



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

17366

REGIONAL NETWORK ON PESTICIDES FOR ASIA AND THE PACIFIC

DP/RAS/85/023

Technical report: Project Management Committee Meeting,
Beijing, People's Republic of China, 18-20 October 1988*

Prepared for the Governments of the Member States of the Regional Network
(Afghanistan, Bangladesh, China, India, Indonesia, Pakistan,
Philippines, Republic of Korea, Sri Lanka and Thailand)
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations Development Programme

Based on the work of M.H.J.P. Fernando, rapporteur and Mr. Montri Rumakom,
secretary and adopted by the Project Management Committee on 20 October, 1988

Backstopping officer: B. Sugavanam, Chemical Industries Branch

United Nations Industrial Development Organization
Vienna

* This document has not been edited.

C O N T E N T S

- I. Introduction
- II. Opening Session.
- III. Adoption of the Agenda.
- IV. Designation of Officers
- V. Statements of the National Coordinators,
- VI. Report of the Regional Coordinator,
- VII. Statement from UN Organization.
- VIII. Proposal for Continuation of the Network Programme
Beyond 1988 and the Nature of Support from UNDP.
- IX. Recommendations.
- X. Appendices.

I. INTRODUCTION

1. The third PMC meeting of the Regional Network on Pesticide for Asia and the Pacific was held in Beijing from 18th October to 20th October 1988.
2. The meeting was convened to review progress of the programme approved by the PMC meeting, during the period from Dec. 1987 to Sept. 1988 on policies in order to improve regional cooperation among the member countries and consider proposals for continuation of the Network beyond 1988.
3. The meeting was attended by the representatives each from Peoples' Republic of China, Indonesia, India, South Korea, Pakistan, Philippines, Sri Lanka and Thailand and representatives of the United Nations Organisations including UNDP, UNIDO, WHO, FAO, WORLD BANK and ESCAP. The list of participants is attached as Appendix I of the report.
4. The proceedings of the meetings are summarised below :

II. OPENING SESSION

5. On his welcome address Dr. Sugavanam of UNIDO mentioned that the Regional Network which is an unique set up in the area of pesticide development for the Asia region is now almost 6 years old. He said that its activities, except for a short break of around 8 months in 1986, have been very successful in bringing the network to a stage where the member countries can cooperate in various aspects related to the safe development of pesticides in the region. The project from the time it started has gone through an evolutionary process covering areas of pesticides very similar to the changes that have taken place in the developed world. He added that emphasis is now

being put on formulation technology, quality control, residue analysis, industrial and environmental safety and above all technical cooperation among the countries of the network.

He said that during the 6 years of its existence, two national laboratories have become focal points to support some of its activities. These are the Pesticide Development Programme, India for formulation technology and Quality Control Laboratory of the Division of Agricultural Toxic Substances, Department of Agriculture, Bangkok, Thailand for residue analysis. Two more focal points are needed one on effluent control and environmental safety and another one on industrial safety in pesticide manufacture and formulation.

He said that this meeting is special in two ways. Firstly, China immediately after joining the network in March, 87 agreed to host the PMC meeting and we welcome and appreciate very much this initiative and secondly the meeting will discuss an in-depth evaluation carried out by UNDP and UNIDO using two independent consultants. Their report clearly indicates that the RENPAP region benefited by the activities of the Network and also pointed out to the shortcomings of the project, and recommended remedial actions. The report strongly advocates continuation of RENPAP into the '90s, creation of a RENPAP permanent Secretariat and use it as a main vehicle to coordinate future regional pesticide activities. He mentioned that the six month extension already approved by UNDP will give the needed time lost during 1986 and prepare a project extension with all the information.

6. Mr. Song, UNDP Representative on behalf of Mr. Morey, welcomed the opportunity for China taking active part in organizing the PMC meeting. He acknowledged the success

of the REMPAP project in a very specialized area such as pesticides, as an example of cooperation among the member countries of the Region. He put emphasis on the TCDC concept as a model working effectively in the REMPAP project which would lead to self reliance. He emphasized that in Regional project the characteristic features are Commonality, Similarity and Complimentarity which would facilitate the principle of TCDC within the Region.

He also highlighted the importance of the member countries' contribution both in cash and kind for implementing various activities of the project as this gives an indication of the interest and importance given to the project by the member countries so that UNDP's support is well justified in supporting the programme for the 3rd phase

7. The Honourable Deputy Minister Mr. Chen Yao Bang mentioned that it was a great honour for China to be the host of the third PMC Meeting of Regional Network on Pesticide Production, Distribution and Harmonization for Asia and the Pacific. On this occasion, on behalf of the Chinese Ministry of Agriculture and Chinese people extended warm congratulations to the meeting as well as a hearty welcome to representatives from member countries and international organizations, to experts and guests.

He said that all the member countries in the Regional Network on Pesticide for Asia and Pacific are developing countries and develop agricultural production is the common and urgent need. The application of pesticides is an indispensable technical measure in developing agricultural production. However, if pesticides are not managed properly, it may bring adverse effects to the environment and the health of human beings. Therefore he said, it is a very important task for us to strengthen the control of pesticide production, distribution and application so as to eliminate the adverse effects as far as possible. He mentioned that he highly value the continuous efforts made by UNDP, UNIDO, the World Bank, FAO, WHO and ESCAP in this

field, especially the valuable work done by the Regional Network on Pesticides for Asia and the Pacific. He said that member countries have benefitted a great deal from the technical assistance, training courses as well as consulting services.

He pointed out that China has the largest population in the World, which makes nearly 1/4 of the world's population, whereas the arable land area is only seven percent of the world total. China is under great pressure to provide people with enough necessities of life. In the past ten years, with the deepening of reform and the development of the open door policy, China, on one hand, adjusted rural economic policies to stimulate the initiative of farmers in agricultural production and on the other hand, strengthen agricultural research, combining the strong points of traditional agriculture more science and technology. As a result, China made considerable achievement in agriculture. However, the productivity is still low and the infrastructure is rather weak. Especially this year China had unusual weather, natural disasters have happened frequently which have effected agricultural production. He said that at present his country is taking active measures in autumn harvest and winter sowing, so as to reduce crop losses caused by natural disasters as much as could be done. He said that pesticides are important means for increasing agricultural production and his government has shown great concern to increase pesticide production, improve the quality of pesticides and use pesticide in an adequate way. Due to the short history of pesticide management in China, incomplete pesticides registration system and lack of sufficient technical staff and facilities China would be willing to share its experiences and to co-operate with other member countries in this field.

He mentioned that the RENPAP countries have common concerns and interests in many areas and there is an extensive and good basis for cooperation. He said that China would like to make contributions, together with other member countries, to improve the technique of pesticide production and application, maintaining the stable and continuous development of agricultural production and promoting the economic prosperity of the region.

8. On behalf of RENPAP, Dr. S.P.Dhua, the Regional Coordinator proposed the vote of thanks at the end of the inaugural session.

III. ADOPTION OF THE AGENDA

9. Agenda circulated was adopted without any alteration (Appendix Ia)

IV. DESIGNATION OF OFFICERS

10. Ms. Zhang Chun Juan, National Coordinator was proposed as Chairman of the PMC meeting by Mr. S.P.Dhua, Regional Coordinator and was seconded by Dr. M.H.J.P.Fernando of Sri Lanka. With the consensus of delegates, Mr. M.H.J.P. Fernando and Mr. Montri Rumakom were selected as Rapporteur and Secretary, respectively.

V. STATEMENTS OF THE NATIONAL COORDINATORS

11. The statements highlighted the benefits derived from participation in the project, the problems encountered during the implementation of the project activities; future needs of each country and commitments for future cooperation in support of the project. The country reports and their summaries are attached as Appendix III.

VI. REPORT OF THE REGIONAL COORDINATOR

12. PROJECT ACTIVITIES

Subsequent to the finalisation of the work plan in the second PMC meeting at New Delhi in November-December, 1987 (copy of the work plan enclosed at Annexure-I), the National Coordinators of the member countries of RENPAP were requested to send nominations of suitable candidates for training/study tours/consultancy assignments on various activities as listed in the work plan. UNIDO, Vienna was also requested to finalise placement arrangements for the selected personnel.

GROUP ACTIVITIES

13. PESTICIDE DATA COLLECTION IN THREE GROUPS

In the Expert Group meeting on Pesticide Data Collection System held at

Pattaya, Thailand in May, 1987 members after recognising the importance of data collection system felt that the collection system which had got geared up to meet all the requirements must be strengthened and continued. Member countries were requested to supply the requisite pesticide information as per the UNIDO prescribed formats with respect to their country upto 1986. Additional format on pesticide use analysis was also designed and circulated to the member countries to supply the requisite information. Data on Pesticides was received from the following countries:

1. Korea.
2. Thailand.
3. Indonesia.
4. Sri Lanka.
5. Philippines.
6. India.
7. Bangladesh.

Data from China, Afghanistan and Pakistan are awaited. However, data received from Bangladesh and Sri Lanka are incomplete and the completed data are now being received.

Data received from the member countries has been compiled and the copy of the compiled information was circulated.

As per the decision taken in the PMC meeting, Pesticide Data Collection would be undertaken in three groups. Group leaders of the countries would undertake visit to member countries and assist them in collecting information on pesticides in the right perspective upto 1987.

14. ENVIRONMENTAL ASPECTS OF PRODUCTION AND USE OF PESTICIDES

Govt. of Indonesia is hosting a seminar on Environmental Aspects of Production and Use of Pesticides from 28th November to 2nd December, 1988. National Coordinators

of member countries have been requested to send nomination of suitable candidates to participate in the said programme. Candidates from each country would present a country paper in line with the objectives as given in the aide memoire circulated to the National Coordinators. Nomination forms of suitable candidates to participate in the above seminar are being received.

15. INDIVIDUAL CONSULTANCY

Member countries seeking consultancy services have been requested to send the job descriptions to enable UNIDO to locate suitable candidates acceptable to those countries seeking such services. The progress on this aspect is reported as under.

16. HANDLING, PACKAGING AND STORAGE OF PESTICIDES AND INSTRUMENTATION ANALYSIS IN AFGHANISIAN

A Consultant from INDIA is required to provide consultancy services to counterpart in Afghanistan.

Job description sent by the National Coordinator of Afghanistan was received from UNIDO in August, 1988 by the Regional Coordinator. Govt. clearance of the candidate to undertake the assignment is being obtained.

BANGLADESH

A consultant on Residue Analysis was provided from U.K.

17. INDONESIA - PACKAGING

Shri B.N. Chatterjee, General Manager, Hindustan Insecticides Ltd, India undertook and completed this consultancy assignment on packaging during March 1988. Report submitted by Shri Chatterjee has already been circulated by UNIDO to the member countries.

18. CONSULTANCY ASSIGNMENT ON PESTICIDES PLANNING INCLUDING PRODUCT DIVERSIFICATION IN INDIA.

Dr. B.Sugavanam from UNIDO visited India in July/August, 1988 to provide consultancy services to India in the field of pesticide planning including product diversification.

19. KOREA - HERBICIDES EFFICACY

As per the work plan a candidate from Pakistan was required to provide the necessary consultancy services to Korea based on the work and job description sent to them. Since Govt. of Pakistan could not nominate a suitable person for the said assignment, it was decided to select a suitable candidate from within the Region. Bio-data of various experts from India was sent to UNIDO for consideration and selection by the Govt. of South Korea. Consequent upon selection of Dr. V.M.Bhan, Professor of Weed Science by Govt. of South Korea and subsequent clearance by the Govt. of India Dr. Bhan completed this assignment in South Korea during August, 1988. Report from Dr. Bhan is awaited.

20. CONSULTANCY ON OCCUPATIONAL HEALTH ASSESSMENT IN PHILIPPINES

Govt. of Philippines has selected two consultants from USA for consideration. However, both these consultants were not available and UNIDO selected a suitable consultant from U.K. and this assignment is being finalised.

21. CONSULTANCY ON ENVIRONMENTAL TOXICOLOGY FOR PAKISTAN

The consultant from U.K. has since been completed.

22. CONSULTANCY OF RESIDUE ANALYSIS IN SRI LANKA

Indonesia has agreed to provide suitable Consultant to render consultancy to Sri Lanka. Dr. Soemanto who had earlier been nominated by Govt. of Indonesia to render consultancy service to his counterpart in Sri Lanka had shown his inability

due to his busy schedule. Govt. of Indonesia has now nominated Mr. Hardjono Sastrohamiojojo, an Expert on Residue Analysis to give consultancy service to Sri Lanka. Acceptance of the candidature by Sri Lanka is awaited.

23. **INSECTICIDE EFFICACY**

Sri Lanka was requested to send the job descri-Biodata of two Consultants one from Pakistan and one from India have been submitted to Sri Lanka Coordinator.

24. **GROUP ACTIVITIES**

25. **QUALITY CONTROL (PEST) PROGRAMME**

A five week training programme on Quality Control of Pesticides Formulation is being organised by India from 1st November, 1988 to 5th December, 1988 at New Delhi in collaboration with the World Bank/FAO/UNIDO/UNDP. Nomination of suitable candidates from the respective countries are being received. This programme is being financed by the UNDP.

26. **PFST PROGRAMME ON PESTICIDE RESIDUE ANALYSIS**

A five week training programme on Pesticides Residue Analysis executed by the World Bank in collaboration with UNIDO is being organised by Govt. of Thailand during January/February, 1989. Nomination forms of suitable candidates from the respective countries of RENPAP are being received.

27. **TRAINING PROGRAMME ON ENVIRONMENTAL TOXICOLOGY**

28. **EFFLUENT TREATMENT : INDONESIA.**

INDIVIDUAL TRAINING.

29. **PESTICIDE MANUFACTURING AND FORMULATION BASED ON LOCAL RAW MATERIALS + INDIA :**

There is a provision of a study tour for 15 days each for two men on pesticide management and local raw material within the region. Mr. Shyam Suri, Joint Secretary Govt. of India to visit China, Indonesia and Korea for a total period of 15 days.

30. TRAINING PROGRAMME ON BIOLOGICAL SCREENING - BANGLADESH AND CHINA.

Nominations for training on biological screening were sent by Bangladesh to UNIDO for making necessary training placement in Jap/UK. Finalisation of fellowship placement is still awaited. Nomination forms from China are awaited.

31. INSTRUMENTATION ANALYSIS

National Coordinator, Thailand has sent nomination of suitable candidate to UNIDO for training in the field of Instrumentation Analysis of Pesticide formulation. Finalisation of fellowship placement of the candidate by UNIDO at Food & Fisheries Deptt., HARPENDEN, UK, is yet to be received.

32. ENVIRONMENTAL IMPACT ASSESSMENT, PHILIPPINES

Training Programme on Environmental Impact Assessment of two candidates for 1 m/m each from Philippines will be finalised on receipt of nomination form from Philippines.

33. FORMULATION TECHNOLOGY - AFGHANISTAN AND KOREA

i) Mr. Laqa Najem has undergone training in Formulation Technology for 1 m/m at PDPI Centre, India in January, 1988.

ii) Study tour has been completed.

34. IN-DEPTH EVALUATION/PROGRESS OF VARIOUS ACTIVITIES OF RENPAP PROJECT

IN-depth evaluation/progress of various activities of the RENPAP project so far achieved was carried out by Dr. Mandava, Consultant, (UNDP) and Mr. Donnez by (UNIDO) during April/May, 1988. In view of the progress achieved and the benefits received by the countries on various subjects as listed in the work plan, the Consultants have recommended continuation of the project from December, 1988 onward. The recommendations made by the Consultant happens to be in consonance with the decision taken in the last PMC meeting held in India from 30th November, to 2nd December, 1987.

VII . STATEMENT FROM UN ORGANIZATION

35. Representations from World Bank, UNIDO, WHO, ESCAP and FAO presented reports of activities carried out in support of the Network Programme. All the Un agencies, in general, expressed their support for the RENPAP and reiterated their commitment to support an appropriate Network Programme for phase - III extending over a period of three years. The statements from agencies are placed at Appendix of the report.

VIII. DISCUSSION ON THE RENPAP EVALUATION REPORT AND PROPOSAL FOR CONTINUATION OF THE NETWORK PROGRAMME BEYOND 1988 AND THE FUTURE ACTIVITIES

The Regional Coordinator referred to the deliberation of the Second PMC meeting where in the National Coordinators had pledged their support for extending the programme for a period of three years. He requested the PMC to discuss the Evaluation Report of the RENPAP submitted by the UNDP consultants in that background.

There after the recommendations made by the Evaluation Mission was discussed in details and the following were resolved :

- (a) It was agreed to provide in-depth inservice specialized training for a larger period on environmental toxicology, residue chemistry and quality control methodologies from the point of view of industrial manufacture.
- (b) The National Coordinators were requested to furnish news items on RENPAP activities to the Regional Coordinator for publication in the RENPAP Gazette, so that the image of the Project is promoted in the Region. It was agreed to provide separate budgetary provision for bringing out the Gazette regularly.

Team leader FADINAP suggested that articles could also be sent to him for publication in the Agrochemicals News in Brief.

(c) The PMC took note of the Japanese Government funded FAO Project concentrating on the regulatory aspects of pesticides and safe and efficient usage at the field level. The PMC felt the urgent need for the RENPAP for placing greater emphasis on the Industrial aspects of pesticide production, marketing distribution and storage encompassing the vital areas of safety assurance and hazard management at the production sites, including occupational safety and effluent treatment and disposal. In order to have a total complimentarity of the Japanese funded FAO

programme and the RENPAP it was agreed that while FAO programme would have a strong focus on the regulatory aspects pesticide based on the international code of conduct, RENPAP activities in the new phase would concentrate more in the areas of production marketing and distribution with greater emphasis on upgradation of production facilities, R&D facilities based on local resources, Quality Control at the production level, safety hazard management and occupational health problems at the plant level effluent treatment and disposal. In order to maintain close compatibility of the two projects while FAO would continue to participate in the PMC meetings of the RENPAP and have full knowledge of the RENPAP programme, the Regional Coordinator or his nominee would participate in the Management Committee Meetings or equivalent of the FAO project.

To involve pesticide industry and associations it was agreed to set up the following three technical coordinating units as a part of the RENPAP -

- (1) Technical Coordinator - Formulation Technology - India.
- (2) Technical Coordinator - Specifications and Impurities of active ingredients at the manufacture level } - Korea.
- (3) Technical Coordinator - Environmental Impact of the pesticide manufacturing industry. } - Indonesia to be confirmed

It was further decided that participating countries would intimate availability of specialists service units for additional technical coordinators of the RENPAP.

(d) The PMC considered the recommendation in regard to the strengthening of the structure and functions of the RENPAP and resolved the following :

i) A permanent RCU would be maintained which would be strengthened with a full time executive secretary with two assistants. The funding for this would be provided in the RENPAP budget and the individuals would be placed on national level pay scales with appropriate adjustments for serving regional projects.

(e) With regard to nomination of technical coordinators to place and coordinate the activities in specified technical areas the decisions are contained in para(c) above.

(f) The PMC considered the recommendations of the evaluation mission with regard to clear identification of tasks for each objective, introduction of measuring devices by setting milestones etc. The PMC felt that the programme of RENPAP takes due care of this need of Management by objectives Hence, does not call for any major modification.

(g) The PMC accepted the recommendations of the evaluation mission with regard to the maintenance of a roster of available consultants and experts in the network countries for each specialized subject areas. The National Coordinators would send bio-data of the prospective specialists in a prescribed format for the roster to be maintained at the RCU.

It was also agreed to maintain a directory of laboratories for usage by the RENPAP countries.

These activities would help to strengthen TCDC component of the programme which would add towards self sustainability of the programme in the future.

(h) The PMC decided to publish a News letter on RENPAP activities in addition to the RENPAP Gazette to provide information on pesticides and continue to publish the Regional Data Collection. In this respect ESCAP offered its expertise to the Regional Data Collection Coordinating Unit by providing instruments on the soft ware developed for the Regional PEST Index.

(i) The PMC endorsed the recommendations of the evaluation mission for continuation of the RENPAP Project for another three years period by the UNDP at a level higher than the current level of funding. It was agreed that the 3rd phase should have a level of funding higher than the first two phases considering the action plan envisaged by the member countries and it should be in the range of US\$1.5 million. The PMC noticed the increased contribution of the member countries towards the implementation of the RENPAP activities which was about US \$ 493,000 in the first phase increasing to US \$ 894,000 in the 2nd phase while the UNDP support increased marginally from US \$ 500,000 to US \$ 628,000.

(j) As the future activities would have a greater focus on the pesticide industry the National Coordinators should have greater interaction with the Ministry of Industry and the Private Industry in formulation and implementation of the future programme.

The PMC felt confident that with the steady increase in the support extended by the participating countries the project would mark steadily towards self sustain after the proposed extension of support by UNDP for a period of three years.

It was agreed to invite more countries of the Region to join the RENPAP.

RECOMMENDATIONS

1. Having considered that the benefits and impact of the RENPAP projects under DP/RAS/82/006 & DP/RAS/85/023 to the member countries of the region in the area of pesticides, the Project Management Committee (PMC) strongly recommends -

a) that the project should continue for another three years under a new phase;

b) that it should concentrate on those areas which need further consolidation and new areas which have not yet been covered during the last two phases;

c) that the areas for consolidation are formulation technology and quality control and new areas should cover occupational health and safety of workers, plant safety, environmental aspects, bio- and botanical pesticides, data collection and dissemination.

2. Having considered that the experience already gained and expertise created in different aspects of pesticides, the PMC recommends

a) that a roster of regional experts should be created in different areas relating to pesticides;

b) that a greater number of regional experts from the roster should be used in the new phase.

3. Having considered that the Regional Coordinator Unit has been well-established in the last two phases the PMC recommends

a) that the new phase will contain very little institution building element but only needed support be given in maintaining office facilities;

b) that the project should support a RENPAP Secretariat within the framework of the Regional Coordinator Unit.

4. Having considered that the new FAO project funded by the Japan will cover only the FAO Code of conduct in pesticide distribution and use, the PMC recommends -

a) that RENPAP should put emphasis on aspects related to pesticide production and both RENPAP and FAO Japanese funded project should avoid overlapping of areas, coordinate their activities and allow provision for RENPAP Secretariat to nominate persons to participate in FAO meeting and FAO in turn will participate in RENPAP PMC meetings.

5. Having considered the importance of the forthcoming Regional seminar entitled 'Environmental Aspects of Pesticide Production and Use' in Jakarta, Nov 28-Dec 2, 1988, the PMC recommends

a) that the resolutions passed by the seminar and the actions to be taken for follow up should be incorporated into the project document for the 3rd phase.

6. Having considered the importance of all associated agencies' contribution to the project in the last phase, the PMC recommends

a) that their continued cooperation should be solicited in the next phase and their activities e.g. WHO Asia Regional Programme on Toxicology of Chemicals, should compliment RENPAP project activities.

7. Having considered in detail the UNDP/UNIDO evaluation report and also emphasis placed on Technical Coordination and information collection and dissemination, the PMC recommends -

a) that Technical Coordinator units be established in areas such as Formulation Technology-India, specifications and Impurities in active ingredients at manufacture level - Korea, Environmental Aspects related to Pesticides-Indonesia, Use of bio and botanical pesticides - Thailand; Pesticide Mixture Formulations(India/Korea).

a) that Pakistan to give later its area of preference for technical coordination.

8. Having recognised the benefits and impact of the RENPAP project and the incremental contribution in cash and kind by the member countries in the first two phases, the PMC recommends -

a) that in the next phase the cash and kind contribution should proportionately increase and the estimated amount should be clearly specified in the project document.

a) That in the next phase the cash and kind contribution should proportionately increase and the estimated amount should be clearly specified in the project document.

X. Appendices:

- | | | |
|------|----------------|------------------------------------|
| i) | Appendix - I | - List of participants |
| ii) | Appendix - 1a | - Programme |
| iii) | Appendix - 11 | - Up-dated work plan |
| iv) | Appendix - 111 | - Country reports |
| v) | Appendix - IV | - Statements from Agencies |
| vi) | Appendix - V | - Tripartite Review Meeting report |

List of Participant

1. P.R. China

Ms. Zhang Chun Juan

Deputy Director

Institute for the Control of Agrochemicals, Ministry of Agriculture

Liangmaqiao, Chaoyang Beijing, P. R. China

2. INDIA

Mr. S. P. Dhua

Chairman and Managing Director

**Hindustan Insecticides Limited (A Government of India Enterprise) Hans
Bhawan, (Wing-1), Bahadur Shah Zafar Marg, New Delhi-110002**

Mr. Shyam. Suri

Joint Secretary

**Department Chemicals & Petro-Chemicals, Ministry of Industry, Shastri
Bhawan New Delhi-110001**

3. INDONESIA

Mr. Djumarman

Head Div. For Research of Fertilizer & Petrochemicals

**Institute for Research and Development of Chemical Industry, Ministry of
Industry, Pekayon, Pasar Rebo Jakarta Timur. P.O. Box. 16. JATPK Indonesia**

Ms. Hadiwardjo Harjati

Head Directorate of Agrochemical Industry

General Directorate For Basic Chemical Industry Department of Industry.

JL. Gatot Subroto KAV. 52-53-JAKARTA.

4. KOREA

Mr. Yong Hwa Shin

**Director General, Research Bureau, Rural Development Administration,
240 Seodundong, Suwon, Korea**

5. PAKISTAN

Mr. Mohaammud Muntaz

**Deputy Director Research P.O. Box 1031 Cable AGRESCOUNCIL
PARC Islamabad, Pakistan**

6. PHILIPPINES

Mr. Luis T. Villa-Real JR.

Administrator

FPA-RAHA Sulayman Bldg. Benavides ST. Legaspi Village Makati, Philippines

7. SRI LANKA

Mr. M. H. J. P. Fernando

Deputy Director of Agriculture (Research)

**Central Agricultural Research Institute,
Gannoruwa, Peradeniya**

8. THAILAND

Mr. Montri Runakom

Director, Entomology and Zoology Division

Ent. and Zoology, Div. Department of Agriculture Bangkok Bangkok 10900

9. WORLD BANK

Ms. Agnes Kiss
Environmental Specialist
Washington D. C. 20433, U. S. A.

10. WHO

Dr. Radovan Plestina
Medical Officer / Toxicologist
World Health Organization, Geneva Switzerland

11. ESCAP

Mr. Peter Hegenbarth
Economic Affairs Officer
United Nations ESCAP, Bangkok

Mr. Alain Georges Vaes
Team Leader Arsad/Fadinap
United Nations ESCAP United Nations Building Rajdamern Avenue Bangkok
10200 Thailand

12. UNIDO

Mr. Balasvbramanyan Sgvavanan
Chief, Agrochemical Industries Unit, Chemical Industries Branch, UNIDO
UNIDO, Vienna

13. FAO

Dr. A. V. Adam
Senior Officer-Pesticides
FAO
Rome, Italy 00100

PROJECT MANAGEMENT COMMITTEE MEETING OF
THE REGIONAL NETWORK FOR PRODUCTION, CONTROL AND
MARKETING OF PESTICIDES IN ASIA AND THE PACIFIC
BEIJING, CHINA

(OCTOBER 18 TO OCTOBER 20 1988)

PROGRAMME

TUESDAY, 18TH OCTOBER 1988

0900 - 1000 hrs	Opening Session a) Welcome Address b) Address by Chief Guest c) Inaugural address d) Vote of Thanks
1000 - 1015 hrs	Tea
1015 - 1030 hrs	Adoption of the Agenda Designation of Officers Appointment of Rapporteur
1030 - 1300 hrs	Country reports by National Coordinators.
1300 - 1400 hrs	Lunch
1400 - 1600 hrs	Country reports by National Coordinators. Report of the Regional Coordinator.
1600 - 1700 hrs	Reports from the Agencies

WEDNESDAY, 19TH OCTOBER 1988

0900 - 1100 hrs	Discussion on the RENPAP Evaluation Report.
1100 - 1110 hrs	Tea
1115 - 1300 hrs	Discussion on the continuat- ion of the network programme beyond 1988 and the future activities.
1300 - 1400 hrs	Lunch
1400 - 1600 hrs	Discussion on Future Activi- ties Meeting, Training Programmes, Study tours, Fellowships, Consultants.
1600 - 1615 hrs	Tea/Coffee

1615 - 1645 hrs Consultation/ Communication
between National Coordi-
nator/Regional Coordinator.

1645 0 1745 hrs Proposed revisions : Project
documents, work plan,
budget.

THURSDAY, 20TH OCTOBER 1988

0900 - 1100 hrs	Tripartite Review Meeting of RENPAP with UNDP.
1100 - 1115 hrs	Tea/Coffee
1115 - 1145 hrs	Other business
1145 - 1300 hrs	Recommendations
1300 - 1400 hrs	Lunch
1400 - 1500 hrs	Adoption of the Reports
1500 - 1515 hrs	Tea/Coffee
1515 - 1715 hrs	Closing Session.

UPDATED WORK PLAN TILL JUNE 1989

CONSULTANCY

<u>Consultancy Group</u> (1)	<u>Need Subject</u> (2)	<u>Duration</u> (3)	<u>Proposed Date</u> (4)	<u>Priority</u> (5)	<u>Country that can provide</u> (6)	<u>Remarks</u> (7)
All countries	Pesticide Data Collection	2 weeks	May, 1987	1	UK	Completed in Thailand
	Harmonization of Registration	1.5 m/m	Dec., 1986	1	USA/Newzeeland	Completed in Philippines
	Quality Control (PEST)	1 m/m	June, 1986	1	USA	Completed
	Residues (PEST)	1 m/m	June, 1986	1	USA	Completed
	Pesticide Data Collection in 3 groups	1 a/m	Oct./Nov. 1988	1	Thailand Philippines India	To be completed
	Environmental Aspects pesticide production	1 m/m	28 Nov. - 2nd Dec.	1	UK/FRG	To be complet in Indonesia
	Formulation Technology	1 m/m	March,/April 1988	1	Europe	To be complete in India
	Development of Bio-Pesticides and Botanical Pesticides	1 m/m	-	1	Europe/Regional USA	To be complet in Thailand
<u>Individual</u>						
Afghanistan	Handling/Packaging	1 m/m	Dec., 1988	1	India	Job descripti received and expert identi fied.
	Instrumentation	1 m/m	1989	1	India	Awaiting CV of candidate from India.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Bangladesh	Residue Analysis	1 m/m	Oct., 1986	1	UK	Completed
Indonesia	Packaging	1 m/m	Jan., 1988	1	India	Completed
India	Pesticide Planning including product diversification	.5 m/m	July, 1988	1	Austria	Completed
Korea	Herbicide Efficacy	1 m/m	July, 1988	1	India	Completed
Philippines	Occupational Health Assessment	.5 m/m	Oct., 1988	1	USA/UK	To be completed
Pakistan	Environmental Toxicology	1 m/m	Early, 1988	1	UK	Completed
	Environmental Toxicology	1 m/m	Early 1989	1	UK	Return Mission

1
1

T R A I N I N G

GROUP ACTIVITIES

Sl.No.	Subject	Type of Assistance	No. of participants	Proposed Date	Period and Duration	Proposed Venue	Priority	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	R&D Formulation	Training	10	Feb., 87	3 weeks	India	1	Completed
2.	Data Collection	Expert Trag.	10	May, 1987	1 week	Thailand	1	Completed
3.	Harmonization of Registration	Expert consultation	15	Dec., 86	1 week	Philippines	1	Completed
4.	P. M. C.	-	10	July 86	3 weeks	Philippines	1	Completed
5.	Environmental aspects of production and use of pesticides	Seminar	10	Nov. 88	1 week	Indonesia	1	To be completed
6.	P. M. C.	-	10	Feb. 87	3 days	India	1	Held in India
7.	Quality Control (PEST)	Training	12	Oct./Nov.	6 weeks	India	1	Completed
8.	Residue (PEST)	Training	12	Nov./87	6 weeks	Thailand	1	Completed
9.	Quality Control (PEST)	Training	12	Nov. 87	5 weeks	India	1	To be completed
10.	Residue (PEST)	Training	12	Jan.-Feb. 89	5 weeks	Thailand	1	Reduced to 5 weeks
11.	P. M. C.	-	10	Oct. 88	3 days	China	1	Completed
12.	Formulation Technology	Training	15	March April 89	3 weeks	India	1	To be completed
13.	Development of Botanical and Bio - insecticides.	Expert group meeting	10	1990	4 days	Thailand	1	To be completed

Individual

1.	Indonesia	* Environmental Toxicology	Training	1st/2nd Qr. 88	5 m/m	Japan	Completed
		Effluent Treatment	Study tour	April 88	5 m/m	Germany/USA/ UK/Belgium	Completed
2.	India	Pesticide manu- facturing and formu- lation based on local raw material.	Study tour	Oct., 88	2 week	Within the region	In progress
		Instrumentation analysis	Training	June 86	2 weeks	Austria	Completed
3.	Bangladesh	Biological Screening	Training	Mid 88	1 m/m	Philippines	Placement in progress
		* Environmental Toxicology.	Training	End of 88	1 m/m	Europe	Placement in progress
4.	Korea	R&D Formulation	Study tour	Mid. 88	1 m/m	USA/Europe	Completed
		* Environmental Tox.	Training	Nov. 87	1 m/m	USA	Completed
5.	Sri Lanka	Analytical Methods	Training	June 86	2 weeks	Austria	Completed
		* Environmental Tox.	Training	End of 88	1 m/m	Europe	Placement in progress
6.	Thailand	* Environmental Tox.	Study tour	End of 88	1 m/m	Europe	Placement in progress
		Instrumental Analysis (Formulations)	Training	End of 88	1 m/m	UK	To be completed
7.	Pakistan	Analytical Method (Formulations)	Training	June 86	2 weeks	Austria	Completed
		* Environmental Tox.	Study tour	End of 88	1 m/m	Europe	Placement in progress

8.	Philippines	Environmental Impact Assessment	Training	End of 88 or Early 1989	2 m/m	USA	To be arranged
9.	Afghanistan	Formulation Technology	Training	June, 1980	1 m/m	India	Completed
		*Environmental Tox.	Training	End of 1988	1 m/m	Europe	Placement in progress
10.	China	Biological Screening	Training	End of 1988	1 m/m	U.K.	Placement in progress
		*Environmental Tox.	Training	End of 1988	1 m/m	Europe	Placement in progress
11.	Thailand, China, Bangladesh, Korea Indonesia.	Analytical Method	Study tour	April/May 89	10 days each	Greek	To attend CIPAC meeting
12.	China	Data Collection	Study tour	Early 89	1 m/m	Region	To be arranged
13.	It was decided to provide 10% of the total m/m for meeting priority requirements determined by the Regional Coordinator Unit.						

* Environmental Toxicology Training Programmes of different countries may be grouped together. Time and Venue to be determined depending upon the availability of a place and the Project Management Office to look into this aspect.

Country Report of China

China became a formal member country of REPAP in 1987, but has been involved in activities of the project since 1984.

A .Progress of the project in China

a. Group activity,

one participant attended Regional Forum on Toxicology in Manila in April 1984.

one participant attended Expert Consultation on Harmonization of Registration in Manila, in December 1986.

one participant attended the second PMC meeting in New Delhi in 1987.

b. Training under PEST programme.

one participant attended the training on pesticide formulation quality control in New delhi in 1987, and the other one participated pesticide residue analysis training in Bangkok in 1987.

Two nomination forms have been sent to UNIDO, one for training on formulation quality control scheduled in NOV. 1987, the other for training on residue analysis scheduled in Jan. 1989

c. Consultancy

As mentioned in the report of second PMC meeting, China has one consultancy activity which is going on now. Mr. Coltee, a GC-MS expert from UK, has been working in ICAMA since Sept 27, 1988. He will stay here till Oct. 25, 1988

d. Individual Training.

According to the report of second PMC meeting, China has two individual training activities.

- Training on biological screening was scheduled in UK in mid 1988 for 1m.m.

- Training on environmental toxicology was scheduled in Japan/UK in the first or second quarter of 1988 for 1m.m.

In January 1988 UNIDO New Delhi sent a telex asking China to send nomination forms for those activities, besides an additional activity-training on instrumentation which is not mentioned in the report of second PMC meeting, was included. China has sent curriculum vitae of three candidates for the training courses mentioned above.

The implementation of activities of training on biological screening and environmental toxicology are going on now, but there is no further information about training on instrumentation.

We are waiting for the confirmation of these activities

e. ARSAP-CIRDA

China has completed the 1988 compilation of data on Agro-chemicals Index which will be available for publication soon and translated a safety guide for pesticide retail distributors and shopkeepers from English into Chinese. 10000 copies of the Chinese edition from ARSAP/CIRDA will be circulated in China.

f. Code of conduct on distribution and use of pesticides.

After Expert Consultation on Harmonization of Registration in Manila in 1986, China has reprinted 1000 copies of code and distributed them to plant protection agencies, distributors and chemical industry agencies at provincial level in China.

B. Assessment.

China is a big agricultural country. To provide people, nearly one-quarter of the total population of the world, with enough food and clothing, pesticides is still an important measure to increase the production of agriculture. Because of this, RENPAP activities are very useful.

Although China has become a member country of RENPAP for only one year and a half, benefits have been obtained from workshop and trainings organized by RENPAP which enhanced the knowledge and skills of personnels involved in the development of production, marketing and control of pesticides.

C. Proposals

The priority areas to be covered during the second phase should be implemented. It is necessary to put emphasis on improving the quality of local pesticide products, unifying the analytical methods of pesticide and standard samples of pesticides.

The following activities are requested.

1. Network arranges a suitable place in the region from where high quality standard sample can be obtained
2. Participation CIPAC meeting.
3. Pesticide Data Collection (group meeting).
4. Training on identifying and making standard sample of pesticides for I.M.M.

SUMMARY
COUNTRY REPORT OF INDONESIA

Activities participated by Indonesia since the beginning of the second phase of RENPAP are as follows :

1. First PMC Meeting in Manila, Philippines, 16 - 18 July 1986.

Indonesia was represented by Mrs. Sri Ambar Suryosunarko.

2. Experts Consultation on Harmonization of Registration in Manila, Philippines, 1 - 5 December 1986.

Indonesia was represented by Mr. Mulyani Sukardi and Mr. Erick F. Djohan was also participated as observer.

3. Workshops on R & D Formulation in New Delhi, India, 9 - 27 March 1987.

Indonesia was represented by Mr. Djumarman.

4. Experts meeting on Data Collection in Pattaya, Thailand, 18 - 22 May 1987.

Indonesia was represented by Mr. Mulat Wibowo.

5. Training on Pesticide Formulation Quality Control in New Delhi, India, 12 October - 13 November 1987.

6. Indonesia was represented by Mr. Tri Widiyanto and Mrs. Rahayu Susilowati.

Training on Pesticide Residue Analysis in Bangkok, Thailand, 9 November - 11 December 1987.

Indonesia was represented by Mrs. Sri Suglhati Slamet.

7. Second PMC meeting in New Delhi, India 30 November - 3 December 1987.

Indonesia represented by Mrs. Sri Ambar Suryosunarko.

8. "Training" on Environmental Toxicology in Washington DC, USA, 1 - 11 March 1988.

Indonesia was represented by Mr. Janahar Murad.

9. Study Tour on Effluent Treatment in Baton Rouge, New Orleans, USA,
4 - 14 March 1988.
Indonesia was participated by Mrs. Hendartini.
10. Consultancy on Pesticide Packaging in Jakarta, Indonesia, 2 - 30 March 1988.
Consultancy was given by Mr. Bhupendra N. Chatterjee from India.
11. For the next training on Formulation Quality Control which will be held in New Delhi, India, Indonesia has sent three nominees i.e. : Mr. Amlruddin Jusfial, Mrs. Sri Pudji Rahayu and Mr. Panggah Susanto. While for the next training on Residue Analysis which will be held in Bangkok, Indonesia's nominees are : Mr. Abdul Somad, Mr. Dady Suhaedi and Mr. Agus Wahyudi.
12. Seminar on Environmental Aspects of Production and Use of Pesticides will be held in Jakarta, Indonesia, and scheduled in 28 November - 2 December 1988. Government of Indonesia has already agreed. Final Aide Memoire has not received yet.

Some of recommendation of RENPAP activities has already implemented, e.g. : (a). Pesticide Committee in Indonesia are now introducing that for "Temporary Registration" efficacy data from other member countries which have similar climate can be used; (b). Ministry of Industry has issued several standards in which the specification are referred to FAO and WHO while methods of analysis to CIPAC; (c). The use of local materials for pesticide formulation were increased; (d). Data exchanges has been done through ARSAP scheme. Other benefits gained from RENPAP activities are enhancing knowledge and experiences through workshops, training and study tours.

General problem faced in implementing the programme was how to execute the activities mentioned in the planning table of PMC Report as pure as possible. Experiences indicated that study tour and training which was scheduled for 1 m/m each was implemented for 10 days only. Besides that the training/study tour were not well prepared and the information were given so suddenly that the fellow did not have enough time to prepare their requirements for going abroad.

In offering expert as consultant it is hoped that the candidate should be more than one. Experiences showed that we always receive single candidate so we did not have any alternatives.

Indonesia recognized the benefits gained through participation in the activities of RENPAP. For that reason we propose to extend the project for a third phase of two or three years duration in order to consolidate the result achieved and to take up certain new issues relating areas require particular attention.

Country Report of Korea

I. Review of the progress during Phase II

As a participating member country in the Regional Network for Production, Marketing and Control of Pesticides, Republic of Korea has been actively taken part in the programme either by sending the concerned experts and trainees, or by submitting the relevant data for the implementation of the workplan.

The activities executed during Phase II of RENPAF programme and outputs are summarized as follows.

A. Activities executed within Korea

1. Consultancy

Consultancy on herbicide efficacy was provided by Dr. Mohan Bahn from India, Aug. 1 to Aug. 31, 1988.

General schemes of herbicide efficacy evaluation in rice paddy and biochemical approaches on phytotoxicity of herbicides were invaluabley referenced by the consultancy. Some of the transferred technologies and informations will be utilized to the bioefficacy protocols.

2. Study tour

A nominee from India, Mr. Shyam Suri will visit Korea on Oct. 24 and 25, 1988 to study the pesticide manufacturing and formulation based on local raw materials. ACRI as an executing national organization in Korea sent a acceptance letter for Mr. Shyan's visit.

B. Activities executed outside Korea

1. Group meeting

- a) A specialist who is in charge of pesticide registration procedures in Korea participated in the 2nd Regional Meeting on Harmonization of Pesticide Registration Requirements which was held in Manila, Philippines from Dec. 1 to Dec. 5 1986. In accordance with the meeting recommendation, the trials of efficacy protocols were carried out in rice brown planthopper during last two years. These results will be presented at the Regional Workshop on Harmonization of Bioefficacy Test Protocols, Kuala Lumpur, Malaysia from Oct. 31 to Nov. 4 1988.
- b) An expert took part in the Expert Meeting on Data Collection which was held in Pattaya, Thailand from May 18 to 22 1987. A designated candidate of pesticide data collection in Korea submitted the required informations on pesticide data concerning production, consumption, import and export for 1983 to 1986.
- c) A candidate participated in the Workshop on R & D Pesticide Formulation which was held in New Dehli, India from Mar. 9 to 29, 1987. ACRI proposed to make use of the services and established guidelines for the evaluation of local raw materials by member countries.

- d. An expert will attend in the Environmental Aspects of Pesticide Production and Use to be held in Jakarta, Indonesia from Nov. 28 to Dec.2, 1988.

2. Study tour

One fellow performed a study tour to get an opportunity for observation and evaluation of current trends in pesticide formulation in developed countries. He covered USA and some European countries. The gained informations and the collected new pesticide formulations were practically transferred to the local formulators as well as to the research activity, in particular development of controlled release formulations.

3. Training

Two trainees attended in the Training programme on Quality Control of Pesticide Formulation at New Dehli from Oct.12 to Nov. 13, 1987 conducted under World Bank's PEST programme.

Another two trainees will take part in the Course on Quality Control which is scheduled for November 1988.

In addition, a trainee participated in the Training Programme on Pesticide Residue Analysis at Bangkok, Thailand from Nov. 9 to Dec. 12,1987. Likewise, another two trainees will attend in the Course which is held for December 1988.

C. Activity not yet executed

Individual training in the field of environmental toxicology for one Korean nominee has not executed so far.

II. Proposed activities in the future

Required activities for the improvement of pesticide quality and pesticide development in the future are listed as follows.

A. Consultancy

1. R&D on controlled release formulation development for safe and easy-to-handle
2. Establishment of pesticide specification and its confirmation procedures with special reference to impurities in technicals and formulated products

B. Study tour

1. R&D on controlled release formulation in developed countries
2. Development of biological pesticide by using herbal or microbial origins

C. Individual training

1. Effluents treatments of pesticide waste disposal by means of physical, chemical, and biological incineration
2. Assessment of relationship between parameters of formulation quality and predicted pesticide bioefficacy

III. Hostable activity in the future

Original technical manufacturers produce a certain specification for their technicals and most of the importing countries require the data on the technical and formulation specifications as well under confidential.

Even though a well-defined specification is however established, the specification become useless unless the concerned methods and procedures to confirm are fully acquainted with the related personnels.

In these points of view, a training programme on identification technology of impurities as well as validation of the specifications should be necessary to convince the quality of pesticides.

ACRI has fully facilitated with modernized instruments such as GC/MS(Quadrupole type), FT-NMR(200MHZ), GC/FI-IR, elemental analyzer, GCs and LCs which are essential for the identification of unknown compounds. Technicians for each instruments who have management and interpretation of the analytical results , are available in ACRI.

In this regard, ACRI can offer the facilities to train the nominees from the regional countries and gives the schemes for the identification with cooperation of the relevant UNIDO sponsored experts.

IV. Budget contribution in kind

1. Personnel

A. Counterparts	men/mon	US\$
° Documentation & Information	24	40,000
° R & D Formulation	12	20,000
° Pesticide Specification	6	10,000
° Instrumentation	6	10,000
° Waste Disposal	3	5,000
B. Lab Assistants	24	20,000
Subtotal		105,000

2. Facilities, Instruments & Supplies

A. Facilities	
° Lab Facilities	Available
° Vehicles	"
B. Instruments (GC/MS,GC/FT-IR,FT-NMR,etc.)	"
C. Supplies	
° Reagents	10,000
° Glasswares	10,000
Subtotal	20,000

3. Miscellaneous 5,000

TOTAL 130,000

COUNTRY REPORT
PROJECT MANAGEMENT COMMITTEE MEETING
ON PESTICIDE 18-20 OCTOBER 1988 BEIJING
(PEOPLES REPUBLIC OF CHINA)

.....

MOHAMMAD MUMTAZ^{*} AND UMAR KHAN BALOCH^{**}

INTRODUCTION

The Government of Pakistan fully recognizes the importance of healthy and productive agriculture in the global development of the national economy and accordingly gives high priority to the agricultural sector in its development plan. This is understandable since agriculture is still the largest sector of the economy which provides about one third of the GDP and gives work and a living to about 57 percent of the national labour force. The need for growing more food and fibre is necessitating greater use of pesticide in view of its gainful effects besides other components of integrated pest management, cultural, biological/^{etc.}which are also being very seriously perused.

REGULATION OF PESTICIDE AND ITS IMPLICATIONS

Pakistan has established its Pesticide Registration system in 1971 by Ordinance No. 11/1971 which also regulated the import, manufacture, formulation sale, distribution and use of pesticides. This Law has been supplemented by a statutory notification (SRO 1187(I) 73) issued by the Ministry of Food, Agriculture and Cooperatives in 1973, and amended by Ordinance No. XII of 1979. The Law requires that in order to qualify for registration, candidate pesticides must be cleared by PARC's Federal Pesticide Laboratory by analytically confirming the claims concerning chemical composition and physical properties made by the applicant. Field trials are conducted for two crop seasons (i.e. two years) by at least two Provincial Plant Protection Institutes

* Deputy Director Research (Pesticides) PARC, Islamabad.

** Director Research (Plant Protection) PARC, Islamabad.

in collaboration with the technical representatives of the applicant. The results of the field trials are submitted to a technical sub-committee based on which the Agricultural Pesticides Technical Advisory Committee (APTAC), the head of which is the Federal Secretary of Food and Agriculture, makes the final decision concerning the registration of a product. The whole process requires two to three years. Since the Ordinance and the Rules came into effect, several experts, task force, interest groups and agencies have scrutinized, and often criticized the registration procedure. Outside critics generally believe that they are too complicated and un-necessarily tedious. It is now being suggested that mammalian toxicity, primarily acute toxicity should be given more weight in approving or not approving a pesticide. Local production of widely used commodity pesticides meanwhile should lead to increased competition, suppression of prices and less dependence on supplies from foreign multinational companies. Since the Ordinance and the Rules have been in operation for more than a decade, a revision based on past experience and developments mainly caused by the transfer of pesticides distribution and sales from public to private sector, would be timely and necessary. Other points raised by the study related to improving the administration of the pesticide legislation and the technical research facilities for biological efficacy, residue analysis, toxicology and environmental implications.

Financial policies for regulating the import of pesticides and other materials required for their manufacture such as adjuvants, solvent and carriers, containers and packaging materials are being rationalised by the government for the development of a local pesticides manufacturing industry in Pakistan. The most important industrial chemicals, which could serve as raw materials or intermediates for the production of various pesticides include chlorine, caustic,

sulfuric acid, oleum, hydrochloric acid, kerosene fractions, acetic acid, short chain alcohols, benzene toluene and xylene. The latter being also an important solvent for liquid pesticide formulation. Inert minerals, useful as carriers and diluents in solid pesticide formulation, are also available in a good selection and quality. There are two active ingredient DDT & BHC manufacturing plants in Pakistan. These two factories could be diversified to produce Dichlorvos, Trichlorofon and a number of derivatives of Dimethoate and Methyl Parathion. These two groups of pesticide are being used extensively on cotton. Most of the large multinational foreign pesticide companies are represented in Pakistan with strong sales. Pesticide sales are much depended on crop season credits. The capital strong multinational enjoy an edge over local competitors. Revival of active ingredient manufacturing plant and incentive to formulators would help local competitors to match multinational and break the cartel. Technical and financial assistance from the international bodies are required to implement this programme.

Pesticides although kill the pest, yet fail to give a permanent solution of the problem, as such application of pesticides needs to be repeated during the infestation of a crop or used year after year. For all the practical purposes the difference between one pesticide and the other is the difference of the capability and effectiveness.

A total of 143 economic poisons under 211 brand names for different formulations and strengths, making a total of 309 items have been registered by 44 different agencies. Of the 211 brands registered 120 i.e. 56.9 percent of the total registered pesticides are the insecticides. Of these 100 brands belong to the commodity products constituting 83.3 percent of the total insecticide brands registered while 20 brands constituted 16.7 percent represent patent pesticide products. The share of the commodity products in the total trade of insecticides has fallen from 88.22 percent in 1982

to 48.77 percent in 1985 recording a fall of 33.45 percent; whereas the share of patent products has increased from 17.45 percent in 1982 to 51.9 percent in 1985 depicting an increase of 33.65 percent during the period.

Sale/consumption of Pesticide during 1981 to 1987 in Pakistan agriculture is appended. This indicates that use of pesticide has increased almost five times from 915 Metric Tonnes in 1981 to 4553 MT in 1987. As per the report of the sub-group on Pesticide there will be about 10% annual increase during 1987-93 and 4-9% annual increase during the year 1994-2000.

Besides cotton, rice, sugarcane, tobacco, fruits and vegetable and maize represent significant current and potential markets for pesticides. Wheat, the largest crop in the country is just emerging as a market primarily for herbicides since human resources cannot be indefinitely stretched for hand weeding.

ENVIRONMENTAL CONTROL AND MONITORING

There is, at present no facility in the country for effectively monitoring the impact of pesticide use on the environment of Pakistan. Until this is done, and analytical and ecological work carried out, it will be impossible to assess what the magnitude of the problem is. Further there is no centre of environmental expertise to make technical assessment of data relating to the fate and effects of pesticides in the environment on which to base recommendations related to registration submissions, or to alert government to potential problems.

Dr. Alan Calderbank, was fielded by UNDP/UNIDO on our request as Consultant in Environmental Toxicology during 9 June - 8 July 1988 in Pakistan who has submitted his report for establishment of Ecotoxicology Centre in Pakistan. It is understood that UNIDO is ready to pursue this matter

further based on its experience in the Republic of Korea on a similar Project. Government of Pakistan is actively scrutinizing the offer and the report to formalise the official request for the establishment of the Ecotoxicology Centre in Pakistan under collabotative programme.

Achievements:

Pakistan participated in the various activities of RENPAP Phase-II Programme; first PMC meeting; Regional Harmonization of Pesticide Registration; CIPAC meeting in Vienna; Pesticide Formulation Workshop; Group Meeting on Pesticide Data collection and greatly benefitted in updating our knowledge from these activities. As a result pesticide data and regulation has been improved incorporating the relevant FAO registration requirements and international code of conduct on the distribution and use of pesticides. However, PEST training programme in 1987 on quality control and residue analysis and second PMC meeting were missed due to some reasons or the other.

Suggestions

It is proposed that sub-networks on Pesticide in (a) formulation (b) manufacture and (c) environmental toxicology may be established in the relevant regional centres. They may be strengthened through technical assistance, short-term Consultancies and individual training in production process technology and toxicology.

- Pakistan favours the concept of rotation of RCU and offers to host the responsibilities for the proposed third phase of the project. We are also willing to accept any activity relevant to quality control, residue analysis and environmental toxicology.
- Special activities may be organized for member countries which have been bracketed in group III so that they may improve the existing pesticide formulation and manufacture technology through technical consultancies and training.
- Activities may be spread in all member countries in relevance to their need and experience.

PESTICIDE SALES DURING THE YEARS . 1981 TO 1987
 (BASED ON THE INFORMATION SUPPLIED BY THE PAKISTAN
PESTICIDE ASSOCIATION&MINISTRY OF FOOD & AGRICULTURE)

Active ingredient contained in formulated
 quality in Metric tons

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Acaricide	2.00	3.00	6.00	31.00	60.60	15.00	14.00
Fungicide	132.00	171.00	185.00	212.00	229.00	223.00	270.00
Herbicide	34.00	94.00	119.00	90.00	96.36	165.00	251.00
Insecticides	734.00	952.00	1471.00	2171.00	3060.00	3864.00	3982.00
Rodenticide	1.00	1.00	1.00	1.00	1.53	5.00	1.00
Fumigants	12.00	69.00	28.00	11.00	4.21	12.00	35.00
TOTAL:	915.00	1290.00	1810.00	2517.00	3452.92	4334.00	4553.00

COUNTRY REPORT - PHILIPPINES*
UNDP/UNIDO REGIONAL PESTICIDE NETWORK DP/RAS/85/023

*Luis T. Villa-real, Jr.***

On February 26, 1988, a new government of the people was formed. This new government has placed agriculture and the farmer at the center of its recovery program. This developmental program is anchored on three major policy goals:

First, to free the economy from unnecessary and costly government institutional and policy interventions;

Second, to provide the farmer access to land, technology, credit, infrastructure, and market information, and to provide landless wage earners greater employment opportunities;

Third, increase the effectiveness of the various government agencies concerned in pursuing the new thrusts in agriculture and the rural sector.

In view of the new thrusts introduced by the new government and the added tasks FFA has had to carry out in pursuit of the above goals, it was necessary for the Philippines to give up the Regional Coordinatorship for this Project, effective January 1, 1987.

During the second Project Management meeting held November 30 to December 2, 1987 in New Delhi, India, FFA for the first time participated as a national coordinating unit. It was during this meeting that a revised work plan for project activities was drawn up to make up for the delays encountered in project implementation resulting from the transfer of the RCU from the Philippines to India.

To date, following are the highlights of our progress as far as the implementation of the project's revised work plan are concerned.

- * Report presented at the FFA meeting held from 18-20 October 1988, Beijing, China.
- ** National Network Coordinator and Administrator, Fertilizer and Pesticide Authority, Manila, Philippines.

A. DATA COLLECTION:

The Philippines was not represented during the Second Expert Group Meeting on Pesticide Data Collection System at Pattaya, Thailand from 19-22 May 1987. In spite of our absence however, we responded on March 15, 1988 to the request of the Regional Coordinator to submit the required pesticide data for the period 1983-1986 using the prescribed format.

We had likewise furnished ABSAT/CIIRAD with our basic pesticide registration data for the publication "Regional Agro-Pesticide Index" which is prepared for use by countries in the region.

During the second PHL meeting held at New Delhi, India, it was decided to undertake data collection system by grouping the member countries in 3 groups to save mandays. The Philippines, was one of the identified lead countries and our consultant was supposed to have gathered data for the Philippines, Indonesia and Sri Lanka. He endorsed the services of Mr. Laurencio Teodoro to UNIDO, Vienna, copy furnished the RCU in India on March 7, 1988. Mr. Teodoro's consultancy for this purpose has not been finalized by UNIDO to date, nor have we received any feed-back from the RCU regarding our data submission as well as those of other members.

One of the difficulties we encountered is communicating directly with the RCU.

B. RESEARCH AND DEVELOPMENT ON PESTICIDE PRODUCTION AND UTILIZATION

C. UTILIZATION OF LOCAL RAW MATERIALS FOR PESTICIDE FORMULATION

Most of our pesticide requirements are met by imports and local formulation of imported technical materials. At present only one company is engaged in the production of technical grade 2,4-D, utilizing imported intermediates.

Progress in research and development work as far as pesticide production and formulation are concerned is entirely in the hands of the private sector. There has been minimum government intervention in this area, with the latter more concerned in promoting safety in production/formulation activities.

At present, however, the economic situation of the country redirects our attention to R & D work on this aspect to maximize utilization of local resources and minimize our imports. FFA is currently evaluating proposals for pesticide manufacturing plants in the country and the information gathered through the various training programs/workshops and consultative meetings in this regard prove to be very useful in our evaluation process. It is, however, suggested that training emphasis not only cover the commercial aspect of production/formulation but also effectively evaluating the impact of these activities as far as occupational health and environmental hazard and engineering control aspects are concerned.

Again, the Philippines was not represented during the Last Formulation Technology Workshop held in New Delhi, but we are grateful for having been provided with a copy of the technical report for the said forum. The papers of our nominee for the next quality control training under the PEST Programme has been endorsed to UNDP, Manila for endorsement to the RCU and UNIDO, Vienna.

D. HARMONIZATION OF PESTICIDE REGISTRATION REQUIREMENTS:

The Philippines has adopted almost all of the recommendations of the various meetings in this regard and we have closely adhered to the guidelines set by FAO, WHO and the international organizations with regard to labelling and registration requirements. On October 31-November 4, 1988, the Philippines will participate in the Regional Workshop for Harmonization of Bio-efficacy Protocols to be held in Kuala Lumpur, Malaysia.

We hope to also work closely with countries in the region, towards coming up with regional standards for quality control and conduct of residue trials, for the establishment of maximum residue limits.

E. HUMAN SAFETY, AND ENVIRONMENTAL PROTECTION MEASURES REGARDING USE OF PESTICIDES

FFA is actively involved in the formulation/implementation of various guidelines/programs to promote safety in the use of pesticides in the country. It was in this context that we requested for assistance from the project to send

of the services of a consultant on occupational health assessment, trainings on Environmental Impact Assessment, Quality Control and Residue analysis training programs, Environmental Aspect of Pesticide Production and Use.

Nomination papers for nominees to the above programs were already submitted to UNDP, Manila for endorsement to RCU and UNIDO, Vienna. Regarding the consultancy on occupational health, however, EPA requested UNDP, Manila and UNIDO, Vienna, for clarification regarding the status of the requested consultant, Dr. Keith Haddy, and why another consultant, Dr. Kenneth Fletcher will be arriving for the purpose, without prior consultation with the recipient of the consultancy services.

PROPOSALS FOR FUTURE ACTIVITIES:

At present, the following areas need to be addressed:

- 1) Standardization of pesticide quality control methods.
- 2) Standardization of Pesticide Residue trials for monitoring and establishment of maximum residue limits.
- 3) Human Safety, and Environmental Protection Measures regarding the use of pesticides.
- 4) R & D on Formulation technology.
- 5) Information Exchange on Pesticide Supply/Demand Situation

While it was and has been our policy to work closely with international organizations/projects and with other countries within and outside the region, the Philippines' participation in any of the future programs/activities under the project will hinge on availability of the country's resources, capabilities and set of priorities.

COUNTRY REPORT OF SRI LANKA*

DP/RAS/85/023 - RENPAP PROJECT M.H.J.P.FERNANDO**

In Sri Lanka currently the major emphasis is on safe handling and use of pesticides due to high rate of accidents. Every effort is being made in this regard through pesticide regulatory activities, education and research on safer pesticides

Over the last year much effort has been made in getting pesticide distributors to upgrade their labels. However, to date, "WHO colour coding" has not been adopted due to delay in the amendment of Control of Pesticide Act requiring further adjustments in labels.

An import cutback of 25% has been imposed this year (1988) on all WHO class I b products (Methamidophos, Monocrotophos, Methomyl and Om thoate) currently approved for field crops. As a result the industry has organised themselves to promote hazardous products, by submitting regional data for label expansion or for registration of new products.

With a view to stemming the number of deaths due to poisoning episodes, which are a result of pesticide intake, collaborative education programme with the 'Poison Centre' of the Ministry of Health have been undertaken.

Pesticide dealer training programme has also been intensified by inducting both private sector and public sector organizations.

There is current thinking in the use of extracts of plants having insecticidal properties for control of pests. It is claimed that, in addition to their low toxicity to humans they could be ecologically and environmentally safe. The researchers in Sri Lanka have already identified fifty five species of plants

* Paper presented at the third PACC meeting, held from 18 - 20 October, 1988 Beijing Peoples Republic of China.

** Deputy Director of Agriculture (Research Central Agricultural Research Institute, Gammaruwa Peradeniya, Sri Lanka.

which seem to be having pesticidal properties. The research undertaken on "Botanicals", and they are called, at initial stages fall into three categories viz :

- a) Collection of information on botanicals for Pest Control,
- b) Collection and growing these plants in a herbal garden, and
- c) Testing them for insecticidal properties.

In pesticide data collection, though the format VI of REMPAP project is followed it is not complete due to difficulty in the classification of pesticides under crop groups. The visit of the consultant on data collection by the project is awaited for further guidance on this activity. However, the data collected in 1986 and 1987 indicate a definite shift in the quantity of pesticides used from Insecticides to Herbicides which may be due to active campaign on Integrated Pest Control Programme or high cost of labour in land preparation or both.

This year, Sri Lanka will be participating in the following activities organised by REMPAP and FAO:

- a) Pest Programme I - New Delhi in November, 1988,
- b) Pest Programme II - Bangkok in January, 1989,
- c) Seminar on Environment Aspect, of Pesticide Production and usage - Indonesia in Nov., 1988,
- d) Seminar on Bio-efficacy Protocols on Herbicides Organised by FAO - Malaysia, Nov., 1988.
- e) One month consultancy on Pesticide Residue Analysis through REMPAP is awaited.
- f) One month consultancy on Insecticide Efficacy through REMPAP is awaited.

- g) Expected to participate in the one month study tour on Environmental Toxicology in Denmark and West Germany.

The following activities are requested under the auspices of the Phase-III of RENEAP Project.

- a) One month consultancy on occupational Health Hazards at usage level.
- b) One month training on Instrumentation.
- c) Two months training on Research and Development of Botanical Pesticides.
- d) Three months training in environmental Toxicology.
- e) Two months training on Pesticide Regulatory Control.
- f) One month training on Disposal of pesticides which are outdated.

THAILAND COUNTRY REPORT
BY
MONTRE RUMON,
DEPARTMENT OF AGRICULTURE

Thailand has been a member of the RENCAP since the beginning of the project. A lot of activities were carried out to achieve the objectives of the project for the benefit of the production marketing and control of pesticides in the region. The reports of such activities have been submitted in the country papers and presented in the RAC meeting each year.

Followings are the activities carried out in 1988

1. Annual collection of data on pesticides supply and production.

Thailand strictly follows the recommendation of the Expert Group Meeting on Pesticide Data Collection held in Thailand both in 1985 and 1987 by submitting the reports on pesticide production import and export to the regional coordinator as agreed in the meetings. After the second meeting in 1987, two reports have been submitted, one for the period of 1985 to 1986 the other one for 1981 to 87.

2. Pesticide evaluation and safety (PES) programme.

Training course on Pesticide Residue Analysis was completed in November 1987 in Thailand. The same course is scheduled to be conducted again in Thailand from January to February 1989. The Department

of Agriculture will host the course at Bangkok in Bangkok.

Mrs. Y. Yingshol will be a course co-ordinator.

3. Harmonization of Pesticide Registration Requirements the Regulatory Procedures.

As a result of the meeting in the Philippines (Oct. 24 - 29, 1983) on the Regional Consultation on Harmonization of Pesticide Registration Requirements, Thailand is now adopting the phased registration as recommended by FAO for all pesticides to be used in agriculture. It is expected to be implementing in the beginning of 1989. The national guide lines of the bio-efficacy test of pesticides for important crops and economic species of pests are being prepared. The workshop in Malaysia on the Harmonization of Bio-Efficacy Protocol in November this year is a very good timing to assist the implementation of local efficacy test of pesticide as required in the phased registration.

4. Assessment of Availability of Local Raw Materials for Pesticide Formulation.

During the past three years, the demand of solid formulation of pesticides were increasing especially granular form of insecticide for paddy field. The major inert ingredient of solid insecticide are sand, kaolin and talcum. These are available locally and have been used increasingly each year as shown in the Table 1.

Table 1. The amount in tons of Inert Ingredient used for pesticide production from 1965-67.

	<u>sand</u>	<u>kaolin</u>	<u>talcum</u>
1965	16,541.3	631.6	774.9
1966	17,975.2	758.4	1,586.8
1967	21,537.5	1,251.7	1,263.0

source : Agricultural Regulatory Division, Department of Agriculture.

5. Request for future assistance from the REIPAP.

The national co-ordinator was requested by the officials concerned of the project to propose to the PRC Meeting for the assistance on training and consultants as follows.

5.1 Training

1 H/H study tour to EPA and USDA in some states of USA on the pesticide registration system.

5.2 Consultants

2 H/H consultant on residue analysis of new pesticides that require special method of analysis such as some compounds of acaricides, herbicides and pyrethroid insecticides.

3 H/H toxicologist on the study of environmental impact of pesticides.

Whatever this project will be extended or not Thailand is recommending to the meeting that the network should be carry on to maintain the relationship of the member of the project as it has been in the past five years.

STATEMENTS FROM AGENCIES

World Bank Statement

Presentation by A. Kiss.

I am very pleased and honoured to participate in this third PNC meeting on behalf of the World Bank. I am particularly happy to have the chance to put faces to some of the names which I have been seeing on telexes over the past two years.

Pesticides have been an important focus in World Bank activities for two reasons. First because of the recognized important role in alleviation of poverty - a principal mandate of the Bank through economic development based on increased agricultural production. Thus, the Bank has a vital interest in ensuring the availability of good quality and appropriate pesticides as well as their safe and effective use. Second, as part of the strong and increasing emphasis, in World Bank operations, on protection of the environment, the Bank has been concerned with promoting proper control and regulation of pesticide quality, safety and environmental impact.

In pursuing these objectives, we all recognize that the key to receiving the full benefits of pesticides, while at the same time ensuring against abuses and negative impacts, is a strong national capacity to monitor and regulate pesticides and their use. The key to this in turn is the development of a cadre of a trained, professional cadre of scientists and technicians, capable of carrying out the technical work which is both the basis for development of policies and the means of executing and implementing them.

Thus, training in these areas has been an important element in certain World Bank activities at the national level around the world and, with the original Pesticide Evaluation and Safety Testing (PEST) programme, on a regional level in

Latin America. We have therefore also been very pleased at the extension of the regional approach to Asia through the fruitful merging of the World Bank PEST Programme and the RGNPAD.

Through this collaboration, together we have already completed two successful group training courses, benefiting more than 20 participants from nine member countries. The success of the courses was due in large part to the hard work and excellent organization on the part of the host institutions in India and Thailand. (Here I want to take a moment to recognize and extend thanks to these Governments and the responsible agencies and individuals in Thailand and India for their very substantial contributions both in cash and in kind). Also important factors were the enthusiasm of the participants; a good mix of regional and international expertise; and the practical orientation of the courses emphasizing hands-on laboratory work, using a variety of analytical methods suitable to different requirements and conditions, and emphasis on basics such as collection and management of data and good laboratory practice.

We are now looking forward to the implementation of the second round of PEST Programme courses for the benefit of additional participants from member countries. These courses will be held again in New Delhi (November, 1988) and Bangkok (Jan./Feb., 1989). These courses will largely follow the successful format of last years' courses, but with some modifications based on the valuations and recommendations provided by both the participants and experts. The response on the part of member countries has been very strong, as most countries have nominated several participants for each course. Regrettably, it has been necessary to limit the number of participants, due to both budgetary constraints and because of the desire to keep a good ratio between instructors and participants. Therefore it has usually been possible to accommodate only one participant from each country for each course. In some cases, when one country has not been able to send a participant for one

reason or another, it has been possible to allocate that slot for a second participant from another country.

Certainly the strong response to these courses underlines the importance of this aspect within the RGNPAP programme and the need to continue offering this type of training. However, now with the completion of 2 years' courses, it is important to review progress and accomplishments to date and evaluate future training needs with respect to both format (short term group training vs. individualized, intensive training) and content.

In closing, I would like to reiterate the World Bank's support for both the objectives and the approach of the RGNPAP Programme, which is a unique initiative and carves new ground with respect to both technology and regional cooperation. We particularly support the current and proposed increased emphasis on environmental and safety aspects, regional technology transfer and cooperation (through TCDC) and establishing the basis for a self sustaining operation of the RGNPAP Programme.

W.H.O. S T A T E M E N T

In the area of safe use of pesticides WHO has continued supporting RENCAP by providing assistance through a number of activities, such as publication and dissemination of relevant documents.

WHO recommended classification of Pesticides by Hazard has been revised, published (1978/1979) and distributed to all members of the Network. WHO/FAO data sheets on pesticides are continuously produced, published and disseminated. Interim specifications for several pesticides of public health importance have been prepared and will be published after the endorsement by the expert committee WHOPEP, a WHO scheme for testing of new pesticides intended for use in Vector control programme, established in 1960, has at present 39 new compounds under evaluation, some of them are of various phases of testing in WHO collaborative centres in several countries of the Network. There is need to extend WHOPEP (in collaboration with FAO and Industry) to pesticides intended for agriculture use within the International Programme on Chemical Safety among the number of chemicals, special attention is paid to pesticides the documents, Environmental Health Centre, Health and Safety guides and International Chemical Safety Cards, deal specifically with selected pesticides.

Special care is taken to develop methodology for monitoring exposure to certain classes of pesticides and a simple and reliable method for measuring blood cholinesterase activities has been developed, tested and is available for field use.

Educational activities keep priority and WHO is prepared to assist any member of the Network in implementing the existing Multilevel Modular Course in safe use of pesticides. WHO is also prepared to assist in any other educational programme dealing with safety aspect of pesticides production, transport storage and disposal.

WHO is permanently active in collection, collation of data on pesticide poisoning and appreciate any assistance received from the members of the Network.

PHC Meeting of RENPAP
18-20 October 1988, Beijing
E S C A P Statement

Mrs. Chairperson/Mr. Chairman, distinguished delegates, ladies and gentlemen,

We have again come together here in Beijing to review the progress activities of RENPAP, together with ARSAP contribution to RENPAP and our other related activities in the field of agro-pesticides in the region.

Contrary to last year (1987) when we had co-organized the data collection meeting in Pattaya, Thailand this year the Agriculture Division, ESCAP cannot report any major contribution to the activities of RENPAP.

We have however progressed well in our own traditional areas, i.e. pesticide information and safe use. Our illustrated pesticide safety guide from its original English version has recently been translated into a tenth language, i.e. Burmese. Earlier this year, 5,000 copies of the guide in Vietnamese have been sent to Viet Nam. In addition, we have just recently dispatched the last batch of 10,000 copies of the guide in Chinese language to the Institute for the Control of Agro-chemicals, Ministry of Agriculture (ICAMA).

Our pesticide safety training manual is currently being updated and revised and we hope to start disseminating the new edition as of early next year (1989). This new version will include an enlarged section on integrated pest management (IPM), a new approach which is gaining importance in selected countries of Asia.

The 1988/89 edition of the Regional Agro-pesticide Index (ARSAP/CIRAD) has come out of press and we are pleased to distribute it to all the participants. This work was successfully implemented thanks also to the co-operation from most of the RENPAP members. From a modest start of two countries covered in the 1987 Index, namely Thailand and the Philippines, we have been able to expand and increase the coverage up to nine countries in Asia. This has taken us a considerable step closer to becoming a truly regional, updated and reliable source of reference material which is being published now on a regular basis.

Although our funding situation has not dramatically changed from what has been reported at our last meeting in Delhi, we are looking into the future with more confidence.

It is thanks to the generous and increasing support of France, co-ordinated by the International Co-operation Centre in Agronomic Research for Development (CIRAD), that two French experts have joined the ARSAP team. They are largely contributing to the operation and expansion of the Asian-Pacific plant protection data base of which the Agro-pesticide Index was one of the significant outputs.

ESCAP has recently approved the ARSAP proposal for a regional pesticide publication programme, which will ensure the continuation of our different publication programme once appropriate funds will be made available by the donor countries.

The proposal for the establishment of a Pesticide Safety, Training Information and Communication Network for Asia and the Pacific or PESTNAP was presented last year at the RENPAP meeting in Delhi. I am now pleased to report that jointly with CIRAD, France and the International Health Development Foundation (IHDF) of the Netherlands, a concrete proposal for a first phase activity on pesticide poisoning at farm level has been formulated. If the required funding is secured through the European Community (EC) in Brussels, studies on chronic and acute poisoning levels in humans and farm animals are expected to start in two selected countries, namely Indonesia and Thailand, by mid-1989.

Our pesticide related activities have so far been carefully orchestrated with the FAO regional project on the implementation of the Code of Conduct. This project is based in Bangkok, Thailand and is in full operation since May 1988.

As far as our participation to RENPAP activities is concerned, in the very near future, ARSAP will participate in the Seminar on environmental aspects of pesticide production and use, to be held in Jakarta, Indonesia from 28 November to 2 December 1988.

Finally, with particular reference to the co-operation within the RENPAP network, we cannot deny a certain disappointment. The more regular flow and exchange of information agreed at and expected after our last Delhi meeting, in the form of a newsletter has not taken shape yet. In this connection also, we have not received for instance any input from RENPAP for our regular quarterly publication Agro-chemicals News in Brief, which is widely distributed in and outside the region.

REPORT FROM UNIDO

UNIDO in the area of pesticides is still committed to provide technical assistance in making use of locally available raw-materials for pesticide formulation, rehabilitation of existing plants, establishment of pilot plant for production of active ingredients to encourage future investment and promote quality assurance, industrial safety, effluent control and environmental safety.

High lighting some of the projects in the RENPAP region, in India the first phase of Pesticide Development Programme India (PDPI) is coming to an end this year. This mainly concentrated on developing pesticide formulations using locally available raw-materials and maintained closed link with the RENPAP in giving hand on training on formulation technology and quality control. If the second phase is approved, fully operable pilot plants with packaging facilities for wettable powder, suspension concentrate, seed dressing will be established and these could be used for production of approved formulations for initial marketing and to provide hands on training for the country and the region.

Here in China two projects for strengthening of Shenyang Research Institute for toxicological and biological evaluation would be completed and it is hoped to conduct, subject to availability of funds, an international symposium on recent development in pesticides and their application to China. The Government of China has agreed to host the symposium.

In South Korea a full fledged toxicological laboratory will be completed and would be capable of carrying out toxicological evaluation of chemicals for various outlets covering pesticides, pharmaceuticals, food additives etc. There is an environmental toxicology laboratory for testing soil and aquatic systems. We hope this could become the focal point for RENPAP region for toxicology evaluation/training

Outside Asia, this year we completed technology transfer to Egypt for pilot scale production of dimethoate and malathion, in Hungary a project on development of non-toxic insecticides has developed potential insect growth regulator, and bio-optimization is in progress. Last year we started a project in Poland on pesticide formulation and under this project UNDP and the Polish Government have agreed to conduct a work shop entitled 'Economical and Biological Aspects of Developing Pesticides Mixture Formulations' for the developing countries in 1989. Pesticide Mixture are already atrond in developed countries and will have a big impact in developing countries especially in Asia and Latin America.

The annual training programme in East Germany is going strong and we are getting more requests for places every year than we could meet.

UNIDO is also actively engaged in developing guidelines for Government and Industry in Hazardous waste management and book will be published soon covering the proceedings of an International convention held in Vienna in 1987 on this subject.

These are in a nut shell some of the high lights in the activities of UNIDO apart from this Regional Network.

F.A.O. STATEMENT

The representative of FAO expressed that Organizations pleasure to serve as an "Associated Agency" and to provide technical backstopping to some of the most active programmes of the network, such as and successful those on regional harmonization of pesticide registration requirements pesticide quality control, residue analysis and bioefficacy evaluation. He then confirmed and briefly described the activities of just initiated regional project on the implementation of the International Code of Conduct on the Distribution and use of Pesticides, supported by the Government of Japan through Trust Fund arrangements. The total budget of this project was US \$ 3 million, for a 5 year period, and incorporated all developing countries of the Asia and Pacific region, including all Member Countries of RENPAP. Its programme of work would include those aspects of the RENPAP which related to "Pesticide Control" and would thus aim to ensure complementarity and continuity to the respective activities of the network in the future. He then assured the meeting of FAO's interest in continuing to be associated and to provide any necessary technical backstopping to appropriate RENPAP activities till the end of the present project. If a new (phase - III) were to be submitted to UNDP for approval, over FAO would be interested and pleased to comment on the draft project document, in an attempt to ensure complementarity, mutual support and efficient use of the scarce resources available for technical and ICDC work on pesticides in the region.

**Tripartite Review Meeting
RAS/85/023 Regional Network on Pesticides
in Asia and the Pacific**

The Tripartite Review Meeting was held on 20 October 1988 in Beijing. The meeting was attended by the national coordinators from the following member countries of the Network: China, India, Indonesia, Republic of Korea, Pakistan, the Philippines, Sri Lanka and Thailand; the regional coordinator; the representative of UNDP; the representatives of UNIDO (executing agency) and other UN agencies including FAO, WHO, ESCAP and World Bank. The list of participants is attached. Before the TPR the Third Meeting of Project Management Committee (PMC) had been held 18-19 October 1988. The report of the PMC meeting covering detailed proceedings was prepared and was to be submitted by UNIDO separately.

Mr. Morey, Resident Representative in China opened the meeting on behalf of the principal project representative (PPR) and mentioned his association with the project during the early days of its inception and was aware of the extent to which the associated agencies cooperated with the project providing expertise to the network in the areas of data collection (ESCAP), code of conduct in the use of pesticides (FAO), harmonization and toxicology (WHO) and group training (World Bank). This collaboration of agencies is the natural expectation of the UN system therefore he was pleased with this combined effort.

At Mr. Morey's suggestion, the meeting adopted the following agenda:

1. Introductory Remarks
2. Summary of the Two Day Proceedings of the FMC Meeting
3. Discussion on the summary
4. Future Activities:
 - A. Envisaged Extension of the Project
 - B. Life of the Network beyond UNDP Assistance

Mr. Morev indicated that an extension of the project as recommended by the Evaluation Mission could be fully justified with regard to its sustainability beyond the life of the project; its complementarity and compatibility with national and other regional projects and the degree of interest by the member countries as indicated by the use of their own resources.

The regional coordinator summed up the proceedings of the previous two day discussions and expressed his gratitude for the excellent support given by the agencies. He specially highlighted the contribution made by countries like India, Thailand, Philippines, Korea and Indonesia. He emphasized the TCDC concept already followed by the Network with countries like India, Indonesia, Pakistan providing experts within the region and he also provided figures to show that the amount of cash and kind contribution by the member countries compared to UNDP contribution in US dollars ,

	UNDP	Member Countries	
Phase I	500,000	496,000	(1:1)
Phase II	628,000	894,000	(1:1.4)

showing an increased level of contribution from Phase I to phase II.

He also mentioned that the Meeting discussed countries needs extensively and that further UNDP support was necessary to enable

the Network to stand on its own feet beyond the UNDP's assistance.

During the discussion, the participant from India explained the necessity to change the emphasis in the project in the 3rd phase to focus more on production, safety, quality, effluent problem, waste disposal, occupational hazards at the production end. This re-orientation of emphasis was necessary due to the recent Japanese funded FAO project designed to focus on agriculture and the implementation of the FAO code of conduct on the use of pesticides. Areas dropped out by the project such as residue analysis, harmonization of registration, safety aspects at the user end would be covered by the new Japanese funded FAO project. At the same time close coordination would be kept with a representative from RENPAP participating in relevant meetings of FAO project and vice versa. Mr. Morey pointed out that the understanding on complementarity and compatibility between the two projects as agreed by the Meeting should be clearly conveyed to UNDP Headquarters. In this connection he also mentioned maintaining coordination with the UNDP/WHO project on chemical safety, with regional headquarters in New Delhi.

All the associated agencies FAO, WHO, World Bank and ESCAP stressed the importance of the project to the region and their willingness to provide their expertise to RENPAP during the 3rd phase.

Mr. Morey said that the meeting revealed a clear consensus among the participants that the project should be extended and provided a check list of issues which should be addressed during

the preparation of project document of phase III.

- compatibility/complementarity with other country and ICP projects
- degree of interest of Governments, how they utilize their own resources
- why the new extension is needed
- emphasis on re-orientation of the project in view of the coordination with Japanese funded FAO project.
- why some work under the network is still required

Mr. Dhua indicated that most of the points raised in the check list had been considered by the PMC meeting and will be taken into account during the preparation of the project document for extension.

Mr. Morey thanked the participants for their contributions and concluded the meeting.