the agricultural sector itself by way of its staff performance, Based on that analysis to suggest how problems of drug abuse prevention and control can be addressed in an agriculturally constructive coordinated manner.
2.1 Introduction

Studies suggest that production and distribution of illicit drugs follow supply-demand principles with some allowance for the illegal nature of the product. In terms of their impact on the global drug problems and their large-scale financial implications, opium-heroin and coca-cocaine are the primary drugs.

In 1992 GNP per capita data captured in other studies suggest that major production of opium and coca takes place in less developed countries, many of which have considerable economic, agricultural, political and social problems. According to estimates, the total amount of production is extremely high if alcohol and tobacco production amounts were added to those of opium, cocaine, cannabis and psychotropic drugs.

2.1.1 Conceptual Framework Model realities

It is worth noting that production of illicit drugs is often inexpensive. In the literature sources consulted, the illicit drug industry during the production phase (the stage 1 Figure 1) is labor intensive, decentralized, growth-pole oriented, cottage-industry promoting, and foreign exchange earning; the foregoing being desirable features of rural development in economically stagnating areas. In view of what would seem as suitable circumstances in economically remote originating areas, production of marijuana, heroin, and cocaine/crack is on the increase. In fact, cocaine traffickers are now finding their supply substantially exceeding current market demand even in advanced economies in the West, the increasing supply of illicit drugs relative to current demand contributes to additional violence as international cartels and domestic gangs war over market turf, Policy instruments designed so far to curtail the demand for, suppress the traffic in, and control the supply of illicit drugs have not produced satisfactory results.

Generally, few countries are immune to drug abuse problems. Indeed, in most countries, what were formerly thought of as safe places -religious, penal or educational institutions - have now been found to have some form of drug problems. For example, illicit traffic in drugs is now common in prisons because a significant percentage of inmates are drug users.

Traffic patterns tend to follow drug types and country of origin. Interdiction and seizure of illicit drugs are the classic law enforcement control measures introduced to reduce the

\footnote{4 (citations given in Annex Part 2.1)}
supply of drugs. However, drug smugglers tend to make detection more difficult at Stage 3 by refining their products such as converting opium into morphine and heroin (or coca leaf into cocaine) in or near the producing areas. In fact, methods of concealing drugs are constantly evolving to avoid capture and seizure. According to one source, many women in drug producing countries are growing, harvesting and processing drug crops. Women are also increasingly involved in drug trafficking and organized crime. The implications in the arrows of the models are worrying since the loop is not easily broken by deterrent seizure and punishment. Unless the interdiction and seizure success rates are high, illicit shipments of drugs will likely continue since in most cases those who get caught smuggling drugs are often low-level persons who can easily be replaced with new recruits.

Overlooking the potential for production points to gain a serious momentum in the agriculture sector can have serious ramifications to a country. The high-risk, high-gain nature of drug trafficking is well known. In some cases, drug dealing may be undertaken by political dissident groups that desire the money to support arms purchases, political insurgency or terrorism. For example, drug enforcement efforts are often hampered by insurgent groups which are engaged in bitter and violent struggles with criminal cartels for control of the drug trade.

### 2.2 Consumption of Drugs and Other Substances

In African region there is higher prevalence of drug abuse among men than women. Although drug abuse is common among all age groups, it occurs more frequently among young adults. Increases were noted in illicit drug demand in most countries in the Americas and in Eastern Europe, where it was attributed to the socioeconomic crisis affecting these regions and, in particular, high unemployment rates. Opening European borders between the East and West also facilitated contact and communication between traffickers as well as others, increasing the number of transit routes for drugs and the potential number of drug consumers. During the reporting period, illicit demand for drugs increased in Western Europe, with some exceptions.

Documents presented to the Commission on Narcotic Drugs indicate that an increase in drug abuse has taken place across most regions of the world, although the specific nature of this trend of increasing drug abuse varies by country and often within country. The regions where these trends for increasing abuse occur are Africa, Europe (especially eastern Europe) and the Americas (except for the Bahamas, Canada, Ecuador and the United States of America). In the Asian and Pacific region, a mixed trend emerged, with as many countries reporting stable or slight decreases as increases.
2.3 The Impact of Drug Abuse on Family and Community

In the first place, persons using drugs and substances (PUDS) encounter fast-paced social, economic and technological changes that present a challenge to family stability and influence other family members as well. More negatively, the affected family may be a source of tension, problems and pathology, influencing weaker members in harmful ways, including destructive drug or alcohol use. As peer pressure drug and substance use may be viewed as a mechanism for family members to interact with broader social and community groups, as in the case of youthful peer groups, in schools, at work with colleagues and supervisors and even with persons associated with religious institutions.

Rapid social, economic and technological change may, under certain circumstances, also weaken the sense of family and reduce the sense of belonging to other people, groups and places. In some societies and environments such as the urban setting, the classical problem of balancing discipline and control of children with nurturing support to encourage their exploration, understanding of the world and self-realization may be complicated by substance abuse problems as well as a wide range of other conditions.

Prevention of drug problems can employ knowledge about family dynamics to address personal and social concerns of family members that otherwise would lead to drug abuse, both with respect to dysfunctional as well as intact families. Lack of household stability, income or employment for a parent may increase stress on the family and its vulnerability, pushing drugs and/or substance transactions.

Poverty and marginalization as found both in urban and rural settings can lead individuals to find "solutions" or solace in alcohol or drugs. Single-parent families also may have increased difficulties, with the single parent being forced to function beyond his or her ability.

Families with histories of psychological and social pathology may be at increased risk for drug and substance abuse problems. The degree to which similar processes apply to other drugs is not as well established. Persons who are heavy users of alcohol or other drugs may show psychiatric symptoms such as depression. Dysfunctional drug or alcohol use may mask an underlying emotional illness. Multiple problems in the family are also very common. Reports of disturbed family life related to drugs and substance use are frequent in the literature.

While the family group can, under certain circumstances, be the origin of drug problems, it can also be a potent force for treatment. Many families are supported and cared for by women. Recognition and effective utilization of women as resources for drug prevention and treatment can improve efforts to reduce both the supply and demand for drugs and other substance use.
Women who are not drug users may be affected by problems related to drug abusing spouses. The problems of their male partners may affect women in the form of difficulties in interpersonal relationships, instability, violence, child abuse, economic insecurity, deprivation of schooling and risk of sexually transmitted disease, including HIV infection.

Limited data on the relationship between drug and substance use and the health and social conditions of children are available. Given the known effects of these drugs and the social, nutritional, and health problems they cause, it is clear that many of them are children without a childhood.

2.4 Health

Health problems impair family life and productive employment, diminish the quality of life and may threaten survival. A comprehensive picture of worldwide health implications of drug abuse is not available. Significant country and international data, however, are available and the impact of addictive substances on health in both industrialized and developing countries are known.

The most widely used addictive substances, alcohol and tobacco, are harmful with extensive damage to the individual, family and the community. Deaths as a result of drug abuse are a major source of concern. Recent informal estimates are that perhaps 200,000 drug-injecting-related deaths may occur per annum based on the estimated size of the current world population of injecting drug abusers of approximately 5.3 million.

WHO has reported as follows: "Existing data indicated a several-fold increase in drug-related deaths over the past decade. The yearly mortality rates (or "lethality") among intravenous drug users or drug addicts on treatment programmes ranged between one and two percent in Europe and the United States".

WHO's examination found that, during the period of 1980 to 1988, mortality related to drugs increased in some countries and decreased in others. Substances commonly associated with drug abuse-related deaths are cocaine, heroin (and other opiates), barbiturates and amphetamines (and amphetamine derivatives). Benzodiazepines, hallucinogens, cannabis and other substances are less frequently implicated.

Combinations of drugs and alcohol were frequently noted. Availability, cost, chemical contents of the drugs (e.g. adulterants), preexisting and potentially life-threatening health problems and patterns of use are all factors that play key roles in determining whether harmful effects occur in any individual case. As levels of GNP per capita rise, third world populations’ age, and noxious substances are more widely marketed and distributed in developing countries, the number of deaths can only be expected to increase.
WHO has a major health report which states that Decisions about the control of tobacco and other addictive substances are among the most important health-related choices that societies can make collectively. Drug and other substances also contribute to disease and disability. The proportion of all drug users and abusers who end up with serious health and social problems is not known. Whatever that proportion, illicit drug use more frequently results in problems or disease rather than death. Drug abuse may be influenced by the social-cultural milieu, the degree to which a person is part of a structured environment, his or her personal characteristics, the specific drugs involved and the circumstances of use.

Reporting on the effects of alcohol and drug abuse on foetuses in a study carried out in four Danish cities, one researcher has found that the extent of maternal drug abuse is correlated with obstetric complications and developmental characteristics of the foetus. In discussing the victims of drug abuse, it has been noted that in the maternal drug use the direct victim of such passive drug taking is the child, but there are indirect victims too.

Drug-damaged children care is an additional burden on the already strained systems of pediatric health care and public education. Some of the forms of damage, particularly to cognitive function and impulse control, will tend to increase crime rates when the children become adolescents and young adults.

According to one expert, drug injecting has been identified in eighty countries with HIV infection and that HIV prevention measures must consider interventions which help discourage drug injection. Particularly at risk are countries in drug producing and along drug transshipment routes in South East and South West Asia, Africa, and South America.

According to experts, drug injecting is a relatively recent phenomenon in many countries and the new diffusion of injecting is occurring in countries which are mostly poor, and are either in drug producing areas or along drug transshipment place. Among persons who administer drugs by injection, the proportion estimated to be infected with the virus varies widely from a low range of 1-5 per cent in the United Kingdom to 20 per cent in Germany, 30 per cent in the Netherlands, 30-80 per cent in Italy, 40-60 per cent in Spain and 58 per cent in France. As the proportion of injecting drug users who are HIV positive increases and increased numbers of them travel, the rate of spread of the virus may also increase.

A recent study conducted by the UNODC in Kenya indicates that injecting drug users is also an emerging phenomenon and there is an urgent need for intervention practices to prevent drug and substance use predisposing risky sexual behaviour.
2.5 Drug Abuse versus Alcohol Abuse

Aggregate multi-country information on the costs of drug abuse is not available. Drug abuse, compared to alcohol abuse and mental illness, was comparatively low in direct and indirect costs and high in other related costs, such as crime, motor vehicle crashes, administrative costs of related social welfare programmes and costs associated with the destruction of property by fire. The significantly higher costs for men reflect their higher prevalence as drug users, their greater labour force participation rates and their higher earnings relative to women.

No comparative national estimates for the cost of care and treatment of substance abuse problems have been prepared. Most policy officials have little idea what the addictive disorders cost their countries or what they are spending on this group of problems.

In the United States, a study of hospital records showed a surprisingly high number of admissions and costs for substance-abuse-related treatment. That study found that in 1991, "there were 2.2 million’ tobacco, alcohol or drug-related Medicare admissions.

Substance abuse-related cases cost more to treat because they required almost 26 per cent more hospital staff and other resources than Medicare discharges that are unrelated to substance abuse.

Although the magnitude of these figures is not typical of other countries, this same study found that "relying solely on diagnoses that explicitly mention alcohol or drugs on the medical record in order to measure the prevalence and cost of drugs and/or alcohol problems in hospitals grossly underestimates the full impact of substance abuse. Cases where alcohol and drug treatment were the primary diagnoses represented less than 3 per cent of the substance-abuse total costs. The conclusion is that substance-abuse-related costs may be a serious but unrecognized drain on national income.

2.6 Education

Education is the principal means of preventing drug and substance abuse. Most officials support the full integration of drug abuse education into mainstream institutions, whether public and private, religious or secular. An issue, often unstated, is whether, education alone can have a real impact on the drug problem. However, education at the level of a society or the individual should be the initial target for change. Seeking the root causes focuses on the social conditions that lead persons to engage in drug abuse. Slow and indirect, education is often seen as producing its results only over the long run, involving parents and making gradual social changes to reduce experimentation, occasional or regular drug use. In reality, both are essential parts of a comprehensive view of prevention of drug abuse.
Generally measuring the ability of people to live a long and healthy life, human development Index (HDI) reflects the importance of education to human and social development and provides a focus for health planning. Adolescence is a time when enormous changes take place in the process of normal development and it is when the deleterious effects of drugs and substance use should have been understood. Sometimes the peers with whom the growing youth associates influence him or her to adopt drugs use habits as part of their social behaviour. However, the effect of drugs may not be to enhance social relationships and self identity.

2.7 Drug and Substance use on Work and Employment

According to studies an estimated 30% of the world's labour force are not productively employed. Further, the disparity between the income levels of people in rich and poor countries is growing. Employment has constantly lagged behind economic growth for both developing and industrialized countries. One study terms this phenomenon "jobless growth". The number of young people expanding faster than available jobs. The Increased rates of unemployment are projected to occur in the same age group as those persons most likely to use drugs and have drug problems. Competition for jobs will likely increase and employers may become even more selective in hiring young people.

Drug abuse occurs more frequently in young people than in other age groups. The risk factors for drug use often occur before entry into the workforce. The drug abuse problems of the community are, therefore, brought into the workplace. The age group with the highest frequency of drug use is often 18-35 years, although wide variation exists between countries. Employers can make major contributions to the prevention of drug abuse, helping themselves and the community in the process. Effective workplace initiatives to prevent drug abuse should begin in the community and be directed at young persons who are potential workers.

The relationship between drug and substance abuse and the workplace is significantly influenced by national, social, cultural, ethnic, religious and gender issues. Cultural or group practices may also facilitate this abuse. Drinking or drug abuse cultures exist in some workplaces and some of them have a basis in the place of origin of an employee or worker.

Most frequent problems related to drugs and alcohol

<table>
<thead>
<tr>
<th>Problem</th>
<th>Alcohol %</th>
<th>Drugs %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impaired performance</td>
<td>87.5</td>
<td>55</td>
</tr>
<tr>
<td>Absence from work</td>
<td>78</td>
<td>54.5</td>
</tr>
<tr>
<td>Disciplinary problems</td>
<td>80.6</td>
<td>47</td>
</tr>
<tr>
<td>Intoxication at work</td>
<td>81.4</td>
<td>44</td>
</tr>
<tr>
<td>Dismissal</td>
<td></td>
<td>41.8</td>
</tr>
<tr>
<td>Lateness</td>
<td>81.4</td>
<td></td>
</tr>
</tbody>
</table>
A study conducted by the International Labour Organization (ILO) indicates some employers saw productive employment as incompatible with any illicit drug use, whether it takes place at the work site or elsewhere. The setting in which drugs are taken influences the effects they have. Since the work setting is, by definition, designed to produce goods or services, the effects of drugs are influenced by the expectations of job behaviour and those of co-workers and supervisors. Similar to the situation at home or in the community, there appears to be no sure way to assess drug taking or drug-related behaviour in the workplace. A recent review stated that "alcohol and other drug use by work force members cannot be reliably inferred from performance assessments, since performance decrements may have many causes.

Conversely, performance decrements are often not obvious despite drug and other substance use. Drug effects seen in the workplace depend partly on the Performance requirements of the job. Nonetheless, it is clear that drug problems reduce job attendance and impair performance. The ILO study found that 2/3rds of all participants agreed that drug abuse resulted in significant costs in European workplaces. Costs were primarily absenteeism, reduced motivation and accidents or injuries at work.

In a study of the relationship between drug use and subsequent job performance at the United States Postal Service, pre-employment tests of applicants were correlated with later behaviour on the job at several intervals. Positive pre-employment drug test results were correlated with absenteeism and involuntary separation. If a workplace or other setting has a very low rate of drug use to begin with, fewer applicants will test positive and the programme cost to find an employee who tests positive will increase. The implications of this point were stressed in a meeting on drug and alcohol testing in the workplace at which it was stressed that "any economic analysis of workplace drug screening is likely to be greatly influenced by the prevalence of drug use in the population screened".

In sum, drug problems have a costly impact on the workplace as well as the community. Employers and workers alike are concerned about the consequences of drug and alcohol abuse. According to one expert, "alcohol and drug involvement in accidents, and the impact on such employment indicators as absenteeism, turnover, medical claims, safety risk and lost productivity, confirm that there are direct costs involved with drug or alcohol use in the workplace".
2.8 Drugs and the Environment

Environmental damage related to drugs can be caused in essentially three ways: clearing of forests or land, growth and cultivation of plants and processing of harvested plants into drugs. The type of environmental damage found in any country will depend on whether drug producers grow plants, process plants or chemical substances into drugs, or do both.

Experts from Peru's National Agrarian University estimated that coca cultivation may have resulted in deforestation of 700,000 hectares in the Amazon region. In an effort to examine the linkage between illicit drug cultivation and harmful environmental impacts, experts have noted that, unlike indigenous farmers, cultivators of drug crops have fewer ties to the land and are less respectful of it and characteristically discard in the country's waterways.

2.9 Drugs and Development

Historically, drug control and drug abuse considerations were not often viewed as issues of primary concern for development planners, even in the context of programmes. To some extent, there has been limited recognition that drug-related issues should be taken into account, particularly when an entire country or a specific region of a country has an influential illicit drug industry.

The importance of production of illicit drugs to an economy will vary significantly from country to country. The drug trade is exorbitant in some nations. Colombia, for instance, is a country where experts have estimated that businessmen of the illegal drugs industry would have "huge combined drug and capital income relative to the size of the country's economy".

The economic costs of drug abuse can be categorized as direct and indirect. Direct costs involve increased costs of police, courts, military, treatment programmes, welfare payments to drug addicts and their families, as well as increased security measures by businesses. Indirect economic costs include the displacement of legal industries; diminished control over the economy; spending money for drugs and inappropriate use of money gained from drug sales; and fiscal problems related to the inability to tax the drug economy. Because money generated by illicit activities does not normally enter into the formal economic process of a country, macroeconomic planning is not possible for these funds. In speaking of the need for improved information on the illegal sector, a country It has also been found that the poor often spend a greater percentage of their income on drugs than middle- or upper-income persons, and at a much greater cost to their families.

In Pakistan, the poorest 20% of the population represent nearly 0.5 of the drug abusers, primarily heroin addicts, according to the National Survey of Drug Abuse. The lowest
income groups are most frequently represented; the highest income groups are somewhat below them; and the middle income group have the least number of drug users. Drug traffickers, however, do not normally put their illicit profits into productive enterprises. Nor is employment in the illicit drugs industry a significant means of putting money back into the community. According to experts, the drug industry provides employment for less than 1 per cent of the labour force Pakistan. A very important indirect cost of the drug industry is a result of the fact that governments are not able to tax it and thus illicit drug production and trafficking, cannot be charged back to those involved. Experts consider cocaine a good example of market failure, a situation where markets encourage behaviour that is unprofitable for society and discourage behaviour that is better for development: "Market failure occurs when there is a difference between the costs of an action for an individual and the cost of that action for society.

Rural poverty is more related to the supply of illicit drugs and urban poverty is more related to both dealing and demand. Illicit growth provides income for farmers willing to take risks for the higher gain than obtained from licit crops. Because of the size of the shadow economy created by illicit drug money, the absorption of drugs and drug money into the fabric of society and the degree of dependence of many social and economic sectors on this relatively new income, drugs have a social significance far beyond that reflected in statistics on production, consumption and/or impact.

Persons with marginal incomes often spend money on drugs, alcohol or tobacco instead of food, clothes and shelter. More negative role models and opportunities to make illicit money are found among urban than rural poor.

Due to its highly varied nature in different socio-cultural contexts, drug abuse may be seen as normative, marginal, deviant or criminal behaviour. Processes of marginalization apply to the behaviour of governments and communities as well as people. Large numbers of people are migrating from rural poverty to urban squalor, creating shanty towns where serious housing, health, and education problems are bred. Young people especially are vulnerable to drug abuse, especially abuse of cheap solvents, volatile substances and marijuana. Drug subcultures rapidly develop, teaching young persons drug practices. Persons who are identified as drug abusers become more difficult to reintegrate back into the larger community. Indifference or denial to the plight of those with substance abuse disorders, whether practiced by individuals, communities or governments, are common. How to avoid stereotyping and stigmatizing persons with drug problems is problematic. In many countries, social and political institutions appear weaker now than decades ago. governments lose contact with people and control of the economic process, civil society is weakened.

Civil frustration, violence, terrorism and corruption create conditions ripe for illicit drug growth, production and abuse and vice versa.

Drugs, delinquency and crime are related in many ways. In some cases, drug abuse may lead to crime; in others, criminal behaviour precedes drug abuse. The broader impact of
drug abuse and crime may increase tension and other deviance, placing additional burdens on institutions such as the family. Drug-related crimes and terrorism cause instability and overload police, courts and prisons. Given sufficient size, drug problems may marginalize governments and institutions as well as people. In extreme cases, these problems may lead to parallel governments, where drug seizures exercise enormous personal and financial power.

With neither a single cause nor a simple cure, drug abuse and its many related problems continue to increase in many regions of the world. Problems related to the abuse of drugs are severe in some parts of both the developing and the industrialized world: disease, accidents, deaths, crime, lowered productivity and many other problems are frequently reported. If not adequately monitored, drug abuse acts as a brake on human and social development and cannot be separated from endemic problems of disease, poverty.

2.10 Bibliography

Notes on Section 2.2 and 2.3


Notes for Section 2.4


Notes on Section 2.5.


2) Joav Merrick, "Addicted mothers and their children: research results from Denmark",


9) Medicaid, on the other hand, is a welfare programme to cover the medical costs of low-income and needy persons.

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4) UNESCO, "Education for development: responding to new challenges" (ED-
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Notes for Section 2.7
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1) Patrick Clawson and Rensselaer Lee, *Consequences of the Illegal Drug Trade.. the Negative Economic, Political and Social Effects of Cocaine on Latin America*, Study for the Bureau of International Narcotics Matters of the United States Department of State.

2) LaMond Tullis, *Illegal Drugs in Nine Countries*
Chapter 3

METHODOLOGY

3.1 General Approach

A participatory and collaborative approach was adopted for optimizing participation of all the stakeholders. Respondents participating in the study included but were not limited to; programme coordinator and key staff of the respective projects to discuss their plans for undertaking the assessment, National Agency for the Campaign Against Drug Abuse Authority (NACADAA), farming communities, consumers and respective families, local organizations e.g. Stake holders forums, Focal Area Development committees (FADC), Common interest groups (CIGs), CBOs etc., UN office on Drugs and crimes, Provincial administration, Rehabilitation centres, The administration of learning institutions, Learning institutions, Religious organizations, Universities and tertiary colleges, The public service commission and Ministries of agriculture, livestock and the fisheries department.

3.2 Sampling

Stratified random sampling was undertaken to select districts within the recognized agro-ecological regions in line with the study objectives and in order to effectively capture the differences by regions, agro-ecological zones, and agro-economic practices such as crop, livestock and fisheries production from the study population. In order to capture the diversity of the situation within different agro-ecological zones and drug and substance we designed the study lay-out as shown in Tables 2.2, 2.3 and 2.4 as a way of arriving at the final descriptor basis of the sampling sites.

Table 3.2: The agro-ecologically guided stratified sampling areas

<table>
<thead>
<tr>
<th>AEZ</th>
<th>Ecology class</th>
<th>Rainfall (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Humid</td>
<td>1100 -2700</td>
</tr>
<tr>
<td>II</td>
<td>Sub- humid</td>
<td>1000-1600</td>
</tr>
<tr>
<td>III</td>
<td>Semi- humid</td>
<td>800-14000</td>
</tr>
<tr>
<td>IV</td>
<td>Semi-Humid – Semi Arid</td>
<td>600-1100</td>
</tr>
<tr>
<td>V</td>
<td>Semi Arid</td>
<td>450-900</td>
</tr>
<tr>
<td>VI</td>
<td>Arid</td>
<td>300-550</td>
</tr>
<tr>
<td>VII</td>
<td>Very Arid</td>
<td>150-350</td>
</tr>
</tbody>
</table>

The above ecologies were further regrouped into three agro-regions as:
- **Zone I: Humid Highlands Agricultural Region**
- **Zone II: Sub-Humid region**
- **Zone III: Northern and North-Eastern Kenya region**

The districts within the regions were assigned to three levels of risk of exposure to drugs and substance use as follows:

**High Risk Level:** Transit and border districts and other regions of the country where the economic activities are of such a nature as to expose the inhabitants to various drugs and other substances. Such districts include the presence of:

a. Town/city centres with airports (e.g. Mombasa, Nairobi, Eldoret and Kisumu).

b. Town/cities that are along main highways which are likely to be used as transit ports.

c. Districts growing tobacco and miraa as sources of economic products.

**Level 2: Moderate risk:** These are districts that are in some way either through their location or economic activities are minimally exposed to likely presence of drugs and other substances. Some of these are border districts where cross border trade might include drug and substance illicit movement.

**Level 3: Low risk:** Mainly inland districts where drug and substance exposure is likely to be minimal.

Table 3.3: A two-way table used to discern a nine-quadrant sampling stratification

<table>
<thead>
<tr>
<th>AEZ</th>
<th>Zone I Districts</th>
<th>Zone II Districts</th>
<th>Zone III Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Level of Risk &amp; exposure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kakamega-HH/HiRisk</td>
<td>Meru North-SubH/HiRisk</td>
<td>Kilifi-NoNE/HiRisk</td>
<td></td>
</tr>
<tr>
<td>Kiambu HH/HiRisk</td>
<td>Kisumu-SubH/HiRisk</td>
<td>Marsabiti-NoNE/HiRisk</td>
<td></td>
</tr>
<tr>
<td>Thika -HH/HiRisk</td>
<td>Kuria-SubH/HiRisk</td>
<td>Narok-NoNE/HiRisk</td>
<td></td>
</tr>
<tr>
<td>Nakuru-HH/HiRisk</td>
<td>Busia-SubH/HiRisk</td>
<td>Mombasa-SubH/HiRisk</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nairobi-SubH/HiRisk</td>
</tr>
<tr>
<td><strong>Moderate Level of Risk of exposure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butere/Mumias-HH/MoRisk</td>
<td>Buret-SubH/MoRisk</td>
<td>Garisa-NoNE/MoRisk</td>
<td></td>
</tr>
<tr>
<td>Kirinyaga HH/MoRisk</td>
<td></td>
<td></td>
<td>Machakos-NoNE/MoRisk</td>
</tr>
<tr>
<td>Kisii Central HH/MoRisk</td>
<td></td>
<td></td>
<td>Makeni-NoNE/MoRisk</td>
</tr>
<tr>
<td><strong>Low Level of Risk of exposure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kericho HH/LoRisk</td>
<td>Homa Bay SubH/LoRisk</td>
<td>Baringo-NoNE/LoRisk</td>
<td></td>
</tr>
<tr>
<td>Kisii North HH/LoRisk</td>
<td>Rachuonyo/LoRisk</td>
<td>SubH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kajiado-NoNE/LoRisk</td>
<td></td>
</tr>
<tr>
<td>Laikipia HH/LoRisk</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sample size was determined on the basis of district population proportions. A total of 25 districts each with a representative number of respondents were thus selected for the study. Once they were selected as shown in Table 2.3, they were again re-classified and re-reclassified (Table 2.4) as shown.

Table 3.4: The urban and rural sampling agenda-setting as characterized with the expected AEZ cum risk levels

<table>
<thead>
<tr>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiambu</td>
<td>Meru North</td>
</tr>
<tr>
<td>Thika</td>
<td>Kakamega</td>
</tr>
<tr>
<td>Nakuru</td>
<td>Kuria</td>
</tr>
<tr>
<td>Mombasa</td>
<td>Busia</td>
</tr>
<tr>
<td>Nairobi</td>
<td>Kilifi</td>
</tr>
<tr>
<td>Kisii</td>
<td>Kajiado</td>
</tr>
<tr>
<td>Machakos</td>
<td>Narok</td>
</tr>
<tr>
<td>Homa Bay</td>
<td>Butere/Mumias</td>
</tr>
<tr>
<td>Kericho</td>
<td>Kirinyaga</td>
</tr>
<tr>
<td>Kisumu</td>
<td>Buret</td>
</tr>
<tr>
<td>Thika North</td>
<td>HH/HiRisk</td>
</tr>
<tr>
<td>Meru North</td>
<td>SCLW/HiRisk</td>
</tr>
<tr>
<td>Kakamega</td>
<td>HH/HiRisk</td>
</tr>
<tr>
<td>Kuria</td>
<td>SubH /HiRisk</td>
</tr>
<tr>
<td>Busia</td>
<td>SubH /HiRisk</td>
</tr>
<tr>
<td>Kilifi</td>
<td>NoNE/HiRisk</td>
</tr>
<tr>
<td>Kajiado</td>
<td>NoNE/LoRisk</td>
</tr>
<tr>
<td>Narok</td>
<td>NoNE/HiRisk</td>
</tr>
<tr>
<td>Butere/Mumias</td>
<td>HH/MoRisk</td>
</tr>
<tr>
<td>Kirinyaga</td>
<td>HH/MoRisk</td>
</tr>
<tr>
<td>Buret</td>
<td>SubH /MoRisk</td>
</tr>
<tr>
<td>Garisa-</td>
<td>NoNE/MoRisk</td>
</tr>
<tr>
<td>Makueni</td>
<td>NoNE/MoRisk</td>
</tr>
<tr>
<td>Laikipia</td>
<td>HH/LoRisk</td>
</tr>
<tr>
<td>Rachuonyo</td>
<td>SubH /LoRisk</td>
</tr>
<tr>
<td>Baringo</td>
<td>NoNE/LoRisk</td>
</tr>
</tbody>
</table>

3.3 Data Collection

Primary and secondary data were collected from sample areas according to Table 2.4. In the former, data were collected using the structured household questionnaire and Key informant interviews. Secondary data were gathered from comprehensively perused documents that addressed drug and substance use.

3.3.1 Consultations/ Meetings

Various discussions and consultations were held with various stakeholders including: client staff, key informants and experts involved in drug and substance abuse issues in the society.

3.3.2 Field visits

We designed an appropriate questionnaire for the study. The questionnaire and interview guides were designed in such a way that all the study issues were comprehensively

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5 A complete list of the documents reviewed is provided in the report
addressed so as to enable the consultant to gather quantitative data for depicting the prevailing situation across the Table 2.4. Spectrum.

3.3.3 Recruitment and Training of Enumerators

Working in collaboration with NALEP staff the consultant recruited enumerators based on the following minimum criteria:

- Bachelors Degree in Sociology/ Anthropology/ Agriculture or related field and more than 5 years of field experience.
- Fluency in English and Kiswahili. The ability to speak a local language was an added advantage
- Understanding of local cultures and practices
- Good conduct

After selecting suitable enumerators, they attended a three day training session where they were introduced to the study, familiarized with the data collection tools and educated on how to use the tools. They were also guided on how to approach issues that were considered sensitive to the target population. At the end of the training session, the questionnaire was pre-tested to validate the expected output and where necessary final adjustments made at this stage.

3.4 Data Management

Data entry was carried out at the head office by first pre-testing some subsets of data in order to verify that the indicators captured would offer meaningful results. Primary data collected from field visits were analysed using SPSS 17.0, MS Excel 2007 and other relevant data analysis tools where it was determined as necessary.
Chapter 4
DEMOGRAPHIC CHARACTERISTICS

A total of 1,483 respondents were interviewed through the household questionnaire both in the urban and rural districts. Urban respondents accounted for 46.6% of the total respondents while those from rural areas accounted for 53.4%. The male respondents were 79.4% while the female respondents accounted for 20.6%.

The study captured household information including a listing of household members. The demographic data of the sampled households is presented in Figure 3.1.

Fig 3.1  Distribution of sampled respondents by age

Majority of the respondents had some level of education with 30.2% of the urban respondents reporting having attended post secondary education while only 16.0% from the rural districts had attended post secondary education.

Fig 3.2  Level of education of sampled population.
According to Figure 3.2 in the middle range of the distribution, a slight majority of respondents encountered who had attained a secondary level education were from urban (>30%) than rural settings (> 25%) and more respondents with post secondary education were from urban settings (35%) than rural (25%). Generally, there were slightly more rural than urban respondents who had either never attended school and/or had only primary education.

3.1 Land ownership

Respondents interviewed owning agricultural land were 86.2% compared to those not owning land (13.7%). Of the rural respondent sample size, 90.2% were land owners compared to the urban total, of 82.1%. However, the latter figures do not suggest that the latter owned land in urban areas but that they were simply residing in urban areas with a possibility of farming at ‘home’ in the rural areas of their origin.

Table 3.1 Land ownership

<table>
<thead>
<tr>
<th>Land Ownership (%)</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural/Urban Urban</td>
<td>82.1</td>
<td>17.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Rural</td>
<td>90.2</td>
<td>9.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>86.2</td>
<td>13.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Of those who owned some land, 38.0% reported that they had unutilized land while 62.0% had fully utilized their land.

3.2 Age of drugs and substance users

Data in Figure 3.3 suggest that the highest drug, alcohol and substance user percentage (80%) was among the youth between ages 15 and 24 years in urban areas possibly as a function of Stage 3 processes (see the DASABUSE Conceptual Model). Under the rural setting highest percentage of use was reported by ages older between 25 and 64 years. Young people reportedly attributed this to a number of factors including idleness, unemployment, peer pressure and poverty.
Fig 3.3 Consumption of drugs and other substances by age

3.3 Knowledge on Drugs and other Substances

The study analysis established that knowledge level on risk and impacts of drug and other substances used was relatively low. 41.8% of the respondents knew of the effects of alcohol (including traditional brews), 20.4% of bhang, 20.8% of cigarette and 14.1% knew of cocaine. However, it was noted that women in the rural areas (5.1%) are heavy consumers of traditional brews (local brews) than women in the urban areas (3.8%) and thus are more aware of such beverages.

Table 3.3: Knowledge on drugs and other substances

<table>
<thead>
<tr>
<th>Rural/urban</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Urban</td>
<td>Alcohol</td>
<td>94.9%</td>
</tr>
<tr>
<td></td>
<td>Local brews</td>
<td>.9%</td>
</tr>
<tr>
<td></td>
<td>Bhang</td>
<td>2.4%</td>
</tr>
<tr>
<td></td>
<td>cigarette</td>
<td>1.3%</td>
</tr>
<tr>
<td></td>
<td>Cocaine</td>
<td>.4%</td>
</tr>
<tr>
<td></td>
<td>Other specify</td>
<td>.8%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100.0%</td>
</tr>
<tr>
<td>Rural</td>
<td>Alcohol</td>
<td>98.8%</td>
</tr>
<tr>
<td></td>
<td>Local brews</td>
<td>.6%</td>
</tr>
<tr>
<td></td>
<td>Bhang</td>
<td>.2%</td>
</tr>
<tr>
<td></td>
<td>cigarette</td>
<td>.4%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>
The analysis also indicates that respondents between the (25-44) years of were more knowledgeable about drugs and other substances (42.1%) followed by those between the age group of (45-64) years at 40.1% and those above, 65 years at 11.1% while those between the age groups of 15-24 years reported a 6.2%. Thus the vice is more common within this age group accounting for 42.3% of all the respondents who uses drugs.

**Table 3.4: The use of drugs and other substances among different age groups**

<table>
<thead>
<tr>
<th>Use of drugs and other substances</th>
<th>15 - 24 years</th>
<th>25 - 44 years</th>
<th>45 - 64 years</th>
<th>&gt; 64 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>4.7%</td>
<td>43.3%</td>
<td>37.9%</td>
<td>14.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Local brews</td>
<td>3.9%</td>
<td>35.3%</td>
<td>47.1%</td>
<td>13.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Bhang</td>
<td>12.5%</td>
<td>54.2%</td>
<td>29.2%</td>
<td>4.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Cigarette</td>
<td>7.1%</td>
<td>34.3%</td>
<td>51.4%</td>
<td>7.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>9.1%</td>
<td>50.0%</td>
<td>36.4%</td>
<td>4.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5.4%</strong></td>
<td><strong>42.3%</strong></td>
<td><strong>39.8%</strong></td>
<td><strong>12.5%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

The study findings indicate that men (53%) were the most users of drugs and substances. This can be attributed to the fact that the African culture prohibits women from consuming various drugs and other substances and their daily chores are dictated thus there are relatively few women (47%) who use drugs. Since most of these users are poor and have relatively low level of education they have limited knowledge on the impacts of such drugs and other substances and may remain ignorant if not educated.

Though education and drug use often appear to be in a circular relationship, education is an important point of intervention for the prevention of drug and substance use especially preventive education which is a process which produces results only in the long term. School children and young adults who use drugs and other substance often suffer from impairment of short-term memory and other intellectual faculties, impaired tracking ability in sensory and perceptual functions, preoccupation with acquiring drugs, adverse emotional and social development and thus generally impaired education performance. Reduced cognitive efficiency leads to poor academic performance and a resulting decrease in self-esteem. This contributes to instability in an individual’s sense of identity which, in turn, is likely to contribute to further drug consumption, thus creating a vicious circle.

### 3.4 Attitude towards Drugs and Other Substances

The study findings indicate that 92% of those consuming drugs and other substances are willing to refrain from the habit. This is especially because of the high cost of the drugs,
93% health reasons, religion, and peer pressure. This implies that there is increased demand for rehabilitation and treatment services within the agricultural sector.

Users of drugs and other substances may not be able to because of the high cost of treatment in private rehabilitation (the cost ranges from between 1500 Kenya Shillings to 3,000 Kenya Shillings a day) and treatment facilities and few available government rehabilitation and treatment centres and the little knowledge available about the availability of such services within their vicinity.

Among the users who have been affected by the drugs, most of them have been shunned by the society left without remedy thus leading to premature deaths/ preventable deaths.

**Table 3.5**: Reasons for stopping drug and substance use

<table>
<thead>
<tr>
<th></th>
<th>High cost of drugs</th>
<th>Health reasons</th>
<th>Religion</th>
<th>Peer pressure</th>
<th>Other (specify)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>92.0%</td>
<td>93.6%</td>
<td>81.8%</td>
<td>88.9%</td>
<td>86.7%</td>
<td>91.3%</td>
</tr>
<tr>
<td>No</td>
<td>8.0%</td>
<td>6.4%</td>
<td>18.2%</td>
<td>11.1%</td>
<td>13.3%</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

Table 4.4 indicates that most drug users, who would refrain from the vice would be engaged in various business activities (38.9%), 28% in crop and livestock production which would improve the agricultural sector.

**Table 3.6** Activities neglected due to drug and other substance use.

<table>
<thead>
<tr>
<th>Use of drug &amp; other substances</th>
<th>None</th>
<th>Crop/Livestock production</th>
<th>Fish farming</th>
<th>Business</th>
<th>Other (specify)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>use of drug &amp; other substances</td>
<td>16.7%</td>
<td>28.0%</td>
<td>1.5%</td>
<td>38.9%</td>
<td>5.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
5.1 Introduction

The total number of drug users in the world is now estimated at some 200 million people, equivalent to about 5 per cent of the global population. Kenya is strategically located along a major transit route between Southwest Asian producers of hashish and heroin, and markets in Europe, West Africa, and North America. These drugs are reportedly repackaged for onward shipment to other countries or for the growing local domestic market.

Kenya has the highest reported cases of heroin use at about 25,000 injections\(^6\) annually as compared to her neighbours. Tanzania and Mauritius drug and substance use situation is comparable to Kenya while Uganda is the only neighbour country that has a reported low drug abuse rate of about 1%. The following are the most commonly used drugs in Kenya:

- Alcohol—both the distilled and traditionally brewed alcoholic beverages (chang’aa\(^7\)) with a national abuser rate of 36.3% followed by nicotine at 17.5%, cannabis sativa at 9.9%, heroin at 8.0% and cocaine at 2.8%\(^8\).
- Nicotine
- Cannabis sativa
- Heroin
- Cocaine
- *Catha edulis* (Miraa, Khat)
- Other drugs include; Morphine, sedatives and inhalants

An estimated 13% of people from all provinces in Kenya except North Eastern province are current consumers of alcohol and majority (90%) of tobacco smokers smoke tobacco everyday while 70% of miraa users use these substances daily\(^9\). The main root causes of drug and substance use in the society include:

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\(^6\) United nations office on Drugs and crime regional study  
\(^7\) “chang’aa” means any spirits which are distilled otherwise than in accordance with a licence issued under Part IX of the Customs and Excise Act, by whatever name called, and includes spirits commonly known as “enguli”, “kali”, “kangari”, “kill-me-quick”, “Kisumu whisky”, “kivia”, “maai-matheru”, “machozi-ya-simba”, “machwara”, “njeti” and “warigi”. www.kenyanlaw.org.  
\(^8\) United nations office on Drugs and crime Rapid situation assessment 2004  
\(^9\) Rapid Situation Assessment of Drug and Substance Abuse in Kenya, 2007 NACADAA
• Easy availability and accessibility
• Weak drug and substance use awareness programmes
• Limited skills and personnel capacity of the law enforcers
• Low prioritization of drug and substance use in the society
• Poverty and Unemployment
• Western influences and breakdown of traditional values
• Idleness and peer influences
• Lack of proper parental guidance
• Stigma associated with the vice
• Modern day frustration.

Some of the resulting consequences of drug and substance use in the society are;
• Non –productive populations especially in the agricultural sector where this study focuses
• Increase in crime levels; domestic violence, and violent crimes
• Inhumane actions ;rape, incest, bestiality
• Risky sexual behaviour and practices

Country Achievements

The Government of Kenya (GOK) has made progressive attempts to control the supply and consumption of drugs and other substances by developing, implementing and enforcing social sanctions, ordinances, acts and other regulatory mechanisms. Such mechanisms include;

• Signatory to various international conventions and protocols that relate to drug and substance use. Such as; housing Eastern Africa Interpol Sub- regional Bureau, the ratification of major UN Conventions on Narcotic Drugs and Psychotropic Substances.
• Enactment of the Narcotic Drugs and substances(Control) Psychotropic Act, of 1994 which is the legislation on drug trafficking and use in Kenya
• Acceding to the world customs organization’s 1977 International convention on mutual administrative assistance for the prevention, investigation and repression of customs offences.
• Extraction treaty with the U.S extradite drug traffickers
• The establishment of NACADAA to advocate against drug use in Kenya and to coordinate all individuals and organizations dealing with drug and substance use issues NACADAA undertakes the following core functions;
  
a) Developing legal and institutional framework for the control of drug use.
  b) Co-ordinating public education campaign against drug use.
  c) Mobilization of resources for drug use control and prevention
  d) Developing mechanisms in collaboration with key stakeholders for curbing drug use in schools and other institutions of learning
e) Developing an action plan for curbing drug use by the youth
f) Facilitating the setting-up of rehabilitation facilities for drug dependant persons
g) Submission of annual reports and recommendations to the Minister for the time being responsible for matters relating to drug use
h) Facilitation and opening of offices at the provincial or district level to facilitate implementation of this mandate
i) Perform any other function incidental to the foregoing.

- Development of the National Drug Master in 1998, Pharmacy and poisons Act, Liquor Licensing Act and enactment of the Tobacco Bill in 2004

- Ban on brewing and consumption of local brews: This ban was necessitated as a result of the death and loss of sight of several individuals who had consumed highly intoxicating local brews “kumikumi”. The enforcement of this ban is however still a challenge.

- Setting up of an Anti-narcotics police unit.
Food Security and Nutrition

About 80% of the land area in Kenya is arid and semi-arid (ASALs), mainly in the northern and eastern regions. Areas with high agricultural potential represent only about 18% but supports 80% of the population. Agriculture in Kenya is mainly rain fed and the sector is recurrently affected by drought, floods and environmental degradation.

Stagnation of food production, an unfavourable economic environment and poverty are the major causes of food insecurity. Population groups most affected by these negative trends are the rural, the less educated, female-headed households, as well as populations living in the ASALs, urban slums and peri-urban settlements10.

Food insecurity is described as a condition in which people lack basic food intake to provide them with the energy and nutrients for fully productive lives. This implies that food security exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life11. Food security has four major aspects;

- Food availability; sufficient quantities of food available on a consistent basis.
- Food access; having sufficient resources to obtain appropriate foods for a nutritious diet,
- Food stability and utilization; appropriate use based on the basic knowledge of nutrition and care, as well as adequate water and sanitation.

Kenya is described as a low-income food-deficit country12 Majority of Kenya’s population is food insecure and it is reported that about 50.6% of the population lack access to adequate food and, even the little they get is of poor nutritional value and quality. It is also further estimated that over 10 million suffer from chronic food insecurity and poor nutrition.

Food insecurity is often seen as a problem of availability of food because of the poor performance of the agricultural sector. However, inaccessibility to food also contributes to food insecurity because of the inadequate market and transport infrastructure, low income and purchasing power; poverty. Seasonal food insecurity affects households in rural areas especially before the start of the harvest period. In addition to problems of chronic and seasonal food insecurity, Kenya is plagued by acute food insecurity primarily due to droughts and/or floods, which threaten lives and livelihoods of the most vulnerable groups of the population, particularly in the semi-arid and arid regions. Studies conducted indicate that there has been a significant deterioration in household

10 FAO.(2005) Kenya Nutrition Profile
11 World Bank, 1986; Cromwell and Slater, 2004
12 World Food Programme, 2005a
food security in most parts of north-eastern Kenya (Wajir, Garissa and Tana River districts) and in farming households in the south-eastern and coastal marginal districts.

The food insecurity and vulnerability problems are compounded by high levels of poverty, over-exploitation of natural resources; uncontrolled forest logging and the dismal performance of the agricultural sector are worsening the food security and nutrition situation in the country.

The lack of access to adequate and diversified diet results in various forms of nutrition problems. Over 1.8 million children (30%) are classified as chronically undernourished and whose per capita national energy supply per day is less than the recommended rates. Even in years of good production, chronic under-nutrition (stunting) affects 30% of children, indicating long term inadequate dietary intake (this includes both macronutrients, such as carbohydrates, proteins and fats, as well as micronutrients including vitamins and minerals); inadequate distribution of food, particularly of high quality foods; inadequate knowledge about feeding; care-giving of young children; and repeated infections. Micronutrient deficiencies are highly prevalent in Kenya, particularly at crucial stages of the life cycle when needs for specific minerals and vitamins are high. Vitamin and mineral deficiencies exist even among population groups with sufficient food in terms of meeting energy requirements.

Even though improving’ agriculture alone will not lead to a reduction in hunger and food security, agriculture has played and will continue to play a fundamental role in addressing the food security situation in the country. Agriculture’s contribution is vital in increasing the availability of affordable food and generating sufficient income to allow people to access food thus drug and substance users especially in the agricultural sector is an impediment towards achieving food security.
5.2  Drug and Substance use in the Agricultural Sector – A General Perspective

Agriculture is the mainstay of the Kenyan economy and currently represents 24 % of GDP. More than one third of Kenya’s Agricultural produce is exported and this accounts for 65% of Kenya’s total exports. The agricultural sector accounts up to 18 % of the total formal employment in the country\(^{13}\).

Kenya’s principal cash crops are tea, coffee, sugar, cotton, pyrethrum, sisal, tobacco, pineapples and wattle. There are various specific constraints that have hampered the growth of the agricultural sector in Kenya, and in Africa generally. These include; high cost of inputs (especially fertilizer and seeds), poor husbandry practices, over-dependency on rain fed agriculture, lack of markets and limited application of agricultural technology and innovation among other factors. However, in the recent past, the sector has had improved performance due to adequate rainfall and increased production in maize, tea, horticulture and sugar. There have also been some improvements in the fisheries sector, and growth in meat and dairy products.

The improved performance can also be attributed to the tax concessions and other incentives such as credit facilities offered through the Agricultural Finance Corporation (AFC); targeted spending to boost cotton production; removal of import duties on some agricultural equipment; amendment to the Coffee Act to allow direct coffee sales outside the auction system, zero-rating of agricultural tractors, semi-trailers among other measures introduced by the government. These achievements and the restoration of Kenya Meat Commission (KMC) and Kenya Cooperative Creameries (KCC) have had positive impact in the sector and further employment in the agricultural sector.

Drug and Substance use is a unique shock against which the agricultural sector is particularly vulnerable since it has the potential to immensely devastate the sector through its impact on the major factors of production; (land, labour, entrepreneurship and capital) and other effects which indirectly influence the sector.

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\(^{13}\) Vision 2030
### 5.2.1 Types of Drugs and Substance used within the Agricultural Sector

The analysis indicates that alcohol (41%) is the most used drug followed by cigarettes (28.7%) in both the rural and urban areas. Other drugs used within these regions include local brews, bhang, and cocaine. 59.8% of the respondents were still consuming drugs and other substances while 7.5% do not consume either the drug or the substance.

**Table 4.1** Types of drugs consumed

<table>
<thead>
<tr>
<th>Type of drug</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>41.0</td>
</tr>
<tr>
<td>Local brews</td>
<td>17.9</td>
</tr>
<tr>
<td>Bhang</td>
<td>6.5</td>
</tr>
<tr>
<td>Cigarette</td>
<td>28.7</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0.8</td>
</tr>
<tr>
<td>Others</td>
<td>5.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Even though alcoholic beverages have been part of social life for millennia, society has found it difficult to understand or restrain their use and abuse. Multinational companies have developed various brands to suite the desires of their customers this combined with aggressive marketing campaigns undertaken have led to alcohol becoming popular in our society.

The analysis indicates that alcohol and local brews are mostly consumed (30%) in rural areas and 27% in urban areas, while cigarettes 13% in urban areas and 15% in the rural areas. Traditional brews especially areas during various social gatherings are popular in rural areas even to women. Despite the reported cases of these brews having serious health effects they are still widely consumed in these regions.

![Consumption of drug and other substances in Urban and Rural areas](image_url)
The analysis indicates that the males (56.8%) are the highest users of drugs and other substances as compared to females (33.7%) in both the urban and rural regions.

![Consumption of drugs and other substances](image)

**Fig.4.3:** Consumption of drug and other substances by gender.

There has been increased concern about drinking in gender aspect roles, because in most society’s gender differences in drinking behavior have grown smaller. Where previously only men used to consume large quantities of alcohol women are now consuming as much as men. The convergence of such drinking patterns is due to factors such as; increased opportunities for women to perform traditionally male roles (particularly in the workforce), frustrations, peer pressure and western influences. They have enabled and encouraged women to consume alcohol heavily with reported severe health consequences\(^{14}\). This convergence has been most evident among youths both males and females who have embraced culture change.

From our field investigations, there has been a reported increase in the number of women clients admitted in rehabilitation organizations. These women due to the African culture, hid their drug, alcohol and substance use addiction from their spouses, family and feel mortified thus compounding the problem to an extent that when they do seek medical attention their health is usually much more deteriorated.

The study findings indicate that sons both in the urban and rural areas are the highest users (44.2%) of drugs and other substances followed by other relatives (34.9%) within the family unit. Even though there are legislations in Kenya prohibiting the sale of alcoholic drinks to minors there is an increasing trend of alcohol being sold to them and children accompanying their parents in popular drinking spots especially in urban areas. This has led to a high number of children being introduced to alcohol at a very early age thus leaving them as potential users of drugs and other substances in future. It is reported that at the age of 25 years most individuals are initiated into drinking especially in tertiary learning institutions and at 55 years there is a increase in the number of users due to various factors such as; retirement, retrenchment, fear of the unknown and poverty.

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\(^{14}\) Bergmark, 2004; Bloomfield et al., 2004
Case study 1: Youth and Drugs

- Police data in the Rift valley region showed that majority of the cases were within the age group of 16-25 years. A case was reported of one person dying for drinking traditional brew within the last year in the district.
- A university student in the same district received heroine from a friend which affected her health. She had to attend a rehabilitation centre for counseling and treatment.
- A primary school pupil in Mombasa sold off his school bicycle to his colleagues to purchase drugs.
- In Kakamega, a school watchman noted that bhang consumption within the school compound seemed to be higher compared to the wider society.

The frequency, as well as the type of substance use, varies from province to province. Alcohol prevalence among students is highest in Western 43.3%, followed by Nairobi 40.9%, Nyanza 26.8%, Central 26.3%, Rift valley 21.9%, Coast, Eastern and North Eastern at 21.3%, 17.2% and 1.6% per cent respectively. Prevalence is reportedly high even among non-students in Western at 90.1%, followed again by Nairobi at 89.9%, then Rift Valley 86.1%, Central 84.1%, Nyanza 81.5%, Eastern 73.4% Coast 73.1% and North Eastern at15.6%.

The prevalence of bhang use among non-students aged between 10 and 24 is highest in Nyanza followed by Nairobi, Coast, Eastern, Western, Rift Valley, Central and North Eastern in that order while, among students, bhang use is highest in Coast and lowest in North Eastern with Nairobi being second highest followed by Central, Eastern, Western, Nyanza and Rift Valley. The use of miraa is highest in Eastern among non-students followed by North Eastern and lowest in Nyanza. Among students, its use is highest in Nairobi followed by Eastern and lowest in North Eastern.

15 Drug Abuse in Kisumu Town Western Kenya.(2009) Otieno A.O And A.O. Ofulla
Ultimately, substance use by the youth implies a breakdown of family values earlier evident in the indigenous society and as a result, several parents have lost control over their children. The problem of use is associated with the introduction of foreign habits that have undermined indigenous culture which restricted the use of some substances such as alcohol to senior age groups and to special occasions. Currently alcohol consumption is not restricted to senior age groups or special occasions. It is readily available to youths, even though the law prohibits its sale to and use by those under the legal age of consent.

An acquired false sense of freedom from parental control, acquired financial resources among youths out of school, the easy accessibility and availability of alcohol in the society has propelled not only the consumption of alcohol but also other drugs and other substances.

Therefore, more effort should be placed in developing drug and substance use prevention strategies that target school students and out of school youths since they are a high-risk group. Appropriate intervention, health education efforts, support and referral systems should be established in schools to help curb this habit early. Such efforts should not only be confined to schools but should also extend to their residential areas so that such influences in the external environment that contribute to the vice can be identified and controlled.

![Respondents currently consuming drugs and other substances](image_url)

**Fig.4.4:** Respondents currently using drugs and other substances

There are regulations and legislations already established governing the consumption of alcohol such as the limit of the legal drinking age which is eighteen years. Weak enforcement of such legislations has propelled the vice. It entails issues such as accessibility and availability of alcohol and drugs, prevention of substance use, treatment, as well as pricing and taxing of these substances.
5.2.2 Impact of Drug and Substance use on Factors of Production

a) Land

Land is the most important resource in agricultural production, limited availability of productive land is a major constraint to increased agricultural production. Kenya has a landmass 576,000 square kilometres, of which only 16% is of high and medium agricultural potential with adequate and reliable rainfall. This high and medium potential arable land is dominated by commercial agriculture, with cropland occupying 31%, grazing land accounting for 30%, and forests and shrub land occupying 22%.16

Despite the challenge of limited productive land an increasing number of Kenyan farmers are illegally growing drug crops such as cannabis or marijuana for commercial purposes. The growing of such crops by farmers because of the high income they receive from these crops has effectively reduced the land available for food crop production.

Small-scale farmers, mainly in the high potential areas, dominate Kenya’s agriculture. The sub-sector accounts for 75% of total agricultural output and 70% of marketed agricultural produce. Small-scale farmers produce over 70% maize, 65% coffee, 50% tea, 80% milk, 85% fish and 70% beef and related products. Agricultural production is carried out on farms averaging 2-3 hectares mainly for subsistence and commercial purposes. Currently, the use of quality inputs and equipments such as hybrid seeds, fertilizers, pesticides and machinery by the sub-sector is very low and is the main factor hindering productivity.

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16 Agricultural Sector Development Strategy 2009 – 2020; G.O.K
Farmers engaging in drug and substance use have been reported to subdivide their land and sell it to be able to maintain their lifestyle on drugs and other substances. Thus, reducing the land left for agricultural production, effectively sub-dividing the land into uneconomical units and diverting the resources allocated for agriculture.

**Land Ownership and Utilisation in Kenya**

The bulk (98%) of the farm holdings in Kenya are small (<10 ha) and lie mainly in the high potential areas. The medium and large scale farms account for about 2% of the holdings, but cover about 54% of the area farmed. Nationally, the average farm size is about 2.5 ha but the increasing rate of land subdivision in both the small and large scale sector is reducing the sizes into unviable land units.

In the high potential areas, mixed farming is practised. The major enterprises are cash crops (coffee, tea, horticulture) and dairy production. There is high human population density and land scarcity is a major problem. In the medium potential areas mixed crop–livestock system is practised, but the crops cultivated are low rainfall crops and the main livestock enterprises are beef and small ruminant production.

The study findings indicate that 29.7% of the respondents owned unutilized land since they reportedly considered it unproductive, 20.7% owned unutilized land because they lacked capital, and 14.5% lacked labour, 12.5% due to land disputes / clashes while 7% lacked farming skills and 15.7% due to other reasons such as the construction of buildings and other business ventures.
Fig 4.7 Reasons for owning unutilized land

The study findings indicate that 97.7% of the study respondents owned land with majority (50.3%) owning 1-2 acres of land, 23.5% owning 3-5 acres, 20.8% owning more than 5 acres while 5.4% owned less than 1 acre.

Fig 4.8: Large tracks of land under Miraa; Meru North
b) Labour

Absenteeism of both the farmers and agricultural staff due to addiction/illnesses and the loss of labour from related deaths lead to the reduction in labour productivity and area of land under cultivation are some of the impacts of drugs and substance use in the agricultural sector.

The loss of labour may also lead to declines in crop variety and to changes in cropping systems, particularly a change from more labour-intensive systems to less intensive systems. For instance if crop production becomes less labour intensive fundamental agricultural activities may be curtailed and a shift away from labour intensive crops may result in a less varied and a less nutritious diet contributing to food insecurity.

The reduction in labour supply through the loss/absenteeism of workers/ declined productivity at crucial agricultural periods such as planting and harvesting significantly reduces the percentage of the harvest, thus contributing to harvesting losses which have adverse effects on expected crop harvest.

The use of drugs and other substances does not only deteriorate ones’ health but also lowers labour input capability and productivity. Resources are also wasted/dverted when spent on drugs rather than being used to employ labourers and invest in agricultural technology and innovation.

The reported high involvement of youths both in the urban and rural areas in the vice leaves the agricultural future bleak since there is failure of transfer of knowledge both from the trained expert and from the elder farmers. The elderly folk who would also be relied upon to offer guidance in agricultural farming to the youths are also increasingly engaging in the vice. For instance, there have been reported high cases of alcoholism in Kirinyaga where even the women engage in heavy drinking sprees neglecting agriculture resulting in adverse consequences of food insecurity in the region.

Women, youths and children who are the major source of family labour in the sector have in some cases reportedly withdrawn their labour or completely abandoned their family farm and opted to seek casual employment in neighbouring farms, formal employment in the industrial sectors away from the agricultural sector in cases where the household head has reportedly misappropriated the family’s agricultural to drug and substance use.
c) Capital

The use of drug and other substances impacts on both human resource capital and financial resources in the sector. The Loss of knowledge on farming research, technologies /practices especially when trained agricultural staff engages in *drug and substance use* leads to loss of agricultural knowledge especially since there is failure to transfer the acquired wealth of knowledge to the target farmers and to the subsequent generations.

The diversion of financial resources intended to for agricultural activities such as the purchase of inputs necessary for productive farming, affects agricultural productivity. There is likely to be an accompanied decline/ Loss/ reduction of contribution to the economy from the agricultural sector and an accompanied decline in remittances in areas where agricultural staff send money home while working far from their families. When such staffs are abusing drugs and other substances they have inadequate disposable income for their family upkeep and for the purchase of drugs and other substances.

Drug and substance use affects the social cohesion of families and is reported to be the leading cause of family disputes and other social ills. There is a positive correlation between drug users and HIV prevalence rates and this further compounds the social problem. The prevalence of HIV/AIDS among injecting drug users is estimated at 68-88% and this may digress the positive gains already made in the fight against HIV/AIDS in the society. Thus, drugs and substance use if not effectively mitigated will leave the agricultural sector progressively entrapped deeper and deeper in both income poverty and asset poverty amidst rising livelihood food insecurity and poor nutrition.
d) Entrepreneurship

As a form of human resource that performs the functions of raising capital, organizing, managing, assembling other factors of production, and making basic business policy decisions. It is associated with the founding of new businesses or the introduction of new products and techniques even within the agricultural sector. Entrepreneurship as a factor of production is scarce since not everyone is willing to take risks or has the ability for making successful business decision.

Employee drug and substance use is considered to be among the most common health hazards in the workplace. In addition to increasing company’s costs in lost productivity, employers perceive drug and substance use by employees as a threat to corporate security and an increased liability. Employees abusing drug and other substances have little or no time to manage innovatively their enterprises necessary for intensive agricultural production which requires innovation and prudent modern management methods.

Key informant interviews with relevant GoK personnel revealed that drug and substance use is a major concern especially at field level staff. The most affected are usually new staff fresh from colleges and universities due an acquired false sense of freedom and financial resources and staff posted away from their families or into a different social setup.

One of the major consequence of drug and substance use among employees is the loss of capacity and disruption of service delivery; high staff turnover and absenteeism, reduced staff productivity, increase in expenditures, increased workload of staff and loss of knowledge, skills and expertise, all resulting from drug and substance use related morbidity and incapacitation may lead to weak extension programmes and their inability to support agricultural production.
5.2.3 Socio-Economic Aspects of Drug and Substance Use in the Agricultural Sector

The analysis indicates that 31.8% of the study respondents who use the drugs and other substances have experienced low economic productivity, 29.2% led a poor social lifestyle, 21.8% had problems of family instability (domestic violence, family feuds, and other ills) 14.3% suffered mental retardation as one of the major health challenge.

<table>
<thead>
<tr>
<th>Effects</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low economic productivity</td>
<td>31.8</td>
</tr>
<tr>
<td>Mental retardation</td>
<td>14.3</td>
</tr>
<tr>
<td>Poor social lifestyle</td>
<td>29.2</td>
</tr>
<tr>
<td>Family Instability</td>
<td>21.8</td>
</tr>
<tr>
<td>Other</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.2 Effects of Drugs and substances

a) Impact on Economic Productivity

The use of drugs and substances lead to low productivity in agriculture in terms of the time and resources one employs in agriculture. Users of drugs and other substances are not able to carry out their activities effectively and tend to allocate the profits from agriculture into the vice.

Field investigations and a thorough literature review revealed that farming of drug crops such as tobacco and miraa is highly labour-intensive-involving almost the entire family, leaving no room for growing of food crops. The resulting effect is perpetual famine in these growing areas leading to malnutrition especially amongst children. Earnings from these crops though easily earned in the long term are not commensurate with the input by the farmers. Child labour and school drop-outs are common features in these drug crop growing areas.

The growing of these crops has negative effects on the environment such as deforestation, even soil erosion and depletion of soil nutrients. It also exposes them tobacco smoke potentially making them candidates for related diseases like tuberculosis. Attempts to persuade farmers to opt out have not been successful. While some farmers are aware of the dangers inherent in this farming, majority do not understand and are not ready to opt out of drug crop farming. In Kuria, Migori, Suba and Meru districts for example, the farmers do not envisage any alternative income generating activities as lucrative as drug crop farming since there is a readily available market for their produce that pays promptly as opposed to long delays experienced by crop farmers.

Land in these areas is increasingly being subdivided and allocated to the growing of these crops. Filed investigations reveal that even the traditional tree or crop nurseries are increasingly being used to grow tobacco and miraa. Malnutrition cases in children have
been reported in tobacco growing areas of Migori and they have been associated to farming practices adopted in these areas.

![Fig. 4.8: Miraa Nursery; Meru North](image)

**b) Social Aspects**

The study analysis indicates that most people in both the rural and urban areas spent between KSh. 501- KSh 1,000 on drugs and substances per month with men consuming more than women, at 52% in the urban areas and 48% in the rural areas.

The key informants’ interviews revealed an almost unequivocal that the impact of drug and substance use by the head of households (males) on women, results in burdens such as; economic, stigmatization, emotional and relationship difficulties, and neglect of children. Domestic violence, loss of household security, increased risks of HIV/AIDS, crime and diversion of resources are also some of the possible impacts. Children in drug abusing families may also be neglected and are more prone to child labour or delinquency.

Drug and substance use results in problems impacting not just the individual user, but also the family and community. Family relationships suffer, financial sources are depleted, health costs increase and the family unity is threatened. Some of the resulting consequences include depression, stress and resentment. The consequences of drug and substance use are often more pronounced for families in precarious or poverty-stricken circumstances and families who depend on income from family members working away from home.

Drug and substance use is often associated with domestic violence, which in turn aggravates the physical and emotional distress of the family. Women, who traditionally appeared to have some kind of immunity to drug and substance use due to ‘social inoculation’ are now increasingly being susceptible to drug and substance use and burdened by its related problems.
Drug and substance use exacerbate the gender differences and the social, economic and cultural inequalities that define women’s status in society. Such differences and inequalities affect the extent to which men and women, boys and girls are able to enjoy basic security needs such as survival, safety, opportunity, dignity, agency and autonomy. Those most deprived of these needs are themselves most highly vulnerable to drug and substance use and the most disadvantaged in coping with its impact. Women have a key role in ensuring economic security for their families and they are at the helm of smallholder agriculture. Unequal gender relations and unequal access to economic resources have made women poorer than men and this has made them more vulnerable to drug and substance use. The low marginal economic status of women, socio cultural practices, low income, poverty and high rates of unemployment are some of the factors that contribute to susceptibility of women to drug and substance use. The non-drug using partner may also take to drugs and substance use for solace.

The relationship between family violence and substance use is not directly causal; substance use does not cause family violence nor does family violence cause substance use but the two issues often interrelated and the impact of each problem may be intensified.

Discussions with key informants revealed that men who use drugs and other substances are more likely to abuse their partners and that such victims of family violence are at greater risk of drug and substance use and other drug problems than those who have not experienced violence in their relationships.

The effects of substances on and family relationships are both direct and indirect and have substantial financial effects on families. Drug and substance use by family members can have a substantial negative effect on the household financial security. Substance-abusing family members may divert money ment for food, clothing, school fees, agricultural inputs on drugs and other substances thus affecting the overall household food security.

From our key informants discussions it was revealed that there is a correlation between drug and substance use and crime and conflicts in the society. The increase in violence and theft in the society has been attributed to drug and substance use as the users search for more money to sustain their lifestyles and addiction to drug and substance use.

Key informants interviews revealed that crime and drugs use are related in several ways. The illicit production, manufacture, distribution or possession of drugs and other substances constitutes a crime. Secondly, drugs may increase the likelihood of other, non-drug crimes occurring. Thirdly, drugs may be used to make money, with subsequent money-laundering and fourthly, drugs may be closely linked to other major problems, such as the illegal use of guns, various forms of violence.

The economic costs of drug use can be categorized as direct and indirect. Direct costs involve increased costs of police, courts, military, treatment programmes, as well as
increased security measures developed to curb drug and substance use. Indirect economic costs include the displacement of legal industries; diminished control over the economy; spending money for drugs and inappropriate use of money gained from drug sales; and fiscal problems related to the inability to tax the drug economy.

Fig 4.9 Total Monthly Expenditure on Drugs and Other Substances

The study analysis indicates that respondents both in the urban and rural areas spend approximately Ksh 500 per month. The fisher folk reported the highest levels of expenditure on drug and other substance 46.2% spending between a thousand and five thousand shillings monthly followed by livestock farmers 34.2% spending between five hundred and a thousand shillings monthly while crop farmers’ 33.2% spent less than five hundred shillings.

Expenditure in the high risk regions such as Mombasa is estimated to be 29 million shillings, while Nakuru has an estimated expenditure of 47 million, Narok 12 million shillings and Kuria district17 estimated total spending is 4.6 million shillings. Expenditure in moderate risk regions such as Kisii central is 16 million shillings, Buret is 10 million shillings and Garissa is 7.7 million shillings. While the total monthly expenditure on drugs and other substances in low risk regions such as The total monthly expenditure on drugs and other substances in lower risk regions such as Kericho is 15.7 million shillings, 10.8 million shillings in Rachuonyo while in Baringo it is estimated to be 9 million shillings.

17 Mombasa has 180,540 households, Nakuru has 296,451 households, Kuria has 28,839 households, Narok has 76,450 households, Kisii 100,315 households, Migori has 113,930 households Buret 64,737 households, Garissa 48,141, Kericho 98,867 households, Rachuonyo has 68,152 households and Baringo has 56,663 households (G.O.K Statistical abstract 2008).
Case Study 2: Mr. Osman Omar*

Mr. Osman was an innocent boy when he was clearing his fourth form in secondary school as he narrated. After form four he grouped himself with his former classmates just before he joined an accounting course in Nairobi. The friends innocuously introduced him to alcohol, cigarettes and then to bhang. Before he was addicted, his parents sent him to Nairobi to do accounting where he used to live with his uncle. His uncle was a very religious man and strict and so Mr. Osman could no longer use drugs. He studied for two years and got employed at a local bus company as an accountant. He worked in Nairobi for one year before he got transferred.

Being financially stable, he married and bought a car and a house. Unfortunately, he met his former friends who re-introduced him to even harder drugs namely cocaine and heroin. This drove him into addiction which was the beginning of all his disappointments. He would spend over Kshs. 2,000 per day on drugs. This made him waste a lot of money and led him to stealing from his employer resulting into his loss of employment. To satisfy his drug addiction, he was forced to sell his assets causing family conflicts and finally being divorced by his wife.

The condition forced him to go back to his parents, unfortunately, he continued with his habits of stealing and selling of household item for his drugs. He was consequently sent away from home and ended up into the streets, where he became a *matatu* tout.

The problem worsened when him and his fellow touts stole Ksh. 600,000 from a passenger. He squandered his share on drugs and overdosed himself then went into hiding. He later started having medical complications affecting his arm’s bone marrow and he watched as his condition worsened by the day.

He was hospitalized for one year where he had a total of five operations. His problems were compounded when he tested HIV positive. However, he went through the hospital’s rehabilitation program, stopped using drugs and became counselor on drug and substance use in a private rehabilitation institution to date.

*Not his real name
c) **Impact on Vulnerable Groups in the Society**

Some of the major impacts of drugs and substance use on vulnerable groups in the society include:

- Impact on Property and Inheritance Rights of Women and Children
- Increased workload on women

**Impact on Property and Inheritance Rights of Women and Children**

Drug and substance use increases the vulnerability of women and children to land dispossession by patrilineal kin on the death/incapacitation of male household heads. Women often do not have marriage certificates or other documentation to protect their rights and wills are rarely drawn. Traditional practices of taking land away from the widow and children continue and in extreme cases, livestock is also taken leaving them more vulnerable. Studies have shown that eliminating gender based inequalities in education and access to agricultural inputs could result in an increase in output 4.3% of the GDP followed by a sustained annual increase in GDP growth by 2-3.5%\(^{18}\).

**Increased Workload on Women**

In communities where there is a traditional division of labour by gender between agricultural tasks and household work, the domestic labour burden of women increases disproportionately. Women have to take up additional burden of taking care of the sick and incapacitated. The increased workload may greatly reduce their time to participate in agricultural activities, leading to a decline in agricultural production especially since they are the major agricultural producers. Since they are overburdened, women no longer have time for non-farm activities such as artisan crafts, market gardening, food processing and others, activities that previously contributed to the family budget. This also negatively impacts on their livelihood.

The household’s consistent goal is to maximize well-being. In the absence of shocks and stresses such as those resulting from drug and substance use, the standard of living is relatively high given the available household resources and an environment conducive to production. Morbidity of one or more household members can affect each of the livelihood assets resulting in a reduction in the ability of the household to produce and adjust to future shocks. This can result in a multitude of adverse consequences such as lower nutritional status, poorer health, reduced schooling of children, as well as depletion of the productive asset base.

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\(^{18}\) Gender and economic growth in Kenya, World Bank Report
Malnutrition as a result of food insecurity erodes human capital, affecting people’s resilience to shocks and reducing their productivity, with a significant impact on income poverty. In addition, the national goal of empowering women is impeded by the damaging alignment of inequality and malnutrition.

The social disadvantage and sub-ordination of women, and the rapid socio-cultural and economic changes have significantly altered traditional structures and institutions within society. Such changes are invariably associated with social upheaval, such as drug and substance use.

Its’ impact on women is dual; male drug use creates an enormous burden for the affected women, and drug use per se has even graver problems for women. Emulation of western culture especially in urban areas is associated with patterns of drug and substance use among women mirroring men’s behaviour, this results in higher risk behaviours. Approaches towards the prevention and mitigation of drug and substance use therefore need to consider its impact on women.

d)  **Health Impacts**

The impact of drugs and substance use on an individual's health have scientifically been established and documented in extensive literature (Section 2.4 of this report)

![Fig 4.10: Reasons for stopping drug and substance use](image)

The respondents’ analysis indicates that 93% of the respondents who reported using drugs and other substances would wish to discontinue to the health impacts.
Case Study: Tobacco farming

Tobacco growing introduced into the country over 30 years ago has increased tremendously over the years. It is estimated to be grown by about 20,000 small scale farmers on over 15,000 hectares of land with a current annual production estimated at 16,000 tonnes.

The tobacco farmer's year begins with the preparation of seedbeds around February with seeds acquired either on loan from commercial firms or purchased from seed companies. The tobacco seedling requires great care; first a seedbed must be carefully ploughed, and then sterilized with ashes or gas to kill any unwanted insects or weeds. Tiny tobacco seeds (about 10,000 seeds weigh 1 gram) are then spread on the beds and covered with hay or cloth to protect them. After three or four months, seedlings sprout to a height between 25 and 40 centimeters, at which point they are transplanted into the fields, one at a time. About 25,000 seedlings are planted per hectare on ridges about a meter apart. The top of the plant is pinched off when it reaches a specific height to improve leaf quality and quantity. For five to six weeks, farmers have to remove any new growth on the plant to ensure that the selected leaves mature fully. At the same time, the oozing sap produced by the tobacco plant attracts a variety of predatory insects that must be removed and killed using various pesticides. On average, farmers must tend between 250,000 and 400,000 individual leaves on every hectare.

Constant watering, weeding and ridging are essential in order to ensure a sizeable harvest. Harvesting is usually carried out in July after which curing is undertaken. Farmers have to inspect the tobacco leaf by leaf before hauling it for weighing and selling it. To ensure high-quality leaves only three or four leaves are removed at a time, starting at the bottom of the plant. The uppermost leaves, which have the highest nicotine content, are harvested last. During curing the leaves are tied together in “hands” of three, then hung over tiered wires for a week while the water is leached out of them with using heat. When the leaves are ready, the barns are opened up to allow the leaves to reabsorb some moisture, making them pliable to be removed by hand, sorted by leaf characteristics, packed into bales, and delivered to the buyers.

Thus tobacco farming is extremely labour-intensive-involving almost an entire family, for a long duration leaving minimal time, land and labour for growing of food crops. This has a major impact on farming families who must provide much of the unpaid labour. The use of child labour in tobacco growing regions is widespread, with children often being forced by their parents to abandon school especially at key harvesting times. The overall effect is perpetual famine in the tobacco growing zones leading to malnutrition especially amongst the children.

During drying of tobacco leaves (curing) a lot of biomass from indigenous flora is used. Wood is commonly used as the fuel to provide the energy for curing, as well as the
infrastructure to build the curing barns, which usually have to be rebuilt every two to three years. This leads to deforestation and even soil erosion. Most curing plants (barns) are poorly designed such that farmers are exposed to tobacco smoke which predisposes them to tobacco-related diseases. Other health hazards include smoke inhalation from tending to the drying kilns, “green tobacco sickness” from picking the wet leaves, inhalation of tobacco dust from storing the dried leaves in the homestead, etc.

The tobacco plant leaches nutrients from the soil and in many places, requires pesticide application (which often creates health hazards for the farmers). There are negative environmental impacts as well, including severe deforestation in areas where the tobacco is flue or smoke cured.

Earnings from tobacco are not commensurate with the input by the farmers. Tobacco farmers are not in positions to feed, educate or clothe their children adequately. Child labour and school drop-out are common features in the tobacco growing zones. While the tobacco industry often boasts of the positive economic benefits of growing tobacco, it fails to mention that the overwhelming majority of the profits go to the large companies, while many tobacco farmers find themselves poor and in debt.

Discussions with key informants also revealed that persons with marginal incomes often spend money on drugs and other substances instead of food, clothes and shelter. With dependence-producing drugs, sporadic use may deteriorate into regular or compulsive use, reinforcing consumption and guaranteeing a market for the supplier even drug crop farmers.

**Case Study: Tobacco Farming and Smoking**

Mr Wambura a young man in his early 20s from Kuria West district in Kehancha division started smoking tobacco when he was in class 6. He claims that his father who is 65 years old has been smoking tobacco ever since his youthful days to boost his morale when working in the farm and has never experienced ill health.

He reports and complains that growing tobacco requires intensive labour and close care for long periods and that the earnings are low.

He also says that most of the tobacco farmers neither have the time to grow traditional food crops like maize, beans, sorghum, cassava, and sweet potatoes nor do they earn enough to buy sufficient food for the family. In the tobacco season we have a lot of work and we have little time to cook for our children. We buy our maize from the town.

He claims to be more energetic after smoking tobacco before doing any farm work since it enables him to work tirelessly the whole day. He also works on neighbours tobacco farm for his daily bread his hard work has enabled him buy himself a motorcycle with which he runs a business of transporting passengers from Kehancha shopping centre to their homes when he is not working on the farm/ when the tobacco season is over.

Mr Wambura admits that although it’s a common believe in most youths and adults in the area that tobacco smoking re-energizes them, there are however, several severe cases of insane men/ retarded adults in his village who were addicts of tobacco smoking. He admits that most youths and adults in his village grow and smoke tobacco and that there are also few cases of women smoking tobacco.
5.3 **Crop Sub-Sector**

The crop subsector is an important contributor to Kenya’s GDP. It accounts for over 50% of agricultural GDP and about 13% of the national GDP. Crop cultivation in Kenya is mainly within the medium and high potential areas of the country within central, Rift valley, Western and Nyanza provinces. Limited crop cultivation also takes place in Coast and Eastern provinces.

The main crops produced in Kenya are grouped into two categories food crops and Industrial crops; food Crops are further classified into: cereals (maize, wheat, sorghum, rice, millet); pulses (beans, pigeon peas, cow peas, chick peas, green grams); and roots and tubers (sweet potatoes, cassava, arrow roots and yams); *Industrial crops which include*; tea, coffee, sugarcane, cotton, sunflower, pyrethrum, barley, tobacco, sisal and coconuts. They are major contributors of the agricultural exports earnings.

There has lately been a significant increase in the size of land illegally being used for drug production in Kenya. An increasing number of Kenyan farmers illegally grow cannabis or marijuana on a commercial basis, largely for the domestic market. Fairly large-scale cannabis cultivation occurs in the Lake Victoria basin and in the central highlands around Mt. Kenya. The growing of Miraa especially in North Eastern province, Meru, Mbeere, Embu and Maua by farmers because of the high income they receive from those crops has led to an increase in the acreage allocated to these crops thus reducing the land left for food crop production and worsening the food security situation in the country.

Although Kenyan authorities carry out some aerial surveillance of the growing of drug crops illegally there is no systematic detection and eradication program of the same. Thus there is need for development of a monitoring and eradication program to eliminate the growing of such crops.

5.3.1 **Land Use for Crop production**

The study findings indicate that 81.8% of the respondents practiced crop production. 29.6% of the crops grown was maize, 19.2% grew beans, 11.6% grew vegetables, 5.2% grew fodder and 5.0% grew sweet potatoes among other crops. Majority (54.3%) of the crop farmers are located in the rural areas and 45.7% in the urban areas.

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19 Crime and Society a comparative analysis of drugs tour of the World
Table 4.5  Shows survey findings on the various crops grown across the country

<table>
<thead>
<tr>
<th>Crop</th>
<th>Percent %</th>
<th>Crop</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>29.6</td>
<td>Simsim</td>
<td>0.0</td>
</tr>
<tr>
<td>Groundnuts</td>
<td>1.5</td>
<td>Beans</td>
<td>19.2</td>
</tr>
<tr>
<td>Sorghum</td>
<td>1.3</td>
<td>Fruits</td>
<td>7.4</td>
</tr>
<tr>
<td>Yams</td>
<td>0.5</td>
<td>Millet</td>
<td>1.9</td>
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<tr>
<td>Cowpeas</td>
<td>4.1</td>
<td>Pigeon peas</td>
<td>0.9</td>
</tr>
<tr>
<td>Vegetables</td>
<td>11.6</td>
<td>Cassava</td>
<td>4.8</td>
</tr>
<tr>
<td>Fodder</td>
<td>5.2</td>
<td>Tobacco</td>
<td>0.1</td>
</tr>
<tr>
<td>Sweet potatoes</td>
<td>5.0</td>
<td>Other</td>
<td>6.8</td>
</tr>
</tbody>
</table>

5.3.2  Drug and Substance Use in the Crop Subsector

The study findings indicate that 99.7% of the respondents who participate in crop production were knowledgeable about alcohol (distilled and local brews), 0.7% and 0.2% were knowledgeable about local brews and cigarettes.

Table 4.6  Knowledge levels of drugs and other substances among crop farmers

<table>
<thead>
<tr>
<th>Type of drug or substance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>99.0</td>
</tr>
<tr>
<td>Local brews</td>
<td>0.7</td>
</tr>
<tr>
<td>Bhang</td>
<td>0.1</td>
</tr>
<tr>
<td>Cigarette</td>
<td>0.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The study findings also indicate that 54.5% of the respondents who participate in crop production engaged in drug and substance use. Majority (86.4%) of who were alcohol users.

Table 4.7  Proportion and sources of drugs and other substance among crop farmers

<table>
<thead>
<tr>
<th>Type of drug/substance</th>
<th>Percent %</th>
<th>Source</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>76.4</td>
<td>Nearby Shop/Kiosk</td>
<td>79.7</td>
</tr>
<tr>
<td>Local brews</td>
<td>10.1</td>
<td>from own garden/neighbour</td>
<td>7.1</td>
</tr>
<tr>
<td>Bhang</td>
<td>.8</td>
<td>Long distance Vendor</td>
<td>8.3</td>
</tr>
<tr>
<td>Cigarette</td>
<td>10.3</td>
<td>Other</td>
<td>4.9</td>
</tr>
<tr>
<td>Others</td>
<td>2.3</td>
<td>Total</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The survey findings indicate that crop farmers who engaged in drug and substance use obtained these drugs from nearby shops/kiosks (79.7%), 8.3% from long distance vendors and 7.1% being easily accessible from their own farms or neighbouring farms. The crop farmers who consumed drugs and other substances analysis indicates that 52.5% are not able to effectively participate in crop production (28% are not able while 24.5% are only partially able to participate). Thus drug and substance use is negatively impacting on crop production.

Table 4.8  Expenditure on drugs and other substances among crop farmers

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Ksh. 500</td>
<td>33.2</td>
</tr>
<tr>
<td>Between Ksh. 501 - Ksh. 1,000</td>
<td>32.1</td>
</tr>
<tr>
<td>Ksh. 1,001 -5,000</td>
<td>24.6</td>
</tr>
<tr>
<td>Over Ksh. 5,000</td>
<td>10.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The study findings also indicate that 33.2% of the respondents who participate in crop production spend less than five hundred shillings monthly on drugs and other substances while 10.1% spend over five thousand shillings.

The crop farmers’ analysis indicates that 62.4% hold that the consumption of drugs and other substances is not right while only 20.2% held that their consumption is alright. Sons among the family members (44.8%) are the reported high consumers of drugs and other substances followed by other relatives (34.5%) and spouses at 14.4%.

Table 4.9  Consumption of drugs and other substances among

<table>
<thead>
<tr>
<th>Household use of drugs and /substance</th>
<th>Spouse</th>
<th>Son</th>
<th>Daughter</th>
<th>Other Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>14.3%</td>
<td>46.1%</td>
<td>2.0%</td>
<td>33.5%</td>
</tr>
<tr>
<td>No</td>
<td>18.2%</td>
<td></td>
<td></td>
<td>72.7%</td>
</tr>
</tbody>
</table>

The survey analysis also indicates that 73.9% of the crop farmer respondents who consume drugs and other substances would like to discontinue with the vice whiles 26.1% do not wish to discontinue. Thus there is an increasing demand for drug and substance use treatment services.

Women and youths are a major labour force in the agricultural sector (floriculture, tea, coffee, vegetables and cereals) they constitute more than 70% of the agricultural labour
force but frequently operate on unpaid family wages. They provide more than 80% of the labour in food production and 50% in cash crop production specifically in the cultivation, agro-processing and marketing in the agricultural sector\textsuperscript{20}. Thus the reported increase in the use of drugs and other substances by youths and women reduces the labour productivity for agriculture.

**Table 4.10:** Negative impacts of drug and substance use

<table>
<thead>
<tr>
<th>Effect</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low economic productivity</td>
<td>55.1</td>
</tr>
<tr>
<td>Mental retardation</td>
<td>11.7</td>
</tr>
<tr>
<td>Poor social lifestyle</td>
<td>18.8</td>
</tr>
<tr>
<td>Family Instability</td>
<td>12.1</td>
</tr>
<tr>
<td>Other</td>
<td>2.4</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The crop farmers’ analysis indicates 42.5% gauge their districts level of drug and other substances especially in the rural areas as high while only 0.7% indicates that the vice is nonexistent in their areas.

**Table 4.11** Level of drugs and other substances among crop production districts

<table>
<thead>
<tr>
<th>Rural/Urban (%)</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extremely high</td>
<td>42.4</td>
<td>30.9</td>
</tr>
<tr>
<td>High</td>
<td>42.2</td>
<td>42.7</td>
</tr>
<tr>
<td>Relatively low</td>
<td>11.6</td>
<td>17.2</td>
</tr>
<tr>
<td>Very low</td>
<td>3.1</td>
<td>7.3</td>
</tr>
<tr>
<td>None existence</td>
<td>0.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Other</td>
<td>0.3</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Crop diversification (including beans, potatoes, vegetables, bananas, tomatoes, coffee, sugarcane and tea alongside or instead of maize).is viewed as a means of not only escaping poverty but also improving the society’s’ food security situation. Crop commercialization, i.e. shifting from producing crops solely for home consumption to more commercial/market-oriented crop enterprises, increasing land under cultivation (owned or rented) is another important poverty reduction factor. This is particularly important in the high potential zones as well the agro-pastoral zones, where crop farming is quite important but fairly risky. Crop intensification, through improved management practices such as increased fertilizer use and/or the introduction of new crop varieties, is an associated poverty reduction and improving livelihood food security situation.

\textsuperscript{20} Gender and economic growth in Kenya, World Bank Report
26% of Kenyan households have escaped poverty through crop diversification, 23% through crop commercialization and 6% through crop intensification among other strategies.\textsuperscript{21}

There is a reported increase in the cultivation of various drug crops especially ‘bhang’ (cannabis sativa) in high potential crop growing regions such as the Mt. Kenya region. This has not only lowered crop productivity but is also a contributing factor to the decline in forest cover in the country. Thus the diversion of resources from crop production to drug and substance use worsens the food security situation and leaves the society deeply grappling in the poverty cycle.

5.4 Livestock Sub-Sector

The livestock sector accounts for 12% of Kenya’s GDP and 40% of the agricultural GDP. Half the entire agricultural labor force is engaged in livestock related activities. This is because around eighty percent of the land area is ASALs and characterized by low, unreliable and poorly distributed rainfall which is unfavorable for crop production. Livestock production contributes significantly to economic development despite its low productivity and off-take rates. Livestock also act as a storehouse of capital and as a risk diversification strategy, with production concentrated among small landholders, livestock help improve income distribution.

In Kenya dairy production is done in high potential humid lands while arid and semi arid lands is a major source of beef, mutton, goat meat and camel meat production. About 12.2% of those interviewed reported keeping livestock. Of these 80.7% were male while 19.3% were females. Majority of the livestock keepers (55.9%) were in rural districts while 44.1% were in urban districts as shown in Table 4.12

<table>
<thead>
<tr>
<th>Gender</th>
<th>Urban (%)</th>
<th>Rural (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>34.4</td>
<td>46.3</td>
<td>80.7</td>
</tr>
<tr>
<td>Female</td>
<td>9.8</td>
<td>9.6</td>
<td>19.3</td>
</tr>
<tr>
<td>Total</td>
<td>44.1</td>
<td>55.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.12: Livestock farmers in rural and urban districts by gender

The survey also found that about 88% of those who kept livestock also practiced crop production. Cattle rearing were the main livestock activities with 78.9% of those reporting livestock rearing participating in cattle keeping as shown in Table 4.13

<table>
<thead>
<tr>
<th>Type of livestock (%)</th>
<th>Cattle</th>
<th>Shoats</th>
<th>Camels</th>
<th>Donkeys</th>
<th>Poultry</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>33.6</td>
<td>4.5</td>
<td>0.0</td>
<td>0.2</td>
<td>5.5</td>
<td>0.5</td>
<td>44.3</td>
</tr>
<tr>
<td>Rural</td>
<td>45.2</td>
<td>4.0</td>
<td>0.6</td>
<td>0.2</td>
<td>5.6</td>
<td>0.0</td>
<td>55.7</td>
</tr>
<tr>
<td>Total</td>
<td>78.9</td>
<td>8.5</td>
<td>0.6</td>
<td>0.5</td>
<td>11.1</td>
<td>0.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>
5.4.1 Drug and Substance use in the Livestock Subsector

The use of drugs and other substances in the livestock subsector was found to be high with about 81% of those involved in the sector reporting having used alcohol and/or local brews at some point. Only 1.9% reported having used Bhang while 11.5% had used cigarette. In total, about 97.7% of livestock keepers reported having used some drug and/or substance some time in their lives. Table 4.14 shows this information.

Table 4.14: Drug use in livestock subsector

<table>
<thead>
<tr>
<th>Type of drug/substance used (%)</th>
<th>Alcohol</th>
<th>Local brews</th>
<th>Bhang</th>
<th>Cigarette</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of drugs/substance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>72.8</td>
<td>8.5</td>
<td>1.9</td>
<td>11.5</td>
<td>3.1</td>
<td>97.7</td>
</tr>
<tr>
<td>No</td>
<td>0.7</td>
<td>0.5</td>
<td>0.2</td>
<td>0.7</td>
<td>0.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>73.5</td>
<td>8.9</td>
<td>2.1</td>
<td>12.2</td>
<td>3.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Of the farmers who reported having used drugs and other substances, 65.5% reported still using the drug and/or substance while the rest (34.5%) no longer use the drugs/substances. Most of the drug users obtained their drugs and substances from kiosks (79%). A few (8.3%) of the farmers got them from their own gardens. There was an indication that most of those who used bhang obtained it from distant vendors as shown in Table 4.15.

Table 4.15: Sources of drugs

<table>
<thead>
<tr>
<th>Source of drug/substance</th>
<th>Alcohol</th>
<th>Chang’a</th>
<th>Bhang</th>
<th>Cigarette</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearby Shop/Kiosk</td>
<td>56.4</td>
<td>5.4</td>
<td>1.0</td>
<td>14.0</td>
<td>2.2</td>
<td>79.0</td>
</tr>
<tr>
<td>Own garden/neighbour</td>
<td>5.4</td>
<td>2.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.6</td>
<td>8.3</td>
</tr>
<tr>
<td>Long distance Vendor</td>
<td>5.7</td>
<td>0.6</td>
<td>1.0</td>
<td>0.0</td>
<td>0.6</td>
<td>8.0</td>
</tr>
<tr>
<td>Other</td>
<td>3.2</td>
<td>1.3</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>70.7</td>
<td>9.6</td>
<td>2.2</td>
<td>14.0</td>
<td>3.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The livestock farmer’s analysis also indicates that only 48.1% were reportedly able to continue their farm activities after consuming drugs and other substances. The rest (51.9%) either worked for a limited period or were unable to work completely. This is a clear indication that drug and substance use negatively impact on the productivity of farmers involved.

**Table 4.16: Ability to work after taking drugs**

<table>
<thead>
<tr>
<th>Ability to work after consuming drug/substance</th>
<th>Yes</th>
<th>48.1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>27.9%</td>
<td></td>
</tr>
<tr>
<td>A little bit</td>
<td>24.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Drugs and substances consumes’ a large part of family incomes both in the rural and urban setups. Table 4.17 shows that that majority farmers both in the rural and urban districts spent between KSh. 500 and KSh 1,000 per month in drugs and substances. About 10% of the respondents engaged in livestock production spent over KSh. 5,000 per month on drugs and related substances.

**Table 4.17: Monthly expenditures on drug and substances**

<table>
<thead>
<tr>
<th>Less than Ksh. 500</th>
<th>Between Ksh. 501 - Ksh. 1,000</th>
<th>Over Ksh. 1,001</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural/Urban</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>14.9</td>
<td>12.0</td>
<td>10.8</td>
</tr>
<tr>
<td>Rural</td>
<td>17.1</td>
<td>22.2</td>
<td>13.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32.0</strong></td>
<td><strong>34.2</strong></td>
<td><strong>23.7</strong></td>
</tr>
</tbody>
</table>

The study analysis indicates that most of the drug and substance users do not approve of the vice and they would be willing to abandon the habit. These are shown in Figures 4.10 and 4.11 of this report.
Fig. 4.10: Livestock farmers who reported the use of drugs and substances is all right

Fig. 4.11: Livestock farmers wishing to discontinue the use of drugs and substances

**Household members using drugs and other substances**

The study analysis also indicates that 49.2% of the study respondents had household members who were involved in the use of drugs and other substances 23.6% of whom were in urban areas while 25.5% were in rural areas. Table 4.18 shows the livestock farmers whose households had other cases of drug and substance use.
Table 4.18: Household members using drugs

<table>
<thead>
<tr>
<th>Rural/Urban</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>23.6%</td>
<td>18.4%</td>
<td>42.0%</td>
</tr>
<tr>
<td>Rural</td>
<td>25.5%</td>
<td>32.5%</td>
<td>58.0%</td>
</tr>
<tr>
<td>Total</td>
<td>49.2%</td>
<td>50.8%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Effects of Drugs and substances

The study analysis indicates that livestock farmers both in urban and rural districts had knowledge of the negative effects of drugs and substances use and the reported socio-economic impacts resulting from the use of drugs and substances included: low economic productivity (51.3% high in the rural areas), mental retardation (69.4% high in the rural areas), poor social lifestyle (61.4% high in the urban areas) and family instability (67.3% high in the rural areas).

Table 4.19: Negative impacts of drugs on population

<table>
<thead>
<tr>
<th>Rural/Urban</th>
<th>Low economic productivity</th>
<th>Mental retardation</th>
<th>Poor social lifestyle</th>
<th>Family instability</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>48.7</td>
<td>30.6</td>
<td>61.4</td>
<td>32.7</td>
<td>71.4</td>
<td>47.7</td>
</tr>
<tr>
<td>Rural</td>
<td>51.3</td>
<td>69.4</td>
<td>38.6</td>
<td>67.3</td>
<td>28.6</td>
<td>52.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
5.5 Fisheries Sub-Sector

Lake Victoria continues to dominate Kenya’s fishing output source it currently accounts for over 90% of the tonnes of fish caught while marine fishing accounts for only 4% of the total output, inland lakes and rivers 3% and aquaculture 1%.

The fishing industry contributes about 8 billion Kenyan shillings to the GDP but recent trends indicate that its contribution has been declining to about 5.5 billion shillings/ 0.5% to the GDP in 2008. There has been a consistent drop not only because of poverty but because of other factors such as post harvest losses, Drugs alcohol and substance use and poor infrastructure. 3.3% of the study respondents practiced fish production with the highest annual earning of Ksh 1000 – 10,000 for 42.9% of the respondents.

Quite a small proportion (2.0%) of the respondents interviewed was involved in fisheries. Table 4.20 presents this information by gender.

| Table 4.20: Household involved in fisheries |
|-----------------|---|---|---|
|                | Yes% | No% | Total% |
| Urban Gender   |     |     |       |
| Male           | 5.7 | 94.3| 100.0 |
| Female         | 3.0 | 97.0| 100.0 |
| Total          | 5.1 | 94.9| 100.0 |
| Rural Gender   |     |     |       |
| Male           | 2.2 | 97.8| 100.0 |
| Female         | .9  | 99.1| 100.0 |
| Total          | 2.0 | 98.0| 100.0 |

5.5.1 Drug and Substance Use within the Fisheries Sub-sector

The use of drugs and other substances in the fisheries subsector takes a similar trend as that in crop and livestock subsectors with about 61.8% of fish farmers indicating that they use drugs and other substances. Table 4.21 is a presentation of this information.

| Table 4.21: Drug use within households involved in fisheries |
|-----------------|---|---|---|---|---|
|                | Alcohol | Local brews | Bhang | Cigarette |     |
| Yes            | 47.4 | 10.6 | 5.3 | 5.3 | 57.9 |
| No.            | 21.1 | 10.5 | 0.0 | 0.0 | 31.6 |
| Total          | 68.4 | 21.1 | 5.3 | 5.3 | 100.0 |

---

22 National Oceans and Fisheries policy, 2008, Ministry of fisheries development; G.O.K
The analysis fisheries sector further indicates that the use of drugs and other substances is reportedly high. Figures 4.12(a) and (b) present the perception of the farmers both in the rural and urban set-ups.

**Fig. 4.12(a)** Prevalence of drugs in urban districts  **Fig. 4.12(b):** Prevalence of drug and substance use in the rural districts

<table>
<thead>
<tr>
<th>Expenditure on drugs and other substances among fisher folk</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Ksh. 500</td>
<td>15.4</td>
</tr>
<tr>
<td>Between Ksh. 501 - Ksh. 1,000</td>
<td>38.5</td>
</tr>
<tr>
<td>Ksh. 1,001 -5,000</td>
<td>46.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The study findings also indicate that 61.8% of the respondents who are involved in fisheries sub-sector engage in drug and substance use. Majority of who spend between one thousand and five thousand shillings monthly on drugs and other substances while 15.4% spend less than five hundred shillings.
5.6 Alternative to Drug Crop Farming and their Profitability

A successful shift from tobacco growing to alternatives requires profitability, the provision of technical and financial assistance, capacity building and market and social support, including inter-sectoral approaches, are required in order to take full advantage of the existing resources and opportunities. Farmers should be involved in decision making and must therefore be given adequate channels to be able to address their needs and concerns. Farmers’ involvement at every stage and the profitability of alternative crops is the basis for success.

1) Food Crop Production

Farmers in tobacco growing areas such as Migori reportedly neither have the time to grow traditional food crops like maize, beans, sorghum, cassava, and sweet potatoes nor do they earn enough to buy sufficient food for the family. Thus farmer training on agricultural technology advancements suitable in the area through NALEP field staff will enable and encourage farmers engage in food crop production. Due to the harsh climatic conditions prevailing and the dire food security situation farmers have experienced they would be willing to prevent their families from such harsh realities by engaging in food crop production rather than drug crop farming.

2) Livestock Production

Most drug crop growing zones are endowed with fertile land, adequate and consistent rainfall and thus able to support most fodder crops that can support livestock farming. Livestock farming such as poultry and dairy goat rearing will not only provide additional income to families but also a readily available rich diet which will improve the nutritional status of family members. Livestock production is also not as labour demanding as drug crop farming especially tobacco farming and can also be a means of supplementing family income.

3) Horticulture

Most tobacco growing zones are endowed with fertile land, adequate and consistent rainfall and therefore can support most horticultural crops such as tomatoes, onions and cabbages which have a ready market.

4) Non-agricultural income generating activities

Other non-agricultural income generating activities should be supported in these areas such as micro-enterprises like masonry and brick-making that can generate income for families so as to supplement income earned from agricultural production.
5) Tree crop farming

Various tree crops are beneficial and viable in drug crop farming areas. Such tree crops include:

- Jatropha trees

Jatropha curcas is a perennial, monoecious shrub growing to about six metres high when mature and is pale brown in colour. Its leaves exude a watery latex that is slippery soapy to the touch, but turns brittle and brownish when dry. Being monoecious its flowers are uni-sexual and are not pollinated, but occasionally hermaphroditic flowers occur. The tree thrives under a wide range of climatic and edaphic conditions, but is particularly hardy at medium altitude and humid zones. It adapts to arid climatic conditions by shedding its leaves during the dry season. Its productive life span is estimated to reach 50 years without replanting or tending. The more oil produced by the jatropha plants the higher the food production, because its oil cake is turned into organic fertilizer, with a mineral composition comparable to bird manure. Jatropha also has potential as biofuel, being a non-edible oil, it can be used to replace palm oil as a base material for biodiesel.

6) Beekeeping

Beekeeping can productively occupy women and youths giving them business experience, teaching them a respect for and an understanding of their local environment. Since honey has got a nutritional value and its market is both local and international its demand therefore is wider which thus creating employment. The byproduct of honey wax is also used in various income generating activities. Thus bee keeping would not only provide families with additional nutrients but also additional income for the family but also the medicinal value of honey made us produce more honey to help children build their immunity through the use of this product.
5.7 Institutional Level

NALEP is a GoK programme operating under the overall policies of the government. The Government has put in place specific policies to guide the agriculture, fisheries and livestock sectors. Such policies already established include:

i. The establishment of institutions responsible for advising, implementing, and mitigating the negative impacts of drug and other substance use. Some of these institutions include;
   - NACADAA
   - NACC
   - Provincial Administration
   - Police Force
   - Special desks at the ministry level

ii. Putting in place relevant legislation aimed at curbing drug and substance use.

Key informant interviews with relevant GoK personnel revealed that drug and substance use is a major concern especially at field level staff. The extent of drug, alcohol and substance use in various organizations, ministries, institutions and the larger society is not clear and no factual figures have been available especially in the agricultural sector where the study is being carried out from various Key informants interviews in various ministries and institutions, several cases of drugs, alcohol and substance have been reported among various staff. Such cases have resulted in staff absconding their duties, decline in their productivity and family feuds.

The consultant also noted that several strategies are being put in place by the relevant departments to help curb the vice at the government level. Some of the strategies include:

- Streamlining drug and substance use; various officers addressing drug and substance use issues within the ministries have been employed and trained to address the same issues and also conduct training and counsel ministries staff.

- Staff training and awareness creation; through collaborative effort with NACADA they organize seminars for all their staff to create awareness and empower them with information on drug and substance use. They also provide their staff with learning materials. Field officers are also being trained on basic counseling skills especially field managers (provincial director of agriculture, District agricultural officer) so as to be able to empower them with basic skills needed to be able to handle their staff.
• Awareness creation is also being carried out in learning institutions through expert presentations and distribution of learning materials in these institutions.

• Incorporation of drugs and substance use issues in various public *barazas* especially by the provincial administration which incorporated these issues in their agendas thus informing the public of the effect of the vice.

The following are some of the predisposing factors leading to drug use by staff:

1) Easy availability and accessibility
2) The availability of money
3) False sense of freedom without responsibility
4) Peer pressure
5) Lack of appreciation and motivation at the workplace
6) Lack of career progression and environmental influences
7) Nature of work trauma/conflict at the workplace/society

…”Giving the ministry a human face through training of officers on counseling skills so that they have a better understanding of whom the officers and farmers are. As a means of reducing the impacts of drugs, alcohol and substance abuse, creating a positive mentality, changing attitudes and reducing frustration”…

– Mrs. Lydia Maina, Drug and Substance Abuse Streamlining Officer, Ministry of Agriculture on 30 April 2009
5.7.1 Organizations Involved in Curbing Drug and Substance Abuse

Due to the drug and substance use situation in the world various international bodies have been formed in order to address the situation. Such international bodies include.

1. United Nations Office on Drugs and Crime (UNODC)

The UNODC operates in more than 150 countries around the world through its network of field, project and liaison offices. It works closely with governments and civil society towards building security and justice for all. The organisation’s has its’ East African Regional office in Nairobi covering thirteen countries: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, Tanzania and Uganda.

Since the Eastern Africa region is also among the worlds’ most affected by the HIV and AIDS epidemic in the sub-Saharan Africa and the disease is taking a heavy toll on the country’s population. It is due to these factors that the UNODC is strengthening its partnership with the Eastern African governments and assisting them in tackling their drug, crime and terrorism challenges in a more comprehensive and focused manner taking into consideration the peculiarity of the political and socio-economic context of the sub-region.

The UNODC has developed a strategy intended to help countries build the necessary local capacity and enhance regional cooperation to ensure a sustainable and long lasting impact of their interventions against drugs, crime, and terrorism that threaten to impede development goals.

The UNODC in Kenya has been involved in several projects addressing HIV/AIDS, drug and substance use among other issues in the society. Such projects include:

- Prevention of drug use and HIV among drug users, injecting Drug Users (IDU’s) and vulnerable populations in Kenya. The main objectives of the project include:
  (i) The creation of a national network of drug and HIV/AIDS prevention and care-providers created, with a satellite system in each site;
  (ii) Enhancing the technical skills of govt. and NGO staff to design and implement HIV/AIDS prevention programmes (including outreach) of HIV/AIDS among injecting drug users (IDUs) and other vulnerable populations, manage and run treatment and rehabilitation centres to, and provide care and referral for drug users and those HIV positive; and
  (iii) Establishing outreach programmes to reduce HIV infection among IDUs and drug using sex workers and to provide care for them.

- Strengthening the integrity and the capacity of the court system in Kenya taking measures to combat money laundering and financing of terrorism in three Eastern Africa states among other projects.
2. **World Programme of Action for Youth (WPAY)**

The World Programme of Action for Youth is a United Nations international youth program that addresses basic universal development needs highlight key issues of particular concern to the youths. Substance use, juvenile justice and access to leisure are deemed of particular concern to the development and empowerment of the world’s youth.

The world commemorates the International Day Against Drug Use and Illicit Trafficking on 26 June annually. The advocacy campaign period of 2007 to 2009 focused primarily on the youth; adolescent and young adults are particularly vulnerable to using illicit drugs. The use of illicit drugs among the youth is twice as high as among the adult population has had adverse health effects and led to behavioural problems and conflict with the law.

The United Nations goals and targets aim at reducing substance use among youths. These goals and targets focus on reducing both the supply of and demand for drugs among the world’s youth.

- The first goal aims to eliminate substance use among young people and carries four key targets,
  - Intensify the implementation of efforts to stem the supply of drugs to young people,
  - Reduce by two thirds, the proportion of youth using alcohol, tobacco or other harmful substances between 2005 and 2015,
  - Develop and implement legislations to eliminate alcohol and tobacco marketing to those under the age of 21 years by 2015,
  - Establish in collaboration with young people, youth-friendly, evidence-based early intervention and substance use prevention programmes by 2015.

A second related goal guides interventions for those youths who, despite efforts to prevent drug use may still fall into the trap of substance use. This goal carries three main targets:

- Increase by 50 per cent the number of young substance users who have access to affordable, youth friendly treatment, between 2005 and 2015,
- Increase by 50 per cent the number of young substance users who have access to harm-reduction programmes, including the provision of condoms, needles, counseling and substitution therapy between 2005 and 2015 and
- Ensure that all drug rehabilitation programmes for the youth include alternative income-earning strategies and skills training to facilitate reintegration into society by 2015.

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23 UNODC
24: World Programme of Action for Youth to the Year 2000 & Beyond (1995)
3. Government

Kenya has achieved important milestones in the control of Drug and Substance use including the ratification of three major UN Conventions on Narcotic Drugs and Psychotropic Substances; the Narcotics Drugs and Psychotropic Substances (Control) Act, of 1994 which is the legislation on drug trafficking and use in Kenya, development of the national Drug Master in 1998, Pharmacy and poisons Act, Liquor Licensing Act, enactment of the tobacco bill in 2004 and the establishment of the National Campaign Against Drug Abuse Authority (NACADAA) to advocate against drug use in Kenya. Other measures include;

a) Policy

The formulation of a National Drug Policy (NDP) whose main goal is to use available resources to develop pharmaceutical services to meet the requirements of all Kenyans in the prevention, diagnosis and treatment of diseases using efficacious, high quality, safe and cost-effective pharmaceutical products. The NDP has the following as the specific objectives:

1. To ensure the constant availability of safe and effective drugs to all segments of the population.
2. To provide drugs through the government, private, and non governments sectors at affordable prices.
3. To facilitate rational use of drugs through sound prescribing, good dispensing practices, and appropriate usage.
4. To ensure that the quality of drugs manufactured in Kenya and those imported into Kenya meet internationally accepted quality standards.
5. To encourage self sufficiency through local manufacture of drugs for consumption and export.
6. To ensure that the provision of drugs for veterinary services is consistent with this policy

The government also intends to amend the Dangerous Drugs Act Cap. 245 to create two acts one for the medicinal use of dangerous drugs and the other for illicit trafficking. The act for trafficking will be handled by the Narcotics Bureau under the direction of the Minister of Health. Chemicals likely to be used in the manufacture of drugs of use will also be controlled under appropriate legislation.

The government through NACADAA and in liaison with other likeminded organizations and institutions educates the public and vulnerable groups (particularly youth and students) on drug and substance use through multidisciplinary drug information seminars, mass media of communication including print and electronic as well as traditional media such as songs, dances, poems, and dram throughout the country.
b) **Institutions**

The government is working towards curbing the use of drugs and substances in different institutions. It has put in place a draft bill on the creation of National Drug Control Authority, which will address issues relating to drug and substance use. It will be tasked with coordinating public education campaign against drug use, develop a legal and institutional framework for control of drug use. The authority will also develop mechanisms in collaboration with key stakeholders for curbing drug use in schools and institutions of learning.

c) **Governance**

The government established of an Anti Narcotics unit in 1983 within the Kenya Police which is the lead agency in the war against Drug trafficking. The officers of the unit are knowledgeable in all aspects related to Drugs and well equipped. It is charged with the responsibility of enforcing Narcotic Drugs and Psychotropic Substances (Control) Act No. 4 of 1994 to the control of the possession and trafficking of narcotic drugs and psychotropic substances and cultivation of certain plants to provide for the forfeiture of property derived from, or used in, illicit traffic in narcotic drugs and psychotropic substance and related purposes.

Such penalties include:

1) Possession of Cannabis for personal use - to 10 years.
2) Possession of Cannabis for other use (trade) up to 20 years.
3) Possession of narcotic drugs or psychotropic substance.
4) Other than cannabis for personal use – up to 20 years plus.
5) Fine of not less than one million shillings or three times the value of drugs.
6) Trafficking in narcotic drug or psychotropic substance – fine of not less than one million plus life imprisonment.
7) Cultivation of prohibited plants – fine Kshs.250, 000/= or three times the value of plants or term not more than 20 years.
8) Permitting premises to be used for smoking or sale of drugs etc – fine of Kshs.250, 000/= or term not exceeding ten years.
9) Money laundering –term not exceeding fourteen years.

However, the curbing of drug trafficking and use requires concerted efforts of all Kenyans’ and the global community.
Case Study 3: Governance

A provincial administrator noted that drug trafficking is majorly initiated by persons highly placed in society. They are also, in most instances, well known to the community.

In one instance, during the month of April 2009, the officer arrested and sent to the nearby police station up to twenty two (22) suspects of drug trafficking. At the time of the study, one-and-half months later, no feedback had been received by his office from the police station.

4. Private Sectors

Kenya, like many other developing countries, has limited resources to cater for the basic needs of its people. The use of drugs and other substances not only drains the economy because the controls of supply and demand reduction are expensive undertakings but also because it deals a blow to the country as the users become less productive.

Kenya does not have sufficient chemical dependence and rehabilitation treatment and rehabilitation facilities to match the growing demand. Nairobi province has the highest number of treatment centres (14) followed by central province (11) while as regions with a reported high number of drugs and substance users have very few treatment and rehabilitation facilities for instance, coast province has only 6 facilities even though it is one of the major drug and substance use and transit provinces. The Ministry of health and public services has also not formulated any legislation regarding the formation and registration of treatment and rehabilitation facilities in the country yet there is an increasing demand for such services. A comprehensive list of organization involved in drug and substance use has been provided as Appendix I of this report.

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25 The Situation of Alcohol and Drug Abuse in Kenya-2009, NACADAA
Case Study 4: Nairobi place Addiction Treatment Centre

The centre situated in Karen, Nairobi, aims to successfully help people to return to normal life, free from the compulsion to use alcohol and other mood altering substances or behaviours. Their clientele ranging from the youth to the elderly both males and females.

Most Corporate organizations have realized that it is better to get their addicted employees treated rather than recruit and train new members of staff. Thus the treatment and rehabilitation centre has started providing training for major corporation and even individual residential treatment for some corporate leaders who are addicts of alcohol, drugs and other substances.

Challenge:

- There are no legislations guiding the establishment and monitoring and regulating the establishment and running of rehabilitation institutions. There is need for appropriate ministries to develop such measures to ensure that individuals seeking such assistance are not duped.

- There are several new drugs that have been developed to help reduce the impact of DATS yet they have not been licensed in Kenya. The responsible government body should address this issue so as to ensure that these pharmaceutical can be dispensed at various chemists.

- Insurance companies have not embraced the need for their services thus they should also be informed of the need to insure their services.

Recommendation: More corporate organizations even in the agricultural sector such as those in the tea, coffee or sugar sectors should work with such centres to enable their staff get the help they need.

5. Faith-based Organizations

In response to drug and substance use crisis, religious organizations have committed themselves to a holistic approach, which emphasizes prevention, intervention, treatment, community organization, public advocacy, and abstinence. Through seminars, local and annual conferences these religious organizations aim at offering a renewed spiritual perspective on the crisis and playing a positive role in the society. In Kenya various FBO’s and churches have set up treatment facilities to address the vice in society.
Case Study 5: The United Methodist Church

The United Methodist Church:

- Opposes the use of all drugs, except in cases of appropriate medical supervision
- Encourages the church to develop honest, objective, and factual drug education for children, youths, and adults as part of a comprehensive prevention education program
- Urges the church to coordinate its efforts with ecumenical, interfaith, and community groups in prevention, rehabilitation, and policy statements
- Encourages the annual conferences to recognize the unique impact of drugs and its related violence upon urban and rural areas and provide appropriate ministries and resources
- Strongly encourage annual conferences to develop leadership training opportunities and resources for local church pastors and laity to help them with counseling individuals and families who have alcohol and other drug-related problems; counseling those bereaved by alcohol and other drug-related deaths and violence; and teaching stress management to church workers in communities with high alcohol and other drug activity
- Supports National Comprehensive Tobacco Control Legislation that includes provisions to: a) reduce the rate of youth smoking by increasing the price of cigarettes; b) protect tobacco farmers by helping them shift from tobacco to other crops; c) give the FDA full authority to regulate nicotine as a drug; d) fund anti-tobacco research and advertising, as well as education and prevention campaigns.
- Urges redevelopment of more effective methods of treatment of drug use and addiction
- Supports government policies concerning drugs that are compatible with our Christian beliefs about the potential transformation of all individuals.
- Urges all United Methodist churches to work for a minimum legal drinking age of twenty-one years in their respective states/nations
- Supports strong, humane law-enforcement efforts against the illegal sale of all drugs, and we urge that those arrested for possession and use of illegally procured drugs be subject to education and rehabilitation.
5.8 Vulnerability to Drug and Substance Use

This section analyses the vulnerability of different persons to drug and substance use. Vulnerability describes the social, cultural and economic factors that make up a risky environment and explains the factors, which determine the rate at which drug and substance use is propagated among different persons.

1) Males

   (i) Social and Cultural structures
   Society does not impose stringent rules on drug and substance use by men as it imposes on women. Men even in the African traditional society were allowed to engage in drug and substance use. Men also control most of the financial resources in the society thus they can use these resources in drug and substance use.

   (ii) Urbanization
   The loosening of the family norms and the weakening of social controls together with poverty, marginalization of a large segment of the urban population has provided an environment for the increase in the number of men engaging in drug and substance use. The pressure on men to provide basic needs for their families in the harsh economic environment has also left more men especially in the urban areas vulnerable to drug and substance use.

2) Females

   1) Western Influences/urbanization
   Traditionally, women have been socialized either to abstain from drug and other substances especially alcohol consumption. Women who do not participate in the labor force may have less access to drug and other substances than men and women employed outside the home. Lastly, the demands of women’s roles in parenting and family life also may discourage alcohol intake.

   2) Relational distress and family violence
   Discussions with key informants revealed that partners tend to share similar drug and substance use patterns and when there are differences couples tend to have serious relationship problems including drug and substance use-related arguments and physical violence.
3) **Breakdown of Regulatory Norms**

Factors such as rapid social change, sudden economic crisis or economic prosperity among other events that have occurred have disrupted the normal running of functions of society without providing alternatives and effective means of regulation in the society. The breakdown of these societal regulations that had great controlling influence on society has left individuals on their own devices. Thus more and more women are engaging in drug and substance use.

4) **Lack of Land ownership**

In the Africa society women have no right of ownership of crucial household assets including land and they even loose right of those assets after the death of the household head because of African tradition and culture that bequeath the ownership of assets to men. Thus upon the death of their spouses, women often lose their houses, land, livestock, ploughs and other important agricultural resources thus suspecting them to drug and substance abuse.

5) **Increased Accessibility**

Women especially in the urban areas can easily purchase drugs and other substances. Discussions with key informants’ revealed that there are some emerging trends for stigmatized persons to engage in drug and substance use. Women have resulted in using coffee mugs, bottles and other ingenious means to hide their use of drugs and other substances from their spouses and society. Thus, this increased accessibility has left women vulnerable to drug and substance use.

6) **Social Disadvantage**

Social disadvantage, while not the sole reason, is known to increase risk of drug use, especially in the presence of specific vulnerability and altered roles and relationships. Social disadvantage includes situations such as:

- Poor educational status
- Lack of specialized training in a vocation
- Young age at initiation of work
- Early marriage and lack of social support

7) **Specific Vulnerability**

Factors increasing vulnerability to drug use among women according to the key informant’s interviews include:

- Drug use in family of origin
- Drug use in spouse
- Involvement in a sexual relationship with a drug using partner
• Emotional distress including low self-esteem,
• Depression, and stress
• Early financial independence coupled with
• Poor decision-making skills
• Peer group influence

3) Youths

a) Lack of role models
Youths acquire their beliefs about antisocial behaviours from their role models, especially close friends and parents thus youths whose parents, close relatives and friends engage in drug and substance use tend to engage in similar activities. The Social Learning Theory (SLT) asserts that an adolescents’ involvement with substance-using role models is likely to have three consequential effects, beginning with observation and imitation of substance specific behaviours, followed by social reinforcement (encouragement and support) for Early Substance Use (ESU) and consequence for future ESU.

b) Breakdown of Society and Family values
The behaviour of youths is dependent upon the intergenerational influences of peers or adults, especially parents. Thus the use of drugs and other substances reflects adult influences, with adults who use drugs providing role models into forms more acceptable to youth's lifestyle. Other significant influences include: imitation; in which youths model their own behaviours or attitudes on others behaviours by simply observing and replicating the societal behaviours

c) Peer Pressure
One of the major reasons for use of drugs and other substance amongst the youth is peer pressure. Influences from their peers in school and the society at large has led most youths to use drugs and other substances as they try to fit in the society. Low self esteem amongst most youths has been attributed as to why most youths have given into peer pressure and engaged in drug and substance use.

d) Unemployment/ Idleness
The high unemployment rate has demoralized most youths and they have given up on achieving lifetime goals and thus engage in drug and substance use as a means to momentarily make them forget their predicaments of lack of employment opportunities and income generation. This lack of future prospects has also lead to most youth’s engaging in drug crop farming and drug trafficking as means to earn income. Discussions with key informants revealed that most urban youths are idle and engage in drug and substance use as a form of recreation.
e) Land ownership
In the Africa society, youths and women have no right of ownership of crucial household assets including land and even loose right of those assets after the death of a household head because of African tradition and culture that bequeath the ownership of assets to men. Thus upon the death of their fathers/spouses, youths sometimes loose title to land or inherit land that has been subdivided into an economical units thus suspecting them to drug and substance abuse.

f) Deviant behaviour
The interrelation among factors of demographic social structure, the perceived social environment and an individual’ personality systems (motivational, instigation, personal belief and personal control structures) generate a dynamic state of problem-behaviour proneness. Some of the acquired attributes that leave the youth prone to drug and substance use include; “lower value on achievement and greater value on independence, greater socialism, more tolerance of deviance, and less parental control and support, less church attendance, lower school achievement

g) Breakdown of Control and Regulatory Policies
The problems of drug use and abuse has not been rectified by administrative decrees and prohibitive acts issued by a government. The failure of various regulatory policies that restricted the access, sale and use of drugs and other substances amongst the youths has increased accessibility and vulnerability of youths to drugs and substance use.

4) NALEP Staff

1) Lack of proper job orientation
The recruitment, training and orientation of new employees usually does not address drug and substance use issues. Thus when new staff are dispatched into a diverse social settings they are exposed to drug and substance use. This results in employment productivity problems and increased emotional stress.

2) Group/Peer Pressure
An employee’s colleagues or friends form working and social interactions may pressure any new employee to conform to their behavior. For example senior staffs engaging in drug and substance use have a direct or indirect influence on subordinate staff engaging in drug and substance use. New and subordinate staff might be pressured to engage in drug and substance use in order to conform with the other work related activities.
3) **Varying Working Environment**

The new environment in which the employee is posted away from his/her norm exposes him/her to a different social setup predisposes the employee to drug and substance use. While adopting to the new culture the employee may engage in drug and substance use. From our key informant discussions, several cases of staff posted away from their families have reportedly engaged in drug and substance use and have in some extreme cases abandoned their families. This has worsened family problems especially for families who depend on regular salary remittances from the family member away from home for their livelihood.

4) **Career Frustrations**

Employees feel frustrated and lack motivation by the relatively low income they earn and end up spending most of their income on drugs and other substances. Newly recruited employees earning away from their family acquire a false sense of freedom without responsibility and thus spend most of their earnings on drug and substance use. Discussions with key informants revealed that there has been several cases of newly recruited staff engaging in drug and substance use instead of investing their savings.

5) **Lack of a workplace drug and substance use Policy guidelines**

Various institutions especially in the agricultural sector where this study is based lack clear laid down policies on drug and substance abuse. Thus most of their employees are also unaware of the existence of such guideline that can be used to address and assist employees engaged in drug and substance use. Without clear policy guidelines, companies are vulnerable to the impact of drug and substance abuse because they are responding to it haphazardly or blindly to the situation. This is likely to be more costly as morbidity and mortality related issue issues continue to rise.

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**Case Study: Drug use among NALEP Staff**

Mr. Osmar* a NALEP coordinator in Narok East district admits that he has witnessed several serious cases of a NALEP staff using drugs and other substances. This has resulted in resulted in absenteism, inefficiency, misuse of allocated funds and untimeliness of the staff in conducting their activities.

He narrates of how an affected crop officer at one time misused the funds by indulging in drug and substance use and this caused great inconveniences that resulted to cancellation of field visits. Thus his use of drugs and other substances does not only negatively impact on his performance but the productivity of other officers and the achievement of the overall targeted goals. He however reports that the officer received some counseling services and has shown some signs of improvement even though he is no longer trusted with handling any funds.

*Not his real name*
Chapter 6

MITIGATION AND COPING STRATEGIES

6.1 General

As discussed elsewhere, the use of drugs and other substances has a negative impact in the economic, social and physical wellbeing of the users and their immediate families. It also reduces productivity of key sectors causing negative impact in the national economy. Mitigation and coping strategies should therefore be implemented at all levels namely; national level, institutional and farm/personal levels.

6.2 National Level

**International commitments:** Kenya is a signatory to the UN Conventions against illicit Traffic in Narcotic Drugs and Psychotropic Substances. The country also hosts the Regional Centre for United Nations Office on Drugs and Crime. The ratification of the convention and the existence of the office in Nairobi is a clear indication of the country’s commitment to comply with and learn from global standards on the management of drug and drug use issues.

**Policy:** The formulation of the National Drug Policy (NDP) and the inclusion of Drug and Substance use in major government policy documents are important steps aimed at ensuring adequate mitigation measures are put in place to manage cases of drug and substance use.

**National institutions:** The government of Kenya has put in place several institutions dealing with drugs and related issues. At the national level, NACADAA provides advisory services to all government bodies. The Kenya police have a specialised unit to deal with cases of narcotics. The provincial administration monitors on a day-to-day basis all activities including agricultural activities. Various ministries including trade, public health and sanitation, medical services, among others, ensure that no illicit drugs and substances brought into the country. All these are mitigation measures put in place by the government to protect citizens from illicit drugs.

**Laws:** various legal instruments are in place to ensure illicit drugs and substances are banned from the country. The recent by-laws by various councils barring smoking in public places are part of this strategy.

**Public awareness campaigns:** Awareness creation and education; the public both the urban and rural should be educated and be made aware of the impacts of drugs and
substance use. Such education/awareness has been a strategy in use by the government for a long time. The incorporation of such issues in the school curriculum for schools and colleges has to some extent lowered the likelihood of youths engaging in the vice.

6.3 Institutional Level

At institutional levels, Government institutions especially under the Ministries of Agriculture, Livestock and Fisheries are currently putting in place measures to mitigate and/or cope with the rising cases of drug and substance use. Some of these measures include:

Special desks: The Ministry of Agriculture has put in place a special desk to handle and coordinate issues of drugs and substance use among staff at all levels. The desk coordinates with relevant institutions to ensure adequate programmes are put in place at Ministry level. This strategy need be implemented at the Ministries of Livestock and Fisheries.

Disciplinary actions: Disciplinary actions relating to drug use are usually designed to give staff members’ time to reflect and reform. New staff who may be tempted to become drug users learn from these cases. Ensuring highest level of discipline in an institution is core to good performance and delivery of services.

Training programmes: various government institutions and are currently implementing training programmes on HIV/AIDS, drug and substance use and counseling. Several corporate institutions are currently emulating this approach and designing training programme suitable for their own situations. The tea, coffee and sugar industries can benefit considerably from this experience and design their coping strategies around them.

Financial and Non-Financial incentives: Drug use sometimes is used as a way of coping with workplace stress. This stress can considerably be reduced through both financial and non-financial incentives. Institutions in the country have, to varying degrees, utilized this approach to keep their staff motivated and happy.

Free information leaflets: institutions in the agricultural sector, including government extension offices provide free information leaflets to farmers to sensitize them on the dangers of drug and substance use and how to avoid the same.

Technology: Where labour is limiting due to, among other factors, drug and substance use, institutions have resorted to technological innovations to cope with the problem. The introduction of tea picking machines, for example, ensures that the performance of the tea industry is less pegged on availability of large human resource.
6.4 **Farm/Personal Level**

At farm level, the farmers have devised various ways of mitigating and coping with the problems caused by drug and substance use within the families or the wider society. These include:

- Proper management of the various factors of production through prudent use of available labour, land and skills
- Technological innovations that reduce the need for human labour
- Hiring of external labour
- Reduced land utilization
- Formation of self help groups or *chamas*
- Prudent choice of enterprises
- Resorting to prayers
7.1 Conclusions

The findings of this study have shown that drug and substance use is a major challenge facing the Agricultural sector. The sector has a large proportion of its members involved directly and indirectly in drugs and substance use. The people mostly affected are the youth who make the productive part of the society.

It was evident from study findings that men were more involved in drug and substance use than women who in most cases were the custodians of the money obtained from agriculture and other sources. This therefore led to a misuse of the funds leaving little or no investment in agriculture. There was further an indication that the people practicing agriculture have not been well educated and therefore have insufficient knowledge on the impacts of using drugs and substances.

Low enforcement of the relevant laws remains a challenge. This has contributed to the difficulties in curbing the use of these substances in Kenya. There are however, several efforts being put in place by the Government and the private sector to mitigate against this vice. These efforts need to be supported at all levels.

Policy: Policies that regulate the use of drugs and substance use should be updated. There should be policies in place to handle the local brews which are a threat even to young children. Policy makers should also focus their efforts on addressing administrative disparities of principal’s leadership capacities across urban, suburban and rural setting.

Further, there is need to encourage policies that result in employment creation for especially the youth to reduce the temptation of getting into drugs for this vital section of the society. Policies that enhance public private partnerships, investments into infrastructure and development of skills among the youth are key to curbing drug and substance use in society.

Institutional Funding: The government should enhance funding levels to key institutions involved in curbing drug and substance use to enable them carry out more awareness campaigns on drugs and substance use both in urban and rural areas through National
Agency for the Campaign Against Drug Abuse Authority (NACADAA) and Faith based Organizations.

**Corporate Organisations:** Most Corporate organizations have realized that it is cheaper to get their addicted employees treated rather than recruit and train new members of staff. Thus the treatment and rehabilitation centre has started providing training for major corporations and even individual residential treatment for some corporate leaders who are addicts. Learning from this, various sub-sectors in the agricultural industry such as those in the tea, coffee or sugar sectors can collaborate with treatment organizations to enable their staff get the help they need. to cope with the shock of new job placements.

**Workplace Environment:** Boosting of staff moral to avoid frustrations and adoption of new lifestyles; staff should be provided not just with adequate salaries and wages but also with other social amenities to enable them cope with. Methods already being employed by various organizations, especially the private sector, in enhancing workplace environment and reducing workplace-related stress should be strengthened and adopted by various ministries, government institutions and state corporations.

**Capacity Building and Awareness Creation:** Staff training and awareness creation; through collaborative effort with NACADAA and other NGO’s currently engaged in similar activities to create awareness and empower staff with information on drug and substance use. Field officers being trained on basic counseling skills especially field managers should also be empowered with basic skills needed to be able to handle their staff and farmers consuming drugs and other substances. Awareness creation in learning institutions through expert presentations, distribution of learning materials and collaboration with other organizations/ institutions will also empower affected staff so as to strengthen their capacity to cope with drug and substance use issues.

**Employee Assistance Programs:** Development and adoption of employee assistance programs- Employee Assistance Programs (EAPs) designed to help identify and resolve productivity problems affecting employees who are impaired by personal concerns. Such programs include; confidential screening, treatment referrals and follow-up care. Assuring that workers with substance use disorders receive treatment can help employers save money. Intervening early can prevent the need for more intensive treatment and hospitalizations down the road.

**School system:** Emphasis should be placed in developing drug and substance use prevention strategies that target school students and out of school youths since they are a high-risk group. Appropriate interventions, health education efforts, support and referral systems should be established in schools to help curb this habit early. Such efforts should not only be confined to schools but should also extend to their residential areas so that such influences in the external environment that contribute to the vice can be identified and controlled. Therefore the incorporation of drug and substance use issues into the
school curriculum as is the case for HIV/AIDS since drug use is one of the predisposing factors in HIV/AIDS.

**Governance:** Enhanced governance and enforcement of ethical standards amongst public officers is critical to ensuring that law and order is maintained.

**Health:** The GOK has developed and implemented a comprehensive HIV/AIDS strategy from the national level to community health units where individuals are able to receive treatment and care from trained health workers. This is aimed at empowering Kenyan households and communities to take charge in improving their own health. Drugs and substance use issues should also be comprehensively addressed by the GOK and a holistic health structure be developed to address the vice not only at the family/individual level but also at the community level.

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**7.2 Salient Recommendations**

The following are proposed:

1. Recognize the seriousness and increase the priority placed on drug abuse as a social problem: develop a series of drug indicators
2. Develop an information base for agricultural planning on the costs of drug and other substance abuse in the agriculture sector: prepare estimates of costs of drug abuse and its impact
3. Expand alternative rural development such as Operation Kazi Kwa Vijana Free From Drugs Agriculture as a means of drug abuse prevention and control: clarify what works in such an alternative development and expand it
4. Increase knowledge of drug abuse problems and effective interventions
5. Communications technology to achieve better transfer and use of information.
6. Increase national collaboration on drugs, and other substance abused

“The government should not just concentrate and fund HIV/AIDS related projects but drug and substance abuse projects …….and facilitate the establishment of a health structure …like the HIV/AIDS one where from the national to primary health units”

Mr. Peter Kome Officer, NACADAA on 3 July 2009


**APPENDICES**

**Appendix I; List of Key Informants Interviewed**

**Key Informants Interviewed**

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<thead>
<tr>
<th>Name</th>
<th>District</th>
<th>Organization</th>
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<tbody>
<tr>
<td>1 Mrs. Jacinta Simba</td>
<td>Mombasa</td>
<td>Ministry of Agriculture(MOA)-District Agricultural officer(DAO)</td>
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<tr>
<td>2 Mr. Onesmus Mwanzau</td>
<td>Mombasa</td>
<td>Ministry of Agriculture(MOA)-District Livestock Production officer(DLPO)</td>
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<tr>
<td>3 Mr. Mwikande K. Omar</td>
<td>Mombasa</td>
<td>Public service-Majengo Location chief</td>
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<tr>
<td>4 Mr. Farooq A. Saad</td>
<td>Mombasa</td>
<td>Citizen Against Child and Drug Abuse(CICADA)-Chairman</td>
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<td>5 Mr. Hussein Omar</td>
<td>Mombasa</td>
<td>CICADA</td>
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<tr>
<td>6 Mr. Baraka</td>
<td>Mombasa</td>
<td>Ministry of Agriculture and Welfare Association(MEWA)-Coordinator</td>
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<tr>
<td>7 Mr. Charo</td>
<td>Kilifi</td>
<td>Ministry of Agriculture(MOA)</td>
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<tr>
<td>8 Mrs. Joan Nyamasyo</td>
<td>Kilifi</td>
<td>Ministry of Agriculture-District Livestock Production Officer</td>
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<tr>
<td>9 Mr. Caleb Omondi</td>
<td>Kilifi</td>
<td>Ministry of Agriculture-District Agricultural Officer</td>
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<tr>
<td>10 Mr. Mwamachi</td>
<td>Kilifi</td>
<td>Ministry of Agriculture(MOA)</td>
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<tr>
<td>11 Mr. Dickson Mutua</td>
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<tr>
<td>12 Mr. Amos Muasya</td>
<td>Machakos</td>
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<tr>
<td>13 Mr. Dominic Mutie</td>
<td>Machakos</td>
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<tr>
<td>14 Mr. Jamlick</td>
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<tr>
<td>15 John Katimbuwa</td>
<td>Kisii Central</td>
<td>District Nalep Co-ordinator (Agric)</td>
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<td>16 John Ndege</td>
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<tr>
<td>17 Stephen Ndia</td>
<td>Kisii Central</td>
<td>District Animal and Production Officer (DAPO)</td>
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<tr>
<td>Eunice Chepyegon</td>
<td>Kericho</td>
<td>District Home Economics Officer (DHEO)</td>
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<tr>
<td>Onsare M Nyamweya</td>
<td>Kuria West</td>
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<td>Oguta G A</td>
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<tr>
<td>Shivonje Francis</td>
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<tr>
<td>Shem Wanga</td>
<td>Rachuonyo</td>
<td>Ministry of Agriculture - District agricultural office, Registry office</td>
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<tr>
<td>Mr. Watende</td>
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<tr>
<td>Mrs. Ketcher</td>
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<tr>
<td>Mr. Wasike</td>
<td>Rachuonyo</td>
<td>Ministry of Livestock Production-Desk office, Dairy office</td>
</tr>
<tr>
<td>Mr. William Nyamboga</td>
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<tr>
<td>Mr. Titus</td>
<td>Butere</td>
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<tr>
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<tr>
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<td>Busia</td>
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<td>Mr. Protus Khisa</td>
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<tr>
<td>Mr. Katas Wafula</td>
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<tr>
<td>Mr. Mumo</td>
<td>Kisumu</td>
<td>Ministry of Livestock Production -District Veterinary Office</td>
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<tr>
<td>Mrs. Eunice</td>
<td>Kisumu</td>
<td>Ministry of Agriculture -District agricultural Office</td>
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<tr>
<td>Mr. Gichana</td>
<td>Kisumu</td>
<td>District information Desk</td>
</tr>
<tr>
<td>Mr. Mukhandia</td>
<td>Kisumu</td>
<td>Ministry of Agriculture -District Agricultural office, Security office.</td>
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<tr>
<td>L.P.O Nyamburu</td>
<td>Nakuru</td>
<td>MoA(Provincial Directorate of Agriculture)</td>
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<tr>
<td>Mr. David M. Mulula</td>
<td>Nakuru</td>
<td>MoA (Deputy Provincial Director of Agriculture)</td>
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<tr>
<td>Joerum Teti</td>
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<td>USAID Rehabilitation Project.</td>
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<tr>
<td>Dan Odhiambo Guda</td>
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<tr>
<td>Emilly Kioko</td>
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<tr>
<td>Daniel Kimeu</td>
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<td>Kenya Police (O.C.P.D Nakuru)</td>
</tr>
<tr>
<td>Mrs. Jane-Marie Ongolo</td>
<td>Nairobi</td>
<td>United Nations Office on drugs and Crime National project director UNODC Regional Office for Eastern Africa</td>
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<tr>
<td>Albert Muraya</td>
<td>Nairobi</td>
<td>Nairobi place Addiction Treatment centre</td>
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<tr>
<td>Lydia Maina</td>
<td>Nairobi</td>
<td>Drug and Substance abuse streamlining officer; Ministry of Agriculture</td>
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<tr>
<td>Mr. Patrick M. Ondongo</td>
<td>Nairobi</td>
<td>Ministry of Fisheries Development</td>
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<tr>
<td>Mr. P.K Leley</td>
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<td>Provincial Commissioner</td>
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<tr>
<td>Issca Oluoch</td>
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<td>Peter Kome</td>
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