**Number 2**

# THE SOCIAL IMPACT OF DRUG ABUSE

*This study was originally prepared by UNDCP as a position paper for the World Summit for Social Development (Copenhagen, 6-12 March 1995)*

## Contents

## Introduction

Prepared for the World Summit for Social Development, which was held at Copenhagen in March 1995, the paper that follows analyses social aspects of many of the principal issues involved in drug abuse and drug control that are of concern to organizations of the United Nations system and other intergovernmental organizations. The paper was originally commissioned by the United Nations International Drug Control Programme (UNDCP) and drafted by an independent consultant, Jean Paul Smith, former consulting Psychologist and Senior Policy Analyst at the National Institute on Drug Abuse, Washington. It was subsequently reviewed and revised by a United Nations inter-agency group. The names of the organizations that provided information for this paper appear below.

The purpose of the paper is twofold: first, to examine the social and economic impact of drug abuse from a broad international perspective. Secondly, based on that analysis, to suggest how problems of drug abuse prevention and control can be addressed in a constructive, coordinated manner. The paper concerns 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. It is divided into four main sections.

Part one describes the nature of the drug problem, in particular the chain of drug production, distribution and consumption. It also provides information on the economics of this chain, including statistics and comparative data by country and geographical area; on how changes in the global economy have affected these developments; and on the monitoring of drug abuse by various agencies.

Part two discusses the social impact of drug abuse and its consequences for families, health, education, crime and employment.

Part three covers the interaction between drug abuse and development, including efforts by the international community to facilitate economic and social progress in developing countries. Development is addressed in the broad sense of the word, i.e. it comprehends not simply economic development but also sound environmental practices, social conditions and the meeting of basic needs. Part three describes some of the negative consequences that drug abuse and drug trafficking have had. It analyses alternative development in regions that are economically dependent on the illicit drug industry and includes moral and social considerations as they influence farmers and communities growing crops for the illicit drug industry.

Part four summarizes the information presented in this paper in order to reach certain conclusions. It does this by highlighting the implications of drug abuse for the major themes of the World Summit for Social Development: poverty, employment and marginalization. It also contains recommendations addressed to the World Summit to help increase the effectiveness of international efforts to prevent and reduce drug abuse problems.

Organizations providing information used for the preparation of this paper are as follows:

**United Nations**

Department of Policy Coordination and Sustainable Development
United Nations International Environment Programme (UNEP)

United Nations Office at Vienna, Crime Prevention and Criminal Justice Division
United Nations Children's Fund (UNICEF)

United Nations Development Programme (LTNDP)
United Nations International Drug Control Programme (UNDCP)
United Nations Population Fund (UNFPA)

United Nations Interregional Crime and Justice Research Institute (UNICRI)
United Nations Research Institute for Social Development (LTNRISD)

**Specialized agencies and other organizations of the United Nations system**

International Labour Organization (ILO)
Food and Agriculture Organization of the United Nations (FAO)

United Nations Educational, Scientific and Cultural Organization (UNESCO)
World Health Organization (VMO)
World Bank
International Monetary Fund (IMF)
International Fund for Agricultural Development (IFAD)
United Nations Industrial Development Organization (UNIDO)

**Other intergovernmental organizations**

Organisation for Economic Co-operation and Development, Financial Action Task Force

# Part one

## I. The drug problem

### A. The global context

Global increases in problems Of illicit drugs both reflect and contribute to international tensions. The origins of some of these tensions are clear: rapid changes in political alignment, reduced family and community cohesiveness, increased unemployment and underemployment, economic and social marginalization and increased crime. At a time when dramatic improvements are taking place in some sectors, e.g. communications and technology, improvement of the quality of life for many people has fallen far short of the potential that exists and the rising expectation of people who know life can be better.

At a time of rising social and Political tensions, the macroeconomic environment has fundamentally changed. World trade and investment have expanded and brought to some areas of the developed and developing world substantial economic benefits. Capital, goods and people move much more frequently and freely across national borders than was the case previously. In many industries, multinational enterprises operate on a world scale by allocating production according to the comparative advantage of individual countries or regions, by selling in diverse geographical markets and by undertaking financial operations where it is most advantageous. One of the consequences of these developments is that financial markets have become more transparent, with massive daily transfers of money around the world. Judging that the benefits of increased trade and investment outweigh a certain loss of sovereignty in controlling the entry and exit of people, goods and money, nation States seem to have made their fundamental choice in favour of economic liberalization because of the expected material benefits to be gained.

The same macroeconomic environment which has facilitated the growth and development of global legitimate businesses has also provided the opportunity for drug producers and traffickers to organize themselves on a global scale, to produce in developing countries, to distribute and sell in all parts of the world, to move drug cartel members easily from country to country and to place and invest their drug profits in financial centres offering secrecy and attractive investment returns. The same deregulation that has allowed legitimate businesses to move money around the world electronically with few national controls has also permitted drug producers and traffickers to launder illicit drug profits so that these funds appear to be legitimate.

The global changes which have allowed people, goods and money to move from one country to, other cheaply and easily have also had other consequences. They have made the differences and inequalities around the world more apparent and more unacceptable. In many cases, the differences between rich and poor grow wider. Moreover, a number of developing countries, especially those in Africa and selected countries in Latin America and Asia, have largely missed out on the benefits of increases in world trade and investment and consequent economic growth. In some cases, this has been the result of political instability, ethnic conflict, natural disasters or mismanagement of the economy. Whatever the reason in a given country, the lack of economic progress has put such countries in a financial bind and frequently placed severe restrictions on government services available to the most vulnerable segments of the population. In this context, both the nation State and its individual citizens have become more vulnerable to the temptations of money from illicit drug production and trafficking and to the acceptance of illicit drug profits by financial institutions or as direct investment.

Today there is more awareness of the problems of illicit drugs and drug trafficking than ever

before. How to translate that awareness into constructive action is a major challenge. The term "illicit drugs" is used in this paper 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 arnphetamine-type stimulants due to their importance for both developing and industrialized countries. To prepare for the review of the social impact of drug abuse, the section which follows first examines the production, distribution and consumption of illicit drugs and other addictive substances.

### B. Growing plants to produce drugs

The production of drugs may be divided into three categories: (a) those processes which require only plant products, (b) those involving a semi-synthetic process where natural materials are partly changed by synthetic substances to produce the final product and (c) processes which use only manmade chemicals to produce consumable drugs. Examples of these three are (a) opium gathered in the fields for home use, (b) coca bush leaves processed to make cocaine and (c) narcotic or psychotropic drugs made entirely in the laboratory or factory.

Long before the world economy felt the impact of globalization of money, markets and products, illicit drugs moved internationally from producer countries in less developed areas of the world to consumer countries that were usually more developed. Production in rural areas was transported to and sold in other continents after enormous price increases along the way, providing high profit and risk incentive to traffickers. The end user has often been a poor person who buys drugs before the necessities of life.

Estimates of illicit drug production come from several sources. Systematic attempts to provide information about the amount of opiates or coca produced may employ high technology satellite mapping, ground surveys, agronomic characteristics or consumption figures. Political factors may also affect the process of preparing estimates. Experts have called the production estimate process one of making "best guesses" (1, chap. 1).

Many experts think that the first stage, when plants are grown in the fields or consumable drugs are produced in the laboratory, is the most vulnerable point in the chain of illicit production, distribution and consumption. The second major stage, the distribution phase, is also considered by some as an equally good intervention point for drug control purposes. However, the potential for easy movement, disguise and diversion of drug shipments and the vast numbers of shipments of small quantities of drugs decrease the yield of enforcement for each unit of intervention effort. The third stage of possible intervention is at the time of consumption. Here, a particularly vulnerable point is when drugs pass from dealers to consumers. This stage is often a target of law enforcement, especially if a strategy of "buy and bust" is followed.

Recently, emphasis has been placed on drug demand, mostly in public statements and commentary in the media. Whereas the obligations of parties to the conventions on drug control concerning reductions in illicit supply are clearly defined, implementation of demand-side obligations of States parties are not specified in the conventions and depend on the ability of States parties to carry out education, information, treatment and rehabilitation. To some observers, this emphasis in the treaty system gives it the appearance of favouring supply-side mechanisms. The consequences of this apparent supply-demand imbalance for bringing drug control into closer collaboration with human and social development programmes are not known.

Since some drugs are more available and used more often than others, the questions that arise are the following: what pharmacological properties of specific drugs, what personal characteristics of the users and what social or cultural factors in a given country influence the attractiveness of a drug? Or, asked another way, why do users want certain drugs as opposed to others and how does this influence their willingness to pay for them? 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 global drug problems and their large-scale financial implications, opium-heroin and coca-cocaine are the primary drugs of current interest.

How much opium-heroin and coca-cocaine are produced and where? Illicit production figures are not precise, but gross amounts produced in various countries have been estimated. Based on the integration of information from nine country studies, an expert (1, p. 12) has noted that many variables detract from the precision of any attempt at assessment. Nevertheless, that study provides gross estimates of illicit drug production for coca, cocaine, opium, heroin and cannabis for major supplier countries.

Adding the gross estimates for these nine countries results in estimated opium production of 3,045 tonnes. This is not considered an estimate of world production, for two reasons: (a) some countries have not been included in these estimates (Afghanistan, for example, had an estimated cultivation of 19,470 hectares in 1992 and produced 640 tonnes of opium that year according to the United States Department of State (2)); and (b) many unexamined assumptions have been made in preparing these estimates. For heroin, the comparable gross estimate for the nine-country production is 246 tonnes.

In contrast to opium production, coca leaf and cocaine production take place in relatively few countries. The estimates made by the above-cited commentator are not highly divergent from those provided for coca and cocaine by the Department of State. The approximate total for the three producer countries (Peru, Bolivia and Colombia) are coca leaf, 330,000 tonnes, and cocaine, 322 tonnes.

Several features of this picture are noteworthy: (a) the major production sources of drugs are quite varied, not limited to one or two producer countries or simply one region of the world; (b) according to 1992 GNP per capita data (3, p. 18ff.), major production of opium and coca takes place in less developed countries, many of which have considerable economic, agricultural, political and social problems; and (c) according to all 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 to form an aggregated estimate of addictive substances production, the picture that emerges is one of enormous supply of these substances.

One commentator has described the illicit drug industry during the production phase, as "labor intensive, decentralized, growth-pole oriented, cottage-industry promoting, and foreign exchange earning - desirable features of rural development in economically stagnating areas" (4, p. 57). He has found agreement on the following points:

> 1) the production of marijuana, heroin, and cocaine/crack is increasing, especially cocaine/crack; 2) cocaine traffickers, now finding their supply substantially exceeding current market demand in the United States, are vigorously opening new markets in Canada, Great Britain, Western and Eastern Europe (with Spain and Italy as principal ports of entry for Europe); 3) the increasing supply of illicit drugs relative to current demand contributes to additional violence as international cartels and domestic gangs war over market turf, and 4) the 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 (1, pp. 2-3).

It should be noted that production of illicit drugs is often inexpensive. Labour costs are low and even if workers demand decent wages, the percentage of the total income required for wages and other expenses is still very low.

### C. Distribution and illicit trafficking

Illicit drug trafficking takes place in most countries of the world. Recognition of illegal importation and distribution, a criminal activity frequently involving foreigners, is politically less troublesome than purely domestic illicit production or consumption. The involvement of outsiders makes smuggling or illicit dealing appear less of a home-based problem. 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 abusers.

Individuals acting alone do not usually move significant quantities of drugs, hence the focus on control of supply is normally on organized groups or cartels. Traffic patterns tend to follow drug types and country of origin. Cocaine trafficking, for example, begins in the Andean region and spreads northward through Central America, Mexico and the Caribbean region to end-points in North America, Europe and elsewhere. Major heroin trafficking originates in South-west and South-east Asia with final processing of the consumable product close to the point of origin. The route of distribution may involve many countries and territories, such as Malaysia, Thailand, Hong Kong and China.

Interdiction and seizure of illicit drugs are the classic law enforcement control measures to reduce the supply of drugs. Drug smugglers make detection more difficult by converting opium into morphine and heroin (or coca leaf into cocaine) in or near the producing areas. This transformation process reduces the sheer bulk and weight of the goods to be transported. Refining stations are usually located in more remote and secure areas. In remote rural areas, movement of precursors and chemicals needed for processing the harvested plants (e.g. acetic anhydride) can take place with less potential for discovery. Methods of concealing drugs are constantly changed 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" (5, p. 2).

Border controls are a major focus of interception efforts. However, with the increased flow of commercial traffic between countries and the free movement of goods in large regional trade blocks, the success rate of interdiction at national borders, low to begin with, may decrease further. Vigorous action by authorities in one area often leads to shifts in the pattern of illicit activity or to movement of the illegal activity to another area. While interception efforts may result in lengthening or altering the chain of illicit movement and increase the exposure of the illicit operation to seizure in a given area, unless the interdiction and seizure success rates are high, illicit shipments of drugs will likely continue. Those who get caught smuggling drugs are often low-level persons who can easily be replaced with new recruits. Poor persons already living on the margins of society stand to gain much and lose relatively little by smuggling. With very high profit margins and a seizure rate of possibly 10 per cent (often mentioned in law enforcement circles), interception efforts are not likely to stop illicit distribution. It is more probable that the pattern of smuggling and couriers will be changed to a safer profile. After a detailed review of interdiction, pointing out the adaptability of smugglers, the variety of their methods and the profits involved, one commentator, speaking of the United States, observed: "The recent past suggests that interdiction, even if it produces a high rate of seizures, will do little to decrease cocaine imports" (6, p. 53).

The high-risk, high-gain nature of drug trafficking is well known. Profits from the drug traffic flow back into the coffers of sophisticated criminal organizations with financial interests in other illicit areas, such as prostitution and rackets. 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. Hence, political conflicts within and between countries, often involving dissident groups, obstruct government action. Governments that are unable to control major insurgent movements representing a direct challenge to their authority are unlikely to be successful in controlling a drug trade that generates enormous amounts of money to buy influence or weapons. Nor will such governments find it easy to implement programmes of national development in the areas most vulnerable to production of illicit drug crops.

### D. Consumption of drugs

Trends in drug use and abuse are reflected in official reports to the United Nations and unofficial reports from a variety of sources. Parties to the 1961 Single Convention have an obligation to report to the United Nations, although an analysis of this reporting process over the past decade reveals disappointing results. The United Nations Secretariat indicates that the information provided by governments over the period 1983-1991 did not meet data collection objectives (7 and 8). Only 13 of the countries reported for each of the 9 years involved. Over this same period, 25 countries did not report at all (8, p. 3). Information submitted was characterized by high variability from region to region and inconsistency within regions.

There were also major regional gaps in information in official reporting with respect to the nine-year period 1983-1991. The average percentages of countries actually reporting over this nine-year period were as follows: in Europe (74%), the Americas (5 *1* %), the Near and Middle East (46%), Asia and the Pacific region (40%) and Africa (37%) (derived from table 2 in 8, p. 4). In Africa, the region of the world where the fewest countries report to the United Nations, only about one-third of the countries have reported six or more times in the last nine years. The absence of systematic reporting for this region makes it even more vulnerable since trends that take place there may be unassessed or difficult to identify until long after they have occurred.

Qualitative information summarized by UNDCP indicates that most governments report a much higher prevalence of drug abuse among men than women. However, abuse among women is reported to be increasing, often attributed to their recent gains in entering the labour market (8, section 11). 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. Opening European borders between 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 (8, section 11) 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. In the Near and Middle East, increasing abuse was found in Egypt, Israel, Pakistan and the Syrian Arab Republic.

Several States reported overall decreasing patterns: Bahrain, Iran (Islamic Republic of), Kuwait, Qatar and Saudi Arabia.

### E. Overview of opium/heroin and coca/cocaine

Most of the world's opium is grown in Afghanistan, the Lao People's Democratic Republic and Myanmar. Several other countries also produce opium but in lesser volume. The development of significant populations of users and addicts in these countries indicates serious social changes that make it even more difficult to reduce drug production. While any social problem may be highly resistant to change, drug use exerts powerful effects, influencing not only the brain processes that influence or control individual behavior but also, ultimately, the social milieu. A portion of the illicit drug production that originates in remote areas of developing countries is invariably diverted along the way from the intended consumer to local individuals. In many cases, the local population provides a stable consumer base for illicit production. The distinction between producer and consumer country is not a rigid one, and the traditional categories of producer and consumer countries is being replaced by the recognition that consumption is a major problem in producer countries as well. For example, in Myanmar, which is one of the largest producers of opium, officials have reported a steady increase in the abuse of opium and heroin since 1970. In Afghanistan, another large producer, the areas of opium poppy cultivation increased in 1992 although the extent of consumption and addiction is unknown. In Pakistan, there were an estimated 650,000 heroin abusers with no end in sight for the increases (1, p. 42).

The coca leaf has been chewed by indigenous people in the Andes for centuries. The plant is grown primarily in Bolivia, Colombia and Peru, with Peru having the largest plant production. Smoking of coca paste, often mixed with tobacco or cannabis *(basuco, pitillo* etc.) is now frequent among the youth of Bolivia, Colombia and Peru. Cocaine is the principal active ingredient of the coca leaf, extracted from leaves and used to make other forms of the drug such as coca paste or crack. The largest single market for cocaine is the United States, which saw sharp increases in the 1980s. Deaths and injuries related to cocaine received widespread publicity, and high percentages of individuals arrested by the police tested positive for cocaine use. The enormous profits in the cocaine trade have fueled the creation of new production centres and expansion into new markets as well as infiltration into legitimate businesses and political parties in a number of countries. The addictive nature of cocaine can lead to rapid escalation in frequency of use, amounts taken or use in combination with other drugs. Cocaine abuse has put a heavy burden on communities in many countries, frequently overloading welfare, treatment and law enforcement agencies.

## *Notes*


1. LaMond Tullis, *Illegal* Drugs *in Nine Countries: Socioeconomic and Political Consequences,* Draft report prepared for UNRISD at Geneva and the United Nations University at Tokyo, 23 December 1993.

2. United States Department of State, Bureau of International Narcotics Matters, *International Narcotics Control Strategy Report*, Executive Summary, April 1994.

3. World Bank, *The World Bank Atlas 1994*, Washington, D.C., 1994.

4. LaMond Tullis, *Handbook of Research on the Illicit Drug Traffic: Socioeconomic and Political Consequences* (New York, N.Y., Greenwood Press, 1991).

5. United Nations, "Women and drug abuse: a position paper by the United Nations", 11 February 1994.

6. Peter Reuter, "Can the borders be sealed?", article from Peter Reuter, Gordon Crawford and Jonathan Cave, *Sealing the Border* (Santa Monica, California, the Rand Corporation, 1988).

7. United Nations, "Report of the United Nations Secretariat. Drug abuse: extent, patterns and trends", Prepared for the Commission on Narcotic Drugs, thirty-seventh session, Vienna, 13-22 April 1994. (E/CN.7/1994/4, 21)

8. "Report of the United Nations Secretariat. Drug abuse: extent, patterns and trends", Prepared for the Commission on Narcotic Drugs, Thirty-sixth Session, Vienna, 29 March-7 April 1993 (E/CN 7/1993/4).

# Part two

# II. The impact of drug abuse

### A. Family and community

Fast-paced social, economic and technological changes present a challenge to the stability and influence of the family. The family is often viewed as the basic source of strength, providing nurturance and support for its individual members as well as ensuring stability and generational continuity for the community and culture (1). In reality, the family is far more complex. At least four conceptual views of the family have been identified. First, it may be seen as protecting and sustaining both strong and weak members, helping them to deal with stress and pathology while nurturing younger and more vulnerable members. Secondly, the family may be a source of tension, problems and pathology, influencing weaker members in harmful ways, including destructive drug or alcohol use. Thirdly, it may be viewed as a mechanism for family members to interact with broader social and community groups, such as peer groups, schools, work colleagues and supervisors and persons associated with religious institutions. Fourthly, the family may be seen as an important point of intervention - a natural organizational unit for transferring and building social and community values.

Rapid social, economic and technological change may, under certain circumstances, weaken the sense of family and reduce the sense of belonging to other people, groups and places. Stability of relationships, environment and expectations is a powerful force in helping people manage their lives, especially important for children and young adults. In some societies, 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.

Families can have a powerful influence on shaping the attitudes, values and behaviour of children, but how do they compare with peers in terms of influence on drug taking? The influence of peer groups, which is usually strong during formative years of youth, may be stronger than that of parents in some cases. One researcher (2) has found that friends are more similar in their use of marijuana than in any other activity or attitude. In this situation, drug use by peers may exert a greater influence than the attitudes of parents. This researcher observed that peer and parental influences are synergistic, with the highest rates of marijuana use being observed among adolescents whose parents and friends were drug users. Other investigators, however, have found that peers have a high degree of influence only when the parents have abdicated their traditional supervisory roles (3). Hence, parents exercising traditional family roles may be able to limit the influence of peer groups on children's attitudes towards drug use and therefore have a crucial influence on children's behaviour.

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. In this regard, it is important to avoid assuming "... either that parents are invariably responsible for the problems experienced by their children or that substance users can be blamed for all the problems experienced by the families in which they live" (4, p. 2). Family factors that may lead to or intensify drug use are thought to include prolonged or traumatic parental absence, harsh discipline, failure to communicate on an emotional level, chaotic or disturbed members and parental use of drugs, which provides a negative role model for children (5). Lack of household stability, income or employment for a parent may increase stress on the family and its vulnerability, pushing

marginal individuals to find "solutions" or solace in alcohol or drugs. Single-parent families may have increased difficulties, with the single parent being forced to function beyond his or her ability.

Alcohol abuse, other substance abuse and psychopathology have been studied among family members. It is well known that having biological relatives with alcoholism increases the risk in unaffected individuals. Also, families with histories of psychological and social pathology may be at increased risk for alcohol 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. A frequent finding from clinical assessment of users is a "dual diagnosis", where two or more clinical conditions exist at the same time in an individual. Multiple problems in the family are also very common. The existence of an addictive personality type does not appear to have been scientifically validated, but the obvious signs of troubled persons-often exhibiting multiple symptoms-are easily recognized by expert and layman alike.

Reports of disturbed family life related to drugs are frequent in the literature. In Ireland, it was found that disrupted family life appears to be a major risk factor for drug abuse among some young persons (6), and that as many as 10 per cent of the young people between 15 and 20 years of age in the northern part of Dublin were addicted to heroin. In India, an increased number of heroin addicts seeking assistance at treatment centres has been reported. It has been estimated that between a half million and a million persons became addicts in the 1980s, challenging cultural traditions and services (7).

While the family group can, under certain circumstances, be the origin of drug problems, it can also be a potent force for treatment. Family therapy has gained increased acceptance, with the defining characteristic being the simultaneous involvement of more than one member of the family in therapeutic sessions. Many families are supported and cared for by women. They frequently have the key role in teaching the young, ensuring that health care is provided and maintaining links with and mobilizing community support when necessary. 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 (8, p. 2).

Women who are not drug abusers may be affected by problems related to drug abusing men. The problems of 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 substance abuse and the health and social conditions of children are available. A report on health problems and substance use in Honduras, one of the poorest countries in the western hemisphere, with a GNP per capita of $580 in 1992 (9), discusses the plight of street children as follows:*

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*All references to dollars are to United States dollars unless otherwise noted.

Trouble with the police, substance abuse, and sexual activity are additional risk factors and all of them are much more common among abandoned street children than among market children (10). ... More than half sniff glue; four in ten also drink alcohol at least occasionally; six in 1 0 smoke cigarettes; one in five smokes marijuana. (In contrast, substance abuse is nearly absent among the market children.) Thus, inhalants are the most commonly abused substances among abandoned street children in Honduras, as opposed to alcohol and crack among homeless teens in the United States, but the overall rate of substance abuse turns out to be about the same in both contexts. Glue is a popular intoxicant among street children throughout the nations of the developing world because it is very cheap, diminishes pain, reduces fear, increases bravado, and suppresses hunger (11).

Other reports agree with these findings. In Mexico, one study (12) found that 22 per cent of the street children under 18 in a southern section of Mexico City acknowledged daily use of solvents. Another 1.5 per cent had daily use of marijuana, and the same survey showed that 36 per cent of homeless children used solvents. 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.

### *Notes*

1. Community is used here to mean not a uniform geographic or political entity but the network of people who live in a neighborhood, village, town or city and who are concerned with the lives of their fellow human beings.

2. Denise Kandel, "Adolescent marijuana use: Role of parents and peers", *Science* 181: 1067-108 1, 1973.

3. Richard Blum et al., *Horatio Alger's Children: The Role of the Family in the Origin and Prevention of Drug Risk* (San Francisco, Jossey-Bass, 1972).

4. WHO, Programme on Substance Abuse, "Preventing substance abuse in families: A WHO position paper", Geneva, 1993.

5. Anthony P. Jurich et al., "Family factors in the lives of drug users and abusers", *Adolescence* 20 (77): 143-159, 1985.

6. D. Corrigan, "Drug abuse in the Republic of Ireland: An overview", *Bulletin on Narcotics* 38 (1-2): 91-97, 1986.

7. D. Mohan et al., "Changing trends in heroin abuse in India: An assessment based on treatment records", *Bulletin on Narcotics* 37 (21-23): 19-23, 1985. Also see Sanjoy Hazarika, "Heroin addiction big new problem in India", *The New York Times*, 15 February 1987.

8. United Nations, "Women and drug abuse: A position paper by the United Nations", 11 February 1994.

9. World Bank, *The World Bank Atlas 1994,* Washington, D.C.. 1994, p. 18.

10. Market children are those boys and girls who are sent to work in the markets, usually selling something. These children retain some contact with family members. In contrast, street children are primarily abandoned and without families.

11. James D. Wright, Donald Karninsky and Martha Wittig, "Health and social conditions of street children in Honduras", *American Journal of Diseases of Children,* March 1993, vol. 147, p. 282.

12. LaMond Tullis, *Illegal Drugs in Nine Countries: Socioeconomic and Political Consequences,* Draft report prepared for UNRISD at Geneva and the United Nations University at Tokyo, 23 December 1993.

## B. 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 is discussed below.

The broader context of addictive substances includes tobacco, alcohol and solvents (including glues, thinners and gasoline). All of these substances have several important characteristics in common. They alter the function of the human brain and have an impact on behaviour; they are widely used throughout the world; and they burden society by increasing social and economic costs for productive enterprises and by drawing upon limited government services. The most widely used addictive substances, alcohol and tobacco, are harmful with extensive damage to the individual, family and the community.

> Tobacco and alcohol consumption account for nearly 5 million deaths annually worldwide. 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 (1, p. 5).

Disease, disability and dysfunction were obviously not included in the estimate in the box but would certainly increase significantly any estimate of human costs due to substance abuse.

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 (2, p. 4). 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" (3, p. 1). WHO's examination found that, during the period of 1980 to 1988, mortality related to drugs increased in some countries and decreased in others. It decreased in Japan and Thailand and showed little change in Austria, New Zealand and former Yugoslavia. Slight increases were seen in the former Czechoslovakia, the predecessor States of Germany, the Netherlands and Spain. Steeper increases in mortality were noted in Australia, Canada, France, Italy, Poland, the United Kingdom of Great Britain and Northern Ireland and the United States. High variability in mortality rates, however, was found within countries and from year to year.

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. Although commonly used, the term "overdose" is misleading since different reactions, such as hypersensitivity, may be the real mechanism of death in some cases rather than an acute intoxication effect due to excessive amounts of the drugs. 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 may play key roles in determining whether harmful effects occur in any individual case. The most widely used controlled drug, cannabis, could be associated with some fatal accidents despite its low acute toxicity. Concerning chronic use, there may be greater risks of damaging the lungs by smoking cannabis than tobacco (4). Commenting on the public implications of the use of addictive substances, a

major health report states: "Decisions about the control of tobacco and other addictive substances are among the most important health-related choices that societies can make collectively. In many populations, prolonged cigarette smoking is already the greatest single cause of premature death. Alcohol and other drugs also contribute to disease and disability. The damage from substance abuse is not limited to the individuals involved; others also suffer indirectly because of drunk driving, fires, passive smoking, and drug related crime and violence" (5, pp. 86 and 87).

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. Since substance abuse is not evenly spread throughout the population, it is advisable to determine the characteristics of the specific groups involved in order to plan interventions. 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.

The earliest stages of life are a particularly vulnerable time. Reporting on the effects of alcohol and drug abuse on foetuses in a study carried out in four Danish cities, one researcher has found (6) that the extent of maternal drug abuse is correlated with obstetric complications and developmental characteristics of the foetus. The effects of an unstable foetal life carry over into childhood. However, with care, many of these effects can be overcome. One of the most visible impacts of harmful drug use is seen in the consequences of cocaine use on newborn infants. Experts (7) have found that cocaine-using pregnant women have a higher rate of spontaneous abortion. Also, mothers who carried their foetus to full gestational term had infants with depressed behaviour and poor responses to stimuli. Other studies indicate that infants exposed to sedatives, stimulants or pentachlorophenol (PCP) may have marked deficits. PCP and cocaine used by mothers also may interfere with the essential bonding that occurs between mother and child at birth (8). Other investigators have findings supporting these views. In discussing the victims of drug abuse, a commentator (9, p. 52) notes that "maternal drug use is a substantial and apparently growing part of the problems of unhealthy newborns. The direct victim of such passive drug taking is the child, but there are indirect victims too. Drug-damaged children put burdens on 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. The damaged child's future schoolmates, workmates, and neighbors will all bear some of the cost". Quite apart from the direct consequences, the care of children abandoned by, or taken away from, addicted parents again implies a considerable social cost. Probably the most widely occurring substance abuse pattern in this context is the foetal alcohol syndrome, which involves both physical and mental deficiencies that are costly to treat, often requiring both intensive initial and long-term care.

The human immunodeficiency virus (HIV) causes the clinical disease acquired immunodeficiency syndrome (AIDS). Unknown before the 1980s, it now is an epidemic for which there is no known cure and no vaccine. The virus is spread by sexual intercourse, contaminated blood (e.g. during transfusions), mother-to-child transmission during the perinatal period and use of contaminated syringes and injection equipment. The importance of each of these means of spread varies from one region of the world to another. The devastating effects of AIDS are seen most clearly in the developing world.

When... estimates of AIDS cases are considered along with available data on the distribution and spread of HIV infections worldwide, it is estimated that as of late 1993, over 14 million adults and over 1 million children have been infected with 1-HV since the start of the pandemic (10).

Two-thirds of the AIDS cases, adults and children, are in Africa, where the primary means of spread is heterosexual contact. Males may acquire the virus through use of dirty injection equipment and then transmit it to female or male sex partners. Primary prevention is the only known means of slowing the spread of this virus. Early attempts to prevent transmission of the virus between addicts sharing dirty needles focused on information programmes that advised "Don't share needles or at least clean the syringe with bleach before reusing it". Recently, however, bleach baths for injection equipment have been found to be less than fully effective. Results from some of the needle exchange programmes, although less widely accepted, have been found to be positive, according to some health officials. Peer outreach models have been used in India, the United States and elsewhere.

In addition to increasing mortality, the rapid spread of AIDS, particularly in Africa, is producing a whole new class of poor, including orphans under 10 years of age who are expected to number 1 0 million or more by the turn of the century (11, p. xi). Serious effects are expected not only in mortality but also in reduced life expectancy, sexually transmitted diseases and endemic diseases such as tuberculosis. Impaired immune systems increase vulnerability to other diseases as well. "O has projected that in 2000, 2.5 million people will be newly infected with HIV, HIV prevalence will have reached 26 million, and AIDS deaths will total 1.8 million (reported in 5, p. 33). The impact of AIDS will depend also on fertility, mortality and other conditions. For example, in areas such as Thailand, where fertility and mortality rates are much lower than in sub-Saharan Africa, AIDS may well contribute to actual population declines over a period of 30 years or more (5, p. 33).

According to one expert, drug injecting has been identified in 80 countries and HIV infection in 52 of them. He states: "HIV prevention must ... consider interventions which help discourage drug injecting. Particularly at risk are countries in drug producing and along drug transshipment routes in South East and South West Asia, Africa, and South America. The diffusion of injecting can occur far more rapidly than the time it takes to introduce HIV prevention activities" (12, p. 2). According to this expert, 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 routes. In many countries the recent rapid diffusion of injecting has been followed by major outbreaks of HIV infection, for example throughout urban, rural and hilltribe areas in Thailand, in Manipur in north-cast India, Ruili in southern China, and Myanmar" (12, p. 8). Manipur, which shares a long border with Myanmar, and Madras, India, are examples of places where rapid increases of heroin injection have taken 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 (13, p. 3). 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. As one expert notes, the "most conservative predictions by public health institutions foresee increased use of illegal drugs via injection in many countries and increased transmission of HIV among people who take drugs in this way" (14, p. 82).

The relationship between the injection of drugs and HIV transmission has become a major concern in many parts of the world. But, according to a WHO report, less well "recognized, but statistically and medically more significant in terms of its overall societal impact, is the relationship between substance abuse and hepatitis, tuberculosis, cardiovascular diseases, cirrhosis and neuropsychiatric disorders;

disinhibition and sexually transmitted diseases; unwanted pregnancy and complications in pregnancy including fetal distress; and violence and suicide" (15, p. 1).

Treatment and rehabilitation are essential components of demand reduction. They should be seen as a means to help persons overcome addiction and not a form of punishment. Research has indicated that treatment, carried out under proper conditions, does change behaviour.

> Hundreds of psychotherapy outcome studies have demonstrated that people successfully change with the help of professional treatment ... . Similar results are found in the literature on addictive behaviours. ... These studies demonstrate that intentional modification of addictive behaviours occurs both with and without expert assistance (1 6, p. 1102).

Treatment provides a necessary foundation for rehabilitation and community reintegration. The setting in which it occurs (community-based, clinic, workplace, prison or other) may be less important than the skills of persons involved, the processes used and the type of treatment. In planning to prevent relapse, many services are needed, including rehabilitation, community services and active follow-up. Successful programmes require qualified staff, constant management, adequate resources and the flexibility to adapt to changing circumstances.

Since resources for specialized assistance for persons with drug problems are often not available in many countries, existing primary health care settings and networks may have to be adapted to care for drug abusers. The majority of persons in rural areas have no easy access to specialized health care but primary health care networks can provide a contact point and a means of intervention. One expert (1 7) has concluded that general health workers should receive training to deal with alcohol and drug problems, especially in such subjects as rapid assessment, counselling and crisis management of early phases of cases of substance abuse disorders.

Aggregate multicountry information on the costs of drug abuse is not available. In the United States, however, where this issue has been examined, drug abuse was found to impose a $44.1 billion dollar burden on the economy in 1985, with the projection of $58.3 billion for 1988. Calculations were based on the human capital approach, which is based on the value of productivity in terms of market earnings and imputed value for housekeeping services (18, p. 5). 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. This study's calculation of cost also included the value of productivity losses for victims of crime. Costs for men were twice that for women. 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. Estimates do not include costs of crack cocaine addiction and its devastating consequences because that problem emerged after this research was carried out in 1985 (18, p. 23). In the United Kingdom, the total identifiable costs associated, directly or indirectly, with drug abuse in 1988 were conservatively estimated at £1,821 million, with 80 per cent of this being the replacement value of stolen goods. Investigation, legal and sentencing costs were other categories and preventive and medical costs were relatively minor (19, p. 95). In Australia, researchers have examined alternative models to estimate costs, pointing out that any estimate may be misinterpreted. Citing previous studies (20, p. 23), researchers estimate that the annual avoidable tangible drug abuse costs for Australia for 1994 will be $AI 38 million. This amount is interpreted as indicating the potential

benefit which could result from effective intervention programmes. Clearly, the preparation of social and economic cost estimates is becoming a priority.

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 shows a surprisingly high number of admissions and costs for substance-abuse-related treatment. This study found that in 1991, "there were 2.2 million tobacco, alcohol or drug-related Medicare admissions, which accounted for 20 per cent of all Medicare hospitalizations (21). Because these substance abuse-related cases tend to be more expensive to treat than the average hospital case, the amount actually paid by Medicare for substance abuse-related care was even higher, accounting for 23 per cent or nearly one-fourth of the total Medicare payments for hospital care. 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" (22, p. 4). Furthermore, "Medicare spent over $13 billion of its $57 billion inpatient short-stay hospital expenditures on substance-abuse-related care. These amounts exceed the 1 out of 5 dollars spent in the Medicaid programme for substance abuse-related conditions" (22, p. 4). 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" (22, p. 5). 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; it is often unrecognized because drugs or alcohol may not appear directly in diagnoses and classifications but may be major risk factors contributing to other diseases and costly social disorders.

Paying for the costs of assistance to persons with drug problems raises many questions, including that of the role of the public and private sectors. Many drug abusers are unable to pay the costs of care by themselves and have no insurance or other means to pay when health care is primarily provided by the private sector. Public policy should take into consideration two points. First, priority should be given to the most important aspects of the drug abuse problem, such as compulsive heroin or cocaine users' inability to pay for treatment. Involving them in public treatment programmes would reduce the demand for these drugs and allow supply reduction efforts to be more successful since the compulsive drug users consume far more drugs than experimenters. Secondly, the issue of preventive care needs to be addressed. If preventive care systematically loses out to market forces, which are politically or commercially stronger, a government may need to intervene to ensure adequate support for prevention.

The cost picture is made more complex by the nature of the existing health care system. Does a national or comprehensive health care system exist? If it does, are drug treatment services covered? A major policy issue is whether information on costs of the problem is sufficient to draw conclusions about resource allocation. In addition, estimates are needed about the costs of various alternative policy responses, including what the consequences would be if limited or no intervention takes place by authorities. Allocation of scarce resources may be determined not only by costs associated with morbidity, mortality and associated social problems but also by other factors such as public perceptions of safety and security.

Although this discussion concerns the impact of illicit drugs, it should be borne in mind that many parts of the world lack adequate supplies of licit drugs, with neither essential medications nor access to basic health care. Highlighting the abuse of dependence-producing drugs does not, however, diminish the magnitude of problems related to the unavailability of licit narcotics or psychotropics needed for treatment of health problems. Programmes to control the illicit use of drugs may be designed which support

pharmaceutical control measures essential for distribution of licit drugs.

### *Notes*


1. James A. Cercone, *Alcohol-Related Problems as an Obstacle to the Development of Human Capital: Issues and Policy Options*, World Bank Technical Paper No. 219, Washington, D.C.,World Bank, 1994.

2. M. Frischer, S. T. Green and D. Goldberg, *Substance Abuse Related Mortality: A Worldwide Review*, Compiled for UNDCP, March 1994.

3. WHO, Programme on Substance Abuse, *Deaths Related to Drug Abuse*, Report on a WHO consultation, Geneva, 22-25 November 1993.

4. "Marijuana more harmful than tobacco", *New Scientist*, 17 December 1987, p. 15.

5. World Bank, *World Development Report, 1993: Investing in Health* (Oxford University Press, 1993).

6. Joav Merrick, "Addicted mothers and their children: research results from Denmark", *International Journal of Rehabilitation 8* (I): 79-84, 1985.

7. Ira J. Chasnoff et al., "Cocaine use in pregnancy", *New England Journal of Medicine 313* (1 I): 666-669, 1985.

8. Charles P. O'Hara, "Behavioral effects of phencyclidine and cocaine on infants exposed in utero, as measured by the Neonatal Behavioral Assessment Scale". Ph.D. Dissertation, California School of Professional Psychology, 1987.

9. Mark A. R. Kleiman, *Against Excess: Drug Policyfor Results* (New York, Basic Books, 1992).

10. WHO, "The current global situation of the HIV/AIDS pandemic", Geneva, 1994.

11. World Bank, *Combatting AIDS and other Sexually Transmitted Diseases in Africa: A Review of the World Bank's Agenda for Action*, World Bank Discussion Papers, No. 181, Washington, D.C.

12. Gerry V. Stimson, "The global diffusion of injecting drug use: implications for HIV infection", Presentation for VIII International Conference on AIDS/III-STD World Congress, 22 July 1992, London.

13. INCB, *Report of the INCB for 1992*, Vienna, 1992.

14. Don Des Girls, and Samuel Friedman, "AIDS and the use of injected drugs", *Scientific American*, February 1994.

*15.* WHO, Programme on Substance Abuse, *Strategy Document*, Geneva, 1990.

16. James O. Prochaska, Carlo C. DiClemente and John C. Norcross, "In search of how people change: Applications to addictive behaviors", *American Psychologist*, September 1992.

17. S. W. Acuda, "Community participation and the role of primary health care in treatment and rehabilitation of drug dependent persons", unpublished paper, Harare, Zimbabwe.

18. D. P. Rice, S. Kelman, L. S. Miller and S. Dunmeyer, *The Economic Costs ofalcohol and Drug Abuse and Mental Illness: 1985* (Washington, D.C., Government Printing Office, 1990).

19. C.S.J. Fazey, and R.C. Stevenson, *The Social and Economic Costs of Drug Abuse in the UK. and the Netherlands,* Commission of the European Communities, London.

20. D. J. Collins and H. M. Lapsley, "Issues and alternatives in the development of a drug abuse estimation model", Paper presented at the International Symposium on the Economic and Social Costs of Substance Abuse organized by the Canadian Centre on Substance Abuse, Banff, Canada, May 1994.

21. IntheUnitedStates,theMedicareprogrammeissimilartoasocialinsuranceprogrammefunded through payroll taxes, premiums and Federal revenues. Medicaid, on the other hand, is a welfare programme to cover the medical costs of low-income and needy persons.

22. Centeron Addictionand Substance Abuseat Columbia University, TheCostofSubstanceAbuse *to American's Health Care System. Report2: Medicare Hospital Costs, Mayl994.*

## C. Education

Education is the principal means of preventing drug abuse. In addition to educational institutions, other settings are important for the contributions they make to learning and socialization. Home, workplace and religious institutions, to name three examples, are settings for the education of young and old alike. 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, to have real impact on the drug problem, 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. The short-term approach (to control the supply of drugs) and the long-term demand reduction approach by education are two ends of a continuum which are often placed in opposition to each other. In reality, both are essential parts of a comprehensive view of prevention of drug abuse.

To clarify and assess human progress, a yardstick termed the Human Development Index (HDI) has been prepared by UNDP. HDI (1, p. 10 and p. 104) uses real purchasing power, health and education indicators to provide a broader picture of human progress than was previously available on comparative income bases. Generally measuring the ability of people to live a long and healthy life, HDI reflects the importance of education to human and social development and provides a focus for health planning. By focusing on specific target groups, preventive health education has the dual goals of forestalling the abusive use of drugs and promoting human development (2, p. 9).

Adolescence is a time when enormous changes take place in the process of normal development. In many cultures it is, according to one observer, "a time for developing a person's sense of selfidentity, a process that involves separating from parental attachments and values and establishing new social ties, values and ideals. In separating from parents, youth need to form other meaningful relationships. Sometimes the peers with whom the growing youth associates influence him or her to adopt drugs as part of their social behaviour. However, the effect of drugs may not be to enhance social relationships and self-identity. Rather, the drugs may cause the growing girl or boy to become apathetic and emotionally detached and, consequently, to face problems of establishing social bonds, with the result that the youth becomes increasingly isolated emotionally and socially" (3, p. 1470).

Although many officials show concern about drug abuse, some also minimize the risks (4, p. 18). The word "drugs" often causes associations with illness, even shameful illness, although less so for alcohol and tobacco than other drugs. This may be the reason why some officials minimize the risks involved in drug use. Cultures vary enormously with respect to their degree of stigmatizing persons with health or social problems.

In some countries, only a minority of the children go to school, and those in school may stay there for only a few years. In these situations, methods need to be adapted when preparing health education approaches for drug abuse prevention, particularly for rural youth. Flexible methods include innovative out-of-school approaches to health promotion activities consistent with community values and standards. When fewer children go to school or when families are less integrated, adaptive changes in educational interventions are needed for both formal and informal approaches.

The effects of cannabis, the most widely used illicit drug, have been reviewed by many authors (5, p. 191 and p. 201). One study which has summarized this work indicates that chronic or acute

use of cannabis may result in preoccupation with the immediate present, an impairment of short-term memory and other mental functions, impaired tracking ability in sensory and perceptual functions, adverse emotional and social development of children and adolescents, and impaired classroom performance. The degree of impairment follows the dosage amounts used, everything else being equal. Summarizing the potential impact of several kinds of drugs, another commentator (3, p. 1470) has concluded that "drugs can decrease cognitive operations, making it difficult for the youth to develop a functional set of values and ideals. Reduced cognitive efficiency also leads to poor academic performance and a resulting decrease in self-esteem, contributing to instability of the individual's sense of identity". Drugs may preoccupy and come to dominate the person's thinking as providing a solution to problems that need, in reality, non-drug solutions. Youth, as well as adults, may take drugs to deal with problems which cannot be resolved by such substances.

Approaches to education about drugs may be grouped conceptually into a threefold typology: (a) the chosen educational strategy or approach (direct, alternative or indirect and selective); (b) the target group and (c) the type of activity and teaching materials used. Depending on the target group, a direct substance-centred approach may be used. It is possible to make the environment of the individuals involved the target, although this is not frequently done. Also, educational activities may be carried out by adults, teachers, specialist educators, youth leaders, parents or peers (4, pp. 28-29).

Spending for the general education of youth, frequently relatively small, is often allowed to fall behind other areas. According to UNESCO, "public expenditure in education has continued to stagnate in most countries, accounting for about 3 per cent of GNP for the developing countries of Asia as a whole" (4, p. 5). Where drug abuse education fits into overall national funding priorities is not clear. Nor is information available about the relation of amounts spent on drug abuse education compared to other educational activities. Programmes for educating various target groups vary enormously in cost, from practically nothing for activities using donated time or free resources from sponsors to very expensive for high technology mass media programmes. The cost-effectiveness approach is a means to determine the most suitable responses to drug abuse. Unfortunately, information about the costs and outcomes of various intervention measures for drug abuse education is not usually available. In the absence of this kind of information, alternative educational measures may be compared on the basis of costs and other factors to determine their suitability for use in programmes.

The mass media have been used in many different types of campaigns and programmes. However, the objectives of mass communication efforts have often been unclear and lacking in specific outcome goals. They are based on the assumption that peoples' knowledge, attitudes and behaviour can be influenced in a desired direction. Television, radio, newspapers, posters, brochures - all of these may reach a large number of persons. The overall effect of their use on various target groups in many different countries has not been evaluated. There are examples (3, pp. 219-220, and 6) of inquiries into the success of mass media efforts. Specialized communication techniques have recently been examined from the standpoint of the potential for reducing drug demand and promoting alternative development. The dramatic success of child immunization campaigns in developing countries may provide useful ideas for the drug abuse field (7). Applicability of similar techniques to drug abuse education has been the subject of some speculation. Qualitative audience research and focus groups have been proposed as a means of obtaining a better understanding of the common underlying causes of drug abuse in various groups. Further study of the impact of the mass media on attitudes and behaviour in a variety of social and cultural contexts is needed.

## *Notes*


1. *UNDP, Human Development Report 1993* (New York, Oxford University Press, 1993).

2. UNESCO, "Prevention of drug abuse through education and information: An interdisciplinary responsibility within the context of human development", Paris, 1993.

3. K. E. Thomas, "Drugs and human development", in *The International Encyclopedia of education* Research and Studies, vol. 3, T. Husen and T. Postlethwaite, eds. (Oxford, Pergarnon Press).

4. UNESCO, "Education for development: responding to new challenges" (ED-93/CONF.202/LD. 12).

5. LaMond Tullis, *Handbook of Research on the Illicit Drug Traffic: Socioeconomic and Political Consequences* (New York, Greenwood Press, 1991).

6. Patricia Bandy and Patricia A. President, "Recent literature on drug abuse prevention and mass media: Focusing on youth, parents, women and the elderly", *Journal* of *Drug Education, 1983.*

7. Colin Fraser, "Communication and social mobilization for drug abuse control - What Prospects?" Paper for presentation to the senior management of UNDCP@ Vienna, 16 March 1994.

## D. Crime

Countries vary in the way they define crime. In the drug abuse field, however, a common conceptual structure is provided by international drug treaties. Several of the treaties have obligations which require penal provisions in national law for illicit traffic offences (1, p. 4). Requirements concerning illicit demand are more complicated. Countries implement both supply and demand obligations in enormously varied ways.

Crime and drugs may be related in several ways, none of them simple. First, illicit production, manufacture, distribution or possession of drugs may constitute 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 and terrorism.

Whether illicit drug use should be considered a crime, a disease, a social disorder or some mixture of these is debated in many countries. Often, public policy is ambivalent about the nature of addiction, with social attitudes towards drug abuse reflecting uncertainty about what causes abuse and who is ultimately responsible.

A continuum exists in relation to accepted social status and crime. At one end is law-abiding behaviour and at the other, criminal activity. Between these two extremes are found deviant behaviour and delinquency. Many marginal persons who use drugs do not go on to become delinquents or criminals. If progression along this continuum does not take place within a country, the concept of progression is even less applicable across cultures. What is marginal or deviant in one culture may be tolerated or even considered to be part of the mainstream in another.

Information collected by police or other authorities varies from country to country. The amount of unreported crime depends on many variables. States parties to the international drug control treaties have an obligation to report on drug abuse to the United Nations. Reports on the illicit traffic and drug abuse are presented to sessions of the Commission on Narcotic Drugs, which meets regularly in Vienna. Whatever the limitations are of reports to the United Nations as estimates of the illicit traffic, these reports do shed light on how serious the situation is. Using these various sources of information, UNDCP has recently reported the spread of illicit opium poppy cultivation in Latin America, increased heroin abuse in parts of Africa and Asia and increased cocaine abuse in Latin America and the Caribbean. These increases, along with other information about current trends, reflect a bleak picture (2, p. 2).

The United Nations conducts and publishes a series of surveys of crime trends, operations of criminal justice systems and crime prevention strategies in Member States. Reports on crime-related matters, including the impact of organized criminal activities on society at large and control of the proceeds of crime, are presented to the Commission on Crime Prevention and Criminal Justice. The sharpest increase in crime. recorded in both the 1980-1985 period and the 1975-1989 period was in drug-related crime and robbery. The rate of increase in drug crimes was greater than for all other types of crime, except kidnapping, for which the base figures were low (3, chap. 11)

The complex connection between drug use, delinquency and crime has been discussed by experts for decades. Substance use and delinquent behaviour are often related, especially as either drug use or delinquency become more serious. Early sexual activity is strongly related to delinquency and drug abuse. Girls who have been pregnant report increased prior use of alcohol and other drugs. Youth who do not feel a strong attachment to their parents are more likely than others to use drugs and become delinquent, consistent with the findings cited earlier in the section on the family.

One aspect of this connection between drugs and crime is temporal causation: which is cause and which is effect? In the case of individual addicts, drug use may precede crime or the reverse. After examination of groups, researchers in the United States have concluded that many variations exist but that some delinquency or crime often precedes addiction. They have found that involvement in property crime generally precedes the addiction career. After addiction occurs, property crime increases and narcotic use is further increased. One expert found that during "... periods of curtailed narcotics use produced by treatment, property crime levels are significantly reduced and become extremely low after termination of the addiction career" (4, p. 197).

Researchers have found a close connection between drug abuse, criminal behaviour and social attitudes. Review of the crime/drugs literature (5, p. 270) supports three notions: heroin addicts are usually deeply involved in crime; daily opiate use increases criminality several fold; and many heroin abusers are not interested in obtaining treatment although drug treatment programmes do reduce the criminality of addicts while they are in treatment.

Whether causality is involved in these relationships is not clear. Illicit drug use, delinquency and crime are best seen as closely interrelated behaviours, especially when they occur in contact with the supply of illicit drugs. Drugs and crime cannot be considered separately, in isolation from each other, especially if they emerge from a common set of circumstances. The close connection between drug use and criminal behaviour is supported by many studies. A national survey in the United States examined the relationship between drug use and criminal behaviour. Results show that "drug use is a strong correlate of being booked for a criminal offence, but age is the more important correlate of criminal involvement. There were few differences in models predicting violent as opposed to property crime, although minority status was a more important predictor of violent crime, and poverty was a more important predictor of property crime" (6).

The close connection between crime and drug use is seen in studies of arrestees. The Drug Use Forecasting Program of the United States National Institute of Justice monitors drug use among recently arrested persons in selected cities. Periodically, examinations are conducted on a sample of arrestees in booking facilities. A study of findings on males in 14 United States cities in 1989 used urine screening and selective confirmation tests for 10 drugs (7). Preference for selection into the testing programme was given to persons charged with serious non-drug-related offences. With a total of nearly 3,000 tests, results were drug positive for cocaine for a high percentage of persons in New York (76%), Philadelphia (74%) and the District of Columbia (65%). Smaller cities had lower percentages of positive test results: Indianapolis (26%) and San Antonio (24%). The test method used detects only drugs used 2-3 days prior to arrest so that actual drug use by arrestees was probably higher than the results obtained. Upon interview, arrestees revealed a surprisingly high percentage of needle sharing, with the lowest percentages found in Detroit (10%) and San Antonio (48%). In sum, from one-fourth to three-fourths of the serious non-drug offenders tested positive for cocaine, many tested positive for other drugs, and a substantial portion of these arrestees are at significant risk of acquiring HIV and other blood-borne infections.

When drug problems in a community are perceived as serious, people must face unpleasant alternatives. They can accept the reality of drugs in their neighbourhood, adapting to a situation that they cannot hope to change immediately; they can change their lifestyle to reduce the threat of drug dealing and violence in their streets and buildings; they can change the environment by some form of community action either with or without the support of the police; or they can flee to safer housing if possible. Many of these alternatives are not available to persons living in poverty or with limited means. Thus, with fewer choices, the poor pay a greater personal price for drug problems than others.

Another implication of crime is that the political agenda becomes filled with drug abuse issues and

related problems, such as fear of violent crime, vulnerability of youth and increased prostitution. Reactions in communities vary from resignation to indifference to active mobilization and resistance. Some citizens' groups organize themselves and have found ways to disrupt traffickers, from the use of telephone call-in on hot lines to boarding up vacant buildings previously occupied by drug users (5, p. 275).

A number of terrorists and organized criminal gangs are involved in or have close ties to the illicit drug trade. The link between the two is often money and power. One commentator cites an example of terrorists and drug dealers joining forces as follows: "Colombian political terrorists ... financ[el much of their operations through the drug trade, which has caused some "conventional" drug barons to explode in retribution" (5, p. 52). Colombia has emerged as a centre of trafficking in cocaine, blending highly organized social and economic interests with an underground specializing in drug crime (8). Organized crime is not restricted to one area of the world. In Italy, faced with a socially entrenched, long-standing criminal element, authorities have enacted laws against the Mafia to seize and confiscate property illegally acquired. Aimed at depriving organized crime of their supply of money, these laws are reported to have had a positive impact (9).

Political changes may affect smuggling patterns, organized crime and drug abuse. A study of the effects of opening the borders within the European Union has raised the issues of drug trafficking, terrorism and computer crime. In the past, close links existed between terrorist groups in several European countries. Fewer control points between member countries of the European Union may make it more difficult to maintain adequate security. In the countries of the former Soviet Union and with the opening of eastern Europe, major changes are taking place in social controls, rules and laws. New frontiers tempt smugglers of drugs and other merchandise (11, p. 29).

Illicit traffic in drugs generates enormous profits. Funds are obtained in or converted into an international currency and then moved into financial centres which can electronically transfer the money around the world. The process of moving the money makes its origins indistinguishable from those of legitimately obtained currency. Shell, ghost or front operations are used in this process, as are businesses which handle large amounts of cash.

Financial flows from drug trafficking may be estimated directly or indirectly (1 2, pp. 4-6). The direct approach involves analysis of international banking and capital account statistics for the balance of payments. Indirect methods use estimates of world drug production, the consumption needs of drug abusers or the actual seizures of illicit drugs. Reviewing the situation with respect to opium, coca and cannabis, an OECD Financial Action Task Force has found that "although a large part of heroin, cocaine and cannabis production is consumed in industrialized countries, important quantities are also consumed in producing countries, especially heroin, where they also generate profits. ... Psychotropic substances such as amphetamines/methamphetamine and LSD are produced in clandestine laboratories, including some within Task Force countries. Large amounts of cash are derived, although not on the same scale as for cocaine and heroin" (12, p. 5).

Using the methods described above, it was estimated in this report that sales of cocaine, heroin and cannabis amount to approximately $122 billion per year in the United States and Europe, of which 50-70 per cent or as much as $85 billion per year, could be available for laundering and investment (12, p. 6). Given the magnitude of these estimates, the economies of the countries involved are likely to be overwhelmed by drug money. In the case of countries whose economy is dependent on commodities, such as is the case with Colombia and its coffee exports, sharp falls in the world price of the commodity may increase the importance of drug money to the national economy.

The $85 billion per year estimated from illicit trafficking in heroin, cocaine and cannabis makes it larger than the GNP of three-fourths of the 207 economies of the world. This amount is larger than the GNP of Poland or Portugal and slightly smaller than that of Hong Kong.

At a different level, medications, which play an important role in the relation between physicians and patients, may also give rise to unlawful activity. Patients may pressure doctors for drugs when they are not indicated. The number of patients who misuse medications or seek psychoactive drugs for non-medical use or for resale is sizeable. As cited by an official of a large medical association, one estimate is that 3 per cent of patients somehow misuse prescriptions for controlled drugs. This report on the abuse of prescription drugs in the United States says that "in surveys by the National Institute on Drug Abuse, more than half of patients who sought treatment for or died of drug related medical problems were abusing prescription drugs" (13). Physicians and pharmacists occasionally contribute to this problem for several possible reasons: for profit, or because they follow out of date professional practices, are duped by patients or do not recognize forged prescriptions.

In addition to physicians' or pharmacists' lack of professional management of drugs, counterfeit or other illegally manufactured drugs are widely available in some countries. Whether illicitly made in clandestine laboratories or diverted from stocks of legitimate drug manufacturers, the profits gained from selling such drugs are extremely high. With pharmaceutical production controls providing reliable quality, these drugs are stolen and then marketed along paths of least resistance and most profit. Stimulants, depressants, hallucinogenics and sedative-hypnotics are major types of drugs sold illicitly. A common pattern is for psychotropic drugs to be made in industrialized countries and then shipped to markets around the world. With legitimate pharmaceutical companies having long lines of distribution and high potential profits, theft may occur anywhere along the chain of intended distribution. Dealers may buy or steal equipment to make pills or capsules, setting up businesses which appear to be involved in legitimate manufacture of drugs (14).

The impact of drug abuse on law enforcement is extensive. At each step along the way of production, distribution and consumption, drugs have an impact because they divert time, energy and resources away from other responsibilities. Intelligence, surveillance, interdiction and seizure, prosecution and adjudication, sentencing, prisons, probation and parole - all of these measures may need to become specialized to deal with the complexity and volume of drug cases. Special drug courts are needed in some countries to process the load of drug cases. The overall costs of drug abuse to society are a subject of growing interest in the process of making national and international policy.

The illicit trafficker, the crop grower, the petty dealer in the neighbourhood, the money launderer and those who support them - all may make immediate profits. The proportion of persons that gets caught is not known and it is also unknown how long they stay in business. The profits of small-time dealers may be exaggerated, however. A study of 186 drug dealers reported a median net earning of $721 per month from drug sales and $2,000 per month for the 37 per cent of dealers who reported selling drugs on a daily basis. "Street-level drug dealing appears to be a complement to, rather than a substitute for, legitimate employment, and it appears to be less profitable than media reports would suggest" (15, p. 477). As for the careers of most dealers, it is likely that more dealers decide to quit on their own than are detected and stopped. The aim of the criminal justice system is not to catch all dealers but to be effective enough to dissuade most people from this illegal activity in the first place.

## *Notes*


1. United Nations, *United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988* (United Nations publication, Sales No. E.91.XI.6) and *Report of the International Narcotics Control Board for 1992,* United Nations, New York, 1992.

2. United Nations, "Report of the Executive Director: Activities of the United Nations International Drug Control Programme", Prepared for the Commission on Narcotic Drugs, Thirty-sixth session (E/CN.7/1992/3).

3. UnitedNations,CrimeTrendsandCriminalJusticeOperationsattheRegionalandInterregional *Levels: Results of the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies* (United Nations publication, Sales No. E.94.1V.2

4. M. Douglas Anglin and George Speckard, "Narcotics use and crime: A multi sample, multimethod analysis", *Criminology,* vol. 26, No. 2, 1988.

5. LaMond Tullis, *Handbook of Research on the Illicit Drug Traffic: Socioeconomic and Political Consequences* (New York, Greenwood Press, 1991).

6. Lana Harrison, and Joseph Gfroerer, "The intersection of drug use and criminal behavior: Results from the National Household Survey on Drug Abuse", *Crime and Delinquency,* vol. 38 (4) 422-443.

7. United States Government, *Morbidity and Mortality Weekly Report,* vol. 3 8, No. 45, pp. 780-783.

8. Bruce M. Bagley, "Colombia and the war on drugs", *Foreign Affairs 67* (I): 71-92.

9. Pino Arlacchi, "Effects of the new anti-Mafia law on the proceeds of crime and on the Italian economy", *Bulletin on Narcotics* 36.4 (October-December): 91-100, 1984.

10. Richard Clutterbuck, *Terrorism, Drugs and Crime in Europe after 1992* (London, Routledge, 1990).

11 "The high price of freeing markets", *The Economist,* 19 February 1994.

12. OECD, *Report of the Financial Action Task Force on Money Laundering, Paris,* 7 February 1990.

13. Bonnie Wilford, "Abuse of prescription drugs", *The Western Journal of Medicine,* vol. 152, No. 5, May 1990.

14. I. Bayer, "The monitoring of trade in and control of psychotropic substances to guard against their diversion", *Bulletin on Narcotics* 35 (4): 3-13, 1983.

15. Robert Maccan and Peter Reuter, "Are the wages of sin $30 an hour? Economic aspects of street-level drug dealing", *Crime & Delinquency,* vol. 38, No. 4, October 1992.

## E. Work and employment

Work status includes more than being either employed or unemployed. Also to be considered are the rate of underemployment and the extent of work in the informal sector. What is perceived as an employment problem also varies according to the views of society. For example, if youth have low status in a particular culture, the fact that they are disproportionately unemployed, not to mention underemployed, may be of little interest to decision makers. If a society places youth in a marginal status until some distant adulthood, it is even more difficult for young people who have been associated with drugs to obtain productive employment. These adverse effects on youth may also appear for female youth, who in some cultures do not normally have prospects for occupational roles outside the home.

According to "an estimated 30 per cent of the world's labour force are not productively employed. More than 120 million people are registered as unemployed; some 700 million are underemployed" (1, p. 89). Further, the disparity between the income levels of people in rich and poor countries is growing larger, and even when there has been a drop in poverty levels in some countries, the distribution of income has not correspondingly improved (1, p. 19).

Employment has constantly lagged behind economic growth for both developing and industrialized countries. The situation in both is similar in one respect: substantial increases in capital investment or productivity have not always created a corresponding number of jobs. One study terms this phenomenon "jobless growth" (2, p. 36). Policy makers are searching for ways to increase the number of jobs along with economic growth. The number of young people is expanding faster than available jobs. The disparity between the size of the labour force and the number of persons employed is projected to worsen throughout the 1990s. ILO estimates, for example, that "the labour force for sub-Saharan Africa will grow 3.3% a year in the 1990s, while productive employment will increase by only 2.4% a year. Even this employment growth assumes an acceleration of GDP growth from 3.7% to around 5%. This situation is unlikely to be any better in Latin America or South Asia" (reported in 2, p. 37).

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. Add to this the fact that many of the jobs that are available are separated from the community and the family support network necessary to sustain workers, and the ingredients for intensification of social problems are clear. Education and training, often mentioned as solutions to unemployment, may be part of the problem rather than the solution since the existing supply of educated and trained persons frequently exceeds the demand in many countries. 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. Thus the point of maximum benefit of prevention programmes may occur before or at the point of entry into the labour market. 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.

In many parts of the world, the workplace and living areas are not separate. Even if property lines set these two areas apart, people pass back and forth frequently between the two. The close connection between the family and the work setting make it more difficult to use formally organized welfare services or assistance programmes to assist with workers' problems. Moreover, community or

government agencies, such as occupational safety and health departments, are less able to assist **workers** in informal or in home work settings.

The relationship between drug and alcohol abuse and the workplace is significantly influenced by national, social, cultural, ethnic, religious and gender issues. Cultural or group practices may also facilitate drug or alcohol abuse. Drinking or drug abuse cultures exist in some workplaces and some of them set a standard that may be imposed on the non-user. In addition, conditions in some workplaces involve exposure to harmful or dependence-producing substances, such as glue in shoe factories. Employees may follow fads or local customs and accept substance abuse, holding views that are clearly inconsistent with known facts about their physical effects. A recent study in Portugal found that there are "still some workers who believe they can work with more precision if they drink a certain amount of wine and there are some employers, both in the building and agricultural sector, who offer free wine to get some work done" (3, p. 17).

While the consequences of unemployment vary, it usually reduces the ability of the person to participate in the social, economic and political life of the community (4, p. 127). Unemployment is itself a marginal status so long as employment is the norm. With increased migration from rural areas to cities, more competition exists for jobs. Without training and employment, young people may find themselves on the fringes of an urban society. Since the expectation exists for most people to engage in productive work of some kind, unemployment may become a state of idleness. When employment means separation from the family and friends, social relationships may deteriorate. If living at home, the unemployed person may feel that the lack of work places an undue burden on the family that may already have difficulty meeting the needs of its members.

The workplace reflects the strengths and weaknesses of the community. To assess the scope of drug and alcohol problems, a Canadian study (5) carried out three surveys of more than 2,000 persons in the Alberta workforce, including both the current workforce and those actively seeking work (6, p. 24). Less than 1 in 16 persons reported using illicit drugs, mainly marijuana, in the past 12 months. Among current drug users, 18 per cent reported at least two personal problems associated with their drug use. Alcohol was the most frequently used substance.

In research carried out more than 10 years ago (7), disruptive drug use was examined in an extensive study of 468 young adults in Los Angeles, one-third of whom were minorities (black, Hispanic or Asian). Thirty-one per cent admitted to being drunk, stoned or high on at least one psychoactive substance while at work or school during the past six months. Less than 13 per cent of these young adults had sold any illicit drug during the past six months. Disruptive drug use was not limited to a single substance and characteristically involved multiple substances. Alcohol was the most prevalent class of substance used, and marijuana was the most prevalent individual substance used at work or school. The magnitude of the relationship of disruptive drug use and work-related variables was small to moderate. However, "disruptive use of all drugs was significantly correlated with the more times that one lost a job during the past four years, losing a job in the past six months, increased trouble with job, increased vandalism at work, and increased seeking of support and advice from family and friends for a work problem" (7, p. 85).

A recent study carried out by ILO and the Commission of the European Communities examined drugs and alcohol in the European workplace. A total of 237 respondents from employers', enterprises' and workers' organizations provided information on drug and alcohol uses of nearly 1.5 million workers in Europe (8). The frequency of drug- and alcohol-related problems during the last three years was obtained for 13 different problems. As indicated in the table below, more than half of the sample reported specific performance impairments and absences from work as a result of drug-related problems. In about two out

of five cases, organizations had dismissed employees for drug-related reasons. This study also compared the five most frequent problems related to drug and alcohol for the same 237 respondents. The results indicated that drug and alcohol use were associated with the same types of problems, but those associated with alcohol occur more frequently than those with drugs. More respondents thought drug and alcohol problems in combination are increasing rather than decreasing. Also, 87 per cent (N=65) of the respondents thought an increase in the number of workers with prescription drug problems had taken place over the last three years. The percentages of respondents concerned about alcohol and drugs as potential causes of work-related problems were as follows: alcohol (87%), prescription drugs (64%), cannabis (54%), opiates (53%) and stimulants (50%). Alcohol was clearly the priority concern, with prescription drugs second. Twenty-three enterprise respondents reported that 1-5 problem drug users had been identified in their enterprises and 15 said 6-50 persons had been identified as having problems.

**Most frequent problems related to drugs and alcohol (N--237)**

| *Alcohol* | *%* | *Drugs* | *%* |
|---|---|---|---|
| Impaired performance | 87.5 | Impaired performance | 55 |
| Intoxication at work | 81.4 | Absence from work | 54.5 |
| Lateness | 81.4 | Disciplinary problems | 47 |
| Disciplinary problems | 80.6 | Intoxication at work | 44 |
| Absence from work | 78 | Dismissal | 41.8 |

*Source:* Jean Paul Smith, "Alcohol and drugs in the workplace: Attitudes, polices and programmes in the European Community", Report prepared for ILO in collaboration with the Health and Safety Directorate, Commission of the European Communities, Geneva, 1993, p. 11.

A recurrent issue concerning workplace substance use and abuse is whether workers' substance use should be a concern of employers. Some employers saw productive employment as incompatible with any illicit drug use, whether it takes place at the work site or elsewhere. Others indicated that the employer's concern should be only with job performance and that the private lives of workers were not their business. This complicated issue is related to the nature of the job, the degree of responsibility employees have for the safety and welfare of others and the social and cultural values of the family and community.

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 alcohol and other drug uses. More direct measures of the quality of worker performance hold promise for determining workers' fitness to perform specific jobs at specific times, regardless of the potential cause of impairment" (9, p. 10).

Drug effects seen in the workplace depend partly on the Performance requirements of the job. Tasks that require higher level judgement, constant attention, immediate memory and fine motor skills are more easily disrupted by drugs than physical labour. Marijuana, for example, may disrupt cognitive

functions, increase response time and lower psychomotor accuracy. Opiates, even in low doses, may bring about mood changes, decrease activity and impair psychomotor skills related to driving and related tasks. Cocaine, at low doses, may enhance performance on simple tasks as long as the takers do not overestimate what they can do and do not take risks beyond their capacity to perform. Repeated use of cocaine, crack or related substances quickly leads to compulsive use, dependence and problems on and off the job (6, chap. 2). In spite of all these qualifications, it is clear that drug problems reduce job attendance and impair performance.

Do alcohol and drug abusers cost the workplace more than non-users? The ILO study referred to above (8) found that two-thirds of all participants agreed that alcohol and drug abuse resulted in significant costs in European workplaces. Enterprises, workers and employers did not significantly differ on this question when statistical tests were carried out on questionnaire responses. 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. It was found that differences between those who tested positive and those who tested negative increased with time. In this study, "updated absenteeism and turnover data were collected for inclusion into the utility analysis follow-up. The most recent update (June 1991) indicated that the absenteeism and turnover differences between the positives and negatives have further increased but the rate of increase appears to be levelling off. Estimates based on employees who had an average of 3.3 years of tenure suggest that the Postal Service, by screening out applicants who test positive for drugs, can expect to save approximately $105 million dollars in absenteeism and turnover cost over the tenure of one cohort of employees" (10, pp. ii and iii). The cost-effectiveness of the screening technique depends, in part, on the base rate of the behaviour involved. 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" (11, p. 49).

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" (6, p. 57).

## *Notes*

1. ILO, "Defending values, promoting change: Social justice in a global economy: an ILO agenda", Report of the Director General (part I), p. 89.

2. This section of the paper draws heavily on UNDP *Human Development Report 1993* (New York, Oxford University Press, 1993), chap. 3.

3. Orlindo G. Pereira, "Alcohol and drugs in the workplace: attitudes, policies and programmes in Portugal", Country report for ILO in collaboration with the Commission of the European Communities, Lisbon, 1993.

4. Le Thanh Khoi, "For or with young people: the Asian perspective", in *Facing the Future: Young People and Unemployment Around the World* (Paris, UNESCO, 199 1).

5. Alberta Alcohol and Drug Abuse Commission, *Substance Use and the Alberta Workplace: Summary Report,* Edmonton, 1992.

6. Barbara Butler, *Alcohol and Drugs and the Workplace* (Toronto, Butterworths, 1993).

7. Michael D. Newcomb, *Drug Use in the Workplace: Risk Factors for Disruptive Substance Use Among Young Adults* (Dover, Massachusetts, Auburn House).

8. Jean Paul Smith, *Alcohol and Drugs in the Workplace: Attitudes, Policies and Programmes in the European Community,* Report of ILO in collaboration with the Health and Safety Directorate, Commission of the European Communities, Geneva, 1993.

9. Jacques Normand, Richard 0. Lempert and Charles P. O'Brien, eds., *Under the Inj7uence? Drugs and the American Work Force,* Committee on Drug Use in the Workplace, National Research Council/Institute of Medicine (Washington, D.C., National Academy Press, 1994).

10. United States Postal Service, Personnel Research and Development Branch, Office of Selection and Evaluation, *Utility Analysis of premployment Drug Testing As a Selection Device,* June 199 1.

11. Craig Zwerling, "Current practice and experience on drug and alcohol testing in the workplace", in *Drug and Alcohol Testing in the Workplace: Report of the Interregional Tripartite Experts Meeting, 10-14 May 1993, Oslo* (Geneva, ILO, 1994).

# Part three

In Part three, several broad development issues will be examined, including the harmful environmental impacts of drug abuse, issues related to economic and social development, and alternative development. Conceptually and practically, alternative development provides a means to combine general economic and social development with the specific aims of drug abuse prevention and control. This section supports three points of view: one, illicit drug manufacture causes serious environmental damage; two, drug abuse prevention supports broad economic and social development; and three, for some countries, broad economic and social development efforts should include prevention of drug abuse.

## III. Drugs and the environment

Environmental degradation in developing countries is due principally to population pressures, shifting cultivation patterns and the extraction of resources from the earth. In developing countries in the tropics, damage is also inflicted on rain forests, which are cleared for new farms, roads, ranches, dams, factories and other buildings. 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.

Since coca growers want to avoid police and military detection, they select remote and difficult terrain to clear. According to a recent report, "coca farmers cut down forests on steep hillsides subject to erosion, instead of expanding cultivation of rich alluvial soil on the valley floors" (1, p. 16). An expert from Peru's National Agrarian University (2), states that coca cultivation may have resulted in deforestation of 700,000 hectares in the Amazon region. The situation in Bolivia has similarities to that in Peru. In reviewing the impact of coca growth on the environment in Bolivia, a country expert found that "farmers in the Chapare are estimated to clear between 2 and 6 hectares of land for every one in production. Assuming a (low) peak figure of 52,000 hectares of coca under cultivation in the Chapare ... and an average 2.5 hectares under cultivation with coca and other crops, this would mean that between 260,000 and 780,000 hectares have been cleared as a result of the boom in coca production. This would represent a significant chunk of the 250,000 hectares of forest estimated to be lost annually in recent years due to timber extraction, colonization, and cattle ranching" (3, p. 66ff.).

Opium poppy cultivation has historically taken place in South-East Asia, where hill tribe farmers have cleared enormous amounts of rain forest to support their slash-and-bum agricultural system, using the new land for poppy growth and then subsequently moving to find more fertile land. More recently, significant poppy growth has taken place outside South-East and South-West Asia. In the tropical and high mountain forest regions of Latin America, opium poppy cultivators are planting crops on fragile land that is isolated from population centres, thereby reducing visibility and possibility of detection. Cannabis is even more widely grown than either opium or coca. Cannabis growers typically try to use the most fertile soils to produce the biggest crop, often abandoning fields after runoff and erosion have taken place.

In an effort to examine the linkage between illicit drug cultivation and harmful environmental impacts, one expert has noted that, unlike indigenous farmers, cultivators of drug crops have fewer ties to the land and are less respectful of it (4, p. 10). As a consequence, their practices are far more wasteful, depleting the soil without allowing an opportunity for it to restore itself. In the effort to produce more plants, growers frequently use herbicides and insecticides, often in large amounts without following the prescribed procedures.

Another form of damage to the environment caused by growers of coca and opium results from the improper disposal of toxic wastes created during the processing of the plant material into a consumable drug (1, p. 16, and 4, p. 67). Chemicals used to process plants are often simply thrown on the ground or into streams or rivers. In speaking of Bolivia, an expert has stated that "lime, sodium carbonate, sulfuric acid, kerosene, acetone and hydrochloric acid used in the processing range from being moderately toxic to extremely destructive of the environment. Around 30,000 tons of toxic chemicals are flushed down the waterways each year, and this does not count what the police confiscate and also characteristically discard in the country's waterways. Nor does it count the 200,000 tons of annually discarded contaminated coca leaves thrown about and left to leach into the soil" (5, p. 217). A Peruvian official (6) has concluded that the extensive use of chemicals to process drugs and the practice of disposing of them by the quickest means possible have been responsible for the killing off of species of fish and aquatic plants in the Huallaga River. Other experts, relying on United States government studies, have concluded that cocaine processors in the Andean region" dump each year 10 million liters of sulfuric acid, 16 million liters of ethyl ether, 8 million liters of acetone, and from 40 to 770 million liters of kerosene, depending on how much is recycled. The processors simply pour these dangerous chemicals on to the ground, and they quickly end up in the region's rivers" (1, p. 16). The chemical wastes alter water pH, reduce oxygen and lead to acute poisoning of fish and plants with possible genetic mutations in some species. These pieces of evidence, fragmentary as they are, point to a clear need for more quantitative studies to assess the precise environmental impact of illicit drug cultivation and processing.

## *Notes*


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. M. Dourojeanni, "Environmental impact of coca cultivation and cocaine production in the Amazon region of Peru", *Bulletin on Narcotics,* vol. XLIV, No. 2, 1992.

3. Jaines Painter, *Bolivia and coca: A study in dependency* (Boulder, Colorado, Lynne Rienner Publishers, 1994).

4. L. Annstead, "Illicit narcotics cultivation and processing: the ignored environmental drama", *Bulletin on Narcotics,* vol. XLIV, No. 2, 1992.

5. LaMond Tullis, *Illegal Drugs in Nine Countries.. Socio and Political Consequences, Report* prepared for UNRISD at Geneva and the United Nations University at Tokyo, 23 December 1993.

6. T. Marcelo, *Rios de la selva: Mas victimas del narcotrafico,* Universidad Nacional Agraria, Peru, 1987.

# IV. Drugs and development

The traditional approach to development has been to stimulate economic growth through investment in infrastructure, support for institution building and promotion of economic reform. These measures to generate economic growth are designed to increase incomes generally, with the population and government having more material resources with which to meet their needs. In addition, development programmes have also frequently incorporated a basic needs strategy that emphasizes the putting into place of governmental programmes to ensure elementary hygiene, clean drinking water, primary health care, education and literacy. Economic growth and basic needs strategies have been pursued simultaneously by a number of development assistance organizations at the national and international level.

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 following a basic needs strategy. This is because many development assistance programmes were devoted either to promoting economic growth or to some aspect of basic needs of the population related to, *inter alia*, health or education. 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. As noted earlier, income from the drug trade is exorbitant in some nations. Speaking of Colombia, a country expert estimates that businessmen of the illegal drugs industry would have "huge combined drug and capital income relative to the size of the country's economy". He further states that "between 1976 and 1986 gross private fixed investment ranged from $1.6 to $3.7 billion and averaged $2.8 billion, figures that clearly indicate that the illegal businessmen had the capacity to invest in Colombia an amount as large as what official data attributes to the whole private sector of the country" (1, p. 315f). This view of the impact of the drug trade is not atypical. The United States Office of Technology Assessment has found that in Bolivia, the coca economy annually generates as much foreign exchange (roughly $600 million) as all other exports combined (2, p. 5). It has also found that a significant number of persons are employed in the coca economy: 7 per cent of the labour force in 1990, although this figure is significantly less than the 20 per cent estimated to have been employed in coca in the late 1980s.

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. Concerning displacement of legal industries due to the cocaine trade, commentators have found that the cocaine industry in a developing country" can create such a high inflow of foreign exchange that dollars become cheap relative to the local currency. This reduces the competitiveness of local products in both foreign and domestic markets" (3, p. 2).

Diminished control over an economy occurs in several ways. 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. Hence, a source of serious error is introduced into estimates of national income and expenditure. In speaking of the need for improved information on the illegal sector, a country expert has concluded that "large financial flows are not accounted for and the enormous sums generated by the opiate industry fail to show up in investment rates. This allows a general conclusion that most

investment has been unproductive and used for speculative purposes. However, an increasing part of the GNP is produced outside official accounts and thus outside intervention possibilities. This inevitably contributes to skewed macro-planning" (4). Moreover, control over expenditures is reduced when governments have to devote resources to protect the financial and banking systems against subversion through additional banking regulation, increased reporting and other anti-money-laundering measures.

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. A country expert 9 on Pakistan has found that the "bulk of consumer expenditures on heroin are made by lower income groups, while the income generated by the heroin industry mainly flows to upper and middle income groups " (4, p. 6-1 1). The poorest 20 per cent of the population represent nearly one-half 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 in Pakistan. 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 this expert, the drug industry provides employment for less than 1 per cent of the labour force of Pakistan.

A very important indirect cost of the drug industry is a result of the fact that governments are not able to tax it. In such a case, governments have no choice but to increase taxes on those who can be expected to pay. However, the externalities of the drug industry, i.e. the hidden economic and social costs of illicit drug production and trafficking, cannot be charged back to those involved. They are, therefore, an added burden to the law-abiding population. 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. In the case of cocaine, market failure occurs -the market encourages cocaine production even though it may be bad for society -because the roughly 5% to 15% of the national population involved in the cocaine industry do not bear many of the costs they impose on society" (3, p. 10). This situation of market failure applies not only to cocaine production and trafficking but also to the production and sales of other illicit drugs.

## *Notes*


1. Francisco E. Thoumi, *The Political Economy of Colombia and the Growth of the Illegal Psychoactive Drugs Industry,* Multi-country research project of UNRISD, Geneva, January 1993.

2. United States Congress, Office of Technology *Assessment, Alternative Coca Reduction Strategies in the Andean Region: Summary,* OTA-F-556 (Washington, D.C., Government Printing Office, July 1993).

3. Patrick Clawson and Ressselaer 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.

4. Doris Buddenberg, *The Illicit Opiate Industry of Pakistan,* Draft report for UNDCP, Islamabad, February 1994.

# V. Alternative development

## A. What is alternative development?

Although the conceptual connection between drug abuse and development has been weak, an operational linkage between the two can be traced back to the early 1970s. At that time, crop substitution to provide sufficient income to replace opium poppies was carried out with pilot projects. Early experiences were frustrating. Each substitute crop brought new problems: selection of the substitutes; gaining experience in planting, care and harvesting; and other difficulties associated with processing, storage and marketing. Officials recognized that agricultural diversification was needed and commercial support was required for production. To survive, development projects had to become more diversified and regional in nature. Poppy-growing regions of Asia needed regional development programmes and the promotion of agroprocessing, the generation of new employment and the introduction of activities in entirely new economic sectors and services, as well as the development of basic infrastructure, especially in transport and communications. These programmes also sometimes required the creation of alternative living conditions acceptable to the local populations.

The evolution of development and drug abuse is discussed in the UNDCP technical information paper". Alternative development as an instrument of drug abuse control" (1). What began as crop substitution broadened into integrated rural development and has now further evolved into alternative development as a means of drug abuse prevention and control. Evolution of these concepts has occurred on both the positive side (that is, what was supposed to be stimulated and increased), and on the negative side (what was intended to be given up or eliminated). How these two could be brought together has been a difficult issue. Aid and assistance to countries for specific projects often has conditions placed on it. In some cases, it requires countries to implement control or other measures to ensure the success of the project.

The major sources of plant-derived illicit drugs are in developing countries. Opium poppies/heroin, coca/cocaine and cannabis are inextricably tied to problems of development in the countries where they are produced and used. Both development and drug prevention planning require an acceptable level of political stability and continuity of governance to be effective.

> Based on experience in countries with serious drug problems, both economic and social development and drug abuse prevention and control must proceed together: progress in either area requires success in the other.

## B. How can alternative development be characterized?

According to one commentator, "Alternative development is an approach to policy formulation and implementation that takes into account the economic and social structures that influence illicit drug supply. This approach recognizes that in order to achieve long-run success it is necessary to integrate into the social mainstream peasants, producers and traffickers" (2). The aim, therefore, is to combine development for drug abuse prevention and control with broader, mainstream development efforts.

Alternative development programmes assist governments in finding alternative socioeconomic strategies and extending them to farmers engaged in the production of drug-producing crops that the governments want to eliminate. These programmes "may also serve to ease, and thus help encourage, the

transition of an entire country from an economic dependency on narcotics production and/or trafficking to a non-narcotics based development strategy" (2). As broad as these programmes are, there is no single approach to alternative development suited to all countries where it may be used. Each country needs a carefully tailored strategy to fit its situation (3). Alternative development differs from mainstream development in that it not only indicates a process of change to strengthen the legal economy but also sets an additional goal, directing change so as to prevent or exclude illicit activities.

As a response to rural poor people living in isolated areas producing plants for drugs, infrastructure development is necessary. By itself, however, increasing the infrastructure is not sufficient for successful alternative development. What happens after an area is opened by infrastructure development depends on measures designed to (a) suppress drug production and use and (b) enhance productivity and sustainable income for rural households. Access to productive resources means access to inputs, markets and services. These latter objectives are frequently accomplished with coordinated agricultural development, including sustainable production, marketing and social measures that respond to potential or actual drug problems. Also normally required are credit facilities, extension services, training and information provided to farmers and *campesinos*. Hence, infrastructure development should be followed up by comprehensive programmes that provide projects tailored to specific needs of communities.

### C. Necessary components and implementation

Why would a farmer grow an alternative crop knowing he will be paid less than he can get for opium, coca or cannabis? Narco-traffickers have huge profits and the flexibility to pay much more than competing buyers can pay for licit crops. On purely economic grounds, it is possible that farmers cannot make as much money, crop for crop, for coffee, fruit, nuts or other commodities as they can from cannabis, opium or coca. The question turns on the issue of what the farmer wants and whether he sees the question solely in terms of immediate money. Hopes for realistic drug abuse control approaches to alternative development depend on the answers to this question. This recurring issue arises in rural development, where it is not always evident whether economic factors alone, or other social, moral or religious considerations, influence the behaviour of farmers, peasants and *campesinos (4).*

The rationale for alternative development involves several considerations. The first is to see the financial side of crop production as involving more than single isolated payments for drug crops as opposed to the security and stability of potential non-drug crop income over several years. By experience, farmers have their own perceptions of the risks involved. They weigh intuitively the known and potential risks and gains of one course of action, growing poppies, coca or cannabis, against the known and potential risks and gains of growing alternative crops. What has been the experience of farmers with payments for drug crops over several seasons? How likely is it that zealous police will rip up plants or put natural predator insects in his fields to destroy crops? Non-economic concerns may also be relevant. Is the farmer afraid that his sons or daughters may become involved in the illicit drug trade or prostitution? Does he or his family have ethical or religious concerns about growing drug crops? Is he under pressure to grow these crops from criminal organizations?

In some cases, realistic planning for alternative development needs information on the views of individual farmer and how they, in fact, weigh prospects for gain from legitimate crops promoted by alternative development strategies versus drug crops. The crucial issue is the motivation of farmers and community leaders, as well as civil and military figures and government authorities. If relatively modest income is enough for these persons and they can obtain it through alternative development programmes, then the higher income of poppies or coca may not be sufficiently attractive to offset additional risks. The closed and limited market for selling illicit drugs needs to be turned to the advantage of drug control

personnel and against dealers. It may be helpful to regard the farmer or *campesino* as a private investor who is probably risk-averse and whose primary concern is to have a decent life for himself and his family. The self-interest of all those concerned should be assessed as part of feasibility planning in alternative development programmes since it can bring valuable insights to understanding the process of change (5).

Alternative development programmes in rural areas may also have literacy, vocational training and health components. The combined expertise of different national and international development assistance agencies should be used to plan and implement components of integrated programmes, capitalizing on the strengths of each organization. The combined efforts of these agencies, particularly at the international level, increase the likelihood that high-priority targets, such as women and children, will be reached.

Alternative development as a strategy applies especially to producing areas where a government has access and influence, along with a political commitment, to make changes. Mobilization of resources is required and collaboration of provincial, national and international agencies is a prerequisite. Short-term aims must be distinguished from long-term goals. The outcome of such projects should be assessed in terms of measurable progress, not achievement of perfection or complete solutions. As described in the UNDCP technical information paper (1), recurrence of production in zones where it had been eliminated, emergence of illicit cultivation in neighbouring zones within or across national borders and opportunistic expansion of production in new areas by criminals-all of these are to be expected. Sustainability of progress in alternative development will increase with experience, given the necessary political, financial and organizational commitments. Drug risks will remain, however: "Experience shows that without the continuation of development activities, there is an increased risk of return to illicit crops as long as there remain disparities between the former drug areas and similar areas which are more developed" (1, p. 26).

## *Notes*

1. UNDCP, Alternative Development as an Instrument of Drug Abuse Control, Technical Information Paper 5, 4 November 1993, Vienna.

2. Organization of American States, "Alternative development: A critical dimension of illicit international drug traffic"**,** a Scope paper prepared by the Executive Secretariat of the InterAmerican Drug Abuse Control Commission (CICAD), Lima, 13 September 1993, p. 1.

3. Organization of American States, "Report by the Rapporteur of the Inter-American Meeting of Experts on Alternative Development", Inter-American Drug Abuse Control Commission, Lima, 17 September 1993, p. 2.

4. Edward Friedman, "Review article: What do peasants really want? An exploration of theoretical categories and action consequences", *Economic Development and Cultural Change*, vol. 4 1, No. 1 (October 1992), pp. 197-205.

5. "Mind over matter", *The Economist*, 23 April 1994, pp. 73-74. A unique aspect of alternative development is the inclusion of non-economic variables which may reflect farmers' motivations.

# Part four

## VI. Conclusions

The developing world has made tremendous social progress during the past 30 years: "Infant mortality rates have been cut in half, total fertility rates have been lowered by 40 percent, and life expectancy has increased by nearly a decade ..." (1, p. 242). However, enormous variation exists across countries and clearly basic problems still plague a majority of the world's people. While progress in social and economic development has been slow but positive, the opposite has occurred with problems related to drug abuse and addictive disorders. Their number and complexity have increased many times, and information about their distribution and impact is no more complete today than it was decades ago.

### A. Drug abuse problems: losing ground

Over the last 30 years, awareness of illicit drugs, access to them and their abuse have dramatically increased. Despite major gaps in information, increases in the abuse of major dependence-producing drugs are reflected in reports from official and unofficial sources. Reports from the United Nations, observations of experts, studies of crime, education, work and health - all point to serious problems in developing and industrialized countries. Although systematic quantification of problems is not available, there is general agreement that populations at highest risk are those in the age range most needed for productive work. Other groups of people, however, are involved in substance abuse, such as street children in developing countries as well as youth elsewhere who misuse volatile solvents, thinners and marijuana.

Reports from the United Nations and other sources indicate increases in drug abuse and harmful consequences in most parts of the world. Substance-related deaths have been estimated at nearly 5 million annually for alcohol and tobacco (2, p. v) and 200,000 annually for injecting drug abusers (3, p. 4). Life years lost through disability related to drug dependence have been estimated for 1990 at 39.3 million years worldwide for males and 13.3 million years for females (4, p. 219). Aggregate worldwide estimates of the burden of drug-related diseases, lost job time and the costs of other associated conditions are not available. Due to the fact that many drug-impacted conditions were not included in this brief compilation, it is clear that figures cited here for mortality, morbidity, disability or impairment are not only incomplete but are also underestimates of the real impact of addictive disorders.

Patterns of abuse in different countries show enormous variation, including different drugs abused, individuals who take drugs, various settings and a range of impacts. A problem of major concern is the consumption of drugs in areas producing opium/heroin, coca/cocaine and cannabis. Another way of expressing this problem is in terms of a shift in consumption from developed to developing countries. To the extent that producers of these drugs are themselves regular users, they represent a permanent market: their own pattern of drug abuse ties them closely to future illicit production. This situation now exists in Pakistan, several Latin American countries and other parts of the world as well. Compulsive or regular consumption guarantees continued production. These producers become victims of their own "success".

Production and illicit traffic in opium/heroin, coca/cocaine or cannabis appear extremely high whether assessments are based on official estimates or the opinions of independent experts. Since 1989, estimates of opium production have been between 3,000 and 4,000 tonnes per year. Coca leaf, produced in fewer countries than opium, has increased since 1988, from just below 295,000 tonnes of leaf to slightly over 330,000 tonnes. While these are not precise totals of world production, they do indicate the

magnitude of world supply, a first step in understanding the supply-demand equation. The magnitude should be considered in the context of commodities that may not be very large in volume but have enormously high value and unit costs. Production of both opium and coca take place in the developing world where favourable growing conditions, remoteness from the law and cheap labour are available. Control of precursors and chemicals essential for production of illicit drugs has become increasingly difficult with more movement of people, more porous national boundaries and, in many countries, reduced government authority. Extremely high profit margins provide cash to hire new waves of couriers, finance insurgent movements, buy political protection and give financial support to terrorists. The world of illicit drug dealing is harsh and ruthlessly competitive, with marginal and incompetent dealers often eliminated by rival gangs or police action.

In sum, illicit supply and demand for drugs have surged with enormous profits for a few and modest incomes provided to others. Increased morbidity and mortality and associated family, educational and employment problems due to drug abuse are pervasive. Measures to prevent and control drug abuse are weak and the knowledge base on which these measures rest is even weaker. While it is possible that this dire picture may improve, further deterioration is more likely.

### B. Lack of productive employment and impact on the workplace

The workplace is part of the community, reflecting its strengths and weaknesses. With an estimated 30 per cent of the world's labour force not productively employed and young people seeking jobs faster than they are created, the ranks of the unemployed, and their problems, continue to increase. Drug abuse occurs frequently in the same age groups as those without productive work, increasing the vulnerability of this segment of the population to social problems.

Drug abuse represents difficult problems for employers because they are under competitive pressure to increase output. At the same time, these employers must respond to critical human resource issues to continue in business. Illicit drugs as well as alcohol and tobacco create significant problems in the workplace, according to recent studies and reports. Prescription drug problems, i.e. legal drugs used in unwise fashion or with unexpected results, are a major concern to employers, workers and enterprise representatives.

Work tasks that require higher level judgement, constant attention, immediate memory and fine motor skills are easily disrupted by drugs. Safety-sensitive jobs with immediate responsibility for the welfare of others are particularly vulnerable to drug impairment. Illicit and licit drugs may increase response time, disrupt fine motor skills and cause mood changes. Cocaine and other stimulants have the potential to induce compulsive use, disrupting work and family life. Drug abusers have more absenteeism, accidents on the job, medical claims and lost productivity than non-users. The high costs of drug abuse can be reduced by careful pre-employment appraisal, supervision on the job, periodic prevention efforts and occasional interventions as required.

### C. Implications of rural and urban poverty

Although rural and urban poor are alike in that they must constantly seek the essentials of daily living, they have basically different kinds of involvement in drug problems. 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 or impact.

Persons with marginal incomes often spend money on drugs, alcohol or tobacco 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. When suppliers become compulsive or regular abusers, illicit growth and supply-demand patterns are more difficult to change. Poverty may change perspective so that immediate money with a risk is preferable to stable but delayed income with less risk. Development programmes should examine the behaviour of farmers and peasants, however, to determine their economic motivations rather than make assumptions about their behaviour based on theory or impressions. Reasonable assurance of a modest income over a long time-span from licit crops may be sufficient to motivate farmers to participate in alternative development programmes.

The urban poor do not have the opportunities for crop production as do the poor in remote rural areas. Urban dwellers are, however, exposed to more varieties of abuse and are more vulnerable to taking up jobs in the illicit distribution system. More negative role models and opportunities to make illicit money are found among urban than rural poor.

### D. Marginalization

Due to its highly varied nature in different sociocultural 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 practised by individuals, communities or governments, are common. How to avoid stereotyping and stigmatizing persons with drug problems is problematic. A start can be made by separating drug using behaviour from the person, rejecting the illegal behaviour but accepting the person for his or her human potential to follow a different path.

In the remote areas of developing countries, no authority may be present to represent the rule of law. Tribal, religious, ethnic or other groups may control a region relatively independent of national policies. In many countries, social and political institutions appear weaker now than decades ago. In extreme cases, these institutions appear under siege, having lost legitimacy and stability. When 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 czars exercise enormous personal and financial power.

### E. Future challenges

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. Not adequately monitored, drug abuse acts as a brake on human and social development and cannot be separated from endemic problems of disease, poverty, joblessness and violence. Varying widely between countries, illicit drug use and related problems reflect several characteristics: sales of drugs are usually highly profitable and they are easily marketed commodities. Also, they have powerful effects on the brain and behaviour, influencing a wide range of human activities.

Progress in the field of drug abuse prevention depends on several factors. First, our strategies to response to drug problems should begin with the people, communities and institutions involved. People should be considered as the heart of the problem and the beginning of any solution. This principle will obviously take different forms in rural and urban areas and also be influenced by class distinctions. Secondly, alternative development strategies for rural areas should respond to the conditions found in target areas, which will differ according to the communities involved. Thirdly, as in rural settings, urban drug problems also need an individualized assessment and response, building on the strengths found on site. To succeed, urban and rural interventions need a series of support mechanisms and long-term planning. To be effective, both need the support of the local community and a base in public policy.

Profits from illicit drug sales are truly enormous, overshadowing major international development efforts in magnitude.

> In 1991, member countries of OECD provided $55.5 billion for official development assistance (4, p. 274). Profits from the illicit drug traffic in cocaine, heroin and cannabis have been estimated at $85 billion by the OECD Financial Action Task Force (5, p. 6). This estimated amount of laundered money is larger than the GNP of three-fourths of the world's economics.

The concentration of drug money in the hands of a small number of persons is as important as its size. Further, people who become rich from illicit drugs, however they spend money, are not publicly accountable. The accumulation of huge sums outside the official governmental and economic structures threatens the stability of government, economic institutions and civil society. Further, the illicit activity that produces these sums generates enormous social costs in governance, health care, crime control and integrity of public institutions and officials. Whether the resulting social costs of drug abuse and its problems are greater than any benefits of illicit funds, basic principles of social justice require that these funds not be considered the same as legitimately earned money. By any reasoning, such illicit funds cannot be considered simply another example of the redistribution of wealth by an unsanctioned, alternate market.

AIDS has changed the nature and impact of drug abuse. In the illicit drug scene, the HIV virus is spread in two primary ways: first**,** contaminated needles or syringes are shared; secondly, infected injecting drug abusers may travel widely. Although heterosexual transmission is the major cause of AIDS in many countries, drug injection is widely practised and high concentrations of seropositive drug injectors exist in Africa, Asia and Latin America. Recent evidence shows that "in cities such as Bangkok and Edinburgh and in the Indian state of Manipur, HIV seroprevalence among drug users has risen from 0 to 40 percent within two years or less" (6, p. 84). Persons between 15 and 45 are frequently the victims of AIDS, with most deaths occurring so far, at least in Africa, among skilled workers. A growing population of young orphans and dependent, older family members will be severely affected socially and economically.

# VII. Recommendations addressed to the World Summit for Social Development

The following proposed:

1. *Recognize the seriousness and increase the priority placed on drug abuse as a social problem: develop a series of drug indicators*

Of the many problems that countries, organizations of the United Nations system and other public and private institutions deal with, addictive disorders have historically not been ranked in the first place. This situation reflects more the absence of systematic information than a weighing of alternative policy choices. Sometimes considered a health problem, other times viewed as a crime, drug abuse presents unique and costly consequences to societies. While awareness is increasing, decision makers require better data: good policy and programmes require good analysis. No single measurement or data aggregate can reflect the complex nature of drug abuse problems, but basic indicators are needed for planning and action. All estimates are in some ways incomplete, but an incomplete estimate used well is better than none at all.

2. *Develop an information base for national and international planning on the costs of drug abuse: prepare estimates of costs of drug abuse and its impact*

What is the social and economic drain of drug abuse and the addictive disorders? Answers to this question are needed to facilitate policy planning. Current efforts to prepare estimates of costs, now under way in some countries, should continue, providing models for the assessment of costs at both the national and international levels. These estimates should include direct and indirect cost elements involving health, crime, education, poverty and employment impacts.

3. *Expand alternative development as a means of drug abuse prevention and control: clarify what works in alternative development and expand it*

Alternative development provides a means to combine social and economic development and drug abuse prevention. Although still in its early stages, alternative development in rural areas has demonstrated in both Latin America and Asia that it is a viable approach. It should be expanded so that critical components may be matched to the environmental, social, cultural and drug abuse characteristics of target areas. Selective expansion of this approach has the potential for gradually reducing economic and drug problems. The conditions under which it works should be clarified and both demand (prevention) and supply components should be tested in practice since both have contributions to make. Empirical inquiry into growers' views of the importance of price differences between licit and illicit crops is needed. From early successful demonstrations in developing countries, it appears that a long-term commitment and several stages of implementation are needed to reach economic self-sufficiency .

4. *Increase knowledge of drug abuse problems and effective interventions: use the tools of communications technology to achieve better transfer and use of information*

Information flows rapidly around the world. The process of knowledge assessment and transfer provides an opportunity to improve international and community responses to substance-related problems. Drug abuse prevention has not sufficiently exploited communications tools. New uses of electronic information transfer are needed. Policy problems facing countries and international organizations are

increasing faster than their capacity to deal with them, and information technology can help increase the effectiveness of response measures.

*5. Increase international collaboration on drug abuse*

International agencies have a wealth of expertise on drug problems, and their combined experience gives a unique opportunity to tackle complex problems. A mechanism of collaboration is needed to focus cooperation of international agencies on selected drug abuse problems. An example of a suitable area for collaborative work by agencies is drug abuse by children in the developing world: use of marijuana, volatile solvents, glues and other cheap intoxicating substances must be prevented. Widespread throughout the world, this kind of problem needs the active collaboration of agencies such as UNICEF, ILO, UNESCO, "0, and the World Bank. Other examples of problems suitable for this type of international collaboration are drug abuse, crime and violence, preventive education and integrated rural development as they pertain to drug abuse, and AIDS. Under the umbrella of UNDCP, the combined expertise of key organizations of the United Nations system and other organizations could develop models for uniquely effective interventions.

## *Notes*

1. Lawrence Summers and Vinod Thomas, "Recent lessons of development", *Research Observer*, The World Bank, vol. 8, No. 2 (July 1993).

2. James A. Cercone, *Alcohol-Related Problems as an Obstacle to the Development of Human Capital: Issues and Policy Options*, World Bank Technical Paper No. 219 Washington, D.C., World Bank, 1994.

3. Fischer, Substance Abuse Related Mortality: A Worldwide Review. Executive Summary. March 1994.

4. World Bank, *World Development Report, 1993* (Oxford University Press, 1993), table 19.

5. OECD, Report of the *Financial Action Task Force on Money Laundering, Paris,* 7 February 1990.

6. Don Des Girls and Samuel Friedman, "AIDS and the use of injected drugs", *Scientific American*, February 1994.