Chapter 2 of the World Drug Report addresses the issue of new psychoactive substances (NPS), a phenomenon that can have deadly consequences for their users, but which is hard to control with its dynamic producers and fast-mutating “product lines” which have emerged over the last decade.

**What are NPS?**

A number of concepts have emerged over the last few decades to describe the creation of new psychoactive substances intended to exploit loopholes in the drug control legislation. These include ‘designer drugs’ (1980 and 1990s), followed by ‘legal highs’, ‘herbal highs’, ‘bath salts’, ‘research chemicals’, ‘laboratory reagents’ etc. in more recent years. In order to avoid inadvertently promoting some marketing concepts (such as ‘legal highs’) while advancing clear terminology on this issue, UNODC uses the term “new psychoactive substances (NPS)” which are defined as “substances of abuse, either in a pure form or a preparation, that are not controlled by the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat.” The term ‘new’ does not necessarily refer to new inventions-- several NPS were first synthesized 40 years ago-- but to substances that have recently emerged on the market and which have not been scheduled under the above Conventions.

**What are the risks of NPS?** The use of NPS is often linked to health problems. NPS users have frequently been hospitalized with severe intoxications. There have also been a number of unexplained suicides with preceding use of synthetic cannabinoids (spice). In addition, substances like 4-methylmethcathinone (mephedrone), methylenedioxypyrovalerone (MDPV), 4-methylamphetamine (4-MA) have been associated with fatalities.

**How widespread are NPS?** Pursuant to Commission on Narcotic Drugs resolution 55/1, entitled “Promoting international cooperation in responding to the challenges posed by new psychoactive substances”, in 2012 UNODC sent a questionnaire on NPS to all Member States, to which 80 countries and territories replied. Most responses were received from countries in Europe (33), followed by countries and territories in Asia (23), in the Americas (12), in Africa (10) and in the Oceania region (2). In total 70 countries and territories, 70 i.e. 88 per cent of all responding countries, reported the emergence of NPS. Only 10 countries had not identified NPS in recent years.

**How many NPS are there?** The number of NPS reported by Member States to UNODC rose from 166 at the end of 2009 to 251 by mid-2012, an increase of more than 50 per cent. For the first time, the number of NPS actually exceeded the total number of substances under international control (234).

**From where do NPS come?** While most widespread in Europe and North America, NPS seem to originate nowadays primarily in Asia (East and South Asia), notably in countries known for their advanced chemical and pharmaceutical industries. Domestic manufacture has also been reported by countries in Europe, the Americas and Asia. Nonetheless, the overall pattern is one of trans-regional trafficking which deviates from the clandestine manufacture of controlled psychotropic substances such as ATS, which typically occurs within the same region as where the consumers are located.

**What is the role of the Internet?** The Internet seems to play an important role in the business of NPS: 88 per cent of countries responding to a UNODC survey said that the Internet served as a key source for the supply in their markets. At the same time, a Eurobarometer survey found that just 7 per cent of young consumers of NPS in Europe (age 15-24) used the Internet to actually purchase such substances, indicating that, while the import and wholesale business in such substances may be increasingly conducted via the Internet, the end consumer still retains a preference for more traditional retail and distribution channels.

**What is the legal situation?** NPS are not under international control. Member States have responded to this challenge using a variety of methods within their legislative frameworks, such as the establishment of “early warning systems” for NPS, “emergency scheduling”, “analogue scheduling”; “generic scheduling”, application of the “medicines law” and other creative approaches, which all have their pros and cons. Most have improved the situation and have taught valuable lessons in planning for future control regimes. However, what is missing is coordination at the global level so that drug dealers cannot simply exploit loopholes, both within regions and even within countries.

**The road ahead?** The establishment of a global early warning system is needed to inform Member States of emerging substances and to support them in their response to this complex and changing phenomenon. While the international drug control conventions offer the possibility of scheduling new substances, the sheer rapidity of emerging NPS makes this a very challenging undertaking. What is needed is an understanding and sharing of methods and lessons learned in regional responses to the situation involving NPS before exploring the setting up of a global response to the problem. A holistic approach which involves a number of factors — prevention and treatment, legal status, improving precursor controls and cracking down on trafficking rings — has to be applied to tackle the situation.
SYNTHETIC CATHINONES
These are analogues/derivatives of the internationally controlled substance cathinone, one of the active components of the khat plant. They generally have stimulant effects and include frequently reported NPS such as mephedrone and MDPV.

SYNTHETIC CANNABINOIDS
These are cannabinoid receptor agonists which produce effects similar to those of delta-9-tetrahydrocannabinol (THC), the principal psychoactive component in cannabis. Synthetic cannabinoids are often laced onto herbal products and sold as spice, K2, Kronic, etc.

KETAMINE
A human and veterinary anaesthetic which acts as a stimulant at low doses and a hallucinogen at high doses. It is one of the most widespread NPS in Asia.

PHENETHYLAMINES
This group contains substances related to amphetamine and methamphetamine, and generally produces stimulant effects. However, modification of these compounds can lead to potent hallucinogens such as "Bromo-Dragonfly".
PIPERAZINES

These substances are frequently sold as ‘ecstasy’ due to their central nervous system stimulant properties. The most commonly reported members of this group are benzylpiperazine (BZP) and mCPP (1-(3-chlorophenyl) piperazine).

OTHER SUBSTANCES

Other substances – such as aminoindanes (stimulants), phencyclidine-type substances (hallucinogens) and tryptamines (hallucinogens).

PLANT-BASED SUBSTANCES

This group includes plants with psychoactive properties. The most frequently reported are:

• Kratom (*Mitragyna speciosa Korth*), a plant indigenous to South-East Asia that contains the alkaloid mitragyne; a stimulant at low doses and sedative at high doses.

• *Salvia divinorum*, a plant indigenous to forest areas in Oaxaca, Mexico, which contains the active ingredient salvinorin A, a hallucinogenic substance.

• Khat (*Catha edulis*), a plant native to the horn of Africa and the Arabian peninsula. The leaves of the plant are chewed, resulting in the release of the stimulants cathinone and cathine.