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THE FINAL REPORT
OF CONTRACT NO. 94/137// PROJECT NO. DP/RAS/93/061

BETWEEN

THE UNIDO

AND

DIRECTORATE OF CHEMICAL INDUSTRY
MINISTRY OF INDUSTRY AND TRADE
THE REPUBLIC OF INDONESIA

REGIONAL NETWORK OF PESTICIDE ON ASIA AND THE
PACIFIC

(RENPAF)

JAKARTA, JUNE 1999

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OF CONTRACT NO. 94/137P PROJECT NO.DP/RAS/93/061
BETWEEN THE UNIDO AND DIRECTORATE OF CHEMICAL INDUSTRY

Summary

In considering with above-mentioned contract and elaborated in the Term of Reference of contract, Directorate of Basic Chemical Industry has been implemented several program, but also postpone other program such as outside training and hosting workshop. There was two even occur in the country that causes to delay and absence on program activities. The first was changed of organization structure of Ministry of Industry to be merged with Ministry of Trade to be Ministry of Industry and Trade, all unit Organization belong to Ministry has been changed already. Two times changed of the Directorate General that chemical industry belong their responsibility such as Directorate of Basic Chemical Industry has changed to be Directorate of Chemical Industry in 1996, and continued changed to be Directorate of Organic Chemical and Agrochemical in 1998. However, several personnel also had changed. The second is monetary crisis occur since the middle of the year 1997 continued with economy crisis that has been influenced to any sector of business included pesticide. Many industries has been reduced or closed their production and created unemployment problems. These all is affect to yhe contribution capability to the RENPAP program. Since the future program of RENPAP that has been directed as the result of Tree Partite Meeting held in New Delhi in 1997 have to find the self-fund resource between member's countries. National Coordinator, which his responsibility, has been proposed the project through the national budget mechanism, but in this year 1999/2000 the National Planing Agency has been rejected postponed due to the national social safety net is the priority.

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CHAPTER I

BACKGROUND

As stated in the above-mentioned contract and elaborated in the Term of Reference of contract, Directorate of Basic Chemical Industry should submit a final report to UNIDO regarding to the RENPAP activities in the country.

The effective starting date of contract since signed by UNIDO and Directorate of Basic Chemical Industry on January 15, 1995 will be terminated on January 1997.

Since Ministry of Industry has been merged with Ministry of Trade to be Ministry of Industry and Trade, all unit Organization belong to Ministry has been changed already. Two times changed of the Directorate General that chemical industry belong their responsibility such as Directorate of Basic Chemical Industry has changed to be Directorate of Chemical Industry in 1996, and continued changed to be Directorate of Organic Chemical and Agrochemical in 1998. However, several personnel also had changed. All those changes was affected to delayed of submitted the project report. Monetary crisis occurred since the middle of the year 1997 continued with economy crisis that has been influenced to any sector of business included pesticide. The utilization of the plant capacity has been decreased dramatically in about 30 to 40 percent. Many industries has been closed their production and created unemployment problems. These all is affect to the contribution capability to the RENPAP program. Several events of training and workshop that Indonesia had to follows was absent, while the government has no

budget to support fund resource to send the participant. Since the future program of RENPAP that has been directed as the result of Tree Partite Meeting held in New Delhi in 1997 have to find the self-fund resource between member's countries. National Coordinator, which is responsibility through the national budget mechanism, has been proposed the project, but in this year 1999/2000 the National Planing Agency has been postponed due to the national social safety net is the priority.

This report concern with RENPAP activities, which has been carried out by Indonesia during extension of, phase III.

CHAPTER II

SCOPE OF CONTRACT

According to the Term of Reference, national coordinator has responsibility upon contract with UNIDO to facilitate smooth functioning of the various activities of the program. The following assistance throughout the lifetime of the project should include:

2. All necessary and administrative support within the country for UNIDO/RENAP personnel.
3. Providing technical inputs when asked by UNIDO or Regional Coordinator.
4. Providing necessary nomination forms for various activities within and outside the country for fellowships and training.
5. Conducting of workshops/training courses/seminars as agreed in the work plan in topics assigned to the national coordinator.
6. Providing training to fellows from member countries as requested.
7. Participating in Project management Committee Meeting as agreed in the work plan.
8. Assistance in producing reports and other materials needed for distribution to member countries.
9. Raising Government requests for any project proposals emanating from the network activities.
10. Providing assistance in finding national experts to be assigned to any activities.
11. Providing pesticide data needed for establishment of pesticide database.
12. Providing review articles on topics of interest and calendar of events/meeting to regional coordinator.

CHAPTER III PROBLEMS DESCRIPTION

During implementing the whole activities several problems has been found and have to be evaluated in the future such as:

- (a) The number of local formulators in the country are not many, so the short cycle transferred of knowledge found from the local expert who had been trained in the member countries through the RENPAP program.
- (b) Monetary crisis follows with economy crisis in the country cause to decreasing production and use of pesticide for domestic and export. These were created to disliked in participating on training and workshop to outside and local of pesticide formulator and manufacturer.
- (c) National Planing Agency has responsibility to select project proposal on the whole sectors. However, National Coordinator has no budget allocation for RENPAP contribution without approval by this institution. In the year 1999/2000, the proposal of RENPAP was rejected due to the highest priority have to be implement in the year.

CHAPTER IV

PROGRESS OF THE RENPAP ACTIVITIES IN INDONESIA

4.1. Administrative Support for RENPAP

National Coordinator has been selected a representative of involve sector to attended in the coordinating meeting, field visit and workshop.

Administrative support that has been provided were:

- 1). Arrangement coordinating meeting with sectors involved which focus discussions on national action plan, of RENPAP program. The sector involve are pesticide committee, pesticide association, ministry of agriculture, ministry of environment, Environment Impact Management Agency and Ministry of health.
- 2). Participating to the sector program, meeting related to the RENPAP.

Several meeting that was held by related sector such as Farmer Agriculture Resource Management (FARM), Integrate Pest Management (IPM) and pesticide registration (Pesticide Committee) has been attended National Coordinator was distributed invitation letter of meeting and appointed a representative that had to attended. Secretariat was provided travel cost for participants, evaluated their report and distributed report to the related institutions for further actions.

Participation's that had been supported were:

- (1) Mr. Sutiono Ontorikso, his is staff of Directorate for Chemical Industry was participated on Roofing workshop of faros.
 - (2) Mr. Agus Wahyudi, chief of Sub Directorate for Productions, Directorate for Chemical Industry was participated on steering committe of Faros. He also participated on PMC meeting in New Delhi October.
 - (3) Mrs. Tuti Rahayu
- 3) Replied UNIDO questionnaire for computer hardware that has been sent to the secretariat for support its pesticides data collection.
 - 4) Distribution of nomination form of workshop and PMC meeting to the related institutions, invited their interesting and nominated them as participant to the outside workshop / training.

Since RENPAP was integrated in to the Farmer Agriculture Resource Management (FARM), several activities of FARM in the country have been attended. The Country Coordinating Committee (CCC) was officially established under the International Cooperation Bureau, Ministry of Agriculture, on 6 December 1994. Before this time, it was informally operating under leadership of UNDP and the Ministry of Forestry.

Several Country Coordinating Committee (CCC) FARM Meeting has been held as bellows:

4.2. Farmer Agriculture Resource Management (FARM).

- a). FARM Country Coordinating Committe Meeting on 2 February 1995 at the Ministry of Agriculture, Jakarta was discussed the topic as follows:
 - Selection of the site area of FARM Program
 - Proposal of work plan of the sub program for 1995
 - FARM schedule activities.

b). FARM Country Coordinating Committee Meeting on 21 March 1995 at the office of the International Cooperation Bureau was discussed the topic as follows:

- Preparing the material for "the Program Steering Committee" meeting on 23 - 25 May 1995
- Discuss about the preparation of the "Roving Workshop and Planning Exercise" in Rembang District.
- Report activities of the sub program.

c). Country Coordinating Committee FARM Meeting on 3 May 1995 at Cinagara, Bogor was discussed the topic as follows:

- Preparation of the Roving Workshop in Rembang
- Discuss of FARM strategy in Indonesia and select the FARM site
- Review and complete FARM country report for China meeting

Presentation of Sub-Program workplan.

The participants of the meeting were from the National FARM secretariat and the chairman of Country Coordinating Committee, head of Sub-Program and APAN, also the Chairman of Farmer Training Center Karya Nyata, Cinagara, Bogor.

d). Country Coordinating Committee FARM Meeting on 16 August 1995 at the Research Center for Food Crops, Bogor was discussed the Topic as follows:

- Preparation of the training based on planning, monitoring and evaluation of farmer in Simalungun.
- General information of APAN Regional Program
- Review about FARM activities
- Explanation of the concept of farmer meeting in Rembang.

e). Country Coordinating Committee FARM Meeting on 13 October 1995 at the office International Cooperation Bureau, MOA, was discussed the Topic as follows:

- Explanation of FARM Strategic Framework and the Indonesian response to that concept.
- Preparation of the Farmer to Farmer training in Rembang District.
- Report of the training based on the planning, monitoring and evaluation to farmer.
- Workplan of the Sub-Program for October 1995 - March 1996.

f). Country Coordinating Committee FARM Meeting on 17 November 1995 at the Farmer Training Center Karya Nyata, Cinagara, Bogor was discussed the Topic of:

- FARM Program for October - December 1995.
- Discussion of the final draft of the FARM strategic and work plan.
- Explanation of the experience of the Farmer.

Roving Workshop and Planning Exercise.

The Roving Workshop and Planning Exercise Conducted by Country Coordinating Committee FARM Indonesia on 17 - 19 April 1995 in Rembang, Central Java Province.

The participants in the Roving Workshop consist of the FARM Sub Programs, representatives of local agencies who are active in the field also played an important role. Participant came from research, extension, non-governmental organizations, farmer and international agencies.

The objectives of the workshop as follows:

- To observe on going integrated agriculture development activities in Rembang.
- To review on going development activities in Rembang to see if there is compatibility with the objectives of FARM.
- To discuss alternative strategies for implementation of FARM activities in collaboration with the local development agencies.

- To bring together coordinators from the FARM sub-Program to discuss work plan for 1995-1996.

The program steering committee (PSC) meeting of FARM conducted by the FARM Regional Program was held on 23 - 25 May 1995 in Beijing, China.

The participants of PSC meeting comprise representatives of FARM Countries, UNDP, FAO and UNIDO and observers from the two implementing agencies: the Asian Non Governmental Coalition for Agrarian Reform and Rural Development (ANGOC) and the India Government of Biotechnology. Chairman of CCC Mr. Sunaryo Husein was represented Indonesia to this PSC meeting. Indonesia FARM Project was closed by October 1997 with successful on improving farmer society life in selected location as a model.

4.3. Pesticipation on outside the Country Training and workshop.

Activities under third phase RENPAP program as decided in the PMC meeting held in New Delhi India on October 6-8, 1993, several program was undertaking already. The program had been carried out were:

1) Country Group.

Mr. Agus Wahyudi, senior official of Directorate, represented the PMC meeting was held on October 6-8 in India for Basic Chemical Industry. The second PMC meeting was held in P.R. China was represented by Mrs. Bati Lestari, and the last PMC meeting held in New Delhi India was represented by Mrs. Sulistiyowati, official of the Environmental Impact Management Agency (EIMA)

As stated in the contract that national coordinator has obligation to propose program activities needed in the country. In the last meeting which was held in New Delhi, Indonesia has been proposed for future RENPAP activities with accordance to the priority needed that has been taken through coordination meeting within related institution and pesticide association as follows:

(a) Consultancy:

- Bio-pesticide formulation
- Registration of bio-botanical pesticides

(b) Training:

- Formulation of biological and botanical pesticides
- Waste disposal.

Activity for hosting workshop on Disposal of Pesticide Waste and Management of Effluent, where Indonesia has been appointed as Technical Coordinating Unit has reported on last PMC meeting. Preparation of the workshop is under cooperation with EIMA, which has training facility for waste management and effluent treatment.

The schedule of the workshop will be in 1998.

2) Group Activities.

All group activities implemented in other member countries as bellows:

a) Training on Development of User and Environmental Friendly Pesticide Formulations and Quality Control.

Training was held in New Delhi India on 20-24 February 1995. National Coordinator distributor Indonesia sent Mrs. Tuti Rahayu, staff of the Directorate for Basic Chemical Industry to represent this training and adopt her knowledge through practiced in the training. Training provided newer inputs such as making known not only technology but also quality control. Her knowledge is transferring to pesticide formulator by even that she give consultancy to people who work in the pesticide industry. However, her job related to-pesticide become more useable and more helpful for pesticide industry.

b) Training course on Bacillus Thuriengensis production and application.

Training was held on October 30 - November 9, 1995 in Wuhan P. R. China. Mr. Taufiq Bafadhal, staff of Directorate for Basic Chemical Industry, was represented Indonesia.

That was the beginning that air ticket should provide by member's country. Although, found the difficulty for the Government to financed him, but by wishes from Pesticide Association, which was provided air ticket to him. The consideration that not representative pesticide association to participated in this training was decided by them that more effective on transferring his knowledge if came from the government official.

From the Indonesia point of view and experience, based on the number of attendance of Indonesia observers during a weeklong was always relative high. Knowledge and skill acquired from their attendance will be transferred to pesticide formulator.

c) Pesticide Data Collection.

One of the RENPAP programs is supporting data of pesticide related to domestic production and use of pesticide.

Indonesia was submitted pesticide data until year 1991, but when Mrs. Chutima, senior data collector from Thailand had visited Indonesia, she brought data until year 1994. In the group meeting of pesticide data collection was held on September 6-10, 1994. Mr. Sutiono Ontorikso is data collector specialist was represented in this meeting.

So far Focal Point tried to collect economic data that suggested in the PMC meeting, but since limited data about price and marketing were not reported yet, several difficulties found in this case.

There was no counter data from member countries after they were collected. However that will become a barrier to cross transparency between each other.

d) Workshop on Residue Monitoring-Up grading of Laboratory Facilities for Monitoring Pollutants in Air, Soil & Waters.

Workshop was held on May 13-18, 1996, in Suweon, Republic of Korea. Mr. Wismo Budiono and Mr. Natsir represented Indonesia. Both of them from pesticide industry.

Proceeds of the workshop is expected to apply in their job and transferred to other laboratory facility.

- e) Workshop on preservation of environment through proper control of effluents and disposal of wastes from pesticide production units.

Indonesia has been appointed in the PMC meeting to host a workshop on effluent control and disposal of wastes. The workshop was held in Jakarta Indonesia on 15 - 20 July 1996. Some of member countries of RENPAP sent their representative to present the workshop; they were Bangladesh, China, India, Indonesia, Korea, Myanmar, Nepal, Philippine, Thailand and Vietnam. How purpose of the workshop was individual training changed from participation 1 or many participants had followed 2 participants from Indonesia, from the pesticide industry. Beside technical session, which presented by expert from UNIDO and local expert, participants also visited to central hazardous waste treatment plant (PPLI) at Ciulengsi, Bogor. This visit has been given newer knowledge of management waste industry. UNIDO experts DR. Sugavanam and DR. S.P. Dhua were interested to recommend UNIDO to arrange PPLI for the future individual training of member countries. This program has been realized by requisition of Mr. P.C. Rawals from India to visit PPLI, which purpose comparative study.

Indonesia as focal point of RENPAP has been facilitated the possibility, but Mr. P.C. Rawals has been cancelled due to particular reason in the same time. So long there is no news any more for confirmation of his program.

- f) Workshop on Safe Application Technology of Pesticide.

Workshop was held in Kuala Lumpur, Malaysia, on September 23-28, 1996. Indonesia sent Mr. Irwan Kamal and Mr. Anton Awusi. They were expected to adopt newer technology on application of pesticide and will be insert to the future training program.

- g) Workshop on Production of User and Environment Friendly Pesticide Formulation and Quality Control.

Workshop was held on 21 - 26 April 1997 in New Delhi, India. Mr. Hardoyo staff of the Directorate represented Indonesia for Chemical Industry and Mr. Pranowo from selected pesticide formulator. The workshop provided newer inputs about knowledge of environmental friendly pesticide formulation including quality control, packaging, waste management and laboratory test. Direct participation from pesticide formulator is expected to stimulate creation for developing quickly environmental friendly pesticide.

- h) Training Workshop on Analysis of Pesticide Formulation

Training workshop was held on October 6-31, 1997 in Suweon, Republic of Korea. Pesticide Association was represented by Mr. Kadarisman with his own cost, while one candidate Mr. Abdul Rochim staff of Directorate for Chemical Industry was sponsored by FAO/IAEA.

- 3). Technical Input for DR. Nag Bhusan Mandava UNIDO Consultant Mission.

On September 16-17 1994, UNDP/UNIDO Consultant DR N.B. Mandava was visited Indonesia to evaluate the on going of RENPAP program and its existence for future operations. Secretariat was provided his proposed such as meeting arrangement with pesticide committee, Environment Impact Management Agency and National Planning and Development Agency. Several inputs have been given for his report such as the workshop activities of RENPAP that had been implemented outside and the country.

CHAPTER V

IMPLEMENTATION PROGRAM

5.1. Pesticide application

The government of Indonesia has been issued a new regulation by October 1997 to prevent improper use of pesticide by certification of professional applicant and will be effective a year after issued. These action based upon suffers of problem lack of sufficient information in the farmer level

To implement of certification, the government will conduct training program for farmers with cooperation by Pesticide Company. But, with several considerations that these will be faced time lag and high cost of conduct, the regulation has been postponed. Consequently the government has to prepare tree category priority criteria of: the first pesticides use for farmer, the second pesticides use for professional application, and banned pesticides. The priority criteria has been followed under WHO Hazard classification. Since the National Coordinator is also a member of Pesticide Committe, several inputs with accordance to the information got from RENPAP such as training and workshop report has been took as reference on designing national polity. Standard of occupational, safety and health and application technology that has been implemented in the Philippine and Malaysia were also has contribution in discussion matters.

5.2. Pesticide Data Collection

Since 1987 production of pesticide was fluctuated from year to year that was predicted that intensity of pest and plant disease for each plant season were unpredicted, however consumption of pesticide was fluctuated.

The trend pesticide production during period of 1994 - 1998 showed in table 1.

Table 1 Trend of pesticide production 1993 - 1997

Year	Pesticide formulation (000 Ton)	Trend (%)	Technical Pesticide (000 Ton)	Trend (%)
1994	37,4	-	3,1	-
1995	38,1	1.8	3,4	8.7
1996	53,4	39.9	4,6	35.4
1997	58,2	8.93	5,7	25.0
1998	50,2	- 13.5	7,5	29.4

Technical pesticide that produced locally is Diazinon, BPMC, MIPC, Carbofuran, monochrotophos, propoxur methomyl and carbaryl.

Production of technical pesticide in 1998 was increased, while formulation decreased compared to 1997.

This was market-changed occurred from domestic to export oriented.

Trend of pesticide production: by type is depicting in table 2 bellows.

Table 2 Pesticide production bay type of pesticide in the year 1994 - 1998

(000 Ton)

Year	Insecticide	Herbicide	Fungicide	Others
1994	24.3	6.4	3.1	3.5
1995	24.7	6.4	3.1	3.7
1996	34.9	9.3	4.4	4.5
1997	37.8	10.5	4.8	4.9
1998	31.1	10.5	4.7	4.2

Imported pesticide was also recorded has negative trend as show in the table 3 bellows.

Table 3 Imported of formulation pesticide by type of period 1994 - 1998

(000 Ton)

Year	Insecticide	Herbicide	Fungicide	Rodenticide	Others
1994	91.5	2.0	1,288.4	14.9	0.1
1995	75.9	98.0	1,069.6	26.8	0.1
1996	895.5	49.0	-	96.6	286.3
1997	784.2	15.0	-	86.8	842.1
1998	311.35	20.0	-	49.6	690.8

Imported technical pesticide by type was recorded as table 4 bellows.

Table 4 Imported technical pesticide by type from 1994 - 1998

(000 Ton)

Year	Insecticide	Herbicide	Fungicide	Rodenticide	Others
1994	1,249.7	73.0	855.4	670.9	194.1
1995	911.7	211.0	1,106.1	663.3	325.0
1996	-	525.8	3,081.3	991.5	25.8
1997	-	212.8	2,753.1	1,204.3	112.4
1998	-	418.8	1,356.7	372.1	20.5

Pesticide consumption in 1998 by yield as depitching in table 5 bellows:

Table 5 pesticides consumption in 1998 by yield

No.	Yield	Areal (Acre)	Insecticide	herbicide	Others	Total
1.	Paddy	11,085	14,093	856	4,688	21,084
2.	Crop	5,034	2,008	41	0	2,204
3.	Vegetable	905	3,357	500	0	6,478
4.	Plantation	11,630	819	200	103	3,476
Total		28,654	20,277	1,597	4,791	33,242

There were reported that some of formulation pesticide facilities may sub-standard from an environmental or occupational health and safety point of view. This can be a serious situation where the workers may suffer acute poisoning and long term effects, but could also be exposing other members of their family through their contaminated work cloths.

An essential training has been announced to these formulators with necessary education program. Member of the Philippine hosted the expert who had trained through RENPAP program, which was certified the local expert to trained, those formulators. That was a synergic transferred of knowledge between formulator each other. Beside of this the local government where plant is located has been carried out an environmental audit of formulator facilities. The first result is a warning that the formulator manager has to implement national and international guidance of workers. The second step that the same conditions still occur, the plant operation is under control of the representative of Ministry of manpower. The last step if the conditions still occur is closed their operation and phase out the industrial license.

5.3. Pesticide Registration

Registered pesticides expired during period 1996 - 1998 were 35 formulations with in 13 technical pesticides. Table 6 depicts expired pesticides during 1996 - 1998.

Table 6 Expired Registration of pesticide during 1996 - 1998

No.	Pesticide Trade name	Technical Pesticide	Expiredate
1.	Agrothion 50 EC	Phenitrotrion : 500 g/l	12 October 1998
2.	Akodhan 350 EC	Endosulfan : 350 g/l	27 February 1998
3.	Amcothene 75 SP	Asefate : 75,05 %	27 February 1998
4.	Basmiban 200 EC	Chlorphyriphos: 200 g/l	1 May 1997

No.	Pesticide Trade name	Technical Pesticide	Expiredate
6.	Dharmasan 60 EC	Fenthoate : 600 g/l	27 February 1998
7.	Diazinon 10 G	Diazinon : 10 %	1 May 1997
8.	Diazinon 60 EC	Diazinon : 600 g/l	1 May 1997
9.	Dimaphen 500 EC	Phenitrothion : 495 g/l	17 January 2000
10.	Dipterex 95 SP	Arichlorphos : 95 %	7 October 1996
11.	Dursban 14 G	Chlorphyriphos : 14 %	17 January 2000
12.	Dursban 20 EC	Chlorphyriphos : 200 g/l	12 October 1998
13.	Ekalux 25 EC	Quinalphos : 255,5 g/l	7 October 1996
14.	Elsan 60 EC	Phenthoate : 650 g/l	7 October 1996
15.	Indoban 350 EC	Endosulfan : 353,59 g/l	23 June 1999
16.	Indovin 85 SP	Carbaryl : 85 %	17 January 2000
17.	Lannate 25 WP	Metomil : 25 %	27 February 1998
18.	Lebaycid 500 EC	Fenthion : 500 g/l	7 October 1996
19.	Licocide 650 EC	Fenitrothion : 650 g/l	27 February 1998
20.	Merosan 50 EC	Fentoat : 500 g/l	7 October 1996
21.	Mestakwin 250 EC	Kuinalphos : 252 g/l	27 February 1998
22.	Metindo 200 WSC	Metomyl : 200 g/l	30September 1997

No.	Pesticide Trade name	Technical Pesticide	Expiredate
23.	Metindo 25 WP	Metomyl : 25 %	12 October 1998
24.	Monitor 200 LC	Metamidophos : 200 g/l	12 October 1998
25.	Ofunack 40 EC	Pyridatenthion	1 may 1997
26.	Petrobas 200 EC	Clorpyriphos : 200 g/l	27 February 1998
27.	Petrovin	Carbaryl : 85 %	12 October 1998
28.	Sematam 200 WSC	Metamidofos : 200 g/l	7 October 1996
29.	Sematron 75 SP	Asefat : 74,97 %	27 February 1998
30.	Sevin 43 FW	Carbaryl : 43 %	1 May 1997
31.	Sevin 5 D	Carbaryl : 5 %	7 October 1996
32.	Sevin 85 S	Carbaryl 85 %	1 May 1997
33.	Sumithion 50 EC	Fenitrotion : 500 g/l	1 may 1997
34.	Sumithion L-100	Fenitrotion : 1000 g/l	1 may 1997
35.	Tamaron 200 LC	Metamidophos : 205 g/l	7 October 1996

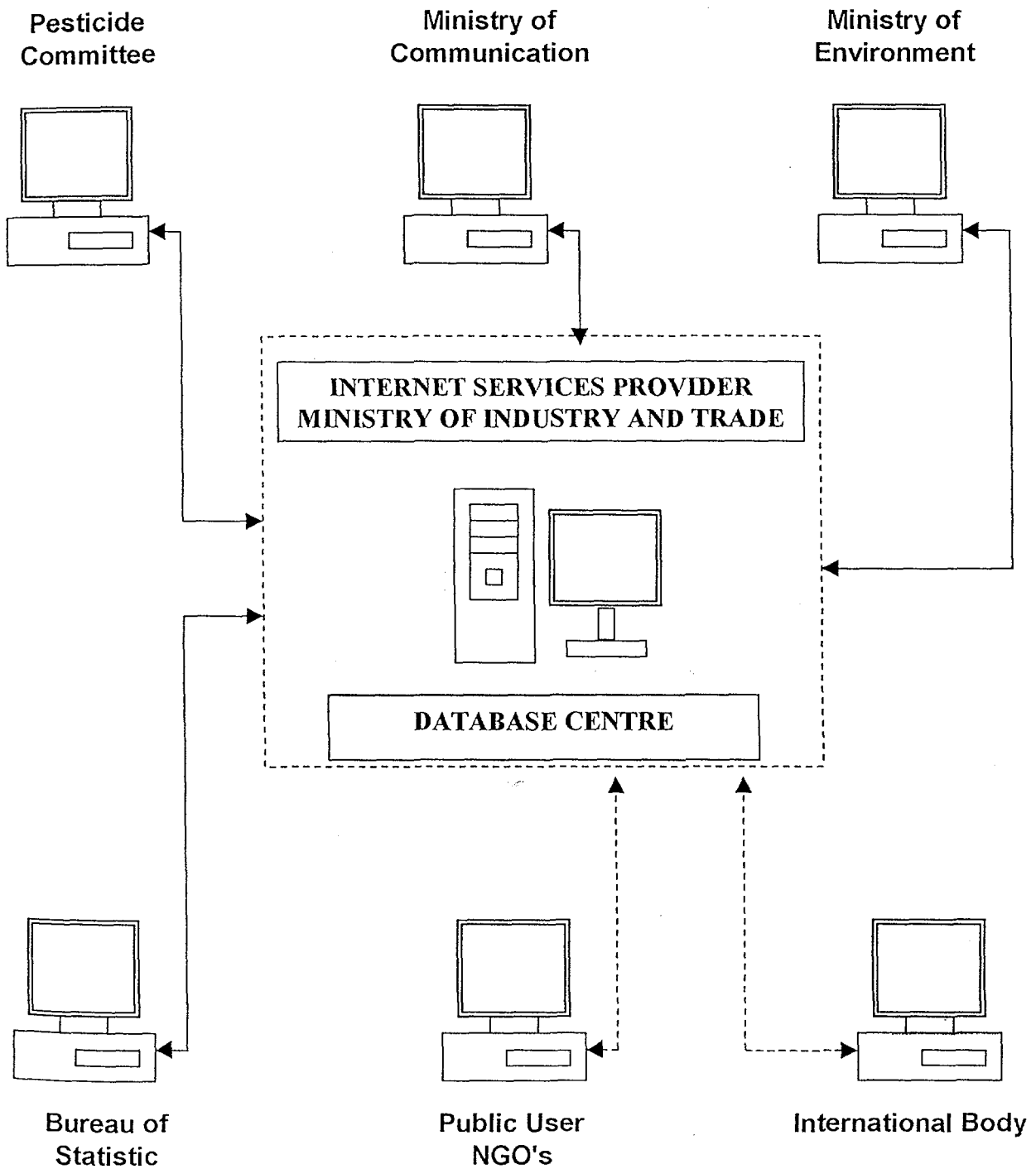
5.4. Chemical information

Since Indonesia has been selected as a pilot country by United Training and Research (UNITAR) on the Capacity Building for National Information System for Chemical Management, the National Coordinator of RENPAP is also appointed to coordinate the task force team for established a chemical information system. In line with various aspects of development of the country, consumption of chemical substances included pesticides become in dispensable in the human

life. Inevitably, increasing usage of chemical substances might contribute to health and environmental problems at various stages during its life cycle from the raw material availability import or in country production, storage transportation, usage and disposal. For the time being control and regulation have been implemented through partial or sectors cases in accordance with different responsibility and authority of the various institutions. Generally, all stages of life cycle of chemical substances have been regulated by various relevant institutions such as pesticide has to registered in Pesticide Committee. But actually still has not yet addressed to the sound of management system as expected. Various types of data and information widely scattered come through different resources. Lack of common data based and availability of adequate information on chemicals and pesticide poisoning are the major problems in the absence of integrated system. Moreover many chemical substances information has found inadequate and mostly different reliable statistic data concerning certain chemicals. Considering with the above matters, an attempt is made to increase efficiency of dissemination chemicals information by printing materials, and completed it with an integrated system that has to be established through electronic data information network. Existing Data center of the Ministry of Industry and Trade has been facilitated an access of chemicals information through the homepage with address: <http://indag.deprin.go.id/chemical> , fax modem number 6221-5265025 or for communication through e-mail : agus-w@pusdata.dprin.go.id. Detail instruction for connecting as described in attachment. The member of international task force support by international agency UNITAR, WHO, IOMC, IRPTC are Argentina, Ghana, Slovenia, Tanzania, and Egypt. However, beside link to those agency this is also can communicate with other participants like US EPA, FAO, etc. This facility is also expected to link with RENPAP Regional Coordinator and all member countries.

Figure 1

INTEGRETED CHEMICAL INFORMATION NETWORK



However Data collection program that coordinated by Thailand is expected continued in order to exchange information on pesticide. So far this activity did not stimulated suitably due member country were not gave information input. Pesticide data collection system in the country will be different with model that had been designed in the RENPAP project document. Data collection center is not particular for pesticide, but also design for the whole chemicals produce and circulated in the country. Data center of Ministry of Industry and Trade in temporary while the fix body not establishes yet will be a provider. The line shows two way communications among them. This is mean that among them could sharing data, while dot line such for public indicate data services only. Figure 1 is shows the national of information networks.

CHAPTER VI

RECOMMENDATION

In the time being Indonesia is going to reform the whole aspect included regional government authority. However, further implementing obligation of national program should that public society have more strong contribution. In this case the center government is oblique on the five policy subjects: International policy, defense and safety, fiscal and moneter policy, education and religion. Since economy crisis is influencing to the region of member country of RENPAP, Indonesia has been got impact deeply bad and predicted will be recover in the long time. According to the point of view, herewith recommendation to the further RENPAP program:

1. International donor to support RENPAP program is still relevant, therefore United Nation Body requested to find finance resources.
2. Indirect training through distribution and circulation of printed tools and guidance's that develop by success country or by Internet and electronic network are may relatively efficient.
3. Regional coordinator should be a provider of pesticide information from the many resources, standardized information format and appointed by obligation of member country to support data and information.
4. Official meeting to develop network plan such as PMC meeting is still recommended under sponsorship of UNIDO/UNDP or other donor.
5. Multinational pesticide manufacture that contributes biggest market in the region should have responsibility to be finance or knowledge resources of RENPAP. This is to be a part of their promotion cost.

CHAPTER VII

CONCLUSIONS

1. The national coordinator has been implemented necessary administrative and support within the country for UNIDO/RENAP personnel in order to:
 - Providing nomination forms for various activities within and outside the country for fellowships and training.
 - Participating in Project management Committee Meeting as agreed in the work plan.
2. With consideration to national situation, conducting of workshops/training courses as agreed in the work plan has been postpone from year 1998 to expected year 2000 depending on situation post election.
3. Indonesia was absence for several outside training, because formulator were not gave response to nominate participants.
4. Indonesia still request to postpone its contribution cash payment in the annual budget 1999/2000, and expected to be on fiscal year 2000/2001 depend on proposal approval by National Planning Agency.
5. Indirect training through electronic network and printed tools distribution are recommended for further interchange transfer of knowledge.
6. PMC meeting is still recommended to set up regional network plan, but under sponsorship of UNIDO/UNDP.