UNODC
United Nations Office on Drugs and Crime

TERMINAL EVALUATION REPORT

Project Number: AD/GLO/03/H44

Date: 13 January 2009

Project title: Scientific support to strengthen regulatory and law enforcement control of amphetamine-type stimulants and their precursors in East, South and South-East Asia

Thematic area: Scientific and Technical Support

Cambodia, PR China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam

Terence Spencer, Consultant,

and

UNODC Laboratory and Scientific Section

UNITED NATIONS OFFICE ON DRUGS AND CRIME

Vienna

DISCLAIMER:

This project evaluation was initiated as an independent evaluation by an external consultant. The independent evaluator carried out evaluation missions to four of the beneficiary countries, prepared and sent two types of questionnaires (for forensic laboratories and for their clients) and submitted an early draft of the evaluation report, but due to personal circumstances withdrew from the contract. The report was therefore finalised by UNODC LSS. Most of section 2 "Analysis and major findings", section 5 "Recommendations" and section 6 "Overall Conclusions" are based on the consultant's draft report and his notes taken during his missions and interviews with the main stakeholders.

Independent Project Evaluations are scheduled and managed by the project managers and conducted by external independent evaluators. The role of the Independent Evaluation Unit (IEU) in relation to independent project evaluations is one of quality assurance and support throughout the evaluation process, but IEU does not directly participate in or undertake independent project evaluations. It is, however, the responsibility of IEU to respond to the commitment of the United Nations Evaluation Group (UNEG) in professionalizing the evaluation function and promoting a culture of evaluation within UNODC for the purposes of accountability and continuous learning and improvement.

Due to the disbandment of the Independent Evaluation Unit (IEU) and the shortage of resources following its reinstitution, the IEU has been limited in its capacity to perform these functions for independent project evaluations to the degree anticipated. As a result, some independent evaluation reports posted may not be in full compliance with all IEU or UNEG guidelines. However, in order to support a transparent and learning environment, all evaluations received during this period have been posted and as an on-going process, IEU has begun re-implementing quality assurance processes and instituting guidelines for independent project evaluations as of January 2011.

CONTENTS

LIST OF ACRONYMS & GLOSSARY

Acronyms

ACCORD	ASEAN and China Cooperative Operations in Response to Dangerous Drugs
AFSN	Asian Forensic Sciences Network
ASEAN	Association of South East Asian Nations
ATS	Amphetamine-Type Stimulants
DAINAP	Drug Abuse Information Network for Asia and the Pacific
JICA	Japanese International Cooperation Agency
MoU	Memorandum of Understanding
MoI	Ministry of Interior
LSS	UNODC's Laboratory and Scientific Section
UNODC	United Nations Office on Drugs and Crime

Glossary

Capability	a qualitative term implying competence to carry out a specified laboratory analysis to a pre-determined standard
Capacity	a quantitative (or semi-quantitative) term implying the maximum or optimum number of samples that can be analysed in a required timeframe

EXECUTIVE SUMMARY

The evaluated project AD/03/GLO/H44 started as a follow-up to project AD/GLO/B83, and its main aim was to (i) improve forensic capabilities in the area of drug characterization /impurity profiling, and (ii) promote utilization of standardized laboratory data as a primary source of information in support of law enforcement, regulatory and health authorities in their operational activities, as well as for reporting and trend analyses. Against on-going bilateral assistance from Japan in the region, the project was designed to complement these activities, by focusing on the provision of the necessary "software" in the form of technical advice and guidance, rather than providing "hardware" in the form of equipment. The project involved and brought together the forensic laboratory personnel and their national clients from 11 countries (Cambodia, PR China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam).

The main objectives of the project have been the:

- Identification and dissemination of analytical methods, tools and working mechanisms for the characterization of key ATS and their precursors;
- Development of coordinated mechanisms for data generation and information exchange between drug testing laboratories and with relevant national drug control authorities;
- Systematic collection and dissemination of quality laboratory data and information through the network of collaborating laboratories, with a view to identifying emerging drug trends.

The major findings of the evaluation include:

- The project impacted positively on the use of laboratory data (i.e. for law enforcement purposes, legislation development, treatment programmes etc.). Specifically, GLOH44 resulted in (i) strengthened laboratory capacity in relation to ATS and their precursors (although some laboratories in the region continue to face difficulties related to "hardware"); (ii) increased cooperation between laboratories; (iii) acknowledgement of the role played by laboratories and increased interaction at national level between laboratory staff and drug enforcement agencies' staff although there is no document formalising arrangements between agencies or within agencies.
- The prevalence of existing technical capacity/capability to perform drug characterization/ impurity profiling in laboratories as well as the recognition of laboratories as the main

source of primary drug data by state agencies involved in drug control shows the project's effectiveness. During the final stage of the project a communication tool for use by forensic scientists (known as "Forensic Alert" and based on the already existing DAINAP), was initiated. Given the late start of Forensic Alert, it may indeed be too early to judge on its success/impact and whether laboratory data exchange will become an operational routine.

- Regarding efficiency, there was universal acknowledgement by interviewees and respondents to questionnaires that UNODC had done a good job with the limited amount of resources it was able to put on the ground in the region. However, the timeframe was considered as being too short to fully achieve project objectives, a situation that was compounded by the delayed starting date. The placement of a coordinator in the region was seen as extremely positive. Knowledge of the Asian culture was considered as central to this role.

- The creation of the Asian Forensic Sciences Network (AFSN) and of "Forensic Alert", as well as the human network established during project implementation, are significant elements to ensure the sustainability of the project objectives.

The following is a summary of major lessons learned and best practices:

- To some degree, the project was very ambitious in aiming to bring together professionals with different background, culture and technical preparedness. This affected the speed of project implementation and the achievement of its goals. Clustering the countries based on similarities in legislation, level of expertise and availability of equipment could perhaps have contributed to better efficiency. The success of the project would also have been evaluated as being more significant if the project design regarding scope and complexity had been more realistic from the outset. [1]

- Support and commitment of the governments of the countries involved to the project with such scope is of crucial importance. Obtaining formal engagement of the state officials before starting a project should be a guarantee for sustainability and will more likely avoid

[1] It is recognized, however, that the needs, possibilities and limitations of laboratories and the related requirements of sustainable laboratory capacity building (in terms of both resources and time frame) are not well understood/ appreciated outside the forensic community, and that the need to attract donor funds requires the formulation of impact-oriented assistance packages and measurable successes in comparably short time frames, resulting in the observed ambitiousness. The timeframe to attain similar objectives, for example, in Australia, was ten years.

changing of counterparts and high turnover of the participants in project activities.

- Throughout the implementation of the project, the significant importance of cooperation between forensic laboratories from the region on one side and between laboratories and their clients on the other side was identified. Joint workshops (laboratory and law enforcement personnel) were considered an important means to foster mutual understanding of roles and responsibilities and for conveying a realistic picture of possibilities and limitations of laboratory support to law enforcement initiatives. The workshops also offered the possibility to agree on priority actions from the two perspectives. The outcomes of these workshops were summarized in a regional action plan to ensure commitment from concerned counterparts, specifically for a standard platform for national/regional managed information exchange system, cooperation between laboratories and their clients and improvement of quality in technical analytical standards.

- The project was considered a nucleus for the establishment of a network of forensic laboratories in the region, modelled on existing networks of forensic science institutes in other regions. In its last regional seminar, the project laid the groundwork for an Asian network of forensic science institutes. Since then Asian Forensic Sciences Network (AFSN) was formed and an Interim Board established. It will give forensic scientists the opportunity to speak with one voice and to accelerate the cooperation and efficiency of the laboratories across the region.

- Good practice for setting up national interagency meetings was outlined in a document prepared under the project (Guidelines for Setting Up National Interagency Meetings), including the objectives of such meetings, prerequisites for their success, and steps necessary to undertake for proper organisation (roles, responsibilities of the hosting agency, agenda etc.). Implementing these steps will contribute to the participation effectiveness of the agencies involved.

- Key to the positive assessment of the project outcomes among the laboratory beneficiaries was the posting of a scientist in the region, who was able to provide expert guidance and assistance in technical matters. The positive assessment is also a reflection of the still persistent need for basic technical assistance and guidance. If the laboratory-client communication and cooperation aspects of the project were to be evaluated as being as

successful as the scientific-technical side, greater emphasis on interagency activities would have been required.

Recommendations, conclusions and implications to UNODC of the evaluation:

A number of issues have been identified during this Terminal Evaluation that should be addressed in order to maintain and enhance the existing scientific support required to strengthen regulatory and law enforcement control of ATS and their precursors in the region. The following general comments can be made regarding the issues identified: Some issues are uniform across the region, some apply to one or more countries, some issues apply to laboratories only, some apply to one or more clients only, and some issues apply to both laboratories and one or more clients.

In summary, the majority of issues are multi-factorial in nature.

The main recommendation is the necessity to follow-up on the project to maintain the momentum and build on the positive basis generated under this project.

To be more effective in the future, the project must obtain the written commitment of stakeholders especially decision makers of the respective authorities. The concept of national focal points, as envisaged in the project design, should be more consistently applied during implementation to ensure national coordination and sustainability.

The placement of a forensic advisor in the region is critical and should be part of the implementation strategy of similar projects in future. To meet the project objective of improved communication and interagency cooperation between laboratories and their national counterparts, greater emphasis should be placed on interagency activities in addition to the provision of scientific-technical expert advice.

Knowledge by the regional advisor of priorities and relevant practices in LSS-HQ technical assistance activities and delivery is critical for consistent project implementation and for the sustainability of results achieved. Mechanisms should be institutionalized to maximize the overall effectiveness of the provision of technical assistance from HQ and in the field.

1. INTRODUCTION

1 Background and Context

The abuse of ATS, involving amphetamines (amphetamine and methamphetamine) and substances of the 'ecstasy'-group (MDMA, MDA, MDEA, etc.), has become a global problem, particularly over the last fifteen years.

Countries in South-East, East and South Asia have long been major centres of illicit ATS manufacture, trafficking and/or abuse. Many ATS precursors are manufactured legitimately in those sub-regions. Over the past few years, evidence has been growing that such precursors are being diverted to the illegal manufacture of 'ecstasy'-type substances. However, there is a paucity of information on the specific precursors used in clandestine ATS manufacture, their sources, and the illicit manufacturing methods.

There is a need for further scientific support to better understand the nature and scope of the ATS problem, and to develop better systems of control. Governments recognize the need to establish, improve, update and sustain their laboratory facilities and associated human resources. These capabilities are seen as important tools in support of the detection and dismantling of clandestine drug manufacture and trafficking.

A number of countries have implemented integrated drug characterization/impurity profiling programs as a strategy for countering the trend of growing ATS manufacture and trafficking. These programs provide intelligence to the drug enforcement agencies and, at the same time, provide early warning systems to health authorities on unexpected adverse health consequences.

These programs are heavily dependent on an integrated approach between the drug testing laboratories (which are an important source of primary data on the nature, quality and quantity of drugs and precursors) and other agencies that are able to put this data into context. Globally, the activities undertaken to effectively confront often new and unfamiliar ATS drugs or drug combinations and trafficking situations continue to be affected by:

- unprepared or inadequately equipped institutions; and/or
- lack or underuse of reliable working tools; and
- lack or underuse of communication amongst relevant drug control agencies.

Governments in the sub-regions have requested and are already receiving assistance in the field of

ATS and related drug control areas on bilateral and multilateral basis. In most of those countries, the basic analytical infrastructure and forensic services are available, particularly through recent bilateral assistance, namely from the Japanese International Cooperation Agency (JICA), and complementary UNODC assistance.

Project AD/GLO/03/H44 is part of UNODC's comprehensive ATS programme in East and South-East Asia, especially those related to utilizing laboratory data as a primary source of information in support of law enforcement, regulatory and health authorities. It builds on the achievements of the previous project AD/GLO/B83.

Purpose and Objective of the Evaluation

The purpose of this terminal evaluation is to assess how UNODC supported the respective governments in strengthening capacity to provide scientific support to the regulatory and law enforcement control of amphetamine-type stimulants and their precursors. For details see the attached Terms of Reference (Annex 1).

Scope of the Evaluation

The evaluation covers the project concept/design, implementation, activities and results and outputs of project AD/GLOH44 during the whole period of project implementation. The evaluation scope includes findings, lessons learned and recommendations with regard to project relevance, impact, effectiveness, efficiency and sustainability.

1.1 Evaluation Methodology

The Terminal Evaluation was conducted essentially as described in the document Terminal Evaluation - Terms of Reference as promulgated by the LSS of the UNODC. This can be summarised as follows:

- A desk-top study of documents and reports, including the original AD/GLO/03/H44 project document, early project questionnaire results, meeting documents and reports, mission reports and annual reports as well as workshop evaluations. A full list of these documents can be found in Annex 2.
- Pre-visit discussions with the Project Coordinator in UNODC's Bangkok office;
- Visits to four beneficiary countries (Thailand, Vietnam, Cambodia and Malaysia) and face-to-face interviews with selected staff of the national drug testing laboratories and selected

staff of client agencies of drug control laboratories. A list of visits conducted and the national staff and stakeholders interviewed can be found in Annex 3;

- Face-to-face and phone interviews with other selected stakeholders; and
- Creation and circulation of two evaluation questionnaires. The two questionnaires (a laboratory-specific version and a client-specific version) were developed in conjunction with the LSS and circulated to relevant stakeholders by the Bangkok Regional Office. A list of recipients to these questionnaires can be found at Annex 4. Answers provided by the respondents to the questionnaires were entered into a spreadsheet (see Annex 5) and analysed both quantitatively (usually expressed as a percentage) and qualitatively (where descriptive answers were provided).
- In addition, telephone interviews were also conducted with the OiC of UNODC`s Laboratory and Scientific Section, and the long-term consultant of project GLO/H44.

Individual issues identified as an outcome of the four-country interview process were reality-checked, where possible, through additional interviews with complementary agencies (where they were early in the visit schedule) and/or though the use of the questionnaires. In some cases, additional information to support the issue was provided by non-agency personnel.

2. ANALYSIS AND MAJOR FINDINGS

2.1. Findings

<u>General findings (qualitative, based on interviews):</u>

- The position of forensic science laboratories in the countries from the region is often weak and scientists consider themselves not in a position to emphasise the need for practical interpretations of laws and regulations by prosecutors and courts.
- Some labs from the region continue to have problems related to the operation, maintenance, and training on the use of lab equipment and the acquisition of solvents and other consumables, which caused some difficulties in project implementation.
- Overall there is a increased understanding by the eleven regional countries of the importance of laboratory-derived technical information and the necessity to exchange such information nationally, through interagency co-operation, and regionally, through communication tools such as Forensic Alert.

- Although communication between labs and their client agencies is not formalized and based on ad hoc communication mainly to discuss ongoing cases, the present evaluation suggests that it has improved during project implementation. The main source of communication and exchange of information related to drug issues is considered to be the Internet, and DAINAP Forensic Alert established under the project;
- As a result, there is an increase in laboratory contributions to DAINAP during the project implementation and a readiness to contribute by those who still have not participated;
- Raised knowledge about Forensic Alert, how to use the system and how information can be shared between forensic- and drug testing laboratories, regionally.

Findings related to the expected project results (quantitative, based on analysis of questionnaires)[2]:

Result 1: By the end of the project, knowledge base improved on analytical approaches (possibilities and limitations) for the characterization of seized samples of ATS and their precursors

- 80% of the laboratories from the region reported that they had technical capacity/capability to perform drug characterization/impurity profiling. Although there is capacity to perform drug characterization/impurity profiling in most of the countries apparently it is not a routine practice;
- 80% of the labs undertake physical examination of the seized tablets made upon request of mainly law enforcement agencies or for own investigation;

Result 2: By the end of the project, drug testing laboratories are better integrated into national drug control systems; laboratories are recognized as a source of primary data and information; exchange and follow-up of laboratory data and information has become an operational routine

- The awareness among participants of the role of laboratories as part of interagency meetings has not increased significantly during the implementation of project GLO/H443.

[2] Some of the answers do not sound logical or are contradictory, possibly due to the misinterpretation of some questions in the questionnaires by part of the respondents. Language issues appear to have been of lesser importance during interviews.

[3] In some cases, such as in Cambodia, enhanced interagency cooperation and the defining of clear roles and responsibilities of each agency, was triggered as a result of concrete events, such as the dismantling of the first

50% of the government agencies involved in drug control are not aware of the labs capacity/capability to identify/characterize drug precursors and 70% are not aware of the labs capacity/capability to perform drug identification/characterization/impurity profiling;

- The existing working links between labs on one hand and their clients were not significantly increased in the course of project implementation. 30% of the labs stated that their interaction with clients increased after the project started. The main clients of the labs still remain the police authorities (70% of the labs have established working links with enforcement authorities) while the cooperation with regulatory and health authorities needs further development[4].
- Both laboratories and their clients support (almost 100%) the concept of regular regional workshops such as those held during the project implementation and most of them proposed such meetings to be held every year;
- There is 50% increase of labs involvement in national interagency and international / regional (expert working) groups.

Result 3: Improved use of laboratories as a primary source of data and information for operational law enforcement, regulatory and health purposes, and for reporting and trend analyses

- 100% of the labs stated that they provide their clients with data on drug identification, 50% on drug purity, e. g. diluents, impurities and/or traces;
- 60% of the labs data is used for developing drugs and precursors laws and annual reports, 50% for developing drug treatment programmes and 40% for epidemiological services, 40% for establishing links between 2 or more samples, distribution patterns/trafficking trends, identifying source of drug samples and monitoring manufacturing methods and precursors, 70% for identifying chemicals used in clan labs; 1 lab reported use of lab data for other crime related to drug trafficking – robbery and money laundering;

---

clandestine methamphetamine laboratory in the country.

[4] Two more labs reported they have established links with regulatory authorities and the situation with health authorities has not been changed. Some of the labs reported they established working links with other authority such as prosecutor agency and Ministry of Industry, Mine and Energy.

2.2. Attainment of the Objectives

The following are lists of key outcomes and outputs grouped under the three immediate objectives of project GLO/H44:

Immediate Objective 1: To identify and disseminate analytical methods, tools and working mechanisms for the characterization of key ATS and their precursors.

- Collaborative research activities carried out during the project implementation resulted in the development of simple methods for the field identification of safrole-rich oils, improvements of existing tests, including an approach for semi-quantitative assessment of safrole content as well as a TLC-based method for the differentiation of the dyes used in 'wy' tablets. Methods for detection and identification of ATS precursors and other chemicals such as thionyl chloride and alpha-benzyl cyanide were compiled and made available to participating labs. Other methods for the identification of synthetic drugs and their precursors, as well as 'unknowns' generally, were identified and made available on request, with a focus on low-tech approaches for sustainability.

- Publication of a Scientific Technical Note (SCITEC/21) on "Colour Tests for Precursor Chemicals of Amphetamine-Type Substances: Systematic study of colour tests for safrole and safrole-rich essential oils"[5] and on-going ad-hoc technical support and advice to laboratories participating in the project, including related applied research activities, literature search, and provision of scientific literature, reference standards, etc..

- Analysis/Evaluation of published methods for the GC-separation of ephedrine and pseudoephedrine, chloro-ephedrine and comparative analysis of ephedrine/ pseudoephedrine samples from China, Japan, India including by SPME and colour tests.

Immediate Objective 2: To establish coordinated mechanisms for data generation and information exchange between drug testing laboratories and with relevant national drug control authorities.

- To ensure sustainability and facilitate cooperation in the region and with UNODC Bangkok, project GLOH44 set out to establish a network of National Focal Points (NFPs) based on already existing Focal Points within the UNODC project RASF97. The NFPs

[5] Available on-line at: http://www.unodc.org/unodc/en/scientists/colour-tests-for-precursor-chemicals-of-amphetamine-type-substances2.html

were intended to form the backbone of a human network also involving drug analysts from selected drug testing laboratories as well as contact personnel in relevant national authorities (law enforcement, regulatory, health) who were identified and nominated in order to facilitate national coordination and regional cooperation.

- The inception meeting in Bangkok in May 2006 and two subsequent multi-disciplinary workshops in September 2006 and December 2007 brought together the national counterparts from the region, fostering mutual recognition of needs, possibilities and limitations, and establishing personal links at national and regional levels;

- Visits by the Project Coordinator to the laboratories in the beneficiary countries contributed to establishing/strengthening the necessary working links at national level and with the project, thus representing a significant element of project implementation.[6] These visits not only helped to foster contacts with clients of laboratories to assess the readiness and scope of work vis-à-vis the project but also the areas of collaborative research/work and contribution of articles on drug trends and new drugs/substances of abuse to the DrugNetAsia bulletin.

- A training course / study visit to KIMIA Malaysia for laboratory analysts from participating laboratories increased their capabilities in identification of unknowns (including case study examples), ephedrine and pseudoephedrine, clandestine laboratory investigations, chemical testing including onsite testing of thionyl chloride, quantitation of ATS, ketamine and nimetazepam, preparation, authentication and certification of secondary reference drug standards from seized drug samples as well as routine maintenance procedures of GC-FID.

- In collaboration with a complementary laboratory assistance project JICA (focus on general capacity building in 5 of the 11 countries), a common format for an 'ecstasy' tablet database was agreed and relevant training provided. Tablet codification and other features of the database are based on the ENFSI and EUROPOL (European Police) model thus enabling easy exchange of tablet information between laboratories in the region and those in Europe should the need arise in the future. Simple summary reports (such as logo type, % purity of drug or location of seizure) for law enforcement use can be easily generated

[6] It should be noted that the Laboratory and Scientific Section does not have field advisors posted in key regions around the world, i.e. the presence of a dedicated staff was a key factor in the implementation of project GLOH44.

from the database. The required equipment (microscope with digital camera) was to be provided under the JICA project.

Immediate Objective 3: To systematically collect and disseminate quality laboratory data and information through the network of collaborating laboratories, with a view to identifying emerging drug trends (drug and precursor trends, trafficking and abuse patterns and methods of illicit manufacture).

- The basis for an Asian Forensic Sciences Network (AFSN) was laid by a meeting of a forerunner group of representatives from six forensic science institutes in Southeast Asia during which an Interim Board of AFSN was formed with the task to prepare the inaugural meeting in autumn 2009.7 AFSN aims to enable coordination and collaboration across Asian nations to advance forensic services to a higher level. It fills a regional gap in Asia, complementing similar networks in Europe, North America and Australia/New Zealand.
- A web-based interactive communication tool, known as "Forensic Alert", was developed and launched as a separate, password-protected module of the existing DAINAP system. It includes options to seek assistance from fellow-laboratories on analytical problems (i.e. a Q&A option), and posting of useful publications and non-sensitive laboratory information. "Forensic Alert" is currently limited to facilitating communication between laboratories in the region (in English language), but has potential for future expansion for use by law enforcement and other agencies (i.e. the system could become a national forensic-client communication tool in each of the participating countries in the respective local language).
- Two issues of the DrugNetAsia bulletin were compiled and published in addition to the regular annual issue published by the editorial team in Singapore's Health Sciences Authority (HSA).
- The collation of information on ATS street drug combinations and analytical data of adulterants and cutting agents found in ATS and related substances was initiated.

2.3. Institutional and Management Arrangements & Implementation

The recruitment of a Project Coordinator from the region with scientific background had a positive impact particularly on the implementation of those activities related to the enhancement of the

capacities of the forensic laboratories. The interagency activities and lab-client aspects were mainly driven by LSS HQ and the long-term consultant but would have benefited from stronger project coordination and greater emphasis on these aspects also at the regional level.

To a certain extent, the limited financial and human resources and time frame on one hand and different levels of absorption capacities of the beneficiary countries on the other hand reflected negatively on implementation modalities. As a result the project could not reach 100% of its objectives.

3. OUTCOMES, IMPACTS AND SUSTAINABILITY

The project was designed in alignment with UNODC policy and strategy specifically the core programme "Forensic and scientific capacity building" and the ACCORD Plan of Action covering the ASEAN countries and China. It complemented other UNODC projects carried out[8] in the region as well as bilateral activities by the Japanese International Cooperation Agency (JICA).

3.1. Outcomes

The major outcome arising from the evaluation was that the eleven regional countries have embraced the notion that laboratory-derived technical information is important, and in some cases crucial, in providing timely intelligence to drug control agencies. Consequently there has been increased scientific support to strengthen regulatory and law enforcement control of amphetamine-type stimulants and their precursors in East, South and South-East Asia

In the case of laboratory scientists the project has increased their knowledge and enthusiasm for their primary role which still remains the chemical analysis of drugs. They are not only producing the raw data confirming identity and purity but are increasingly being called upon to comment on such matters as trends and impurity profile. This use of their professional skills has contributed to an increased job satisfaction.

In the case of drug control agencies, access to laboratory-derived technical information has provided an important tool for them to develop tactical (e.g. casework) and strategic (e.g. precursor) intelligence approaches to the increasing problem posed by the manufacture and use of ATS in the region.

---

[7] The network was created in October 2008 (see: http://www.unodc.org/pdf/scientific/Announcement-2.pdf).
[8] Such as AD/RAS/00/F34 (aimed at strengthening precursor controls), AD/RAS/97/C51 (for strengthening law enforcement capacity), AD/RAS/99/D91 (for strengthening cross-border cooperation), and AD/RAS/01/F97 (for improving ATS data and information systems).

3.2. Impacts

The major impact of project GLOH44 is in having laid the basis for enhanced national and regional cooperation and coordination through:

- A universal agreement on the need for a network of forensic laboratories and the subsequent (October 2008) creation of the Asian Forensic Sciences Network (AFSN). This marks the beginning of Asian laboratories starting to speak with one voice and formalizing their collaboration at regional level. It will also facilitate inter-regional cooperation with similar existing networks in other regions.
- The development of Forensic Alert as an Internet-based communication tool for the exchange of drug-related information and posting of related technical questions. The tool is designed to allow for expansion to become a national communication tool in local languages.
- Offering platforms for forensic laboratory personnel to meet their counterparts in the region as well as their national clients. This has contributed to enhanced communication and mutual understanding of roles and responsibilities, possibilities and limitations, especially between laboratories and their clients.
- Continued opportunities for training and upgrading of target-oriented technical skills (i.e. laboratories as a means to an end).

3.3. Sustainability

The establishment of AFSN and the DAINAP-based Forensic Alert are considered two of the major achievements of the project and prerequisites for sustainability. Networking and exchange of information will ensure functioning of a coordinated mechanism for data generation and exchange between laboratories and with their clients as well as dissemination of quality laboratory data, e.g. on emerging drug trends. To make full use of the groundwork carried out under GLOH44, the envisaged follow-up should seek for bigger government commitment, support and involvement as well as an obligation to institutionalise the knowledge gained through the project.

4. LESSONS LEARNED AND BEST PRACTICES

4.1. Lessons Learned

- Before starting a (global) project with such a scope and objectives, formal commitment should be ensured from each beneficiary government, as well as sufficient financial resources;
- A project aiming at addressing laboratory-client cooperation, would benefit from the recruitment and posting in the region of both a project coordinator with the necessary experience in forensic interagency cooperation as well as a project expert/consultant for specific scientific-technical questions on laboratory matters;
- There is a need for technical project staff to be familiar with available best practices in the delivery of technical assistance projects in the laboratory field. Projects in specialized areas such as laboratory and scientific support should therefore make provision for field project staff to familiarize themselves beforehand with relevant best practices in LSS-HQ technical assistance delivery and applicable UNODC rules and regulation related to project implementation. Throughout project implementation there is a need for institutionalized implementation arrangements between LSS-HQ and Field Offices;
- When beneficiaries differ so much with regard to absorption capacity and legislation, a cluster approach might be more beneficial.

4.2. Best Practices

- Local approach to addressing local problems via recruiting a project coordinator from the region.
- Involvement of an experienced consultant with broad knowledge not only in forensic laboratory capacity building but with proven experience in the interaction between laboratories and their clients.
- Technical support to project activities by a laboratory technician dedicated to providing laboratory work in support of analytical issues raised by participating laboratories and relevant laboratory experimental work on methods development and standardization.
- Integration of laboratory project activities with other related UNODC activities in the region (e.g. GLOH44 contributed to improving ATS data and information systems in

accordance with similar UNODC projects such as AD/RAS/01/F97 and earlier work under AD/GLO/B83. The project activities were part of UNODC comprehensive ATS programme in East and South-East Asia, especially those related to utilising laboratory data as a primary source of information in support of law enforcement, regulatory and health authorities).

4.3. Constraints

The following is a list of project constraints. It is important to note that most constrains are not specific to project GLOH44:

- the relatively low resources assigned to the project (US$737,900 over two years);
- the fact that the project was at least six months late in starting;
- the relatively low starting technical knowledge and capability base;
- the involvement of eleven countries often with different cultures, policies and drug-control frameworks;
- there are language barriers but was recognised that English is the common language in the region ;
- insufficient number of trained laboratory staff, equipment and consumables;
- Work at HQ was affected by human resource limitations related to the assignment of the HQ project focal point as OiC of LSS.

5. RECOMMENDATIONS

5.1. Actions/decisions recommended

It is recommended that UNODC:

a) Seek funding from one or more potential donor countries to undertake a Phase 2 follow-up project building on the findings from this evaluation and focusing on strengthening the role of forensic scientists in national (interagency) working groups and on fostering regional cooperation among forensic laboratories.

b) Endeavour to fund two regional coordinators in the Phase 2 project, one with a laboratory background and the other with a law enforcement (drug control) background, in order to address and minimise any cross-agency cultural

differences.

c) Seek specific involvement of countries with mature links between laboratories and drug enforcement agencies in order to transfer lessons learnt and benefits gained through such interactions; investigate the possibility of facilitating formation of a "big brother" mentoring program whereby more advanced laboratories are "paired" with less advanced laboratories in order to provide professional and moral support; also build on the groundwork carried out with the establishment of AFSN and seek contributions from existing forensic networks; coordinate with JICA and other selected assistance providers the ongoing activities in supporting drug control laboratories in the region.

d) Investigate strategies to minimise delays in initiating projects, especially those that require recruitment of region-based staff with relevant experience and with a limited timeframe.

e) Investigate the possibility of producing "toolboxes" that can be used by laboratories to (i) market the usefulness of laboratory information to provide tactical and strategic intelligence to drug control agencies and (ii) improve communication with labs clients and influence on strategic/political decision makers.

f) Encourage laboratories to enter into formal arrangements with client agencies, perhaps through a memorandum of understanding, where such arrangements do not currently exist.

g) Encourage wider circulation of DrugNetAsia Bulletin both in hardcopy and electronically and, if required, facilitate additional funding for this purpose.

h) Investigate the possibility of funding translation of DrugNetAsia into regional languages in order to broaden its utility to the broader non-English speaking drug control stakeholders.

i) Seek funding to support regional workshops, these to include relevant hands-on training components, and to be conducted on an annual basis and at different locations each year.

j) Promote/facilitate training of laboratory scientists in clandestine laboratory

procedures and the safe handling and disposal of chemicals and wastes found on-site, in order to bring a chemist's perspective to the investigation of such laboratories.[9]

k) Consider introducing a procedure for handling of samples and information flow involving drug enforcement authorities and laboratories, developing relevant training curricula and encouraging training of law enforcement personnel (by lab staff) in sample collection;

l) Support harmonisation of procedures and processes, including reporting and data analysis, as the first step in a strategy to achieve regional standardisation by introduction of standardized reporting.

m) Investigate the possibility of regional laboratories achieving technical accreditation to the ISO 17025 standard and, if indicated, develop a strategic plan for achieving such accreditation.

n) Investigate a cost-effective solution for provision of sufficient quantities of chemical reference standards.

o) Investigate the possibility of arranging access to scientific journals, perhaps through an add-on to the UNODC subscription or through establishment of a formal group of laboratories that could qualify for corporate subscription.

p) Investigate the possibility of funding access to facilitate the use of internet-based communication vehicles, where laboratories and agencies do not have broadband internet access at this time.

6. OVERALL CONCLUSIONS

The goal of this Terminal Evaluation was to confirm whether Project AD/GLO/H44 achieved its stated objectives, which can be summarised as:

- identification and dissemination of analytical methods, tools and working mechanisms for the characterization of key ATS and their precursors;

[9] A specific recommendation from one of the GLOH44 workshops was the establishment of a Regional Information Centre on the Investigation of Clandestine Laboratories with the objective to share best practices and knowledge between the H44 countries.

- development of coordinated mechanisms for data generation and information exchange between drug testing laboratories and with relevant national drug control authorities;
- systematic collection and dissemination of quality laboratory data and information through the network of collaborating laboratories, with a view to identifying emerging drug trends.

The outcome of this Evaluation is that these objectives were partially achieved. The main reason for this is that the project objectives were concerned with issues of complex laboratory analysis and the "politics" of inter-agency interactions.

To put this statement in perspective, similar objectives were elaborated within Australia in the mid to late 1990s. It then took approximately ten years to develop the analytical methods, refine the data analysis processes and to positively engage the relevant drug control agencies.

Therefore, to achieve similar objectives across eleven countries with different cultures and starting from a relatively low technical knowledge base would have been a fantastic achievement. It is a credit to UNODC, the laboratories and the laboratory clients that significant progress was made. This is particularly so when one considers:

- the relatively low resources assigned to the project (US$737,900 over two years);
- the fact that the project was at least six months late in starting;
- the relatively low starting technical knowledge and capability base; and
- the involvement of eleven countries often with different cultures, policies and drug-control frameworks.

However the project did achieve a number of its milestones:

- it facilitated increased dialogue between laboratories of the eleven countries;
- it facilitated increased dialogue between drug control agencies of the eleven countries; and
- it brought the laboratories and drug control agencies closer together.

The foundations are now in place for an extended project that should result in a wider uptake of the technical and strategic intelligence that can be provided by laboratories in attaining the goal of minimising the societal impact of ATS through East, South and South-East Asia.

UNODC
United Nations Office on Drugs and Crime

Annexes

1. Terms of reference

TERMINAL EVALUATION

TERMS OF REFERENCE

Project title:	Scientific support to strengthen regulatory and law enforcement control of amphetamine-type stimulants and their precursors in East, South and South-East Asia
Project number:	AD/GLO/03/H44
Duration:	December 2005 to March 2008
Executing agency:	UNODC
Cooperating agencies:	Cambodia: National Authority for Combating Drugs (NACD) China: National Narcotics Control Commission (NNCC) India: Narcotics Control Bureau (NCB) Indonesia: National Narcotics Board (BNN) Lao PDR: Lao National Commission for Drug Control and Supervision (LCDC) Malaysia: National Anti-Drugs Agency (NADA)* Myanmar: Central Committee for Drug Abuse Control (CCDAC) Philippines: Dangerous Drugs Board (DDB) Singapore: Central Narcotics Bureau (CNB) Thailand: Office of the Narcotics Control Board (ONCB) Vietnam: Standing Office for Drug Control (SODC) * Malaysia joined for the inception meeting in May 2006.
Total budget:	US$ 737,900
Donors:	Japan

I. BACKGROUND INFORMATION

This project started as a follow-up to project AD/GLO/B83, and its main aim was to (i) improve forensic capabilities in the area of drug characterization /impurity profiling, and (ii) promote utilization of standardized laboratory data as a primary source of information in support of law enforcement, regulatory and health authorities in their operational activities, as well as for reporting and trend analyses. Against on-going bilateral assistance from Japan in the region, the project was

designed to complement these activities, by focussing on the provision of the necessary "software" in the form of technical advice and guidance, rather than providing "hardware" in the form of equipment.

At the sub-regional level, the project has also been consistent with the intent of a drug control information exchange system under the Regional Memorandum Of Understanding (MoU) on Drug Control (1995) and the rolling Sub-regional Action Plan (SAP) towards which the governments of Cambodia, China, Laos, Myanmar, Thailand, Vietnam and UNDCP pledged to cooperate in the tackling of illicit drug production, trafficking, and abuse. It has also supported the objectives and goals of the ACCORD Plan of Action covering the ASEAN countries and China.

Senior officials of the Signatories to the 1993 MoU on Drug Control have agreed, in May 2004, to support the overall aims of the project and the participation of their national drug testing laboratories. They have endorsed also use of the existing MoU cooperation mechanism to facilitate the building of a regional network of drug testing laboratories and the frameworks for the sharing of laboratory results with other national drug control authorities (law enforcement, regulatory and health).

Identification and dissemination of analytical methods, tools and working mechanisms for the characterization of key ATS and their precursors;

Development of coordinated mechanisms for data generation and information exchange between drug testing laboratories and with relevant national drug control authorities;

Systematic collection and dissemination of quality laboratory data and information through the network of collaborating laboratories, with a view to identifying emerging drug trends.

The expected results have been:

Knowledge base improved on analytical approaches (possibilities and limitations) for the characterization of seized samples of ATS and their precursors;

Drug testing laboratories are better integrated into national drug control systems; laboratories are recognized as a source of primary data and information; exchange and follow-up of laboratory data and information has become an operational routine;

Use of laboratories improved as a primary source of data and information for operational law enforcement, regulatory and health purposes, and for reporting and trend analyses.

Performance indicators of the project are the following:

Standardized systems established in participating countries to ensure progressively more reliable information/data gathering, analysis and reporting;

DrugNetAsia moves progressively from presentation of results towards presentation of findings, indicating their operational usefulness;

Return rate progressively improved for relevant questions and the Annex (information on individual clandestine laboratory seizures) of UNODC`s Annual Report Questionnaire (ARQ);

UNODC recognized as global source of scientific-technical information on ATS and their precursors, reflected in increase in specific requests for information and invitations.

The UNODC Laboratory and Scientific Section (LSS) has been responsible for project implementation, in cooperation with the Partnership in Development Branch (PDB), the Regional Centre in Bangkok and relevant Country Offices in East, South and South-East Asia. The chief, LSS, has been responsible for the overall supervision of the project. The Regional Project Coordinator, recruited under this project in March 2006 and based at UNODC`s Regional Centre in Bangkok, has been responsible for the day-to-day coordination of activities and administration at the regional level.

The respective Governments in the sub-region have been responsible for the nomination of National Focal Points (NFP), typically those already involved in related bilateral or multi-lateral activities, namely project AD/RAS/01/F97 (Improving ATS data and information systems) to facilitate national and regional coordination and cooperation, and to ensure the development of adequate institutional frameworks, and future sustainability. Governments have also been responsible, in consultation with UNODC, for the designation of competent counterpart laboratories, one working-level drug analyst for each laboratory, and contact personnel in the relevant authorities (law enforcement, regulatory, health) and for ensuring their full participation in relevant activities under the project. LSS and the Regional Project Coordinator, with assistance of an international consultant, have provided services in substantive areas of the project.

II. PURPOSE OF THE EVALUATION

The purpose of this terminal evaluation is to assess how UNODC supported the respective governments in strengthening capacity to provide scientific support to the regulatory and law enforcement control of amphetamine-type stimulants and their precursors. The evaluation has been foreseen as part of GLO/H44 project activities. Specifically, the purpose of the evaluation is to:

assess and analyze the different project components and gather information on the activities undertaken, taking into consideration the elements highlighted below, under section III. Evaluation scope,

report on observations, findings, and conclusions;

capture lessons learned and best practices employed, and make recommendations of practical relevance to UNODC operation and its technical cooperation activities, including project planning, design and management, in the UNODC strategic result area "forensic and scientific capacity".

III. EVALUATION SCOPE

This terminal evaluation covers the project concept/design, implementation, activities and results and outputs of project AD/GLOH44 during the whole period of project implementation - from its beginning on 1 December 2005 (recruitment of Laboratory Technician at HQ) until March 2008 (expected end of two years assignment of Regional Project Coordinator). The geographical coverage includes the participating countries in South, East and South-East Asia, namely Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

The evaluation scope is expected to include, but is not limited to, findings, lessons learned and recommendations in the following areas:

1. Relevance (i.e., whether the project contributes to a priority area or comparative advantage for UNODC, and whether it addresses the identified needs/problem. This includes an assessment of the value of the project in relation to other priority needs and efforts, and whether the problem addressed is still a major problem), specifically:

    - The project alignment with UNODC policy and strategy at global and subregional level. This includes an assessment of the relevance of the project to:

        - UNODC`s core programme "Forensic and scientific capacity-building" (global), and specifically to the improvement of forensic capabilities in the area of drug characterization and to promoting utilization of laboratories and their data as a primary source of information in support of law enforcement, regulatory and health authorities, and for reporting and trend analyses.

- The Regional Memorandum Of Understanding (MoU) on Drug Control (1995) and the rolling Sub-regional Action Plan (SAP) towards which the governments of Cambodia, China, Laos, Myanmar, Thailand, Vietnam and UNDCP pledged to cooperate in the tackling of illicit drug production, trafficking, and abuse. (sub-regional)
- The ACCORD Plan of Action covering the ASEAN countries and China. (sub-regional)

- The project alignment with the relevant partner countries' policies and strategies.
- The relationship and complementarities of the project with activities of UNODC`s core programme "Forensic and scientific capacity-building".
- The relationship and complementarities of the project with other similar projects / activities at the national and regional level and activities of national and international agencies other than UNODC (e.g., UNODC project RAS/F97, UNODC`s regional precursor project, the ACCORD Plan of Action, bilateral activities by the Japanese International Cooperation Agency, JICA).

2. Impact (i.e., what difference the project has made to beneficiaries – either short-, medium-, or long-term; intended or unintended; positive and negative; on a micro- or macro-level), specifically:

- What are the effects on the institutions involved (drug testing laboratories, law enforcement, regulatory and health authorities), including:
  - The contribution of the project to strengthen laboratory capacity and capabilities beyond simple drug identification and to assist laboratories in improving their support to operational law enforcement, regulatory and health-related activities, and for reporting and trend analyses;
  - The contribution of the project to raise awareness among partcipating scientists and drug analysis laboratories about the scope of activities and support that they can provide (beyond simple drug identification) for operational law enforcement, regulatory and health-related purposes, and for reporting and trend analyses;

- The contribution of the project to raise awareness among national clients of drug analysis laboratories about the scope of activities and support that laboratories can provide for operational law enforcement, regulatory and health-related purposes, and for reporting and trend analyses;

3. Effectiveness (i.e., whether the results have been achieved, and if not, whether there has been some progress made towards their achievement). This includes an assessment of:

   - Whether the recipients' knowledge base has been improved on the possibilities and limitations of analytical approaches for the characterization of seized samples of ATS and their precursors;
   - Whether laboratories are recognized as a source of primary data and information and whether their use for operational law enforcement, regulatory and health purposes, and for reporting and trend analyses has improved (i.e., whether they are better integrated into national drug control systems).
   - Whether exchange and follow-up of laboratory data and information has become an operational routine;

4. Efficiency (i.e., whether the effects have been achieved at an acceptable cost, compared with alternative approaches to accomplishing the same objectives). This includes an assessment of:

   - Whether the strategy and approach of the project, have been optimal (best possible) or whether other approaches could have improved the results;
   - The efficiency of activities carried out.

5. Sustainability (i.e., whether the activity is likely to continue after the project ends, i.e., do the beneficiaries accept the programme, are they willing to continue, and are relevant institutions in the region developing the capacity and motivation to continue it; Can the activity become self-sustaining, including financially?). This relates specifically to:

   - The capacity of drug analysis laboratories to provide client-oriented scientific services beyond simple drug identification;
   - The continued involvement/integration of laboratories in national interagency activities;

- The continued communication and networking of laboratories at regional level; and
- The continued awareness/acceptance by clients of the role, possibilities and limitations of drug analysis laboratories as a key player in national drug control systems.

Specifically, the scope of the evaluation should also include an analysis of the efficiency and effectiveness of the organizational structure, managerial support and coordination mechanism used by UNODC, as well as an analysis of the split of work between HQ and RC Bangkok/the regional project coordinator.

Finally, the scope of the evaluation should also include issues of:

- Government Inputs/Pre-requisites in relation to project objectives, i.e., an assessment of resource allocations by the recipient countries (facilities, infrastructure available as foreseen);
- Problems and constraints encountered during project implementation;
- Capacity development, i.e., the project's contribution to human and institutional capacity building.

Recommendations

In line with the present terms of reference and the established format for the evaluation report, the evaluator shall make recommendations of practical relevance to UNODC operation and its technical cooperation activities in the UNODC strategic result area "forensic and scientific capacity". This should include recommendations and proposals for concrete action to extend, improve or rectify outcomes, and resolve any problem, as appropriate, as well as recommendations for any necessary further assistance. Where appropriate, recommendations should be made as best practices that have been demonstrated in the implementation of this project or negative lessons learned through project implementation, which are valid beyond the project itself, and can be applied in a wider context.

IV. EVALUATION METHODS

The evaluation will be conducted by an independent expert, identified and recruited by UNODC, Headquarters (HQ), Vienna, in consultation with RC Bangkok and IEU. The evaluation will be based on the study of documents and reports, followed by interviews with selected key persons, and a (web-based) questionnaire for other beneficiaries and stakeholders, as necessary.

The evaluator will study the relevant documents, meet staff of drug testing laboratories and relevant authorities, conduct on-site visits to selected laboratories that participated in the project, make telephone interviews, and have discussions with relevant counterparts in the project countries, as appropriate. On-site assessments will be based on a list of core questions prepared by the evaluator. Interviews will be based on a wider range of core questions taking into consideration observations of on-site visits, and will be planned by the parties to the project. During the course of the evaluation, it might be necessary to add or remove interviews, if the evaluator deems it necessary. If, after an on-site evaluation, there are any additional technical questions that the evaluator might wish to raise, this should be done so in writing.

Where on-site visits are not possible, the evaluator will gather feedback from beneficiaries at different levels (laboratories, their clients, and NFP) through questionnaires, which will be designed for this purpose by the evaluator in consultation with UNODC. UNODC HQ, Vienna, will work in close collaboration with the RC Bangkok.

V. EVALUATION TEAM COMPOSITION

The evaluation will be carried out by an independent expert. The evaluator will not be considered in any respect as a regular staff member of the UNODC project and should not have prior involvement in the UNODC programme/activity and intended outcome as well as will not act as a representative of any party. S/he should use his/her independent expert judgement in the process of this evaluation and should remain impartial.

Qualifications and expertise of the evaluator

- Extended professional expertise and practical experience in the drug laboratory sector (preferably in South, East and Southeast Asia) including familiarity with the role of laboratories in the national drug control system for regulatory, health, judicial and operational law enforcement purposes, as well as a source of data for trend analyses;
- First level university degree in chemistry, pharmacy or related science, or the equivalent combination of education and experience in any of the above fields;
- Experience in project evaluation;
- Versed with technical cooperation activities, project planning and management, preferably in the laboratory sector;

- Familiarity with UNODC's practices and drug control activities in the laboratory sector at national, regional and/or international level, as well as with the drug control conventions and the international drug control system;
- Excellent command of English language.

VI. PLANNING AND IMPLEMENTATION ARRANGEMENTS

The evaluation will take a total of 14 (fourteen) working days between 27 January to 10 March 2008. The evaluation will take place in Bangkok, Thailand, with field visits to Phnom Penh, Cambodia, Kuala Lumpur, Malaysia and Hanoi, Vietnam. The three countries are selected for the following reasons:

- Cambodia – low capacity in terms of instrumentation and capacity of personnel; drug scene relatively "new" and unsophisticated; practically no quality assurance. Single forensic drug lab in the whole country.
- Viet Nam – intermediate capacity instrumentation and capacity; some rudimentary elements of quality control.
- Malaysia – high capacity, developed quality assurance system. Wide range of drugs encountered (and high number of cases and samples handled by central laboratory. Occasional presence of clandestine meth laboratories using different synthetic routes. Multiple branch forensic drug laboratories. Lab not in JICA assistance programs.

The evaluator will be briefed by the Regional Project Coordinator, RC Bangkok, and the Officer-in-Charge, LSS, UNODC, Vienna (through telephone). S/he will also consult with the project consultant (through telephone), and concerned staff at UNODC HQ and RC, as appropriate.

Substantive and administrative support to the evaluator will be provided by UNODC Regional Centre in Bangkok. This includes assistance with arrangements for travel, visits to selected laboratories and beneficiaries of the project, and for meetings with relevant staff. Relevant Country Offices in East, South and South-East Asia will also provide assistance at the request of the evaluator.

To facilitate the evaluation, where necessary, the beneficiary agencies shall each nominate one link officer (preferably the NFP) who shall provide administrative support in the country and be responsible to ensure that the evaluator has access to any person or area that might be considered

relevant for the purpose of the evaluation. A contact list of these persons and details of the beneficiary agency link officers will be provided prior to the evaluation missions.

The evaluator shall submit a draft report in English to the UNODC Regional Project Coordinator in Bangkok no later than one week after the termination of the field visits. The final report should be submitted one week after receipt by the evaluator of all comments (but no later than 10 March 2008). The Regional Project Coordinator/UNODC-LSS will be responsible for distributing the final report to the concerned parties, including the UNODC Independent Evaluation Unit at HQ.

As part of finalizing the evaluation report, the evaluator may be required to discuss with a number of parties, and may take into account for the final report any observations and comments received. It is stressed however that although the evaluator should take the views expressed into account, his/her own independent judgement should be used in preparing the final report.

Similarly, during the course of the evaluation, the evaluator will consult with a variety of high-level personnel from the beneficiary agencies to discuss issues relating to the project. S/he should clearly identify his/her role and advise that s/he is not authorised to make any commitments on behalf of UNODC project management.

All relevant project-related documents and information (including project documents, progress reports, mission and meeting reports and other publications that resulted from the project implementation) will be made available to the evaluator for review, to allow him/her to satisfactorily fulfil these Terms of Reference.

The lump sum consultancy fee includes travel to, and lodging expenses in, Thailand and three selected participating countries (most likely, Cambodia, Malaysia and Viet Nam), which the consultant will be responsible for arranging.

Timetable

28 January 2008	Recruitment of evaluator
28 and 29 January 2008	Home-based project documents review. Development of questionnaires and check list of questions for interviews
	Initial briefing by telephone by Regional Project Coordinator and/or Officer-in-Charge/LSS, as appropriate
	Telephone interview with project consultant

	Design of (web-based?) questionnaires for beneficiaries and stakeholders not visited
30 January-10 February 2008	Travel to Bangkok: briefing by UNODC Regional Centre and UNODC HQ (by telephone)
	Additional telephone interview with project consultant and other relevant persons, as appropriate
	Visit/interviews/discussions with relevant beneficiaries in Thailand, discussion with JICA (Japanese International Cooperation Agency as bilateral assistance provider in the region)
	Travel to selected project countries, visit/interviews/ discussions with laboratory, law enforcement, regulatory, health authorities' personnel benefiting from participation in the project, interviews and discussions with relevant counterparts (proposed visiting countries: Cambodia, Malaysia and Vietnam).
11 February 2008	Debriefing at UNODC Bangkok, and UNODC HQ (by telephone), as appropriate, on the findings of the mission and preparation of draft evaluation report
18 February 2008	Submission of draft report of the project evaluation
10 March 2008	Submission of final report of the project evaluation

The exact timetable of the evaluation shall be decided as soon as the evaluator is appointed, and further specified by RC Bangkok

Evaluation report and follow-up

The evaluator should submit a comprehensive report on evaluation results, lessons learnt and recommendations, to be easily considered by all counterparts in planning of future activities at

national and regional level. It should also facilitate UNODC`s efforts in identifying and developing best practices, and ensuring their integration into future projects and programmes.

The evaluation report should follow the UNODC standard format and guidelines for the preparation of project evaluation reports (see attachment), and should not exceed 25 pages excluding annexes[10]. The evaluator should also fill out the summary assessment questionnaire. Copies of the UNODC standard format and guidelines for the preparation of project evaluation reports and the summary assessment questionnaire will be provided to the evaluator in advance.

10 Annexes to the evaluation report should be kept to an absolute minimum. Only those annexes that serve to demonstrate or clarify an issue related to a major finding should be included. Existing documents should be referenced but not necessarily annexed. Maximum number of pages for annexes = 15.

Annex 2. List of consulted documents

Type	Title/Subject	Author/Editor	Date
Fax	Forensic Alert System	Akira Fujino	Jan-2008
Word Document	AD/GLO/H44 Regional Action Plan (post 1st H44 Regional Workshop September 2006	UNODC	ND
Word Document	Recommendations and Proposed Follow-Up from H44 Workshops, September 2006	UNODC	ND
Powerpoint	Global Initiatives: Drug Profiling and Forensic Intelligence; Second Illegal Laboratories and Precursors Sub-Project Seminar Riga	UNODC	Apr-2005
Powerpoint	Diversion and Smuggling of Precursor Chemicals; The Second Illegal Laboratories and Precursors Sub-Project Seminar (Phase II) Vilnius, Lithuania	International Narcotics Control Board	May-2006
Powerpoint	Europol Drugs Unit	Europol	Aug-2006
Powerpoint	Society and drugs of abuse a concern for many national agencies	Steve Alm	Aug-2006
Powerpoint	"Forensic awareness" outside the forensic laboratories; requirements for good quality of data		Aug-2006
Powerpoint	Interagency Co-operation in Sweden	Steve Alm	Sep-2006
Powerpoint	Clandestine Methamphetamine Laboratory at Semenyih	KB Chan	Apr-2004
Powerpoint	Meth Clan Lab #1 : Sabah	KB Chan	Jan-1998
Word Document	Ecstasy Profiling Database	Jabatan Kimia Malaysia	Aug-2006
Powerpoint	Precursor Control in India: Inter agency cooperation	Indian Narcotics Control Bureau	Sep-2006
Powerpoint	Drug Situation and Countermeasure	Satomi Konno	Sep-2006
Powerpoint	Methamphetamine Profiling and the use of IR-MS at MHLW in Japan	Yukiko Makino	Sep-2006
Powerpoint	Trends in EU Narcotic Pharmaceutical Products	Steve Alm	Sep-2006
Powerpoint	Areas of competency and expertise on drugs and precursors for national agencies		Sep-2006
Powerpoint	Diversion of chemicals; risk assessment	Steve Alm	Sep-2006
Powerpoint	European Monitoring Centre for Drugs and Drugs Addiction (EMCDDA) and the Early Warning System on New Synthetic Drugs (EWS)	Steve Alm	Sep-2006

Type	Title/Subject	Author/Editor	Date
Powerpoint	Philippine Drug Enforcement Agency		Sep-2006
Powerpoint	Project H44 Objectives, strategies and expected outcomes	UNODC	Sep-2006
Powerpoint	Quality Assurance in the Drugs Laboratory	Angeline Yap Tiong Whei	Sep-2006
Powerpoint	Patterns and Trends of Amphetamine-Type Stimulants and Other Drugs in East Asia and the Pacific	Jeremy Douglas	Sep-2006
Word Document	Outcomes Workshop 5 September 2006		Sep-2006
Powerpoint	The use of amphetamine profiling Background to impurity profiling and experiences from Europe	Steve Alm	Sep-2006
Powerpoint	The National Swedish Network for the Exchange of Information on Drugs ("NADIS")	Steve Alm	Sep-2006
	Precursor Chemicals under International Control	Eleni Bakouri	Sep-2006
Word Document	Minutes of First Regional Workshop	Stewe ALM and Eleni BAKOURI	Sep-2006
Excel spreadsheet	Evaluation Questionnaire - First Regional Workshop	UNODC	Sep-2006
	Terminal Evaluation - Terms of Reference	UNODC	Jan-2008
Word Document	Signature Analysis/Profiling of Seized Drug Materials and Products (Project AD/GLO/B83); Final Summary Report	UNODC	Feb-2004
Word Document	Project Document: AD/GLO/03/H44: Scientific support to strengthen regulatory and law enforcement control of amphetamine-type stimulants and their precursors in East, South and South-East Asia	UNODC	Dec-2005
Word Document	Guidelines for setting up National Interagency Meetings	Stewe ALM and Eleni BAKOURI	Jul-2007
Word Document	Project AD/GLO/H44: Terminal Evaluation Questionnaire Client-Specific	Terry Spencer	May-2008
Word Documents	Project AD/GLO/H44: Terminal Evaluation Questionnaire Client-Specific - country responses	Various	2008
Word Document	Project AD/GLO/H44: Terminal Evaluation Questionnaire Laboratory-Specific	Terry Spencer	May-2008
Word Documents	Project AD/GLO/H44: Terminal Evaluation Questionnaire Laboratory-Specific - country responses	Various	2008
Word Document	Project AD/GLO/H44: Summary Report of Bangkok Inception Meeting	UNODC	May-2006
Powerpoint	Project AD/GLO/H44: Bangkok Inception Meeting Country Presentations	Various	May-2006

Type	Title/Subject	Author/Editor	Date
Word Documents	Project AD/GLO/H44: Bangkok Inception Meeting Country Questionnaires	Various	May-2006
Word Documents	Project AD/GLO/H44: Mission Reports - various	KB Chan	Various
PDF document	Project AD/GLO/H44: Annual Project Progress Report 2005	KB Chan	Apr-2006
PDF document	Project AD/GLO/H44: Annual Project Progress Report 2006	KB Chan	Nov-2007
PDF document	Project AD/GLO/H44: Semi Annual Project Progress Report 2006	KB Chan	Nov-2007
PDF document	Study Tour Report: Department of Chemistry Malaysia	KB Chan	Jun-2007
PDF document	Forum Report: Regional Amphetamine-Type Stimulants Forum - Responding to the Threat, Manila, Philippines		Aug-2007
PDF document	National Authority for Combating Drugs Report on National Drug Situation	UNODC	Apr-2007
PDF document	Patterns and trends of Amphetamine-Type stimulants (ATA) and Other Drugs of Abuse in East Asia and the Pacific 2006	UNODC	Jul-2007
Email	JICA assessment of CLMVT labs	JICA	Feb-2008
PDF document	DrugNetAsia Issue 2	HSA Singapore	2002
PDF document	DrugNetAsia Issue 3	HSA Singapore	2003
PDF document	DrugNetAsia Issue 4	HSA Singapore	2004
PDF document	DrugNetAsia Issue 5	HSA Singapore	2006
PDF document	DrugNetAsia Issue 6	HSA Singapore	2007

Annex 3. Organisations and places visited and persons met

ORGANISATION	PLACE	PERSONS MET
UNODC office	Bangkok, Thailand	Mr. Akira Fujino Mr. Chan Kee Bian Ms. Benchaporn Nimsuwan
ONCB	Bangkok, Thailand	Ms. Oranooch Sungkhawanna
SODC	Hanoi, Vietnam	Mr. Nguyen Duc Long
Centre of Drugs Expertise (CDE)	Hanoi, Vietnam	Dr. Hoang Manh Hung
NACD	Phnom Penh, Cambodia	Mr. Lay Kimly
Narcotics Drugs Laboratory	Phnom Penh, Cambodia	Dr. Meas Vyrith Ms. Chhim Sithybunrith
National Anti-Drug Agency	Kuala Lumpur, Malaysia	Mr. Razif bin Wan

Annex 4. List of questionnaires recipients

Country	Lab	Clients
Cambodia	Dr Meas Vyrith Narcotic Laboratory, National Authority for Combating Drugs cc: Mrs. Chhim Sithibunrith	Mr. Lay Kimly Law Enforcement Department & Drug Information Center National Authority for Combating Drugs
China	Dr. Huang Xing Institute of Forensic Science, Ministry of Public Security cc: Dr. Zhu Jun cc: Mr. Liu Ke Lin D/Professor from 2nd Research Institute, Ministry of Public Security	Mr. Zhao Wanpeng China National Narcotics Control Commission NNCC
India	Dr. Mahesh Kumar	Mr. Ahmad Payam Siddiqi Narcotics Control Bureau
Indonesia	Drs Kemas Nazaruddin, Apt, Msi Head of Drug Testing Laboratory, National Narcotics Board (BNN), cc: Reiska Dwi Widayati National Narcotics Board (BNN)	Tri Wahyuni National Agency of Drug and Food Control Dra. Sri Rahayu Apt. Msi Head of Sub Directorate Precursor Control Ms. Venny Yulius Directorate IV CID
Lao PDR	Dr. Souklatsamy Vongsak cc: Vongmany Khamsithy	Mr. Bounpone Sirivong Lao National Commission for Drug Control and Supervision (LCDC)
Malaysia	Maimonah Sulaiman	Mr. Md. Razif bin Wan National Anti-Drugs Agency. Ministry of Internal Security
Myanmar	Thida Oo Office of the Chemical Examiner cc: Saw Henry	CCDAC Pol. Col. Hkam Awng Dr. U Myo Aung, Chemical Examiner's Office, Myanmar National Police
Philippines	Belen Banog Laboratory Service , Philippine Drug Enforcement Agency cc: Angela H. Dimasaka	Mrs. Mae A. Unite Acting Deputy Executive Director for Operations, Dangerous Drugs Board

Country	Lab	Clients
Singapore	Dr. Lee Tong Kooi Centre for Forensic Science Applied Sciences Group, Health Sciences Authority	Mr. Vincent Teo Chin Seng Central Narcotics Bureau
Thailand	Vichet Puthaviriyakorn The Office of the Narcotics Control Board cc: Kanyanan Kongpatnitiroj	Ms. Oranooch Sungkhawanna cc: Mr. Kraivudh Maneeratana Section Chief, Narcotics Law Enforcement Bureau, Office of the Narcotics Control Board (ONCB)
Viet Nam	Dr. HOANG Manh Hung Deputy Director, Institute for Forensic Science, Ministry of Public Security, Cc: Nguyen Xuan Trong Forensic Science Institute, Ministry of Public Security	Mr. Nguyen Duc Long Standing Office on Drugs Control of Vietnam

Annex 5. Summary of Responses

Summary of Laboratories` responses

Questions		Summary of Responses						
Q1	Is there a technical capacity/capability to perform drug characterisation/impurity profiling in your laboratory?	Total	Yes	No			Nil entry	N/A
		10	8	2			0	0
Q2	If you answered Yes to Q1:							
	a) Do government agencies involved in drug control in your country know that you have this capacity/capability?	Total	Yes	No			Nil entry	N/A
		10	7	1			0	2
	b) How often do you have requests from other government agencies to undertake drug characterisation/impurity profiling?	Total	Never	Sometimes	Always		Nil entry	N/A
		10	3	4	0		1	2
	c) If you answered Sometimes or Always to Q2b:							
	i) Who are the agencies?	Government & JICA ‖ N/A ‖ N/A ‖ N/A ‖ Police ‖ Nil entry ‖ N/A ‖ N/A ‖ Thai Royal Police ‖ Narcotic Drug Counter Police Department						
	ii) What share of the seizure is received in the laboratory?	Total	V small am't	Small am't	Good am't		Nil entry	N/A
		10	0	2	2		1	5
	d) How often does your laboratory perform drug characterisation/impurity profiling?	Total	Never	Sometimes	Most times	Always	Nil entry	N/A
		10	2	2	1	2	1	2
	e) Do you have any additional comments?	Nil entry ‖ Nil entry ‖ No ‖ Nil entry ‖ DC/IP is not routine practice of our laboratory, only for our own study/interest and preparation for any request from the police ‖ We've analysed 91 cases for drug characterisation/impurity profiling. But we stopped drug analysed by GC since 2006 due to gas generator problems ‖ We GCMS and FTIR. However we are still in a process of validating methods for examination of dangerous drugs and cpecs; our chemists are not yet trained in this aspect. ‖ Nil entry ‖ Nil entry ‖ Nil entry						

Q3	If you answered No to Q1, what are the immediate and long term plans for the further development of drug characterisation/impurity profiling in your laboratory?	N/A ‖ N/A ‖ We are developing a project on impurity profiling of ATS by chromatography ‖ Developing a plan to create capability for drug characterisation/impurity profiling ‖ N/A ‖ N/A ‖ PDEA laboratory is a newly created office. The plans are the following: a. Immediate hiring of chemist to undertake the functions of PDEA b. That Chemist to undergo extensive training for drug and cpecs identification. c. Procurement of HPLC/MS and other needed equipment d. Acquisition of reference standard c. Expansion of laboratory facility ‖ N/A ‖ N/A ‖ N/A							
Q4	Is there a technical capacity/capability to identify/characterise drug precursors in your laboratory?	Total	Yes	No			Nil entry	N/A
		10	6	4			0	0
Q5	If you answered Yes to Q4							
	a) Do government agencies involved in drug control in your country know that you have this capacity/capability?	Total	Yes	No			Nil entry	N/A
		10	5	1			0	4
	b) How often do you have requests from other government agencies to identify and characterise drug precursors?	Total	Never	Sometimes	Always		Nil entry	N/A
		10	1	4	1		0	4
	c) If you answered Sometimes or Always to Q5b:							
	i) Who are the agencies?	N/A ‖ N/A ‖ N/A ‖ Drug Control Department ‖ Police ‖ CCDAC (sic?)and Myanmar Police Force ‖ N/A ‖ Central Narcotics Bureau ‖ Department of Customs Ministry of Finance ‖ N/A						
	ii) What share of the seizure is received in the laboratory?	Total	V small am't	Small amount	Good amount		Nil entry	N/A
		10	0	1	3		1	5
	d) How often does your laboratory identify and characterise drug precursors?	Total	Never	Sometimes	Most times	Always	Nil entry	N/A
		10	0	4	1	1	0	4

	e) Do you have any additional comments?	N/A ‖ N/A ‖ No ‖ No ‖ Every time a clandestine laboratory is dismantled by the Police, we are called to assist in the scene investigation to identify precursors and route of synthesis ‖ We need advance training course, technical methods and technical equipment for further development of precursor identification and characterisation ‖ N/A ‖ Nil entry ‖ Nil entry ‖ N/A						
Q6	If you answered No to Q4, what are the immediate and long term plans for the further development of precursor identification/characterisation capacity/capability in your laboratory?	Plan to request any donor or international agencies that are interested to support NACD's laboratory to conduct this kind of analysis ‖ In discussion ‖ We are developing a project on impurity profiling of ATS by chromatography ‖ N/A ‖ N/A ‖ N/A ‖ PDEA laboratory is a newly created office. The plans are the following: a. Immediate hiring of chemist to undertake the functions of PDEA b. That Chemist to undergo extensive training for drug and cpecs identification. c. Procurement of HPLC/MS & Headspace and other needed equipment d. Acquisition of reference standard e. Expansion of laboratory facility ‖ N/A ‖ N/A ‖ 1. Training staff of Narcotic Drug Counter Police Department (NDCPD) on the advantage of IP and the use of strategic and tactical information combined with investigative information 2. Training staff of laboratory on methods and techniques of IP						
Q7	Does your laboratory undertake physical examination of tablets?	Total	Yes	No			Nil entry	N/A
		10	8	2			0	0
Q8	If you answered Yes to Q7:							
	a) How often does your laboratory undertake such examinations? Sometimes; Most times; Always	Total	Sometimes	Most times	Always		Nil entry	N/A
		10	4	0	4		0	2
	b) Why do you undertake such examinations?							
	i) Requested by other agency:	Total	Yes	No			Nil entry	N/A
		10	1	1			0	8
	Name of agency	N/A ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ CDAC (sic?) and Myanmar Police Force ‖ N/A ‖ N/A ‖ N/A ‖ N/A						
	ii) Own instigation:	Total	Yes	No			Nil entry	N/A

		10	1	1			0	8
	iii) Both:	Total	Yes	No			Nil entry	N/A
		10	6	0			0	4
	Name of agency	Anti Drug Department ‖ N/A ‖ N/A ‖ N/A ‖ Police ‖ N/A ‖ PDEA and Bureau of Customes ‖ Central Narcotics Bureau ‖ Thai Royal Police ‖ Customs, Border, Army, Navy						
	c) What properties are recorded (e.g. colour, logo, etc)?	Nil entry ‖ N/A ‖ N/A ‖ colour, logo, packing ‖ Logo, colour, size, shape, drug content and its concentration) ‖ Colour, logo, diameter, thickness, weight ‖ Markings, logo, colour, size, shape ‖ Colour, logo, dimensions of tablets and logo, content of tablet ‖ Colour, logo, weight, size, moisture, hardness, thickness ‖ colour, logo, dimension, weight, etc							
Q9	If you answered No to Q7, what are the immediate and long term plans for the further development of tablet physical examination capability in your laboratory?	N/A ‖ In discussion ‖ Nil entry ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ N/A						
Q10	Has your laboratory established working links (e.g. regular meetings) with the following clients?							
	a) Enforcement authorities:	Total	Yes	No			Nil entry	N/A
		10	7	3			0	0
	b) Regulatory authorities:	Total	Yes	No			Nil entry	N/A
		10	7	2			1	0
	c) Health authorities	Total	Yes	No			Nil entry	N/A
		10	3	5			2	0
	d) Other:	Total	Yes	No			Nil entry	N/A
		10	4	3			3	0
	If you answered Yes to Q10d what other agencies?	Ministry of Industry ‖ N/A ‖ N/A ‖ N/A ‖ Police ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Department of Customs Ministry of Finance ‖ Nil entry						
Q11	If you answered Yes to any part of Q10, please indicate:							

	Client	Enforcement, Regulatory ‖ N/A ‖ N/A ‖ Regulatory ‖ Enforcement, regulatory ‖ Enforcement ‖ Enforcement, Regulatory ‖ Enforcement, Regulatory ‖ Nil entry ‖ Enforcement, Regulatory, Health						
	Frequency	Irregular, Irregular ‖ N/A ‖ N/A ‖ Irregular ‖ Irregular, Every 6 months ‖ Irregular ‖ Irregular, Irregular ‖ Other, Irregular ‖ Nil entry ‖ Every week, every 6 months, every 6 months						
	Convenor	Laboratory, JICA ‖ N/A ‖ N/A ‖ Lao National Commission for Drug Control and Supervision ‖ Nil entry, Nil entry ‖ Myanmar Police Force ‖ PDEA and DDB, PDEA and DDB ‖ CNB or laboratory ‖ Nil entry ‖						
	Name of Group	Precursor Working Group, Scientist Support ‖ N/A ‖ N/A ‖ Nil entry ‖ Police Narcotic Unit, pharmaceutical Dept ‖ Myanmar Police Force Quarterly Coordination Meeting ‖ Supply Reduction Committee, Technical Working Group ‖ Nil entry ‖ Nil entry ‖ Nil entry						
	Attendees	10, 78 ‖ N/A ‖ N/A ‖ LCDC, DCD, FDQCC ‖ Investigating officers, Enforcement Unit ‖ All police commanders from state and division ‖ PDEA & NBI & PNP, PDEA & NBI & PNP ‖ CNB and laboratory staff ‖ Nil entry ‖ Heads of agencies, Heads of agencies, Meeting						
Q12	Has your laboratory's interaction with clients: Increased; Decreased; Stayed the same over the past two to three years?	Total	Increased	Decreased	Same		Nil entry	
		10	3	4	3		0	
Q13	If you answered Increased or Decreased to Q12, what has changed and what are the reasons for this change?	N/A ‖ Nil entry ‖ Nil entry ‖ New laboratory established by the Ministry of Public Security ‖ Partly because of the UNODC projects: H44, DAINAP, F63 and also to solve our national issues ‖ N/A ‖ Nil entry ‖ N/A ‖ Increase in seizures ‖ Due to work load and study						
Q14	Are you satisfied with the level of acknowledgement and non-financial support your laboratory receives from your clients?	Total	Yes	No			Nil entry	N/A
		10	3	6			1	0
Q15	Has this acknowledgment and support:	Total	Increased	Decreased	Same		Nil entry	

	Increased; Decreased; Stayed the same over the past two to three years?	10	2	2	4		2	
Q16	If you answered Increased or Decreased to Q15, what has changed and what are the reasons for this change?	N/A ‖ Nil entry ‖ N/A ‖ N/A ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ N/A ‖ There are often scientific conference and training program ‖ Increased workload has brought us together						
Q17	Are personnel from your laboratory involved as experts in national inter-agency groups, international/regional expert working groups, etc.?	Total	Yes	No			Nil entry	N/A
		10	8	2			0	0
Q18	If you answered Yes to Q17							
	a) What are the names of the expert working groups(s), etc?	National Drugs and Precursor Working Group ‖ N/A ‖ Narcotics R&D Wing CRCL New Delhi India ‖ JICA Expert Working Group ‖ Malaysian Forensic Science Society; TWG of Control Substances for Malaysian Laboratory Accreditation Scheme; Inspectors/Auditors for ASCLD/LAB ‖ Director of the Chemical Examiner's Office is a member of supervisory committee for controlled precursor chemicals. ‖ Technical Working Group on Listing and Delisting of Dangerous Drugs and CPECS ‖ Nil entry ‖ N/A ‖							
	b) Has the involvement: Increased; Decreased; Stayed the same over the past two to three years?	Total	Increased	Decreased	Same		Nil entry	N/A
		10	2	1	5		0	2
Q19	If you answered Increased or Decreased to Q18b, what has changed and what are the reasons for this change?	N/A ‖ N/A ‖ N/A ‖ N/A ‖ We are leading agency in forensic science services in our country and being accredited under ASCLD/LAB quality system ‖ N/A ‖ Nil entry ‖ N/A ‖ N/A ‖ Increased knowledge of English language has enabled better involvement with the international groups						
Q20	Does your laboratory undertake the following relating to samples? Collect Data; Collect and analyse data; Neither							
	a) Physical characteristics:							

	i) Tablet logos and tool marks	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	5	4	1		0	0
	ii) Sample packaging	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	3	4	2		1	0
	iii) Other	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	0	0	1		8	0
	What is this Other information?	Nil entry ‖ Nil entry ‖ N/A ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ weight, size, moisture, hardness, thickness ‖ Nil entry						
	b) Chemical characteristics							
	i) Drug identification	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	3	6	0		1	0
	ii) Drug purity	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	3	6	0		1	0
	iii) Diluents and/or adulterants	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	3	2	2		3	0
	iv) Impurities and/or traces	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	3	2	4		1	0
	v) Other	Total	Collect	Collect/Analyse	Neither		Nil entry	N/A
		10	0	0	1		9	0
	What is this Other information?	Nil entry ‖ Nil entry ‖ N/A ‖ Nil entry ‖ N/A ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Nil entry						
Q21	What type of information listed in Q20 does your laboratory provide to other agencies? Data only; Data and Analysis; Neither							
	a. Physical characteristics:							
	i) Tablet logos and tool marks	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	6	3	0		1	0
	ii) Sample packaging	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	3	1	5		1	0
	iii) Other	Total	Data	Data/Analysis	Neither		Nil entry	N/A

		0	0	0	0		0	0
	iv) Tablet identification sheets	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	4	1	2		3	0
	v) Sample packaging	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	2	0	4		4	0
	vi) Other	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	1	1	2		6	0
	What is this Other information?	Nil entry ‖ Nil entry ‖ N/A ‖ Nil entry ‖ N/A ‖ N/A ‖ Nil entry ‖ Nil entry ‖ weight, size, moisture, hardness, thickness ‖ Nil entry						
	b) Chemical characteristics of samples, including:							
	i) Drug identification	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	4	5	0		1	0
	ii) Drug purity	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	4	4	1		1	0
	iii) Diluents and/or adulterants	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	1	1	5		3	0
	iv) Impurities and/or traces	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	3	1	4		2	0
	v) Other	Total	Data	Data/Analysis	Neither		Nil entry	N/A
		10	0	0	2		8	0
	What is this Other information?							
Q22	If you answered positively to any part of Q21, please indicate (if you are aware) the purpose(s) the information was used for:							
	a) Developing laws concerning possession/use of illegal drugs	Total	Yes	No			Nil entry	N/A
		10	6	4	0		0	0
	b) Developing laws concerning possession/use of drug precursors	Total	Yes	No			Nil entry	N/A
		10	6	4	0		0	0
	c) Developing laws concerning importation of drugs and chemicals	Total	Yes	No			Nil entry	N/A
		10	6	4	0		0	0

	d) Developing drug treatment programs	Total	Yes	No			Nil entry	N/A
		10	5	5	0		0	0
	e) Epidemiological studies	Total	Yes	No			Nil entry	N/A
		10	3	7	0		0	0
	f) Annual reporting purposes	Total	Yes	No			Nil entry	N/A
		10	6	4	0		0	0
	g) Establishing specific links between two or more samples	Total	Yes	No			Nil entry	N/A
		10	5	5	0		0	0
	h) Establishing drug distribution patterns/trafficking trends	Total	Yes	No			Nil entry	N/A
		10	4	6	0		0	0
	i) Identifying the source of drug samples	Total	Yes	No			Nil entry	N/A
		10	4	6	0		0	0
	j) Monitoring manufacturing methods and precursors	Total	Yes	No			Nil entry	N/A
		10	5	5	0		0	0
	k) Identifying chemicals used in clandestine laboratories	Total	Yes	No			Nil entry	N/A
		10	7	3	0		0	0
	l) Other drug-related purposes	Total	Yes	No			Nil entry	N/A
		10	3	7	0		0	0
	What are these other drug-related purposes?	Nil entry ‖ N/A ‖ N/A ‖ N/A ‖ Mostly our use for prosecution ‖ N/A ‖ For reward purposes ‖ N/A ‖ N/A ‖ N/A						
	m) Other crime related to drug trafficking	Total	Yes	No			Nil entry	N/A
		10	2	8	0		0	0
	What are these other crimes?	Nil entry ‖ No ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ N/A ‖ robbery, money laundering						
Q23	Has your laboratory established relationships with agencies in order to undertake research related to drug analysis, drug profiling or precursor identification?	Total	Yes	No			Nil entry	N/A
		10	2	7			1	0
Q24	If you answered Yes to Q23, what is the relationship?							

Q25	Does your agency support the concept of regular regional workshops such as:							
	a) that held in September 2006?	Total	Yes	No			Nil entry	N/A
		10	7	1			2	0
	b) that held in December 2007?	Total	Yes	No			Nil entry	N/A
		10	10	0			0	0
Q26	If you answered Yes to Q25, how often should these workshops be held? Six months; Year; Two years; Five years; When required	Total	Six m'thly	Yearly	Two years	When req'd	Nil entry	N/A
		10	4	4	1	1	0	0
Q27	Does your laboratory contribute to DAINAP through the National Focal Point?	Total	Yes	No			Nil entry	N/A
		10	6	3			1	0
Q28	If you answered Yes to Q27, when did you last share relevant forensic data with your National Focal Point?	April 2008 ‖ Nil entry ‖ N/A ‖ Nil entry ‖ 2007 statistics ‖ N/A ‖ Last quarter of 2007 ‖ Nil entry ‖ April 2008 ‖ N/A						
Q29	If you answered No to Q27, will your laboratory contribute to DAINAP in the future?	Total	Yes	No			Nil entry	N/A
		10	3	0			1	6
Q30	Does your laboratory access the Forensic Alert section of DAINAP?	Total	Yes	No			Nil entry	N/A
		10	9	0			1	0
Q31	What mechanisms do you use for communicating with other national and regional laboratories?	Forensic Alert section of DAINAP, email or phone ‖ Meeting and internet ‖ Internet ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Email ‖ Emails, newsletters ‖ UNODC, JICA ‖ Nil entry						

Q32	Can communication with these other laboratories be improved?	Total	Yes	No			Nil entry	N/A
		10	6	0			4	0
Q33	If you answered Yes to Q32, how can this communication be improved?	Continue project similar to GLO/H44 ‖ Maintain status quo ‖ Regular workshops, seminars, video conferencing, etc between National Laboratories. Need separate access to DAINAP ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ knowledge exchange ‖ Nil entry						
Q34	What would you like to see as follow-up activities to GLO/G44?	Any new project should have a coordinator similar to Mr Chan Kee Bian ‖ Lecture, training ‖ An action plan for the regular follow up of National & International laboratories is the need of hour for compiling and timely monitoring of drug related matter ‖ Nil entry ‖ Discussion on new drugs; clandestine laboratory findings, annual meeting to discuss drug abuse in the region ‖ No comments ‖ More training to our chemists and support by UNODC to PDEA Laboratory ‖ Nil entry ‖ Knowledge and human resource development ‖ Training courses						

Summary of Clients` responses

	Questions	Summary of Responses							
Q1	Does your agency have meetings with representatives of your national laboratory?	Total	Yes	No			Nil entry	N/A	% of Yes
		7	6	1					86
Q2	If you answered Yes to Q1:								
	a) When the meetings began:	Total	before 2005	2005	2006	2007	Nil entry	N/A	
		7	2		1	2			
	b) The frequency of the meetings:	Total	Irregularly	every 6 months	every month	when is required	Nil entry	N/A	
		7	2	1	1	1	1	1	
	c) The convener of the meetings:	UNODC (2) II Pharmaceutical Service Division II Myanmar Police Force II CNB and/or HSA II National laboratory							

	d) The title(s) of the meetings:	Inter-Ministerial Working on Precursor Control II Precursor Task Force Meeting II Drug profiling techniques II The improvement of laboratories II Myanmar Police Force Quarterly
	e) Other agencies attending (if any)	MoH II Ministry of Industry, Mines and Energy, police, custom, agriculture II Department of chemistry, Police Department and Customs Department
	Any other comments:	In the regulation, the Inter-Ministerial Working on Precursor Control is supported by Secretariat of the Working group. This secretariat of Working group meet often when needed II There is an Interministerial level meeting re law enforcement on precursors

Q3	Have your agency's interactions with the national laboratory Increased; Decreased; Stayed the same over the past two to three years?	Total	Increased	Decreased	Same	Nil entry	N/A	% Increase
		7	3		3	1		43
Q4	If you answered Increased or Decreased to Q3, what has changed and what are the reasons for this change?	National Narcotics Control Commission informs (China) the national labs of the practical requirements of the drug law enforcement agencies more frequently, and the national lab's activities are more related to the needs of the frontline drug law enforcement agencies. The reasons are, to some extend, the results of the project H44, which brings the drug enforcement agency and the national labs more closely to each other. NNCC has launched the establishment of its own national drug lab and has employed a number of staff II Better understanding II Increase in cases referred to forensic examinations						
Q5	Does the national laboratory provide information to your agency regarding the following?							
	i) Tablet identification sheets	Total	Yes	No		Nil entry	N/A	% of Yes
		7	6	1				86
	ii) Sample packaging	Total	Yes	No		Nil entry	N/A	% of Yes
		7	2	5				28
	iii) Other	Total	Yes	No		Nil entry	N/A	% of Yes
		7		3		4		
	Please specify:							

b) Chemical characteristics of samples, including:						
i) Drug identification	Total	Yes	No	Nil entry	N/A	% of Yes
	7	6	1			86
ii) Drug purity	Total	Yes	No	Nil entry	N/A	% of Yes
	7	5	2			71
iii) Diluents and/or adulterants	Total	Yes	No	Nil entry	N/A	% of Yes
	7	2	5			28
iv) Impurities and/or traces	Total	Yes	No	Nil entry	N/A	% of Yes
	7	3	4			43
v) Other	Total	Yes	No	Nil entry	N/A	% of Yes
	7	1	1	4		
Please specify:	Types and % content of other drug					

Q6 If you answered positively to any part of Q5, please indicate the purpose(s) the information was used for:						
a) Developing laws concerning possession/use of illegal drugs	Total	Yes	No	Nil entry	N/A	% of Yes
	7	3	1	3		43
b) Developing laws concerning possession/use of drug precursors	Total	Yes	No	Nil entry	N/A	% of Yes
	7	3	1	3		43
c) Developing laws concerning importation of drugs and chemicals	Total	Yes	No	Nil entry	N/A	% of Yes
	7	3	1	3		43
d) Developing drug treatment programs	Total	Yes	No	Nil entry	N/A	% of Yes
	7	3	1			43

e) Epidemiological studies	Total	Yes	No	Nil entry	N/A	% of Yes
	7	1	3			14
f) Annual reporting purposes	Total	Yes	No	Nil entry	N/A	% of Yes
	7	5		2		71
g) Establishing specific links between two or more samples	Total	Yes	No	Nil entry	N/A	% of Yes
	7	2	2	3		28
h) Establishing drug distribution patterns/trafficking trends	Total	Yes	No	Nil entry	N/A	% of Yes
	7	1	3	3		14
i) Identifying the source of drug samples	Total	Yes	No	Nil entry	N/A	% of Yes
	7	2	2	3		28
j) Monitoring manufacturing methods and precursors	Total	Yes	No	Nil entry	N/A	% of Yes
	7	2	3	2		28
k) Identifying chemicals used in clandestine laboratories	Total	Yes	No	Nil entry	N/A	% of Yes
	7	2	3	2		28
l) Other drug-related purposes	Total	Yes	No	Nil entry	N/A	% of Yes
Please describe:	7		3	4		
m) Other crime related to drug trafficking	Court prosecution and study reports					
	Total	Yes	No	Nil entry	N/A	% of Yes
Please describe:	7	1	3	3		

Q7	If you answered No to any part of Q5, please list in priority order the additional information which would be the most useful for your agency:	Court prosecution and study reports

Q8	Does your agency support the concept of regular regional workshops such as:						
	a) that held in September 2006?	Total	Yes	No	Nil entry	N/A	% of Yes
		7	4	3			
	b) that held in December 2007?	Total	Yes	No	Nil entry	N/A	% of Yes
		7	7				100
Q9	If you answered Yes to Q25, how often should these workshops be held? Six months; Year; Two years; Five years; When required	when required	Six m'thly	Yearly	Nil entry	N/A	Yearly %
		7	2	5			71
Q10	Does your agency contribute forensic information to DAINAP?	Total	Yes	No	Nil entry	N/A	% of Yes
		7	4	3			57
Q11	If you answered Yes to Q10, when was the last forensic entry made on DINAPt?	2006	2007	2008	Nil entry	N/A	
		1	2	1			
Q12	If you answered No to Q10, will your agency contribute to DAINAP in the future?	Total	Yes	No	Nil entry	N/A	% of Yes
		7	2				
Q13	What mechanisms do you use for communicating with your peers in regional countries?	Forensic Alert section of DAINAP, email or phone ‖ Meeting and internet ‖ Internet ‖ Nil entry ‖ Nil entry ‖ Nil entry ‖ Email ‖ Emails, newsletters ‖ UNODC, JICA ‖ Nil entry					
Q14	Can communication with your peers in regional countries be improved?	Total	Yes	No	Nil entry	N/A	% of Yes
		7	3	3	1		42

Q15	If you answered Yes to Q14, how can this communication be improved?	
Q16	What would you like to see as follow-up activities to GLO/G44?	Continue provide technical assistance for lab and law enforcement officers II GLOH44 should conduct more practical workshops introducing the advanced techniques and rationales of drug profiling and how drug law enforcement agencies and drug labs better cooperated with each other , and provide more real case study visits II Shared databases