Integration of gender dimensions into water resources development and management: issues and information needs

Sagardoy J.A.

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INTEGRATION OF GENDER DIMENSIONS INTO WATER RESOURCES DEVELOPMENT AND MANAGEMENT: ISSUES AND INFORMATION NEEDS

J. A. Sagardoy*
* International Consultant. Rome, Italy. E-mail: j.sagardoy@flashnet.it

ABSTRACT – The present paper aims at reviewing the role of women in the water resources development and management with particular attention to the Mediterranean Region. It is evident that considerable progress has been achieved in sensitizing the concerned institutions and the public in general for a greater participation of women in the water affairs. It has also become evident that sustainable water development and management and gender issues are mutually supporting and interdependent.
There is evidence that the role that women and men play in water affairs are also different depending of the uses made and locations. This paper has reviewed such roles for the three main sectors, namely: Agriculture, Domestic and Sanitation and Rural Development. Rural development has been taken in its widest sense and therefore embraces many others uses (industrial, recreational and others) in the rural environment where the gender issues are certainly more dominated by traditions. The analysis for each of these sectors has identified many issues and information gaps where action is needed to improve or reduce existing problems. Many of such issues are interdependent and emphasize the need for an integrated approach in water resources development and management.
A brief review is also made of the role of women role in the institutions of the sector and their access to planning and decision making. There are interesting examples that indicate that institutions are becoming more permeable to this participation. However, the progress made is difficult to quantify in precise terms because there is a chronic insufficiency of information covering these aspects and that is disaggregated by genders.
Finally, the paper reviews the information challenges that the mainstreaming of the gender dimension in water resources is posing in terms of collecting such important information but also for its effective dissemination.

REVISITING THE WATER SCARCITY PROBLEM

Much has been written about the increasing problem of water scarcity in a world where the population growths still at high rates and the available water resources remain limited and basically invariable for every country of the world. To remind us of the importance of the problem the following statements are illustrative:

- The global consumption of water is doubling every twenty years, and it is estimated that in the year 2025, if present rates of water consumption are maintained, five billion out of the world's 7.9 billion people will be living in areas where it will be difficult or even impossible to meet the basic human beings water requirements (Abu-Zeid and Atef H., 2004).
- Today's water availability per capita is predicted to decline by a third over the next generation, water shortages are rapidly emerging even in water rich countries.
- It has been estimated that for the year 2030 there will be 17 countries where it will not be possible to satisfy the basic water needs of the population and they will have to rely heavily on importing "virtual water"[1] . Another group of 18 countries will have to develop more than 200% of those water resources already in use to satisfy future demands. (Seckler, D et al, 1998).

[1] Importing food implies that the water that has been used for producing it no longer needs to be abstracted in the importing country. This water is generally called "virtual water".

Many other dramatic statements can be quoted but the importance of the problem is better reflected by the international and national attention that the problem is receiving. Some of the recent international conferences where the subject has been widely discussed were:

- The 2002 Johannesburg Summit on Sustainable Development, identified water as a key issue to be addressed by Heads of State from countries through the world.
- At the March 2002 Monterrey Conference, which focused on Financing for Development, countries adopted a plan that called for resources to meet the Millennium Development Goals. Many of these goals related to water in one way or another.
- At the annual G8 heads of State meeting in Evian, France in June 2003 the subject of water in developing countries was one of the major topics discussed.
- The third World Water Forum in Kyoto was a milestone in launching a new Global Deal between rich and poor countries combining surely needed investments with policy change and improved governance.

The body of knowledge that has been developed to deal with water crisis is considerable but its implementation remains behind. Many factors that range from limited financial resources, political willingness, social structures, and other limit the application of instruments and the measures that will permit to look to the future of water resources availability with less anxiety.

THE POPULATION GROWTH AND ITS RELATION TO WATER SCARCITY

Perhaps the major factor that is contributing to the aggravation of the problem is the growth of the population. World wide it is estimated now at 1.4 % and prediction for the future is that by year 2025 it may decline to 0,9 %. Still the world population for that date will be around 7,9 billion as said before. Unfortunately the situation for the North African countries of the Mediterranean Basin is still highly unfavourable. Present rate is estimated at 2,5% and projections for year 2025 are around 2,0 %.The situation aggravates when considered that precisely that Region is one of the lowest in the world in terms of available water resources per capita.

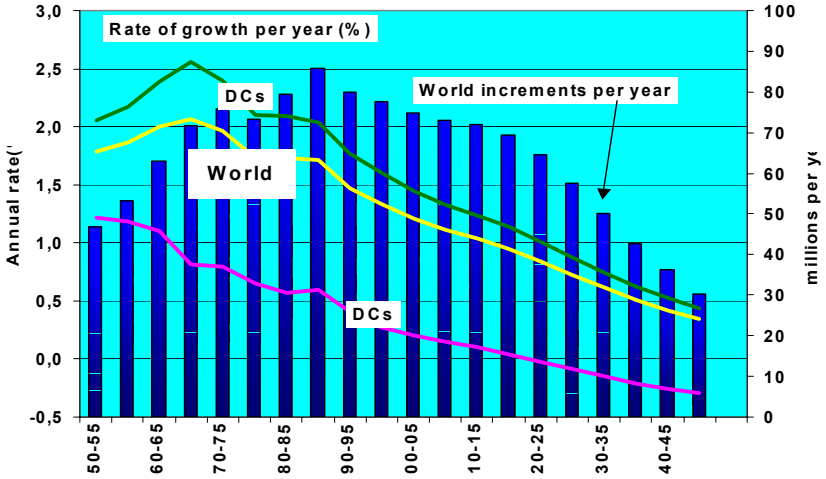

Fig. 1. Rates of World Population Growth (Source: FAO)

To better understand the significant effect of population growth into the demand for water it is necessary to have a more precise idea of the water that a person needs. The water requirements of a person vary greatly depending on the social and economic context where the person lives. For instance, the requirements for drinking and household needs vary from 20 l/day (7m^3/year) in Sub-Saharan Africa to 400 l/day (146 m^3/year) and even more in industrialized countries. For producing the 2800 calories that are considered the average diet of a person it is estimated that 1000 m^3/year are needed (FAO, 2003). Water requirements for the industrial objects that we use in day to day life also change dramatically from 10-15 m^3/year in developing countries to more than 200 m^3/year in industrialized countries. In summary, the water requirements of a person vary from a minimum of 600 m^3/year to 1800 m^3/year. Internationally, it is considered that an average of 1000 m^3/year represents a minimum level to satisfy basic human needs.

In consequence every new person that comes to the world adds a demand of 1000 m^3/ year and where the growth of the population is high and the water resources scarce the combination of these two factors becomes an explosive mixture.

The consequence of all this is that particularly in countries of the southern part of the Mediterranean countries renewed efforts will have to be made to make a more effective use of the existing resources.

THE GENDER ISSUES AND THEIR RELATION WITH THE WATER SCARCITY PROBLEM

If water scarcity has been in the top of the agenda of many politicians and decision makers the integration of women in aspects of the development of a society has also received considerable attention at international and national events. The mentioned World Summit on Sustainable Development in Johannesburg (2002) made a political declaration in favour of women empowerment and emancipation in all activities related within the Agenda 21. The International Conference on Freshwater in Bonn (2001) made a Ministerial declaration recommending that women should have an equal voice in managing the sustainable use of water. The Second World Water Forum in The Hague (2000) made also a Ministerial Declaration on Water Security where the role of women is emphasized in several water use activities. Other previous Conference made similar calls for greater participation of women in the decision making processes of water resources development and management.

Besides these international conferences numerous forums have been held in parallel with UN conferences bringing together many NGO and the opportunity for women to express themselves and be recognized as leaders of many positive experiences.

Much progress has been made since the United Nations First World Conference on Women held in Mexico in 1975. Many concepts and idea have evolved from those days. It is beyond the scope of this paper to describe these historical changes but perhaps the most dramatic change is from the initial strategy where projects were addressed to benefit women only to the most recent approach of Gender and Development (GAD), that is considered the framework for a more equitable form of development respecting the basic needs of each individual male or female.

Over this period additional knowledge has been gained also in the relation of gender issues and water resources. Some of the basic concepts that are fully accepted nowadays are highlighted below:

1. Sustainable water development and management and gender issues are mutually supporting and interdependent.
2. Involving men and women in influential roles at all levels can hasten the achievement of sustainability in the management of scarce water resources (Alley et al., 2002).
3. Women and men play different roles in the use of water by each sector (agriculture, drinking water supply, industry, environment and others). Such roles are dependent on prevailing local social rules and they need to be considered in each case when development activities are planned or executed.
4. In spite of the specific needs of each sector an integrated approach to water resources management can contribute substantially to improve the access of women and men to the benefits of water and related services.
5. Considerable material has been developed to undertake project development and management under a dynamic gender perspective but still its practical application remains limited.
6. The availability of statistics disaggregated by gender are still limited and therefore becomes difficult to quantify the gravity of situations related to the access of women and men to land and water resources.

Looking at the use of water in the main sectors in relation to gender provides a further insight of the existing problems and needs, particularly in the knowledge base.

THE GENDER DIMENSION IN WATER FOR FOOD

It is well known that irrigated agriculture is by far the largest water use sector that in some cases, like Egypt, may reach as much as 90% of all total fresh water abstractions but in most countries of the Mediterranean region it ranges between 60 and 85%. The sector is under heavy pressure because next to this high use of water the technical efficiency is not high. On the other hand, it is also not as

low as often quoted in the literature. It may be necessary to clarify this concept. The water use efficiency of any given irrigation system in Egypt is certainly not higher than 40% but as the water losses infiltrated back to the Nile water is reused several times and it has been found out that the overall efficiency of water use for agriculture in the Nile basin is close to 70%. Nevertheless it is clear that at regional and country level there are considerable opportunities for saving water. The pressure for producing more with every drop of water is becoming the target of many programs and activities.

To draw a picture of the role of women in irrigated agriculture in the countries of the Mediterranean Region is a difficult task due the diversity of cultural and development levels that the region encloses but also due to usual lack of statistical data by gender desegregation. Nevertheless an attempt to identify some of the main issues involved is made below.

At Farm Level

1. Women constitute more than 37% of the labor force in the workforce of the European farms. The figure is certainly higher for the irrigated agriculture although the exact figures for the Mediterranean countries are not available
2. Assuming that women contribute considerably to irrigated farm operations (mainly harvesting) to what extent they benefit from this additional work? Little research is available on this fundamental question. It is quite possible that this increased participation is adding only more work to women.
3. What is the attitude of younger generations with regard to the willingness to undertake rural work? Some recent research (Chimonidou, D., 2002) indicates that younger generations are not willing to get involved in field work. On the contrary they want to get involved in administrative/management tasks. Young girls are even less attracted by physical work at farms. What are the future implications of these attitudes?
4. In general women do not participate in decision making of farm production activities and investments but often participate in the management of the farm budget. This may be because the budget is considered a family affair and decisions are made collectively.
5. The access to water it is often considered a male role. In Egypt it is reported that widows have to resort often to the eldest son to supervise the delivery of irrigation water.

Management at Governance Level

1. Men are predominantly elected to be members of Management Boards of the few farmers' organizations that are made responsible for the management of irrigated water in the North African Countries. This is a pattern that can be observed even in the developed countries of the Mediterranean Basin and indicates that women's access to decision making levels is still limited.
2. Women are well represented in the committees that have been established in some countries to deal with water problems in residential areas. There seems to be a sort of non written agreement whereby women represent better the interest of the home and men those of the farm. This is a purely cultural divide as in other regions and countries this division of responsibilities is not found.
3. Most of the irrigation systems in the North African Region are still managed by the public administration although many efforts are being made to transfer part of this management responsibilities to farmers associations. Few data are available on the number of women that work in the irrigation agencies responsible for the management of large irrigation systems. Traditionally engineering has been a male dominated job but this is changing rapidly and Engineering faculties are having every day more female students. How many of them find employment in the irrigation agencies or ministries is not well known although in theory is an easily retrievable information.
4. Indicators on the role that women play in large irrigation agencies and information on the application of equal opportunity principles to enter in such organizations are rarely available.

Capacity Building

1. Many of the issues mentioned before have their root in the insufficient knowledge that men and particularly women have about their own rights. Sometimes the rights established by the existing laws are difficult to apply in practice due to social habits and traditions. However the world is undergoing a significant change as education opportunities become available and opportunities for breaking with stereotyped behaviors are becoming greater.
2. Project planning and design are becoming more conscious of the need for taking into consideration social issues and local participation. However gender analysis is rarely addressed.

There are suitable guides (SEAGA, FAO 2001) that provide guidance for the integration of gender issues in the irrigation sector but its wide application requires important training efforts.

3. It is clear that the irrigated agriculture in the Mediterranean is becoming more and more specialized where there is little space for inefficient farmers. In this context and considering that a certain job specialization in the farm operation by women and men is taking place, the question is how extension services, financial services and other farm services should be organized in order to provide the high quality services that irrigated agriculture requires. In Morocco the number of women working in the extension services is about 9 % while the percentage of work carried out by women is 50%; similarly in Tunisia the female's extension workers are 3% while the work carried out by women is 23% (FAO, 2003).
4. The access of women to information is often limited by high rates of illiteracy among them, but also because little efforts are made to bring such information in an accessible form to them.
5. Women play an important role in nutrition and therefore nutrition education needs to address specifically gender issues. In several countries a combination of home gardening with nutrition education has proved to be highly effective in reducing malnutrition.

Marketing and Post Harvest Processing and Storing

1. Food processing and food safety are important areas where the role of women can be essential to improve nutritional status.
2. Many of the post harvesting processing industries employ a majority of women. While this represents a job opportunity for many women the question is whether this choice is dictated because women have greater ability than men in the processing of agricultural produces or because they are generally paid less than men?
3. To what extent this new employment possibility is aggravating the role of the women at home or is by the contrary represents a sort of liberalization from tedious and unpaid work at home?
4. Women also are penetrating rapidly in the marketing of the production particularly at local markets. Little is known about the processes that lead to this increased participation.
5. Men are usually responsible for constructing the storage facilities and women for preparing the food to be stored. As much as 25 % of food produced gets lost during the storage process. Proper storage of food practices requires training that often is male oriented.

THE GENDER DIMENSION IN WATER FOR PEOPLE AND SANITATION

The concern for improved water supply and sanitation has already more than three decades of history and considerable experience and knowledge have been developed. However in spite of the remarkable efforts made, like the International Drinking Water Supply and Sanitation Decade (IDWSSD) in the eighties, the situation has only improved moderately. The World Bank (1993) reports that in 1990 the net percentage of urban population without improved services reduced only by 5% for water supply and 3% for sanitation. Much of the efforts made were absorbed by the enormous growth of urban population. The world urban population nearly double form 1975 to 2000 reaching the present figure of 2,8 million. It is now estimated that the urban population will grow to 5,0 billion in 2025 and 80% percent of it will live in the developing world and nearly the half of it will be poor o very poor. Not only the growth of the urban population has increased the demand but people are changing life stiles that demand more water.

The situation in the rural areas is not much better. Of the 6 100 billion of the present population 3 195 billion live in rural areas where the access to services is often worse than in large cities.

One of the more important lessons learnt in this period is that men and women need to be involved in planning and development. Like in agriculture, excessive focus on women resulted often in the fact that women were busier than before. Nowadays it is fully recognized that men and women are water users with different needs that should be reflected in their demand for services (Wijk, C. 1998). Therefore both categories cannot be treated as the same. Excluding one or the other means that half of the target population has been excluded and the effectiveness of the project under these conditions will certainly be reduced.

All people have access to water in some way since no one can live without it, therefore the real issues are whether:

- it is safe

- sufficient for the needs
- easily accessible
- available at affordable price

For sanitation the situation is similar in the sense that the issue is not so much the provision itself but whether the facilities meet basic needs of men and women i.e.: convenient, clean, easily accessible and affordable (United Nations, 2003).

Although international efforts have been made to define the access to “improved” water sources and sanitation there is a lack of indicators that measure the above mentioned parameters and even less those that are gender sensitive.

In addition to these major challenges there are others issues that are more specifically related to gender mainstreaming.

At Household and Village Level in the Rural Environment

1. Women are generally responsible for collecting water. This responsibility may start as young girls. This may be one of the most time consuming activities. Location of new facilities must reduce this burden but their location must widely discussed with the main collectors: women.
2. The location of sanitation facilities is a highly sensitive gender issue. Men and women have different requirements in the use of the facilities. Still too often the decisions are taken by men or even without any consultation with the affected population. The design of the facilities is also gender sensitive and some guidelines exist that take into consideration the need of both.
3. Water is the vehicle for many water borne diseases and illnesses. Where do women get information about proper hygiene practices?. Often water supply projects do not have the necessary relation with the Ministry of health. If training is the answer, who should provide this training?
4. How often water supply or irrigation projects consider the need for washing of clothing? This is another call for the need of integrated water resources projects.
5. With the trend for decentralization the tasks of operating and maintaining the system are delegated to the communities. In the distribution of responsibilities women tend to be excluded of this activity without objective reasons.

At City Level

1. Developing countries have often poor water and sanitation infrastructure and the management systems are below desirable standards. The use of private concessionaires is improving the quality of the service in many places. Available tap water and proper sanitation facilities reduce the gender problems.
2. Peri-urban areas of large cities have similar problems, and sometimes worse, than rural areas. Sanitation problems are greater due to the considerable concentration of people and absence of adequate facilities. Therefore there is widespread microbial pollution which results in high mortality rates for children and adults. Gender issues are somewhat similar to those of the rural areas but there are better opportunities for group actions where women can play an important role.
3. An extremely large proportion of cities of medium and large size do not have treatment plants for the sewage creating serious pollution problems downstream. Women often do washing of clothing in such contaminated water or even use it for drinking purposes with heavy health risks for them and that of their families. This problem is exacerbated in the rural areas where treatment of sewage water from villages is practically non existing.

At Project, Institutional and National Level

1. Project design and construction of domestic supply and sanitation services are generally not gender sensitive but women are the main users of domestic water particularly in the rural environment. Existing guides (ECOGEM, CIDA, FINNIDA, OECD/DAC, etc.) to integrate their needs do not find yet an extended use.
2. Women are rarely members of planning and management organizations dealing with water supply and sanitation. Water supply and sanitation agencies should involve a larger number of women among their staff. This activity is still heavily dominated by men in most cases. Gender sensitive statistics on this matter are rarely available and these observations are mostly qualitative.

3. Quantitative information on the quality and characteristics of the water supply and sanitation services is not readily available for urban areas and this lack of information is more acute in the in the rural areas of several countries of the Mediterranean Basin.

THE GENDER DIMENSION IN WATER FOR RURAL DEVELOPMENT

Rural development activities offer a unique opportunity to have a fresh look to needs of a given community. Within that basic approach it would be only logical to consider the needs of the 50% integrated by women and discuss and integrate them with those of the males. Only projects that have the full support of both have the chances for a successful achievement. Rural development activities are important sources of employment and income generating opportunities for men and women that may contribute to improve their economic and social standards.

Rural development programmes have often water as an important component or are related to it. Typical rural development programmes related to water are those normally integrated within the framework of watershed management. They cover a wide range of activities such as reforestation, soil and water conservation, riverbed training maintenance, flood control, river regulation, school and family vegetable gardens and some others. Aquaculture and fisheries constitute another group of rural development activities where water plays a prominent role. In addition water supply and sanitation and irrigation programmes are sometimes considered also as rural development programmes.

There are also many other rural development programmes which are not related to water such as road improvement, establishment of small industries, education, credit schemes and many others that can also be the source of interesting experiences and lessons.

Rathgeber (2003) reports that watershed programmes are sometimes important sources of employment in rural communities but there is considerable evidence that they can increase poverty and that they tend to displace the poorest sectors (CGIAR 2002). In the past emphasis was put on physical and technical aspects while economic, social and environmental concerns received much less attention. Nowadays the prevailing approach is on integrated and participatory watershed activities. There are many positive experiences of participatory development relying on the creation of self-help committees but still it is possible that the less advantaged (women, children, landless) members of the community will not participate in such committees and remain marginalized.

For such broad field of activity it is difficult to find gender related issues that are applicable to all of them and therefore the issues have to be related to the specific rural development activity. Some of the emergent issues are:

1. Role of women in most of the watershed development activities is limited to few activities such as tree planting and others that may require less physical energy. So far, most of the experiences show a marginal involvement of women.
2. In the past gender analysis has not been a component of most watershed development projects. With the new participatory approaches the road is open for a greater participation.
3. If local communities are going to be self sustainable through participatory processes it is obvious that there is a great need to make these communities receptive to gender sensitive analysis.
4. Displacement of people by construction of dams and other large infrastructures (highways) has many negative consequences but they have never been analyzed from a gender perspective.
5. The effects of natural disasters (floods and droughts) have increased in recent years due to climatic change. The humanitarian assistance and subsequent resettlement plans are rarely gender sensitive.
6. Farmers Field Schools (FFS) where women and men observe how crops develop and control pest have proven to be a harmonious way of integrating gender issues.
7. Research has shown that women take a leading role in many parts of Africa and Asia in the development of aquaculture. Aquaculture increases economic returns and improves family nutrition and provides a good possibility to integrate with other household and farming activities.
8. In many regions of the world women process the fish catch which may include drying, salting, smoking and prepare fish cakes of different kind.
9. In the middle East/North African region only 6% of the rural population is engaging in fishing activities and women play very limited roles (FAO 1995).

POLITICAL AND INSTITUTIONAL DIMENSIONS OF WOMEN INTEGRATION IN WATER RESOURCES MANAGEMENT

At international scale numerous international Conferences and meetings have played an important role in promoting a greater attention to gender issues. Perhaps one of the most relevant events of this kind was the Millennium Summit (September 2000) where the United nations adopted the eight development goals (Box 1). One of them specifically mentions the need to promote gender equity and empowerment but in all of them gender issues play important roles.

Box 1. Millennium development goals (1990 -2015)

1. Eradicate extreme poverty and hunger
2. Achieve primary education
3. Promote gender equity and empowerment of women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development.

Also bilateral and international agencies have incorporated into their action programmes a high priority for gender issues. Still policy making and planning often fail to address properly the different roles and needs of men and women. One possible reason for this state of affairs is that water projects are designed and planned by professionals that have little skills in socio economic issues and much less in the integration of gender concerns (Van Koppen 2002).

On the other hand it is evident that development policy making processes are undergoing a strong transformation and the need to promote a greater opportunity for stakeholders participation at all levels is becoming the new driving force although in many places resistance still exists In this context the participation of men and women in planning development becomes a necessity but institutions must be prepared for this new way of doing business. However also women and men also need to be empowered to understand their role in development and to develop better gender-balance policies (FAO, 2003).

A good example of this evolution of the institutions is the case of Tunisia where new institutions and modification of existing laws have provided a favourable environment for the participation of women in all affairs of the society. Box 2 illustrates the main political changes made in the last 15 years.

Box 2. Main political and institutional changes made in Tunisia to enhance women empowerment

1. Creation of the Research Center for Studies, Documentation and Information on Women (CREDIF). 1990
2. Creation of National Commission on Women and Development. 1991
3. Creation of the Ministry Women and family Affairs. 1992
4. Creation of the National Council on Women and Family. 1992
5. Amendment to the Work Code to reflect the equality of men and women. 1993
6. Creation of the NGO: National Union of Tunisian Women
7. Commitment to the National Strategy for the Promotion of Women (1998)
8. Engagement of women in the regional councils for the identification and follow up of regional programmes benefiting women. 1999

Source: Fatma and Aloi (2002)

The case of Tunisia illustrates a highly positive government attitude towards providing the basis for equal opportunities and empowerment of women in many aspects of the day to day life. Still the interrelation between water resources and gender issues has not been translated into visible instruments to implement such policy. This is not surprising as changing or modifying water is a complex matter that requires the political will of the leading parties in any country.

South Africa is an interesting example where the enactment of the new water law was subject to a large participatory process. As result, the draft law was changed substantially and many articles reflect gender issues that emerged during the consultation process. The White Paper (1997) states the need to channel relevant information to women and to include them in water committees. The issue of a balanced representation of men and women in water sector agencies is also stressed. It is

interesting to note that the government has established minimum national quotas in government departments that must be respected or negative implications can be expected.

The two cases of Tunisia and South Africa illustrate that public institutions are undergoing profound changes to adapt to a growing pressure to mainstreaming gender issues. Other countries are also taking steps towards the same policy. There is a need to asses the results obtained by these policies. In this sense it is important to develop indicators that are simple to use and permit to assess the "gender evolution" of the institutions and the impact made. Also criteria need to be developed to assess whether a water policy or institution deals with equity and gender issues in an appropriate manner.

The legal aspects of the access of women to water and land need to be reviewed in many cases. Not in all countries the widow becomes automatically owner of the land when the man dies. But even in the case that they are the legal owners social rules (not legal rules) often handicap a free operation of the farm by the widow. Water rights are generally linked to the land in the Mediterranean but often the legislation does not clearly establish such rights. Many irrigated farms have not registered water rights and in case of death of the husband the wife remains totally unprotected. The question of inheritance of rights is further complicated when the relation between man and woman has not taken the form of formal marriage.

THE INFORMATION CHALLENGES

There is no doubt that considerable progress has been made in the availability of statistical information on women contribution to development in the last 20 years. However considering that still a large proportion of agriculture censuses rarely differentiate information by gender much needs to be improved particularly to make such information relevant for decision making and planning.

There is, however a genuine difficulty in collecting statistical information on women and this arises form the fact that much of their contributions take place outside of the formal economy. FAO (2003) reports that informal occupations provide the livelihood for more than 80% of women in low-income countries and 40% in middle-income countries. Therefore it is not only a question of collecting data but of using methods that reflect the nature of the women work which is predominantly unpaid.

Many non governmental organizations are working in the area women and development and often their activities are complementary and sometimes even overlapping. Up to recent date a comprehensive directory of such organizations was missing making communication and understanding of each other activities difficult. The Dimitra Project (FAO 2001) has put together a directory of NGOs, research institutes and information centers in Africa and the Near East regions which has covered an important gap. The information is also available in Internet.

One area that can contribute substantially to decision making is gender oriented research. Again while some 30 years ago such research was practically non existing today the number of research undertakings are considerable. However much of these efforts have little dissemination and remain as local experiences of limited impact. There is a need to review such experiences systematically and bringing those of major relevance to the knowledge of larger audiences. There is also a need for identifying issues of regional interest that can be tackled with regional approaches.

The information challenge is not only of collecting relevant information for planning and decision making but also in the opposite direction i.e. the dissemination of relevant information to women. In this area there is much to be done in terms of improving communication and making training sensitive to women needs.

In a final instance the information challenge is not so much to provide gender sensitive statistics in every possible activity, although it may be desirable, but to provide information that may contribute to improve the decision making processes. This requires that efforts to develop such information concentrate, at least in a first stage, in selecting the type of information that is likely to yield the better result for the said purposes. Collecting information on policy, institutional, legal and research matters on national and regional bases for the main sector of water use may provide a useful contribution to this objective.

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