



Needs Assessment Report on Chemical Accident Prevention and Preparedness Programme in Cambodia

Task Force on Chemical Accident Prevention Programme in
Cambodia

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	v
CHAPTER 1: BACKGROUND	1
CHAPTER 2: HUMAN RESOURCE NEEDS FOR DEVELOPMENT OF CHEMICAL ACCIDENT PREVENTION AND PREPAREDNESS.....	3
CHAPTER 3: COUNTRY STATUS OF CAPP PROGRAM ELEMENTS.....	5
3.1 Scope of the programme	5
3.2 Role of competent Authorities.....	5
3.3 Role/ Requirement of industries.....	7
3.4 Information dissemination on chemical risks to the public.....	9
3.5 Accident reporting, Investigation and Follow-up.....	9
3.6 Response System.....	9
CHAPTER 4: CAPACITY BUILDING NEEDS	13
4.1 Expertise and other capacity gaps	13
4.2 Training Needs.....	18
4.3 Institutional Development of Agencies Duties and Responsibilities	18
4.4 Equipment	22
CHAPTER 5: FINANCIAL RESOURCES AND SOURCES OF FUNDING.....	24
5.1 In the country	24
5.2 Regional.....	24
5.3 Through bilateral and multilateral partnerships (Japan, Korea, Norway, Denmark, United States)	25
5.4 Partnerships with United Nations Agencies (UNEP, UNDP, UNITAR, WHO)	30
CHAPTER 6: PROMOTING ACTIONS FOR YEAR 1, 3 AND 5	33
6.1 High priority actions – 2010-2012.....	33

6.2	Next priority action – Phase 2 (2013 -2015)	33
6.3	Phase 3 – 2016 - 2019	33
CHAPTER 7: RECOMMENDATIONS		34

LIST OF TABLES

Table 1. Human Resource Needs for Development of Chemical Accident Prevention and Preparedness in Cambodia	3
Table 2. Status of CAPP Program Elements in Cambodia	10
Table 3. On Going Projects Related to Chemicals.....	22
Table 4. Equipments needed for the Implementation of CAPP	22

EXECUTIVE SUMMARY

The project on Chemical Accident Prevention and Preparedness (CAPP) in Cambodia is being implemented by the Ministry of Environment (MoE) through the auspices of the United Nations Environment Program (UNEP), with the Asian Disaster Preparedness Center (ADPC) as the regional technical partner. The project objective is to enable Cambodia to revise and/or to develop transparent, efficient and effective systems aimed at chemical accidents prevention and preparedness. The project will identify the situation of the chemical accident prevention and preparedness in Cambodia and define the needs and priorities. This will pave the ground for a future phase on developing a system for the control of major chemical accidents. With this, Cambodia will build its capacity to review/update and/or develop programmes for controlling major chemical accidents based on their own experience, through the Flexible Framework Guidance for prevention of Major chemical accidents developed by UNEP or through a framework developed through their own systems.

The existing inter-ministerial technical working group on mainstreaming Chemical Safety into Development established under a parallel project of the MoE was adopted with the composition on the process of amendment. The taskforce is expected to develop and periodically review their country's profile, needs assessment, and a roadmap using the UNEP guidance material for the development of CAPP. The Country Situation Report on CAPP Preparedness which has given an overview of the current situation of the country in relation to chemical accident prevention and preparedness has been accomplished. However, in order for the government to come up with a good platform/programme/plan of action for chemical accident prevention, the Country Situation Report should be coupled with the needs assessment of the country also to fully develop the chemical accident prevention road map.

This report contains the needs assessed on chemical accident prevention and preparedness based on the current situation of the country. The contents are as follows:

Chapter 1 gives an overview of the CAPP project and the importance of the needs assessment report.

Chapter 2 contains the different human resource needs for the development of CAPP in Cambodia based on the six step-process approach of the project.

Chapter 3 gives the current status of each of the elements of a CAPP in Cambodia, most of which are not yet established, if not in its development stage that needs to be improved and integrated in coming up with a programme.

Chapter 4 contains the Capacity Building Needs including the gap analysis on each of the elements of a CAPP. Cambodia has very limited capability to tackle chemical management in an effective and proper manner much more so on prevention and preparedness on chemical accident. Inadequacies cover legislation, capacity to prevent chemical accidents, information management, public awareness raising, financial allocation and multi-stakeholder mechanism. Certain actions being initiated are also identified and recognized in this chapter.

Chapter 5 is a summary of possible funding agencies which are national, regional and international sources of funding.

Chapter 6 includes the cascaded priorities based on the pressing needs of establishing a chemical accident prevention programme in Cambodia.

Chapter 7 on Recommendations gives a summary of possible solutions to the identified needs.

CHAPTER 1: BACKGROUND

The Chemical Accident Prevention and Preparedness (CAPP) project builds on the work started by UNEP in 2007, when UNEP established an expert working group for the development of a Flexible Framework for addressing Chemical Accidents Prevention and Preparedness aimed at developing countries. The expert working group was coordinated by UNEP, and had representatives of ILO, UNIDO, WHO, UNECE Convention on Transboundary Effects of Industrial Accidents, the European Commission, the Major Accident Hazards Bureau, the OECD, and the Asian Disaster Preparedness Center, amongst others, and was part of UNEP's work pursuant to the Strategic Approach to International Chemicals Management (SAICM).

The CAPP project responds to the needs identified in the Global Plan of the Strategic Approach to International Chemicals Management (SAICM) under the Risk Reduction topic. Cambodia and the Philippines were selected for the project considering a number of criteria, which includes: i) the presence of a well-positioned and functioning SAICM focal point within a relevant institution for project implementation; ii) inclusion of this topic in their development plan and UNDAF; iii) countries that are priority countries of UNEP Resource Efficiency and SCP activities in the region; iv) interest from the country; v) level and type of industrialization and need for reinforcement of a system for chemical accident prevention related activity.

In the Kingdom of Cambodia, the project on Chemical Accident Prevention and Preparedness (CAPP) is being implemented by the Ministry of Environment through the auspices of United Nation Environment Program (UNEP) while Asian Disaster Preparedness Center (ADPC) serves as the regional technical partner. The project objective is to enable Cambodia to revise and/or to develop transparent, efficient and effective systems aimed at chemical accidents prevention and preparedness. The project will identify the situation of the chemical accident prevention and preparedness in Cambodia and defining needs and priorities. This will pave the ground for a future phase that will be based on developing a system for the control of major chemical accidents. By doing so, Cambodia will build its capacity to review/update and/or develop programmes for controlling major chemical accidents based on their own experience, through the Flexible Framework Guidance for prevention of Major chemical accidents which was developed by UNEP or to review/adapt and/or build their own systems for the control of major chemical accidents.

During the project implementation, It was agreed that a multi-stakeholder task force will be established to drive the process, allowing the public and private sector to

work together to develop a sustainable system for chemical accident prevention and preparedness and it was done so. The existing inter-ministerial technical working group on mainstreaming Chemical Safety into Development established under a parallel project of the Ministry of Environment was adopted and added some other ministries which have something to do with the chemical accident prevention. The taskforce is expected to develop and periodically review their country's profile, needs assessment, and a roadmap using the UNEP guidance material for the development of Chemical Accident Prevention and Preparedness Programme (CAPP). The Country Situation Report on Chemical Accident Prevention and Preparedness has been accomplished which has given an overview of the current situation of the country in relation to chemical accident prevention and preparedness. However, in order for the government to come up with a good platform/ programme/ plan of action for chemical accident prevention the Country Situation Report should be coupled with the assessment of needs of the country in order to fully develop the chemical accident prevention road map of the country. And by doing so, the road map will serve as a guide to develop policies on chemical accident prevention and preparedness.

CHAPTER 2: HUMAN RESOURCE NEEDS FOR DEVELOPMENT OF CHEMICAL ACCIDENT PREVENTION AND PREPAREDNESS.

The Kingdom of Cambodia is an emerging country in terms of policies, industries and on the process of identifying and developing its human resources especially in the area of chemical management. Taking into consideration the existing manpower of each and every ministry, department and other agencies with the requirement in the development of chemical accident prevention program, it is for certain that establishing such programme will require additional human resource needs.

Table 1. Human Resource Needs for Development of Chemical Accident Prevention and Preparedness in Cambodia

Six Steps of CAP Development	Current Status	Lead Agency/s	Possible partner Institutions	Technical Expertise Needed
Step 1: Initial Phase – Commitments and Coordination	Initial commitment has been given. However, no formal prakas had been signed	Ministry of Environment	Taskforce Members	Identification of key stakeholders of the programme.
Step 2: Assess Accident Potential (self-screening)	Broad assessment of the different sources has been done. However, a more detailed assessment should be done	Ministry of Environment and Ministry of Industry, Mines and Energy	Taskforce Members	Expertise on the conducting a study in assessing the accident potential of small and medium enterprises Expertise in Information management is highly needed. Hazard and Risk Assessment.
Step 3: Assess Legal Context and Available Resources	Done	Ministry of Environment and Ministry of Industry, Mines and Energy	Taskforce Members	Assessment of existing laws and rules and regulations in relation to chemical accident and management.
Step 4: Define Priorities	The taskforce have not defined their priorities.	Ministry of Environment and Ministry of Industry Mines and Energy	Taskforce Members	Identify the scope that will be covered by the programme.
Step 5: Choose/Adapt Elements of a	Not done	Ministry of Environment and	Taskforce Members	Industrial Expertise Chemical Accident

Chemical Accidents Programme - (CAP)		Ministry of Industry Mines and Energy		Database Management Inspection Chemical Accident Preparedness Land use planning
Step 6: Create/Adapt Structures for Implementing the CAP	Not done	Ministry of Environment and Ministry of Industry Mines and Energy	Taskforce Members	Planning

CHAPTER 3: COUNTRY STATUS OF CAPP PROGRAM ELEMENTS

There is no existing mechanism or program for chemical accident prevention and preparedness in the country. However, CAPP, on the basis of the Flexible Framework in Cambodia, is at its initial stage by the MoE through the auspices of UNEP.

3.1 Scope of the programme

In the absence of chemical manufacturing industries, industries that are operating in Cambodia utilize, handle and store chemicals. These chemicals are used for laboratories and industrial operations. As such, majority of the chemical users are small and medium enterprises and with significant number of large industries. There is yet a decision from the Task Force on the scope of the program.

3.2 Role of competent Authorities

3.2.1 Define the Scope

In order to define the scope of the program, there is a need for research initiatives to determine the chemicals or chemical products being stored, handled and used with significant accident potential in the country. MoE, together with the Ministry of Industry, Mines and Energy should take the lead as they are mandated to regulate the different industries in the country. By doing so, identifying the scope would be more viable.

3.2.2 Information Management

The available information on the industries is accounted in a broad manner. Estimated amount of chemicals in a certain industry is yet to be identified. Hence, there is a need for intensive efficient data accrual and management scheme. Specific variables are necessary in the assessment of the potential hazard and exposure in a certain community such as chemicals, their quantities and location should be included that. Moreover, a systematic system of handling information should be decided and realized. However, the government has insufficient capacity in terms of manpower and technical skills as well as on equipments to handle this task. Thus, capacity building and additional budget in hiring technical staff needed for such a task and handle such information in whatever forms is highly recommended.

3.2.3 Inspections

The different ministries and departments within the ministries have their own people responsible for inspections. However, the manpower is found to be insufficient. Inspectors are mainly at the national level but not on the local (provincial and municipal) level. Hence, the inspectors are only functioning by invitation both for inspection and capacity building, e.g. 20 inspectors are trained for occupational health and safety in the Ministry of Labour and Vocational Training, 4-6 inspectors trained on the area of chemical labeling in the Ministry of Industry, Mines and Energy, and likewise, about 3-6 people for the MoE.

The petroleum industry, one of the major industries that has a major accident potential is not inspected by the government since this industry serves as a prime commodity in the Kingdom. Inclusion of such industry in the inspection is necessary because of the risk associated with it. Thus, capacity building is deemed necessary for the government to do inspection in these facilities. Intensifying on-site and off-site preparedness is equally important.

3.2.4 Off-site Preparedness Planning

Institutional mechanism or plan on off-site preparedness for chemical accident in Cambodia does not exist. However, the Fire Department under the Ministry of Interior is highly responsible in response action in case of fire incidents/accidents. Hence, there is a need to build the capacity for the Ministry of Interior which is directly responsible in coordinating with the local government units who are the first responder to any chemical or industrial accidents in their vicinity and to further incorporate off-site preparedness plan in response to the growing risk in the industrial areas.

3.2.5 Siting and land use planning

The Government through the Cambodian Development Council has identified the growth centers of the country in which the Special Economic Zones is and will be situated. These Special Economic Zones host most of the manufacturing industries in the country which utilize, store and handle chemicals and other chemical substances. Currently, the siting and land use plans for such industrial estates does not consider chemical accident potential of industries that has to do with chemicals and other chemical products.

3.3 Role/ Requirement of industries

Based on the Country Situation Report, there are several industries in the Kingdom of Cambodia which varies from small, medium to large establishments (see Country Situation Report on Chemical Accident Prevention Program in Cambodia). Some industries such as TOTAL and other large establishments of Petroleum Industries and garments factories have internal procedures and documents which can satisfy some of the requirements of industries in relation to the Flexible Framework Guidance. On the other hand, the government still lacks the capacity to handle such documents and translate it for chemical accident prevention simply because of the absence of legal framework.

3.3.1 General Duty Clause

Cambodian Industries are yet to have a formal mechanism of declaring their rightful responsibility on the safety of their operations. According to the Department of Occupational Safety and Health under the Ministry of Labour and Vocational Training, they have been training several people from the industry upon request on chemical handling, yet there are still cases of improper handling on the part of the workers. Gradually, positive undertakings avoid accidents in the industry has been initiated not only from the Department of Occupational Safety and Health but also through the ILO funded project in partnership with the Garments factory. But then again, there is a need for all the industries to assume responsibility in assuring safety of the industrial activity, their workers as well as the environment. Thus, capacity building on this area is very much needed as well; since, most if not all the industries especially those that are not located in the Special Economic Zones are causing industrial accidents with adverse effect to the environment.

3.3.2 Notifications

Environmental Impact Assessment (EIA) requires industries that are covered by the sub decree to submit an Environmental Impact Statement which serves as a medium for notification. However, this is more on the pollution cause by the industry to the environment and not for potential chemical accidents. In order to address the requirements of a chemical accident program, the accident potential of a certain industry should be well assessed, thereby, helping the industry to have a substantial basis in notifying the public through the government. In the long term, the government should clearly compel industries to notify the government and public on

their potential to cause chemical accidents. This will further require legislative effort, technical assistance, manpower and budget to effectively pursue such action.

3.3.3 Prevention policy

Some of the industries have existing internal policies when it comes to safety in their industry and their operations e.g. petroleum companies and garments factory. Therefore, the government should put effort to continuously empowering the industries to come up with prevention policies in collaboration with other institutions such as ILO, UNEP and other international organizations giving emphasis on process safety in the industries.

3.3.4 Hazard Identification and Risk Assessment

Industrial activity in Cambodia is not as diverse, as other developing countries in Southeast Asia. Technical expertise and experience within the government in carrying out and assessing reports on hazard identification and risk assessment is limited. Hence, there is a need for the government to be more adept in analyzing and assessing industries other than the existing industries in the country.

There is also a need for research institution such as the ministries, academic institutions and international research bodies to participate in in-depth assessing the potential chemical hazard and risks in the industries of Cambodia. These researches will be great help for the government, to give better judgment and support future legislation and policies in chemical accident prevention.

3.3.5 Safety Reports

Industries in the country are not subjected to comply or produce any form of safety reports for their facilities and processes. Some industries, however, have some of the requirements included in the safety report; but, these serve as internal documentation for the workers and the company as a whole. With this, some companies are capable of producing such requirement while others are not. But, in order to facilitate this, there is a need for thorough identification on the capacity of the industry to provide information. Otherwise, there is a need to build the capacity of the industries in preparing a safety report which if not all industries will benefit from it.

3.3.6 Preparedness Planning

Cambodian government is building more on the occupational health and safety aspect which is focused on the workers in the industry as mention in the above section. Additionally, initial steps on fire prevention have been done. But then again, most industries especially in the small and medium enterprises do not on-site emergency plans with limited equipments available. Otherwise, this is neither frequently updated nor drilled.

3.4 Information dissemination on chemical risks to the public

Informing the public of the inherent danger that chemicals have both in handling, use and storage was taken as one of the priority areas. Translating technical things serves as a challenge to most governments and Cambodia is one of them. Thus, training in effectively communicating chemical risk to the workers and most especially to the exposed public is apt for the government to initiate in order to reduce the associated risk on chemical accident.

3.5 Accident reporting, Investigation and Follow-up

Accident reporting, investigation and follow up are already done in the country especially for fire accidents. However, accident related to chemical accidents are not well emphasized on the incidents happened in the past.

3.6 Response System

3.6.1 Fires

The Fire Department of Cambodia has an on-going project with the Australian Firefighters International Relief and Education (AFIRE). They have different activities within the program such as training, hose and coupling standardization, community support programs, airport fire services and policies and procedures. According to AFIRE, they are continually working with the government and fire department to develop and initiate policies and procedures to ensure effective management and accountability.

3.6.2 Chemical Accidents

There are no existing response systems that are in place with regards to chemical accidents. However, other forms of accident such as oil spill have a draft legislation

as well as response plan. Additionally, any chemical accidents resulting to fire are dealt with the existing response system of the fire department.

3.6.3 Oil Spills

Currently, the Cambodian government through the Ministry of Environment drafted a National Contingency Plan for Oil Spill Response that contains the different measures in the advent of an oil spill. The details of this drafted plan are described in the Country Situation Report on Chemical Accident Prevention and Preparedness in Cambodia.

3.6.4 Contamination of river by mine tailing

Chemical accident due to mine tailings in Cambodia is one of the emerging issues in the country. However, there is no existing response system available for this but regional and international organizations are investigating possible contaminations of the Mekong River especially from mercury and cyanide.

Table 2. Status of CAPP Program Elements in Cambodia

Elements	Present Status	Lead Agency/s	Possible Partner Institutions	Technical Expertise Available	Equipment/ Soft wares
1 Scope of the programme	Not identified	Ministry of Environment, and Ministry of Industry Mines and Energy	Taskforce Member	Industrial Expertise	Process Safety Management Software/s
2 Role of competent Authorities					
2.1 Define the Scope	Not identified	Ministry of Environment and Ministry of Industry, Mines and Energy	Taskforce members	Industrial Expertise	Process Safety Management Software/s
2.2 Information Management	There are existing medium such as webpage/s. However, information management for	Ministry of Industry Mines, and Energy and CAMCONTROL	CAMCONTROL, National Institute of Statistics	Mapping, Data Management	ARCGIS, Database software/s

	chemical accident prevention are not in place				
2.3 Inspections	Inspectors are available from other ministries. However, they don't cover all the industries especially those who handle the prime commodities as well as the government	Ministry of Environment and Ministry of Industry, Mines and Energy and Ministry of Labour and Vocational Training	CAMCONTROL, National Institute of Statistics	Process System Management related expertise	Process Design Plans and modification, Database
2.4 Off-site Preparedness Planning	Not in place	Ministry of Interior and Ministry of Industry, Mines and Energy	Ministry of Interior, Local Government Units,	RS and GIS, Planning	RS and GIS software/s, GPS
2.5 Siting and land use planning	Chemical accident prevention is not being considered	Ministry of Land Management urban Planning and Construction	Ministry of Environment, Ministry of Industry Mines and Energy	RS and GIS, Planning	RS and GIS softwares, GPS, Digital Maps
3 Role/ Requirement of industries					
3.1 General Duties	Not in place	Ministry of Industry Mines and Energy	-	-	-
3.2 Notifications	EIA system have the EIS	Ministry of Industry Mines and Energy	-	-	-
4 Information dissemination on chemical risks to the public	Not in place	Ministry of Social Affairs and Ministry of Labor and Vocational Training	Ministry of Industry Mines and Energy, Ministry of Environment and Educational Institutions	Community organizing, training on multimedia, expertise in conveying technical information	Redundant Alarms systems, Information Dissemination Equipments.

				to more effective means	
5 Accident reporting, Investigation and Follow-up	Not in place	Ministry of Interior	Ministry of Industry Mines and Energy, Ministry of Environment and Educational Institutions	Training on Accident reporting, Investigation and Follow-up, and data base management	Forensic equipment, computers etc.
6 Response System	Fire: Established Oil Spill: On the process Chemical Accident: No existing plans Contamination of River: Under EIA	Ministry of Interior	Ministry of Industry Mines and Energy and Ministry of Environment	Response training on different accidents related to chemicals	Fire equipment, solvents, other tools such as dispersant, boom, etc.

CHAPTER 4: CAPACITY BUILDING NEEDS

4.1 Expertise and other capacity gaps

Cambodia-- on both a national and local scale-- has very limited capabilities to tackle chemical management in an effective and proper matter much more so when it comes to the prevention of chemical accidents.

A number of important and urgent chemical management issues regarding both governance and specific chemical management work areas or topics were identified during the course of the project which are:

- Inadequate legislation for chemical accident prevention;
- Lack of capacity to prevent chemical accidents both in the national and local levels;
- Inefficient information management management
- Absence of a multi-stakeholder mechanism to prevent chemical accidents.

Inadequate legislation for chemical accident prevention

Capacity Gaps

Cambodia has no specific laws or regulations for chemical accident prevention. Even if there are existing relevant regulations mentioned in the Country Situation Report these legal instruments are hardly effective, poorly co-ordinated, and are not specifically addressed to manage chemicals based on the National SAICM Capacity Assessment for Chemical Management. Additionally, other response system are still on the process of legislation.

Most of the existing laws cannot adequately address chemicals issues because they lack a proactive and preventive dimension, and are very duplicative. Over the past three decades, one of the biggest challenges facing Cambodia has been keeping up with the burgeoning development of chemicals. In particular, it has become increasingly evident that chemicals are becoming fairly complex, dynamic, and exceedingly sensitive and volatile which can be dangerous when they are released in the environment.

In addition, although a number of existing health, labour, environmental and agricultural laws and standards in Cambodia have been developed, effective management of chemicals issues have not been ensured. The main issues covered by existing laws include the control mechanism on importation, handling,

distribution, and the use and disposal of the chemicals¹. However, there are serious gaps in these existing laws which are the detailed implementing rules and procedures. Furthermore, law enforcement remain at low level. The enforcement officers are not having enough capacity to enforce the law –technical training in environmental law and environmental law awareness are limited. Equipments and facilities for chemicals management and expertise are shortage.

Proposed Action

- A comprehensive and detailed legal framework for chemical accident prevention should be done and approved.
- Industries should be compelled to submit chemical accident prevention related requirements such as safety reports which includes hazard and risk assessment, material safety data sheets etc.
- Integration of chemical accident prevention policies to sectoral and local and national plans

Lack of capacity to prevent chemical accidents both in the national and local levels

Capacity Gaps

The issue of capacity building is critically important. It is an on-going concern in Cambodia and will not come easily in the foreseeable future. In turn, Cambodia still has limited capacities and capabilities to achieve sound management of chemicals. A number of inadequacies are identified as follows:

- Inadequate technical capacity in reviewing risk assessment studies;
- Lack of institutional capacity;
- Lack of equipment and facilities for chemical management and expertise;
- Shortage of management skills to deal with technology transfer and with storage, transport, use or disposal of chemicals;
- Inefficient recording of chemical and lack of comprehensive databases on chemicals;
- Inadequate capacity to respond to emergencies due to lack of disaster equipment, contingency plans and funds;
- Inability to carry out assessments on process and chemical safety.
- Limited awareness of personnel dealing/handling with chemicals (failing to wear protective clothing when handle chemicals, for instance);

- Lack of technical and capacity-building resources for the management of hazardous chemicals;
- Lack of information on related health hazards and guidance and training on treatment technology and best practices;

Proposed Action

- Institutional capacity building; including laboratory capacity
- Training and building capacity of enforcement and regulatory authorities such as customs officers, CAMCONTROL officers, laboratory personnel, and concern ministries
- Capacity building in chemical hazard and risk assessment and management
- Training of trainers on chemical safety

Inefficient information management system

Capacity Gaps

The importation of chemicals, and the data and information concerning its use, have been managed at different institutions. Cambodia has no centralized source for chemicals data and information, and currently lacks a national document². Therefore, the collection and compiling of information and data concerning chemicals currently in use and banned is limited due to insufficient resources. An absence of a research program, and poor information management strategy also contribute to the void.

The lack of information and data collection has created problems for chemical management in Cambodia, particularly to ensure technical management. In spite having existing data and information on chemicals, it is not broadly disseminated to the public and very difficult to access.

The key challenges in getting information are:

- Lack of capacity to gather useful information through research and dissemination information and effective education programs;
- Inadequate information management systems relating to the sound management of chemicals; and
- Lack of integrated information system on chemicals such as through national pollutant release and transfer registers.

Proposed Action

² Phet Pichhara, Country Paper on Chemical Management in Cambodia (2005).

Effective chemicals management is needed to have information on certain chemicals existed in the country that causes serious impacts on man health and the environment. Without this information, there is no way that can manage of chemicals presented in the country. Therefore, research study on certain chemicals caused impacts to human health and the environment should be conducted. Development of chemical information management system:

- establishment, use and maintenance of information system
- collection, analysis, storage and dissemination of chemical data and information about chemical substances, their hazards and also practices for their safe management
- installation and application chemical information exchange network and establishment of documentation center.

Lack of Education and Public Awareness Raising Programs

Capacity Gaps

In Cambodia, safety measures are often ignored. This situation is due to lack of awareness and understanding on the associated risks on chemicals coupled with inadequate labelling. Hence, chemical accident risk is escalates as the situation exacerbates the inherent hazards on the chemicals.

The awareness of the public, especially farmers and local communities on chemical use, safety and its negative effects to human health and the environment is insufficient owing to a lack of informal or formal programs. Only a small number of local communities and farmers knows of the serious impacts of chemicals on their health as well as the environment through some extension programmes called IPM and SARUP. These programmes were established in order to minimize the use of pesticides in crops productions, including (i) the use of alternative measures for controlling pest, (ii) the cause of hazards related to the use of pesticides, (iii) the use of low toxicity pesticides with less impact to non-target pests, and (iv) the use of pesticides judiciously with an intention to protect human health and the environment³.

Proposed Action

³ Ministry of Environment : National Implementation Plan for Stockholm Convention on Persistent Organic Pollutants (2006)

- While it is indeed beneficial to have those abovementioned programmes, Cambodia still needs to develop a wide range of educational programs regarding the safety use of chemicals and consequences of inappropriate handling, storing, use and disposal of chemicals. These aspects are important to recognize the need of broader education program. Furthermore, educational programs are essential in order to promote public participation and to enable all stakeholders to become cognizant of the importance of protecting their health and the environment from chemicals.
- Educating the general public at all levels, particularly vulnerable groups
- Informing decision and policy makers to encourage political commitment
- Promoting and continuing support for organic fertilizer using program

Lack of Financial Mobilization Mechanism for Chemicals Management

Capacity Gaps

Financial hurdles can serve as a challenge for Cambodia in any facets of regulations. It affects the performance of any legislation especially in the stage of implementation. Existing programmes and action plans for chemical management have been developed but the implementation remains at low level due to insufficient financial resources.

The challenge in financial resource mobilization is a failure of effective internal and external communication and coordination. In this regards, it is necessary to formulate mechanism for mobilizing financial resource for chemicals management that are consistent with the requirements of international donors, otherwise no funding will be available.

Proposed Action

- Development of public and private partnerships as a tool for resource mobilization
- Development of effective financial resource allocation
- Building government officer for effective fund raising.

Lack of Multi-stakeholder Mechanism For Chemical Accident Programme

Capacity Gaps

Cambodia does not have collective approach to chemical accident prevention program. This is primarily a result of failure in communication, consultation, cooperation and coordination between line ministries or relevant stakeholders. In

other words, Cambodia lacks of a central co-ordinating body that could facilitate the inter-ministerial exchange information concerning chemical accident prevention program and chemical management as a whole.

The absence of a multi-stakeholder mechanism will can result to an inefficient and ineffectiveness chemical accident prevention program..

Proposed Action

- Improve and strengthen inter-ministerial committees' coordination and cooperation as well as for developing legislations on chemical accident prevention
- Establish central coordinating body for exchange information within inter-ministerial committees
- Establish financial management mechanism for facilitating the committees.

4.2 Training Needs

Based on the capacity assessment, in particular Annex 3, a number of chemicals management work areas and topics were considered to be of high priority by all participating stakeholders. These include: Chemical Risk Assessment (incl. Hazard Identification and Exposure Assessment); Adequate Legislation; Highly toxic chemicals and chemical of global/regional/national concern; Safe Use, Storage, and Transportation of Industrial Chemicals; and Chemical Emergency Follow-up (incl. Remediation of Contaminated Sites and Rehabilitation/Surveillance of Poisoned Persons).

4.3 Institutional Development of Agencies Duties and Responsibilities

It is not only the Ministry of Environment that is responsible for the management of chemicals, but also a number of Ministries and local governments involved in this task. These ministries have its role to manage chemicals according to their mandates assigned by the government. Their mandate in managing chemicals is to protect public health and the environment from negative impacts at various stages during its life cycle from production, to disposal.

The key ministries involved in chemical management are:

1. Ministry of Environment
2. Ministry of Industry, Mines and Energy
3. Ministry of Health
4. Ministry of Commerce (General Department of CAMCONTROL)
5. Ministry of Agriculture, Forestry and Fisheries
6. Ministry of Interior
7. Ministry of Economic and Finance (General Department of Customs)
8. Ministry of Labour and Vocational Training
9. Other concern agencies

4.3.1 Government

4.3.3.1 Ministry of Environment

MoE has an important role to play in facilitating and coordinating cooperation with relevant government institutions, national and international organizations, non-governmental organizations and private sectors to manage chemicals and other chemical related initiatives with compliance on chemical accident prevention technical guidelines and providing technical support and also by collecting, compiling and managing data related to toxic and hazardous chemicals.

MOE has six technical departments office of inspection, office of administration, and office of financial control. Technical departments are responsible for (i) policy development; (ii) development and implementation of legal instruments for the environmental impact assessment review; (iii) development of inspection procedures; (iv) technical advisory for other sectors on issues related to natural resources and environmental management; (v) administration and management of national protected areas; (vi) implementation of environmental education; (vii) environmental data gathering, analysis, and management; (viii) ensuring compliance to international environment treaties and conventions; and (ix) providing pollutant inventories.

With regards to chemical management, the Department of Pollution Control (DEPC) is an executive agency of the MoE that is responsible for chemical management in cooperation with line agencies. The Department of Pollution Control regularly monitors mobile, stationary, and area sources of chemical pollution. It also controls chemical use and management practices across the country. For any circumstances, the proposed import and use of chemical substances for any purposes must be under control and monitor of the DEPC.

Although legislated under the 1999 Declaration on the Organization of the Provincial and Municipal Environment Department, the local governments have minimal

capacity to engage in chemical management activities. Enforcement and support to the Office of Inspection is the key role of the provincial bodies. Chemical accident prevention and management has not been formalized at the district and community levels although initiatives are present. In general, there are overlaps on the mandates and jurisdictions of agencies at different levels.

The Department of Environmental Impact Assessment (DEIA) is another important agency of MoE that plays an essential role in preventing and minimizing any harmful effects to human health and the environment by conducting environmental impact assessment studies.

4.3.3.2 Ministry of Industry Mines and Energy

Ministry of Industry, Mine and Energy (MIME) is mandated to administer and regulate industrial activities in Cambodia. It plays a crucial role in promoting development green business/growth within the industrial sector via clean production in order to avoid either environmental degradation or natural resource depletion. In this context, MIME is an important institution to help cut down the use of chemicals in the production process. Importantly, MIME also has obligations to establish legislations and policies to regulate and govern the use of chemicals in the industrial sector.

4.3.3.3 Ministry of Health

The Ministry of Health (MoH) has responsibilities for developing legislations, policies, regulations and directives in order to protect public health from negative effects of chemicals, manage pharmaceutical production, business and distribution of medical and paramedical equipment to all private and public units, and to examine food safety.

4.3.3.4 Ministry of Commerce (General Department of CAMCONTROL)

General Department of CAMCONTROL of the Ministry of Commerce is responsible for inspection import/export goods including control and suppression of fraudulent goods being marketed. It also analyzes the quality of food and consumption products, supervises and certifies compliance with the national standard on quality, safety and trademark of food and consumption products except pertaining to medicine, medical equipment and cosmetic products.

General Department of CAMCONTROL's main role is the implementation and enforcement of the law on quality and safety of products and service and to guarantee the quality and safety of goods, by means of: a) setting up food standards and specification as well as labeling requirements , b) controlling of the production and importation of products including food products, c) sampling and quality

assessment of food and products, d) taking legal action e.g. seizure of products, recalls, prosecution, e) advertising approvals, and f) promoting consumer awareness and voluntary compliance of food manufacturers.

4.3.3.5 Ministry of Interior

Ministry of Interior' Secretary of National Authority for Drugs Control is the main government institution that has responsibilities for cracking down producing, using, distributing and trade/trafficking of drugs. The Fire Department of Cambodia is also under the Ministry of Interior which is responsible in the prevention and response in case of fire which erupted from any sources.

4.3.3.6 Ministry of Agriculture, Forestry and Fisheries

Ministry of Agriculture, Forestry and Fisheries (MAFF) has responsibilities for managing agricultural materials, which include chemical fertilizers, pesticides, and veterinary drugs. The Ministry has responsibilities to guarantee consistent high quality agricultural material inputs to enhance agricultural production and promote sustainable agriculture; provide appropriate quality standards and regulatory mechanisms to protect both the end-users, the manufacturers, distributors, and dealers of these inputs; and also to ensure environmental conservation.

MAFF is obliged to develop laws, regulations and policies on agricultural material management to prevent farmers from using chemicals that are banned in other countries; to protect the environment from negative impacts produced by chemicals; and to promote public awareness of safe agricultural material utilization to improve agricultural productivity, food security and safety, and public health. MAFF has the authority to issue licenses for importing and exporting agricultural materials.

4.3.3.7 Ministry of Economic and Finance (General Department of Custom)

General Department of Custom and Excise, directly supervised by Ministry of Economy and Finance's Custom Department plays a significant role in management of chemicals. It includes control and monitoring of import and export goods, and confiscates illegal smuggled goods such as chemicals and harmful substances to the environment and public health which is prohibited by the law.

4.3.3.8 Ministry of Labour and Vocational Training

Ministry of Labor and Vocational Training's key role is to control and inspect the working condition in the establishments ensuring that the chemical usage and storage follow occupational health and safety requirements.

4.3.4 Academia, NGO's, and International Organizations

There are number of chemical related projects are being implemented by government institutions, NGOs, and the University. These ongoing projects would provide an opportunity for future partnership and projects regarding sound management of chemicals. All on-going projects are shown in the table below:

Table 3. On Going Projects Related to Chemicals

Name of Institution	Project	Contact Address
NGO Forum on Cambodia	Pesticide Reduction and Sustainable Agriculture Project	MS. MEN VANAVY NO.9-11, STREET 476, TOUL TOMPONG 1, CHAMKARMON, PHNOM PENH. TEL: 855 12 483 364
United Nations Development Program/MoE	Sound Management of Chemicals	Mr. Chea Vannara No. 53, Street 5, Boeung Keng Kang, Phnom Penh, Cambodia. Tel: 023 216 167 Fax: 023 216 257
UNEP/MoE	Flexible Framework For Chemical Accident Prevention	Mr. Long Rithirak SAICM Focal Point Email: moeimo@online.com.kh
UNITAR/MoE	PRTR	Mr. Pet Pichhora Chief of Waste Management Office, Ministry of Environment.

4.4 Equipment

Table 4. Equipments needed for the Implementation of CAPP

Elements of CAP	Institutional Development	Expertise	Training	Equipment
Scope of the programme	Committee on Chemical Accident Prevention Establishing the Scope	Chemical Labelling, Hazard and Risk Assessment and Industrial experience	Chemical Safety	-
Role of competent Authorities	Legislation on establishing the roles and responsibilities of the committee on Chemical Accident	Chemical Safety and Health, Information management, Assessment of safety	Information Management, Investigation, Monitoring, Toxic and Hazardous Chemical	Computers and database softwares, meters, Xerox machine, and other office equipment

	Prevention	reports, Inherent Chemical Hazards	Management	and vehicles for investigations
Role/ Requirement of industries	Legislation on establishing the requirements of industries in compliance to the Chemical Accident Prevention Programme	Hazard and Risk Assessment and Management, Material Safety Data Sheets, Chemical Labelling	Toxic and Hazardous Chemical Management	Computers, Xerox machines, flow meters, and office other supplies
Information dissemination on chemical risks to the public	Accountability and coordination mechanism for line agencies, media and non government organization	Toxic and Hazardous Chemicals and Chemical Hazards.	Creative dissemination to the public such as posters, programs and many others	Computers, Xerox machines and other printing equipment, broadcasting equipment and other media equipment
Accident reporting, Investigation and Follow-up	Institutional commitment and accountability within line agencies	Investigation	Investigation and reporting.	Computers, Xerox machines and other printing equipment, broadcasting equipment and other media equipment
Response System	Defined roles and responsibilities for the involved agencies and department.	Fire fighting, Toxic and Hazardous Chemicals, response to spills,	Chemicals and Fire Extinguisher, Familiarization of Building Floor Plans.	PPE and other fire fighting equipment, Spill equipment e.g. boom for oil spill.

CHAPTER 5: FINANCIAL RESOURCES AND SOURCES OF FUNDING

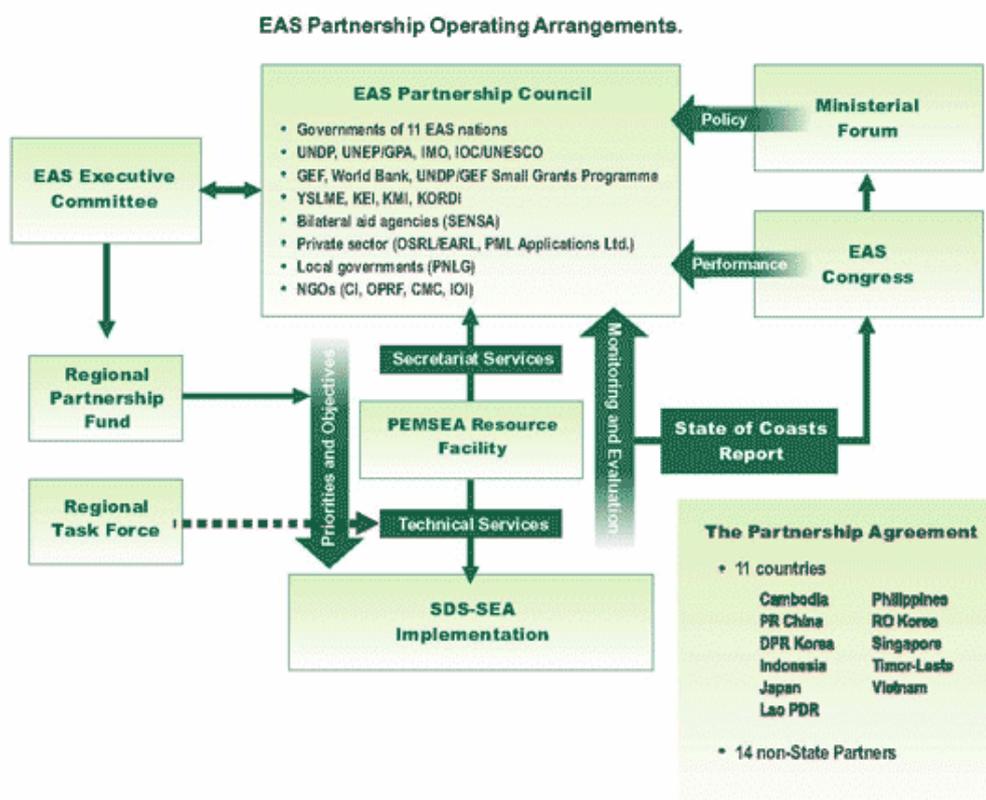
5.1 In the country

There are no financial provisions intended to pursue programmes on chemical accident prevention. The government is fully dependent on the externally source funds through projects funded by intergovernmental and multinational agencies. However, development of such programme is made available by international organization as mentioned in the above section.

5.2 Regional

5.2.1 Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) is deemed to build and strengthen coastal and ocean governance through intergovernmental, interagency and multi-stakeholder partnerships in East Asia.



PEMSEA has four major operating mechanisms: the East Asian Seas (EAS) Congress, the East Asian Seas (EAS) Partnership Council, the PEMSEA Resource Facility, and the Regional Partnership Fund.

- **The East Asian Seas Congress**
Held every three years, the EAS Congress consists of a Ministerial Forum, an International Conference and other related activities.
- **The East Asian Seas Partnership Council**
The EAS Partnership Council is a regular body composed of all Partners. The Council formulates both program and operational policy in support of the implementation of the SDS-SEA, based on policy direction, recommendations and commitments provided by the Ministerial Forum, EAS Congress, and other Partners.
- **PEMSEA Resource Facility**
The PEMSEA Resource Facility (PRF) has two functions: (1) providing Secretariat Services; and (2) providing Technical Services.
- **Regional Partnership Fund**
The Regional Partnership Fund, set up by the EAS Partnership Council, receives voluntary financial contributions from countries, international agencies, donors, institutions, individuals and any other entity for the implementation of the SDS-SEA.⁴

5.2.2 Association of Southeast Asian Nation (ASEAN)

ASEAN Agreement on Disaster Management and Emergency Response Vientiane, 26 July 2005 supports ASEAN member countries to establish disaster management projects that will help the countries to reduce the risk of any disaster. See for more details on the existing legislation <http://www.aseansec.org/17579.htm>⁵

5.3 Through bilateral and multilateral partnerships (Japan, Korea, Norway, Denmark, United States)

5.3.1 Japan

The Japan International Cooperation Agency (JICA) is the independent institution of the Government of Japan, responsible for the international cooperation and development agenda of the country. It aims to reduce poverty and enhance the

⁴ www.pemsea.org

⁵ www.aseansec.org/17579.htm

process of socio-economic development in poor and developing countries around the world.

JICA's development vision believes in helping people realize their development issues and address them in a participatory manner. JICA understands the relevance of long-term support in an ever-changing environment of developing countries and provides effective support to reduce poverty and related issues. It endeavors to address the negative effects of globalization such as climate change, spread of infectious diseases, terrorism and uneven distribution of wealth. In its poverty alleviation agenda, it provides support towards enhancing employment opportunities and ensures provision of basic services such as healthcare and education to communities. Since good governance is essential for addressing issues of socio-economic development, it supports governments in placing appropriate systems. The guiding principles of JICA's mission are "achieving synergies of the merger, tackling complex, difficult issues flexibly with the field-based approach, fostering expertise for providing professional solutions and efficient and transparent operations." The themes covered by JICA range from education, health, disaster management, governance, peace-building to social security, gender development and environmental management.

Besides provision of ODA loans and technical cooperation support to various groups, governments and institutions, JICA also supports NGOs directly as well as indirectly. Its Grant Aid support is mostly to governments, which need to work closely with NGOs. The JICA Partnership Program is mainly a key partnership with Japanese international organizations working in poor countries around the world. JICA sometimes also introduces direct support to NGOs, but this support is managed locally. JICA also has the Emergency Disaster Relief support to counter the effects arising out of natural disasters around the world.

5.3.2 Sweden

The Swedish International Development and Cooperation Agency (SIDA) is the Swedish Government's organization for international development. It works to reduce poverty worldwide by reducing the rich-poor divide, increase production of goods and services, assist countries in making policies and ensure participatory development and promote democracy, gender equality, sustainable use of natural resources and environment conservation.

There are four core thematic areas on which SIDA focuses its work which are Economy; Infrastructure; Humanitarian assistance; Water and Urban development

SIDA has several approaches to implement its objectives and collaborates with different partners around the world. SIDA is committed to work with NGOs around

the world and allots most of its funding for them to work on its issues of priority. It also provides grants and credit aid to governments of developing countries. Along with that, it also organizes training programmes and exchanges for partners organizations in developing countries.

5.3.3 Norway

The Norwegian Agency for Development Cooperation (NORAD), the directorate under the Norwegian Ministry of Foreign Affairs (MFA) is responsible for implementing the policies and programmes of Norway's Development Cooperation. The Agency's task is to work with the international community to fight poverty. Norway's Development Cooperation's main goal "is to contribute towards lasting improvements in the economic, social and political conditions under which people live in developing countries, with special emphasis on assistance which benefits the poorest sector of the community." NORAD has various thematic areas such as health, environment, private sector development and macro-economics

NORAD recognizes the role of the civil society in combating local and international issues and works closely with NGOs in supporting them in their interventions and also building their capacities. Keeping in mind the importance it gives to NGO partnerships, the bilateral agency has separate guidelines, policies and procedures for regulating its grants for NGOs. It includes 'Civil society as a channel for development,' 'Strengthening local partners NORAD funding for Norwegian NGOs,' 'Funding for international NGOs and networks' and 'Evaluations from civil society.'

5.3.4 Denmark

The Danish International Development Agency (DANIDA) is the official development cooperation agency of the Government of Denmark under the Danish Ministry of Foreign Affairs. The Danish Development Policy focuses upon eradication of poverty and ensuring sustainable development. It works in select countries referred to as programme countries and provides support to NGOs as well as governmental agencies. DANIDA has been providing aid mostly to Africa in the recent years. Other areas of development include social and economic development, human rights, democratization and good governance, stability, security and the fight against terrorism, refugees, humanitarian assistance and environment. It has also launched the "Strategy for Denmark's Support to the International Fight against HIV/AIDS. The programs are managed locally through the Danish missions in the countries of implementation.

DANIDA also believes that development research is an integral part of sustainable development and provides grants for organizations. The research aims at providing knowledge for the achievement of the developmental objectives set about by the developmental policies of the Danish Government. The research grant is provided annually through the Consultative Research Committee for Development Research (FFU) for carrying out Master's or PhD in relevant fields in developing countries. For applying for development research grants, individuals can visit the Danida Fellowship Centre. For NGO grants, local missions in the countries can be contacted.

5.3.5 United States of America

The United States Agency for International Development (USAID) is the overseas development agency of the United States Government. "U.S. foreign assistance has always had the twofold purpose of furthering America's foreign policy interests in expanding democracy and free markets while improving the lives of the citizens of the developing world. Spending less than one-half of 1 percent of the federal budget, USAID works around the world to achieve these goals." It is also one of the largest bilateral donors with a wide presence across different countries of the world. It also has offices in most of the developing countries from where bilateral projects are managed at the local level. The thematic areas covered by the Agency are economic growth, agriculture and trade; global health; and, democracy, conflict prevention and humanitarian assistance.

USAID commits a substantial part of its funding to support NGOs. It has different NGO development programs to strengthen the participation of civil society to reducing poverty and enhancing its role in policy advocacy. Under its Global Development Alliance, it organizes agreements with NGOs on long-term basis. It has nearly 20% of partnership with faith-based organizations working to improve the lives of the people in developing countries. With US-based NGOs, it works closely by providing matching grants. There is specific NGO Sector Strengthening Program for building the capacities of NGOs in delivering services to communities. Under its Cooperative Development Organization (CDO) Program, it responds to the needs of cooperatives for support. USAID also provides technical assistance to NGOs under its Capable Partners Program.

5.3.6 Others

AUSAID (Australian Agency for International Development) is the Australian Government's overseas aid programme providing grant assistance to NGOs (and the government and other institutions) for purposes of reducing poverty and achieving sustainable development, in line with Australia's national interest. The themes

addressed by the aid programme include economic growth, education, environment, gender, governance, health, human rights, infrastructure, regional stability and rural development and water.

The aid programme is present in almost all the developing regions of the world including South and East Asia, the Pacific, Africa and the Middle East. Its NGO funding scheme includes the Direct Aid Program (DAP) and Small Activities Scheme (SAS) for organizations in developing countries, other than the direct funding support to Australian NGOs.

The UK Department for International Development (DFID) is the official development agency of the Government of UK managing aid for the poor, developing countries. The objective of providing aid to developing countries is to eradicate extreme poverty around the globe. DFID works from its headquarters in London and East Kilbride (near Glasgow) and is supported by 64 overseas offices located in various countries of intervention and support. The values of the Department include 'ambition and determination to eliminate poverty, diversity and the need to balance work and private life, ability to work effectively with others, desire to listen, learn and create and professionalism and knowledge.'

DFID responds to natural and man-made emergencies, in addition to granting long-term support to developmental organizations for eradicating poverty. It has the global promise to reduce poverty, increase child education, promote sexual equality, reduce child death rates, improve maternal health, combat diseases like HIV/AIDS and malaria, ensure protection of environment and develop global partnerships, as all of these are part of the Millennium Development Goals.

In its efforts to achieve the set goals, the Department has several funding schemes to support developmental actions around the world in different ways. It has funding schemes for volunteers, international students, private agencies, the media, local governments, educational institutions and NGOs. For NGOs, the Civil Society Challenge Fund is made available for implementing anti-poverty projects in developing countries; the Fund can be applied only by UK-based international NGOs, but partnerships with local NGOs is crucial. There is also the Development Awareness Fund and Mini-Grants Scheme, which can also be applied by the UK-based NGOs. The Governance and Transparency Fund of the DFID is open to NGOs around the world and proposals can be sent after reviewing the funding guidelines. DFID has also made arrangements with certain UK-based organizations for implementing long-term developmental programs in developing countries through its Partnership Programme Arrangements. In addition to this, DFID also has the Conflict and Humanitarian Fund, Humanitarian response funding and the Disaster Risk Reduction as part of its response towards emergencies. There are also many other small funding opportunities that are made available locally through the UK country-based missions.

New Zealand's International Aid & Development Agency (NZAID) is the official agency of the New Zealand managing the Official Development Assistance of the country. It is a semi-autonomous organization under the Ministry of Foreign Affairs and Trade and advises the ministry on matters of the country's development assistance. Its vision states: "Towards a safe and just world free of poverty." In order to eliminate global poverty, it works with NGOs, civil society, governments and other agencies by supporting them through grants, aid and scholarships.

NZAID has identified developing countries in the main regions of the world. It has a strong presence in the Pacific along with some countries like Cambodia, Indonesia, Lao PDR, Philippines, Timor-Leste and Vietnam in Asia and South Africa in Africa. It also supports programmes in Latin America.⁶

5.4 Partnerships with United Nations Agencies (UNEP, UNDP, UNITAR, WHO)

5.4.1 United Nations Environment Programme (UNEP)

The Royal Government of Cambodia has received financial assistance from the Global Environment Facility (GEF) through the United Nations Environmental Programme (UNEP) for the preparation of the national plan for implementation of the Stockholm Convention, which was undertaken from 2003 through 2005. The United Nations Environmental Programme suggested that Cambodia should pay attention to chemicals data collection (including POPs) in order to support chemicals management actions for safe public health and environment in the preparation of their national action plan. Moreover, the government of Cambodia has an on-going project on the Flexible Framework on Chemical Accident Prevention Program through the auspices of the United Nations Environment Program.

5.4.2 United Nations Development Programme (UNDP)

UNDP has been present in Cambodia for 50 years. It began its operations in Cambodia in 1958 and continued until 1975. UNDP resumed operations in Cambodia in a limited capacity in 1980, contributing to emergency relief operations. UNDP reestablished its offices in Phnom Penh in 1994 with the signature of the SBAA.

UNDP supports the people of Cambodia as they face new challenges towards the achievement of the Millennium Development Goals by 2015. Critical challenges include: (i) the diversification of growth and the translation of growth into the

⁶ <http://www.fundsforngos.org/>

reduction of poverty and inequalities in rural areas; (ii) sustainable and participative management of natural resources that represent primary assets for the poor (including oil and gas, arable land, forestry and fisheries) and (iii) strengthening participative democracy and good governance.

In support of the Strategic Approach to International Chemicals Management, the United Nations, through UNDP and UNEP, established a partnership initiative that will assist Cambodian governments to begin integrating sound management of chemicals priorities into national development plans and processes. The Cambodia/UNDP/UNEP project is part of this initiative, which will help identify opportunities relating to chemicals management that will result in real environmental, health and economic benefits.

The Sound Chemicals Management project is supported by the Government of Sweden and the Swedish Chemicals Inspectorate (KemI) for a two-year period. It will assess the management of chemicals regimes, and put in place a plan to begin addressing gaps in the national regime. It also aims to improve the incorporation of chemicals management priorities and procedures into the national development discourse and planning agenda.

The project is executed by Ministry of Environment in cooperation with UNDP with expected outcomes (i) national sound management of chemicals situation report, (ii) economic analysis report and economic case for mainstreaming high priority SMC issues into national development plans, (iii), comprehensive stakeholder database, (iv) interagency coordinating mechanism established, and (v) draft law/sub-decree addressing SMC Cambodia.

5.4.3 United Nations Institute for Training and Research (UNITAR)

Cambodia currently has National Profile on Chemicals Management since 2004. This was made in response to the recommendations of UNEP, the Ministry of Environment, with the support from main line ministries have prepared this national profile under supervision from the National Consultant and technical consultation provided by the United Nations Institute for Training and Research (UNITAR). This action is considered part of the project preparation towards a national plan to implement the Stockholm Convention. (*National Profile on the Chemical Management Ministry of Environment December 2004*)

5.4.4 World Health Organization (WHO)

Cooperation between the World Health Organization and Cambodia began in 1953, focusing on such projects as malaria control and maternal and child health. The

programme expanded but was suspended from 1975 until 1980, when periodic technical consultation and other forms of support for some programmes (e.g. rehabilitation of the water and sanitation works in Phnom Penh; prevention and control of diseases such as malaria, diarrhoea, tuberculosis; development of human resources with specific focus on medical education and nursing) were extended by WHO to the country under the auspices of UNICEF or the International Committee for the Red Cross (ICRC). In March 1991 a WHO office was re-established in Phnom Penh and a new programme of support was initiated. In May 2000 the WHO team consisted of 70 people, including 20 internationally recruited professional staff members and 10 volunteers. In 2000/01 the country budget is US\$ 6.7 million, including an estimated US\$ 3.7 million in extrabudgetary funds. About 60% of the budget is for technical assistance and other personnel.

5.4.5 International Labour Organization (ILO)

The International Labour Organisation (ILO) moved into Cambodia within months of the signing of the Paris Peace Agreement. Since then, the ILO has been engaged in a range of activities like employment generation programmes, technical training programmes, and monitoring garment factories. In the 1990s, Cambodia had the largest ILO technical co-operation programme among the ILO member states in South East Asia (total from 1992-1999: US\$34 million). With a budget of US\$1.96 million, the ILO's technical assistance continued to be significant in the year 2000 also.

CHAPTER 6: PROMOTING ACTIONS FOR YEAR 1, 3 AND 5

Establishing a Chemical Accident Prevention and Preparedness Program is done gradually but not limited to it. However, it mainly varies on the capacity of the country to adapt and implement such program. Cambodia have three stages on priority actions that they can make which are as follows:

6.1 High priority actions – 2010-2012

- Formalizing institutional arrangements for chemical accident prevention and preparedness
- Capacity building and information management in the area of chemical accident prevention and preparedness such as chemical hazards and risk assessments and management and other relevant areas both in the government and private sectors
- Intensifying researches on chemical accident prevention which can be done in partnership with the education sector and other funding agencies
- Enforcement of labeling sub-decree to other chemicals other than fertilizers and pesticides

6.2 Next priority action – Phase 2 (2013 -2015)

- Drafting policies regarding chemical accident prevention
- Drafting policies, contingency plans on fire, chemical accident and accident due to mine tailings.
- Drafting the implementation and operating procedures for chemical accident prevention
- Drafting policies requiring incoming and existing industries to comply with the requirements that would help prevent chemical accidents in industries.

6.3 Phase 3 – 2016 - 2019

- Passing the above draft policies, legislation and implementing rule and regulation on chemical accidental prevention
- Implementation and enforcement of the legislations.

CHAPTER 7: RECOMMENDATIONS

The status of legislative environment, preparedness, prevention and response mechanism for chemical accident in Cambodia is still at the initial stage of development. Hence there are several gaps and incapacity in the side of the government as well as in the private sector most especially the small and medium enterprises. Therefore here are some of the recommendations that are enumerated as a result of assessing the needs for Chemical Accident Prevention and Preparedness Program in Cambodia:

- Institutional Committee on Chemical Accident Prevention should be formalized in a Prakas.
- Establishing a roadmap on Chemical Accident Prevention and Preparedness is very important for Cambodia.
- Building the capacity of the government and the industrial sector on the framework of a chemical accident prevention and preparedness program is of utmost importance.
- Moreover, the specific roles and responsibilities of both parties should be made known and proper training should also be conducted to build capacities especially in the preparation and implementation of the requirements of the industries and the roles of competent authorities. E.g. In depth training on Information Management, On-site and Off-site Preparedness Plan, Chemical Hazards, Chemical Hazard and Risk Assessment should be done to the different stakeholders.
- In order for the programme to be sustainable, funds for the different actions were identified to be important. Hence, it is also important that the government should allocate funds for this endeavor as well as source out fund from funding agencies that support such programmes.
- Lastly, it is further recommended that when proper training has been conducted it is recommended that a strategic framework on chemical accident prevention and preparedness program should be drafted, passed and enforced.