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Strengthen Capacity building of Forensic Drug
Analysis in the Criminal Justice System in Sri
Lanka (2021-2025/ US\$ 4 mil)

Democratic Socialist Republic of Sri Lanka

Project/Program Concept Paper

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PROJECT/PROGRAM CONCEPT PAPER (PCP)

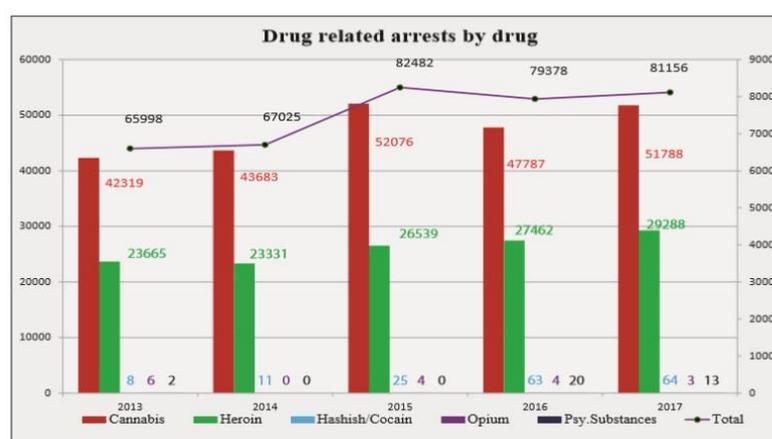
SECTION 1. BASIC PROJECT INFORMATION		
1.1	Country	Democratic Socialist Republic of Sri Lanka
1.2	Title	“Strengthen Capacity building of Forensic Drug Analysis in the Criminal Justice System in Sri Lanka”
1.3	Location(s)	Colombo
1.4	Duration	48 months (2021-2024)
1.5	Budget (total)	US\$ 4 million
1.6	Objectives	GAD’s capability to analyze Narcotic Drugs is enhanced able to timely provide reliable report requested to law enforcement in Sri Lanka.
1.7	Beneficiary	GAD (Government Analyst’s Department)
1.8	Implementing organization	N/A

SECTION 2. PROJECT RATIONALE	
	<p>SITUATION ANALYSIS: Please provide a brief introduction to the current social and economic situation related to the Project (geographic region and beneficiaries, etc.)</p> <p>please describe the problem or critical issue which the project seeks to resolve, how the problem was identified, and how will the Project address the problem. If relevant, analysis on gender equality needs to be described.</p>
2.1	<p>By 1982, Interpol confirmed Sri Lanka’s status as a transit country for the movement of heroin from countries in the Golden Triangle (covering areas of Myanmar, Thailand, Laos and Vietnam) into Europe, with organized international drug trafficking syndicates operating within Sri Lanka. During this period, evidence also emerged of a link between heroin trafficking carried out by the LTTE (Liberation Tigers of Tamil Eelam) and financial proceeds being used to fund terrorism. With the escalation of violence between Sinhalese and Tamils, and the demand for a separate Tamil state in the North and East of Sri Lanka, drug trafficking was perceived as a major problem and a direct threat to national security and stability of the government. Politicians and law enforcement personnel viewed the existing legislation at the time as being outdated to manage the emerging new trends of drug use and trafficking.</p> <p>Use of psychoactive substances (or ‘Drugs’) is a known phenomenon in Sri Lanka since the ancient time. However, while traditional substances like Cannabis and opium are still being used for medicinal purposes under the traditional ‘Ayurvedic’ system of medicine, from the early 1980’s onward heroin use started surfacing among the Youth. According to the Sri Lanka authority, approximately 500,000 youth</p>

are found to be addicted to Heroin alone.¹ A major reason for this could be the arrival of synthetic² and potent drugs like heroin in the country.³ Moreover, the abuse of pharmaceutical drugs is becoming a significant problem in Sri Lanka. Although these substances are controlled medicines, they seem to be freely available in the black market.⁴

It is also known that drug abuse is associated with criminality.⁵⁶ In Sri Lanka, the number of drug offenders has been steadily increased (see Figure 1). According to the Annual Report of Colombo Crime Division (CCD), 1,330 crime incidents were reported after illicit drug use and its related grave and minor crimes. Majority of drug users were involved in housebreaking, robbery and theft of property including over Rs.25,000. In 2017, the total number of drug-related arrests was 81,156 in Sri Lanka, accounted for 38% in Colombo District and 18% in Gampaha District. The prevalence of drug-related arrest was 506 per 100,000 population aged between 15-63 in 2017.⁷

[Figure 1] Drug-related arrests by drug in Sri Lanka



(Source: NDDCB, 2018)

The Sri Lankan law address drug-related crime very strictly and severely. For example, with 2 grams or more of heroin will incur the penalty of death or life imprisonment for the accused⁸, whereas the US imposes five years' imprisonment on individuals accused of possessing 100 plus grams of heroin. Despite it, Narcotic related imprisonment distributed the biggest percentage at 46.8% and 27.8% for male and female respectively as the main type of offence for prison admissions.⁹ Also, the percentage of excessively or moderately drug addiction amongst prisoners

¹ <https://www.newsfirst.lk/2017/07/08/250000-youth-sri-lanka-addicted-drugs/>

² Synthetic drugs, so called 'new psychoactive substances', have mimic the effects of existing illicit drugs, such as cannabis, cocaine and ecstasy. It is not known how safe synthetic drugs really are as well as what substances they contain. : <https://www.betterhealth.vic.gov.au/health/HealthyLiving/synthetic-drugs>

³ Ministry of health, Nutrition & Indigenous Medicine, National Dangerous Drugs Control Board. *Rapid Assessment of Drug Use Patterns (RADUP) in Sri Lanka- To inform risk reduction interventions for People Who Use/Inject Drugs (PWUD/PWID)*, January 2018

⁴ National Dangerous Drugs Control Board. *Handbook of Drug Abuse Information 2018*

⁵ Pierce M, Hayhurst K, Bird SM, et al. Insights into the link between drug use and criminality: Lifetime offending of criminally active opiate users. *Drug Alcohol Depend.* 2017

⁶ <https://www.colombotelegraph.com/index.php/chaos-in-jaffna/>

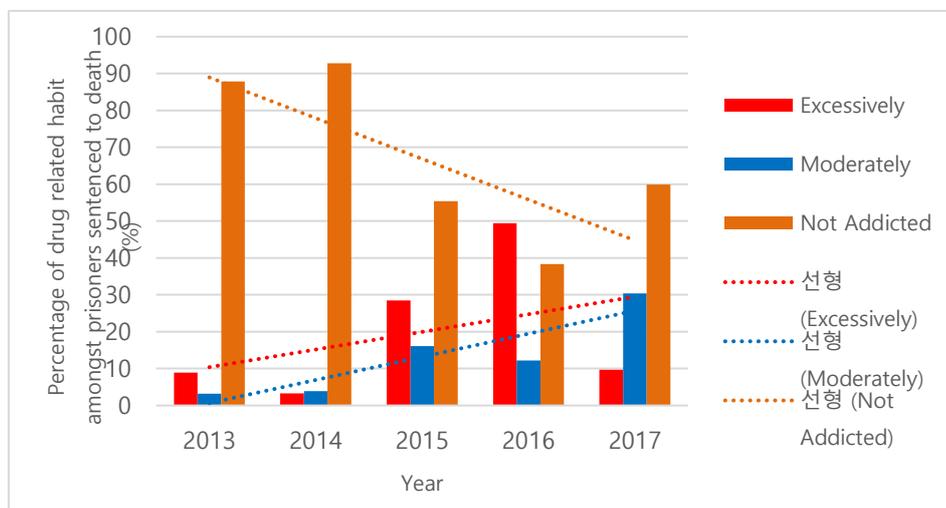
⁷ National Dangerous Drugs Control Board. *Handbook of Drug Abuse Information 2018*

⁸ National Dangerous Drugs Control Board. *Handbook of Drug Abuse Information 2018*

⁹ National Dangerous Drugs Control Board. *Handbook of Drug Abuse Information 2018*

sentenced to death in Sri Lanka has been steadily increased from 12% in 2013 to 40% in 2017. (see in Figure 2).

[Figure 2] Percentage of prisoner's drug habit who sentenced to death in Sri Lanka



(source: Department of Prisons)

The codification to illegality and the push to eliminate this blight is manifested by high incarceration rates for drug offenders, often accompanied by lengthy remands, heavy fines, and stiff prison sentences. Further, In Sri Lanka, the act of discerning the punishment for repeat offenders is left to the discretion of the judge and can be over the listed maximum penalties which apply to first-time offenders. Meaning that there is much more ambiguity within Sri Lankan law regarding the sentences applied to repeat offenders, thus granting more leeway for judges to use their own discretion in these cases.

Government Analyst's Department (GAD) was established in 1904 and is the central government laboratory, consisting of the Food Science and Forensic Science. Forensic Science Division provides services mainly to law enforcement authorities in the area of crime investigation.¹⁰ The scientists in the Narcotic drugs section analyze the illicit drugs seized by the police, Narcotic Bureau or the Customs.¹¹ The reason to send the seized substance to the GAD is for scientific analysts to obtain the purity percentage of the drugs. It takes two to six or more months for the GA to produce a detailed report to courts, which is final and cannot be challenged by any party. Based on the purity percentage, the charges are levelled against the accused by the Attorney General's (AG) Department. This has placed greater pressure on GAD, which is now required not only to identify seized materials but also to detect drug abuse by analyzing biological specimens. In addition, while in the past these laboratories were required to perform only qualitative analyses, they are now required to produce highly reliable quantitative results as well.

¹⁰ <http://www.analyst.gov.lk/web/>

¹¹ http://www.analyst.gov.lk/web/index.php?option=com_content&view=article&id=53&Itemid=61&lang=en

COUNTRY DEVELOPMENT STRATEGIES AND POLICIES: Please describe how the Project relates to other relevant national development strategies and policies, and provide the ongoing status of their implementation, results and effects, if any.

Drug abuse is one of the prominent problems which affect the country in many aspects including social, economic, and educational and health. The prevalence of addiction not only reduces productivity and hinders development but also proves harmful to family structures and can damage to the future potential of children who face drug abuse within the household, or amongst their family members. Moreover, drug abuse is common among poor families, while a drug abuser in a family makes them poorer. The most highlighting issue with regards to drug abuse is that prisons in Sri Lanka accommodate approximately 40 per cent of drug-related offenders compelling the Government to spend large sums of money on them. So, it has become a glaring problem for the country, both urban and rural, as they have become a burden to the country's economy as well as to society.¹²

The overall goal of the Sri Lankan government concerning the drug problem is to reduce the drug supply and its use to the barest minimum possible. The government addresses drug abuse control within the context of human development, strongly focusing on the links between drug abuse and poverty reduction, crime prevention, and improving health.¹³

2.2

The revised national policy is as follows:

- a. Effective enforcement of the law against the production, smuggling, trafficking, sale and use of illicit drugs;
- b. Effective monitoring of controlled imports, exports, distribution of drugs and precursor chemicals under control;
- c. Preventing the use of drugs and reducing the adverse consequences of drug abuse;
- d. Supporting regional and international initiatives related to drug abuse prevention and control.

The outcomes and activities of this project are in line with Sri Lanka government policy (see Table 1) and will contribute to the detection of drugs relevant to forensic toxicology, including drugs of abuse, emerging designer drugs, and drugs used in drug-facilitated crimes in Sri Lanka.

[Table1] Policy Outlines¹⁴ and the scope of this project to support

Policy Outlines	Scope of this project
The role of Judiciary and other government institutions	
To expedite the hearing of drug cases	Outcome 1
To establish standard procedures for safe sample handling and disposal	Outcome 2
To minimize the huge variation in sentencing practices	Outcome 2
Human resource development in the area of drug control	

¹² University of Kelaniya, Sri Lanka. *Impact of Drugs Addiction to Rural Development in Sri Lanka*. Proceedings of the 1st National Symposium of Social Sciences Undergraduates (NSSU), Faculty of Social Sciences, 2015

¹³ National Dangerous Drugs Control Board. *Handbook of Drug Abuse Information 2018*

¹⁴ National Dangerous Drugs Control Board. *Handbook of Drug Abuse Information 2018*

Adequate training in detection, investigation, prosecution	Activity 1.1.1, Activity 1.1.2, Activity 1.1.3
Strengthen operational capabilities	Activity 2.1.1, Activity 2.1.2
Adequate resources and facilitate maximum use of specialized personnel	Activity 1.2.1, Activity 1.2.2
Development and utilization analytical facilities of other institutions for drug analysis	Activity 1.3.1
Encouragement epidemiological, social and scientific research on all aspects of drug abuse	Activity 1.1.4

Presidential Task Force on Drugs

President Maithripala Sirisena has vowed to eradicate the menace with stringent laws with a declaration of war against the country's drug mafia. He recently **ordered** the executions of four drug offenders who will be hanged in prison soon, if carried out it will terminate a 43-year moratorium on capital punishment. To achieve the backdrop to economic, social and cultural development in Sri Lanka, a presidential task force on drug prevention was set up. The task force formulates joint initiatives, implements and supervises the national drug prevention programme at national levels, manages the financial provisions allocated for drug eradication and distributes educational materials.

National Drug Prevention Programme

- **Sujatha Daruwo**

President Maithripala commenced a new National Drug Prevention Project called 'Sujatha Daruwo' to protect school students and the younger generation from narcotic drugs since March 15, 2019.

- **National Drugs Eradication Week**

A National Drug Eradication Week was implemented under the direction of President Maithripala Sirisena from June 22nd to July 1st. The main programs during this week are;

- Drug rehabilitation covering all the provinces;
- Awareness programs on drug addiction and prevention;
- Awareness programs for families;
- Enlightening students of vocational training institutes;
- Follow up on drug addicts after rehabilitation;
- Directing to rehabilitation.

- **National Drug Eradication School Week**

From January 21st to 28th 2019, the National Drug Prevention School Week programmes had been launched, with the patronage of President Maithripala Sirisena. The main aim is to encourage school children to actively engage in the process of controlling and eradicating drug menace, resulting in elimination of various drug smuggling activities targeting school children.

JUSTIFICATION FOR INTERVENTION: Please describe how the need for the Project was determined, and what the rationale/justification for the Project (why the Project is considered to be the most effective way the problem is resolved.).

Sri Lankan system addresses to reduce drug offenders by strict legal, resulting in lengthy remands followed by harsh sentences such as extended prison terms even for relatively minor drug offences. The judges who would arbitrate the cases have little input in determining sentences. Therefore, accurate and responsive drug analysis reporting is paramount important to deal with diverse controversial cases and a lengthy judicial process.

Forensic science is an integral component of a criminal justice system.¹⁵ Once a detection is made by the police, it should be reported to the court immediately and the seized substance is produced. Then, the narcotic drugs become the property of the court.¹⁶ It will then be sent to the GAD for Scientific Analysis. GAD is the only accredited national institution consisting of forensic laboratories in Sri Lanka. The ultimate purpose of the work performed by GAD is to provide scientific evidence for supporting court's decisions in the field of drugs. Further, these results of the data collection, monitoring and analysis process will provide the evidence which policymakers and professionals need in order to tackle the drug phenomenon effectively.

2.3

[Table2] SWOT analysis for project strategy

	S(Strengths)	W(Weaknesses)
	· Low employee turnover	· Absence of in-service training
	· High productivity	· Lack of laboratory equipment
	· Recent experience of the introduction of DNA forensic analysis sponsored by KOICA	· Outdated technology and analytical skills
	· sample tracking system(Planned)	· Absence of highly educated scientist
	· Scientists recruitment(Planned)	· Absence of Research on Narcotic Drug Analysis
O(Opportunities)	SO Strategies	WO Strategies
· Strong governmental policy for Drug Control	· Strengthen R&D for forensic drug analysis · Introduce LIMS	· Introduce refresher training
· Strong governmental policy for information communication technology		· Upgrade laboratory equipment · Develop SOPs for newly introduced analysis technology · Introduce advanced analysis technology
T(Threats)	ST Strategies	WT Strategies
· Government budget constraints	· Develop and implement new methods	· Cooperate with related stakeholders smoothly
· Increase in New Substance		· Cost-effectively restructure operations and streamline testing processes
· Terror attack		
· Drug Trafficking		

¹⁵ National Institute of Forensic Science. The advancement of science for justice. Melbourne, Australia, 2001

¹⁶ <http://www.dailymirror.lk/news-features/Crucial-stage-of-destroying--narcotics/131-164554>

1. Lack of capacity building of GAD for narcotic drug analysis

GAD has faced challenges to provide analytical services because of a lack of fully trained personnel and laboratory equipment for conducting an accurate as well as efficient analysis when preparing for and presenting evidence in criminal proceedings. Without fully trained personnel and proper equipment, laboratories cannot provide essential support services to national criminal justice systems and law enforcement.¹⁷ Because the quality of the analyses and results of laboratories have significant implications for the justice system, law enforcement, crime prevention and health policy, as well as for the international harmonization and worldwide exchange and coordination of drug information and data.¹⁸

In Jun 2019, Toxicology Lab had 1,929 of accumulated specimens waiting to be examined, while Narcotic Lab had 5,455. This is caused by the unmet capability of GAD between recent accelerated drug trend changes, the lack of updated analytical skills and of necessary equipment. For example, when GAD receives a request for examination specimens including new psychotropic substances (NPS)¹⁹, it would take few months to find a way to analyze it because of the lack of equipment and technics. This would lead to a considerable delay for analysis result to reach the prosecutor's hands since seized samples have been subsequently sent to a laboratory for confirmatory testing.

Outdated and insufficient laboratory technics and facilities have been identified as a major constraint for conducting experiments for Narcotic Drugs' and Drug's metabolite analysis in Sri Lanka. In order to provide accurate scientific reports for the court at the right time and to detect possible threats and substances, **the facilities and examination technics need to be upgraded.**

Activities including in-service training, invitational training and other technical supports are designed to fill the gap between current weaken skills for narcotic drug analysis at GAD and essential analysis capacity for the quantification in biological specimens. Especially, drug analysis in biological specimens, such as urine, hair, blood, sweat, or oral fluid (saliva), is necessary for forensic science. Those analysis are used to determine the presence or absence of specified parent drugs or their metabolites²⁰

Problem 1.1 Lack of fully trained personnel

1.1.1 Introduction of quantification technic of narcotic drugs in seized materials and biological specimen

¹⁷ United Nations, Guidelines for the import and export of drug and precursor reference standards for use by national drug testing laboratories and competent national authorities. 2007

¹⁸ United Nations commission on narcotic Drugs, Resolution 50/4, *Improving the quality and performance of drug testing laboratories*, 2007

¹⁹ NPS drugs (New psychotropic substances) are emerging threat to Sri Lanka. They are marketed as "legal highs" and cause significant risk to public health. It is a challenge to drug analyst to find new methodologies for the detection of NPS. NPS are available in the market in many forms such as tablets/ capsules, crystalline substances, stamps blotter papers, liquids and plant-based substances. Narcotic lab scientists need to have new analytical skills, methods and NPS drug standards to identify and quantify this newly emerging drugs.

²⁰ Koichi Saito et al, Analysis of Drugs of Abuse in Biological Specimens, *Journal of Health Science*, 57(^) 472-487, 2011

There is no existing technology which can produce drug quantification results in biological specimens such as blood and urine in Toxicology Laboratories of GAD. For this reason, Judicial Medical Officer (JMO) cannot request the service despite the high necessity to confirm the cause of death, which infers the deficit of evidence to support judge's decision.

For example, it would be so harsh to prove DFSA (Drug Facilitated Sexual Abuse) only with witnesses without reliable quantitative analysis of drugs administered.²¹ According to a survey carried out between 2000 and 2013, drugs and alcohol play a role in fostering violence against women.²² The Sri Lankan law with regard to rape states that it would be considered an aggravated offence for the purpose of punishment if the perpetrator or a third person administered drugs. However, 96.5% of Sri Lankan men participated in survey reported that they perpetrated rape but not been arrested or jailed, which shows the highest amongst six countries investigated by UN Agencies²³. Also, the same report represented the highest percentage of male respondents in Sri Lanka using drugs in the past 12 months at 32.2%.

DUID (Driving Under the Influence of Drugs) is another example to support the need for this intervention. The results of a blood analysis from a driver involved in a car accident can be used to determine if the individual was under the influence of drugs. The toxicology report can provide key information regarding the type of substances present in an individual and if the amount of those substances is consistent with a therapeutic dosage or is above a harmful level including death, illness, mental or physical impairment.

1.1.2 Introduction of in-service training for scientists in Narcotic and Toxicology Sections

There is no existing in-service training to update and refresh forensic analytical knowledge and skills for scientists at GAD although they are the most important component of a forensic science facility. The role of forensic professionals is diverse not only to examine seized samples and biological specimens but also to appear in court proceedings as expert witnesses.

²¹ According to UNODC, Drug-Facilitated Sexual Assault (DFSA) occurs when a person (male or female) is subjected to sexual act(s) while they are incapacitated or unconscious due to the effect(s) of ethanol, a drug and/or other intoxicating substance, and as a result unable to resist or consent to such acts. Substances may be administered covertly to an intended victim or victims, or a perpetrator may take advantage of a victim after voluntary ingestion of the substance.

²² OECD, Social Institutions & Gender Index: Sri Lanka
<https://www.genderindex.org/wp-content/uploads/files/datasheets/2019/LK.pdf>

²³ Fulu, Emma, et al. *Why do some men use violence against women and how can we prevent it?: Quantitative findings from the United Nations multi-country study on men and violence in Asia and the Pacific*. Bangkok: UNDP, UNFPA, UN Women and UNV, 2013.

Total percentage of men who reported perpetrating rape but reported that they had not been arrested or jailed as consequence:

Country	Bangladesh		Cambodia	China	Indonesia			Papua New Guinea	Srk Lanka
	rural	urban	national	urban/rural	rural	urban	Papua Bougainville	national	
%	88.1	95.1	44.5	72.4	75.5	78.2	78.3	34.8	96.5

Therefore, it is important that staff of forensic laboratories acquire skills not only in specific analytical techniques but also in those related to the forensic science field in which they are working.²⁴ However, scientists' technical quality in GAD merely depends on individual effort, causing a big gap between personnel and not enough competence.

In addition to formal scientific education, forensic scientists need personal competencies, training and experience. This project can be a trigger to commence support and opportunities for continuing professional development of forensic drug scientists at GAD, improving the quality of analytical skill.

Also, the primary duty of a forensic scientist is the analysis of physical evidence and forming opinion based on the results. This project will establish a standard of professional competency by providing appropriate training to cover these duties.

1.1.3 Invitational training

The aim of invitational training is that scientists in GAD have an opportunity to observe and practice how Korea institutions conduct specimen investigation and QC (Quality Control). This activity will enhance reciprocal understanding through policy and technic information exchange.

1.1.4 Support on Drug Recognition & Impairment Research

There is no MSc course in University in Sri Lanka providing solid methodology and technics how to research for Narcotic Drugs and toxic substances, and their metabolite. Also, the technic of a hair drug test is not introduced in Sri Lanka yet although it is very useful to determine patterns of illicit drug (marijuana, amphetamines, cocaine, opiates, phencyclidine) use over a certain period.

This project will enhance research capability on forensic drug analysis to design methods to identify evolving designer drugs and to provide an analytical perspective for policymakers as a national forensic institution in Sri Lanka. Forensic toxicology is a constantly advancing discipline. New drugs are always being developed, which creates the need to design new approaches for their detection.

Problem 1.2 Poor access to required equipment and reference standards

1.2.1 Provision of required equipment and

GAD needs to upgrade laboratory equipment enable to deal with more substances and to use more efficient and accurate methods of detection. The analysis of biological specimen presents additional challenges including separate target substances from interferences in blood and urine, which are

²⁴ United Nations, *Staff skill requirements and equipment recommendations for forensic science laboratories*, UNODC, 2011

complex biological matrices and cannot be covered by current equipment. For example, LC-MS offers high sensitivity and specificity and reduces the specimen preparation time compared with gas chromatography-mass spectrometry (GC-MS).²⁵ However, Narcotic and Toxicology Laboratories at GAD currently cannot access to LC-MS due to the lack of budget and skills.

1.2.2 Provision of standard materials

Functioning laboratories everywhere should have ready access to the high-quality reference standards required to ensure the produced are correct. The process of ensuring correct results is critical for the successful prosecution of the guilty and the protection of the innocent. In addition, it provides a cost-effective way to prevent time-consuming challenges to findings in court.²⁶

Problem 1.3 Lack of multi-stakeholder mechanism for a drug investigation

1.3.1 Held technical workshop for the Institutions related to Narcotic Drugs in Sri Lanka

This project attempts to assist relevant training programmes and awareness-raising exercises for both competent authorities and laboratories should be extended, where necessary to address: a) the importance and value of drug testing laboratories as part of the national drug control infrastructure, and the requirements of laboratories in fulfilling their role and functions; b) the need for a close and constructive working relationship between competent authorities and national laboratories.

1.3.2 Preparation, printing and distribution of information brochures about Drug test and guideline

2 Lack of Laboratory Information Management System (LIMS) for Narcotic Drugs analysis

Problem 2.1 Absence of LIMS (Laboratory Information Management System)

2.1.1 Introduction Forensic Laboratory Information Management System (LIMS)

When samples and results are managed within a laboratory information management system (LIMS), the forensics laboratory can achieve better productivity, accuracy and compliance.²⁷ As a tool, LIMS permits the laboratory to optimize the organization (internal and external) and its information workflow. However, the quality of LIMS can be viewed as made

²⁵ Koichi Saito et al, Analysis of Drugs of Abuse in Biological Specimens, Journal of Health Science, 57(^) 472-487, 2011

²⁶ United Nations, Guidelines for the import and export of drug and precursor reference standards for use by national drug testing laboratories and competent national authorities. 2007

²⁷ GALL, Robin. LIMS and DNA Analysis in the Forensics Laboratory. *American Laboratory*, 2015

	<p>up of different facets such as security, reliability and accessibility of information as well as its turnaround time and production cost.²⁸ Also, most LIMS is designed primarily to ensure the chain of custody of evidentiary materials and to capture and manage information on the analyses performed.²⁹</p> <p>Scientists in Toxicology and Narcotic Labs at GAD have reported the practice and result of examination by manual, paper-based process, which would be more likely to occur human made errors and to decrease the level of transparency as well as of efficiency. However, with the increased demand for information and communication technology in Sri Lanka, ICTA is implementing QR Coding and Evidence Tracking system in GAD. This can be seen as a good starting point of LIMS in that evidence tracking is the baseline function for any LIMS.³⁰ Therefore, adopting LIMS at GAD through this project will expect to draw a synergic effect with the ICTA infrastructure.</p> <p>2.1.2 Technical assistance to documentation of a laboratory's procedures (SOPs, Standard operating procedures) and instructions</p> <p>A quality management system (QMS) can only operate effectively if the policies, systems, procedures and methods are documented and kept up to date. Document control is the mechanism by which the QMS documents are created, amended, reviewed, approved, distributed and archived to ensure that all staff use the latest authorized versions.³¹ A completely documented and reliable sample chain of custody is critical in the evaluation of forensic samples.</p> <p>GAD does not have an in-house quality manual, resulting in the use of UN guidelines published in 1995. However, while the guidelines can in part be used directly, it is recommended that the manager of each laboratory should write an in-house quality manual modelled on them, adapting them to the local situation and choosing what details to include.³² To secure reliability and increase results' quality it should be essential to guarantee that all scientists comply with same procedures based on SOPs.</p>
<p>2.4</p>	<p>LESSONS LEARNED: Please describe what lessons Partner Country has drawn on (from Partner Country's own and other's past experience) in designing this Project.</p> <hr/> <p><u>The Capacity Building Project for Sri Lanka's Forensic Science Agency and Relevant Officials (2015-2017/ 3.2milUSD)</u></p> <p>Korea has successfully supported the improvement of capacity building for Forensic Science, especially for DNA analysis and digital forensic analysis during the period</p>

²⁸ Steele, Trevor W., Alain Laugier, and François Falco. "The impact of LIMS design and functionality on laboratory quality achievements." *Accreditation and quality assurance* 4.3, 1999

²⁹ Steele, Trevor W., Alain Laugier, and François Falco. "The impact of LIMS design and functionality on laboratory quality achievements." *Accreditation and quality assurance* 4.3, 1999

³⁰ Hendrickson, Anthony, et al. *Laboratory Information Management Systems for Forensic Laboratories: A White Paper for Directors and Decision Makers*. No. IS-5175. Ames Laboratory (AMES), Ames, IA, 2005.

³¹ Guidance for the Implementation of a Quality Management System in Drug Testing Laboratories

³² United Nations, *Recommended Guidelines for Quality Assurance and Good Laboratory Practices: Manual for use by national laboratories*, 1995

	<p>between 2015 and 2017. The direct beneficiaries for this project are seven scientists of Digital Analysis Section and ten scientists of DNA Analysis Section at GAD as well as sixteen workers in charge of digital crime at CID.</p> <ol style="list-style-type: none"> 1) <u>Transferred skill for DNA analysis has a huge impact on Sri Lanka.</u> As scientists in GAD became to carry out DNA analysis as a result of KOICA project, there was a significant increment in DNA examination request from 4 cases in 2014 to 872 cases in 2015. In particular, DNA investigation technic contributed to the identification of the deaths from the long-term civil war and the identification of victims from the terror attack in May 2019. This demonstrates not only the role of GAD as the national forensic science agency but also a great ripple effect on the whole country when it becomes equipped with essential skills and facilities. Thus, it can be also expected that there will considerable high demand for the quantification analysis of Narcotic Drugs in biological specimens after the successful implementation of this project. 2) <u>GAD has endeavoured to keep the project's sustainability with strong ownership.</u> Since finalized this project, GAD has kept the trained experts and secured budgets to hire new scientists responsive to increased demand according to improved capacity of DNA analysis transferred by KOICA. 3) <u>Political issue such as election can influence on project's process.</u> At the beginning of project implementation, planned activities were delayed due to the general election. Therefore, some political issues can be seen a high risk Factor influencing on the project achievement. 4) <u>Equipment procurement was smoothly processed by coordination with the international organization.</u> Based on the on-site investigation, the equipment list was developed which included locally available procurement for sustainable maintenance. The procurement of equipment for DNA analysis and digital forensic has proceeded through UNOPS. This ensured an efficient procurement procedure in accordance with UN regulations. 5) <u>Cooperation amongst law enforcement agencies has a strong positive impact on the criminal justice system.</u> Active cooperation amongst all stakeholders is needed to ensure adequate forensic services for the criminal justice system. This is because non-scientists (e.g., investigators, lawyers, prosecutors, attorneys and judges) are more likely to depend on laboratory personnel to provide information and answer questions. Therefore, GAD may offer training to the police or medical judicial officers on new technology and its potential use.
SECTION 3. PROJECT DESCRIPTION	
3.1	Objective/Outcome/Output: Please outline the objectives, the expected outcomes, and outputs of the Project.

	<p><u>OBJECTIVE: Enhanced GAD's capability for analyzing Narcotic Drugs to timely provide more accurate and reliable report to law enforcement.</u></p> <p>This project aims at achieving more effective, efficient streamlined processes in sample handling and analysis/interpretation according to the introduction of new technical skills and related equipment. Therefore, this project will support to improve scientist performance and mitigate delayed narcotic drug-related cases so that upgraded Narcotic and Toxicology Laboratories of GAD will take an important role as core national forensic science laboratories in Sri Lanka. Overall, it will stand up legal scrutiny and provide safeguards to protect the rights of individuals from wrongful prosecution.</p> <p><u>Outcomes:</u> This project includes two outcomes.</p> <ol style="list-style-type: none"> 1) Strengthen GAD capacity building for Narcotic Drug analysis 2) Strengthen quality management system (QMS) for Narcotic Drugs analysis and achieved a paperless lab <p><u>Outputs:</u> This project includes five outputs.</p> <p style="text-align: center;">Outputs for Outcome 1</p> <p>Output 1.1 Fully trained personnel Output 1.2 Access to appropriate environmental conditions Output 1.3 Multi-stakeholder mechanism for Drug investigation in Sri Lanka</p> <p style="text-align: center;">Outputs for Outcome 2</p> <p>Output 2.1 functioning LIMS (Laboratory Information Management System) Output 2.2 Developed SOPs for quantification of narcotic drugs in biological specimens</p>
3.2	<p>Activities: Please describe what will be carried out in terms of planned activities, their timing and duration, and who will be responsible for each activity. It should indicate the sequence of all major activities and implementation milestones.</p> <p>The Action lasts 48 months.</p> <p>GAD will enhance its contribution to the Narcotic drug analysis as conducting in-service training as well as preparing and leading technical workshop aimed at cooperation with Drug-related Institutions in Sri Lanka.</p> <p><u>Strengthening capacity building of GAD for narcotic drug analysis</u></p> <p><u>Output 1.1 Fully trained personnel</u></p> <p style="text-align: center;">1.1.1 Introduction of training to transfer quantification technic of narcotic drugs in seized materials and biological specimen</p> <p>PMC will dispatch scientists to transfer skills for narcotic drug quantification in Sri Lanka.</p>

The capability assessment at narcotic and toxicology laboratories will be carried out (i.e. the level of skill and understanding about analysis methodology, Labs facilities etc.), followed by the development of an annual work plan. Depending on the result of the assessment, the scope of transferable technics through this project will be decided.

1.1.2 Introduction of in-service training for scientists in Narcotic and Toxicology Sections

Twenty hours training will be provided every year by external experts or scientists of GAD. The training programme will be made up to meet needs since it is related to the type of casework encountered, analytical techniques, available instrumentation and level of preparedness of trainees.

There shall be a documented training programme, approved by the laboratory management that focuses on the development of theoretical and practical knowledge, skills and abilities necessary to examine seized drug samples and related materials.

The training programme shall include:³³:

- Documented standards of performance and a plan for assessing theoretical and practical competency against these standards (e.g., written and oral examinations, critical review, analysis of unknown samples and mock casework per topic area);
- A training syllabus providing descriptions of the required knowledge and skills in specific topic areas in which the analyst is to be trained, milestones of achievement, and methods of testing or evaluating competency

Topic areas in the training session shall cover, as a minimum, the following³⁴:

- Relevant background information on drugs of abuse (e.g., the status of control and chemical and physical characteristics);
- Analytical techniques, methodologies and instrumentations;
- Quality assurance;
- Expert/court testimony and legal requirements;
- Laboratory policy and procedures (e.g., sampling, uncertainty, evidence handling, safety and security)

1.1.3 Invitational training for laboratory scientists in Korea

Invitees could be stakeholders related to narcotic drugs, including laboratory scientists. 13 of scientists in Toxicology Lab and 15 scientists in Narcotic Lab will be trained in Korea for three months.

³³ United States Department of Justice Drug Enforcement Administration, Scientific working group for the analysis of seized drugs (SWGDRUG) recommendations, 2016

³⁴ United States Department of Justice Drug Enforcement Administration, Scientific working group for the analysis of seized drugs (SWGDRUG) recommendations, 2016

1.1.4 Support on Drug Recognition & Impairment Research

GAD, in discussion with PMC, takes a responsibility for the selection of scientists who will have the opportunity to attend a Masters' degree course in Korea research institution. It is very important to enhance their technical and analytical professionalism.

Output 1.2 Access to required equipment and reference standards

1.2.1 Provision of reference materials³⁵

Appropriate reference materials are vital to develop and validate analytical procedures. Based on baseline assessment result, list of necessary reference materials for GAD Labs will be made up to fit the purpose.

Reference materials can be used for qualitative analysis such as chemical identity and quantitative analysis including purity and concentration.

1.2.2 Provision of laboratory equipment

According to the result of baseline assessment, equipment list will be made to enhance adequate and fit-for-purpose forensic science services considering maintenance.

Output 1.3 Multi-stakeholder mechanism for Drug investigation in Sri Lanka

1.3.1 Held technical workshop for the Institutions related to Narcotic Drugs in Sri Lanka

Technical workshop will be held annually and to stakeholders related to Narcotic Drug will be invited. The auditorium in the GAD can be used as a venue. PMC will provide technical support, whereas GAD is responsible for the administration process including sending invitations.

1.3.2 Preparation, printing and distribution of information brochures about Drug test and guideline

Strengthening quality management system (QMS) for Narcotic Drugs analysis and achieved a paperless lab

Output 2.1 Functional LIMS (Laboratory Information Management System)

2.1.1 Introduction Forensic LIMS

Based on the assessment of tracking programme implemented by ICTA in 2019, LIMS will be developed and combined to it. Essential infrastructures including networking server, internet, computer, etc would be provided and supported by ICTA before implementing LIMS.

³⁵ **Reference materials** are substances, one or more properties of which are sufficiently well established to be used for the calibration of an apparatus, the assessment of a measurement method or for assigning values to materials. Reference materials and certified reference materials play a central role in chemical analyses and should have relevant certificates of authenticity: UNODC, Forensic services and infrastructure-Criminal justice assessment toolkit, 2010

- 1) Planning: A gap analysis and review of lab workflow and instrument integrations will be included for baseline assessment. Alongside this result and stakeholders' meeting, LIMS implementation strategy will be decided.
- 2) LIMS installation: The programme company makes adjustment as needed through comprehensive communication with end-users.
- 3) Validation & Deployment

2.1.2 Introduction of in-service training to utilize LIMS

ICTA will organize hands-on training for the end-users how to operate and maintain the system so that they can utilize LIMS smoothly and to improve work efficiency. This training can be provided by the third party, such as LIMS programme company.

Output 2.2 Developed SOPs for quantification of narcotic drugs in biological specimens

2.2.1 Technical assistance to documentation of a laboratory's procedures (SOPs, Standard operating procedures) and instructions

SOPs will help to optimize regulatory procedures and facilitate the work of national laboratories. The quality manual should specify the way in which seized materials are to be described in the laboratory record of the work. Any remedial action taken should always be documented.

2.2.2 Preparation, printing and distribution of SOPs

Monitoring and Evaluation

3.1.1 Assessing the Barriers Facing Narcotic Drug Analysis of GAD

During the first quarter, PMC will conduct a review of the situation facing GAD, from barriers to analyze Narcotic Drugs, to challenges faced during and after project process, in order to determine potential options for support. This activity will aim to better understand what barriers currently constrain the Narcotic Drug analysis of GAD in order to find ways to address them. Then, PMC will provide a solid project plan based on this assessment while strongly cooperating with GAD.

3.1.2 Operation of PSC (Project Steering Committee)

PSC consists of GAD, PMC and KOICA. PSC meetings will be held biannually to monitor major activities based on a project work plan and to discuss major issues in relation to project implementation and Monitoring & Evaluation.

3.1.3 Regular reporting and monitoring

PMC will provide biannual monitoring report including performance, execution of the budget, and related meeting results.

3.3	Budget: Please provide a brief requirement by activities. The budget requirement is not a full and well-defined. The detailed budget requirement will be fully elaborated after the PCP is selected. Nevertheless, this information is to help KOICA to better understand the project.		
	Activity	Contents	Proposed budget (in USD)
	Experts Dispatch, Project Management	Technical support for training and technic transfer for Narcotic Drug analysis: 1 PM (12MM), 1 PAO (24MM), 1 expert in Narcotic Lab(12MM), 1 expert in Toxicology Lab(12MM)	700,000
	Capacity building	i) In-service training ii) Invitational training iii) Research (MSc)	850,000
	Upgrade Equipment and facility	Equipment (LC-MS, Autoclave etc), Standard materials, etc	1,500,000
	Workshop	Brochure, Refreshment, etc	50,000
	LIMS	Programme development, LIMS Implementation	800,000
	Monitoring and Evaluation	Baseline study, End line study, PSC activity	100,000
	Total		4,000,000

SECTION 4. STAKEHOLDER ANALYSIS

4.1	TARGET BENEFICIARY: Please describe the following information: a) direct and indirect/wider beneficiary group, b) number of beneficiary, with gender segregation if necessary (e.g. 300 children rather than children in 3 schools), c) how the target group was identified, d) why they were selected as target group, e) how intended beneficiaries have been involved in Project design, and their expected role in Project implementation and evaluation. If relevant, the target group needs be disaggregated by sex.																							
	<p>1. Direct beneficiary group</p> <p style="text-align: center;"><u><Narcotic Drug Section></u></p> <p>This includes 15 scientists in Narcotic Drug laboratory, 90.9% of them are female, 9.1% are male. (Five more to recruit in 2020)</p> <p>[Table2] Characteristic of scientists in Narcotic Laboratory in GAD, 2019</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Distribution</th> <th style="text-align: center;">Number of persons</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="text-align: center;">Sex</td> <td style="text-align: center;">Male</td> <td style="text-align: center;">1(9.1%)</td> </tr> <tr> <td style="text-align: center;">Female</td> <td style="text-align: center;">10(90.9%)</td> </tr> <tr> <td rowspan="5" style="text-align: center;">Age Group(years)</td> <td style="text-align: center;">20-24</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">25-29</td> <td style="text-align: center;">2(18.2%)</td> </tr> <tr> <td style="text-align: center;">30-34</td> <td style="text-align: center;">1(9.1%)</td> </tr> <tr> <td style="text-align: center;">35-40</td> <td style="text-align: center;">3(27.3%)</td> </tr> <tr> <td style="text-align: center;">≥40</td> <td style="text-align: center;">5(45.5%)</td> </tr> <tr> <td rowspan="2" style="text-align: center;">Working experience as a scientist(years)</td> <td style="text-align: center;"><1</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">1-2</td> <td style="text-align: center;">-</td> </tr> </tbody> </table>		Distribution	Number of persons	Sex	Male	1(9.1%)	Female	10(90.9%)	Age Group(years)	20-24	-	25-29	2(18.2%)	30-34	1(9.1%)	35-40	3(27.3%)	≥40	5(45.5%)	Working experience as a scientist(years)	<1	-	1-2
Distribution	Number of persons																							
Sex	Male	1(9.1%)																						
	Female	10(90.9%)																						
Age Group(years)	20-24	-																						
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	35-40	3(27.3%)																						
	≥40	5(45.5%)																						
Working experience as a scientist(years)	<1	-																						
	1-2	-																						

	2-5	3(27.3%)
	5-10	5(45.5%)
	>10	3(27.3%)
Working duration at the current position(years)	<1	-
	1-2	-
	2-5	5(45.5%)
	5-10	6(54.5%)
	>10	-

<Toxicology Section>

This includes **9 scientists** in Toxicology laboratory accounting for 77.8% of females and 22.2% of males. (Five more to recruit in 2020) Forensic toxicology is the analysis of biological samples for the presence of toxins, including drugs.

[Table3] Characteristic of scientists in Toxicology Laboratory in GAD

Distribution		Number of persons
Sex	Male	2(22.2%)
	Female	7(77.8%)
Age Group(years)	20-24	-
	25-29	-
	30-34	1(11.1%)
	35-40	3(33.3%)
	≥40	5(55.6%)
Working experience as a scientist(years)	<1	-
	1-2	-
	2-5	-
	5-10	2(22.2%)
	>10	7(77.8%)
Working duration at the current position(years)	<1	-
	1-2	1(11.1%)
	2-5	1(11.1%)
	5-10	6(66.7%)
	>10	1(11.1%)

<Judicial Medical Officers>

This includes **40 Judicial Medical Officers (JMOs)** in Sri Lanka. JMOs send biological samples such as urine, blood, and bile to GAD. JMOs will request more analysis services from GAD including narcotic drug quantification through this project.

<ICTA>

<Prisoner waiting for sentence arrested by drug-related crimes>

As the increased capacity building of GAD through this project, unsentenced prisoners arrested by drug-related crimes, approximately **16,752(M:16,503, F:249)**, are direct beneficiaries. Since lengthy imprisonment time would be reduced due to more accurate and timely reporting to law enforcement. Sri Lanka has a high rate of unsentenced prisoners³⁶ rate in prisons at 52.73% in 2017

³⁶ As per UN-CTS definition, unsentenced prisoners refer to persons held unsentenced or pre-trial refers to

	<p>according to UNODC statistics and there is no segregating between drug-related prisoners and others, resulting in a vicious cycle as an incubator for increased drug usage and trade.³⁷</p> <p>2. Indirect beneficiaries</p> <p><Drug addicts> Approximately 200,000 cannabis (ganja) addicts and about 50,000 heroin addicts in Sri Lanka³⁸ would be indirect beneficiaries as a result of this project.</p>
<p>4.2</p>	<p>OTHER STAKEHOLDERS: Please describe other stakeholders (e.g. partner government agency, international organization, NGO, donor agency, etc.), if any, including a) name/group, b) respective role(s) and cooperation/coordination mechanism, etc.</p> <p>Drug specialized law enforcement agencies in Sri Lanka, such as the Police Department, Police Narcotics Bureau (PNB), Department of Excise, Department of Coast Guard, Sri Lanka Customs and the Security Forces, conducted law enforcement operations in 2017. The drug law enforcement subcommittee of the NDDCB coordinates with all the law enforcement agencies and with the Department of Prisons to implement drug policies, to make new regulations and to empower the law enforcement activities and rehabilitation programmes in Sri Lanka.³⁹</p> <ol style="list-style-type: none"> 1) National Dangerous Drugs Control Board (NDDCB) <p>As per mandate given by the National Dangerous Drugs Control Board Act. No. 11 of 1984, the Board will monitor and review the Sri Lanka National Policy for the Prevention and Control of Drug Abuse. The Board will function as the national focal point and coordinate the drug control activities of all relevant organizations. The NDDCB besides eradicating the drug menace also provides treatment and rehabilitation to drug dependents at Treatment and Rehabilitation centre.</p> 2) Police Narcotics Bureau (PNB) <p>The Police Narcotics Bureau (PNB) was initially established in 1973 and has stepped-up its' wings from data collection to drug law enforcement with improved resources. PNB arrests the street-level drug dwellers in terms of drug supply reduction, while conducts awareness programmes as demand reduction.</p> 3) Sri Lanka Customs

persons held in prisons, penal institutions or correctional institutions who are untried, pre-trial or awaiting a first instance decision on their case from a competent authority regarding their conviction or acquittal. Sentenced persons held awaiting the outcome of an appeal in respect of verdict or sentence or who are within the statutory limits for appealing their sentence should be excluded.

³⁷ <http://www.dailynews.lk/2018/07/25/features/157841/death-penalty-deadly-blow>

³⁸ It is difficult to estimate the exact number of addicts because drug addiction occurs secretly. Therefore, the actual number of drug addicts could be much more than this.: <http://www.sundayobserver.lk/2019/03/17/health/narcotics-addiction-leaves-lasting-health-social-economic-impacts>

³⁹ National Dangerous Drugs Control Board. *Handbook of Drug Abuse Information 2018*

SECTION 5. PROJECT MANAGEMENT AND IMPLEMENTATION

PROJECT MANAGEMENT: Please describe a) who will be responsible for planning and management of the Project operations as well as coordinating other bodies and organizations associated with the Project, b) what arrangements will be established to ensure that there will be effective coordination with other relevant programs and activities.

PMC will provide a project master plan aligned with Sri Lanka's national policy. During the project period, PMC implements activities to achieve its objectives and performs well both operationally and financially. It will also enable PMC to provide the technical assistance and support required if laboratories are to meet internationally recognized standards of performance, and to provide the required support to national criminal justice systems and law enforcement.

KOICA will be involved in coordination through participation in the Project Steering Committee (PSC) that consists of the KOICA, partner government and PMC to monitor project progress and make decisions on relevant issues.

GAD will operate overall project implementation process as actively participating with ownership. GAD will provide the list of personnel for attending in-service training, invitational training and MSc course for research, and the list of equipment need to support through this project. Also, GAD will come up with maintenance and quality assurance plan after this project.

Monitoring

5.1

This project will be overseen by the **Project Steering Committee (PSC)** including GAD, PMC and KOICA. PSC meetings will be held biannually to monitor major activities based on a project work plan and to discuss major issues in relation to project implementation and Monitoring & Evaluation.

PMC is responsible for preparing biennial project monitoring and final technical reports. GAD has a responsibility to provide statistics and project-related documents quarterly for PMC.

Evaluation

A baseline will be done to determine quantitatively and qualitatively the current situation of the Narcotic and Toxicology Sections at GAD and improve their capacity to deliver demand-driven skills. The baseline assessment is intended primarily to facilitate the project monitoring & evaluation and will constitute the basis upon which to measure project performance.

Focus group discussions and individual interviews will be carried out with project-related beneficiaries (scientists, Government Analyst, Deputy Government Analyst) to identify the needs and develop quantitative and qualitative indicators against targets identified as part of the RBM system.

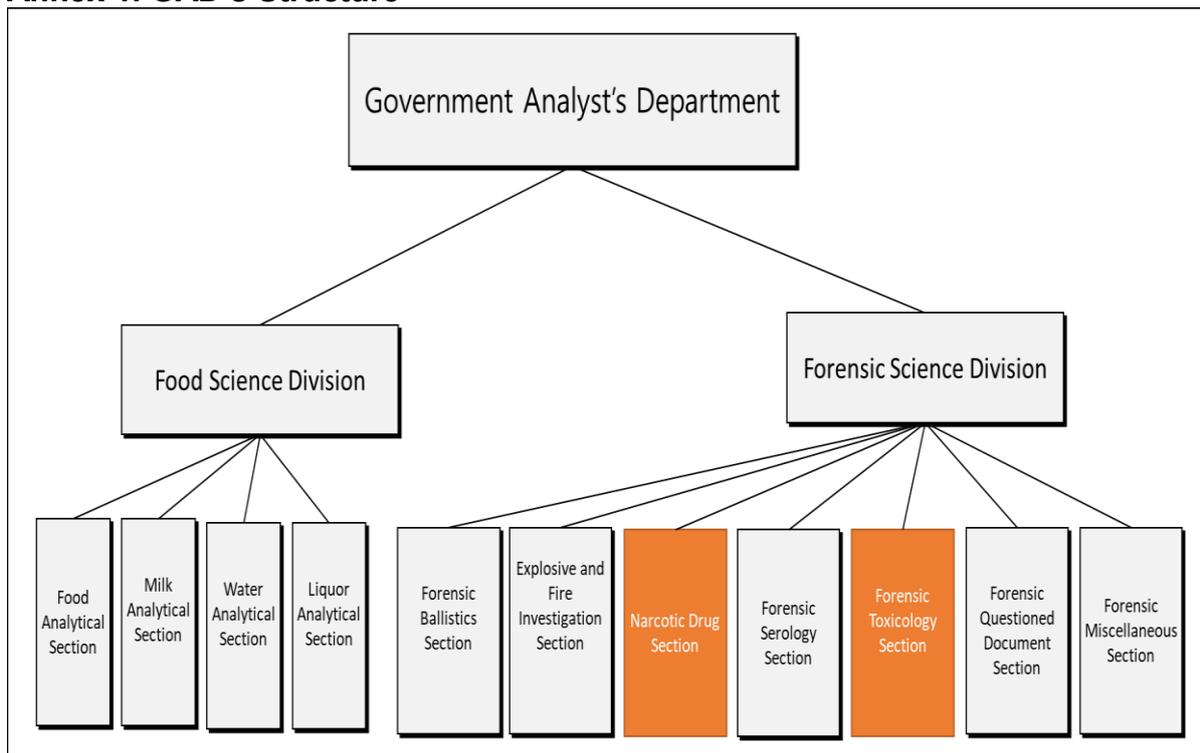
The baseline will be conducted at the beginning of the project by PMC, in close cooperation with GAD staffs. Different data collecting methods will be used: direct

observation, quantitative survey, in-depth interviews, and focus group discussions, to establish a baseline for the project's key indicators. The contents of the in-service and invitational training and the list of equipment will be upgraded on the base of the results of the study.

The final evaluation will be carried out by an external party and all stakeholders involved in this project will actively participate in a survey and the provision of project related information in the case requested from the evaluation team.

The following documents as annex, are required to be submitted with the PCP

Annex 1. GAD's Structure



Annex 2. Project Location Map



Annex 2. Project Design Matrix (PDM)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Impacts</p> <ul style="list-style-type: none"> Reduction of sentence duration related to drug crimes with an improvement of justice level in Sri Lanka. 	-	-	-
<p>Outcomes</p> <ul style="list-style-type: none"> Strengthened GAD capacity building for Narcotic Drug analysis Strengthened Quality Management System for Narcotic Drugs analysis and achieved a paperless lab 	<ul style="list-style-type: none"> # of analysis methods in newly established # of laboratories utilizing LIMS at GAD 	<ul style="list-style-type: none"> GAD's analysis reports Focus Group Interview PMC monitoring report 	<ul style="list-style-type: none"> Maintenance and operation budget will be secured from the Sri Lanka Government. Trained beneficiaries through this project continue to work without leaving.
<p>Outputs</p> <p>1. Strengthening capacity building of GAD for narcotic drug analysis</p> <p>1.1 Fully trained personnel</p> <p>1.2 Upgraded facility and equipment in Laboratory of Narcotic and Toxicology Section for Enhanced technology</p> <p>1.3 Held workshop for multi-stakeholder mechanism for</p>	<ul style="list-style-type: none"> Enhanced-self-efficacy/ capacity after the completion of training courses # of law enforcement officers who participated in capacity building program in drug investigation Access to required equipment and reference standards # of law enforcement officers in technical workshop 	<ul style="list-style-type: none"> KAP survey MSc Certification of Forensic Toxicology or Narcotic experts Equipment handover document SOP documents for quantitative analysis of narcotic drugs in blood and urine PMC monitoring report 	<ul style="list-style-type: none"> GAD commit active cooperation and participation with Korean Experts Participants in the invitational programme are willing to utilize knowledge and skills acquired from provided trainings Training contents consist of appropriate

<p>drug investigation in Sri Lanka</p> <p>2 Strengthening quality management system for Narcotic Drugs analysis</p> <p>2.1 Functioning LIMS (Laboratory Information Management System)</p> <p>2.2 Developed SOPs for quantification of narcotic drugs in biological specimens</p>			<p>programme enable to strengthen the competence of the participants for forensic drug analysis</p>
<p>Activities</p>	<p>Inputs</p>		
<p>1. <u>Strengthening capacity building of GAD for narcotic drug analysis</u></p> <p>1.1.1 Introduction of training to transfer quantification technic of narcotic drugs in biological specimen</p> <p>1.1.2 Introduction of in-service training for scientists in Narcotic and Toxicology Sections</p> <p>1.1.3 Invitational training for laboratory scientists in Korea</p> <p>1.1.4 Support on Drug Recognition & Impairment Research</p> <p>1.2.1 Provision of reference materials</p> <p>1.2.2 laboratory equipment in Narcotic and Toxicology Section</p> <p>1.3.1 Held technical workshop for the Institutions related to Narcotic Drugs in Sri Lanka</p>	<p><KOICA></p> <ul style="list-style-type: none"> • 4,000,000 USD • Dispatch Narcotic Analysis Experts from Korea to Sri Lanka to transfer technical skills • Equipment (LC-MS, Autoclave, Reference standard materials, etc) <p><Sri Lanka></p> <ul style="list-style-type: none"> • Administration Support • Infrastructure for LIMS (internet, computer, QR-code device, server) • Continuously securing budgets for the operation and maintenance of laboratory workforce and medical equipment 		<ul style="list-style-type: none"> • Sustainable and mutual support is provided between KOICA and GAD to achieve the common goal of the project • A competent PMC operates and manages this project

<p>1.3.2 Preparation, printing and distribution of information brochures about Drug test and guideline</p> <p>2. <u>Strengthening quality management system (QMS) for Narcotic Drugs analysis</u></p> <p>2.1.1 Introduction Forensic Laboratory Information Management System (LIMS)</p> <p>2.1.2 Introduction of in-service training to utilize LIMS</p> <p>2.2.1 Technical assistance to documentation of a laboratory's procedures (SOPs, Standard operating procedures) and instructions</p> <p>2.2.3 Preparation, printing and distribution of SOPs</p> <p>3. Monitoring and Evaluation</p> <p>3.1.1 Assessing the Barriers Facing Narcotic Drug Analysis of GAD</p> <p>3.1.2 Operation of Project Steering Committee</p> <p>3.1.3 Regular reporting and monitoring</p>	<ul style="list-style-type: none"> • Participation of project M&E 		
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