Special issue on the role of narcotics laboratories in combating the illicit drug traffic

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this copyrighted material has been granted by United Nations (New York) to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the copyright owner.

UNITED NATIONS
New York, 1984
## CONTENTS

| Editor's note | .......................................................... | 1 |
| Role played by narcotics laboratories in the campaign against drug abuse and drug trafficking: a view from a developing country | by Juan Carlos García Fernández | 3 |
| A review of laboratory methods for the analysis of opiates and diluents in illicit drug traffic | by V. Navaratnam and Hoe Kek Fei | 15 |
| Commerce in drugs and chemicals and the detection of clandestine laboratories | by G. R. Haislip | 25 |
| The work of the Drugs Intelligence Laboratory, Home Office Forensic Science Service | by I. J. Humphreys | 33 |
| Leuckart-specific impurities in amphetamine and methamphetamine seized in Norway | by M. Lambrechts and K. E. Rasmussen | 47 |
| Benzoyltnpeine, an unusual substance in street heroin samples | by F. Mari, E. Bertol and M. Tosti | 59 |
| The activities of the Narcotics Laboratory Section of the Division of Narcotic Drugs in supporting national laboratories | by the United Nations Secretariat | 69 |
The activities of the Narcotics Laboratory Section of the Division of Narcotic Drugs in supporting national laboratories

United Nations Secretariat

ABSTRACT

Since the establishment of the Narcotics Laboratory Section of the Division of Narcotic Drugs of the United Nations Secretariat in 1954, in accordance with resolution 834 (IX) of the United Nations General Assembly, the activities of the Narcotics Laboratory Section have developed according to the recommendations of the Commission on Narcotic Drugs. The Narcotics Laboratory Section carried out research on opium, cannabis, khat and codeine.

The current programme of the Laboratory Section includes the following activities:

(a) Providing training in drug identification techniques to scientists, primarily from developing countries, and developing training standards;

(b) Strengthening national narcotics laboratories in developing countries, including the procurement of basic laboratory equipment;

(c) Developing standard testing methods applicable in developing countries;

(d) Providing reference samples for analytical and research purposes;

(e) Providing scientific and technical information on drugs of abuse;

(f) Collaborating with national narcotics laboratories.

Training of scientists

The laboratory chemist at a national narcotics laboratory identifies and analyses suspected material seized in the illicit drug traffic and prepares evidence for legal proceedings. These activities require accuracy and precision in order to ensure the prosecution of guilty persons and, also, the protection of innocent persons. Therefore, laboratory chemists who are assigned such tasks must possess at least basic skills in methods of identifying and analysing narcotic and psychotropic substances. If the chemists do not possess such skills, they should be given the opportunity for
training in order to acquire them. The trained chemists would then ensure the appropriate application of analytical techniques to the identification and analysis of material most commonly encountered in their respective country or region, and provide continuous operation and maintenance of the equipment available to them.

Since 1958, the Narcotics Laboratory Section of the Division of Narcotic Drugs has provided training for scientists, primarily from developing countries, in methods for the identification and analysis of drugs most commonly encountered in the illicit traffic. By the end of 1983, 144 scientists from 60 countries received such training.

The organization, timing and contents of training programmes have been designed to be of maximum benefit to those receiving training. Emphasis is now placed on group training, based on language or geographical region to which the trainees belong, in order to shorten the period of general information required at the beginning of the training programme. In designing and implementing training programmes, the Narcotics Laboratory Section takes into account variations in the qualifications of trainees and the frequent lack of uniformity in the equipment available in respective national laboratories. In addition, the necessary technical and scientific information is scarce in developing countries. These considerations have made it necessary to establish standard requirements for effective training so that the knowledge gained can be immediately put to use on the return of the trainees to their own countries.

The Division of Narcotics Drug is preparing a manual on the basic needs of narcotics laboratories in terms of skill requirements of personnel and equipment necessary for the effective functioning of a narcotics laboratory. It is hoped that this manual, together with the refinement of criteria and uniform requirements for the awarding of training certificates, will help to broaden the scope of the training programme by making it possible to decentralize training so that it can be carried out at other suitable centres. The manual is being prepared in co-operation with competent national authorities and in collaboration with experts in the field of the identification and analysis of drugs of abuse.

**Strengthening of national narcotics laboratories**

The Narcotics Laboratory Section provides assistance, upon request, to national authorities in developing countries most affected by the illicit traffic in drugs who wish to strengthen or to establish narcotics laboratories. Such assistance includes the procurement of basic laboratory equipment, reference books and standard texts as well as the provision of reference samples that are necessary for analytical and research purposes.
The constantly changing pattern of illicit drug traffic has confronted customs and frontier control officials of the Governments of transit countries with the difficult and challenging tasks of finding and identifying the drugs being smuggled. The task of identification is especially difficult at remote frontier crossing points which are far away from well-equipped forensic narcotic laboratories.

Recognizing this problem, the Commission on Narcotic Drugs at its twenty-ninth session in February 1981 recommended, within the long-term strategy and the United Nations basic five-year programme of action, that the Narcotics Laboratory Section of the Division of Narcotic Drugs should improve methods for the rapid identification of substances seized in the illicit traffic by the use of low cost practical kits and should train fellowship holders, particularly from developing countries, in methods of identifying and analysing drugs of abuse.¹ The General Assembly in its resolution 36/168 of 16 December 1981, adopted the International Drug Control Strategy, which included the above stated recommendation.

A State’s first line of defence against illicit traffic is at frontiers, harbours, ports, airports and other entry points. If traffickers and their couriers succeed in passing these points undetected, consignments of drugs are often rapidly broken down into retail quantities, and their removal from the illicit traffic becomes much more difficult. The use of the kits by customs and other frontier control personnel is expected to be a useful tool in interdicting illicit traffic and helping to ensure that illicit drugs do not enter the territory of the States concerned.

The kits have been designed to take account of the drugs most likely to be encountered in illicit traffic in particular regions of the world. Thus, for example, when the Division’s records show that opiates are the drugs most frequently smuggled in a given region, the kits made available to enforcement agencies in that region will contain a high proportion of reagents to facilitate the detection of opiates.

It was essential that the kits be easy to use and sturdy enough to resist harsh climatic and other conditions which are often a feature of remote frontier crossing points and sea ports where controls must be effected.

Kits have now been prepared and are supplied by the Division of Narcotic Drugs with financial support from the United Nations Fund for Drug Abuse Control and with administrative assistance provided by the Government of Austria. The kit incorporates a simple and rapid test adapted for the detection of methaqualone: illicit traffic in methaqualone has recently been increasing world-wide and has, in particular, been a problem in a number of developing countries. The preparation of kits for identification

of drugs of abuse in the field is in line with the United Nations policy of providing maximum possible assistance to those countries which need such help to fulfil their international drug control obligations.

In order to facilitate the presentation of cases of drug trafficking by law enforcement authorities to the appropriate judicial bodies, the Narcotics Laboratory Section of the Division is undertaking a project aimed at strengthening the law enforcement component of the functions of national narcotics laboratories. This project includes, inter alia, devising practical methods of co-operation between narcotics laboratories and police and prosecution authorities at the local, national and regional levels and developing standard testing methods and a standard international form for use by laboratories in transmitting the results of the analyses of seized drugs to legal authorities. For this purpose, the Narcotics Laboratory Section plans to undertake the preparation of a manual on recommended testing methods for the identification and analysis of drugs of abuse most commonly encountered in illicit traffic.

Provision of technical information and publication

The Division’s extensive scientific literature collection on drugs of abuse is being systematically expanded and updated. Plans are under way for the introduction of electronic data processing, with a view to strengthening the collection, retrieval, exchange and dissemination of information through a reference centre that broadly covers the major areas of international drug control.

In response to a request of the Commission on Narcotic Drugs\(^2\) and pursuant to the International Drug Abuse Control Strategy,\(^3\) the Division of Narcotic Drugs has published the *Multilingual Dictionary of Narcotic Drugs and Psychotropic Substances Under International Control*.\(^4\) The Dictionary, which replaces the earlier *Multilingual List of Narcotic Drugs Under International Control*,\(^5\) is designed to serve as a reference manual to assist concerned national and international authorities in their drug control activities, particularly those authorities whose tasks have been made difficult


\(^4\) *Multilingual Dictionary of Narcotic Drugs and Psychotropic Substances under International Control* (United Nations publication, Sales No. E/F/R/S.83.XI.5).

\(^5\) *Multilingual List of Narcotic Drugs under International Control* (United Nations publication, Sales No. A/C/E/F/R/S.69.XI.1).
by a variety of names for products containing controlled narcotic drugs and psychotropic substances. The languages used are English, French, Russian and Spanish. In addition, the principal names of the drugs in Arabic and Chinese are listed alphabetically in annexes.

The Dictionary includes substances under international control by virtue of the Single Convention on Narcotic Drugs, 1961;\(^6\) the 1972 Protocol Amending the Single Convention;\(^7\) and the Convention on Psychotropic Substances 1971.\(^8\) In addition, the Dictionary provides information received in response to an inquiry sent to all Governments concerning the names used for substances under international control, as well as for preparations containing such substances.

The Dictionary can help to identify controlled narcotic drugs and psychotropic substances among components of pharmaceutical products. A vast and growing number of such pharmaceutical products, under a variety of trade names, is available in legitimate commerce. Many are, unfortunately, subject to diversion into the illicit market. In order to counter such diversion of drugs, law enforcement officials should have ready access to a reference publication to identify suspected substances by name.

The Dictionary also identifies many vernacular names that are employed by drug users to describe illicit drugs. The listing of vernacular names will assist drug law enforcement officers to identify more precisely drugs of abuse when such drugs are being described by the individuals dealing with them illegally.

The Dictionary is an additional working tool that is expected to be particularly valuable for officials of customs and related services involved in the fight against drug trafficking. Similarly, officials concerned with monitoring legitimate commerce need to have quick access to the information on the nature of substances that are being traded in order to establish whether trade in these substances is in conformity with national legislation and with the international drug control treaties. It is hoped that the Dictionary will help in performing these duties.

The Multilingual Dictionary will be updated, as necessary, to provide new information on the substances dealt with therein and on those substances newly brought under international control.

---

\(^6\) Single Convention on Narcotic Drugs, 1961 (United Nations publication, Sales No. 62/XI.1).


\(^8\) Convention on Psychotropic Substances 1971 (United Nations publication, Sales No. A/C/E/F/R/S.78.XI.3).
Collaboration with national narcotics laboratories

The activities described above as well as other laboratory activities aimed at promoting measures against illicit traffic need to be further strengthened and co-ordinated through the establishment of a network of collaborating laboratories which would contribute to the improvement of effective co-operation between scientific and law enforcement agencies at the national and international levels in their drug control activities. To this end the Commission on Narcotic Drugs, at its twenty-ninth session, directed the Division to implement a project aimed at developing a network of collaborating laboratories and promoting the exchange of information on appropriate analytical techniques for the analysis of drugs seized in illicit traffic. At its thirtieth session and eight special session, the Commission reaffirmed the need for such collaboration.

In response to this directive, the Narcotics Laboratory Section of the Division, in collaboration with national narcotics laboratories, is preparing a manual on basic equipment and skill requirements for staff at narcotics laboratories. In addition, through collaboration with national narcotics laboratories, the Division is collecting and processing information on analytical testing methods used by these laboratories for identifying and analysing drugs under international control. The Division is also gathering information on procedures used to present the results of chemical analysis to courts of law with a view to standardizing such procedures.

Reference samples of drugs as well as scientific and any other relevant information available to the Narcotics Laboratory Section, are being provided to collaborating laboratories. The Division also intends to promote the exchange of experience gained by national narcotics laboratories. In this connection, it is also hoped that collaborating laboratories will be able to provide the Division with information about new developments and trends, ongoing activities and other laboratory aspects relating to countermeasures against drug trafficking that may be of interest to narcotics laboratories of other countries.

The constant increase and changing pattern in the illicit production, trafficking, transiting and abuse of drugs require intensified efforts to promote international co-operation in combating the illicit drug traffic and drug abuse which present an increasing threat to the international community. In the complex world-wide effort to combat the illicit traffic in narcotic drugs, national narcotics laboratories have an important role to play, and the Division of Narcotic Drugs, through its Narcotics Laboratory Section, fulfils a clearing house function and also helps to establish international standards for consistent action in assisting national laboratories to carry out their difficult tasks.