Women—the underused human resource: Education and training of women for community participation

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INTRODUCTION

Within the context of the International Drinking Water Supply and Sanitation Decade (IDWSSD) attention should be drawn to women—the often forgotten, underused human resource. Looking beyond the rhetorical issue of women's participation as a key to improving projects, this article suggests ways in which training and education can aid in achieving the Decade’s goals.

The objectives of the Water Decade are to provide more and safer water, not merely more wells; more and better sanitation, not simply more latrines. Engineers know how to design appropriate systems, but the problem remains of how to ensure that they are used, maintained, and continue to operate. The human elements should be taken into account: the systems' operators, designers, and planners, and most importantly, the users. Moving beyond access to improved water and sanitation systems, consideration should be given to the sociocultural factors which influence their acceptance, rejection, or misuse. Women are a necessary factor in understanding these constraints and motivations. In fact, the importance of community participation for successful improvements in water supply and sanitation is well known, but the importance of women's roles in achieving program objectives is less defined. How to relate training to these two objectives is even less understood. The following review of achievements in this area in the Americas will pinpoint the available human and institutional resources.

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BACKGROUND

The Americas have had a long history of community participation, community development, fundamental education, and even primary health care before it was thus defined. The outstanding record of the Institute of Inter-American Affairs (IIAA) which started 40 years ago with the signing of the first bilateral technical assistance program (with Ecuador) is well known.

Furthermore, one of the first international congresses on women was held in Mérida, Yucatán, Mexico in 1917. And the Inter-American Commission of Women (CIM), which was established in 1928 as a part of the Organization of American States, has carried out training programs, seminars, and workshops throughout the years. In fact, the CIM report presented to the United Nations Commission on Women at the 29th meeting held in Vienna in March 1982 has several activities directly related to the topic discussed here.

The CIM report recommended that women’s problems should not be assigned a special chapter but should be “organically incorporated into each topic.” With water supply and sanitation, this recommendation is especially apt. Various training manuals have been prepared by CIM for urban and rural women. For instance, in 1982-1983 the Multinational Women’s Center for Research Training of CIM will prepare educational materials for nonliterates related to specific needs. Appropriate questions should be asked, such as: Is water supply and sanitations included as an item, and, if not, should it be? CIM also has a talent bank; has this been checked for human resources needed for the Water Decade activities?

A project on appropriate technology for rural women was started by CIM in 1979 in order to:

- generate or adopt technologies enabling women to carry out more effective work in agriculture, cattle-breeding, and housework; and
- explore the possibility that the countries manufacture equipment incorporating such technology.

The project has had such excellent results in Bolivia and Ecuador that the three-year grant has been extended. Several questions come to mind in this regard: How can exploration of appropriate technology in water supply and sanitation be related to this successful project; how was it structured; how can it be extended, and is this the way to evaluate and introduce the low-cost “taza campesina” (pour-flush toilet) from Colombia, now being tested in Brazil, to other parts of the Region? The pour-
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flush toilet, so well known and well used in Asia, is a new design in many parts of the Americas. If a porcelain pour-flush toilet can be manufactured for US$5.00 in Bogotá, can it not be made in other places or distributed at cost? Can women produce and market it? Will it be acceptable?

Women as Decision-Makers

In Yucatán, even the women who carried water from a village standpipe were extremely interested in designing a simple bathing area with a pour-flush toilet. They and their families bathe daily and their hope was to combine a porcelain pour-flush toilet with a bathing room. Unfortunately no low-cost toilet was available. They preferred the bush to a pit latrine or a squat plate (1). Many planners assume that women do not want to carry extra water to flush toilets; they should be allowed to make this decision. With more low-cost piped systems being introduced into the rural areas of the Region, are women being asked if they would prefer a pour-flush latrine to a pit latrine; if they had a water seal latrine, where would they want it; does it have to be so far from the house that children are afraid to use it?

Patterns of water reuse already exist. For instance, in Managua, Nicaragua a large metal sunken drum with "free" used water is placed just below the pay station where drinking water is sold. In a 1978 World Bank survey in Nicaragua some homes in both the slums of Managua and isolated rural areas had adjoining bathing and toilet rooms. With a pour-flush latrine would families want to reuse bath water for flushing; if a pour-flush is not feasible would the child latrine developed in Sri Lanka be acceptable?

Women as Trainers

One of the greatest problems in looking beyond simple access to water supply toward new facilities is that women must understand how to use them and have incentives for changing behavior so as to break the tragic fecal-oral route of infection with its accompanying diarrhea, continuing illness, and death for many children. Parents, especially mothers, will make the necessary sacrifices and even change their habits to prevent illness and death. Attendance at maternal child clinics shows clearly that women will come early and stay late to get help for their children while ignoring their own needs. Women are the trainers and socializers of the
young, and are the food and water handlers. Trainers are needed to train women to be trainers.

How to Find Trainers

The central roles that women play in socializing the young in health education and in traditional health care networks, and their permanence within the household make them suitable as trainees and trainers for water and sanitation projects at the community and household levels. Every effort should be expended to recruit women for these roles. In addition to the institutions mentioned above there are women's bureaus in each country which can help planners and designers find the women trainers needed at all levels.

Why are all these institutions so often ignored? Teams of male planners hesitate to call the women's bureaus. Every planning team should have at least one woman on it in order to start using these resources effectively. These official agencies at the national level, in combination with private groups, such as national women's organizations or bilateral ones such as the Overseas Education Fund (OEF) offer training (2). For instance, OEF has carried out various training projects during the last two decades, such as the Latin American Leadership Institute started at Wellesley College in 1961. There are some outstanding graduates, many with training and planning skills. Are the women being used; what can they contribute; how can they help achieve Decade goals; can they train trainers, and can they help retrain existing staff to understand the issues?

Retraining of Trainers

Along with training, retraining and refresher courses are needed. Such retraining should begin with the promotion of orientation and attitudinal changes of staff through seminars and discussions on issues related to women in health and development. Retraining of existing field staff to increase communication with women is also required. In order to effectively communicate with village women, particularly in traditional societies where personal habits such as bathing and excreta disposal are often taboo subjects, training of community women is preferable. Women trainers and appropriate techniques are needed. However, these trainers should be trained and special educational materials should be prepared. Where can these resources be found? Before discussing this aspect, a
review is in order of the many roles of women on which task-oriented training should be based.

**Roles of Women**

As wives and mothers, women play key roles in water use and management and basic hygienic practices, but as heads of households they are even more important.

Women are heads of households in many countries: in Venezuela 25 per cent; in most Caribbean countries up to 30 per cent and in St. Kitts 46 per cent (3).

In other parts of Latin America where family patterns are more "patriarchal" women often are *de facto* household managers even though not considered heads of households. Many husbands migrate for work part of the year or, even when they are stationary agriculturalists, leave the details of home budgeting and management to their wives.

Although in most communities men are in authority in the public domain, women often have a great deal of power in decision-making, especially in domestic matters (4). In fact, within their confined roles women, individually or in groups, develop strategies to achieve valued goals.

Research on decision-making and group behavior shows that decisions made and reinforced by the group are more apt to be kept than those originating outside the group. This is especially true in relation to defecation and personal hygiene. Peer pressure can be as strong an incentive to change as can community sanctions (5).

Numerous studies note that women play roles in local organizations as community gatekeepers, gossips, communications monitors, and tradition keepers. "Where women may have few official public roles, they often dominate these voluntary, quasi-public positions" (6). And trainers must be given skills to find and work with these women in both formal and informal groups. All training of women should relate to their existing roles, alleviating unnecessary burdens and improving the quality of household and community life.

**Women's Roles in the Domestic Sphere**

The tasks women carry out in relation to domestic water and household sanitation draw on four key roles (7): women as acceptors of technologies (traditional, old, and new), as users of improved facilities, as managers of
water supply and sanitation programs, and as agents of behavioral change in the use of improved facilities.

Understanding the many traditional roles of women as primary users of water is important; however, the more important problem is how to use this potential so that women can be responsible for the overall operation and maintenance of the new systems in their communities and homes. All too often there is a tendency to underestimate the extent to which these roles can be increased and changed to bring greater benefits to women, their families, and communities. Sex-stereotyping often restricts women’s full participation.

There are no simple answers to the question of what can be done about education and training so that the traditional roles of women are incorporated into new systems in new ways. Even within the Americas traditional roles will vary and appropriate systems will be widely divergent. The roles, potentials, and needs of women cannot be discussed outside the cultural and social milieu in which they exist. Any dialogue or problem solving which does not involve these women and these groups is lacking in essential community information sharing needed for the planning, implementation, and continued use and maintenance of water supply and sanitation.

Many women are proud of their traditional roles as mothers and homemakers. They would like to manage better. With improved water and sanitation their tasks should be easier and result in increased health for their children and themselves. Without training in personal and household hygiene, many benefits are lost because of lack of information and motivation.

At the same time, projects for women should be developed to use the time and energy released by improvements in water supply and sanitation. The many hours formerly spent carrying water from source to home can now be devoted to acquiring income from small industries or handicrafts or to training for new work. By incorporating such alternative activities, motivation would be greatly increased among the individual women and the community. Resistance from other family members such as husbands or mothers-in-law would be decreased. In fact, it is a rare man who doesn’t welcome extra family income from a wife. In some village communities “leaders” have said that women didn’t have anything else to do with their time so more convenient access to water wasn’t necessary.

The African data in table 1 show estimates of percentages of time and actual time spent fetching water in relation to distance from the source. It
will be seen that if women did not have to carry water from far distances, which is not uncommon, considerable time would be available for other activities. However, training is needed to overcome both the problem of water supply and that of finding tasks to accomplish.

**Innovative Training Programs**

An innovative training program in Sri Lanka was designed by the Women’s Bureau to train rural development officers in short courses focused on ways of working with women and women’s groups in the community to improve environmental sanitation and household productivity (8). At the same time, selected village women had 24 days of field training to learn skills to increase their income producing or income saving activities and improve environmental sanitation. This project included retraining of field personnel, training of trainers, and the training of women in improving hygiene practices and in increasing income.

There have also been other training programs specifically related to water supply and sanitation such as the “barefoot engineer” project developed by Agua del Pueblo (ADP) in Guatemala (9). Even though most of the trainees have been men, they planned to work closely with trained, village level, volunteer primary health care workers, who were nearly all women. If each group could have some mutual training or combined reporting/evaluation training there would be a greater impact on the communities (10).

**Table 1. Relationship of distance from source to hours, and percentage of time spent fetching water.**

<table>
<thead>
<tr>
<th>Distance of source from the consumer in miles</th>
<th>Time spent in fetching water in hours</th>
<th>Percentage of average daily working time spent in fetching water</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>0.166</td>
<td>2.8</td>
</tr>
<tr>
<td>0.50</td>
<td>0.333</td>
<td>5.5</td>
</tr>
<tr>
<td>1.00</td>
<td>0.667</td>
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<td>2.00</td>
<td>1.333</td>
<td>22.2</td>
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<td>3.00</td>
<td>2.0</td>
<td>33.3</td>
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<td>4.00</td>
<td>2.667</td>
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<td>5.00</td>
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<td>4.667</td>
<td>77.7</td>
</tr>
<tr>
<td>8.00</td>
<td>5.333</td>
<td>88.8</td>
</tr>
<tr>
<td>9.00</td>
<td>6.000</td>
<td>100.0</td>
</tr>
</tbody>
</table>

There is also a great need in the Americas for "barefoot handpump doctors" such as those working in rural India (11). The training of a group of handpump doctors lasts two days, during which they are taught the anatomy of the pump, the diagnosis of common pump ailments, and the simplest rules for coping with drainage problems.

Each handpump doctor learns about the importance of drainage and how to make a soak-pit, about malaria and how mosquitoes breed in water. He is taught the importance of using clean containers for carrying and storing water. Equipped with this knowledge and kits of tools, he returns to his village where he is the volunteer (unpaid) caretaker of the pump.

In addition, the handpump doctor is also the village health educator where water and sanitation are concerned; his duties are more preventive than curative—teaching the villagers basic sanitation and hygiene. The central message during the training is formulated as a challenge to the villagers: "Drink clean water for a year and see the difference in your health."

The village handpump doctor stands at the bottom of a three-tier pump maintenance system which includes a mobile repair team and an inspector mechanic. The Tamil Nadu Water Supply and Drainage Board was so impressed by the results of the experiment that within a few months it issued orders for the three-tier system to be introduced all over the state. It is now gradually being introduced to other states of India as well.

In Latin America and elsewhere women trained as handpump doctors would probably be as effective technically as the men in India, and would probably have a greater impact on changing behavior leading to better hygiene and sanitation as a result of their ease in communication. In Bolivia, as an adjunct to an agricultural development project, bilingual indigenous women 17 to 25 years of age were trained to administer immunizations, provide information on child nutrition, and lecture on the proper maintenance of the facilities (12).

Training Materials

Before any new training or educational materials are prepared for the Decade a careful analysis should be made of what is available and how water supply and sanitation can be incorporated into existing material. For instance, educational kits such as the one on "Women, Health and Development" prepared by the Joint United Nations Information Com-
Committee's Working Group on Development Education have responded to some of the issues raised here. However, there is a need to supplement the topics to make them more relevant. The plan is to develop a slide-tape series, with materials in a simpler form aimed at the community level (13).

Another excellent source of materials is summarized in UNESCO's special issue of *Adult Education* on "Women and Adult Education: Midpoint in the United Nations Decade for Women." Some of the reports on new trends in literacy training relating the topics of concern to women as homemakers, mothers, and community workers are needed; at the same time men and women together must reexamine the sex-stereotyping of roles and try to eliminate discrimination in training.

*Community Participation—A Dialogue Approach to Problem Solving*

Community participation is a learning by doing process which requires outsiders' acceptance of and respect for the knowledge the people (especially the women) have about their own environmental health problems, their attitudes toward water and sanitation, and their present and future roles (14). It is based on respect for human dignity and the potential capacity of individuals to contribute to their own development as a basic human right. The community constitutes a valuable human resource that should be utilized or even better, should be given the opportunity to participate in solving mutually defined problems.

Community participation in environmental health activities or any development activity begins when members of a community organize to satisfy a common need. As stated above, women can identify new needs or old problems which affect them and their families, but face-to-face communication is needed as well as an awareness of present practices and alternative opportunities. Ultimately, joint analysis by the community and the outsiders leads to greater understanding of needs, resources, and alternative solutions. Figure 1 illustrates this interchange in which dialogue becomes a process of search and retrieval. A problem solving approach such as this requires sensitively trained people to work at the community level so that a community participation strategy can be naturally developed.

In preparing a community participation strategy, each country should take an inventory of their human resources and institutional parameters, and an analysis of ways in which the needed communication and training
skills are available. Certain key questions such as those listed below should serve as an inventory guide (15):

- What past and present experience is there with community development? Governmental? Private? Good? Bad?
- What is happening now in developing a primary health care system?
- How many trained people are there? How many men and women? Where are they? How much are staff paid?
- Are there training centers? Where?
- How much training material is available? How much is useful?
- How much is related to water supply and sanitation and could it be adopted?
- How can water supply and sanitation be built into existing programs? Projects?
- How can training modules be developed for use in other programs?
- What educational material is useful? How can it be modified to have a focus on water supply and sanitation?

CONCLUSIONS AND RECOMMENDATIONS

This discussion of how women can become useful human resources, stimulates a recommendation with multiple implications: instead of rein-
venting the wheel one should look carefully at PAHO's Five-Year Regional Plan of Action for Women in Health and Development (7) and analyze how to implement the strategic components, using water and sanitation programs as a way to oil the machinery, so to speak, around a basic need; perhaps women can give that extra impetus needed to reach mutual goals.

Women—The "Invisible Resource"

Women have remained "invisible" to most planners and plans. In the Americas this certainly doesn't need to be. In Mexico women were trained in an innovative program in the mid-1950s to work as "mejoradoras de casa" at the village level (see Case Study I). First they carried out a simple survey with the community to define needs and priorities. Safe drinking water was defined as their paramount need. A local committee was selected, and two voluntary agencies (CARE and the American Friends Service Committee (AFSC)), WHO/PAHO, and various governmental agencies were involved. The community participated fully, giving hospitality to the volunteer drillers, raising money for gasoline and pipes, and setting up a continuing fund for operating the village pump, which 20 years later is a piped system (16).

In Panama (Case Study II) women were members of all water committees in 26 community projects, and women participated in the management of the water systems. In fact, women initiated efforts to obtain piped water systems and assumed important roles in maintaining them. In several communities where there were problems in collecting water fees, women emerged as local leaders.

There are various sources through which women may be recruited: the Talent Bank of CIM, the Women's Bureaus, the graduates (Becarios) of the OEF and CIM workshops, counterparts of Peace Corps workers, community development workers, and primary health volunteers under various names.

An additional source is the newly-formed United Nations International Research and Training Institute for the Advancement of Women (INSTRAW), scheduled to open its office officially in the Dominican Republic in July 1982. This institute, which by mandate is to do research and training related to women and development, is giving first priority to water and sanitation projects as a way of translating the concept of women in development into concrete action. The proposed plan is to select a few countries to implement the recommendations made to the steering committee of the IDWSSD by UNDP/UNICEF and WHO. In
these selected projects techniques for involving women in all phases of project implementation, for training women, and for evaluating impacts on health of women and children would be developed and analyzed. Even though the scope of INSTRAW is worldwide, its location in the Americas gives PAHO an extra opportunity to demonstrate effective techniques for involving women in all phases of project development and implementation which can be adapted to other parts of the world.

Most countries, especially in this Region, have a wealth of experience in community development, self-help, and other forms of public participation. After careful analysis of existing resources, persons, and institutions, specific targeted training can be designed so that these resources can be mobilized to take into consideration women's roles, rights, and responsibilities.

Utilization of existing governmental personnel at various field levels is never easy. Political and administrative constraints in the area of expanded community participation (especially women's involvement) notwithstanding, the benefits can far outweigh the costs when a long-range overall impact is considered. A national commitment and a multi-sectoral approach can bring into operation an existing cadre of trained personnel and volunteers. If a careful plan for coordination and referral is worked out along with an adequate budget for research, evaluation, training, and retraining, a synergistic effect can be expected.

CASE STUDY I*

Santa Maria, State of Mexico, Mexico (1957-1977)

This village water supply project in Mexico, designed and implemented 20 years ago, was a pilot demonstration of the value of involving the local population

*A film: World Our Hands Can Build based on this village project, was presented at the 1958 International Film Festival, and received honorable mention. Available from CARE, New York.

through a number of innovative techniques. First, the impetus came from a survey of village leaders and families, conducted by young rural women with primary school education being trained as grass roots "home demonstration" agents. As a result of interviews, villagers were able to define their resources and their needs: safe drinking water emerged as the paramount "development" priority.

Second, two private voluntary agencies, CARE and the American Friends Service Committee (AFSC), looking for ways to combine their limited resources for maximum effectiveness in meeting community needs, had arrived at the same conclusion: potable water was the greatest need in rural villages. CARE took the initiative in Mexico, and the contributions of various international, national, and local agencies were coordinated to respond to the locally defined needs. An engineer from the Government of the State of Mexico confirmed that well-drilling was a feasible means of providing a source of good water in the area, and agreed to supply supervision. WHO recommended a type of equipment (Bucyrus-Erie W22) which they were using and offered to train operators. AFSC agreed to assign four training volunteers to the project and CARE provided the recommended equipment.

Third and most significantly for this article, the village people raised money and set up a special bank account in the name of the "Comité de Agua Potable de Santa María" which proved sufficient to cover local costs for the water pipe and gasoline for the drilling rig. The amount of money raised was not the most important thing—the process was. The community organized a hospitality committee so that nearly every family in the village shared in housing or feeding the volunteers. The initial modest result was a simple handpump on the village square which produced clean water—much preferred over the polluted drainage water formerly used. Ten years later the water from the same well was being pumped up electrically to a water tank and distributed throughout the village.

Drilling for potable water in 1977 may seem commonplace, but 20 years ago in Mexico this project created enough interest that it made front-page headlines in the Mexican newspapers and appeared in the *New York Times* and other publications. One of the immediate results was a request for a similar project from the governor of another Mexican state. When he understood that the key to the success of the project was not the CARE rig nor the AFSC volunteers but the participation of local communities, village workers, and concerned volunteers trained by specialized agencies, he successfully undertook the project using locally available equipment and young men from the area instead of outside volunteers. The communities selected for this work were surveyed by extension workers and were chosen on the same basis as the original villages. The new villages also offered home hospitality to the well-drillers; this hospitality, like the village survey, was an integral part of village awareness, orientation, and education for effective involvement.
CASE STUDY II*

Panama: Rural Water Project—Impact on Women

In each of the 26 communities visited, team members interviewed two or three mothers of young children. The women reported that piped water had made a major difference in their lives. They appreciated the convenience of having sufficient water for personal and household needs and they expressed satisfaction to be participating in the amenities of modern life.

The feeling of relief was often profound. In one case, a village successfully petitioned for a piped water system soon after a seven year-old girl was killed while crossing the Pan-American Highway on an errand to fetch water. In another, the women no longer had to spend five or six hours a day hauling water through steep and rough terrain or rowing several miles to get water to their island from the mainland.

Men also expressed feelings of relief. One old man said: "This program has been extremely humane for us." Another hoped that the women’s heads would no longer be flat from carrying heavy loads of water.

Women were asked what they did with the time saved. Most indicated that they used some time to rest. Many mentioned household chores or taking care of children. On women remarked, "Now I have time to read to my children." A few women mentioned using their extra time in income-producing activities. For example, Cuna Indian women indicated that they were now sewing five to seven pieces of multi-layered fabrics (molas) per month instead of two or three. Also, women in Cocle province and in the Azuero region had increased their production of hats.

The management of the water system provided women with opportunities to participate actively in community affairs. Each of the 26 communities visited had at least one woman on the water subcommittee of the Community Health Committee. In many communities, women had initiated efforts to obtain the piped water system. They contributed during construction by carrying heavy loads of sand and by preparing food for laborers. They also had important roles in maintaining the water systems. In several communities that were having problems collecting water fees, women emerged as local leaders and successfully managed the collection process.

The piped water systems were designed and constructed to provide water for household consumption. In an effort to ensure the availability of water for household use, the Ministry of Health established regulations to discourage its unauthorized use. Although utilizing water from piped systems for profit-making activities was unauthorized, many communities reported using water in this way.

SUMMARY

This article goes beyond the rhetorical issue of women's participation as a key to implementing water supply and sanitation projects and suggests concrete ways in which training and education can make these plans a reality. With the improvements proposed for the International Drinking Water Supply and Sanitation Decade, women could be freed to do other tasks vital to the well being of the family and the community. Women, the "invisible resource" of society, play an essential part in encouraging family members to use technological advances and should be trained to effectively promote their acceptance.

The author highlights the influence women have in the field of public health: with adequate training, for example, they can help control the spread of diarrheal disease with proper hygiene and an understanding of the fecal-oral route of infection. Moreover, she says that the central role women play in socializing the young and their permanence within the household make them suitable as trainees and trainers for water and sanitation projects at the community and household levels. Women should be recruited for these roles and should be consulted at every stage of development; while women's bureaus exist in many countries, the author states that planners often hesitate to call on them for assistance.

The article describes several innovative training programs and, along with a bibliography, presents separate case studies for Mexico and Panama.

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LA MUJER, RECURSO HUMANO SUBUTILIZADO: EDUCACION Y ADiestramiento DE LA MUJER PARA SU PARTICIPACION EN LA COMUNIDAD (Resumen)

Este artículo rebasa la cuestión retórica de la participación de la mujer como elemento clave en la ejecución de proyectos de abastecimiento de agua y saneamiento, y sugiere medios concretos para lograr que la educación y el adiestramiento puedan convertir en realidad esos proyectos. Con las mejoras propuestas para el Decenio Internacional del Agua Potable y del Saneamiento Ambiental, la mujer podría realizar otras tareas esenciales para el bienestar de la familia y la comunidad. La mujer, "recurso invisible" de la sociedad, desempeña un papel esencial en la aceptación de los adelantos tecnológicos por los miembros de la familia y conviene capacitarla para que cumpla ese cometido eficazmente.

La autora destaca la influencia de la mujer en lo que respecta a salud pública; con un adiestramiento adecuado puede, por ejemplo, contribuir al control de la propagación de las enfermedades diarreicas mediante higiene adecuada y comprensión de la vía de infección fecal-bucal. Además, la función central que desempeña la mujer en la formación social de los jóvenes y su permanencia en la unidad familiar hacen que sea la persona indicada como aprendiz e instructora para proyectos de abastecimiento de agua y saneamiento en la comunidad y en la unidad familiar. La mujer debe asumir esas funciones y se la debe consultar en todas las etapas del desarrollo; aunque en muchos países existen oficinas para la mujer, a menudo los planificadores no se deciden a recabar su colaboración.
El artículo describe varios programas innovadores de adiestramiento y, junto con una bibliografía, presenta estudios de casos en México y Panamá.

MULHER: RECURSO HUMANO SUBUTILIZADO—EDUCAÇÃO E TREINAMENTO DE MULHERES EM PARTICIPAÇÃO COMUNITÁRIA (Resumo)

O presente artigo vai além da questão retórica da participação feminina como fator essencial para a execução de projetos de água e saneamento e sugere fórmulas concretas de educação e treinamento, capazes de transformar esses planos em realidade. Com os melhoramentos propostos para a Década Internacional do Abastecimento de Água e Saneamento, seria possível liberar as mulheres para o desempenho de outras tarefas vitais para o bem-estar da família e da comunidade. A mulher—“recurso invisível” da sociedade—desempenha papel essencial de incentivo para que os membros da família utilizem avanços tecnológicos e deve ser preparada para promover eficazmente sua aceitação.

A autora destaca a influência que a mulher exerce em saúde pública; assim, com adequado treinamento, pode a mulher ajudar a controlar o alastramento das doenças diarréicas por meio de uma higiene apropriada e da compreensão da rota fecal-oral da infecção. A autora afirma também que o papel central que as mulheres desempenham na vida social dos jovens e sua permanência no domicílio torna-as indicadas para aprender e ensinar no âmbito de projetos de água e saneamento aos níveis comunitário e domiciliar. As mulheres deveriam ser mobilizadas para essa tarefa e consultadas em cada estágio de desenvolvimento; embora existam associações femininas em muitos países, comenta a autora que os planejadores hesitam em apelar para sua assistência.

O artigo descreve diversos programas inovativos de treinamento e, juntamente com uma bibliografia, apresenta estudos de casos particulares para o México e o Panamá.

LES FEMMES—RESSOURCE HUMAINE SOUS-UTILISÉE: ÉDUCATION ET FORMATION DES FEMMES EN VUE DE LEUR PARTICIPATION À LA COMMUNAUTÉ (Résumé)

Cet article va au-delà de la question rhétorique de la participation de la femme en tant qu’élément clé de l’exécution de projets d’alimentation en eau et d’assainissement et suggère des moyens concrets par lesquels la formation et l’éducation puissent faire de ces plans une réalité. Avec les améliorations proposées pour la Décennie internationale de l’eau potable et de l’assainissement, les femmes pourraient être dégagées de certaines besognes et se consacrer à d’autres tâches
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vitales au bien-être de la famille et de la communauté. Les femmes, la "ressource invisible" de la société, jouent un rôle essentiel par leurs efforts en vue d’encourager les membres de la famille à utiliser les progrès de la technique, et elles devraient recevoir une formation adéquate pour favoriser l’acceptation de ces progrès.

L’auteur met en lumière l’influence des femmes dans le domaine de la santé publique: avec une formation appropriée, par exemple, elles peuvent contribuer à juguler la propagation des maladies diarrhéiques par le respect des règles d’hygiène et la compréhension du cheminement fécal-oral de l’infection. En outre, elle affirme que le rôle central que jouent les femmes en éduquant les enfants et leur présence permanente dans la famille en font des candidats parfaits pour recevoir et dispenser une formation dans le cadre de projets d’alimentation en eau et d’assainissement aux niveaux de la communauté et des familles. Des femmes devraient être recrutées pour ces rôles et elles devraient être consultées à chaque étape du développement; s’il existe des bureaux féminins dans de nombreux pays, l’auteur déclare que les planificateurs hésitent souvent à solliciter leur concours.

Cet article décrit plusieurs programmes de formation novateurs et, avec une bibliographie, présente des études de cas sur le Mexique et Panama.