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PREPARATORY ASSISTANCE MISSION TO FINALIZE THE PROJECT DOCUMENT FOR THE INTERCOUNTRY CO-OPERATION IN PESTICIDE DEVELOPMENT IN LATIN AMERICA

UC/RLA/83/280

Terminal report*

Prepared for the Governments of the Regional Network members (Argentina. Colombia, Costa Rica, Cuba, The Dominican Republic, Equador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Paraguay, Peru, Republic of Panama, Trinidad and Tobago, Uruguay and Venezuela) by the United Nations Industrial Development Organization

Based on the work of Mr. Héctor Llera, UNIDO consultant

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REGIONAL NETWORK FOR THE PRODUCTION, MARKETING AND CONTROL OF PESTICIDES IN LATIN AMERICA

Introduction

In 1978 C. Maltby, UNIDO consultant, carried out a mission which encompassed Mexico, Guatemala, Venezuela, Colombia, Brazil and Argentina. The mission's objectives were: a) collect data on the supply and demand of pesticides for the period 1978/88; b) determine the availability of raw materials and the capacity of current and planned pesticide manufacturing and formulation plants in the region; c) make recommendations for the development of the pesticide industry through a co-operative inter-country plan.

A preparatory assistance meeting to determine needs and objectives regarding co-operation between countries for the manufacturing of pesticides in Latin America was held in Buenos Aires (Argentina) in April 1983; its principal objectives were:

a) examine and determine the necessities to set up inter-country manufacturing and marketing of pesticides.

b) determine the viability of inter-country collaboration through a suitable network of existing national institutions.

c) recommend the creation of an appropriate mechanism to establish, strengthen and sustain the above network.

Representatives of Argentina, Uruguay, Chile, Ecuador, Venezuela, Bolivia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Haiti, Panama and Dominica, as well as representatives of the local pesticide industry and international agencies such as FAO - CEPAL and WHO participated in this meeting. The meeting, taking into account the recommendations of C. Maltby's report and the experience acquired in the Jakarta meeting for the establishment of a co-operative regional network for the development and control of pesticides for East Asia in April 1980, identified a number of areas in which co-operation was possible and necessary, such as the components and mechanisms for a co-operative programme between countries. Subsequently, UNIDO sent to the countries participating in this meeting, and to those who for various reasons could not attend, a copy of the report of the meeting emphasizing the Governments' interest in participating in such a project and proposing a four-month mission to the interested countries for the purpose of carrying out the following tasks in each country:

a) Corroborate their level of interest and that of their focal point in participating in the proposed network.

b) Report on the envisaged mechanism for the proposed programme based on a network system of national institutions.

c) Gather the information which will identify the agency acting as a national co-ordination unit, its institutional format, specific objectives, participating agencies/institutions, outputs in qualitative and quantitative terms which they expect to achieve through participation in the network in matters of technical assistance, experts, equipment, training programmes (individual and group), as well as the contributions of all types which the country would place at the disposal of the network.

d) Obtain information for conducting a study of the pesticide industrial sector in Latin America.

This mission to obtain the information and finally to prepare a project draft for UNIDO's (UNDP) and the participating countries' approval began on 2 February 1985.

It was concluded on 4 October 1985 when the project document and the mission report were submitted to UNIDO/Vienna.

1. Summary

This preparatory assistance mission for the "Establishment of a Regional Network of Institutions in Latin American Countries for the Production, Marketing and Control of Pesticides" (UC/RLA/83/280 Pesticides in Latin America) was carried out between 2 February 1985 and 4 October 1985. It included visits to the following countries: Mexico, Guatemala, El Salvador, Honduras, Costa Rica, Panama, Cuba, Jamaica, Dominican Republic, Venezuela, Trinidad and Tobago, Colombia, Ecuador, Peru, Paraguay, Uruguay and Argentina. Its main objective was to prepare a project document for a regional network, whose title is the same as that of the mission, from the information obtained during the meetings held with each Government.

11. Recommendations

1) It should be assured that the countries participating in networks of this type receive precise and simple instructions of what is

required, specifying and clarifying the method of completing them. Assure that these requirements are, in turn, very well understood by the UNDP office of each country and implement suitable follow-up on the part of the local office to the Executing Agency. The participating countries should allow sufficient time so that they are in a position to prepare a draft which can be discussed during the mission.

2) Given the difficulties, for reasons earlier expressed, in carrying out this project, it would be good to consider:

   a) The initiation of the network's activities in the areas which present fewer difficulties in order to establish precedents of horizontal co-operation which in turn facilitate the acquisition of experience and training of officials in integration tasks and will then allow continuation with more ambitious aims.

   b) The possibility of offering the regional co-ordination to one of two or three institutions selected by UNIDO (only Argentina has officially volunteered to do it at this time) in a future meeting with representatives of each network-participating country who would be authorized to resolve this question thus to establish the mechanism of definitive action through a Technical Advisory Committee, name its members and prepare a tentative work programme.

   c) That the embarrassing economic situation of all the Latin American countries makes them absolutely prioritize their investments and expenses in this area with the help of the network.

   d) The marked individualism of the Latin American countries, with different outlooks and aims expressed in different forums, makes the terms of united pesticide production nearly impossible.

   e) The strong presence of the multinational companies with their production policies, which are defending their products and markets; examples of this are the recent investments in Brazil and Argentina (Markets with a great present and future growth principally in herbicides) in plants making Butaclor, Alaclor, Glyphosate, EPTC, Pyrethroids, etc.

f) The rapid obsolescence, high costs and technological dependency which are encountered by nearly all the industries not connected with the multinationals in Latin America.

g) The existence of regional or sub-regional agreements, which although ineffective in practice, makes new productive agreements difficult.

3) The aspects in which the mission-targeted countries confirmed their interest and which can be reached through the establishment of the network are:

a) Establishment of a data bank with information concerning uses, production of actives, intermediates, prices, resources, needs, surpluses, and all other relevant information for marketing, registration, control etc. This would be a suitable way to relocate surpluses within the region, be it over production or over stock as a result of diminutions of cultivated areas or areas low in pressure of pests.

b) Harmonization and/or Normalization of:

i) Analytical methods and procedures for quality control, determination of residues, establishment of tolerance levels and registration requirements.

ii) Criteria for elimination of effluents, empty containers, and unused pesticides.

iii) Tariffs and commerce.

c) Market analysis and consumer tendencies for each country and the region unifying and modernizing the collecting and processing of data.

d) Preparatory assistance for the establishment of formulation plants in those countries of relatively low development.

e) Education and extension to raise the level of pesticide use and propiciate the adoption and development of new application methods.

f) Training and interchange of technical personnel and laboratory facilities.

g) Establish quality control laboratories.

III. Objectives

This assignment UC/RLA/83/280 had as an objective a mission of preparatory assistance for 17 countries in Latin America who had expressed interest in participating in a co-operative effort to promote the development of the pesticide industry. The co-operative programme would be based on an inter-institutional network using principally regional resources. The amount of assistance on the part of UNDP was not determined, but it is understood that essentially this network will be focused on activities of technical co-operation between developing countries, stimulated by UNIDO and UNDP.

IV. Duties

The consultations were held between February and July 1985 with the Governments of: Mexico, Guatemala, El Salvador, Honduras, Costa Rica, Panama, Cuba, Jamaica, Dominican Republic, Venezuela, Trinidad and Tobago, Colombia, Ecuador, Peru, Paraguay, Uruguay and Argentina.

For these consultations, the mission was instructed to:

1) Ascertain the extent of the Government's interest and its focal point;
2) Brief the Governments on the envisaged mechanism for the proposed programme based on a network system of national institutions;
3) Collect the following information from the Governments:
   a) The name, location and terms of reference of each national institute to participate in the work of the network and identify the institution designated by the Government to co-ordinate the programme on a national level;
   b) A detailed and possibly quantitative description of the outputs each individual country expects to achieve through the regional co-operation in the subject field;
   c) Specific objectives the Governments want to pursue through their participation in the scheme;
   d) Finalize the project document by incorporating the above information in the appropriate chapter of the draft.

4) In addition, for the preparation of a sectoral study on the pesticide industry in Latin America, the consultant is required to collect the following additional data:

   a) Production capacities of pesticide formulation plants and plants producing active ingredients together with the technologies available, technological arrangements, research and development, joint ventures and plans of future production as well as investments available in these plants and employment;

   b) Present consumption of pesticides in these countries, future demand and trade.

V. Findings

A list of persons with whom the expert met along with the areas in which the countries requested training and consultancy services are given in Annexes 1 to 5. The actual country reports are not included to reduce the bulk of this report.

A. Difficulties Encountered

The major disappointments of the mission can be attributed to communication difficulties in the system which links the United Nations offices with the country counterparts.

Prior to the start of the mission, UNIDO sent the results of the Buenos Aires meeting to the countries, requesting a prompt response regarding their interest in participating in the project and later sending the terms of reference and objectives of the current mission so that the counterparts could prepare a project draft including their goals, objectives, etc.

If this had been done, the mission would have accomplished its objectives; then the time would have been used to improve already established data instead of explaining from the beginning, to one and another agency, the purpose of the mission and the project as was the case. The only document which some countries had received was a report of the Buenos Aires meeting and many of them had received nothing.

- Lack of continuity and follow-up

Being a regional project and there being no clear and precise instruction for its follow-up, it tends to be diluted and this is

aggravated by the high rotation of Government functionaries and also the UNDP personnel.

- Quality and suitability of information received

To the lack of continuity and changes can be added that the information is either not received or arrives very late, lacking clarity and precision.

- Lack of experience in regional production projects

To the traditional individualism of the Latin American countries should be added the lack of experience in concrete actions of economic co-operation and co-ordination other than discussions. On the other hand, the interests encountered in the purpose of this industrial project, since the multinational enterprises in this sector of the world are very active and defend the markets in which they are involved with a technological complex which involves agrochemicals, pharmaceutical products, and seeds.

B. Analysis of the Countries' Requirements for the Total Network Operation

Almost without exception the countries estimated that the project should have five years of support by UNIDO.

The requirements regarding experts/consultants and individual and group training are given in annexes to this report. This data does not include information for Mexico, Colombia, Jamaica, Honduras and Santo Domingo nor have the needs with regard to laboratory equipment, buildings and other types of equipment, which figure in each country's documents been summarized as it is understood that this is not the objective of the project.

C. Selection of the Headquarter Country for the Regional Co-ordination Unit

With the exception of Mexico, Costa Rica and Argentina who have unofficially expressed their interest in hosting the Regional Co-ordination Unit, the rest of the countries either have completely left it out or have proposed that this selection be made through the co-ordinators of the respective National Co-ordination Units in a meeting to be held for this purpose and also to establish and name the CTA and design the tentative work plan for the first year.

INSTITUTIONS AND PERSONS VISITED

(By Country)

ARGENTINA

Secretary of State for Agriculture, Cattle and Fish -SEAGP-	- Eng. Roberto Pitterbargh
	- Eng. A. Abramovich (Chief Cabinet Advisor)
National Office of Vegetal Health	- Eng. Cecilia Martínez
National Institute of Industrial Technology - INTI -	- Directory
Secretary of Commerce	

COLOMBIA

Ministry of Toxicological Health	- Dr. Alfonso Peña
I.C.A.	- Eng. Ruby Londoño Uribe
	- Eng. P. E. Clavijo Navarro
A.N.D.I.	- Eng Luis Ortiz
Agrarian Centre	- Napoleón Morales
Ministry of Agriculture	- Jesid Castro
	- Raquel de Henao
National Planning Office	
U.E. Agricultura	- Julián Gutiérrez
U.E. Industria	- Ivarth Aparicio
	- Luis Borrero
INCONTEC	- Pedro Florez

COSTA RICA

Ministry of Agriculture and Livestock	
Office of Vegetal Health	- Eng. Alex May Montero

CUBA

Integral Office of Fertilizers and Pesticides	- Eng. Emilio Rebull
	- Eng. Edilia Ansean
C.I.Q.	- Dr. Olga Pascual
Quimimport	- Mr. Carlos Gil
National Office of Vegetal Health	- Eng. Labrada
MINBAS - Viceminister Petrochemicals	- Eng. Francisco Rodríguez

ECUADOR

Ministry of Agriculture and Livestock - MAG -	
Coordinator - Adviser	- Eng. Fernando Correa
National Vegetal Health Programme	
Director	- Eng. Gualberto Merino
Technician	- Eng. Mercedes Bolaños
Ecuadorian Standards Institute - INEN -	
Laboratory Manager	- Dr. Ramiro Gallegos
Extracting Industry INEXA C.A.	
Deputy General Manager	- Eng. Pedro Steiner
Industrial Development Centre of Ecuador - CENDES -	
General Manager	- Eng. Enrique Macías Ch.
Director of Chemical and Related Industries	- Eng. Juan Viera
National Institute of Agricultural Research - INIAP -	
Director in Charge	- Eng. Hugo Orellana
National Animal Health Programme	
Director	- Dr. José Lucero
Technician	- Dr. Gualberto Tapia
General Health Office Ministry of Health	- Dr. José Troncoso
National Vegetal Health Programme	
Director	- Eng. Cristóbal Barba
Technicians	- Eng. Gabriel Andrade
	- Eng. Mercedes Bolaños

EL SALVADOR

Office of Agricultural Economy	- Mr. Henry Quesada
Association of Agricultural Suppliers - Secretary	- Eng. Roberto Callejas
Quimtegral S.A. (Director)	- Eng. Héctor Bonilla
Ministry of Planning and Coordination for Economic and Social Development	
International Technical Coop. Infrastructure	- María Elena Pañameño - Roberto E. Moreno
CENTA (Agricultural Ministry)	-
Chief - Pesticide Residue Research Laboratory	- Gloria Ruth Calderón
Chief, Laboratory and Service Department	- Víctor M. Segura - Rafael Martínez Ortíz
OSPA	- Guillermo Morales

GUATEMALA

USPADA Sectoral Advisor	- Eduardo Ibañez
COGUANOR Secretary General	- Leonel Flores E.
SIECA Auxiliary Economist Agricultural Dept. Director	- María Teresa de García - Manuel Martínez y Martíneez
SEGEPLAN Technical Cooperation Office Agricultural Area Manager Science & Technology Dept.	- Vernon Ayala - Roberto Ososr.o Molina - Giovanni Reyes
LUCAM Laboratory Manager Chemist	- Elsa de Reyes - Zuly González
ICAITI Analysis Division Manager Regulations Division Manager	- J. Fernando Mazariegos - J. Joaquín Bayer S.
Agrochemicals General Manager	- Alfredo Rodríguez

HONDURAS

CONSUPLANE	
Industrial Department	- Mrs. Lourdes de López
Office of Productive Sectors	- Mrs. Lilia de Morales
International Technical Cooperative	- Mrs. María de la Paz Borjas
	- Mrs. Liliana Castillo
Natural Resources Secretaria.	
Office of Sectoral Planning	- Ms. Adelina Vázquez
Department of Vegetal Health	- Eng. Martil Guzmán
ANDI	- Dorcas de González
	Marcial Solís Paz
Quimtegra	- Amilcar Mejía

JAMAICA

Director, Planning & Policy	- Miss Marie Strachan
Permanent Secretary	- Mr. Clarence Franklin
Pesticide Lab. U.W.I.	- Dr. A. Mansingh
Chairman, National Pesticide Advisory Committee	- Mr. Lester Woolery
Unit Head, Caribbean Research & Development Institute (CARDI)	- Mr. Joe Suah
Director, Research & Development MINAG	- Mr. A. C. McDonald
Director, Veterinary Services Veterinary Division	
Executive Director, Research & Development	- Dr. Henry Lowe
Director, Scientific Research Council	

MEXICO

Mexican Somex Bank	- Marcos Arellano
Fertimex	- José Luis Anzo
	- Humberto Berumen
Secretary of Programming and Budget	
Director General for Economic and Social Programming	- Celso Cartas
SECOFI	
Coordinator General of Agrochemicals	- Javier Ramos Suarez
SECOFI	
Director of Chemical Industries and Consumer Benefits	- T. Rodríguez Bever
SARH	
Office of Vegetal Health	- Moisés Telliz Ortiz

MEXICO (continued)

SARH	
Pesticides Department	- Ruben Amaya Rubio
Fertimex	
Directory and Technical Corps	
Agricultural Cabinet	- Ruben Castillo Fragoso
Director General of the Industry for State Chemistry and Secondary Petrochemistry	- Francisco Barnez de Castro
Director General of Fertilizers and Pesticides (Secretary of Energy, Mines and Industry for the State)	- Fernando Gomez Cardón
Chemical Industry Association	- Presidency

PANAMA

IDIAP	- Dr. Jaime Espinosa G
Ministry of Agricultural Development	
Ministry of Health	
Ministry of Industry and Commerce	
University of Panama	

PARAGUAY

Ministry of Agriculture and Livestock	
Technical Cabinet - Director	- Eng. Oscar Meza
Vegetal Defense Office	- Eng. E. Ammatuna
Planning Secretariat	- Dr. R. Bogarín García
Public Health Ministry	- Dr. Juan Escriba
Ministry of Industry and Commerce	
Pesticides Programme	- Dr. Stella Barrios
Director, Food Department	- Dr. M. Angel González M

PERU

Ministry of Industry, Commerce, Tourism and Integration	
General Office of Industries	- Jorge Kochi Kamego
	- José Namisato Tamashiro

PERU (continued)

Sectoral Office of Industrial Planning	- Wilfredo Lanegra García - Alberto Valcarcel R.
Ministry of Agriculture	- M. Alicia De La Rosa B.

SANTO DOMINGO

Secretary of State for Agriculture. Division of Vegetal Health.	
Manager for Pesticide Statistics	- Agr. Eng. Adelina Montolio
Pesticide Registry Div. Manager	- Agr. Jorge de Moya
Pesticide Quality Control Mgr.	- Chemical Eng. Favio A. Cruz
Assistant Agromedical Programme	- Lic. Pharmacist Rosario Blanco de Fermín
Pesticide Residue Analysis Laboratory Manager	- Pharmaceutical Dr. Mireya Charles de Rodríguez
Dominican Phytosanitary Soc.	- Agr. Eng. Rosendo Angeles R.
Secretary of State for Public Health and Social Assistance - Assistant Department of Food Control	- Mr. Sergio Michel
Dominican Institute of Industrial Technology. Analytical Services Division Manager	- Dr. Gilberto Concepción
General Office of Quality Systems and Standards _ DIGENOR - Assistant Director General of Quality Systems and Standards	- Chemical Eng. Rosario Herrera
Director, Department of Standardization	- Eng. Bernardino Pérez Peña

TRINIDAD AND TOBAGO

Ministry of Health & Environment Division of Chemicals/Foods and Drugs. Environment Unit	
Ministry of Agriculture	

URUGUAY, EASTERN REPUBLIC OF

Ministry of Agriculture and Fish. Director General for Agronomic Services	- Eng. M. Boroukhovitch

URUGUAY (continued)

Ministry of Industry and Energy.
Office of Industries

Ministry of Public Health.
Division of Environmental Hygiene

University of the Eastern Republic
of Uruguay. Centre for Toxicological
Information and Counseling.

VENEZUELA

Ministry of Agriculture and Breeding
Office of Vegetal Health - Sahara Ingrid Dupatrocinio

TABLE 1

CONSULTANTS/EXPERTS REQUIRED FOR THE TOTAL NETWORK OPERATION
(5 years)

	m/m	US $
Formulation Technology	48	
Industrial policy & pesticide production technology	36	
Natural Festicides	To be determined	
Harmonization of requirements for registration, labeling, packaging and disposal of containers and unused pesticides	14	
Harmonization of criteria and methodology for setting tolerance levels	14	
Standardization of analytical methods for quality control and residues	80	
Documentation and information	50	
Market and commercialization analysis	36	
Biological efficacy evaluation	14	
Legal constraints on trade and production	25	
Toxicological evaluation	12	
Industrial policy	18	
Determination of economical damage levels. Cost/benefit analysis	6	
Education and extension	14	
Integrated pest management and application technology	6	

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TABLE II

INDIVIDUAL TRAINING PROGRAMME COMPONENT
FOR FULL OPERATION OF THE NETWORK
(5 years)

	Priority	No.	m/m	Host	US $
ARGENTINA					
Industrial Policy (Pesticide manufacturing & formulation techniques)	1	1	6	India Israel Italy	
Equipment and application Techniques	2	2	6	U.S.A. Brazil Israel	
Marketing	2	2	6	Brazil India Italy Spain	
Toxicology	1	1	6	U.S.A. Germany (East)	
Environmental Monitoring and Hazard Assessment	1	2	6	Italy India Israel	
Quality Control	2	1	6	India Israel Italy	
Agricultural economy - Cost/benefit analysis Determination of economical damage levels	2	1	6	U.S.A.	
EL SALVADOR					
Pesticide disposal	1	2	6	U.S.A.	
Pesticide application techniques	1	2	6	U.S.A.	
Safe use of pesticides		2	6	U.S.A.	
Environmental Monitoring and Hazard Assessment	1	1	3	Spain U.S.A.	
New pesticides evaluation		1	12	"	
Residue analysis/monitoring	1	2	6	"	

	Priority	No.	m/m	Host	US $
Clinical Toxicology		1	6	U.S.A. Europe	
Formulation technology	2	1	6	"	
Manufacturing technology		1	6	"	
Industrial Safety	2	1	6	"	
Marketing & Trade	2	1	3	U.S.A.	
Computer application	1	1	12	U.S.A.	
ECUADOR					
Regional Registration Harmonization	2	2	1	U.S.A.	
Marketing and Trade	2	2	12	U.S.A. U.K.	
Quality Control and Residue Analysis	1	3	24	U.S.A. U.K.	
Regional system for quality control and residue analysis	2	2	24	U.S.A. U.K.	
PARAGUAY					
Industrial Toxicology		3	12	To be determined	
Quality Control	1	2	12	To be determined	
Clinical Toxicology		4	6	To be determined	
Marketing & Trade	1	2	12	To be determined	
CUBA					
Toxicology	--------To be determined--------				
Formulation technology	"				
Pesticide manufacturing technology	"				
Effluent treatment	"				

	Priority	No.	m/m	Host	US $
COSTA RICA					
Residue analysis	1	2	3	Germany	
Pesticide manufacturing	1	1	6	U.S.A. Caribbean Peru	
Marketing	1	2	3	Sub-region C/A	
Quality Control	1	2	2	Sub-region C/A	
Formulation and packing	1	1	4	Sub-region C/A	
Computer operation	2	1	2	Costa Rica	
Legal aspects of pesticide registration & production	1	2	6	Argentina Colombia	
PERU					
Formulation techniques	--------To be determined--------				
Residue analysis			"		
Quality control			"		
Pesticide manufacturing			"		
Education and extension			"		
Information			"		
Marketing			"		
VENEZUELA					
Quality control	2	8	To be determined	U.S.A.	
Biological efficacy	1	6	"	Mexico	
Residue analysis	2	4	"	U.S.A.	
URUGUAY					
Residue analysis	1	2	6	U.S.A. Central America	
Biological efficacy	1	3	6	U.S.A. Europe	

	Priority	No.	m/m	Host	US $
Quality control	1	3	3	Regional	
Clinical Toxicology	1	2	6	U.S.A.	
PANAMA					
Formulation and manufacturing technology	1	2	2	Germany Argentina Mexico	
Quality control and residue analysis	2	3	2	Germany Colombia El Salvador	
Toxicology	4	1	1	Germany Peru	
Registration requirements	3	2	3	Colombia Mexico Guatemala	
TRINIDAD & TOBAGO					
Residue analysis	--------To be determined--------				
Biological efficacy			"		
Quality control			"		
Toxicological evaluation			"		

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TABLE III

GROUP TRAINING COMPONENT FOR
FULL OPERATION OF REGIONAL NETWORK

WORKSHOPS	NUMBER	DURATION	
Pesticides regulations and control	2/country	10 weeks (total)	Regional
Documentation and information	2/country	4 weeks	Regional
Marketing	1/country	3 weeks	Regional
Setting of tolerance levels	2/country	2 weeks	Regional
Harmonization of requirements for registration, packaging and disposal of unused pesticides	2/country	2 weeks	Regional
Trade and tariff considerations	2/country	1 week	
Quality control	2/country	2 weeks	
Toxicology	2/country	4 weeks	
Residue considerations	2/country	4 weeks	Regional
Education Techniques	2/country	2 weeks	Regional
Legal aspects of production and marketing	2/country	3 weeks	Regional
Integrated pest control and application techniques	3/country	3 weeks	Regional
Pesticide formulation and manufacturing technology	2/country	4 weeks	Regional
Detection and follow-up of pests	(1/country)	(4 weeks)	Regional
Selection and rationalization of the number of pesticides used in the region	2/country	4 weeks	Regional

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CONSULTANT/EXPERT COMPONENT (FIVE YEARS)

Subject	Country	m/m	Frequency	Total	Participants
1. Formulation Techaology	El Salvador	12	2	24	
	Venezuela	12	1	12	1
	Trinidad & Tobago	Not determined			
	Panama	6	2	2	
	Peru	To be determined			
	Jamaica, Santo Domingo and Honduras, whose reports have not yet arrived, have expressed their need for consultants'/experts' technical assistance in order to improve and initiate their activities concerning formulation.				
2. Feasibility analysis of pesticides synthesis (Natural and/or chemical)	El Salvador	3	2	6	
	Cuba	To be determined			
	Argentina	4	3	12	2
	Panama	6	2	12	
	Trinidad & Tobago	To be determined			
	Costa Rica	6	1	6	
	Peru	To be determined			
	Mexico and Colombia, whose reports have not yet arrived, have expressed their interest in having this kind of assistance.				
3. Harmonization of requirements for registration, labeling, packing and disposal of unused pesticides	Costa Rica	7	7	1	
	Peru	To be determined			
	Uruguay	1	1	1	2
	Argentina	3	3 (regional)	9	4

Subject	Country	m/m	Frequency	Total	Participants
	Paraguay	To be determined			
	Cuba	To be determined			
	Ecuador	12	(regional)	12	2
	Panama	3	(sub-reg.)	3	1
	Trinidad & Tobago	To be determined			
	El Salvador	To be determined			
	Venezuela	3	2	6	1
4. Harmonization of criteria and methodology for the setting of tolerance levels	Argentina	3	3 (regional)	9	4
	El Salvador	6	2	12	
	Uruguay	2	1	2	3
	Peru	To be determined			
	Costa Rica	11	(regional)	11	1
	Paraguay	To be determined			
	Ecuador	To be determined			
	Panama	3		3	8
5. Harmonization of requirements and analysis techniques for residues and quality control	Argentina	2	2 m/m 1st year 2 m/m 2nd year 2 m/m 3rd year	6	3
	Trinidad & Tobago	To be determined			
	Panama	6	3 m/m 1st year 3 m/m 2nd year	6	5
	Ecuador	12	6 m/m 1st year 2 m/m 2nd year 2 m/m 3rd year 2 m/m 4th year	12	2

Subject	Country	m/m	Frequency	Total	Participants
	Paraguay	To be determined			
	Costa Rica	13	7 m/m 1st year 6 m/m 2nd year	13	3
	Peru	To be determined			
	Venezuela	20	-	20	2
	Uruguay	18		18	6
	El Salvador	12		12	
6. Establishment of a statistical information processing and data bank	El Salvador	6		6	
	Uruguay	18		18	4
	Peru	To be determined			
	Costa Rica	2		2	1
	Cuba	To be determined			
	Paraguay	To be determined			
	Ecuador	12		12	2
7. Market analysis - trends and commercialization	Panama	12		12	1
	Trinidad & Tobago	To be determined			
	Argentina	6	2	12	4
	Panama	3		3	2
	Ecuador	12		12	2
	Paraguay	To be determined			
	Costa Rica	3		3	1
	Peru	To be determined			
	El Salvador	6		6	

Subject	Country	m/m	Frequency	Total	Participants
8. Evaluation of biological efficacy	Uruguay	6		6	3
	Venezuela	4	2	8	2
	Trinidad & Tobago	To be determined			
9. Commercial restrictions (legal)	Argentina	4	3	12	4
	Costa Rica	1	(regional)	1	1
	Peru	To be determined			
	El Salvador	12		12	
10. Industrial Policy	El Salvador	3	2	6	
	Argentina	12		12	2
	Peru	To be determined			
11. Agricultural Economy: Determination of economical damage levels. Cost/benefit analysis	Argentina	3	2	6	2
12. Toxicological evaluation	Trinidad & Tobago	To be determined			
	Uruguay	12	1	12	2
	Peru	To be determined			
	Paraguay	To be determined			

Subject	Country	m/m	Frequency	Total	Participants
13. Education and extension	Venezuela	7	2	14	2
	Peru	To be determined			
14. Integrated control and application techniques	Costa Rica	3		6	2

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