

TOPIC NO. 18
MAINTENANCE OF A RELIABLE DATABASE ON VOLUME OF TRADE
IN PRECURSOR CHEMICALS: NATIONAL DATABASE SYSTEM (NDS)
DEVELOPED BY THE UNODC – AN INTRODUCTION

DURATION OF SESSION:	1 HOUR
SUGGESTED METHOD:	LECTURE
TRAINING AIDS:	OHP, POWERPOINT PRESENTATION
AIM OF THE SESSION:	

The session aims to familiarise the participants about the uses of a database on precursor chemicals and also on to what would be the requirements for establishing such a database. The session also intends to apprise the participants about the characteristics of a good precursor database and its software and also what field should be included in the database. Finally, the aim of the session is also to introduce the participants with the National Database System developed by the UNODC.

OBJECTIVE OF THE SESSION:

At the end of the session, each participant would be in a much better position not only to appreciate the need and uses of a reliable database on precursors in effective enforcement of precursor control mechanism in the country but also use the existing database in his day-to-day functioning. Participants from policy making group would also be better placed to decide if the NDS developed by the UNODC can be adopted in their country.

POINTS TO BE COVERED:

1. Absence of database is a handicap for enforcement authorities in their endeavours in preventing the diversion of precursors.
2. Uses of a database on precursors
 - To identify annual legitimate requirements of precursor chemicals in the country.
 - To determine the inputs-output ratio for final product made out of precursor chemicals.
 - To estimate the annual requirements of individual manufacturers using precursors.
 - To identify and track suspect transactions.
 - To identify suspect companies and individuals.
 - To study trends of both licit and illicit trade i.e. facilitate intelligence gathering.
 - To facilitate investigations.
 - To monitor domestic trade in precursors.

- To monitor imports and exports of precursor chemicals.
 - To exchange relevant data with other countries.
 - To develop best practices for responding to requests for NOCs for exports/PEN.
 - To send periodical returns to INCB as per the Convention
3. Characteristics of a good database
- It should be comprehensive.
 - It should be futuristic, i.e. it should take any future requirements into account.
 - It should be easy to maintain.
 - It should be flexible - even if some data is not received, the system should work with the other data.
 - It should be expandable - we should be able to get any additional reports in future as and when required.
 - It should be able to generate all required reports easily.
 - It should be secure.
 - Whenever a large volume of data is involved, it should be computerized using an appropriate RDBMS software.
 - It should be possible to exchange the data with other authorities and international agencies electronically.
4. Methods of maintaining a database
- Manually.
- Manually, database is maintained in files, registers, ledgers, etc. This is the traditional method of maintaining a database. It has, however, the following disadvantages:
- i) It is drudgery and persons managing the data often tend to be slack and avoid the work resulting in a poor data collection.
 - ii) It is expensive inasmuch as too much manpower is required to maintain the data.
 - iii) Involves entry of the same data again and again in different registers.
 - iv) Preparing, collating and comparing the data in various registers is often difficult.
 - v) The manual system may simply not work when too much data is involved.
- With the help of computers.
- Computerized database: The advantage in maintaining a computerized database is that it avoids all the problems associated with the manual database.
5. Requirements for a computerised database
- Suitable hardware - it could a stand-alone PC or a server, depending upon the manner in which the data is to be maintained.
 - Appropriate Relational Database Management System (RDBMS)

- package-like Oracle, dbase III, dbase IV, FoxPro, MS Access, etc.
 - Software developed in the RDBMS to maintain the database.
6. Characteristics of a good software
- Easy to enter data. The format on the screen should match exactly the physical form in which the data is collected for entry.
 - It should prompt when unusual figures are entered.
 - Should have easy query/reporting facilities including filtering of data.
 - It should be compatible with the other software, which is being used, so that it is easy to transfer the data.
 - It should support a multi-user environment.
 - It should be easily upgradeable.
 - It should support electronic data interchange.
7. How to go about developing a database?
- A country can develop its own software at its own cost.
 - Countries also have an option to use a software called NDS (which stands for National Database System), which has been developed by UNODC. The advantages of using NDS are as follows:
 - (i) The software is developed and supplied free of cost by UNODC.
 - (ii) The necessary computers are also being supplied by UNODC in countries in South Asia.
 - (iii) It has been developed in Oracle 8, the most advanced RDBMS package in the world, known for its stability and reliability.
 - (iv) Since most of the nations of the world are using the NDS, it is easy to exchange data.
 - (v) It is possible to send all reports required to be sent to INCB using this software.
 - (vi) It is possible to customize the NDS to meet the requirements of individual nations.
8. Recommended fields of a precursor database
- Competent Authorities may decide if they want to maintain a database on precursors only or they may have a combined database for precursors and the narcotic drugs.
 - Should have security provisions, 'need to know basis' should be adopted.
 - Sensitivity about intelligence content of database should be taken into account.
 - Recommended fields to be held in a precursors database may include:
 - A comprehensive list of 'Competent Authorities'
 - Control measures
 - Nomenclature/technical data (to help facilitate identification)
 - Licit manufacture, trade and use of precursors
 - Company (ies) engaged in the licit manufacture and supply, etc. of precursors

- Illicit movement and use of precursors
- Company (ies) and individuals known or suspected to have been involved in the diversion of precursors
- Operational intelligence.

NATIONAL DATABASE SYSTEM (NDS) DEVELOPED BY THE UNODC - AN INTRODUCTION

9. Introduction

9.1 NDS is a software tool to assist the National Administration in their day-to-day information requirements and statutory reporting to the International Drug Control Board (INCB).

9.2 Objective of the NDS

The main objective of the NDS is to assist National Administration in:

- collecting,
- aggregating,
- printing and transmitting data (via electronic or similar media) of Narcotic Drugs, Psychotropic Substances and Precursors.

9.3 Module of NDS

1. International Drug Control

- Import/export
- Seizures
- Statistical forms (A, B, C, A/PB/PPD)
- Annual Reports Questionnaire (new)

2. National Drug Control

- Establishment Management Module (new)

9.4 Common features of NDS 4.0

i. EDI

ii. Reports and Excel:

- All reports in either Word or Word Perfect (new)
- Easy customisation to national standards (new)
- Excel for ad-hoc reporting and statistical data analysis

iii. Online inquiry (new):

- Text: for instance, show me companies that have the city of Zurich in their address.
- Numeric - Date: for instance, show me all the authorizations for the last three weeks containing quantities greater than 10 kg.
- Combined conditions: for instance, show me all the authorizations that contain morphine or any of its salts, esters, or ethers with a quantity greater than 10 kg.

9.5 Data Infrastructure

The Data Infrastructure (MASTERS) of NDS 4.0 module has information on the following:

1. Substances:
 - Unit of measurement
 - Pure substance
 - Variations
 - Substances
 - Preparation types
 - Preparations
 - Groups (new)
 - Estimates/assessments
2. Competent Authorities
 - Address
 - Competency area
 - Departments
 - Administrative information
3. Establishments
 - Addresses
 - Contact information
 - Authorized persons
 - Licensed substances

9.6 Features of NDS 4.0

The main features of NDS 4.0 are:

- It is an information bank for all major parameters needed for monitoring the licit trade of controlled substances.
 - It has a built-in capacity for keeping this information up-to-date.
 - It provides multi-language support.
 - It is built upon common commercial software packages with unrestricted availability worldwide.
 - It has a modular structure.
 - It has a built-in telecommunication facility.
 - It uses international standards for electronic data exchange (EDI).
 - It supports countries' reporting requirements to UN as stipulated in international treaties. Its different modules cater to different reporting requirements as under:
1. Narcotics Module (1961 Convention)
 - i. Form A - Quarterly Statistics of Imports and Exports of Narcotic Drugs.
 - ii. Form B - Annual Estimates.
 - iii. Form B Supplement - Supplementary Estimates of Drug Requirements.

- iv. Form C - Annual Statistics of Production, Manufacture, Consumption, Stocks and Seizures of Narcotic Drugs.
2. Psychotropic Substance Module
- i. Form A/P - Quarterly Statistics of Imports and Exports of Psychotropic Substances listed in Schedule II of the 1971 Convention.
 - ii. Form B/P - Assessment of Annual Medical and Scientific Requirements for Substances in Schedule II, III and IV of the Convention on Psychotropic Substances, 1971.
 - iii. Form B/P Modifications - Modifications to Assessment.
 - iv. Form P - Annual Statistical Report on Psychotropic Substances.
3. Precursors Module
- i. Form D - Annual Information On Substances Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances.
 - It is inexpensive.
 - Use of Word Perfect to generate reports (exactly like the ones defined by INCB).
 - Dynamic language interfaces in English, French and Spanish.
 - Facility to allow users to add their local language support in terms of Error Messages, Field Labels and data (subject to NL Support from Oracle).
 - Communication to UNODC-HQ system for all National Administrations using EDI messages.
 - Facility to export data to MS-Excel for easy manipulation by users (at the click of a button).
 - On-line help.
 - Creation of user-defined codes for substances for better customisation.
 - Daily or consolidated entry.
 - Facility to maintain data at domestic and international levels.
 - User- friendly screens and tool bars.
 - Dynamic tab folder approach to view a logical group of data together.
 - Modular approach used in development.
 - Facility to use as a single user or multi-user system.
 - Facility to define country level preparations (containing scheduled drugs) and monitoring their trade.
 - Facility to group countries under relations like geographical, economical, political, etc.
 - Facility to maintain a list of competent authorities with their contact address and numbers.