



International POPs Elimination Project

Fostering Active and Efficient Civil Society Participation in Preparation for Implementation of the Stockholm Convention

Awareness-Raising Report on POPs Issues and the Stockholm Convention

The NGO Forum on Cambodia

Cambodia
March 2006

Kingdom of Cambodia
Nation Religion King



About the International POPs Elimination Project

On May 1, 2004, the International POPs Elimination Network (IPEN <http://www.ipen.org>) began a global NGO project called the International POPs Elimination Project (IPEP) in partnership with the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Program (UNEP). The Global Environment Facility (GEF) provided core funding for the project.

IPEP has three principal objectives:

- Encourage and enable NGOs in 40 developing and transitional countries to engage in activities that provide concrete and immediate contributions to country efforts in preparing for the implementation of the Stockholm Convention;
- Enhance the skills and knowledge of NGOs to help build their capacity as effective stakeholders in the Convention implementation process;
- Help establish regional and national NGO coordination and capacity in all regions of the world in support of longer-term efforts to achieve chemical safety.

IPEP will support preparation of reports on country situation, hotspots, policy briefs, and regional activities. Three principal types of activities will be supported by IPEP: participation in the National Implementation Plan, training and awareness workshops, and public information and awareness campaigns.

For more information, please see <http://www.ipen.org>

IPEN gratefully acknowledges the financial support of the Global Environment Facility, Swiss Agency for Development and Cooperation, Swiss Agency for the Environment Forests and Landscape, the Canada POPs Fund, the Dutch Ministry of Housing, Spatial Planning and the Environment (VROM), Mitchell Kapor Foundation, Sigrid Rausing Trust, New York Community Trust and others.

The views expressed in this report are those of the authors and not necessarily the views of the institutions providing management and/or financial support.

This report is available in the following languages: English

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Awareness-Raising Report on POPs Issues and the Stockholm Convention

Forum and Workshop held 25 January and 3 February 2006
Phnom Penh, Cambodia

Executive Summary

Cambodia signed the Stockholm Convention on 23rd May 2001 and is currently preparing the National Implementation Plan (NIP) with technical and financial support provided by UNEP/GEF. This NIP document is nearly finalized as it is waiting for the approval from the Council of Ministers. On the other hand, the legal instrument for ratification of the Stockholm Convention was submitted to the National Assembly for adoption.

The NGO Forum on Cambodia acts as a membership organization that has the mandate to support and share information and advocate and debate on the issues that affect Cambodian development. It is comprised of three main programs: development issue program, environment program, and land issue program. Currently, there are 76 local and international NGOs that affiliate with the NGO Forum on Cambodia. Concerning the environment program, there are 40 affiliate NGOs and this program is aiming to promote environmental awareness and influence the government and donors in order to ensure that the right and the livelihood of people is respected. With these aims, the environment program has been working in three main areas including: Environmental Awareness and Protection Project; Pesticides Reduction and Sustainable Agriculture Project; and Mekong Basin Community Rights Project concerning the safe use and sound management of pesticides. The NGO Forum on Cambodia would like to help grassroots people through its affiliates to be aware of the adverse impact of pesticides on human health and the environment by providing information on the ban of production, traffic and use of persistent organic pollutants globally, including where Cambodia should pay close attention to importing and use of such prohibited chemicals. With these objectives and the assistance from IPEP, the NGO forum on Cambodia was able to organize two awareness raising activities on **POPs issues and the Stockholm Convention**; one for university students and the other one for NGO staff.

The main purpose of these activities was to raise POPs awareness and promote actions in increasing POPs impact prevention among the NGO members, students and the public at large. The forums had been organized for two separate target groups: the university students and the NGO staff. The POPs awareness-raising forum for university students was organized and held for half-day on the 25th of January 2006 at the Russian Cultural Center and there were 149 participants. The POPs awareness-raising workshop organized for the NGOs staff was conducted for whole day long on the 3rd of February 2006 at the World Vision conference room and there were 54 participants. During these two events, there were many questions and comments, feedback was provided, and information and experiences were shared.

The awareness-raising on POPs issues and the Stockholm Convention with financial assistance provided by IPEP had been organized successfully with fruitful results. Nevertheless, as requested by participants to have further training

and awareness-raising on POPs issues, the Ministry of Environment took this opportunity to announce the forthcoming training on "POPs issues and ecological sound management" to the NGOs (by circulating a call for papers for expression of interest). This forthcoming training is designed specially for three days for environmental NGOs working in Cambodia but its contents will remain the same for 6 regional trainings designed for line governmental provincial officers that were conducted already from December 2005 to February 2006, throughout Cambodia.

Finally, the NGO Forum on Cambodia would like to take this opportunity to express our best regards and sincere thanks to the Ministry of Environment that has supported our environmental activities so far, and declare continuing collaboration with us for promoting environmental quality in Cambodia for future generations. We also express our gratitude to the IPEP, UNIDO, UNEP, GEF, and other agencies and governments for their support for awareness-raising on POPs issues and the Stockholm Convention.

**Awareness Raising Report on "POPs issues and the Stockholm Convention"
Held on 25th January and 3rd February 2006 in Phnom Penh, Cambodia**

1 Introduction

The NGO forum on Cambodia is a membership organization comprised of international and local NGOs and was established in 1995 with a mandate to support and share information and advocate and debate on the issues that affect Cambodian development. It is comprised of three main programs: development issue program, environment program, and land issue program. Currently, there are 76 local and international NGOs are affiliated with the NGO Forum on Cambodia.

Concerning the environment program, there are 40 affiliate NGOs and this program is aiming to promote environmental awareness and influence the government and donors in order to ensure that the right and the livelihood of people is respected. With these aims, the environment program has been working in three main areas including: Environmental Awareness and Protection Project; Pesticides Reduction and Sustainable Agriculture Project; and Mekong Basin Community Rights Project.

Pesticides use in Cambodia has been regarded as problematic due to improper application particularly at vegetable plantations where farmers try to mix many pesticides for one spraying with an aim to eliminate all kinds of insects at once. Such a practice not only kills the pests but also friendly insects, animals and sometimes causes effects on the sprayers and local people. On top of this, if such pesticides were persistent organic pollutants (POPs), the adverse impacts on human health and the environment would continue for a long time. It was recognized that the preliminary inventory on POPs (under the Stockholm Convention) conducted by the Ministry of Environment in 2004 confirmed that Cambodia has been using POPs substances since the 1950s and currently they are still being applied. This includes DDT, endrin, chlordane and possibly others.

Concerning the POPs issue, Cambodia signed the Stockholm Convention on 23rd May 2001 and currently the legal instrument for ratification of the Convention was submitted to the National Assembly for approval. Since Cambodia signed the Convention, the UNEP/GEF has provided financial and technical assistance to Cambodia for the development of the National Implementation Plan (NIP) for the Stockholm Convention and the Ministry of Environment (MOE) is the leading agency responsible for that work. Besides the main work in the development of NIP, the MOE has conducted many workshops and trainings where the primary target groups are governmental officers (national and provincial levels), academic institutions, and some NGOs. The main aims of these workshops and training are 1) contributing information to and reviewing the NIP document and 2) introducing and providing the understanding of POPs issues to governmental officers at both national and central levels.

The NGO Forum on Cambodia would like to help grassroots people through its affiliates to be aware of the adverse impact of pesticides on human health and the environment by providing information on the ban of production, traffic and use of persistent organic pollutants globally, including where Cambodia should pay close attention to importing and use of such prohibited chemicals. With these

objectives and the assistance from IPEP, the NGO Forum on Cambodia was able to organize two awareness raising activities on "POPs Issues and the Stockholm Convention": one for university students and the other one for NGOs' staff.

2 Purpose of the awareness-raising activities

The main purpose of awareness-raising on POPs issues and the Stockholm Convention is to raise awareness of POPs and promote action in increasing prevention of POPs impacts. The audience for these efforts includes NGO members, students and the public at large, and where possible, among the decision makers of local authorities. Decisions are ultimately a political responsibility, but the likelihood of the best choice being made is greatly enhanced when there is a widespread understanding and knowledge of all the implications and this is the general requirement of awareness of POPs stakeholders. The willingness of stakeholders to voluntarily participate in the action plan is also required.

3 Awareness-raising preparation

The NGO Forum on Cambodia organized the awareness-raising on "POPs issue and the Stockholm Convention" in collaboration with the Ministry of Environment, who provided a resource person and materials. The awareness activities were conducted for two target groups: the university students (for a half day forum) and for the NGOs officers (for a full day workshop) and these forums were held on the 25th of January and the 3rd of February 2006 in Phnom Penh, respectively. The agenda for these activities are enclosed in Annex 1.

There were 149 students from 5 universities who attended the POPs awareness-raising forum for a half-day and there were 54 participants from NGOs who attended a full-day workshop on POPs issues and the Stockholm Convention. The list of participants who attended the forum and workshop is enclosed in Annex 2 and 3.

Contents for the half-day forum and the full day workshop are in the table below.

No	Contents	For Students	For NGOs
	Handouts distribution		
1.	Presentation on Chemical Issues and Environmental Pollution	✓	✓
2.	International Commitment for Sound Management of Chemicals including POPs	✓	✓
3.	Understanding the Stockholm Convention on Persistent Organic Pollutants	✓	✓
4.	Ecological Sound Management of POPs	✓	✓
5.	POPs Status in Cambodia	✓	✓
6.	International Conventions related to Chemicals Management		✓
	Materials for distribution		
7.	Brochure on "New Assessment Highlights Priorities for Action on Persistent Toxic Substances"	✓	✓
8.	Text of the Stockholm Convention (English and Khmer)		✓
9.	Ridding the World of POPs: A Guide to the Stockholm Convention on Persistent Organic Pollutions		✓
10.	Question and Answers for Understanding of Dioxins		✓
11.	Persistent Organic Pollutants (POPs), and International Community Concerns		✓

The resource person from the Ministry of Environment developed the materials above for presentation and handout purposes during the forum/workshop. A brochure on "New Assessment Highlights Priorities for Action on Persistent Substances" was also made in the Khmer language version by the resource person and the texts of the Stockholm Convention in both English and Khmer versions were provided by the Ministry of Environment free of charge. The translation of the handout materials in English is enclosed in Annex 4 of this report.

4 Awareness-raising undertaken

4.1 Opening ceremony session

The awareness-raising forum and workshop on "POPs Issues and the Stockholm Convention" were held on January 25th and February 3rd 2006 in Phnom Penh, respectively. The presidency at this forum and workshop was presided over by Mr. Chhith Sam-Ath, Director of NGO Forum on Cambodia and Mr. Chea Sina, Deputy Director of Environmental Pollution Control, Ministry of Environment.

Addressing the opening session of the forum and workshop, Mr. Chea Sina explained that the global use of chemicals is increasing every year in various sectors from civil use purposes, i.e. agricultural sector, industrial sector, and household use, to military tools and equipment. In return, the use of such chemicals has caused adverse impacts on human health and the environment mainly from improper use and wrong use of chemicals. Pesticides residues could remain in the environment, particularly those of POPs substances. On the other hand, chemicals wastes and other wastes also create problems not only for landfill management issues but also for the generation of unintentionally produced POPs and other substances that affect the ozone layer. Mr. Sina also concluded that to overcome the above problem, particularly the sound management of POPs, Cambodia should all have proper plan to deal with them,

and in this regards, Cambodia had signed the Stockholm Convention and prepared to become a Party of this convention by preparing the National Implementation Plan (NIP) for the Stockholm Convention. Finally, Mr. Sina thanked UNEP/GEF and UNITAR for their technical and financial support in the development of the NIP.

In the opening speech to the forum and workshop on POPs issues and the Stockholm Convention, Mr. Chhith Sam-Ath, Director of NGO forum on Cambodia, thanked UNIDO for providing financial support to organize such a forum and workshop and also thanked the Ministry of Environment for sharing a resource person and materials for this awareness campaign. He also stated that the NGO Forum on Cambodia has been working in parallel with the government for the protection and conservation of the environment to meet the sustainable way, but focusing more on the environmental advocacy and support for grassroots people etc. In conclusion, he outlined the purposes of the forum and the workshop and he hoped that they would provide good knowledge and experiences related to POPs issues and the Stockholm Convention and bring the concerns of such issues to all of the Cambodian society. Please see Annex 5 to this report about his speech during opening session for the half-day forum for students (held on the 25th January 2006 at Russian Cultural Center, Phnom Penh).

Beside the opening speech, there was a small break, where press agents had a chance to ask delegates about POPs issues, the Stockholm Convention, the Cambodia preparation for the implementation of the Stockholm Convention, the status of POPs in Cambodia and other issues related to chemicals management. More importantly, NGO Forum sent out press releases about the forum and workshop a week prior to the events held (see Annex 6). It was recognized that many press agents were present at both the forum and workshop including Radio Free Asia, National Radio (AKP), Phnom Penh Municipality Radio (Radio FM-103Mz), Sambok Khmom Radio (FM-105Mz), National Television (TVK), Phnom Penh Municipality TV, Bayon TV, TV 9, etc.

4.2 Forum and workshop sessions

The forum and workshop sessions were conducted after the opening ceremony. Besides the materials listed in the table above, a number of questions were raised by students, most of which concerned the safe and sound management of chemicals including POPs. There were also many questions, comments and recommendations shared at the workshop involving NGO as regards POPs and related issues.

The Ministry of Environment took this opportunity to announce to the NGO staff who attended the workshop about another training on "POPs issues and ecological sound management." This training will take place on the third week of March in Phnom Penh for 3 days and it is expected to have at least 40 participants from NGOs that are currently working in the fields of environment and women and children affairs. A call for expression of interest was distributed during the workshop held on February 3, 2006 and pleased the participants to deliver such information to other NGOs as possible. This announcement also informed NGOs that the MOE will be able to provide cover the administration and registration fee, training materials, and lunches during workshop.

At the end of the workshop, an evaluation form was distributed to each participant to fill in and as a result, revealed that about 95% of the NGOs had never heard about the POPs issues, and the remaining 5% had a fair understanding of the Stockholm Convention. The result of the evaluation is enclosed in Annex 7. In conclusion to this, all NGOs requested the MOE to further organize POPs training and awareness-raising for NGOs, local authorities and local people and finally, each participant declared that they will take all the information from this workshop and disseminate it among their staff as well their target groups and general public.

4.3 Closing ceremony session

The closing ceremony was informal and Ms. Lam Saoleng, Environmental Coordinator, and Mr. Nyg San, Deputy Director of NGO Forum on Cambodia thanked IPEP, UNIDO and other organizations for providing financial support for the forum and workshop, and thanked the MOE for kind cooperation in organizing the meeting as well.

5 The Conclusion

The forum and workshop on POPs issues and the Stockholm Convention, which was organized by the NGO Forum on Cambodia in collaboration with the Ministry of Environment, was held successfully in a harmonious environment. A total of 203 participants took part in the activities (see photos on Annex 8). .

----- End -----

6 Annexes

6.1 Annex 1: Agenda for forum and workshop on "POPs Issues and the Stockholm Convention"

6.1.1 Agenda for POPs Forum, held on January 25, 2006 at the Russian Cultural Center

Time	Topics	Facilitator/ speakers
07:00-08:30	- Participants' Registration	Miss. Men Vannavy
6.1.2 Opening Ceremony		
08:30-09:30	- Announcement of the Agenda for the Opening Session - National Anthem - Welcome Remark by the NGO Forum - Opening Speech by the MoE	Ms. Lam Saoleng Mr. Chea Sena, MoE Mr. Chhith SamAth, NGOF
09:30-09:50	Coffee/TeaBreak	
Presentation		
09:50-10:25	- Chemical Issues and Environmental Pollution - Questions and Answers	Mr. Chea Sena, MoE
10:25-11:00	- International Commitment for Sound Management of Chemicals including POPs - Questions and Answers	Mr. Chea Sena, MoE
11:00-11:30	- Understanding the Stockholm Convention on Persistent Organic Pollutants - Questions and Answers	Mr. Chea Sena, MoE
11:30-11:50	- POPs Status in Cambodia and Public Participation in Reduction and Elimination of POPs - Questions and Answers	Mr. Rath Sith, MoE
11:50-12:00	Closing Remarks	Ms. Lam Saoleng, NGO Forum

6.1.3 Agenda for POPs workshop, held on February 3, 2006 at World Vision

Time	Topics	Facilitator/ speakers
07:30-08:20	Participants' Registration	Ms. Men Vannavy
Opening Ceremony		
08:20-09:00	- Announcement of the Agenda for the Opening Session - National Anthem - Welcome Remarks by the NGO Forum - Opening Speech by the MoE	Mr. Sam Chanthy, CVS Mr. Chhith SamAth, NGO F Mr. Chea Sina, MoE
Summary of Workshop		
09:00-	- Workshop Overview	Mr. Sam

09:20	- Group Photo	Chanthy, CVS
09:20-09:45	Coffee/Tea Break	
Presentation		
09:45-10:20	- Chemical Issues and Environmental Pollution - Questions and Answers	Mr. Chea Sina, MoE
10:20-10:55	- International Commitment for Sound Management of Chemicals including POPs - Questions and Answers	Mr. Chea Sina, MoE
10:55-11:30	- Understanding on the Stockholm Convention on Persistent Organic Pollutants - Question and Answer	Mr. Chea Sina, MoE
11:30-12:00	- Measures for Sound Environmental Management of POPs	Mr. Chea Sina, MoE
12:00-13:30	Lunch break (Provided in workshop)	
13:30-14:05	- POPs Status in Cambodia - Questions and Answers	Mr. Rath Sith, MoE
14:05-14:40	- International Conventions related to Chemical Management - Questions and Answers	Mr. Rath Sith, MoE
14:40-15:00	Coffee/Tea Break	
15:00-15:20	Impression and Evaluation of Participants	All participants
15:20-16:00	Closing Remarks	Mr. Ngy San, Deputy NGOF

6.2 Annex 2: List of students who attended the forum

No	Name	Sex	Position	University
1	VATH BRA	M	Student	NTU
2	IN CHAYVAN	M	Student	NTU
3	SONG PUTHI	M	Student	NTU
4	TAN SEREYSUNNITA	F	Student	NTU
5	CHHOUN PHEASEN	M	Student	BBU
6	SENG SOKHA	M	Student	BBU
7	PREAP SEIHA	M	Student	BBU
8	LAY ROTHEANY	M	Student	CUP
9	YIN VUTHY	M	Student	CUP
10	MAO NORTHYA	M	Student	CUP
11	CHHOEUN RATHA	M	Student	CUP
12	LENG CHIVON	M	Student	CUP
13	SAR VANDEN	M	Student	CMU
14	NUTH PUNLEURENGSEY	M	Student	CMU
15	LEANG HIM	M	Student	CMU
16	ANITA PALLRAT	F	Dean	PUC
17	KRUY RITHY	M	Student	PUC
18	SOMRIT KUCHVUTHA	M	Student	PUC
19	MEN SITHEA	M	Student	NTU
20	AN BUNTHENG	M	Student	NTU
21	NEUP NET	M	Student	NTU
22	TOUCH SOPHEARITH	M	Lecturer	NTU
23	TANG KIMSOUN	F	Student	NTU

24	BUN VIRAK	M	Student	CUP
25	SAN THAN	M	Student	CUP
26	SRUN NISAL	F	Student	CUP
27	NEY LIROTH	M	Lecher	CUP
28	KUN BUNTHOEUN	M	Journalist	RSC
29	MEAS RITHIRUN	M	Student	CMU
30	SUN RACHNA	M	Student	CMU
31	PROEUNG SOPHEAK	M	Student	CMU
32	LEE LENG	M	Student	PUC
33	UNG POUYKUNG	F	Student	PUC
34	MEM PEOULAKHENA	F	Student	PUC
35	VANNY SEREILEAK	F	Student	PUC
36	SENG KEOLINY	F	Student	PUC
37	RY BUNNARITH	M	Student	NTU
38	ROS CHAMBORITH	M	Student	CMU
39	KHLEANG SOVANN	M	Student	NTU
40	LAY CHHUN	M	Student	NTU
41	OUK SAVBOREY	F	Reporter	RFA
42	PEAKDEY	M	Student	NTU
43	REAM KARSARAVUTH	M	Student	NTU
44	SOEUNG PORPOLKA	M	Student	BBU
45	SENG BORA	M	Student	BBU
46	YI MALIS	M	Student	CUP
47	CHREK VANNA	M	TV9	Reporter
48	HONG	F	FM102	Script writer
49	MENG EDETH	M	Student	CMU
50	UNG CHANSOPHEA	F	Reporter	Cambodge Soir
51	UN THARITH	M	Student	CUP
52	VAY VATTEY	F	Reporter	RSC
53	CHOR SAMON	M	Reporter	AKP
54	NGY UYSONG	M	Reporter	KSP
55	KHOR HOKSUNN	M	Student	NTU
56	HUN SAMSEYLA	M	Student	CMU
57	NGOUN HAING	M	Volunteer	NGOF
58	CHEA SINATH	M	Volunteer	NGOF
59	LAM SAOLENG	F	PC	NGOF
60	MUTH KEO	M	CCO	SCADP
61	MEN	F	HO	SCADP
62	NHEAN SAKEA	M	Student	BBU
63	THOU THIDA	F	Student	BBU
64	CHRENG RORTANA	F	Student	BBU
65	NOU SENG	M	Student	BBU
66	BO CHHENGLY	F	Student	CUP
67	BO SYNA	F	Student	CUP
68	SOUS SINOUN	F	Student	CUP
69	TUON SELLA	F	Student	CUP
70	MAO PHALLY	F	Student	CUP
71	CHAN SOPHAT	M	Reporter	TV3
72	CHEA SREYMAO	F	Student	CMU
73	PRING PILOT	M	Student	NTU
74	SOK KOMPHEAK	M	Student	NTU
75	THENG SOMBATH	M	Student	NTU
76	SIM NARY	F	Student	NTU
77	PAPHA PHONE	F	Student	NTU
78	HYNG MADANETH	F	Student	NTU
79	ANG BUNARY	F	Student	NTU
80	NUON REASEY	M	Student	BBU
81	MEN SALY	M	Student	NTU
82	CHEA SINA	M	MoE	MoE
83	HOK KANHA	F	Student	CUP

84	SUN SREYLEAK	F	Student	CUP
85	KHE SONORNG	F	Reporter	CCHR
86	SUM SOKCHEA	M	Reporter	Bayon TV
87	MOK VASEN	M	Reporter	CUP
88	CHHOUN SARNDY	M	Student	CMC
89	CHUM RASY	M	Student	CMU
90	KOK VITOU	M	Student	NTU
91	SENG BUNTHERITH	M	Student	BUU
92	TEN BUNNY	F	Student	NTU
93	PO BORIN	M	Student	BBU
94	YUN KIMHEANG	M	Student	BBU
95	HENG PHANITH	M	Student	PUC
96	MEN VANNAVY	F	Officer	NGOF
97	CHUM SOPHON	M	Student	NTU
98	VAR VANNAKSEVEY SOPHEABOTH	M	Student	NTU
99	TOUCH SARETH	M	Student	NTU
100	NGOUN SINA	M	Student	NTU
101	PEAN VASIL	M	Student	BBU
102	LACH BOPHA	F	Student	PUC
103	YAN SOKKHENG	F	Student	PUC
104	CHAY EAMLENG	F	Student	PUC
105	OUK ELIAN	F	Student	PUC
106	SOM DILAPIN	F	Student	PUC
107	NGET NAROTH	M	Student	PUC
108	CHHIT SARATH	M	Student	NTU
109	TES VANNAK	M	Student	NTU
110	CHUON SOPAGHA	M	Student	PUC
111	SARANG SOCHEATA	F	Student	PUC
112	EAR SUYNENG	M	Student	PUC
113	KONG KUNPIDOR	F	Student	PUC
114	LY CHANDAMONIRATH	F	Student	PUC
115	KY PUMLORK	M	Student	PUC
116	NOU SOCHEATA	F	Student	PUC
117	MEACH SOKSODEN	M	Student	PUC
118	KHIN PEAKDEY	M	Student	NTU
119	NOU SOPEAKTRA	M	Student	NTU
120	KHEY SONGPLY	M	Student	NTU
121	SOK SAMBATH	M	Student	NTU
122	YEAN SOLIM	F	Student	NTU
123	ANG LONGDY	M	Student	NTU
124	SENG SOTHIDA	F	Student	NTU
125	DET TMAROMT	M	Student	CUP
126	YOU SOKNANG	M	Student	CMU
127	NEANG BUNTHEA	M	Student	CMU
128	KHUN KCOVITHIA	M	Student	PUC
129	MOK SOMNIANG	M	Student	PUC
130	TUN PHORSAPHEAR	M	Student	PUC
131	YIM PHANITH	F	Student	PUC
132	OUCH KANIKA	F	Student	PUC
133	CHHAY LOMANG	F	Student	PUC
134	KLOUNG SIVLY	M	Student	NTU
135	VANN RITHY	M	Student	NTU
136	MORN SREYKHUOCH	F	Student	BBU
137	SOK LINA	F	Student	BBU
138	KHEL SOKCHEA	F	Student	BBU
139	KHEM SOKSETHYA	M	Student	BBU
140	PHOM SOPHEAK	M	Student	BBU
141	LOTH SAEMESA	M	Student	BBU
142	KONG SOKHO	M	Camera	TV3

143	HOR BUNTHE	M	Student	CMU
144	SO SOPLY	M	Reporter	FM 96MHz
145	SOK HUY	M	Reporter	DAILY
146	SAM CHANTHY	M	Officer	CVS
147	RATH SITH	M	MoE	MoE
148	CHHITH SAMATH	M	DEPUTY	NGOF
149	HIM SARANN	M	Officer	CD Cam

6.3 Annex 3: List of NGOs staff attended the workshop

No	Name	Sex	Position	Organization
1	Phan Sithan	M	Researcher	Philippine Univer.
2	Suong Piseth	M	Field Coordinator	FACT
3	Khem Move	M	Youth Animator	Caritas Cambodia
4	Phna Channouen	M	Animator Agricult	PNKS
5	Horn Kimhong	M	Animator	PNKS
6	Maes Sophat	M	Volunteer	CEPA
7	Pith Lina	F	Student	RUA
8	Chhun Sarorn	F	PM	Banteay Srei
9	Keang Sophany	M	Reporter	CCHR
10	Uch Sopheap	F	Student	RUA
11	Ouk Savborey	F	Reporter	Radio Free Asia
12	Seng Kheang	F	Reporter	FM93.5MHz
13	In Sopheap	F	Program Officer	SST
14	Chea Sopheak	M	Coordinator	Sec-YRDP
15	Sin Hong	M	IEC officer	SCW
16	Lorn Theanith	M	Staff	CAFTT
17	Chan Sophouen	M	Reporter	TV9
18	KungBunthouen	M	Reporter	Rasmei Kampu.
19	Chan Thou	M	Program officer	Khemara
20	SdeoungKunvich	M	Projectcoordinator	PVT
22	Chin Screymony	M	Student	RUA
23	Suon Saobotra	M		CVS
24	CheangSovanrath	M	Coordinator	EB
25	Cheng Tourk	M	Camera man	CTN
26	ChuonChaulophea	F	Quality assurance	National Labret
27	Cheam Makarady	M		CEDAC
28	Mann Koseima	M		TV9
29	Smoth Sanka	M		TVK
30	Sam Sa Mon	M		AKP
31	Chea Sina	M	Deputy Director	MoE
32	Hang Seiha	M	Director	CEAC
33	Vay Vatthey	F	Reporter	KumpucheeThmey
34	Pen Vuthy	M	Trainer	VBK
35	Nao Sok	M		CWS
36	Chea Sinath	M	Volunteer	NGOF
37	Un Bunthouen	M		CD Cam
38	Muth Keo	M	CLO	SCADP
39	Vong Sean	M	Agriculturist	SCADP
40	Dey Uysong	M	Repoter	Kohsontepheap
41	Sim Kong	M	Pro. Coordinator	Mlup Baitang
42	Rath Sith	M	ME	MoE
43	Him Sarann	M	Officer	CD Cam
44	Men Vannavy	F	Officer	NGOF
45	Heng Bunny	M	Pro. Coordinator	SNV/Biogas
46	Lor Chanda	M		Cambodia Daily
47	Khe Soworn	M	Reporter	CCHR
48	Chhit Sam Ath	M	Director	NGOF
49	Sam Chantry	M	Officer	CVS
50	Hourn Ratana	F	Student	RUPP

51	Sett Sopheak	F	Student	RUPP
52	Men Vichet	M	Student	RUPP
53	Hak Skleap	M	Coordinator	CCBEN
54	Ngy San	M	Deputy	NGOF

6.4 Annex 4: Handouts for forum and workshop

6.4.1 Presentation on chemical issues and environmental pollution

I. Content:

1. Background and trends of chemical use
2. Chemicals and environment pollution
3. Dangerous experience of environment pollution caused by mercury waste in Japan (Mina Mata disease)

II. Production and Chemical Use

- In early 19th century, especially after World War I, the industrialization of some European countries such as English, France, Russia, etc. pushed for more discoveries and chemical synthesis for use.
- During World War II (1940-1945), most of chemical-producing factories are demolished and some others suspended their activities or turned to make military equipment.
- Since 1950s, production and chemical use have dramatically increased in industrialized nations including Japan.

The increase has covered in many fields such as

- o Agriculture: Pesticides, Chemical fertilizers...
- o Health: Medicine, equipment used for treatment.
- o Industry: Chemical raw materials used for other sectors.
- o Research: Chemicals used in laboratory.
- o Needs for livelihood: Materials in households, offices, and cosmetic makeup.

III. Trends of chemical use

- Currently, more than 700,000 types of chemical products have been circulating in international markets.
- As of 1980, 1000 kinds of chemicals have been each year introduced into international markets.
- More than 10 million tons of chemicals have been used each year in the world.

Countries produced and used lots of chemicals: USA, France, Germany, Russian, Japan, China, India and Czechoslovak

IV. Chemicals and Environment pollution

Chemicals are considerably important, but they are responsible for many problems as follows:

- o Hazardous to human and animal's health
- o Spoil environmental quality (water pollution, air pollution and soil pollution)
- o Negative impact on social development and breed poverty.

V. Why chemicals cause poisonous environment?

- Due to the fact that chemicals contain poisoning and hazardous substances.

- Due to chemicals can drop into rivers.
- Due to most chemical wastes are scattered almost everywhere without cleaning up.
- Due to the toxicity of some chemicals persists so long in the environment.

VI. Chemical distribution in Environment

- Chemical distribution in environment happens through:
 - o *Production activities:*

This kind of distribution happens in a huge amount and regularly due to:

- The leakage of stocked raw materials for production.
- The leakage of raw materials and products through production chains.
- Waste emerging during production
- Factory incidents such as fire, storm, flood, earthquake. For example, the explosion of Chinese chemical factory polluted a river.

- o *Transportation activities:*

Not regularly happen, but it may be a critical condition such as:

- Escaping from tanks during transportation
- Accidents (crashing, capsizing of transporting means)

- o *Consumption activities:*

This sort appears in a broad extent such as pesticide use, cosmetic makeup...and happens regularly.

- Leakage during the time of application
- Technical misuse and lack of the sense of responsibility (mixture with food product for killing animals)

- o *Activities of waste disposal:*

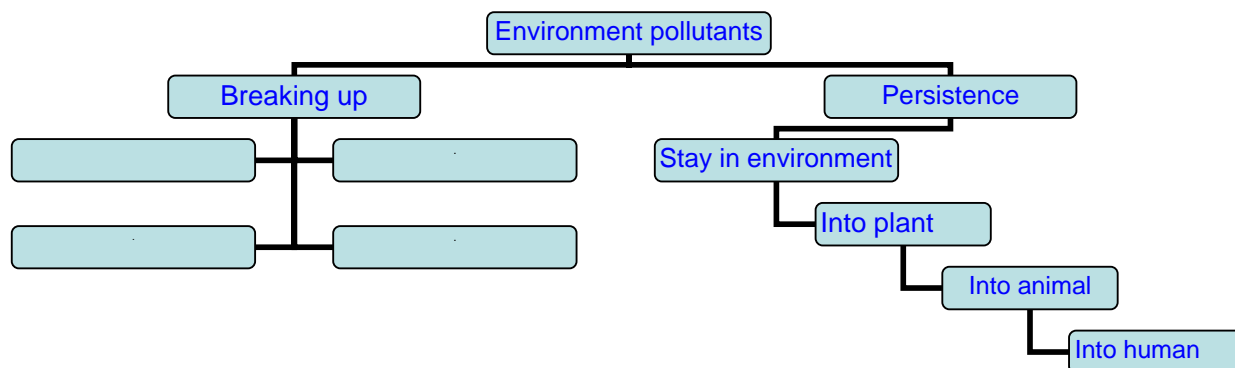
It is serious, extensive and regular such as:

- Disposal of chemical-containing household materials
- Disposal of materials and larger equipment by enterprises and hospitals.
- Disposal of products left in stock or degenerated products
- Disposal of hazardous wastes from factories hospitals and buildings.

- **Hazards of chemicals in environment**

- o Persisting in environment (water, wind, soil)
- o Can move very far from a distribution source (flying with wind and can flow with water away).
- o Can be transmitted to food chains (jumping from plants or animals to human).
- o Can accumulate in the body of human and animal
- o Dissolvable little in water, but much in fat
- o Cause immediate disease (deadly poison or burning skin...)
- o Cause chronic diseases to human and animals (cancer, nerve disease, liver diseases)

Breaking up and persistence of environmental pollutants



- **Impacts of chemical substances on environment**

- Enrich poisoning substances in environment
- Enrich poisoning substances in food and food chains
- Weaken human health
- Squander lots of money owing to:
 - Cannot make use of resources (Water, soil)
 - Cannot export products to other countries due to much poisonous substance
 - Spending on medical care for deteriorating people.
 - Spending on cleaning up environment quality such as water sources.

- **The case of Mina Mata disease in Japan**

- In 1925, CHISO Company commissioned a factory.
- In 1932, CHISO Company use mercury in the production of plastics, chemical fertilizers, pesticides and other chemicals from diesel oil.
- Liquid waste from the factory rich in mercury (from 1932 to 1968, the company discharged 27 tons of mercury wastes.
- The company did not clean up the waste, saying that it already paid the authority and the people around the company.
- In 1955, there was an exotic disease emerging: crippling, eyestrain, and nerve diseases, mainly occurring in fishing families, and there were a lot of fish, birds and cats dying successively.
- In 1956, they conducted a study on the disease and discovered that seawater was polluted by mercury waste released by CHISO Company, but it rejected the discovery and continued to release.
- In late 1958, local authority warned people not to eat fish, but the people still did because fish are cheaper.
- In July 1959, researchers declared mercury poison and called the disease Mina Mata.
- In late 1959, the affected people protested against the company to be compensated, but it threatened and provided little money to the sick and the families of the dead.
- In 1968, the affected continued to file a complaint to the Kyoto Supreme Court.

- In 1969, the company agreed to address the issue in the court.
- In March 1973, the court ruled that the company compensate the Mina Mata sufferers.
- Until 1993, there have been Mina Mata sufferers still getting compensation from the company.

- ***Destruction of Mina Mata disease in Japan***

- The sea became polluted due to so much mercury.
- More than 3000 people were confirmed as containing Mina Mata.
- More than 1000 people had died and some 2250 became crippled.
- The company paid more than 1000 million dollars for compensate to the people.
- The company spent more than 400 million dollars cleaning up mercury wastes from the Sea mud and 23 year later, in 1997, the mercury in the mud was completely cleaned.

Questions and answers:

Q: How many people were suffering from Mina Mata disease until now?
How did the company give compensation?

A: The Company selected a committee for evaluating the disease. And now the disease has not emerged anymore.

Q: How do they know that fish contain mercury?

A: It doesn't mean that mercury can only be contained in fish. In Cambodia, according to a joint research with Japan in 1995-1996, mercury is not a problem for Cambodian people

Q: In the future, will our country experience mercury pollution like Japan?

A: For Cambodia, it doesn't have a problem like Japan because Japan has a chemical industry discharging wastes as mercury.

Q: What are the impacts of battery and TV? What is integrated management?

A: In Cambodia, about 3000 tons of wastes were dumped into Sihanouk Ville. The waste was imported from a developed country because they thought that Cambodia is a developing country so it's a good place for dumping.

For recommendation:

- Entry into a member of Convention
- Law preparation on chemical management

Q: Ministry of Environment knew about the impacts of chemicals. Why didn't it forbid the company to import to Cambodia?

A: We cannot stop; we can only raise awareness to people about impacts of chemicals and find alternatives such as integrated pest management (IPM).

Q: In the world, there are about 700 million kinds of chemicals. How many kinds cause impact to human and environment? In Cambodia, what do they do to stop this entire problem?

A: They have conducted chemical inventories and classification. The kinds of chemicals are high toxin, persist until 10-20 year and they put in back list and white list etc.

6.4.2 International commitment for sound management of chemicals including POPs

I. Content

- 1. Activities and measures for chemical management in an international context**
- 2. Situation and problems of chemical management in Cambodia**
- 3. Recommendation for promoting chemical management in Cambodia**

1. History of hazards caused by chemicals

- In the 60s and 70s, the production and use of chemicals were dramatically increased in the world.
- In the late 70s, people knew much of the impacts of chemicals on human health and environment such as
 - The mercury-poisoning case in Mina Mata, Japan in 1956-73.
 - PCBs-poisoning case in rice oil in Kyushu, Japan in 1968.
 - PCBs-poisoning case in cooking oil in Yu-Cheng, Taiwan, in 1978-79.

2. Moves for chemical management

- In the late 70s and 80s, some countries introduced some disciplinary actions for chemical management, including Standards of final discharge and tabled action plans aimed at ensuring health and environment safety.
- Objectives of the move of safe chemical management are:
 - To minimize the distribution of chemicals in environment and their impacts on biodiversity.
 - To minimize the impacts of chemicals on human health.
 - To save our resources and other raw materials.
 - To ensure the sustainability of the development.

3. Activities and measures in the international size

- In the late 80s, activities and measures in the international framework to promote safe chemical management were developed.
- In 1992, in the world submit on ***Environment and Development*** in the Rio city of Brazil, international action plans were put forth to sustain the development. These plans were called Agenda 21, including 40 chapters.

4. What is agenda 21 about?

- Agenda 21 is a document for guiding all countries to prepare their work plans to protect environment quality, human and animal health, as well as the sustainability of the development.

- Sound environmental management of chemicals was brought to discuss in the summit and finally chapter 19 of the agenda 21 was formed.

5. Program of chemical management in Agenda 21

- Programs related to sound environmental management of chemicals, including illegal cross-border transport of poisoning and hazardous products includes:
 - Strengthen and promote the evaluation of chemical hazards (by 2000)
 - Make a joint agreement to classify and label chemicals (before 2000)
 - Exchange information regarding poisonous chemicals and their hazards (before 2000).
 - Set up programs to minimize the hazards (management of chemical cycles from production to disposal)
 - Strengthen national capacity and ability to manage chemicals (by 2000)
 - Restrict illegal cross-border circulation of poisonous and harmful products.

6. Framework of international law related to chemical management

- In 1987, the international protocol on **reduced destruction of Ozone layer** was developed and became effective.
- In 1989, the Basel convention on cross-country movements of hazardous wastes and the disposal was approved and entered into effect in 1992.
- In 1999, the Rotterdam convention on early-informed agreement of harmful chemical circulation was adopted and came into effect in February 2004.
- In 2001, the Stockholm convention on persistent organic pollutant was approved and became effective in 2004.

7. Chemical management issues in 2002 international conference

- The 2002 World Summit on Sustainable Development will have required member countries to manage chemicals in a sound environmental way by 2020 based on the agenda 21 through:
 - Member countries must give ratification to be a member of the international concerned.
 - Prepare international strategies for chemical management (SAICM) by 2005.
 - Each country must promote the use of international or national classification and label for chemical management before 2008.
 - Improve chemicals and hazardous chemical waste management
 - Expand knowledge of chemical and harmful chemical waste management to the public.

- Take actions against illegally cross-border circulation of chemicals and harmful chemical wastes.
- Prepare media regarding chemicals: cross-border circulation and the distribution of poisonous substances.
- Reduce hazards caused by metals; especially evaluate mercury and its content.

8. Overall situation related to chemicals in Cambodia

- Import raw materials and achieved products for people's consumption.
- Recycle in forms of mixture and domestic package.
- Increased use almost in all fields.
- Circulate freely in the markets.
- Less quality control.
- Lack of techniques and non-targeted use.
- Less restriction on chemical circulation and use (Label...)
- Less registration (pesticides, medicines...)
- No precautions in storage and transportation.
- Unsafe disposal of degenerated expired chemical products (Open field burning or dispose of in the landfill sites)
- No safe facilities for cleaning or destroying chemicals-contaminated package materials and chemical wastes.

9. Institutions' flawed management of chemical substances in Cambodia

- There are many institutions responsible for the management, but safe management duties are not clear.
- No national mechanism for coordinating and promoting to carry out safe management (national committee or national council)
- Expertise is still limited and lack of control gear.
- Less participation from civil society, private, and research institutions in management, monitoring and commenting.
- Little relation and assistances from overseas.

10. Policy issues and chemical management law in Cambodia

- No national policy for safe management
- Chemical management is categorized as low-priority in the government's policy.
- Action plans for safe management are nearly zero in competent institutions
- No main law for chemical management, that is, we only have non-detailed regulations of pesticides, medicines and drugs)
- Enforcement of existing regulations is yet to be effective due to limited capacity of the institutions and their goals are not clear.

11. Information and awareness on chemical safety in Cambodia

- No much information relating to chemical substances and it is in individual institutions.
- No information of chemical risk and its levels of distribution in environment.

- First set of information set was produced in 2004, but seriously flawed.
- No national data of chemical substances.
- Public awareness-raising is not enough and regular.
- Know little of safety of chemicals.

12. Recommendation for promoting chemical management in Cambodia

- Should have a national mechanism as national committee or national council for coordinating and promoting practices.
- Should have clear national policy and enough regulations to manage chemicals.
- Should clearly define the competence of the institutions involved in chemical management.
- Should strengthen the capacity of the institutions involved in chemical management (human resource management, research program...)
- Should expand knowledge of chemical risk, as well as safety use and disposal.
- Should arrange for facilities to collect for storage and disposal of chemicals.
- Should participate actively in international community in the framework of chemical management.
- Should prepare chemical media and should allow more chance.

Question and answer:

Q: How many chemicals have affected the environment? What are the impacts of chemicals on human health and animal?

A: The organochlorine group is the class of chemicals seriously affecting the environment among others.

Q: If food is contaminated with chemicals, are there medicines or antidotes that can reduce poisoning in the food?

A: We don't have medicine for reducing poisoning in food but we have the option of eating food with no toxicity.

6.4.3 The understanding on the Stockholm Convention on Persistent Organic Pollutants

I. Content

1. What are Persistent Organic Pollutants?

2. What is Stockholm convention?

3. What are requirements under the Stockholm convention?

1. What are persistent organic pollutants (POPs)?

POPs are a group of chloral chemicals which most toxic and persist in environment.

i. POPs occurrences?

- Some POPs mainly occur via industry production for the consumption goals.
- A small number of POP occur unintentionally, that is, they can occur via

- Burning all kinds of wastes.
 - Using chloral in paper production for bleaching.
 - Pesticides and plastic production...
- ii. POPs uses?
- POPs have been used in many fields: pesticides, chemical raw materials for industries, paints, plastic products and printing inks...
 - Most of them were produced in the 1930s and became popular in the 1950s and 1960s.
 - Impacts of POPs on human and environment was emerging in the 1960
 - Production and the use of POPs have gradually reduced in developed nations since the late 1970.
- iii. Hazardous characteristics of POPs?
- Acute poisoning
 - Persistence in environment
 - Distribution far from its source
 - Easy to enter the body through food chain.
 - Concentrating up in fat cells of the body
 - Dissolvable little in water, but much in fat.
- iv. Risks posed by POPs?
- Can cause cancer to human and animal
 - Can cause birth defect
 - Can damage nervous systems
 - Can damage reproductive system
 - Can damage immune system
- v. Global challenges to the hazards of POPs
- POPs continue to be produced and used in some countries
 - POPs continue to be dispersed in the environment
 - POPs are passed from one living organism to another
 - POPs concentrate in fat tissues in humans and animals
 - POPs are killing people and animal across the world.
- vi. Common measures of international community in eliminating POPs
- A 1995 study on the hazards of POPs and the number of harmful POPs was conducted.
 - In 1997, it was agreed to draw up an international law (international convention for managing and eliminating the 12 POPs)
 - In 2001, a draft of international law relating to 12 POPs management was officially approved in the Stockholm, capital of Sweden, named the **Stockholm Convention on Persistent Organic Pollutants**

2. What is the Stockholm Convention?

- It is an international law drawn up with the goals of protecting human health and animal from the 12 POPs: Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Hexachlorobenzene, Mirex, Polychlorinated Biphenyl, Toxaphene, DDT, Dioxin and Furan.

i. The 12 POPs in Stockholm Convention

- Nine of them are pesticides (POPs pesticides) used in agriculture, used for controlling disease vector- malaria and dengue fever, used in construction (for killing termites.)
- One of them is an industrial chemical, PCBs, used in transformer oil and as a chemical substance mixed in with other industrial products: paint, glue.
- 2 of them are chemical substances occurring unintentionally (Dioxin and Furan) from chemical processes containing chlorine and burning waste or other burning from paper and pesticide production. We should remember that these chemicals are never produced for use.

No	POPs	POPs come from production		POPs occurring unintentionally
		Pesticides	Industrial chemicals	Chemicals occurring unintentionally
1	Aldrin	+		
2	Chlordane	+		
3	DDT	+		
4	Dieldrin	+		
5	Endrin	+		
6	Heptachlor	+		
7	Mirex	+		
8	Toxaphene	+		
9	Hexachlorobenzene	+	+	+
10	PCBs		+	+
11	Chlorinated Dioxin			+
12	Chlorinated furan			+

ii. How many international conventions related to POPs?

- There are 3 international conventions relevant to POPs:
 - The Stockholm Convention calls for the reduction and ultimate elimination of an initial list of 12 POPs and the reduced distribution of POPs in the environment.
 - The Rotterdam Convention requires prior informed consent on the trade of harmful chemicals such as 32 types of pesticides, industrial chemicals and POPs

- The Basel Convention regulates the transporter circulation of harmful wastes, the requirements for safe disposal of wastes, including POPs wastes.

iii. Stockholm Convention situation

- It was passed on June 22, 2001 in Stockholm, Sweden.
- Signature launch on May 23, 2001.
- Became effective on May 17, 2004.
- UNEP is the secretariat of the Convention.

iv. Cambodia Activities involved in the Stockholm Convention

- Signed on May 23, 2001.
- Assigned the Ministry of Environment to be a national coordinating institution for undertaking the convention.
- Sent officials to attend overseas meetings and trainings on POPs
- Submitted a law draft to be a member of the convention to the National Assembly.
- Establish subcommittee of inter-ministry for coordinating the convention.
- Implementing the project for preparing national plan for implementing the convention.
- Conducted the first POPs inventory
- Have trained government officials and other organizations concerned on POPs and safe management.
- Compiled documents on POPs in Khmer.

v. Requirements under the Stockholm Convention

- Membership parties have to take legal and administrative measures to ban the production of the 9 POPs- 8 kinds as pesticides and another 1 PCB.
- In case that any party intends to continue the production or use of the above POPs, they need to submit the proposal to the secretariat of the convention for a specific exemption.

Specific Exemptions for continued production and use

No	POPs pesticides and PCBs	Specific Exemptions	
		Production	Use
1	Aldrin	Not permitted	
2	Chlordane		
3	Dieldrin	Not permitted	Not permitted
4	Endrin	Not permitted	
5	Heptachlor	Not permitted	
6	Mirex		
7	Toxaphene	Not permitted	Not permitted
8	Hexachlorobenzene		
9	PCBs	Not permitted	

Impose restrictions on the production and use of DDT for malaria control.

Chemicals	Activities	Acceptable purposes
DDT	Production	For communicable diseases (malaria)
	Use	For communicable diseases (malaria)

- In 1990, DDT was banned for agricultural purposes, except for malaria control.
- Ensure that the imports and exports of the intentional production of the 10 POPs are only for:
 - Use allowed by the secretariat (if any country wants to continue using, they need to ask permission from the secretariat.
 - Environmentally sound disposal.
 - Develop strategies for identifying stockpiles: equipment, and wastes contaminated with POPs (an inventory is required)
 - Manage stockpiles and wastes containing POPs in an environmentally sound manner such as collection, storage, transportation and distribution)
 - Not permitted to recycle and reuse products left in stock and other wastes contaminated with POPs.
 - Exports of stockpiles and wastes contaminated with POPs to other countries require the respect of guidelines, standards, and international law.
 - Must develop national implementation plans within 2 years of the date of the entry into a member of the convention and update as required.
 - Exchange information with member countries relevant to the reduction or elimination of the production or the release of POPs.
 - Designate a national coordinating institution for exchanging information and building relations with the secretariat.
 - Build institutional capacity concerned for managing POPs.

- Provision of information about POPs impacts on health and safety of human and environment to the public.
- Developed nations and other funding organizations may provide developing countries with financial resources, technical assistances and technology transfer.

6.4.4 Ecological sound management of POPs

1. What is the measure for sound environmental management?

- A measure that is not harmful to human health and environment.
- An integrated management
 - 1- Use integrated technique
 - 2- Follow environmental guidelines
 - 3- Implement legal instruments
 - 4- Follow the guidelines of the public participation

2- Overall measures for sound environmental management of POPs

- Law: banning or permitting to import or use with strict conditions (registration, label with enough information...)
- Strengthen institutional capacity: enhance the capacity of controlling officers on analyses and data management.
- Strengthen monitoring activities: importing gates, warehouses, markets, use and disposal.
- Raise public awareness and provision of information about hazards and safe use and disposal.
- Strengthen research and analyses of environment quality, polluted areas, quality of agriculture products and food.
- Choose sites for storing wastes and stockpiles: Repacking and location preparation for interim stock.
- Choose approaches to destructing wastes: burning, waste destruction in incinerators and exports to other countries.

3- Requirements for POPs pesticides under Stockholm Convention.

- It is permitted to produce and use some POPs pesticides by request specific exemptions, but it is required to implement sound environmental measures.
- Wastes containing or contaminated with POPs pesticides need a measure for sound environmental management from collection to destruction.

4- POPs pesticide wastes.

- 1- POPs pesticide wastes include:
 - Wrapping materials
 - Obsolete pesticides (POPs)
 - Banned pesticides (POPs)
 - Materials containing or contaminated with POPs.

2- Apart from hazards caused by POPs, they are easy to unintentionally form another POPs when burned.

5- Sound Environmental guidelines on POPs management

1- POPs pesticide wastes

- Not allowed to be disposed of in open fields.
- Not allowed to be disposed of in landfill sites.
- Not allowed to be burned.
- Not allowed to be recycled

2- If there are no ways to destroy POPs pesticides; it is recommended that materials for packaging POPs be buried in highlands far from water sources and in the depth of less than 2 meters.

3- POPs Pesticide wastes must be collected for repackaging.

4- POPs wastes and contaminated wastes in stock sites should be collected for repackaging and clean- up of the place should be done thoroughly.

5- Public and environmental safety should be considered during interim stock sites.

6- One option for destruction of POPs pesticide wastes is waste incinerators (more than 900 degree Celsius); however this method must be demonstrated not to produce POPs or other harmful substances before being utilized.

6- Requirements for PCBs under the Stockholm Convention

1- PCBs containing in equipment can be further used until 2025, but it is required to implement the sound environmental measure.

2- There is the need to follow the sound environmental measure for wastes containing or contaminated with POPs from collection to destruction.

7- Presence of PCBs

1- PCBs may contain in:

- Oils used in electric equipment (transformations, Capacitor, electric cables...)

- Oils used in [pressure machine](#).

- Paint, glue, carbon paper products and plastic products.

2- PCBs can contain in wastes of the above products.

8- Sound environmental guidelines on the use of PCBs

1- Staff / workers working directly with the equipment containing or contaminated with PCBs should know:

- Impacts of PCBs

- Kinds of equipment containing or contaminated with PCBs

- Safety in using, repairing, keeping and transporting equipment containing and contaminated with PCBs.

2- Provide protective materials to staff / workers working directly with equipment containing or contaminated with PCBs: Clothing, gloves, glasses...

3- Sites containing or contaminated with PCBs

- No duty

- No eating, drinking and smoking in the sites.

- No taking materials to a working place due to it leads to the increase in PCBs wastes.

- No taking protective materials contaminated with PCBs out of working places.

4- Must label the equipment containing PCBs

5- When PCBs oil escape from equipment, one must stop using or take any necessary actions

6- When the leakage of PCBs oil happens, one must clean up. Materials used for collection are categorized as PCBs wastes.

7- Keep oil wastes and equipment contaminated with PCBs in a proper way.

It is forbidden to

- Sell or use
- Dispose of in open fields
- Use in food cooking...
- Recycle for reuse.

8- Ensure that oil wastes and contaminated equipment must kept or stocked in a safety place and no leakage.

9- Must burn oil wastes and contaminated equipment in an oven with temperature more than 900 degree Celsius (incinerators...)

9- Requirements for unintentionally released POPs under the Stockholm Convention

1- For unintentional production of POPs (Dioxin and Furan), there is the need to follow the measure for sound environmental management in all activities and sources of release (landfill sites, factories...)

2- For wastes containing or contaminated with POPs, it is required to follow the measure for sound environmental management from collection to destruction.

10- Activities and sources of POPs released unintentionally

- a. Burning wastes in incinerators
- b- Burning wastes in open fields and landfill sites
- c- Production of pulp
- d- Metallurgical industry
- e- Residential combustion
- f- Fuel-fired industry
- g- Some chemical production (pesticides, plastics, paint...)
- h- Brick production
- j- Sites that wood and other agriculture wastes are burned.
- k- Recycle wastes
- l- Vehicles
- m- Crematoria

11- Presence of unintentionally released POPs in products and wastes

1- There can be many POPs mixed up with agricultural products such as yellow powder used for making tree leaves fall in Vietnam War.

2- There can be many POPs mixed up with PCBs used in electric transformations

3- There can be many POPs in the ash wastes.

12- Overall causes of unintentional production of POPs

4- Causes of unintentional release of POPs are as follows:

- Wastes: burning wastes in open fields and residence surroundings...

- Factories: production of pulp, pesticides, plastics...
- Incidental fire: factory, chemical warehouse and transformations fires.
- Residential combustion: (using improper fuels such as oil wastes and other plastic materials for cooking and warming.

13- Techniques for managing activities and sources of unintentional release of POPs

1- What is available technique?

- Techniques used for managing at all stages: construction, high effective repairing process that reduces unintentional production of POPs, and these techniques are of reasonable prices, easy to use and available for buying.

These techniques include:

- The use of low-waste technology
- The use of less hazardous substances
- The replacement of raw materials, which form or release POPs such as the cessation of the use of chlorine for bleaching.
- The promotion of process generating the reduction of wastes.
- Good housekeeping and preventive maintenances.
- The use of fuels suitable for power.

2- What are Best Environmental Practices?

- Techniques used for implementing integrated environmental management (reduction in wastes, reuse wastes, management of wastes, clean-up of smoke and proper maintenance of wastes...) with high effective reduction of unintentional production of POPs.

These techniques include:

- Promote the reduction in the production of wastes.
- Increase the reuse and recycle of wastes
- Increase waste separations before they are disposed of.
- Promote good management of wastes (collection and transportation of all wastes, avoiding burning
- Stop burning wastes in open fields and landfill sites.
- Use equipment for cleaning up wind.

6.4.5 POPs status in Cambodia

I. Content

- **Background of POPs in Cambodia and inventory results**
 - **POPs pesticides**
 - **PCBs**
 - **Unintentional production of POPs**
- **Challenges found**
- **Priority problems and solutions**
- **Public participation in eliminating the release of POPs**

1. *Background of POPs in Cambodia and Convention results*
 - a. **POPs pesticides**

- Cambodia has used pesticides since 1950s and continued until 1975
- 1975-1979: No available information of pesticide imports. However, some 840 tons of DDT was imported, but it was not known where it was used and in what purposes.
- 1985-1992: pesticides were imported and distributed by COCMA (state company).
- Latest import of DDT was in 1991 and Endrin in 1992.
- State-run company has imported no POPs pesticides since 1993, except private companies.
- After 1993: No figure of pesticide imports, but it was known that private companies have imported more pesticides than before.
- In early 2004: POPs pesticide inventory was conducted in 21 provinces and municipalities (71 markets, 2 farms, 26 government warehouses.
- 450 kg of DDT and 53,7 kg of Chlordane were found.
- 25 tons of obsolete pesticides were also found.
- Dieldrin was found in some products such as mosquito coils.

Concentration of POPs pesticides (ng/g) in fish and mussels in Cambodia (1997-1998)

Sample	DDT		Chlordane	
	Fat weight	Wet weight	Fat weight	Wet weight
Fish	300	8.1 (0.51-25)	3.4	0.11 (0.06-0.16)
Mussel		0.5 (0.25-1.6)		0.12 (0.006-0.16)

- Concentration of POPs pesticides (ng/g) in fish in Cambodia (1996)

Location	DDT	Chlordane
	Fat weight	Wet weight
Marine		
- Koh Kong	79 (14-140)	3.2 (0.1-7.4)
- Sihanouk Ville	68 (8-240)	2.2 (0.2-6.3)
Inland		
- Tonle Sap	450 (11-2000)	6.4 (0.5-16)
- Upper Mekong	290 (25-840)	3 (1-6)
- Lower Mekong	100 (34-270)	2.1 (1-4.1)

DDT for health sector

- Cambodia began to use DDT in public health in 1953.
- 1953-1975: Cambodia used, but on information related to the amount of pesticide used.
- 1975-1979: 840 tons of DDT and 1250 sprayers were imported from Hong Kong, but no information of where DDT applications were made and what purposes.
- 1980-1991: Approximately 143 tons of DDT was used against the vectors of malaria and dengue fever (120 tons from WHO, Red Cross, USA and former Soviet Union; 23 tons left from the Khmer Rouge Regime).

- After 1991, Deltamethrin and Permethrin were used to destroy disease vectors instead of DDT.
- In early 2004: An inventory of DDT used in health sector was conducted (interviewed 133 people working in Malaria Control Sector in 24 provinces and municipalities.
- It was estimated that 3-10 tons of DDT was delivered to provinces and municipalities (used between 1980-1991).

b. **POPS PCBs**

- Cambodia began to use electro-power in 1906 and electric equipment has been introduced since then.
- Most of them have been imported from France, Japan, Yugoslavia, Former Soviet Union, the Eastern Europe, German, South Korea, Thailand, and Vietnam...
- In Cambodia, PCBs issues in electric equipment were just brought to talk in late 2003.
- In early 2004, Ministry of Environment conducted primary inventory of PCBs, cooperating with Ministry of Industry, Mine and Energy, Electricit du Cambodge (EDC), and provincial and municipal electricity units.
- The inventory was only conducted in electric transformations.
- The inventory was conducted by
 - Directly collecting and recording
 - Requesting information from companies and units concerned, using questionnaires and answers.
- About 1600 transformations exist in Cambodia. Among them
 - 200 were imported before 1975 mostly from France, Japan...
 - 400 were imported between 1980-1993 from former Soviet Union, and Eastern Europe.
 - 1000 were imported after 1994, mostly from France, Japan, South Korea, Thailand, and Italy...
- Of 1600, only 1343 were surveyed and recorded.
- Of 1343, 498 used in provinces and 845 in Phnom Penh and
 - 836 being used
 - 149 wait to be put into use
 - 84 wait to be repaired
 - 274 wait to be destroyed and disposed of.

Date	Number of transformations imported	Situation of transformations	PCBs Presence
Before 1975	200	465	Not present
1975-1993	400	762	Supposed to be present
After 1993	1000	116	Clearly present
Total	1600	1343	

c. **Unintentional production of POPs (Dioxin and Furan)**

- Dioxin has long existed, but it is a new problem for Cambodia

- Began to know after Cambodia signed the Stockholm Convention
- Began to educate some official of institutions concerned through **Enabling Activities for Development of National Plan Project**.
- In early 2004: a preliminary inventory on the release of Dioxin was conducted.
- Dioxin inventory was carried out in 20 provinces and municipalities, except (Preah Vihea, Oddor Meanchey, Mondolkiri and Pailin) due to:
 - Time
 - Budget
 - Those areas are less developed.

Main source of POPs released unintentionally

- Waste incinerators (industrial, municipal, and medical wastes
- Melting down metals such as iron, aluminum and lead...
- Smoldering of copper cables and burning vehicle tires for iron...
- Fossil fuel-fired industries
- Residential combustion sources
- Limestone production, brick production, latex production...
- Transportation
- Uncontrolled burning and burning of biomass (houses, factories...)
- Burning wastes in landfill sites...

Inventory results on POPs released unintentionally

No	Classification of Release Sources	Yearly release (g.TEQ/a)
1	Waste incinerators	41.511
2	Iron and non-iron production	1.410
3	Energy and heat production	11.967
4	Mineral production	0.099
5	Transportation	0.005
6	Uncontrolled burning	548.031
7	Other	3.641
Total		606.666

2. Facing problems found

- a. Low knowledge of people has sparked hazards to pesticide users.
- b. Low knowledge of pesticide sellers about techniques and regulations led to recommending wrong advice.
- c. Impacts on pesticides users and health of produce consumers.
- d. Institutions and managerial mechanism have not taken measures regarding safety and health of staff or workers working directly with pesticides.
- e. Dioxin still continues to release in environment, leading to health risks.

- f. Using improper techniques of disposal and burning of wastes
- g. Economic and social impacts
 - Lose opportunities to work due to deteriorated health.
 - Government spends more money on public health services.
 - Have difficulty in competing to export agricultural products (high toxicity of pesticide residues in the products).

3. *Priority problems and Solutions*

*** POPs pesticides**

1- Priority problems

- a. Lack of instruments and existing law and regulations are limited to manage pesticide use in agricultural sector and residences.
- b. Lack of ability to evaluate pesticides and approaches to promoting law enforcement.
- c. Lack of understanding and knowledge about safe and responsible POPs pesticide use among users, sellers and about risks of POPs pesticides.
- d. Lack of examination of POPs pesticide residues in environment, agricultural products and humans.
- e. Lack of data records and national data management for pesticides, especially POPs pesticides.
- f. Lack of mechanism for exchanging information and technologies.
- g. Lack of policy and approaches to disposing of agricultural wastes.

2- Solutions

- a. Make amendment to existing instruments and effectively enforce laws related to pesticides, including POPs.
- b. Build institutional capacity and raise public awareness about obsolete or banned pesticides, including POPs pesticides.
- c. Take action to manage obsolete and banned pesticides, including POPs pesticides.
- d. Eliminate obsolete pesticides, including POPs pesticides and clean up materials contaminated with POPs pesticides and stock sites.

*** PCBs**

1- Priority problems

- a. Lack of human resources and technical approaches
- b. Lack of specific law and regulations on PCBs management and, especially lack of law schemes for the use and disposal of PCBs.
- c. Lack of laboratory
- d. Improper management of obsolete transformations
- e. Lack of safe precautions and lack of measures for the management of PCBs and contaminated sites (warehouses...)
- f. Lack of knowledge about adverse effects of PCBs at all levels.
- g. Employers and employees are lack of knowledge about safe techniques and risks of PCBs.
- h. Lack of data records and national data management systems.
- i. Lack of national and international mechanism for exchanging information and technologies.

2- Solutions

- a. Develop instruments and technical standards for managing equipment containing or contaminated with PCBs.
- b. Develop sound environmental management of equipment and electrical facilities being used which containing or contaminated with PCBs.
- c. Establish approaches to manage transformations being used
- d. Sound environmental management of equipment and electrical facilities no longer used and wastes containing or contaminated with PCBs (transportation, wrapping, stock and disposal)
- e. Strengthen capacities and raise public awareness about PCBs.

*** POPS released unintentionally**

1- Priority problems

- a. Lack of technical skills and guidelines for managing POPs released unintentionally.
- b. Uncontrolled burning (wastes of provincial and municipal landfill sites)
- c. Regulations related to unintentionally released POPs management are not enough and lack of law enforcement.
- d. Lack of public awareness raising about unintentional production of POPs and risks.
- e. Lack of examination of reduction in the release of unintentional production of POPs from all sources.
- f. Lack of policy on waste separations.
- g. Lack of data record related to incidences caused by unintentional production of POPs, lack of data management systems and mechanisms for exchanging information are limited among government institutions and other parties concerned.
- h. Lack of laboratory and materials for analysis.

2- Solutions

- a. Update or develop instruments related to sound environmental management of POPs released unintentionally.
- b. Strengthen capacity and raise public awareness about impact and hazards of POPs.
- c. Improve waste management and prevent uncontrolled burning of wastes.
- d. Conduct complete inventory of POPs released unintentionally.
- e. Follow the guidelines: use best available techniques and best environmental practices for sources related to unintentional production of POPs, which are prioritized.

4. Participation of the Public in POPs Reduction

- Help share and disseminate information related to the impact of POPs on health and environment
- Follow 3R for waste management: reduction, recycle, reuse
- Cooperate to provide information on environmental crimes to competent authorities.

6.4.6 International conventions related to chemicals management

Content:

- Major notions of international conventions
- Requirements of international convention concerning chemical and waste management.
 - Agenda 21
 - Rotterdam Convention
 - Basel Convention
 - Stockholm Convention
- Roles of civil society in implementing international convention

1- Major notions of international conventions

- International conventions are an international law drawn up for addressing the global problems of all countries.
- United Nations or any programme of the United Nations sets them up (FAO, ILO, UNEP, UNDP, UNESCO, WHO...)
- Adopted by member countries of the United Nations at the meeting of the inter government.
- Entry into effect of the convention: within 90 days of the ratification of fiftieth country.
- Must implement the international convention as effectively as national laws.

2- Requirements of the international convention, Agenda 21

Agenda 21:

- Chapter 19: safe management of toxic chemicals, including the control of Tran boundary movement of toxic and hazardous products.
- Chapter 20: safe management of hazardous wastes, including the control of Tran boundary movements of hazardous wastes.
- Chapter 21: safe management of solid and liquid wastes.

2- Requirements of the international convention, Rotterdam Convention

Rotterdam Convention

1- Background information of Rotterdam Convention

- Passed on September 10, 1998 in the Rotterdam capital of the Netherlands.
- Open for signature on September 11, 1998 and entered into effect on February 24, 2004.
- Cambodia has not yet ratified the Rotterdam convention.
- Ministry of Agriculture, Forestry and Fisheries is a coordinating institution for implementing the Convention.

2- Objectives of the Rotterdam Convention

- Enhance the shared responsibility between export and import countries such as human health and environment protection from adverse effects of hazardous chemicals being traded internationally.

- Today, there are 27 chemical substances as pesticides and 31 industrial substances in the Rotterdam Convention.

3- Extent of the Rotterdam Convention

- Involvement in:
 - Banned and restricted chemicals
 - Products of hazardous agricultural pesticides
- Non-involvement in:
 - Drug, nerve chemicals
 - Radioactive
 - Wastes
 - Chemical weapons
 - Medicines
 - Chemicals as food additives
 - Food...

4- Requirements of the Rotterdam Convention

- The following chemicals are the subjects of early-informed procedures
 - 7 POPs including Aldrin, Chlordane, DDT, Dieldrin, Heptachlor, Hexachlorbenzene (Lindane) and Polychlorinated biphenyls (PCBs).
 - And more than 20 chemicals
- Designate competent authority and inform the secretariat for recognizing.
- Have to inform the secretariat in writing of banned chemicals
 - Developing countries can request the secretariat for registration of new hazardous chemicals in annex 3.
 - Have to implement legal and administrative measures
 - Do not have to import chemicals to other parties who don't need imports.
 - Each party who ban or impose restrictions on chemicals has to inform import parties of the chemicals and vice versa.
 - Each party importing or exporting banned chemicals has to label those substances in order to provide detailed information of hazards of those substances on human health and environment.
 - Have to provide scientific, technical, economic and legal information related to chemicals...
 - Each party has to take action to create or strengthen structure and national institutions for effectively implementing the convention.
 - Each party has to ensure that the public can obtain information of using chemicals, incident management and other alternatives.

5- Requirements of the Basel Convention

- Background information of the Basel

- Passed on March 21, 1989 in the Basel capital of Swiss.
- Open for signature on March 22, 1989 and entered into effect on April 05, 1992
- Cambodia was admitted into a member of the convention on March 02, 2001.
- There are 165 member countries (by April 08, 2005)
- Objectives of the convention
 - Protect human health and environment from risks caused by hazardous wastes.
 - Reduce hazardous wastes
 - Dispose of these wastes where is nearest to their sources.
 - Reduce Trans boundary movements of hazardous wastes.

6- Extent of the Basel Convention

- Wastes categorized in annex 1 and no any characteristics as in annex 3
- Hazardous wastes determined by international laws or other import/ export parties or crossed-countries.
- Radioactive wastes naval wastes, which are beyond the control of the Basel Convention.
- Have to ban the imports of hazardous wastes and other wastes from one country to another.
- The exports and imports of hazardous wastes are not allowed from countries, which are not members of the convention, except that there is bilateral or multilateral agreement and regions that imports are allowed.
- Staff involved in the management of hazardous wastes and other wastes have to prevent pollution and minimize the potential impacts on human health and environment.
- All hazardous wastes and other wastes to be transported to other countries need labeling in line with international law and standards.
- Staff in charge of the transportation of hazardous waste and other wastes from one country to another have to sign the transport information.
- Staff in charge of the transportation of hazardous waste and other wastes has to inform the countries of the crossing in writing.
- Importers of hazardous and other wastes have to inform the exports in writing of:
 - Agreement to import conditionally or unconditionally
 - Disagreement to import
 - Requests for additional information.
- All exports of hazardous wastes and other wastes require insurance or other guaranties asked by import countries or [crossed countries](#).

- 7- Objectives and main requirements of the Stockholm Convention
- To protect human health and environment from adverse effect of 12 POPs.
 - To take legal and administrative measures to ban production and use of 9 POPs (8 pesticides and 1 PCBs).
 - To develop plans to reduce the unintentional release of POPs (Dioxin and Furan).
 - To manage stockpiles and wastes contaminated with POPs in a sound environmental way (collection, maintenance, transportation and destruction).
 - No recycling and reducing stockpiles and other wastes contaminated with POPs.
 - All exports of stockpiles and other wastes contaminated with POPs to overseas require the respect of guidelines, standards and international law.
 - Have to provide information of the impacts of POPs and other relevant information related to human health and environment to the public.

6.5 Annex 5: Opening speech of Mr. Chhith Sam-Ath to the Forum

Respectively:

Mr. Chea Sina, Deputy Director of Department Pollution Control
Ladies, gentlemen and all of students here

It is my pleasure and great honor to speak in this forum on "Awareness-Raising on POPs and Stockholm Convention". Today, as the Representative of the NGO Forum on Cambodia, I would like to happily welcome you all who are attending the forum.

Excellencies, ladies, gentlemen and all students!

Taking this opportunity, I would like to tell you that the NGO Forum is a membership organization for local and international NGOs, which exists for information sharing, debate and advocacy on priority issues affecting Cambodia's development. Our vision is that Cambodia will have a well-informed and empowered population participating in a strong and vibrant civil society. The NGO FORUM believes in working together for: economic and social justice; respect for human rights and democracy; gender equality; peace and non-violence; sustainable use of natural resources; respect for cultural diversity; and development with equity. Membership of NGO Forum is open to all NGOs who are serious about contributing to the development of Cambodia.

Remarkably, awareness raising on POPs and the Stockholm Convention have been limited in Cambodia. Peoples have little knowledge about the impact of POPs on health and environment. More obviously, the results of the first step inventory in 2004 by Ministry of Environment show that there are still POPs as pesticides and PCBs in electronic equipment being used in Cambodia. These substances are imported from abroad. However, Cambodia agreed to sign the Stockholm Convention on May 23, 2001 and submitted the request as a member of the Convention for the assembly's approval.

According to the country's demand for awareness-raising and extension on environment pollution caused by POPs, NGO Forum on Cambodia especially pesticide reduction network on Cambodia (PRN-C) in cooperation with the Department Pollution of Control of the Ministry of Environment have organized this half-day forum with the following purposes:

1. To raise awareness about pesticide hazards, especially Persistent Organic Pollutants (POPs), on human and animal's health and environment
2. To demonstrate the situation of Persistent Organic Pollutants (POPs) in Cambodia- including POPs inventory in agriculture pesticides.
3. To find alternatives for eliminating POPs

I fully hope that the forum is really important for all participants and will provide good knowledge and experience related to POPs and Stockholm Convention because it is the international community's concerns to find a common resolution to eliminate the use of these organic pollutants to attain environmental balance.

Finally, I would like to thank you all who have been committed to make efforts for the half-day forum, I hope all students will apply the knowledge to use and help convey this good information to the public aimed at improving Cambodia's environment and society. I wish the forum would run smoothly and produce best results. With good luck and health to all participants, I would like to declare the forum open.

Thank you

6.6 Annex 6: Press Release

6.6.1. Press Release for Students Forum

“Awareness-raising on Persistence Organic Pollutants and Stockholm Convention”

The NGO Forum on Cambodia established “**Pesticide Reduction Network in Cambodia**” in 1999 to reduce pesticide use through people’s awareness raising about the influence of pesticides on health and environment, about sustainable agriculture and the effective strengthening of law enforcement.

The NGO Forum in cooperation with the Department of Pollutants Control of the Ministry of Environment will organize a forum on “**Awareness-Raising on Persistent Organic Pollutants and the Stockholm Convention** ” on January 25, 2006 (only half day in the morning) at the **Russian Cultural Center** with the participation of 150 students from 7 universities and some journalists

The purposes of the forum are to raise awareness about pesticide hazards, especially Persistent Organic Pollutants (POPs), on human and animal health, environment and to demonstrate the situation of POPs in Cambodia- including POPs inventory, measures and other alternatives for eliminating POPs.

The international community defines the group of the chemical substances called “Persistent Organic Pollutants” as causing serious, chronic hazards to human and animal health and environment. The world agreed to internationally take actions to eliminate the 12 POPs with the approval of the Stockholm convention in May 2001, which become effective in May 2004.

Willing to help address international concerns in erasing the production and the use of POPs, as well as their distribution in Cambodia, the country agreed to sign the Stockholm Convention on May 23, 2001 and submitted the request as a member of the Convention for the Assembly’s approval. But, most obviously, the results of the inventory in early 2004 show that there are still POPs, pesticides and PCBs substance being used in Cambodia. This prompts the Cambodian government to determine need to implement action plans including public awareness-raising about POPs and capacity building on safe POPs management for officials concerned. Public awareness raising invites all parties concerned to be active at all levels to undertake the reduction / elimination of problems or the hazards of POPs. The NGO Forum is heavily convinced that the workshop will be crucial and contribute to settling POPs problems in Cambodia.

For further information contact: Ms. Men Vannavy Tel: (012) 483 364.

6.6.2. Press Release for NGO Workshop

“Persistent Organic Pollutant, (POPs) Issues and Stockholm Convention”

The NGO Forum on Cambodia established the “**Pesticide Reduction Network in Cambodia**” in 1999 to reduce pesticide use through people’s awareness-raising about the influence of pesticides on health and environment, about sustainable agriculture and the effective strengthening of law enforcement.

The NGO Forum on Cambodia in cooperation with the Department of Pollutants Control of the Ministry of Environment will organize a workshop “**Persistent Organic Pollutant Issues and the Stockholm Convention**” on February 03, 2006 at World Vision with the participation of 50 NGOs staff and some journalists.

The purposes of the workshop are to enhance the knowledge of pesticide hazards, especially Persistent Organic Pollutants (POPs), on human and animal health, environment and other alternatives and to demonstrate the situation of Persistence Organic Pollutants (POPs) in Cambodia- including POPs inventory and the organizations’ role in playing their parts with the government institutions in implementing the Stockholm convention.

The international community defines the group of the chemical substance called “Persistent Organic Pollutants” as causing serious, chronic hazards to human and animal health and environment, and the world agreed to internationally take actions to eliminate the 12 POPs with the approval of the Stockholm convention in May 2001, which became effective in May 2004.

Willing to help address international concerns in erasing the production and the use of POPs, as well as their distribution in Cambodia, the country agreed to sign the Stockholm Convention on May 23, 2001 and submitted the request as a member of the Convention for the Assembly’s approval. But, most obviously, the results of the inventory in early 2004 show that there are still POPs, pesticides and PCBs substance being used in Cambodia. This prompts the Cambodian government to determine need to implement action plans including public awareness-raising about POPs and capacity building on safe POPs management for officials concerned. Public awareness raising invites all parties concerned to be active at all levels to undertake the reduction / elimination of problems or the hazards of POPs. The NGO Forum is heavily convinced that the workshop will be crucial and contribute to settling POPs problems in Cambodia.

For further information contact: Ms. Men Vannavy Tel: (012) 483 364.

6.7 Annex 7: Results of workshop evaluation

Based on responses received: 95 % were not aware of POPs prior to the workshop, and 5 % were fairly familiar with the Stockholm Convention.

1. Evaluation Results

No	Item	Evaluation point	Excellent	Good	Fair	Weak
11	Topic	- Interesting	39	58	3	
		- Meaning and definition	31	69		
		- Knowledge	7	54	39	
22	Presentation	- Presentation materials	27	58	15	
		- Documents	23	77		
		- Explanation and translation	11	81	8	
33	Facilitation	- Time management		39	54	7
		- Facilitation		65	35	
		- Overview of workshop	8	58	31	3
44	Place	- Environment	23	65	12	
		- Sitting place	27	58	15	

University students and NGO staff were so interested in this program and they suggested having more in the future.

University students and NGO staff expressed their views that they did a lot of research and gain more knowledge on POPs issues and its interlinkage with social, cultural, economic and development matters,

2. Recommendations for further improvement:

- Should translate documents related to POPs and published them in Khmer languages
- Share information to community in target areas
- For the last workshop should organize 2-3 days
- Should be organized in all provinces
- Should invite farmers to attend the workshop because they are POPs pesticide users
- Presentation materials are clear (LCD)
- Should have group discussion
- More explanation related to technical aspects of POPs
- Time management for participants to ask questions and answer

6.8 Annex 8: Photos of training session



Mr. Chhith Sam-Ath, Director of NGO Forum on Cambodia (left) and Mr. Chea Sina, Deputy Director of Environmental Pollution Control Department, Ministry of Environment, presided the POPs forum at the Russian Cultural Center on 25th January 2006



Mr. Chhith Sam-Ath, Director of NGO Forum on Cambodia, addressed delegates of the POPs Forum.



Mr. Chea Sina, Deputy Director of Environmental Pollution Control Department, MOE, talked with the press about POPs and Cambodia.



Students from five universities and their teachers attended the forum held on 25th January 2006 at Russian Cultural Center



Students asked a question to the presenter in the forum held on 25th January 2006 at the Russian Cultural Center.



Mr. Heng Bunny, National Biodisaster Program, raised a question to the presenter during workshop held at the World Vision on 3rd February 2006