

# CGIAR GENDER PROGRAM

## WORKING PAPER, NO. 6

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### **Filipino Women Scientists: A Potential Recruitment Pool for the International Agricultural Research Centers**

Prepared by

International Service for National Agricultural Research (ISNAR)  
and  
Philippine Council for Agriculture, Forestry, and  
Natural Resources Research (PCARRD)

CGIAR Secretariat  
World Bank  
Washington, D.C.  
October, 1993

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# LIST OF WORKING PAPERS

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- Working Paper, No. 1      Status of Internationally-Recruited Women in the International Agricultural Research Centers of the CGIAR; Deborah Merrill-Sands and Pammi Sachdeva; October 1992
- Working Paper, No. 2      Spouse Employment in Organizations Around the World: A Toolkit for Developing Policies and Practices; Madelyn Blair, December 1992
- Working Paper No. 3      Spouse Employment at IRRI: A Case Study; Deborah Merrill-Sands; March 1993
- Working Paper No. 4      Strengthening the Recruitment of Women Scientists and Professionals at the International Agricultural Research Centers: A Guidelines Paper; Sarah Ladbury; October 1993
- Working Paper No. 5      Recruitment Resources in Europe: A List of Professional Organizations; Stella Mascarenhas-Keys and Sarah Ladbury; October 1993
- Working Paper No. 6      Filipino Women Scientists: A Potential Recruitment Pool for International Agricultural Research Centers; ISNAR and PCARRD; October 1993
- Working Paper No. 7      Recruitment Resources in the USA: A List of Professional Organizations. Deborah Merrill-Sands (forthcoming, 1993)

# RECRUITMENT NOTES

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The recruitment notes have been prepared as part of the CGIAR Gender Program's support to the international agricultural research centers supported by the CGIAR. They are designed to assist Centers' efforts to strengthen the recruitment of women professionals and scientists for international staff positions.

The need for the Centers to strengthen mechanisms for reaching women in recruitment is evident by the fact that in 1992 women accounted for only 8% of the pool of applicants for international staff positions in the CG System. This is less than the proportion of women (12%) in international staff positions in 1991.

The notes provide information on a wide range of professional organizations and contacts which can assist Centers to cast their recruitment nets more widely in order to generate a larger and more diverse pool of applicants.

The notes serve as an information supplement to the guideline paper on policies and practices for strengthening the recruitment of women for international staff positions within the Centers:

*Guidelines for Strengthening the Recruitment of Women Scientists and Professionals in the International Agricultural Research Centers*, by Sarah Ladbury  
CGIAR Gender Program, Working Paper No. 4

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## Filipino Women Scientists: A Potential Recruitment Pool for the International Agricultural Research Centers

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October, 1993

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## **A. INTRODUCTION**

Recognizing the dramatic increase in the number of female scientists working in agriculture and related fields in the past two decades, the international agricultural research centers (IARCs), supported by the CGIAR, are striving to strengthen their strategies and mechanisms to more effectively tap into this changing pool of scientists world-wide. Assuring their recruitment efforts reach both men and women in international labor markets is a challenge for center directors and personnel administrators.

This paper was prepared to facilitate the IARCs in their efforts to more effectively reach and recruit female scientists. It focuses on the Philippines where an estimated 800-1000 women comprise nearly 50% of the scientists and professional staff working in the public sector national agricultural research system. The Philippine research system represents a rich potential pool for future recruitment of women to the international agriculture research centers.

The paper was commissioned by the CGIAR Gender Program. A key responsibility of the Gender Program is to supply the international centers with better information on the global supply of female professionals in the areas relevant to their mandates. To assist in this effort, the International Service for National Agricultural Research (ISNAR) was asked to put together information on female scientists in the Philippines since this country has one of the largest populations of female scientists working in agricultural research and technology development in Southeast Asia.

ISNAR was asked: 1) to analyze the degree to which the Philippines represents a potential pool of qualified women scientists for the international centers, and 2) to develop recommendations on ways in which the centers could more effectively tap into this pool in their recruitment efforts. Since ISNAR was already conducting a case study of the issues affecting women scientists and professionals in the Philippine national agricultural research system,<sup>1</sup> gathering the additional data for this paper could be carried out with minimal extra cost.

## **B. METHODOLOGY**

In November 1992, semi-structured interviews were conducted with 30 male and 34 female scientists and managers in four Philippine national research centers. This information and ISNAR's human resource data bases from these centers, covering 296

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<sup>1</sup>"Women Scientists and Managers in Agricultural Research in the Philippines: A Case Study". ISNAR Research Report (Forthcoming).

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male and female professionals, were used in preparing this report. The interviews were used to obtain information about female scientists' and professionals' knowledge about and attitudes towards working in the international agricultural research centers, as well as the advantages and disadvantages they might face in taking up such an opportunity. Managers' attitudes towards the recruitment of their staff by the CGIAR centers and women's access to job announcements were also investigated. The human resource data helped to identify degree and experience levels and the disciplines where women concentrate.

Four research institutes were included in the study. All are national research centers. They reflect the diversity of types of research centers found in the Philippines. Their specific responsibilities are indicated in Table 1. The National Institute of Biotechnology and Applied Microbiology (BIOTECH) and the Institute of Plant Breeding (IPB) are very specialized and work only on specific disciplines. The Philippine Root Crop Research and Training Center (PRCRTC) works on the major root crops, while the Philippine Rice Research Institute (PRRI) is a specialized commodity center covering rice, the major staple of the Philippines.

**Table 1. Case Study Research Institutes, their Responsibilities, and Level of Female Staffing, 1992**

Research Institute/Location	Responsibility	Women as % of Professional Staff
Institute of Plant Breeding (IPB), UPLB, College, Laguna, Philippines	National, Plant Breeding	48%
National Institute of Biotechnology and Applied Microbiology (BIOTECH), UPLB, College, Laguna, Philippines	National, Biotechnology and Applied Microbiology	74%
Philippine Rice Research Institute (PRRI), Muñoz, Nueva Ecija, Philippines	National, Rice	43%
Philippine Root Crop Research and Training Center (PRCRTC), VISCA, Baybay, Leyte, Philippines	National, Root Crops (cassava, sweet potato, taro)	40%

## C. SUPPLY OF WOMEN SCIENTISTS<sup>2</sup>

The Philippines represents an important pool of women scientists for the international agricultural research centers. Since the early 1980s, women have had a prominent role in agricultural research and extension in the Philippines. The Philippines has a large scientific research capacity in agriculture. In 1980-1985, it was estimated that there were 1,965 researchers in the national agricultural research system of the Philippines (Pardey and Roseboom, 1991). The number is likely to be about the same today.

### Size of pool

Although country-wide data is not available on the percentage of women in the Philippine agricultural research system, data from four major research centers and data on awards of advanced degrees in agriculture from the University of the Philippines at Los Baños (UPLB) indicate that women now comprise between 40-50% of the agricultural researchers in the country. The majority of women are in the public sector (government agencies and universities). A significant number have more than 10-years experience in research. All have sound language capacity in English, the official language of instruction in the Philippines.

### Degree levels

The pool is reduced by half if only researchers with advanced degrees are included. Of the 160 women researchers working in the four research institutes included in the study, for example, 45% had graduate degrees but only 11% had Ph.D.'s. Of the women with Ph.D.'s, 60% had received their degrees overseas (primarily in the USA) and 40% were trained in the Philippines. Women represent 35% of all Ph.D. graduates from the University of Philippines Los Banos, the most important agricultural university in the country.

### Disciplines

Based on data from degrees awarded by UPLB and human resource profiles from the four national research institutes included in the ISNAR study, we see that women are most strongly represented ( $\geq 50\%$  of scientists) in the following disciplinary areas:

- \* basic and support sciences (e.g., laboratory-based sciences such as biochemistry, genetics, microbiology, soil chemistry, food and nutrition),
- \* plant protection (e.g., plant pathology and entomology)

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<sup>2</sup>Based on data collected in the case study "Women Scientists and Managers in Agricultural Research in the Philippines: A Case Study" ISNAR Research Discussion Paper (forthcoming).

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- \* extension-related disciplines (e.g., agricultural education, communications, extension education), and
- \* socioeconomics.

The data also indicate a more active involvement of women in recent years in the field-oriented disciplines of agronomy, soil science, and plant breeding.

### **Filipino women in the IARCs**

The Philippines appears to be an under-exploited source of female researchers and professionals for the international agricultural research centers. Of the approximately 200 women working at 15 international centers between 1988-1991, only eight (4%) were Filipinos, and half of these were at IRRI (Merrill-Sands and Sachdeva, 1992). Their disciplines included agricultural economics, agricultural engineering, biochemistry, entomology, food sciences, and information sciences.

In 1991, two Filipino women served on boards of international centers -- a plant breeder at CIMMYT and a sociologist at ICRAF. These women represented 8% of the female board members in the centers of the CGIAR system, but 50% of the Filipino board members serving in the CGIAR System (CGIAR Secretariat, 1991).

### **Potential pool**

With their high qualifications and varied expertise in most of the disciplines required at the international centers, Filipino women scientists could be a rich scientific pool from which the centers can recruit. The characteristics of the supply indicate that the Philippines represents a particularly important pool of talent for international centers recruiting in the basic and support disciplines, plant protection, socioeconomics, and extension, communications, or adult education. Women scientists are available across a wide range of training and experience levels. Since women have been active in the Philippine research system for many years, many also have developed extensive research management experience.

## **D. ORGANIZATION OF AGRICULTURAL RESEARCH IN THE PHILIPPINES**

The Philippine agricultural research and development system is large, complex, and highly decentralized, reflecting the very diverse ecology and archipelagic nature of the country. Its mandate covers research and development activities in crops, livestock, fisheries, forestry, natural resources, and the environment.

The components of the national research system are equally diverse. There are two basic structures: 1) two planning and coordinating councils at the national level; and 2) a

network of research centers and stations which make up the National Agriculture and Resources Research and Development Network. The network consists of research organizations reporting to five government departments (Agriculture, Agrarian Reform, Environment and Natural Resources, Education, Culture and Sports, and Science and Technology), private research centers, parastatals, and non government organizations. Much of the research is done in state colleges of agriculture and agricultural universities.

There are four national multicommodity centers, eight national single-commodity centers, eight regional centers, various cooperating stations and specialized agencies. The Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) defines the responsibilities of these centers and stations by the types of research they may conduct and their special commodity or disciplinary focus. PCARRD is the overall planning and coordinating body for the national agriculture and resources research system.

This large and decentralized organizational structure has important implications for international centers' efforts to tap this pool of women scientists in their recruitment efforts. The centers will need to "cast their nets" widely if they are to reach female scientists working in the many distinct research units which comprise the national system.

## E. ISSUES AND FINDINGS

### Interest in working at international centers

Over 80% of the women respondents indicated, during the interviews, that they would be interested in working at an international center, but most were not actively looking for positions outside the Philippines. They also indicated that there would be no official barriers to prevent them from leaving their current organizations. This suggests that some Filipino women scientists could likely be attracted to join the CGIAR centers, if there was an active program to reach them.

A woman scientist expressed the sentiment of many of the women respondents:

*"I would be attracted by the opportunity to work with a wide range of people, to experience other cultures, and to have access to excellent scientific facilities."*

Four key reasons why few Filipino women are currently employed at the IARCS emerged from the interviews:

- 1) women scientists do not know the CGIAR System and the international centers well and are not very aware of the career opportunities available in the centers;

- 2) women scientists do not have access to information about position openings and, hence, are unable to respond to opportunities when they arise; and
- 3) women scientists have a strong sense of family responsibility which can inhibit them from considering a career move which would involve relocation to other countries;
- 4) women scientists may not meet the language requirements of the international centers.

The first two constraints can be easily corrected by center initiatives; the latter two are more structural in nature.

#### **Limited knowledge of CGIAR System and international research centers**

The major factor inhibiting Filipino women from applying to CGIAR centers is their limited knowledge of the CGIAR system and the international agricultural research centers. Although 75% of the respondents knew at least one Filipino woman scientist who had joined an international center; many knew the same woman. Most were familiar with only a handful of the centers.

More exposure to and knowledge of the opportunities in the IARCs would undoubtedly stimulate more interest among Filipino women scientists for working overseas. Women scientists and professionals currently working in the international centers could serve as good sources of information about the centers (ref. Table 4). They could also serve as important links to the strong informal networks of female scientists in the Philippines.

A few women scientists have also served on the boards of trustees of some international centers, such as CIAT, CIMMYT, CIP, ICRAF, and ISNAR. These women could be important role models and an invaluable source of information about the centers and their programs (ref. Table 4).

Some international centers also have active collaborative projects and training activities in the Philippines. These projects could be a potential linkage to research organizations in the Philippines and a mechanism through which the centers can tap into the networks of women scientists. Centers currently running collaborative projects in the Philippines include CIAT, CIMMYT, CIP, ICLARM, ICRISAT, IBPGR, IFPRI, IITA, IIMI, IRRI, and ISNAR.

#### **Awareness of job opportunities**

Many respondents were not aware of job opportunities at international centers. Only a quarter of the respondents had received position announcements from an international

center directly. They were more aware of job announcements from international organizations, such as FAO. A second important constraint identified by the women was the time delay in the announcements reaching scientists. Many women who were accustomed to read position announcements on bulletin boards in their organizations, indicated that by the time they saw the announcement, the closing date had passed and it was too late to apply. The problem of time delays was the constraint women cited most often for regarding their ability to take advantage job opportunities in the centers.

The respondents indicated that they had received information about job vacancies at the international centers through:

- 1) professional newsletters, especially the IRRI Newsletter,
- 2) friends via the informal networks of scientists,
- 3) local newspapers (for IRRI's job vacancies), and
- 4) through direct contact by letter from the centers (only a few).

The most often mentioned source of information about job vacancies was the IRRI Newsletter, which has a wide circulation in the national research system. The newsletter includes a list of job vacancies from other international centers. IRRI also publishes its job vacancies in local daily newspapers with nationwide circulation in the Philippines.

A very interesting finding was that no respondents mentioned having seen job announcements in magazines and journals, such as *The Economist* or *Nature* where international centers typically publish position announcements. The centers use these publications to reach a wide audience of potential candidates. Yet, at least in the Philippines, they do not appear to be reaching a large potential pool.

Since most of the Filipino women scientists are not actively job hunting, they basically have to be invited to apply for a position within an international center. Using advertisements in journals is, therefore, unlikely to be a very effective mechanism, at least on its own, for tapping into this scientific pool. Building up contacts and using key women and men in the Philippines to circulate position announcements and make recommendations is likely to be a more effective strategy to reach female scientists. Informal networks of scientists are strong in the Philippines. These could be effective mechanisms for disseminating information to women scientists. Many female respondents said that they heard about job vacancies from colleagues and friends who thought that they might be qualified for the vacant position.

Some of the suggestions made by respondents to improve the dissemination of information from international centers include:

- 1) using direct contacts with key women scientists in the Philippines to tap into the informal networks of women scientists;

- 2) using professional societies which publish local scientific journals and which also hold regular annual scientific meetings and periodic seminars (both for raising awareness about the IARCs and for disseminating information on positions);
- 3) including job vacancies from international centers in the IRRI and PCARRD Newsletters, both of which have a very wide circulation in the country;
- 4) increasing direct mailings to directors of key research institutes and presidents of agricultural colleges and universities; and
- 5) establishing a data base of women scientists to be circulated in international centers.

### **Mobility concerns**

Although women respondents were interested in working for an international centers, some were hesitant to consider long-term employment. When asked what type of positions and length of contract they would be willing to accept, half of the women indicated that they would like postdoctoral fellowship and visiting scientist positions for one to two years or short-term assignments of up to six months. A smaller number of women indicated that they would be willing to stay longer at a center if the family could be relocated.

The interviews reveal that family responsibility is an important factor which might inhibit Filipino women scientists from accepting positions in international centers. A large percentage of the women scientists (70% of the women scientists in the four case study centers) are married and have children. The majority have spouses who are professionals (81% of the married women interviewed, compared to 50% of the married men). Traditionally in the Philippines, women have the principal responsibility for child rearing. This was evident in the interviews where 70% of the women respondents, compared to 50% of the men, indicated that family considerations would be an important factor influencing their decision to relocate. The women's concerns related to (1) possible effect of relocation on children's schooling and (2) unwillingness of the husband to relocate because of limited spouse employment opportunities. The problem of spouse employment is very real. In the Filipino society, men earn the basic salary; women's salary, even if it is higher, is considered the second income.

However, some women indicated that they would consider going to an international center on their own. For example, some said they would be willing to join a center if they could find relatives who would take care of the children and if they could return home to visit them. The presence of extended families at home provides them with this flexibility. Many women respondents said their husbands would support their move to an international center.

With respect to geographic locations preferred, two-thirds of the women indicated that they would prefer centers located in Asia (compared to 60% of the men). For many, this likely reflects their desire to remain near their families. Only a third of the women indicated that they would be willing to go to any region. Twenty-five percent indicated a preference for international centers located in developed countries.

There appear to be few official policies that would prevent women scientists from leaving their institutes. Most respondents said that there were no official barriers. However, two problems were pointed out: (1) if the scientist has an existing contract from a previous scholarship grant, this might prevent her from leaving and (2) the current government leave policy (without pay) limits the leave to two years only.

As managers, twice as many female as male respondents said that they would encourage and support women scientists to join an international center. Two respondents summed up the sentiment of many others by saying,

*"I think that the pool of Filipino women scientists is excellent. I will support the staff member because it will be good for the country -- she will become our representative in an international center" (male manager).*

*"I will not stand in the way of progress; her going there [an international center] would be a gain for science" (female scientist).*

### Language requirements

All Filipino scientists and professionals can speak and write English well since English is the medium of instruction in the country. Apart from Spanish, however, there is little language facility in other European languages among these scientists. Some women were concerned about their inability to fill the language requirements of some centers. They worried that this could be a constraint in working directly with international centers' clientele.

### F. RECOMMENDATIONS

1. **Recognize the Philippines as an important pool of female agricultural scientists.** With their advanced training and experience in many of the disciplines that the international centers require, the Filipino women scientists could become a rich scientific pool from which the centers could draw expertise.
2. **Recruit broadly.** International centers should "cast their net widely" and use multiple recruitment mechanisms if they want to reach women dispersed among

diverse research units within the decentralized research system of the Philippines. Centers should make active efforts to reach Filipino women scientists for positions in areas where they are well represented, drawing on their expertise in basic and support disciplines, such as biochemistry, biology, biotechnology, chemistry; plant protection; extension/adult education/communication; research management/administration, and socio-economics.

3. **Use newsletters.** Centers should request that IRRI continue to include vacancy announcements from other centers in the IRRI Newsletter. Centers should make systematic efforts to place announcements in the IRRI Newsletter, particularly for those positions tapping disciplines where Filipino women are strongly represented.

Centers should also send position announcements for publication in the PCARRD Newsletter. This newsletter is published bimonthly by PCARRD and is circulated to all the members of the national research network and major libraries in the country. The centers may contact the Executive Director or the Director of the Applied Communications Division, PCARRD, Los Baños, Laguna, Philippines.

4. **Send announcements directly to key research institutes.** Many respondents suggested that vacancy announcements should be sent directly to the directors of the key research institutes and the presidents of the key agricultural universities and state colleges. Table 2 shows research organizations that may be of interest to the international centers. Letters to the center directors and presidents should include a cover letter requesting that special attention be given to circulating the announcement among women scientists. In the case of UPLB, vacancy announcements should be sent to the directors of the 16 research institutes, through the Office of the Director of Research, UPLB, College, Laguna, Philippines.

5. **Tap into the informal networks.** Informal and formal networks of women scientists are strong in the Philippines. Given that many women are not actively seeking positions overseas, networking is likely to be the most effective strategy for attracting women to apply to the international centers. Centers should strive to develop contacts with key women scientists and administrators who can serve as focal points to disseminate information about position openings. The international centers can send relevant position announcements directly to these women scientists with a cover letter requesting their assistance in circulating the announcement widely among their women colleagues. Table 3 gives a list of key women contact persons in the Philippines.

The Department of Science and Technology (DOST) has established focal points for women scientists in most research organizations which can be tapped for this purpose. The coordinator of this effort is Dr. Amelia Ancug, Assistant Secretary of DOST, Bicutan, Taguig, Metro Manila, Philippines.

6. **Disseminate information through professional societies.** Women scientists can also be reached through local professional scientific societies and women's organizations. Many women scientists are very active in these organizations and these provide a valuable way of reaching other women scientists, through the scientific journals that they publish or through announcements made during their annual scientific meetings. Table 5 shows a list of these scientific organizations and specific women's organizations in the Philippines.
7. **Enlist support of women scientists working at the centers and serving as board members.** An important source of information about the CGIAR system and the international centers are the Filipino women scientists serving on boards and working in the centers. Table 4 lists the Filipino women involved in the CGIAR system (for the addresses of these women, see Table 3).
8. **Enlist Filipino Board members to publicize the international centers more at professional meetings and to help disseminate position announcements.** The CGIAR Gender Program might consider providing modest operational funds to these women to enable them to play a stronger public relations role and assist international centers seeking strong candidates from the pool of Filipino women.
9. **Use local newspapers selectively.** Centers could consider placing announcements in local newspapers for positions in disciplines in which Filipino women are well represented.
10. **Allow adequate response time.** A major constraint in reaching women or men in developing countries is the long delays which often occur in position announcements or advertisements reaching potential candidates. A minimum of 4 months should be allowed from the time the announcement is disseminated to the closing date.
11. **Include information on spouse employment opportunities and schooling in announcements.** Since many women expressed concerns about employment opportunities for their spouses, children's schooling, and security, centers should explicitly provide information on these issues in their job announcements.

**Table 2. Key Research Institutes and Agricultural Universities and Colleges, Philippines**

<b>Research Institute/University</b>	<b>Commodity/Discipline</b>	<b>Contact Person</b>	<b>Address</b>
Benguet State University	Multicommodity--highland crops	President	Benguet, Mountain Province
Central Luzon State University	Aquaculture, cereals, livestock, others	President	Muñoz, Nueva Ecija
Central Mindanao State University, Musuan, Bukidnan	Corn, legumes, plantation crops, livestock	President	Bukidnon
Ecosystems Research and Development Bureau	Forest production	Director	College, Laguna
Forest Products Research and Development Institute	Forest products	Director	College, Laguna
Institute of Animal Science at UPLB	Livestock	Director	College, Laguna
Institute of Plant Breeding and National Plant Genetics Laboratory at UPLB	Plant breeding, germplasm conservation	Director	College, Laguna
Mariano Marcos State University. Batac, Ilocos Norte	Cotton, tobacco, sericulture, legumes	President	Batac, Ilocos, Norte
National Crop Protection Center at UPLB	Entomology, plant pathology, weeds	Director	College, Laguna
National Postharvest Institute of Research and Extension	Postharvest & utilization	Director	Muñoz, Nueva Ecija
National Institute of Biotechnology and Applied Microbiology at UPLB	Biotechnology, microbiology	Director	College, Laguna
Philippine Coconut Authority	Coconut	Administrator	Dillman, Quezon City
Philippine Rice Research Institute	Rice	Director	Maligaya, Muñoz, Nueva Ecija
Research Management Center at UPLB	Research management	Director	College, Laguna

<b>Research Institute/University</b>	<b>Commodity/Discipline</b>	<b>Contact Person</b>	<b>Address</b>
Philippine Root Crop Research and Training Center at VISCA	Cassava, sweet potato, other root crops	Director	Baybay, Leyte
University of the Philippines at Los Baños	Legumes, ornamental, medicinal crops, fruits, vegetables, livestock	Chancellor	College, Laguna
University of Southern Mindanao	Corn, fibers, fruits, plantation crops	President	Kabacan, North Cotabato
Visayas State College of Agriculture	Abaca, coconut, root crops	President	Baybay, Leyte

**Table 3. Key Filipino Women Scientists as Contact Persons for International Centers**

<b>Name</b>	<b>Discipline/Position</b>	<b>Organization/Address</b>
Dr. Rerredios Abilday	Plant Breeding, Researcher	Institute Plant Breeding, UPLB, College, Laguna
Dr. Candida Adalla	Entomology, Professor	Department of Entomology, UPLB, College, Laguna
Dr. Dolores Alcober	Rural Sociology, Director	Farming Systems and Soil Research Institute, Visayas State College of Agriculture, Baybay, Leyte
Dr. Amelia Ancog	Law, Under-Secretary	Department of Science and Technology, Bicutan, Taguig, Metro Manila
Dr. Corazon Barba	Foods and Ecology, Professor	College of Human Ecology, UPLB, College, Laguna
Dr. Adelina Barrion	Genetics, Scientist	Genetics Laboratory, Institute of Biological Sciences, UPLB, College, Laguna
Dr. Salud Barroga	Entomology, Professor	Mariano Marcos State University, Batac, Ilocos Norte
Dr. Angelina Bautista	Communications, Director of Research and Extension	University of Southern Mindanao, Kabacan, North Cotabato
Dr. Emiliana Bernardo	Entomology, Professor	Department of Entomology, UPLB, College, Laguna
Dr. Filomena Campos	Plant Breeding, National Scientist	National Academy of Science and Technology, TAPI Building, DOST, Bicutan, Taguig, Metro Manila
Dr. Virginia Cardenas	Agricultural Extension, Assistant Professor	Department of Agricultural Education and Rural Studies, UPLB, College, Laguna
Dr. Gelia Castillo	Rural Sociology/Women in Development, Professor Emeritus (Member ICRAF Board)	Department of Agricultural Education and Rural Studies, UPLB, College, Laguna
Dr. Virginia Cuevas	Mycology, Assistant Professor	Institute of Biological Sciences, UPLB, College Laguna
Dr. Juliana Dacayo	Soil Fertility, Professor	Central Luzon State University, Muñoz, Nueva Ecija
Dr. Ida Dalmacio	Food Microbiology, Professor	National Institutes of Biotechnology and Applied Microbiology, UPLB, College, Laguna

Name	Discipline/Position	Organization/Address
Dr. Cristina David	Economics, Senior Fellow	Philippine Institute for Development Studies, NEDA sa Makati Building, 106 Amorsolo St. Legaspi Village, Makati Metro Manila
Dr. Pura Depositario	Agriculture/Education, Chairperson	Department of Agricultural Education and Rural Studies, UPLB, College, Laguna
Dr. Teresita Espino	Microbiology, Researcher	National Institutes of Biotechnology and Applied Microbiology, UPLB, College, Laguna
Dr. Elvira Fernandez	Wood Chemistry, Professor	Wood Science and Technology Department, UPLB College of Forestry, College, Laguna
Ms. Anita Frio	Agricultural Economics/Women in Development, Senior Training Assistant	Training Center, IRRI, Los Baños, Laguna
Dr. Dely Gapasin	Entomology/Research Management	Agricultural Operations Department (Asia Division), World Bank, 1818 H St., Washington, D.C., U.S.A. 20433
Dr. Ely Gomez	Communications, Director	Institute of Development Communication, UPLB, College, Laguna
Dr. Olympia Gonzalez	Food and Nutrition, President	Women's Association of Scientists in the Philippines, c/o Approtech Asia, PSDC Building, Magallanes cor Real Street, Intramuros, Metro Manila
Dr. Flordeliza Guarin	Biology, Director	Aquatic Resource Management and Oceanography Division, Philippine Council for Aquatic and Marine Research and Development, Los Banos, Laguna
Ms. Ma. Patrocina de Guzman	Nutrition, Deputy Director	Food and Nutrition Research Institute, Taguig, Metro Manila
Dr. Flordeliza Javier	Horticulture, Associate Professor	Department of Horticulture, UPLB, College, Laguna
Prof. Portia Lapitan	Tree Breeding / Improvement, Deputy Director	Institute of Forest Conservation, College of Forestry, UPLB, College, Laguna
Dr. Sonia de Leon	Food Technology, President	Women Inventors' Association of the Philippines, Department of Science and Technology, Bicutan, Taguig, Metro Manila

<b>Name</b>	<b>Discipline/Position</b>	<b>Organization/Address</b>
Dr. Aida Librero	Economics, Director	Socioeconomics Research Division, PCARRD, Los Baños, Laguna
Dr. Maria Cocepcon Lizada	Postharvest/Biochemistry, Director of Instruction	UPLB, College, Laguna
Prof. Victoria Licuanan	Management, Director	Women Managers' Program, Asian Institute of Management, 123 Paseo de Roxas, MCPO Box 2095, 1260 Makati, Metro Manila
Dr. Perla Lopez	Animal Nutrition, Professor	Institute of Animal Science, UPLB, College, Laguna
Ms. Maruja Lorica	Communication/Research Management, Supervising Science Research Specialist	Philippine Council for Agriculture, Forestry, and Natural Resource, Research and Development (PCARRD), Los Banos, Laguna
Dr. Melinda Lumanta	Communications, Director	Research Management Center, UPLB, College, Laguna
Ms. Virginia Mabesa	Communications/Research Management, Senior Science Research Specialist	Philippine Council for Agriculture, Forestry and Natural Resources Research and Development, Los Baños, Laguna
Ms. Lydia Magnaye	Plant Pathology, Supervising Agronomist	Davao National Crops Research and Development Center, Bago Oshiro, Davao
Dr. Evelyn Mae Mendoza	Biochemistry, Associate Professor	Institute of Plant Breeding, UPLB, College, Laguna
Dr. Pacencia Milan	Vertebrate Pests, Director of Instruction	Visayas State College of Agriculture, Baybay, Leyte
Dr. Marichel Navarro	Communication, Head	Communication Division, National Institutes of Biotechnology and Applied Microbiology, UPLB, College, Laguna
Dr. Araceli Oliva	Forestry, Chairperson	Forest Resources Management, College of Forestry, UPLB, College, Laguna
Dr. Lydia Oliva	Agricultural Economics, Professor	University of Southern Mindanao, Kabacan, North Cotabato
Dr. Ludivina de Padua	Botany, Director	Institute of Biological Sciences, UPLB, College, Laguna
Ms. Thelma Paris	Economics/Women in Development, Sr. Assist. Scientist	Department of Agricultural Economics, IRRI, Los Baños, Laguna

Name	Discipline/Position	Organization/Address
Dr. Linda Peñalba	Agrarian Studies, Director	Institute of Agrarian Studies, UPLB, College, Laguna
Dr. Maripaz Perez	Agricultural Economics, Director	Technology Application and Promotion Institute, Department of Science and Technology, Bicutan, Taguig, Metro Manila
Ms. Virginia Recta	Statistics, Head, Planning and Monitoring Unit	Philippine Rice Research Institute, Muñoz, Nueva Ecija
Dr. Dolores Ramirez	Biochemistry, Genetics, Professor; Member of CIMMYT Board	Institute of Plant Breeding, UPLB, College, Laguna
Ms. Lilia Ramos	Management, Executive Officer	Approtech Asia, Philippine Social Development Center, Magallanes cor. Real Streets, Intramuros, Metro Manila
Dr. Belen Rejesus	Entomology, Professor	Department of Entomology, UPLB, College, Laguna
Ms. Remedios Rikken	Economics/Gender and Development, Executive Director	National Commission on the Role of Filipino Women, 1145 J.P. Laurel Street, San Miguel, Metro Manila
Dr. Agnes Rola	Ag. Economics, Deputy Exec. Director	Center for Policy and Development Studies, UPLB, College, Laguna
Dr. Fermina Rivera	Sociology, Professor	Central Luzon State University, Muñoz, Nueva Ecija
Dr. Beatriz del Rosario	Soil Science/Research Management/Woment in Agriculture, Deputy Executive Director	Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), Los Baños, Laguna
Ms. Erlinda Sevilla	Seed Technology, Division Chief	Central Experiemnt Station, Bureau of Plant Industry, San Andres, Malate, Metro Manila
Dr. Corazon Sinha	Wildlife Ecology, Director	Protected Areas and Wildlife Bureau, Department of Environment and Natural Resources, Ninoy Aquino Parks & Wildlife, Diliman, Quezon City
Dr. Abdulla Sison	Sociology, Professor Emeritus	Department of Agricultural Education and Rural Studies, UPLB, College, Laguna
Dr. Teresa Stuart	Communications, Assistant Professor	Institute of Development Communication, UPLB, College, Laguna

<b>Name</b>	<b>Discipline/Position</b>	<b>Organization/Address</b>
Dr. Rolinda Sanico	Weed Science, Professor	Philippine Root Crop Research and Training Center, VISCA, Baybay, Leyte
Dr. Letty June Ulep	Animal Nutrition, Professor	Mariano Marcos State University, Bacnotan, La Union
Ms. Ester Velasco	Social Anthropology, Program Leader	Gender Program for Rural Development, College of Human Ecology, UPLB, College, Laguna
Ms. Elizabeth Versola	Entomology, Assistant Regional Director	DA. BPI Baguio Buguias, Research Station, Bagnio City, Mountain Province
Dr. Luciana Villanueva	Plant Pathology, Professor	Benguet State University, La Trinidad, Benguet
Dr. Violeta Villegas	Plant Breeding and Genetics, University Researcher	Department of Horticulture, UPLB, College, Laguna
Ms. Alfinetta Zamora	Agronomy/Crop Physiology, University Researcher	Institute of Plant Breeding, UPLB, College, Laguna

**Table 4. List of Filipino Women Scientists in Boards and Staff of International Centers**

Name	Discipline/Position	Center
Dr. Candida Adalla	Entomology, former Post Doctoral Fellow	IRRI
Dr. Cynthia Bantilan	Economics, Principal Scientist	ICRISAT
Dr. Azucena Carpena	Plant Breeding, former Post Doctoral Fellow	IRRI
Dr. Gelia Castillo	Social Science, current and former Board member, former Visiting Scientist	ICRAF, CIP, ISNAR IRRI
Ms. Ruby Castro	Chemistry, Assistant Scientist	IRRI
Dr. Cristina David	Economics, former Agricultural Economist	IRRI
Dr. Liwayway Engle	Cytogenetics, Head Genetic Resources Laboratory, former Visiting Scientist	AVRDC IRRI
Ms. Anita Frio	Senior Agricultural Economist/Women in Development, Training Officer	IRRI
Dr. Dely P. Gapasin	Entomology/Research Management, Senior Fellow, former Board member	ISNAR CIAT, CIP
Dr. Lina Ilag	Plant Pathology, former Senior Research Fellow	IRRI
Ms. Rhoda Lantin	Chemistry, Scientist	IRRI
Dr. Josefina Lugay	Cereal Chemistry/Quality Assurance, Director, former Postdoctoral Fellow	IRRI
Ms. Thelma Paris	Agricultural Economics, Senior Assistant Scientist	IRRI
Dr. Leonidas Halos	Agricultural Engineering, Scientist	IITA
Dr. Dolores Ramirez	Plant Breeding, Professor, Board Member	CIMMYT
Dr. Fermina Rivera	Sociology, former Senior Research Fellow	IRRI

Name	Discipline/Position	Center
Dr. Beatriz del Rosario	Soil Science/Research Management/Women in Agriculture, former Visiting Scientist	IRRI
Dr. Angelina Talens	Plant Pathology, Post Doctoral Fellow	IRRI
Dr. Nenita Tapay	Sociology, former Postdoctoral Fellow	IRRI
Dr. Zenaida Toquero	Agricultural Economics, former Postdoctoral Fellow	IRRI
Dr. Luciana Villanueva	Plant Pathology, former Senior Research Fellow	IRRI

**Table 5. Professional Societies and Women's Organizations in the Philippines**

Name of Organization	Journal Published	Address
<b>Professional Societies:</b>		
Association of Chemists in the Philippines	None	Dr. Eva Maria Capareda, President, Institute of Chemistry, UPLB, College, Laguna
Crop Science Societies of the Philippines	Journal of Crop Science, Quarterly	Dr. Romeo Labios, President Department of Agronomy, UPLB, College, Laguna
Federation of Crop Science Societies of the Philippines	None	Dr. Flordeliza Javier, Chairperson, Horticulture Department, UPLB, College, Laguna
Philippine Association of Entomologists	Philippine Entomologist, Quarterly	c/o Emeliana Bernardo, Department of Entomology, UPLB, College, Laguna
Pest Management Council of the Philippines	None	Dr. Enrique Paller, President, Department of Entomology, UPLB, College, Laguna
Philippine Society of Agricultural Engineers	Philippine Agricultural Engineering Journal, Quarterly	College of Engineering, UPLB, College, Laguna
Philippine Society of Animal Science	Philippine Journal of Veterinary and Animal Science, Quarterly	Department of Animal Science, UPLB, College, Laguna
Philippine Phytopathological Society	Phytopathological Journal, Quarterly	Department of Plant Pathology, UPLB, College, Laguna
Conservation Farming Movement	None	Dr. Amado Maglinao, President, Farming Systems and Soils Research Institute, UPLB, College, Laguna
Philippine Society of Soil Science and Technology	Journal of Soil Science, Quarterly	Dir. Godofredo Alcasid, President, Bureau of Soils and Water Management, Diliman, Quezon City
Society for the Advancement of the Vegetable Industry	None	Mr. Rolando Labios, President, Agronomy Department, UPLB, College, Laguna

<b>Name of Organization</b>	<b>Journal Published</b>	<b>Address</b>
Philippine Association for the Advancement of Fruit Industry	None	Dr. Cay Mentz, President, Bureau of Plant Industry, San Andres, Manila
Philippine Association of Research Managers	Research Management Components, Semi-Annual	Dr. Bonifacio Lapade, President, Research Management Center UPLB, College, Laguna
Society of Filipino Foresters, Inc.	None	Dr. Segundino Foronda, Reforestation Building, DENR Compound, Visayas Avenue, Diliman, Quezon City
Philippine Association for the Advancement of Science	None	Dr. Achilles del Callar, President, Industrial Technology Development Institute, Fedro Gil St., Manila
Weed Science Society of the Philippines	Philippine Journal of Weed Science, Semi-annual	Department of Agronomy, UPLB, College, Laguna
<b>Women's Organizations:</b>		
National Commission on the Role of Filipino Women	Focal Point News, Quarterly	Ms. Remedios Rikken, Director, 1145 J.P. Laurel Street, San Miguel, Metro Manila, Philippines
Women's Association of Scientists in the Philippines		Dr. Olympia Gonzalez, Former President, Department of Science and Technology, Bicutan, Taguig, Metro Manila, Philippines  Dr. S. Halos, President, University of Diliman, Quezon City
Women in Science and Engineering-Philippines		Asian Alliance of Appropriate Technology Practitioners, Philippine Social Development Center, Magallanes Corner Real Street, Intramuros, Manila
Women Inventors' Association of the Philippines	Dr. Sonia de Leon, President,	Dr. S. Halos, President, Department of Science and Technology, Bicutan, Taguig, Metro Manila, Philippines

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