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SBC

NATIONAL SEMINAR'S REPORT

ON

"THE DISSEMINATION OF THE PROJECT OPERATIONAL OUTCOMES ON THE ENVIRONMENTALLY SOUND MANAGEMENT OF USED LEAD ACID BATTERIES IN THE KINGDOM OF CAMBODIA"

04 April 2005, Juliana Hotel, Phnom Penh



**Organized by the Ministry of Environment
Supported by SBC/UNEP**

Prepared by the Project Team

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ACRONYMS AND ABBREVIATION



Art.	Article
BC	Basel Convention
DEPC	Department of Environmental Pollution Control
Dept.	Department of Environmental Pollution Control
Dept. A	Department of Planning and Legal Affairs
Dept. E	Department of Environmental Information and Education
Env. Minic.	Environmental Municipal Department
Env. Prov.	Environmental Provincial Department
ESM	Environmentally Sound Management
HW	Hazardous Waste
ILMC	International Lead Management Center
INTERPOL	International Police
IT	Information Technology
KoC	Kingdom of Cambodia
LAB	Lead Acid Battery(ies)
MAFF	Ministry of Agriculture, Forestry and Fisheries
MFAIC	Ministry of Foreign Affairs and International Cooperation
MoC	Ministry of Commerce
MoE	Ministry of Environment
MoH	Ministry of Health
MIME	Ministry of Industry, Mine and Energy
MoI	Ministry of Interior
MPP	Municipality of Phnom Penh
MPWT	Ministry of Public Works and Transport
NGO(s)	Non-Government Organization(s)
para.	Paragraph
PIC	Prior Information Consent
PPWM	Phnom Penh Waste Management
RGC	Royal Government of Cambodia
SBC	Secretariat of Basel Convention
CSARO	
TM	Transboundary Movement
TV	Television
ULAB	Used Lead Acid Battery(ies)
UNEP	United Nations Environmental Program
UPS	Uninterrupted Power Supply Units

INTRODUCTION

1.1 Overview

National Seminar on "The Dissemination of the Project Operational Outcomes on the Environmentally Sound Management of Used Lead Acid Batteries in the Kingdom of Cambodia" was held on April 04, 2005 in Juliana Hotel, Phnom Penh, Cambodia. The Environmental Department's staff of all provinces and cities participated in the Seminar (see Appendix-1). Staff of concerned ministries and institutions, representative NGOs, private sectors also participated in the seminar.

1.2 Objective of the Seminar

The objective of the seminar was aimed at providing the awareness of Basel Convention (BC) and relevant provision on the environmentally sound management (ESM) of used lead acid batteries (ULAB).

Project team member will present the situation of ULAB management in the Kingdom of Cambodia (KoC), including the environmental and human health impacts caused by improper management practices. Additionally, the "ACTION PLAN FOR THE ENVIRONMENTALLY SOUND MANAGEMENT OF USED LEAD ACID BATTERIES" will be introduced to the participants and ready to be used in the forthcoming year.

2.0 CEREMONIAL

2.1 Welcome Address by H.E Khieu Muth, Secretary of State for the Environment

Statement made by *H.E. Khieu Muth, Secretary of State of the Ministry of Environment* of Kingdom of Cambodia at the National Seminar on "The Dissemination of the Project Operational Outcomes on the Environmentally Sound Management of Used Lead Acid Batteries in the Kingdom of Cambodia," 04 April 2005 at Juliana Hotel, Phnom Penh, Cambodia.



Pic.1: H.E Khieu Muth, Secretariat of State of the Ministry of Environment, provided the Welcome Address to the participants of the Seminar

Distinguished Delegates, Lady and Gentlemen,

As allowed by *H.E Dr. Mok Mareth, Senior Minister, Minister for the Environment*, I have the honour and pleasure to preside over the National Seminar on "The Dissemination of the Project Operational Outcomes on the Environmentally Sound Management of Used Lead Acid Batteries in

the Kingdom of Cambodia," organized by the Department of Environmental Pollution Control, Ministry of Environment (MoE), and sponsored by the Secretariat of Basel Convention (SBC).

I am very proud to have opportunities to meet all participants from various public and private sectors, educational institution and NGOs which involved with the use, control, management of lead acid battery(ies) (LAB) and used lead acid battery(ies) (ULAB) and always cooperate with the MoE in environmental quality protection throughout the Kingdom. On behalf of Dr. Mok Mareth, the MoE's leaders and myself, I would express my sincere thanks and warm welcome for your presents which positively responded to the MoE's invitation. Meanwhile, I would like to thank a lot to officials of the Department of Environmental Pollution Control in charge with the BC who organized this important seminar.

Distinguished Delegates, Lady and Gentlemen,

LAB serves importantly as the second power after electricity, which uses for other equipment operation and lightning. The numbers of using LAB have been increased in the circumstances of electricity consumption have not met the demand of people living in suburb and rural areas. By increasing number of LAB uses, we have seen any harmful effects on the environment and human health due to improperly LAB use, maintenance and management according to the technical standard/practice¹.

We together should pay attention and elaborately consider in detail about this concerned issue due to awareness of people on the use and ESM of ULAB is still limited, especially, with regard to the LAB management in recharging or reconditioning shops, waste collection yards and recycling site of ULAB,...etc. Separately, means and managerial mechanism including regulation, law on ULAB management and other management activity/program related to the LAB occupation is still insufficient. Through dimension of health impact to LAB operator as well as an impact to the environmental quality, all constraints are the main obstacles to implement the current Governmental Policy on Poverty Alleviation.

Distinguished Delegates, Lady and Gentlemen,

Through the lack as mentioned above, under the cooperation with concerned ministries and line agencies, MoE had prepared the Action Plan for the Environmentally Sound Management on Used Lead Acid Battery for application in the future in order to compliance with the guideline of Basel Convention.

Taking this opportunity, I would like to inform all participants that the KoC had already signed the Basel Convention on 02 March 2001. However we had not ratified it yet by the National Assembly. As the member of the Basel Convention, respective member parties of the convention are needed to prepare properly the action plan on the hazardous waste management according to the provision of Basel Convention's Guideline.

I am pleased to inform you that the "ACTION PLAN FOR THE ENVIRONMENTALLY SOUND MANAGEMENT OF USED LEAD ACID BATTERIES" is significant outcome of the project implementation on environmentally sound management of ULAB in KoC with both, financial and technical support from the Basel Convention Secretariat. I do hope that through the implementation of action plan on the environmentally sound management of ULAB, all public and private sectors and local communities would gain the awareness of environmental safety procedure related to use, maintenance, management and related trading of LAB and ULAB.

¹ The proper practical methodology reflecting to the environmental manner

Significantly, the properly use, maintenance as well as management of ULAB means that no need to spend much money for health care or environmental repair. On the other hand, battery user could save money² from the battery use by the improvement of the procedure maintenance and use of battery.

Finally, I would like to wish to all *Distinguished Delegates, Lady and Gentlemen* and representatives happiness and success all works with fruitful outcomes within the Khmer New Year³ that will be reached in the forthcoming day and in the future.

At the moment, allow me to announce to open the National Seminar on "The Dissemination of the Project Operational Outcomes on the Environmentally Sound Management of Used Lead Acid Batteries in the Kingdom of Cambodia" now.

Thank You!

2.2 Closing Address by Mr. Chrin Sokha, Deputy Director, Department of Environmental Pollution Control, Ministry of Environment

Distinguish, Dear participants,

On behalf of the leaders of the MoE, Department of Environmental Pollution Control and myself, I very much appreciate to participate the closing ceremony of the National Seminar on "The Dissemination of the Project Operational Outcomes on the Environmentally Sound Management of



Pic. 2: Mr. Chrin Sokha, Deputy Director of the Department of Environmental Pollution Control, Ministry of Environment giving the closing address at the National Seminar

the Cambodia's Ministry of Environment to enable to organize today's seminar. The outcomes of the seminar will contribute to the human resources development towards hazardous waste management in the KoC.

² Through its live cycle

³ The Khmer New Year is annually celebrated on 14-16 April

Used Lead Acid Batteries in the Kingdom of Cambodia," which was conducted during the day.

In this occasion, I am very delighted to be here to meet you all again from the governmental institutions, national organizations which related to the use, trade, reconditioning, recycling, management of LAB and ULAB. In deed, under your close cooperation and coordination, the project team of the MoE could achieve to preparing the "ACTION PLAN FOR THE ENVIRONMENTALLY SOUND MANAGEMENT OF USED LEAD ACID BATTERIES," based on the BC guideline.

I would like to express my profound thanks and appreciations for the UNEP/SBC that supports and assists

Ladies and Gentlemen,

The high acceleration of increase consumption of ULAB worldwide has created concerns to the human communities in around the world, especially on the ecology system and human health. Heavy metal such as lead and acid have been introduced to the environment through improper ULAB management, which continue to spread out from the environment into the human bodies or animals through food chain, or inhalation, as the result it has affected to the human health by generated serious illnesses and chronic diseases.

Ladies and Gentlemen,

Nowadays, human resources development and the strengthening capacity of the official government is one of the priorities of the government reform programs of the Cambodian Royal Government. Therefore, I have evaluated as a high value for the hard working of participants as well as the resource persons who have given the good experiences that I found your presentations during the seminar session. Those experiences and knowledge dealt with problems of ULAB and their solutions, including many questions related to LAB and ULAB. Significantly, the awareness and knowledge taking from the seminar will bridge between particular technical officials to decision-makers for choosing a properly using procedures as well as the management of LAB and ULAB with a safe handling ways.

Ladies and gentlemen,

Event the seminar is only one day, however, I hope that through the seminar and through the close cooperation between the UNEP/SBC with the institutions concerned related to the use, management of ULAB of the KoC is true that the officials from other institutions will gain additional knowledge on the environment especially on the evaluation of the environmental and human health risk management generated from chemical substances containing in ULAB as well as its solution based on the ESM procedures.

One again, on behalf of the MoE's leaders I would like to express my deeply thanks and appreciations to the UNEP/SBC for supporting this seminar and for the whole project implementation. Moreover, I would like to evaluate as a high cost of the UNEP/SBC in cooperation and building human resources on hazardous waste management, particularly the ULAB.

In conclusion, I would like to express my best wishes for all participants from various sectors with a great happiness forever.

Many Thanks for Your Kind Attention

3.0 SEMIAR PRESENTATIONS

As mentioned in the Seminar Agenda (see Appendix - 2) the keys persons of the project presented their tasks to participants. Those presentations have the common meanings as below.

3.1 Objectives and Expected Outputs of the Seminar

3.1.1 Project Summary

The Project on "The Environmentally Sound Management of ULAB in Cambodia" was the prioritized area of the BC focusing on hazardous wastes/substances and their harmful impacts to the environment and public health. Cambodia – a first country in East Asia, received the SBC/UNEP supports in terms of financial and technical areas to conduct a survey on ULAB in some provinces and cities.

The achievement of project implementation include as follows:

- ❑ Evaluation the certain practical management of ULAB in the KoC including any occurrences of ULAB's harmful impacts to the environment and human health. Finally, the future requirement towards the ESM of ULAB was pointed out, which reflected to the Royal Government Policy for poverty alleviation.
- ❑ The seminar on "The Dissemination of the Project Operational Outcomes on the Environmentally Sound Management of Used Lead Acid Batteries in the Kingdom of Cambodia", of which staff of concerned ministries and institutions, representative of NGOs, private sectors attended – that was a final stage of the project implementation.
- ❑ It is very proud for the Royal Government of Cambodia (RGC) to the achievement of the goal of BC Guideline in preparing the action plan for managing ULAB based on the ESM under the support and cooperation from the Cambodian Steering Committee for BC, concerned ministries, SBC, etc.
- ❑ The "ACTION PLAN FOR THE ENVIRONMENTALLY SOUND MANAGEMENT OF USED LEAD ACID BATTERIES" will be deposited at the SBC. In addition, the action plan will be implemented soon depending a national capability, and/or Cambodia can get any supports from SBC/UNEP and other supporters.

3.1.2 Seminar Objectives

Crucial objectives of the national seminar were focused on:

- ❑ Introducing to the participants about the roles and obligations of the members parties to the BC dealing with the management of hazardous wastes/substances.



Pic. 3: Mr. Chrin Sokha presented about the Seminar Objectives and Output

- Showing a current aspect of ULAB management which focused on:
 - General flow of LAB and ULAB in urban and rural areas;
 - The environmental and human health impacts resulted from improper management of ULAB and/or occupational practice of LAB.
 - General awareness on LAB/ULAB occupation; and
 - ULAB management activities and procedures, including relevant existing legislations.
- Indicating the gaps in managing LAB/ULAB related occupational practices as well as raising any basic requirement for improvement.
- Through this national seminar, the "ACTION PLAN FOR THE ENVIRONMENTALLY SOUND MANAGEMENT OF USED LEAD ACID BATTERIES" will widespread disseminate and apply throughout the countries, which reflected to the goal of intercepting and/or reducing of the environmental and human health impacts.
- Introducing the selected prioritized program among major programs was mentioned in the action plan in order to implement as possible.

3.1.3 Expected Outputs

On the other hand, by basic awareness/knowledge of the introduced action plan, participants will get aware on consequences as indicated below.

- Environmental and health harmful impacts, especially, people who have occupation related to LAB/ULAB.
- Necessary duties and obligations in order to contributing the program of poverty reduction – the main program was addressed in the current National Rectangular Strategies.
- The necessity of cooperation and coordination among stakeholders. The action plan will significantly get more support and actively participate from decision-makers.

3.2 Introduction to the Obligations and Roles of Member Parties of the Basel Convention; By Mr. Chrin Sokha - Deputy Director of the Dept. of Environmental Pollution Control; Project Team Leader

3.2.1. Introduction

Because invited participations⁴ to attend the seminar mostly did not aware or know about the BC and relevant regulations before, therefore, the seminar organizer decided to explain them the BC background as well as the major roles and obligations of member parties of the convention.

3.2.2. Goals of the Basel Convention

The BC has the major objectives below:

- To reduce transboundary movements of hazardous wastes (HW) and other wastes to a minimum consistent with their ESM.

⁴ From all Provincial/Municipal Environmental Departments

- To treat and dispose of HW and other wastes as close as possible to their source of generation in an environmentally sound manner.
- To minimize the generation of HW and other wastes (in terms both of quantity and potential hazard to the environment and human health).
- To promote the ESM of waste materials, especially, any type hazardous wastes.
- To assist developing countries in ESM of hazardous and other wastes they generate. An integral part of implementing the BC is building the capability to manage and dispose of HW. Through training and technology transfer, developing countries gain the skills and tools necessary to properly manage their hazardous wastes.

3.2.3 Definition of Waste in the Convention

In the context of transboundary movements, the BC defines wastes as "substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law" (Article 2, paragraph 1).

3.2.3.1 Which Wastes are covered by the Convention?

- a) Under the BC the following wastes, subject to a transboundary movement are defined as hazardous wastes if:
 - The wastes belong to any category (Y1-Y45) contained in Annex I and VIII of the Convention.
 - Exhibit one or more of the characteristics (H1-H13) contained in Annex III of the Convention.
- b) Wastes that are not covered under subparagraph (a) above but are defined as or are considered to be HW by the domestic legislation of the Party of export, import or transit shall be controlled under the terms of the Convention.
- c) For the purpose of the Convention, wastes that belong to any of the two categories Y46 and Y47 of Annex II to the Convention, subject to a transboundary movement, are defined as "other wastes" and will be controlled by the Convention.

Wastes which, as a result of being radioactive, are subject to other international control systems, including international instruments, applying specifically to radioactive materials, and wastes which derive from the normal operations of a ship, the discharge of which is covered by another international instrument are excluded from control.

3.2.3.2 Why are ULAB classified as a Hazardous Waste?

One of the most important characteristics is that the LAB – is "used" and destined for disposal under Article 2 definitions. At the end of its life the battery is classified as hazardous waste under the Basel Convention and should be handled accordingly in order to prevent damage to human health or to the environment. Under Annex I, ULAB are classified as Y31 (lead; lead compounds), A 1020 (lead), A 1160 (waste LAB), A409 and Y34 (Acidic solutions or acids in solid form) wastes. Under Annex III ULAB include the following Hazardous characteristics H5.1 through to H13. Under Annex VIII it is classified as A1020 (see Basel Guidelines on ULAB for more details on toxicity). ULAB are a priority waste stream identified under the Strategic plan for the implementation of the BC to 2010.

3.2.3.3 What Movements are controlled by the Convention?

Transboundary movements are controlled by the Convention and they are defined as follows:

Definition: "Transboundary movement" means any movement of HW or other wastes from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement (Article 2, paragraph 3, of the Convention).

3.2.3.4 Transboundary movements pursuant to bilateral, multilateral and regional agreements

The provisions of this Convention do not and shall not affect transboundary movements which take place according to bilateral, multilateral or regional agreements, provided that such agreements are compatible with the ESM of HW and other wastes as required by the Convention" (Article 11, paragraph 2). Parties shall notify the Secretariat of any such agreement that they enter into regarding transboundary movement of hazardous or other wastes, as well as "those which they have entered into prior to the entry into force of this Convention for them, for the purpose of controlling transboundary movements of HW and other wastes which take place entirely among the Parties to such agreements.

3.2.4 Obligations of the Member Parties

3.2.4.1 Competent authorities and focal points

"Competent authority" means one governmental authority designated by a Party to be responsible for receiving the notification of transboundary movements of HW or other wastes and any information related to it, and for responding to such a notification, as provided in article 6 of the convention.

"Focal point" means the entity of a party confirmed in article 5 of the convention responsible for receiving and submitting information about waste materials. Cambodia has to "designate or establish one or more competent authorities and one focal point" and "inform the SBC" of such designations.

3.2.4.2 General obligations

Parties exercising their right to prohibit the import of hazardous wastes or other wastes for disposal shall inform the other Parties of their decision. Each Party shall "prevent the import of HW and other wastes if it has reason to believe that the wastes will not be managed in an ESM. HW or other wastes shall not be imported from a non-Party. Notwithstanding that provision, Parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of HW, provided that, such agreements or arrangements do not derogate from the ESM of HW and other wastes as required by this Convention. Each Party shall ensure that persons involved in the management of HW or other wastes within it take such steps as are necessary to prevent pollution and that all persons under its national jurisdiction will be prevented from transporting or disposing of HW or other wastes unless such persons are authorized or allowed to perform such types of operations.

HW and other wastes that are to be the subject of a transboundary movement must be packaged, labeled, and transported in conformity with recognized international rules and standards.

3.2.4.3 State of export

States shall engage in the transboundary movement of hazardous or other waste only if there does not exist a more environmentally sound alternative and even then the export must be in accordance with the provisions of the Convention.

The States of export shall inform the competent authority of the State of import of any intended transboundary movement of hazardous or other wastes, in accordance to the notification procedure, that is PIC, and that transboundary movement will not commence until it has received the necessary notification.

3.2.4.4 State of import

The State of import shall respond to the notifier in accordance to the notification procedure.

3.2.4.5 State of transit

Country of transit Party to the Convention

After receiving the notification, the State of transit, which is a Party must reply in accordance to the notification procedure under PIC.

3.2.4.6 Designation of competent authorities and focal point

To facilitate the implementation of this Convention, the Parties shall:

- ❑ Designate or establish one or more competent authorities and one focal point. One competent authority shall be designated to receive the notification in case of a State of transit.
- ❑ Inform the Secretariat, within three months of the date of the entry into force of this Convention for them, which agencies they have designated as their focal point and their competent authorities.
- ❑ Inform the Secretariat, within one month of the date of decision, of any changes regarding the designation made by them under paragraph 2 above.

3.2.4.7 General Obligations

- a) Parties exercising their right to prohibit the import of HW or other wastes for disposal shall inform the other Parties of their decision pursuant to Article 13.
- b) Each Party shall prevent the import of HW if the Party believes that the waste will not be managed in an environmentally sound manner.
- c) A Party shall not permit HW or other wastes to be exported to a non-Party or to be imported from a non-Party.
- d) Ensure that persons involved in the management of HW or other wastes with it take such steps as are necessary to prevent pollution due to HW and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment.

- e) Parties shall prohibit or shall not permit the export of HW and other wastes to the Parties which have prohibited the import of such wastes, when notified pursuant to subparagraph (a) above.
- f) Parties shall prohibit or shall not permit the export of HW and other wastes if the State of import does not consent in writing to the specific import, in the case where that State of import has not prohibited the import of such wastes.
- g) Prohibit all persons under its national jurisdiction from transporting or disposing of HW or other wastes unless such persons are authorized or allowed to perform such types of operations.
- h) Require that HW or other wastes that are to be the subject of a transboundary movement be packaged, labeled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labeling, and transport, and that due account is taken of relevant internationally recognized practices.
- i) Require that HW and other wastes be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal.

3.2.5 Control System for Transboundary Movements

The Control System for Transboundary Movements is based on Prior Informed Consent (Article 6).

The State of export shall notify, or shall require the generator or exporter to notify in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes or other wastes. Such notification shall contain the declarations and information specified in Annex V A, written in a language acceptable to the State of import. Only one notification needs to be sent to each State concerned. The State of export shall not allow the generator or exporter to commence the TM until it has received written confirmation that:

- The notifier has received the written consent of the State of import.
- The notifier has received from the State of import confirmation of the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question.

The State of import shall respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. A copy of the final response of the State of import shall be sent to the competent authorities of the States concerned which are Parties.

Each State of transit which is a Party shall promptly acknowledge to the notifier receipt of the notification. It may subsequently respond to the notifier in writing, within 60 days, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information.

Each Party shall "Require that hazardous wastes and other wastes be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal" (Article 4, paragraph 7 (c)) Article 6, paragraph 9 states that "the Parties shall require that each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document either upon delivery or receipt of the wastes in question".

When a transboundary movement of HW or other wastes to which the consent of the States concerned has been given, subject to the provisions of this Convention, cannot be completed in accordance with the terms of the contract, the State of export shall ensure that the wastes in question are taken back into the State of export, by the exporter, if alternative arrangements cannot be made for their disposal in an ESM, within 90 days from the time that the importing State informed the State of export and the Secretariat, or such other period of time as the States concerned agree" (Article 8).

The notification and response required by this Article shall be transmitted to the competent authority of the Parties concerned or to such governmental authority as may be appropriate in the case of non-Parties (Article 6, paragraph 10).

State of import's written consent and confirmation of contract for sound management of wastes must be issued in writing.

Any transboundary movement of HW or other wastes shall be covered by insurance, bond or other guarantee as may be required by the State of import or any State of transit which is a Party (Article 6, paragraph 11).

The State of export shall notify, or shall require the generator of exporter to notify in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of HW or other wastes.

Each State of transit which is a Party shall promptly acknowledge to the notifier receipt of the notification. It may subsequently respond to the notifier in writing, within 60 days, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. In the event that the Party is not satisfied, it will raise an objection to the movement.

The State of export will then proceed to issue an authorization to permit the TM of the HW and similarly in the event that the Party is not satisfied, it will raise an objection to the movement, otherwise it will proceed.

3.2.6 Tracking Procedure

There are six steps comprising in the tracking procedure. Respective steps were briefly described below.

Step 1 - Conclude a contract with the exporter. (See Appendix 6 for the basic elements to be included in the contract.)

Step 2 – Provide the necessary information, for example, on the disposal processes, to the exporter/generator in order to facilitate the completion of the notification and movement document.

Step 3 –Ensure that the exporter/generator notifies the competent authorities of the State of export and State of import and each State of transit, if any, of the intended movement of waste in accordance with the BC. The notification may cover several shipments of wastes over a maximum period of one year, if waste having the same physical and chemical characteristics is intended to be regularly shipped to the same disposer via the same customs offices for entry and exit (general notification).

Step 4 – Upon receipt of waste, weigh the amount of waste and check, if necessary by testing and sampling, whether the consignment complies with the notification and contract. Complete the movement document and give a copy of it to the last carrier. Send signed copies of the completed movement document to the exporter and the competent authority of the State of export, and retain the original for filing.

Step 5 – After the consignment of waste has been disposed of in an environmentally sound manner, complete the movement document by certifying that the disposal of waste has been completed. Send signed copies of the movement document to the exporter and the competent authority of the State of export, and retain the original for filing.

Step 6 – Then and only then can the Financial Guarantees be released by the competent authority.

3.2.7 Responsibilities of Exporters

Ten steps were considered to be the main components under the responsibilities of experts. Respective steps were briefly described below.

Step 1 - Check if the material intended for transboundary movement is subject to the control procedures under the BC

- Is the material considered as waste? (ref. section 2.1)
- Is the waste subject to the control procedures under the BC?

Step 2 - Check if the intended movement can be carried out in accordance with the BC and the national legislation of the concerned countries.

If it is evident to the exporter that the intended movement of waste cannot be carried out in accordance with the BC or the national legislation of the concerned countries, it is advisable not to proceed with the notification procedure.

Step 3 - Contact the competent authority of the State of export.

Contact the competent authority of the State of export in order to get the notification and movement document and all the relevant information concerning the notification and tracking procedures.

Step 4 - Conclude a contract with the Disposer.

Step 5 - Arrange the financial guarantees and insurances.

Arrange the necessary financial guarantees and insurances for the movement of waste required by the national legislation of the countries concerned. Some countries may require the financial guarantee to cover the cost of any necessary re-import and alternative disposal operations should the need arise, including cases referred to in Articles 8 and 9 of the BC. Additionally, they may require separate insurance against damage to third parties, held as appropriate by the exporter, carrier and the disposer.

Step 6 - Acquire all necessary information

Step 7 - Complete the notification

Make the necessary number of signed copies of the completed notification for:

- The wastes belong to any category (Y1-Y45) contained in Annex I of the Convention;
- The competent authority of the State of export;
- The competent authority of the State of import and
- The competent authority of each State of transit, if any.

Step 8 - Wait for the authorizations from the competent authorities:

The movement of waste may commence only upon receipt of the authorization by the competent authority of the State of export consenting to the movement. This authorization can be given only if the competent authority of the State of import has issued its written consent to the movement and the competent authorities of transit, if any, have consented to the movement in accordance with Article 6(4) of the BC (see section 5.6).

Step 9 - Complete a movement document to accompany each the waste

Complete the movement document in accordance with the instructions. A completed movement document shall accompany each shipment. It is also recommended to enclose a copy of the notification with the movement document. Retain a copy of the movement document.

Step 10 - Follow Tracking Procedure.

3.2.8 Responsibilities of the Competent Authority of the State of Export

The competent authority of the state of export should have main responsibilities as indicated below.

Step 1 - Determine whether the waste is subject to control under the BC:

- Is the material considered as waste (ref. section 2.1)?
- Is the waste considered to be subject to the control procedures under the BC (ref. section 2.2)?

Step 2 - Distribute forms to exporter/waste generator Step 3 Check the notification

Check if the notification is duly completed. If not, return the notification to the exporter/generator and ask that the missing information be provided. The competent authority may decide not to proceed with the notification if it has immediate objections.

Step 3 - Transmit the notification to other competent authorities

If the notification has been duly completed and there are no immediate objections to the movement, transmit copies of the notification to:

- The competent authority of the State of import.
- Each competent authority of the State of transit, if any.

Step 4 - Ensure that the movement is allowed by the competent authorities of the States of transit.

Find out whether the State of transit has decided not to require prior written consent for transit of the waste concerned. If not required, the competent authority of the State of transit shall have 60 days after receipt of the notification to object to the proposed transit of waste. If no objection has been lodged, the State of export may allow the movement to proceed through the State of transit after the 60-day period has passed. In case prior written consent is required, the competent authority of the State of transit shall issue a written response to the notifier within 60 days following receipt of the notification.

Step 5 - Ensure that the movement is allowed by the Competent Authority of the State of import.

Ensure that the competent authority of the State of import has issued its written response and has confirmed the existence of a contract between the exporter, that the movement does not contravene national legislation and the movement has been authorized.

Step 6 - Issue a decision in writing.

Issue a decision consenting to the movement with or without conditions, denying permission for the movement or requesting additional information. The proposed movement can be authorized only in the absence of objections from the competent authority of the State of export and on the part of the other competent authorities concerned. In the case of a general notification, authorization can be given for a maximum period of one year.

Step 7 - Follow the Tracking Procedure.

3.2.9 Transboundary Movements – Control Systems – Prohibitions

- a) Any Party shall not permit the export and/or import of HW involving a State that is not a Party to the Convention (Art. 4, para. 5), unless the Parties concerned have concluded bilateral, multilateral or regional agreements or arrangements pursuant to Article 11 of the Convention that set forth the conditions under which the transboundary movement is to be carried out. Those conditions shall not be less environmentally sound than those provided by the Convention in particular taking into account the interests of developing countries.
- b) Parties shall prohibit the export of HW to any such Party which has used its sovereign right referred to in Article 4, paragraph 1(a) of the BC to prohibit the import of foreign hazardous wastes and other wastes into its territory (Art. 4, para. 1-2).
- c) Exports of HW for disposal to the area of 60° South latitude (i.e. Antarctica) (Art. 4, para. 6).
- d) Each Party shall prevent the export of HW if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner (Art. 4, para. 2 e).

3.2.9.1 Transboundary Movements – Illegal Traffic

An Illegal Movement of HW occurs when any transboundary shipment is made:

- a) Without notification consistent with the provisions of the Convention to all States concerned;
- b) Without the consent under the provisions of the Convention of a State concerned;
- c) With consent obtained from States concerned through falsification, misrepresentation or fraud;

- d) Does not conform in a material way with the documents; or
- e) Results in deliberate disposal (e.g. dumping) of HW or other wastes in contravention of the Convention and of the general principles of international law.

3.2.9.2 Transboundary Movements – Action Points

Parties should consider that illegal traffic in HW or other wastes is a criminal offence (Article 4, paragraph 3) and should introduce appropriate national/domestic legislation to prevent and punish illegal trafficking. (Art. 9, para. 5).

In those cases of where there is illegal traffic in HW as the result of conduct on the part of the exporter or generator, the State of export shall ensure that the wastes in question are:

- a) Taken back by the exporter or generator or, if necessary, by itself into the State of export, or, if impracticable;
- b) Are otherwise disposed of in accordance with the provisions of this Convention in an ESM and within 30 days from the time the State of export has been informed about the illegal traffic or such other period of time as States concerned may agree" (Art. 9, para. 2).

If the traffic is deemed illegal "as the result of conduct on the part of the importer or disposer, the State of import shall ensure that the wastes in question are disposed of in an environmentally sound manner by the importer or disposer or, if necessary, by itself within 30 days from the time the illegal traffic has come to the attention of the State of import or such other period of time as the States concerned may agree" (Art. 9, para. 3).

In cases where the responsibility for the illegal traffic cannot be assigned either to the exporter or generator or to the importer or disposer, the Parties concerned or other Parties, as appropriate, shall ensure, through cooperation, that the wastes in question are disposed of as soon as possible in an environmentally sound manner either in the State of export or the State of import or elsewhere as appropriate" (Art. 9, para. 4).

3.2.9.3 Transboundary Movements – Illegal Traffic – Action Points

Enforcement is central to the effective implementation of the BC. Although it may seem a straightforward activity, it is complex because of its multidimensional requirements. There is a need for:

- A proper infrastructure to maintain enforcement capability.
- Adequate staffing of trained personnel with appropriate logistical support, such as manuals and instructions.
- Strong inter-ministerial consultation and cooperation, MoE, MoI, and Customs Dept.
- From an operational point of view, a properly integrated national enforcement program would consistently include: tracking of HW shipments; visits to company sites; transport control/checks/inspections; sampling and testing; information exchange.
- Such integration should also lead to the use of approved forms for every stage of the control of HW.

- Every case where an illegal movement is proven should be reported to the SBC. For additional information can be find in the Guidance Element for Detection, Prevention and Control of Illegal Traffic in Hazardous Waste approved by COP6 available on the report at COP6.

3.2.9.4 Transboundary Movements – Illegal Traffic – Guidance

The instances of illegal trafficking of HW can be minimized and eventually eliminated if all those concerned parties responsible for the TM of HW have a comprehensive understanding of all the procedures necessary to authorize the movements, documentation is checked during transit and after disposal.

In most cases, it is necessary for Governments to run National Capacity building programs and to seek cooperation from the International community.

Undoubtedly the most effective measures are those designed to prevent illegal TM. Such measures require careful scrutiny of documents, investigation of any irregularities and management systems to ensure that suspect cargos are detected and intercepted. Success will depend on regular monitoring of TM and intelligence about the source of any HW and knowledge about the treatment plants at the places of disposal or recycling. Data and information needs to be gathered, collated, analysed and shared through the Regional Centers for Training and Technology Transfer.

A firm response to violations is necessary to deter future violations. In addition, since detection is difficult in many cases, penalties must be costly to provide strong disincentives to other potential violators. It is essential that transporting companies or *countries* to take back the illegal shipment of HW and clean-up any contamination caused by the HW. The SBC promotes the use of criminal law to penalize violators.

International cooperation on enforcement activity is also increasing, primarily through initiatives of INTERPOL and the creation of databases of criminal activity that will aid nations to identify exporters with a history of hazardous waste violations and other related illegal activities.

3.2.10 Environmentally Sound Management of Hazardous Waste

A central goal of the BC is “environmentally sound management,” the aim of which is to protect human health and the environment by minimizing HW production whenever possible. ESM means addressing the issue through an “integrated life-cycle approach”, which involves strong controls from the generation of HW to its storage, transport, treatment, reuse, recycling, recovery and final disposal. This concept has mentioned in the Green Customs Initiative (GCI) aims to assist in combating illegal trade through the coordination of the environmentally related activities. The participants of the GCI are the Secretariat of the Basel Convention, Ozone Secretariat, Secretariat for the Rotterdam Convention, Secretariat of CITES, UNEP DTIE, UNEP DEPI, WCO, and Interpol.

ESM of HW or other wastes means taking all practicable steps to ensure that HW or other wastes are managed in a manner, which will protect human health and the environment against the adverse effects which may result from such wastes if they are not handled and processed correctly (Article 2.8.).

Each Party shall require that HW or other wastes, to be exported, are managed in an environmentally sound manner in the State of import or elsewhere. Technical guidelines for the ESM of wastes subject to this Convention shall be decided by the Parties at their first meeting and

used by the Parties to achieve ESM for HW (Art. 4.8). The Convention has adopted several technical guidelines which are available at the website of the Secretariat (<http://www.basel.int>)

The Basel Declaration on ESM made in 1999 and the Strategic Plan adopted in 2002 reaffirming the objectives set out in the BC and provide a stronger mandate for achieving ESM through waste minimization and by making the management of HW and other wastes accessible to all Parties, through international cooperation, partnerships with industry and capacity-building.

In the regard of Environmentally Sound Management of Hazardous Waste, there are a number of principles that many countries have used to varying extents in developing their waste management strategies.

- ❑ *The Self-sufficiency Principle* – by which countries should ensure that the disposal of the waste generated within their territory is undertaken there by means which are compatible with ESM, recognizing that ESM of some wastes exported may also be environmentally sound.
- ❑ *The Proximity Principle* – by which the disposal of HW must take place as close as possible to their point of generation, recognizing that economically and ESM of some wastes will be achieved at specialized facilities located at greater distances from the point of generation.
- ❑ *The Least Transboundary Movement Principle* – by which TM of HW should be reduced to a minimum consistent with efficient and ESM.
- ❑ *The Polluter Pays Principle* – by which the potential polluter must act to prevent pollution and those who cause pollution pay for remedying the consequences of that pollution.
- ❑ *The Principle of Sovereignty* – under which every country shall take into account political, social and economic conditions in establishing a national waste management structure.
- ❑ *The Integrated Life-cycle Principle* – by which substances and products should be designed and managed to minimize environmental impact.
- ❑ *The Precautionary Principle* – whereby preventive measures are taken, considering the costs and benefits of action and inaction, when there is a scientific basis, to believe that release to the environment of substances, waste or energy is likely to cause harm to human health or the environment.
- ❑ *The Integrated Pollution Control Principle* – which requires that the management of HW should be based on a strategy which takes into account the potential for cross media and multi-media synergistic effects.

- *The Standardization Principle* – which requires the provision of standards for the ESM of HW at all stages of their processing.



Pic.4: General views of participants who raised questions toward the Obligation and Roles of Member Parties of the Basel Convention

3.3 Outcomes of the ULAB Survey in selected Provinces and Cities; By Mr. Chrin Sokha - Deputy Director of Dept. of Environmental Pollution Control; Project Team Leader

3.3.1 Introduction

The presentation of Cambodian ULAB survey's outcome to participants with a main target of showing the common practice of related LAB/ULAB occupation. Generally, related LAB/ULAB management/occupation seemed slightly different, therefore, LAB/ULAB overview should be indicated in the seminar. With this regard, participants got LAB/ULAB awareness, including its negative impacts to soil, water, and air. On the other hand, summarized project background also presented to participants too.

3.3.2 ULAB Management Overview in Cambodia

In Cambodia up to now, there is no formal information/data related to LAB/ULAB, especially, a report of human health and the environmental impact caused by (i) LAB related occupation; (ii) ULAB collection, storage, and transportation; (iii) ULAB recycle and its residue disposal. It means there is no report addressing about the consumption of LAB for both urban and rural areas, including annual ULAB generation and their disposal.

ULAB commonly were collected by a collector⁵ from area to area based on the



Pic. 5: Outcomes of the ULAB Survey in selected Provinces and Cities, by Mr. Chrin Sokha, Ministry of Environment

⁵ They used bicycle, motorbike, or hand-cart

internal and/or external requirement for recycling and other purposes. In this regard, there in no ULAB remained at a waste dumping site or at opened areas as well.

Based on the survey, there is no a specific institution that paid more attention to ULAB management, recycling, and residue⁶ disposal. Except, the MoE that implement it tasks⁷ based on the Law on Environmental Protection and Natural Resources Management and its related statutes such as (i) Sub-Decree on Water Pollution Control; (ii) Sub-Decree on Solid Waste Management; and (iii) Sub-Decree on Air Pollution and Noise Disturbance Management.

In a short, there is no survey or study on harmful impacts to the environment, human health and ecosystem which caused by:

- LAB recharging or reconditioning;
- ULAB collection, storage and transportation; and
- ULAB recycling and residue disposal.

3.3.3 Project Objectives

Main objectives of the project on the Environmentally Sound Management of Used Lead Acid Batteries in the Kingdom of Cambodia were focused on:

- Identifying the flow of LAB consumption, the management and recycle of ULAB and ULAB related harmful effects to human health and the environment.
- Identifying the gaps as well as requirement of ULAB management improvement including legal instruments and related guidelines.
- Preparing an action plan for ULAB managing and recycling based on the ESM procedure under the strong supports and participation of public and private sectors.
- Increasing primary awareness on (i) ULAB management method and its recycling; and (ii) method of ULAB transportation from place to place in complying with safety conditions.
- Seeking and increasing support from the Government, concerned ministries, and private sector participation to ULAB management.

3.3.4 Selecting Survey Areas

After discussing with Mr. Brian Wilson, SBC/UNEP/ILMC expert, the task team selected some provinces and cities for the ULAB survey, based on appropriate conditions of low, medium and high economic situation. These provinces and cities comprised Phnom Penh City, Sihanoukville City, Svay Rieng Province, and Battambang Province.

3.3.5 Inventory Method

In the ULAB inventory, two major activities were set up: (i) desktop study; and (ii) field visit. For the desktop study, some limited relevant information and data were collected from concerned ministries and line agencies at their central offices. Those are: LAB and lead substances

⁶ Residues occurred in the process of ULAB recycle

⁷ To monitor and control the environmental pollution caused by ULAB recycle and their residue disposal

importation; ULAB collection, storage, transportation and recycling; harmful consequences to human health and the environment; and legal instruments and their application.

The target sources for field visit in the selected areas of Phnom Penh City, Sihanoukville City, Svay Rieng Province, and Battambang Province included:

- LAB selling shops;
- LAB recharging and reconditioning shops;
- Waste collection yards;
- ULAB recycling occupation; and
- LAB consuming sources⁸ (e.g. schools, pagodas, NGOs, etc.).

⁸ *The sources used solar energy for lighting and some purposes*

3.3.6 Inventory Outcomes

a. LAB at the Market Flow

By survey, the task team concluded that many type LAB⁹ are being stored in shops for selling. Those LAB were made from different countries, e.g. Japan, Singapore, Malaysia, Thailand, Vietnam, etc. In addition, domestic LAB also produced in little numbers comparing to imported LAB amount, reasonably, a high price but less quality.

LAB numbers were differently sold in according to the seasons. In urban areas, noticeably, LAB were sold more than rural areas. The task team estimated that in urban areas one shop could sell 10-20 LAB per day, but 1-5 LAB in rural areas. Additionally, those shops also have services of LAB testing, acid refill, recharging and reconditioning.

b. ULAB Flow and Their Management

In both urban and rural areas, ULAB were bought in a cheap price by collector and took to the ULAB collection yards and/or recycling area afterward.

At storage areas or collection yards, ULAB were untidy stored/placed which mixed other type wastes. Concernedly, some inappropriate storages were found out at some areas, that was the storage of ULAB in living room or bedroom.

The ULAB recycling occupation – another case that was conducted without complying with the ESM. The recycling process was used low technology without air emission control system. This practice was occurred without taking into consideration from responsible institutions, and of course, the awareness of implementers was limited.

c. LAB Recharging Shop

As addressed earlier, some services were provided at recharging shops, for instance, recharging, reconditioning, acid refill, etc. Numbers of recharged LAB were differed in urban and rural areas according to a different season particularly. Unfortunately, the exact number of battery recharging shops is not available because an inventory has never been done before. In addition, a minority of recharging shops also engages in reconditioning the ULAB. However, that aspect of business has declined dramatically because most batteries cannot be repaired economically and the quality of a reconditioned battery is not very good.

d. ULAB Recycling Area

ULAB recycling in KoC commonly is a melting process of old lead plates and produced as a lead cake for transporting to countries in the region. ULAB recycling methodology was lower certainly caused environmental pollution. Some of them were complaint by local communities.

The MoE has never encouraged or supported to any ULAB recycling occupation, which caused pollution to the environment and public health. Up to now, the MoE does not allow ULAB recycling occupation in Cambodia, unless the operational practice complies with the environmental manner and uses high technology.

⁹ LAB different types, e.g. 9 voltages, 12voltages, 100 voltages, etc.

e. Human Health and the Environmental Impacts

Because of low awareness towards LAB/ULAB related occupation in consistent with responsible institution also have limited knowledge in this matter, therefore, this occupation caused pollution to the environment and public health. Respective harmful consequences were indicated below.

i) ULAB Storage and Recycling

Many concerns¹⁰ were occurred by the ULAB related practices such as:

- Spilling acid out off ULAB on ground or into water source which caused water and soil pollution;
- During occupational operation, workers/concerned persons were mostly never taken cared to using a safety facility;
- No prohibition sign in LAB/ULAB related occupation for any entries of children and other people;
- Emitting polluted smell to local communities that located under the wind direction, reasonably, suffered communities made a complaint to responsible institutions to solve the problem; and
- Residues resulted from ULAB recycling were disposed to adjacent areas with improper management.

ii) LAB Recharging Shops

Pollution conditions at LAB recharging shops were commonly comprised as below.

- Causing health effects to concerned persons like:
 - Workers who responsible for LAB recharging (who did not use safety facility):
 - suffering to inhalation system, lung, chronic cough
 - body become weak and pale
 - rash and skin-burning
 - People/communities, especially, children who live next to and/or surrounding operational areas.
- Beside human health impacts, some pollution occurred to water source and soil, which caused by freely acid spillage and disposal.
- Noise disturbance to adjacent communities resulted from obnoxious noises of generators¹¹.

3.3.7 Activities after Inventory

After finishing inventory, the task team fulfilled any tasks following to the action plan of the project. Those tasks include as follows:

- Technical report on:
 - ULAB management situation and LAB related occupation (both Government and private sectors)
 - Relevant legislation
 - Harmful effects to the environment and public health

¹⁰ The concerns focus on the environment and occupational health

¹¹ Electric power so far cannot support to rural areas, this is why people use generator as a major source of power

- Public awareness and concerned persons on LAB and ULAB
- Future requirement programs and activities to improve the management of ULAB and LAB related occupation
- Preparing the national workshop for dissemination of ULAB inventory result, and made consultations with key stakeholders before sending this result to the SBC.
- Conducting the training course on "The Environmentally Sound Management Methods to ULAB and some kind Wastes," by professional international expert.
- Compiling the "ACTION PLAN FOR THE ENVIRONMENTALLY SOUND MANAGEMENT OF USED LEAD ACID BATTERIES" for future implementation, under the elaborate discussions with concerned ministries, line agencies, and Mr. Brian Wilson – ILMC expert/SBC/UNEP.

3.4. Result of Preparing Action Plan on the Environmentally Sound management of ULAB, presented by Mr. Ken Chorviran, Ministry of Environment

The section comprise of major activities aiming at managing ULAB in Cambodia based on environmentally sound. Respective sub-section is described bellows:

1) Inventory

- Establish a steering committee for ULAB management, which comprises the relevant agencies such as the private and public sectors and educational institutions.
- Establish a Task Forces to conduct a representative survey of the whole country.
- Prepare a report related to the current state of ULAB management including any environmental and health concerns.
- Establish a Database Network among the interested and concerned ministries and agencies.

2) Workshops and Seminars

- Organize National workshops to outline the results of the survey, review the options for ESM and determine National priorities and an Action Plan.
- Develop training materials and prepare to run training courses and seminars on environmentally sound management of ULAB to battery retailers, servicing personnel, ULAB collectors and exporters in each province throughout the country. Each session will be focused on the collecting , storage, packaging, transporting and safe handling of ULAB in accordance with the Basel Guidelines and appropriate practices identified in the survey.



[Pic.6:](#) The Action Plan on ESM of ULAB, by Mr. Ken Choviran, Ministry of Environment

- The dissemination of the Basel Guidelines on the ESM of ULAB to the public through community based briefing groups, mass media such as TV and Radio.
- Set up the ULAB education program at public and private schools and the University.
- Organise a Poster Campaign in places such as Battery retail outlets recharging shops, garages and repair shops, Children's nursery groups, Schools, especially those close to Scrap Collection Yards and ULAB collection Centers.

3) *Work Plan for Policy Development*

- Raise the awareness on sound ULAB management, environmental protection and the maintenance of good occupational health practice.
- Develop an incentive program for those people involved with ULAB/LAB sales and recovery practices.
- Develop guidelines, notification/declaration or related statutes on ULAB management, which include the procedures for collection, storage, transport or shipping.
- Develop a Strategic Plan on sound UALB management to be implemented in Cambodia in stages of 3 years, 5 years, and 10 years.

4) *Collecting ULAB*

- Establish a system that works through the battery retailers where a discount is given against the purchase price of a new battery provided the customer returns the used battery to the retailer for recycling.
- Set up ULAB collection centers with a clear management structure and responsibility for the collection of ULAB in each district of the respective cities and provinces.
- Conduct the training courses for ULAB collectors, collection center managers/owners and scavengers regarding collection processes and emergency procedures in the event of an accident where there is spillage of battery electrolyte during the movement of ULAB from collecting points to the collection centers.
- Set up a method of waste separation for every household especially for ULAB and other hazardous wastes.

5) *Storage of ULAB*

- Develop Safety procedures to ensure that employees wear goggles, neoprene gloves, neoprene boots and respirators in each storage area when necessary.
- Organize training courses for workers to explain how to inspect ULAB for leaks, cracks in the battery casing, missing vent caps and what procedures to take in the event of an electrolyte spillage.
- Any electrolyte recovered as a result of a leaking battery or a spillage must be stored inside acid-resistant plastic containers.
- Electronic testing is advised to determine whether the battery could be recharged and reused.
- ULAB storage sites must be inspected and monitored to ensure that any activities involving ULAB avoid risks to the environment and human health.

6) *Transport and Shipping*

- Training for drivers and related people who are responsible for transporting or shipping ULAB, including emergency response procedures.
- Monitor and follow up the ULAB transporting or shipping activities to ensure that potential risks and hazards to the environment and human health are avoided.

7) *Consolidation of Safe Working*

- Prepare related training materials safe working with ULAB.
- Develop training courses and seminars relevant to ULAB management.
- Develop assurance systems for LAB/ULAB working.
- Disseminate the Basel Guidelines on the Environmentally Sound Management of ULAB.
- Control, monitor, and evaluate the safe working practices and take remedial action if anyone is not in compliance with the guidelines.

8) *Implementation of the Plan*

- Set out a target time scale with mile stones and a budget for each year of the Plan. Whilst the budget may only be an estimate at the beginning, it is very important that the government provides funding or seeks funding at a level that can be managed and costs allocated.
- Put in place any holding or necessary legislation to ensure compliance with national requirements to meet the necessary health and environmental standards for the sound management of ULAB.
- Finalize manuals for the sound management of ULAB. These will include working procedures and identify the roles for each government agency such as Customs and Excise, the Transport Ministry, the MoH and the MoE.
- Upload all relevant information, including links to other sites, such as the Basel Secretariat, to a special page on the Ministry of the Environment's web site so that any Government agency in any province can access the appropriate information about the ESM of ULAB in Cambodia. The web site should also have an inquiry section so that schools can enhance their ULAB projects with additional information or have questions that cannot be answered by the teaching staff submitted to the Department of Environmental Control Department for a reply.
- Ensure that all the necessary administrative functions necessary to meet the obligations required under the BC for the transboundary movement of HW are in place, including documents, forms, written procedures and trained personnel.
- Establish an appropriate ULAB collection infrastructure in conjunction with the LAB manufactures and their retail outlets. Include in this stage the IT industry to ensure that UPS batteries are collected and recovery for recycling.
- Finalize and distribute technical manuals for ULAB collection centers, LAB service centers and recharging shops, so that the workers in these sectors know precisely the recommended methods they should follow to optimize battery life and collect and store ULAB in a safe way.

- Train Government employees in the procedures they will need to adopt and follow to ensure the ESM of ULAB in accordance with the Basel Guidelines.
- Train MoE's staff who work for in provinces and cities in safe collection, storage and transport methods for the recovery of ULAB and send them back to their respective regions with a remit to hold training seminars at local level for ULAB collectors, retailers and scavengers.
- Implement a community level educational program through a series of community based briefing sessions in a joint exercise between the Ministries of Health and the Environment in order to raise awareness levels of the risks to the environment and personal health if ULAB are not recovered in a safe and sound manner. At the same time issue pamphlets at anti-natal clinics and health centers outlining the risks posed by ULAB and explaining how to ensure that ULAB are recovered safely.
- Set up a monitoring system to assess progress towards a sound management system for ULAB

3.5 The Priority Action on ULAB Management in Cambodia, by Mr. Ken Chorviran, Ministry of Environment

There are two priority activities that urgent need to be carried out after the project implementation. Those are as following:

3.5.1 Translation of the Basel Convention Guideline for ULAB management

The overall objective of the project is to translate the Basel Technical Guidelines for ULAB management in order to widely disseminate them throughout the KoC to promote effective ULAB hazardous waste management. The result of the project will provide new regulations on ULAB management in order to carry implement the EMS and to follow the Basel Technical Guidelines. Consistent with this outcome, the guidance manual will be developed for dissemination to communities who are involved with LAB consumption and/or ULAB recovery.

3.5.1.1 Work Plan, Timetable, Budget and Follow -up

a) Outputs:

It is important to implement effectively the management of ULAB in the country. Therefore, the translation of the Basel Technical Guidelines for public dissemination is an urgent need to promote the implementation of effective HW management throughout the country as planned.

b) Activities:

- Collecting documents related to the ULAB Guidelines and HW.
- Translating the Basel Convention Technical Guidelines for dissemination to the general public throughout the Kingdom.
- Organize the steering committee meeting to review, discuss and adopt the translated Technical Guidelines.
- The adopted translated Technical Guidelines will be disseminated within the context of the national and local meetings/seminars or briefings.

c) *Work Plan*

The translation process will cover a three-month timeframe as indicated in the table below.

Table 1: The Work Plan for Developing the Guideline on ULAB Management in Khmer Language

Activities	Duration		
	1	2	3
1. Collect documents related to ULAB Guideline.			
2. Translate the Basel Convention Guideline into Khmer language			
3. Steering group meeting for reviewing and discussing on the meaning of translated guideline			
4. National workshop/seminar (concerned institutions and private sector)			

3.5.1.2 Budget

The estimated cost of the project implementation within the three month timeframe is indicated in the table below.

Table 2: Estimated Cost for Developing the Guideline on ULAB Management in Khmer Language

No.	Description	Person	Amount (US\$)	Total (US\$)	Remarks
1	Translation task	3,000	3,000		
2	Printing (10,000 sets)	7,000	7,000		
3	Steering group meeting	0	0		
4	National workshop/seminar (concerned institutions and private sector)	6,000	6,000		
Total		16,000	16,000		

3.5.2 Training courses on the Environmentally Sound Management of ULAB

The overall objectives of this project are to brief governmental officials and those responsible for the sound management of ULAB in the correct procedures and regulations. In addition, those involved in the collection, storage and transport of ULAB will be trained in safe handling and environmentally sound working procedures. Local communities will be briefed on the hazards of poor ULAB management and made aware of the risks to human health.

a) Activities:

- To recruit a used lead acid battery professional trainer, with skills in battery testing and servicing.
- To prepare the training materials and determine the structure of the course.
- To communicate with the respective municipal and local environmental authorities to ascertain their present and future requirements for used lead acid battery management as basic subjects of the training courses.
- To follow up the proceedings of training courses/seminars conducted in the respective cities/provinces.
- To assess the results and the methodologies used and revise the training courses as required.
- To prepare the manual for used lead acid battery management for public dissemination based on Cambodian experiences and the Basel Technical Guidelines together with a 4 page pamphlet aimed at domestic users.
- To assess the stakeholder awareness of the risks of ULAB to human health and the environment after completing the training courses/seminars, including the public who read and share the information on the pamphlet.

b) Expected Outputs:

- One manual in the Khmer language for course delegates in both hard copy and electronic format.
- Personnel at the Municipalities and Localities Trained: 24 towns and provinces (20-30 participants for each of the provinces and cities).
- Used lead acid battery management manual in Khmer version¹² will be prepared for the general public and stakeholders.
- At the end of the each course, the trained participants become the next generation of trainers for the safe handling of used lead acid batteries.
- The Training manual will contribute to other follow on training courses.

¹² Language

c) Work Plan:

The timeframe for project implementation comprises 12 months as indicated in the table below.

Table 3: The Work Plan for Implementing the Training Courses/Seminars on Used Lead Acid Battery Management

Activities	Time (month)												
	1	2	3	4	5	6	7	8	9	10	11	12	
1. Phnom Penh Municipality	■												
2. Kandal Province	■												
3. Takeo Province		■											
4. Kampong Speu Province		■											
5. Kampot Province			■										
6. Koh Kong Province			■										
7. Kampong Chhnang Province				■									
8. Pursat Province				■									
9. Battambang Province					■								
10. Banteay Mean Chey Province					■								
11. Kampong Cham Province						■							
12. Kratie Province						■							
13. Kampong Thom Province							■						
14. Siem Riep Province							■						
15. Prea Vihear Province								■					
16. Stung Treng Province								■					
17. Rotanak Kiri Province									■				
18. Mondol Kiri Province									■				
19. Sihanouk Ville City										■			
20. Svay Rieng Province										■			
21. Prey Veng Province											■		
22. Keop City												■	
23. Paylin City													■
24. Oudor Meanchey Province													■

d) Budget

The estimated cost of the project implementation over 12 months for all cities and provinces as indicated is 46,060 US\$.

Table 4: Proposed Budget for Implementing the Training Courses/Seminars on Used Lead Acid Battery Management

No.	Description	Person	Amount	Total (US\$)	Remarks
1	Project coordinator (in US\$)	1	700	8,400	
2	Local Trainer (in US\$)	1	700	8,400	
3	Assistant (in US\$)	1	150	1,800	
4	Training course (in US\$)		800	19,200	Three day training
5	Travel of Project coordinator and Local Trainer (in US\$)		240	5,760	
6	Miscellaneous			2,500	
	Total			46,060	

***APPENDIX - 1: Participant List of the National Seminar on
"The Dissemination of the Project Operational Outcomes on the Environmentally Sound
Management of Used Lead Acid Batteries in the Kingdom of Cambodia"
04 April 2005***



<i>No.</i>	<i>Name</i>	<i>Institution</i>	<i>Position</i>	<i>Phone Number</i>
<i>Participants</i>				
1.	Mr. Phay Chanty	DEPC; MoE	Vice Office Chief	011 724 171
2.	Mr. Chor Thol	DEPC	Technical Staff	012 430074
3.	Ngor Hour, Ms.	Env. Prov. of Oudor Meanchey	Office Chief	011 710 607
4.	Khut Keov Chenda	DEPC; MoE	Staff	–
5.	Chau Kimheng	COMPED; NGO	Director	012 842 387
6.	Ou Manira	DEPC; MoE	Vice Office Chief	012 700 991
7.	Thiv Sophearith	DEPC; MoE	Office Chief	012 858 509
8.	Srun Sokhom	MAFF	Deputy Director	–
9.	Mam Chhay Chhan	Env. Prov. of Banteay Meanchey	Deputy Director	012 224 593
10.	Vong Piseth	Env. Prov. of Battambang	Staff	–
11.	Chour Sarun	Env. Prov. of Battambang	Office Chief	012 550 061
12.	Ros Kheng	Env. Prov. of Pursat	Vice Office Chief	016 766 975
13.	Dork Sothea, Miss	Env. Prov. of Kampong Chhang	Director	016 260 555
14.	Khung Sokha, Mr.	Env. Munic. of Sihanoukville	Vice Office Chief	016 717 779
15.	Phok Savuth, Mr.	Env. Prov. of Kampong Cham	Vice Office Chief	–
16.	Kuy Sonin	Env. Prov. of Kampong Speu	Deputy Director	016 823 547
17.	Ork Bunna, Mr.	Env. Prov. of Takeo	Office Chief	–
18.	Nget Chek, Mr.	MoC	Vice Office Chief	012 925 317
19.	Sun Buntheoun, Mr.	CSARO, NGO	Staff	011 709 893
20.	Sourn Ponlok, Mr.	DEPC, MoE	Technical Staff	012 784 674
21.	Khat Orstha	PPWM	Staff	012 895 529
22.	Chhear Marith	DEPC, MoE	Office Chief	011 842 846
23.	Phin Rady	DEPC, MoE	Vice Office Chief	011 723 650
24.	Lak Kheng	Private Sector	–	011 600 915
25.	Yin Samray	Dept. A, MoE	Deputy Director	011871 541
26.	Tuy Mengsong	DEPC, MoE	Technical Staff	011 792 541
27.	Sao Khunchhon	PPWM-MPP	Governor	016 850 030
28.	Kay Vanthy, Ms.	MoE	Staff	012 841 794

29.	In Prasath, Mr.	Env. Prov. of Svay Rieng	Office Chief	016 734 537
30.	Meas Mon, Mr.	Env. Prov. of Svay Rieng	Staff	011 232 222
31.	Cheat Sanang, Mr.	Env. Prov. of Kandal	Office Chief	011 887 135
32.	Dao Soth, Mr.	Env. Prov. of Kampot	Vice Office Chief	016 851 370
33.	Roath Sieng Hay, Mr.	Env. Prov. of Kampong Thom	Office Chief	012 922 186
34.	Chourb Kao, Mr.	Env. Minic. of Kep	Staff	016 554 533
35.	Phoung Lina, Mr.	Env. Prov. of Siem Reap	Vice Office Chief	012 775 365
36.	Bun Khunny, Mr.	MFAIC	Office Chief	016 892 612
37.	Sar Vathany	MAFF	Staff	012 807 283
38.	Bun Ngoun, Mr.	MPWT	Deputy Director	011 875 794
39.	Ham Sovanna, Mr.	MPWT	Vice Office Chief	012 937 837
40.	Chreng Davannara, Mr.	MoI	Deputy Director	012 514 044
41.	Phet Pichhara, Mr.	DEPC, MoE	Vice Office Chief	012 369 070
42.	Ouk Sota, Mr.	Env. Prov. of Koh Kong	Office Chief	016 564 545
43.	Bou Bunnara, Mr.	Custom Dept., MEF	Technical Assistant to the Director	012 522 522
44.	Khoy Khun Chanrath	Env. Prov. of Preah Vihear	Director	12 946 803
45.	Khath Sovann, Mr.	Env. Prov. of Kratie	Vice Office Chief	012 937 869
46.	Hak Vimean, Mr.	Env. Prov. of Stung Treng	Deputy Director	092 740109
47.	Heng Kheng, Mr.	Env. Prov. of Mondolkiri	Office Chief	-
48.	Seng Vuthy, Mr.	Env. Prov. of Ratanakiri	Vice Office Chief	016 945 171
49.	Im Chhoeurn, Mr.	Env. Prov. of Prey Veng	Director	012 988 519
50.	Ly Son Ieng	Env. Prov. of Pailin	Director	016 552 244
51.	Sar Vathany, Mr	MoE	Assistant to H.E Director General	012 699 518
52.	By Pitou, Mr.	MIME	Office Chief	012 478 998
53.	Long Sokhabony, Ms.	Dept.E; MoE	Office Chief	012 577 734
54.	Bun Kla, Mr.	DEPC, MoE	Vice Office Chief	011 899 631
55.	Chea Liyan	Royal University of PP	Lecturer	016 854 846
56.	Prak Piseth Rangsy, Ms.	MoH	Director	-
57.	Sim Sothy, Mr.	DEPC, MoE	Staff	011 724 068
Project Team				
58.	Chrin Sokha, Mr.	DEPC, MoE	Deputy Director	012 545 007
59.	Ken Chorviran, Mr.	DEPC, MoE	Office Chief	012856 18
60.	Sreng Sophal, Mr.	DEPC, MoE	Vice Office Chief	012 599 145

APPENDIX - 2: Agenda of the National Seminar

Time	Program	Location	Documents
Morning			
7.30 – 7.50	Registration	Grand Ball Room	
7.50 – 8.05	Program Declaration	- Ditto -	
8.05 – 8.20	Opening Speech by HE. Khiev Muth , Secretary of State for the Environment	- Ditto -	ULAB(C)/2
8.20 – 8.30	Group Picture	- Ditto -	
8.30 – 8.50	Coffee Break	Hotel Lobby	
8.50 – 9.05	Agenda Explanation by Mr. Chrin Sokha	- Ditto -	ULAB(C)/1
9.05 – 9.30	Objective of Workshop by Mr. Chrin Sokha	- Ditto -	ULAB(C)/3
9.30 – 10.50	Obligation and Duty of Member of the Party of Basel Convention by Mr. Chrin Sokha	- Ditto -	UALB(C)/4
10.50 – 12.00	Result of ULAB inventory in selected provinces/cities by Mr. Chrin Sokha	- Ditto -	ULAB(C)/5
12.00 – 14.00	Lunch Time	Restaurant in Hotel	
Afternoon			
14.00 – 15.00	Result of Preparing Action Plan on Environmentally Sound management of ULAB, by Mr. Ken Chorviran	- Ditto -	ULAB(C)/6
15.00 – 15.40	Coffee Break Deliver Action Plan on Environmentally Sound Management of ULAB to Provincial Department of Environment and relevant institutions	Hotel Lobby	
15.40 – 16.20	The Priority Action on ULAB Management in Cambodia, by Mr. Ken Chorviran	- Ditto -	ULAB(C)/7
16.20 – 5.00	Closing Ceremony, by Mr. Chrin Sokha	- Ditto -	ULAB(C)/8