

A Gender-Focused Analysis of the Peru Environment And Natural Resources Survey And the Design Of a Public Presentation of the Survey

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A Gender-Focused Analysis of the Peru Environment and Natural Resources Survey and the Design of a Public Presentation of the Survey

WIDTECH Technical Assistance to USAID/Peru

by

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Development Alternatives, Inc.

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PREFACE

The WIDTECH Project, funded by the Office of Women in Development (G/WID) of the United States Agency for International Development (USAID), is to provide technical assistance and training to USAID bureaus and missions. From September 1-October 1, 1998 Mary Hill Rojas, WIDTECH Environment Specialist, worked with USAID/Peru at the request of Jorge Elgegren.

The request was to conduct an in-depth gender analysis of data produced under the 1996 Peru Environment and Natural Resource Survey and to assist with the design of a public presentation of the survey. Examples also were used from the 1997 Environment and Natural Resource Survey.

This document, the result of this assignment, is divided into four sections: a) USAID/Peru Support of Environmental Issues; b) Gender and the Environment; c) A Gender Review of the Public Opinion Survey on the Environment in Peru; d) A Public Presentation of the Survey Results.

I am grateful to Jorge Elgegren, USAID/Peru for his support of this project and as primary author of Section I. I am also grateful to the Cuanto Institute for their design, implementation and analysis of the 1996 and 1997 surveys and to Jamie Elizabeth Jacobs, University of Florida, for the multi-variate analysis of the 1996 data. This report is a further refinement of their work.

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Washington, D.C.
December 1998

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SECTION ONE

USAID/PERU SUPPORT OF ENVIRONMENTAL ISSUES

Peru is a country blessed with an abundance of natural resources, one of the most biodiverse rich countries of the world. However, there is a critical need for sound stewardship of these riches. The country has 679,000 square kilometers of natural forests with a yearly deforestation rate of 2,700 square kilometers. More than 2.4 million hectares of agricultural land are degraded. Industrial and household wastes contaminate the main coastal rivers and the sea, and two of the four key rivers in the jungle are polluted due to oil drilling and chemicals from coca processing. Mining pollution has degraded the air, lakes, rivers, and streams, especially in the highlands. Wastes derived from fishmeal production are contaminating the coastline. Furthermore, Peru's environment is affected by rapid urbanization with attendant uncontrolled growth of peri-urban areas without essential services. It is estimated that less than 40 percent of the solid waste generated in Lima is properly disposed of in sanitary landfills, while the remainder is thrown into illegal dumps, nearby rivers or the sea, or used in illegal livestock operations.

In view of the need for sound stewardship in 1995 USAID/Peru established a Strategic Objective related to the environment and natural resources, "Improved Environmental Management in Targeted Sectors." Five Intermediate Results have been identified as key to achieving this objective: 1) Institutional capacity of the Government of Peru and private sector strengthened; 2) Public support for environmental improvements mobilized; 3) Innovative technologies tested through pilot projects; 4) Cost effective sustainable practices adopted; and 5) Sound policies established and effective legislation enacted.

The two indicators used to measure the achievement of the second Intermediate Result and the overall Strategic Objective are based on the perceptions of people. The first indicator measures public understanding and awareness of the importance of environment and natural resource problems. The second measures public opinion with regard to the effectiveness of actions that are being taken within the country to improve environmental and natural resource management.

USAID/Peru determined that the best way to establish baseline data and to measure progress under these indicators was to conduct an environment and natural resource public opinion survey in Peru. A carefully designed survey was carried out nationwide by Cuanto Institute, a Peruvian research firm, at the end of 1996. In keeping with the USAID policy on women in development and the USAID Gender Action plan the survey was dis-aggregated by sex. A univariate and bivariate analysis was conducted by the Cuanto Institute on the survey data and the results were made available in June 1997. An in-depth multi-variate analysis on the survey data was conducted in 1997 by Jamie Elizabeth Jacobs of the University of Florida in order to better understand the relationships between the survey scales dealing with environmental problems and socioeconomic and demographic variables, including geographical region, and a set of social indicators, income, education, age, and gender.

A second survey was carried out in 1997 by the Cuanto Institute using a similar format and methodology as the first survey. However, an in-depth multivariate analysis was not conducted as with the 1996 survey nor were graphs provided that considered gender as in the 1996 survey. Nevertheless, it was possible to determine that the 1997 survey did not produce any data that would contradict the findings in this document. Examples from this later survey are included herein when available and appropriate.

SECTION TWO GENDER AND THE ENVIRONMENT

Environmental issues are now recognized as social issues—issues that often demand local level solutions derived from community initiatives. Therefore, worldwide there is an increasing acceptance of a community-based, ecological approach to addressing environmental protection and sustainable natural resource management. Such an approach acknowledges an interaction of the environment, resource use and political, economic and social forces. It is an approach that recognizes interdisciplinary links—between nutrition and environmental degradation; democratic systems and resource management; education and an improved environment. Within the community-based approach gender, along with other social variables such as age, income, ethnicity, is central, affecting how societies are organized and, in turn, how they relate to their environment.

Such an approach builds on the vital roles women and men play in understanding and managing the environment that surrounds them both in rural and urban settings. The approach:

- Encourages environmental decision-making, leadership, and participation of both men and women within the civil society, so that they can better serve as advocates for environmental issues of concern to them, their families and their communities.
- Develops strategies for resource management based on democratic principles, participatory techniques and an understanding of how gender shapes the access to, the participation in, and the agenda of, collective activities affecting the environment.
- Addresses specifically the economic, social, institutional and legal constraints to women's effective management of natural resources.

Gender analysis identifies the different roles that men and women play in the management of natural resources and identifies who has access to and control of these resources and who benefits from them:

- Such analysis can break down stereotypes: For example, the documentation of the presence of women as reserve directors and forest rangers in Peru serves to dispel the common idea that protected areas are too remote to attract professional women. (Parks in Peril, p. 22 and 31)
- Gender analysis helps uncover roles of women that are overlooked: Often women are defined and, define themselves, as housewives which masks their roles as daily managers of natural resources, providing water and fuelwood for their families, tending kitchen gardens and fruit trees, disposing of garbage and tending livestock
- Gender analysis helps assure the representation of diversity in environmental education materials: Women play a central role in environmental education because their intimate

relationship to their communities and families provides an ideal conduit for environment messages. However, the environmental education messages overwhelmingly target men in their depiction of the management of natural resources.

- Gender analysis is a useful tool for understanding communities and the institutions that support them: Women often have a small political presence on community councils; public meetings often are perceived as male spaces and local organizations and institutions may be based on male hierarchies. These institutional barriers for women need to be recognized in mobilizing public support for environmental improvements.

SECTION THREE

A GENDER REVIEW OF THE PUBLIC OPINION SURVEY ON THE ENVIRONMENT IN PERU

This report is based on a review of three documents related to the Peru Environment and Natural Resource Survey conducted by the Cuanto Institute: 1) the survey questionnaire; 2) the survey report, “Enquesta de Opinion Publica Sobre Medio Ambiente,” by the staff of the Cuanto Institute; 3) the supplementary survey report, “Public Opinion and the Environment in Peru,” by Jamie Elizabeth Jacobs. The data gathered by the survey was dis-aggregated by sex, i.e. there was a pre-established number of men and women who answered the survey questions. The Cuanto staff included gender in their analysis of the survey data and discussed the variances between men and women. Jamie Elizabeth Jacobs conducted a multiple regression analysis of the same data and explored relationships between the independent variables of gender, age, education, socioeconomic status, and region and the survey’s environmental scales.

The purpose of this document is:

- 1) To present a more in-depth gender analysis of the opinion survey data to help USAID/Peru better understand public perceptions of environment and natural resource management problems and refine the interventions proposed under their environment and natural resource portfolio;
- 2) To help design a public presentation of the survey results directed to mass media, policy makers, the officers of the Government of Peru officers, scholars, businesspersons, the NGO community, and all sectors of society with a stake in managing ENR problems. The purpose of the public presentation is to enhance public awareness about ENR issues in Peru in order to mobilize public support for environmental improvements.

There has been no new manipulation of the data nor has there been a reexamination of the raw data from the survey in the writing of this document. It is assumed that the original data was correctly analyzed by both Cuanto and Jamie Jacobs.

Recommendations to USAID/Peru are included after each component to help “refine the interventions proposed under their environment and natural resource portfolio” as requested in the scope of work for this project.

THE REVIEW

The Construction of the Survey

The objectives of the survey were to measure: a) men and women’s knowledge and understanding of environmental issues, in particular water, air, flora and fauna, soil,

protected areas; b) the respondents' perceptions of methods used to improve the quality of natural resources and the environment in general; c) the perceptions of the respondents of the effectiveness of these methods.

The questionnaire included social information on each respondent: age, sex, education, occupation of the respondent, occupation of the head of household, number of people in the household, income both for the individual respondent and for the household and characteristics of the respondent's living area (number of rooms; list of appliances; questions on water sources etc.). The region (rural and urban, coast, mountains, rain forest, Lima) where the respondent lives also is included.

The survey results showed that socio-economic status has a consistent effect on environmental knowledge—the higher the status of the respondents the more knowledge about the environment they have. (Jacobs, p. 3) To determine socio-economic status the survey included questions about income both at an individual and at a household level. Measuring status using an income scale tends to produce a male bias. Overall, men will always have a higher socioeconomic status as women in Peru in the formal sector earn 46.3% less than men on average. (Mapping Progress, p. 136) This bias is eliminated by using the characteristics of the living area as a measure of socioeconomic status. At the same time, as recognized in the Jacob's analysis, these characteristics “more accurately measure social status or wealth instead of an income bracket at one point in time.” (Jacobs, p. 17)

The survey question on “head of household” seems superfluous as it is unclear how it was used in the analysis. It has been shown that most households will identify a man as head, whether they are present or absent in the home. When only heads of household are interviewed the survey results will be skewed in favor of male responses. Some 23.3% of the households in Peru are headed by women (Mapping Progress, p. 136). Therefore, the information from this question could be used as an indication of whether or not the survey sample is representative and it could provide additional information on female-headed households in contrast to male-headed households with regard to the environment.

There is a good deal of literature (Slocum, Thomas-Slayter, Wilde, Williams, etc.) on the importance of women being among those designing surveys and among the surveyors. In the design and analysis of surveys women may bring a dimension that would otherwise be overlooked in the construction and analysis of the survey. It has been shown that women in various cultures are more comfortable responding to women surveyors and in some cultures it is not appropriate to have surveyors who are men asking questions of women. Women as respondents were consciously included in the Cuanto survey according to “pre-established quotas.” However the quota numbers were not included in the Cuanto report. (Cuanto, p. 4) Neither were the authors of the survey nor the survey teams identified by sex. (Cuanto, p. 7) Therefore, there is no way to determine the extent of participation of women in the design and implementation of the survey.

Recommendation: Those carrying out the survey in the future should be aware of the literature on gender bias in survey methods. A good starting place is the compendium of literature from the WID Officers Workshop, held in Washington, D.C., in June 1998. This

compendium was given to the workshop participants, including the USAID/Peru women in development officer, Violeta Bermudez. Ms. Bermudez and her colleagues should also be consulted about the design and implementation of any future survey.

Links to Other National Issues

As previously noted an ecological approach to addressing environmental protection and sustainable natural resource management acknowledges an interaction of the environment, resource use and political, economic and social forces. The survey highlighted the interaction of the environment and education and the interaction of the environment and democracy and governance.

Education: The survey analysis shows a significant difference between men and women and their knowledge of environmental issues (Cuanto, p. 14; Jacobs, pp. 19-20). Women, as compared to men, know less. However, the differences disappear when education is taken into account. Therefore, the education of women is an important factor in people's perceptions of environmental issues. In the 1993 census in Peru 72.7% of those illiterate in Peru were women. (Sala, p. 56) Today half of the women over 65 and one third of the women between 40 and 64 are illiterate. (Sala, p. 57) However, currently 85% of girls between the ages of 6 and 14 and 87% of the boys are now in school, close to equity. (Sala, p. 58) Therefore, although it is characteristic to find higher levels of education in Peru for men as reflected in the survey, "this difference is declining over time." (Cuanto, p. 14)

The authors of the Cuanto analysis give central importance to education as a means of addressing environmental issues. Their hypothesis is: a) given that knowledge about environmental problems and the measures needed to overcome them increase with education and b) given that in the next few years it is assumed levels of education for the people of Peru will go up and c) given that the difference between men's and women's education will diminish, it can be expected that the general environmental knowledge of the population will increase. (Cuanto, pp. 97-98) Therefore, the support of education and, in particular, women's education, is important to environmental protection. USAID/Peru's support of programs such as the Girls and Women's Education Program of the Office of Women in Development, should also be seen as activities that support the environment and natural resource objective of the Mission.

Democracy and Governance: Most policy and program documents dealing with the environment emphasize the importance of community participation, whether it be in the sustainable management of natural resources or the conservation of biodiversity in protected areas. Community participation is seen as a part of decentralization, grounded in democratic traditions and systems of representation and including both women and men. In turn, these local democratic initiatives are seen to inform policies and produce institutional change as the institutions become more responsive to the men and women they are meant to serve.

Therefore, through the emphasis on community involvement the environment movement is closely linked to the parallel global movement towards democracy. Jamie Jacobs in her

analysis of the survey data mentions these links: “There seems to be a link between support for environmental movements and democratic transition. That is, in countries that have not fully consolidated democratic institutions, environmental movements have at times been a means for democratic expression.” (Jacobs, p. 12)

Environmental movements in general, and environmental non-governmental organizations in particular, often have been a forum for women whose voices are otherwise muted or underrepresented in the formal political arena. Two classic examples are The Chipko Movement in India, where women hugged trees rather than have loggers cut them down, and the Greenbelt Movement in Kenya, led by Wangari Maathai, which encouraged women to protect the environment and plant trees. (See Rochleau et al. for other examples) In Peru, Rosa Barrantes of the Instituto de Saber writes, “if there were a policy where women could participate with their own voice and with decision-making powers it would be possible to confront many of the great problems that affect the environment.” (Marin, p. 31)

In linking democracy, governance and the protection of the environment emphasis is placed on leadership and participation at the local level and on the responsibility of the community, household and the individual for developing effective measures to protect the environment. The findings of the survey suggest this emphasis: A number of survey respondents thought either the local government (25.1%) or the communities, themselves, (22.9%) should act to protect the environment and some 25% of the respondents thought “we are all guilty” of the damage being done to the environment. (Cuanto, pp. 71-72)

Recommendation: Encourage close ties and interactions among the democracy and governance, education, and environment activities and sectors at USAID/Peru and with their partners, especially focusing on community participation with gender as a central variable. Establish links with the USAID Office of Women in Development programs on education and democracy and governance.

Gender Differences

It is interesting to compare Figure 7 in the Jacobs analysis, “Concern about the Environment, Environmental Behavior, and Knowledge of Environmental Measures by Gender,” with Graphs 5-11 in the Cuanto analysis. Visually Figure 7 shows little difference between men and women in their knowledge of the environment. The Cuanto graphs show, on the other hand, the percentages of men and women who have the *least* and *very least* knowledge about the various scales measured in the survey, i.e. the environment in general, water, soil, air, flora and fauna, protected areas and measures taken to improve the environment. In all cases, with the exception of water, women know less than men and often those who know the very least are rural women over age fifty with the least education. (For example, Cuanto, pp. 37, 39, 41)

Of all the survey themes both men and women interviewed have the least knowledge about soils, flora and fauna and protected areas. When dis-aggregated by sex, however, women consistently know less about these themes than men (Cuanto, p. 33, Graph 8; p. 41, Graph

10; p. 44, Graph 11). The 1997 survey highlights the gap between men and women and their knowledge of soils; 30.7% of the men have adequate knowledge and 20.6% of women. (Cuanto, 1998, p. 31) A study in Honduras (Casey and Paolisso) looked at the household response to soil degradation using gender as a critical variable. They found that with soil degradation men decreased their time in corn production and increased their time in work off-farm. Women consequently worked more in corn production, often under difficult production and environmental conditions. From this example it is clear both women and men need to know measures that will enhance soil fertility; yet, strikingly, in the survey, no rural woman recognized any measure to alleviate the problems of the soil. (Cuanto, p. 55). In the 1997 survey the gap was greatest between men and women in their knowledge and awareness of flora and fauna: men, 47.0% and women 34.2%. The same survey showed 33.6% of women and 41.6% men have adequate knowledge of protected areas.(Cuanto, 1998, p. 39). It is apparent that the gender gap needs to be addressed.

Recommendation: Document the numbers of men and women receiving the technical assistance and training offered by USAID/Peru in general and, in particular, within the environment and natural resource sector. It has been shown in most international development programs and activities that men overwhelmingly receive such assistance and training in comparison to women. Such documentation would be a first step in addressing the gender gap in environmental knowledge. The second step would be to assure women are also provided with technical assistance and training in equal numbers to men.

The Primacy of Water and the Roles of Women

Of all the themes measured by the survey, both men and women understand best the pollution problems associated with water and the gender differences are small. 59.6% of men and 59.4% of women have adequate knowledge of water problems.(Cuanto, p. 28) In the 1997 survey there is a 2.5% difference between men and women in favor of men. (Cuanto, 1998, p. 25) By way of contrast only 25.5% of the population has adequate knowledge about soil problems. The Jacob's report analyzed people's perceptions about the level of water pollution in Peru. The respondents were asked to what extent the rivers, lagoons, beaches, water table and drinking water were contaminated (very contaminated, contaminated, little contaminated, not contaminated, don't know). This is the only scale from the Jacob's analysis where women show more knowledge and awareness than do men. (Jacobs, p. 23) Aside from water, people have the most awareness and knowledge about air pollution. In the 1997 survey women score three percentage points higher than men in their knowledge of air pollution. (Cuanto, 1998, p. 36) Both air and water (unlike the other survey scales, i.e. flora, fauna, protected areas and soils) have a direct and daily impact on the human population. As a consequence, people name as the three top priorities for protecting the environment: combating water pollution, air pollution and public litter. (Cuanto, p. 68)

In contrast to water and air there are two survey scales where women know significantly less than men: a) knowledge of measures taken to improve the environment (Jacobs, p. 25) and b) identifying practices that show sound use of natural resources. (Jacobs, p. 39). The first scale is based on survey questions that ask if the respondent has knowledge of measures taken by

others to prevent water, soil and air pollution, poor use of plants and animals and lack of control over protected areas. The second scale is based on survey questions that ask the respondent to identify the measures that avoid poor use of natural resources. Those measures are: a) the use of terraces on inclined hills; b) construction of roads to the Amazon; c) use of forests for agriculture; d) maintenance of vegetation near headwaters of rivers.

There has been a great deal of research on the different roles that men and women play with regard to natural resources in Latin America (see, for example, USAID-supported research from the MERGE and ECOGEN projects). Consistently water is central to the lives of women as they provide for their families and households. Therefore, as the survey shows, women know a great deal about water. On the other hand, women have been shown to be less mobile than men and are not expected to either play a role in public forums or know of public issues. They, therefore, may not know what others, especially government agencies, are doing with regard to improving the environment.

The survey examples used to identify the measures that avoid poor use of natural resources may fall outside the realm of women's worlds: men tend to construct terraces and roads and to fell trees for agricultural land. Therefore, the questions may be gender biased which affects the outcome of the survey results.

In general, conservation and the protection of the environment demands the commitment of individuals, communities, government and non-government agencies and institutions. This commitment is often stimulated by four incentives: a) The first is survival—the destruction of nature becomes the destruction of resources needed for both men and women to stay alive; b) A second is the drive to live and work in a healthy environment; c) A third is to protect livelihoods dependent on natural resources; d) The fourth incentive is the determination to restore and rehabilitate what has been harmed. (Rochleau, p. 6) Women's roles for caring for the health of their children and families and their household and economic obligations lead to a concern for their environment. Yet women may not feel empowered to address environmental issues.

Recommendation: Make the roles of women with regard to the environment more visible, through resource allocations, media presentations and in environmental education materials.

The Rural-Urban Split

In all the themes dealt with in the survey, rural people, both men and women, had less knowledge than did those from urban areas. In the Jacobs analysis all of the models had more explanatory power when they included region. "Regional differences are very important in the explanation of public opinion about the environment in Peru. In particular rural areas lag behind urban areas, and especially Lima..." (Jacobs, p. 46) The Cuanto analysis finds similar results: among all people interviewed and within all regions the general awareness and knowledge of the environment is satisfactory (52%) with the exception of the rural areas where it is not satisfactory (44%)(Cuanto, p. 22) The 1997 survey confirms this rural-urban

gap. (Cuanto, 1998, p. 16) The lack of knowledge and awareness is particularly acute for rural women over 50 with little schooling. (Cuanto, p. 22 and Graph 6)

These findings on the rural-urban split are intuitively intriguing because of the extensive literature on the importance of indigenous knowledge, particularly among rural people, to conservation and environmental protection. Jacobs suggests the survey has an urban bias. (Jacobs, p. 46) It may be that the survey also has a bias toward those who are formally educated. For example, respondents are asked to define concepts. “What does the word environment mean to you?” In the jungle region, 50.1% did not know this concept and in rural areas in general 45% were unable to define it. (Cuanto, p. 24) However, increased education increased those who could define the term. Therefore, compounded by the gender gap in education, 62% of the men responded to this concept satisfactorily while 52.1% of women did so and in rural areas this difference is more marked. (Cuanto, p. 24) Another concept the survey used was “sustainable management of natural resources.” 90.9% of those in rural areas did not know the term. (Cuanto, p. 27)

Research based on the use of participatory methods, however, has confirmed the extensive knowledge rural people, both men and women, have about the natural resources within and surrounding their communities. Such methods include key respondent interviews with men and women, gender mapping (depicting the landscape in terms of men’s and women’s labor and their access and control over natural resources), seasonal calendars of the work of both men and women, in-depth household interviews and community time-lines that detail the change in the resource base over time. This research (Urban and Rojas, Mehra, Marin, etc.) has also shown how men, women and children confront the deterioration of the natural environment and mounting land pressures with a range of responses and strategies.

The Cuanto survey does not fully capture the knowledge that rural peoples do have about their environment and, therefore, is misleading. It does, however, give clues as to what is not known by rural people—innovative techniques and measures that can be used to stem environmental deterioration.

Recommendation: Complement the national public opinion survey with periodic rapid participatory appraisals that can better capture the environmental knowledge of rural peoples, both men and women. Review the format and structure of the national survey for both urban and gender bias.

SECTION FOUR

A PUBLIC PRESENTATION OF THE SURVEY RESULTS

The Purpose: To enhance public awareness about environment and natural resource issues in Peru in order to mobilize public support for environmental improvements.

The Audience: Mass media, policy makers, government officers, scholars, businesspersons, the non-governmental community, and all sectors of society with a stake in managing environment and natural resource problems.

Suggested Format: A two pronged approach: a) a national press conference; b) community-based presentations.

The national press conference: The purpose of this session is to “get the message out” through the media. Members of the media are the featured guests (press, television, radio) However, selected policy makers, scholars, businesspersons and government and non-governmental personnel are also among those invited. Care will be taken to invite an equal number of men and women. (See appendix for illustrative list of potential guests from women’s groups in Peru that are involved with environmental issues) A charismatic guest speaker will initiate the session speaking on environmental issues of concern to Peru. The speaker will have access to this report in shaping his or her speech. This will be followed by a snappy, colorful presentation of specific messages on the environment gleaned from the survey. This presentation will be done by one of the Cuanto researchers in tandem with an advertising/public relations expert. A reception will follow.

The community-based presentations: The purpose of these presentations will be to return the survey information to the communities from whence it came and to highlight the importance of the involvement of individuals and communities in environmental protection. The presentations will be developed around the same messages presented at the press conference. An information portfolio will be developed from these messages. A series of community-based participatory presentations by USAID personnel, partners, and friends, within the scope of their work, can be made and the portfolios can be provided to schools and community groups for their use.

The Messages:

These messages relate to community participation and gender. The body of this report (Sections One through Three) serves as a reference to flesh out the details of each of the messages.

There are two core messages from the survey:

1. *The Men and Women of Peru Recognize the Urgency of Environmental Problems:* Although the survey respondents named unemployment, poverty and low income as more serious national problems than pollution of the environment (Cuanto, Graph 19) when people were asked directly about the environment 81.2% said that protection of the environment and the fight against pollution is urgent. (Cuanto, p. 67) In the 1998 survey 86.3% of the men and 83.9% of the women think it urgent. (Cuanto, 1998, p. 64)
2. *People Agree that the Measures to Address Environmental Problems that are Often Most Effective are Those Close to the Community and the Home:* The methods that people find most effective are those in or near the home, for example, disinfecting water to drink and collecting garbage. The three top problems given priority by both the 1996 and the 1997 survey for attention were a) the contamination and poor use of water; b) air pollution; c) public litter (Cuanto, p. 68 and Cuanto, 1998, p. 67). Those methods seen as least effective are legislative measures to protect the environment that are perceived as not being put into practice (Cuanto, p. 65 and p. 95). Many people also are aware that local government and their own actions can be effective means to address environmental problems. (Cuanto, p. 72 and Cuanto, 1998, p. 72)) Few look to industry and the private sector for solution to environmental problems. (Cuanto, p. 71) (These findings directly relate to USAID/Peru Intermediate Result # 3 “Institutional Capacity of the Government of Peru and Private Sector Strengthened.”)

Given these two messages there are implementation strategies that need to be highlighted:

1. *Implement Cost Effective Measures in the Home and Community:* According to a 1996 study 49.0% of the population in Peru lives in poverty and 16.6% in extreme poverty. (Cuanto, p. 67) Therefore, any measures suggested to overcome environmental problems that cost additional money will only be acceptable by a small percentage of the population, e.g. buying “green” products, giving contributions to environmental groups, joining environmental groups. Cost-free measures are important (Cuanto, p. 78). (This strategy relates to the USAID/Peru intermediate result # 4, “Cost Effective Sustainable Practices Adopted”).
2. *Focus on Environmental Education to Garner Support for Environmental Improvements:* Environmental education at all levels (policy, institutional, field) needs to emphasize the participation of the people, themselves, in solving the problems of the environment. Legislative measures should be seen as in support of these local efforts. The education materials must directly engage women and men at a local level by reflecting the value of their work inside and outside the home in managing natural resources and combating pollution. Women are leaders in this area as they have a central role in educating the next generation about a sound, sustainable and healthy environment. (This relates to USAID/Peru intermediate result # 2 “Public Support for Environmental Improvements

3. *Pay Explicit Attention to Women and the Environment:* Women knew considerably less than men on all the scales measured by the survey (water, air, flora, fauna, soil, protected areas, measures taken to alleviate environmental problems) except for water in the 1996 survey and air in the 1997 survey. Therefore, women must be targeted with technical assistance, training and environmental education to close the gap.
4. *Review USAID/Peru Training and Technical Assistance:* The training and technical assistance provided by USAID and its partners on environmental issues need to carry the message that household and community-based conservation and environmental protection comes first if there is to be sustainable management of natural resources. Women need to be consciously targeted because of the gap between women and men on issues of concern to the environment and because of their daily relationship with the natural resources that have a daily impact on the community and household. The survey made it clear that there is a real need for the USAID/Peru intermediate result #3, “Innovative Technologies Tested Through Pilot Projects”. (Cuanto, Graph, #17). These projects should target women and men at the local level and include household and community level innovations. Communities, however, cannot do it all. Policy must support them and work to eliminate industrial polluters.
5. *Link the Environment with other Disciplines:*

Education: The survey showed that in order to mobilize public support for improvements to the environment the gap between men and women in their knowledge and awareness of environment issues must be narrowed. One way to accomplish this is through education, formal and informal, for women. Although USAID/Peru has no strategic objective on education any training or education activities that the Mission undertakes should be cognizant of the link between protection of the environment and women’s education. Education, in general, and women’s education in particular should be a national priority, with special attention to literacy rates among older women in rural areas.

Democracy and Governance: USAID/Peru has a strategic objective to broaden citizen participation in democratic processes and one way to accomplish this objective is in the support of local initiatives for solutions to environmental problems. It has been widely recognized that grassroots environment movements attract women and can serve as spaces for leadership training for both men and women.

6. *Develop a Simple, Understandable Message on Gender—For Example:*

Working on Solutions to Environmental Problems Depends on the Involvement of All People. Effective Involvement Includes Explicit Attention to the Participation of Both Men and Women.

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APPENDIX A

SUGGESTED CONTACTS FOR PRESS CONFERENCE

Women's Groups and Individuals

Suggested Contacts for the Press Conference

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2. Antezana Alvarado, Julian. Consejo Nacional de Poblacion. Camilo Carrillo 114, 6 piso, Jesus Maria, Lima.
3. Barrantes, Carmen. Instituto Saber, Tel: 638-827, Casilla 110652, Lima.
4. Castro, Garcia, Esperanza. Centro IDEAS. Tel: 33-2418. Apurimac #454, 2 piso, Piura.
5. Meier Miro-Quesada, Martha. Diario El Comercio. Jiron Antonio Miro-Quesada 300. Lima 1.
6. Milslavic Tupac, Diana. Foro Permanente de los Derechos de la Mujer. Parque Hernan Velarde.
7. Moromisato Miasato, Doris. Centro de Comunicacion y Cultura para la Mujer – COMYC – Calle Santa Ana 245. Lima 21.
8. Sala, Mariella. Centro Flora Tristan. Parque Hernan Velarde. #42, Lima.
9. Sanchez Huaman, Silvia. Asociacion Peruana para la Conservacion de la Naturaleza – APECO – Parque Jose Acosta 187, Magdalena. Lima.

(Marin, p. 177)