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MAINSTREAMING GENDER DIMENSIONS IN WATER MANAGEMENT FOR FOOD SECURITY

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INTRODUCTION

Women's role in water management is vital, as they are the real custodians of the family's water requirements. They are usually the ones that have to withdraw, carry and store the water and make sure that there is clean water in the household for drinking, washing, cooking and cleaning. They care more than men do about the quality of the water used, in order to have a healthy family, especially when it is about the children. At the same time, in most of the Mediterranean region, women are key and learned persons in matters relating to irrigation and resources allocation. They are involved in irrigated agriculture either by way of assisting their husbands or families.

In spite of this, water resources management and irrigation programmes and projects are mostly directed to men and to the crops they grow. Women's “secondary” crops (vegetables, fruits, spices and traditional food crops) and their non-agricultural water consuming activities (for example watering small animals, cooking, laundry, bathing, etc.) are simply not visible and in many cases are not taken into account when calculating water needs. Equal participation and control in the planning of water schemes and in water resources management is, therefore, required as it is expected to produce multiple benefits on the local economy, nutrition, health, social life and environment.

However, promotion of gender equity in water management presupposes an entire set of changes in the actual conceptual framework that still fails to see women as true economic actors and resource managers. Some of the required changes may include:

- Removal of existing barriers (discriminatory procedures, practices and laws) that exclude women from property management or from having access to productive processes and practices, such as land and water, but also access to credit, basic services, health, family planning. A consideration of the regional/local dimension is crucial to this purpose.
- Investment in education and training, providing, for example, special educational courses in hygiene and sanitation, but also providing specific measures that might increase productivity of women's work in the great variety of their working circumstances.
- Securing women's participation, provision of information and consultation: often, information is not made accessible to women and certainly rural women are the most frequently excluded. Governments and international agencies should be therefore committed to raising the educational levels of girls and women and to making information available through appropriate agencies. Fundamental is also that the many issues women are confronted with, especially those related to their productive role are not ignored, meaning such goals as increasing their market competence, access to new technologies, etc.

Women play a complex economic role in the Palestinian countryside, which makes the rural woman an influential force in rural areas development, whether by rationalising consumption or increasing savings. It is observant that the role of women in rural areas has doubled, particularly in the Palestinian villages, which witnessed waves of migration of men abroad or to work inside the Green Line areas. Studies show that women's work in agricultural field become representing about 80%.

In spite of women's major role in rural areas in the development process, especially in the agricultural processes, most of this work is carried out by rural women and falls within the type of work that is without a direct cash wage. It also falls within the scope of the informal sector, which had not received a full study until now in Palestine. However, neglecting rural women's role in the agricultural processe and other areas of economic activity in rural areas is due to the narrow view of production and productive activities, which do not fall within the scope of economic activities, or any activity that is not linked to the process monetary form exchange.

FOOD SECURITY SITUATION

In brief, the overall food security situation in the West Bank and Gaza Strip (WBGS) can be depicted as follows (FAO and UNWFP, 2007):

- Local production does not and will not provide sufficient staple food commodities, and the food supply will always rely on imports and commercial channels. However, areas that do not have agricultural potential are affected by closures (e.g. Qaliqilia, Tulkarem, Jordan Valley) and isolation from urban markets (e.g. Nablus). Recently, food aid has become even more prominent as a source of food.
- Economic access to food continues to be the most significant food security concern with food price increases amidst drastic reduction of livelihoods. Reduced cash income and low consumer purchasing power should be considered as a form of "market-induced shock" to vulnerable households.
- There are increasingly distinct, and increasingly isolated "economic islands" that are the basis for determination of market catchments areas, that would be useful to monitor over time given the serious structural shifts occurring in WBGS due to the current financial and economic crisis.
- From January 2006 onwards, food prices trends in WBGS regions seem to have diverged from on another. Food prices in the Gaza Strip increased sharply, exceeding the food CPI in the West Bank since May for the first time in the 10-year period under consideration.
- Although the analysis indicates that movement restrictions, as proxied here, are days of closure in the WBGS and closure of the Karni crossing into the Gaza Strip, are not directly correlated with food CPI, they are highly correlated with transport CPI.
- Most traders surveyed indicated that they:
  (i) had to stretch their credit lines both with their suppliers and customers;
  (ii) do not deal with products originating from food aid programmes;
  (iii) rely on commodities from within their own governorates or neighboring governorates but a significant percentage relies on commodities from outside their governorates, especially from Israel.
- In general, trades said that fluctuations in international prices (e.g., high fuel prices and the higher costs of transport) have all exerted an upward pressure on prices. On the other hand, inflow of Israeli products into the Palestinian markets, the restriction of traders from other markets, including those Israel or the West Bank or Gaza, as well as the withholding of PA salaries and economic recession since the beginning of 2006 had a dampening effect on prices. The outcome, however, has been a rise in prices, especially in the Gaza Strip, which implies that the factors pushing prices up have overweighed those factors pushing prices down.
- Dietary diversity seems to be negatively affected by rising poverty levels, and changes to diet in terms of micronutrient content could have long-term consequences on the nutritional well being of the population.
- Total food consumption shrunk in 2006, whereby households resorted to reducing cash expenditures on food and increasing own production, although only to a limited extent.
- Acute food crises have not materialized in the WBGS, as traditionally strong social ties tend to preclude the possibility of acute household hunger. However, food security in all areas of WBGS has declined since the 2000 Intifada, and most recently, due to the loss of PA income amidst growing concerns about the sustainability of Palestinian's resilience.
- The nutrition review indicated that:
  (i) chronic malnutrition is on a steady, although slowly rising trend;
  (ii) micro-nutrient deficiencies are of a concern, particularly iron, iodine and Vitamins A and D.

FOOD SECURITY STATUS

The 2006 CFSVA (Comprehensive Food Security and Vulnerability Assessment) concluded that 34% (1,322,019) of the oPt is food secure, 20% (777,658) is marginally secure, 12% (466,595) is vulnerable to becoming food insecure and 34% (1,322,019) is food insecure. Since February 2006, new population groups have become food insecure (or more food insecure) in addition to pre-existing food insecure groups. For example, families supported by PA employees are drastically affected by the transitory suspension of salary payments. This is partially offset by allowances received through the Office of the President that are sourced from TIM and Arab Donors (FAO and UNWFP, 2007).

It should be noted that ongoing socio-economic decline and overall de-institutionalization processes are expected to further impact food security in the coming months, in particular as its

structural elements, e.g., household livelihoods, trades, and industries, aid coordination and streamlining, remain unaddressed.

Table 1. Food security according to locality type

	Urban	Rural	Camp	Total
Food Insecure	31.69	34.03	44.67	34.31
Vulnerable	10.93	13.18	11.47	11.65
Marginally Secure	17.98	22.4	20.52	19.2
Food Secure	39.4	30.39	23.33	34.42
Total	100	100	100	100

This table shows clearly that households in rural localities are more food insecure than the households in urban localities but even in this case, there is more own production for the rural households and food insecurity is likely to be overestimated.

It is also worth mentioning that 46% of the Palestinian population is children (0-14 years) who are typically more vulnerable to food insecurity outcomes.

Table 2. Percentages of food security groups by governorates

District	Food Insecure	Vulnerable	Marginally Secure	Food Secure	Total
Jenin	22.01	11.52	25.83	40.65	100
Tubas	38.19	9.63	22.69	29.49	100
Tulkarem	29.14	9.82	31.13	29.91	100
Nablus	37.38	11.24	21.24	30.14	100
Qaliqilia	28.85	12.52	24.42	30.14	100
Salfit	28.45	7.19	14.38	49.97	100
Ramallah	21.06	11.04	24.76	43.14	100
Jericho	11.83	10.1	38.13	39.94	100
Jerusalem	23.9	8.99	17.98	49.13	100
East Jerusalem	1.5	0	2.81	95.69	100
Bethlehem	22.09	14.19	19.24	44.48	100
Hebron	28.46	18.24	27.24	26.05	100
North Gaza	63.51	12.76	12.64	11.09	100
Gaza	51.46	11.76	15.37	21.4	100
Dier Al Balah	48.2	13.36	21.22	17.22	100
Khan Younis	53.38	11.12	12.94	22.56	100
Rafah	52.82	14.58	14.3	18.31	100
Total	34.296	11.645	19.634	34.437	100

This table shows clearly the differences between the governorates in West Bank and Gaza Strip. In the West Bank, Nablus and Tubas show the highest food insecurity levels, probably due to the closure regime. Qaliqilia, Tulkarem, and Salfeet share similar levels and patterns.

CONSTRAINTS OF RURAL WOMEN

Palestinian women in the rural community perform many basic roles that have a large impact on rural development opportunities. That being said, the roles that they perform are not always appreciated, or valued in society as they should be. Some of the constraints of rural woman include but are not limited to the following (Abu Al-Hayyja and Al-Ammari Al Shahroori, 2006):

1. Women are able to produce food, but have difficulty going into the market and selling it on their own.
2. Rural women are not always the decision makers.
3. Any money that is made through food productions goes back to the head of the household (usually a man).

4. Societal restrictions for women; i.e. widows are not necessarily the head of their households, rather power would revert to the closest male relative.
5. It is difficult for small farmers (usually women) to product and import into the Israeli market.
6. Since women are the main water resource managers in the home, water and sanitation reverts to them, in turn, they attempt to decrease the amounts of water used for domestic purpose in order to lower their water bills or ration existing water resources. This rationing increases unsanitary methods and creates food insecurity among the rural populations.
7. Rural women rarely have financial dependency, which is instrumental in achieving food security for their families.
8. Women's cooperatives and clubs that are located in rural areas are also facing hardships to export their goods and products as a result of the Israeli procedures such as closures, sieges, and land confiscation.
9. Transportation costs have also increased, creating more difficulty in reaching the bigger cities to sell or market agricultural goods.
10. Most young women in the villages are encouraged (when encouraged) to work in public sector jobs such as teachers and are not involved in occupations regarding resource management.
11. The proportion of households living under poverty conditions reaches 60%, a number that gets to 73% in households dominated by women.
12. One can find the reasons for this feminisation of poverty in factors with historical and cultural roots that imply a discrimination of women in terms of access to resources, services and decision capacity. The result is that nearly a fifth of rural Palestinian women cannot read nor write, only 65% have finished primary school; 30% are forced to marry before the age of 18; among girls, 8% dropout of school while 4% among boys.
13. On the other hand, even though women play a fundamental role in agriculture, women represent 65% of these activities, 48% of these women do not receive paid salary for their work.
14. The current customs and traditions.
15. The low number of educated women in Palestinian society.
16. The fragmentation of agricultural holdings in the Palestinian territories.
17. Military checkpoints that impede the access of extension services to all communities.
18. The lack of project support, which is provided by the Ministry of Agriculture in the area of rural development.
19. The Occupation's control over groundwater sources.
20. The low proportion of women who received cisterns projects compared to men (5%).
21. The absence of a joint strategy between the working institutions in the women sector.
22. Financial obstacles for women's institutions that is limited to its expansion and propagation ability.

ROLE OF WOMEN IN WATER MANAGEMENT

Women have a larger role in socialisation, which is not dependent upon birth, but women in the Palestinian rural community play an important role in children's upbringing, where they play the role of teacher to their children.

Palestinian women are primarily responsible for family consumption in the countryside. Often, they play the major role in planning family consumption in terms of size and timing, despite the limited resources of most Palestinian families in the countryside. However, women often succeed in measuring family economic matters, and serve as a safety economic valve for the family. In most of villages, rural woman are golden ornaments as insurance for her family, which will help the family in any economic crisis.

Rural woman are a productive force; in addition to their role in consumption process, they play an important role in rural production process through helping men in the field and different works although it is difficult. However, they do all the grain storage process and prepare shelters for the new season as well as producing milk dairy products and carry out grazing, in addition to assisting in the poultry production, and doing some household handicrafts, and marketing the agricultural and household rural products.

In the countryside, the demand for water is growing rapidly, and in many districts, the cost of developing new supplies is becoming prohibitive. Simultaneously, increased water pollution is worsening the imbalance between water supply and demand. For these reasons, water resources

development and irrigation are of critical importance in efforts to improve food security and sustainable agricultural production.

Palestinian women play an important role in water management. They are most often the collectors, users, and managers of water in the household as well as farmers of irrigated and rainfed crops. Because of these roles, women require considerable knowledge about water resources, including quality and reliability, restrictions and acceptable storage methods, and are a key to the success of water resources development and irrigation policies and programmes.

IRRIGATED AGRICULTURE AND WOMEN

In many cases, water resource policies and programmes have proven detrimental to women's water rights and, therefore, to their sustainable management and use. Interventions, such as irrigation, habitually fail to take into consideration the existing imbalance between men and women's ownership, rights, division of labor and incomes. By raising the value of the land, irrigation brings about social change, which usually favors men.

Irrigation systems also tend to favor mono cropping, often for the production of cash crops, and thus may exclude provisions for a more diversified cropping pattern supporting a variety of food crops. As men usually control cash crops, decisions regarding the scheduling of irrigation water tend to be made without consideration for women's farm and household activities.

Women's entitlement to water is often precarious at best. Since they must depend on small-scale or hand irrigation, they have difficulties coping with drought. Often the technologies that are available to them do not respond to their needs, such as pumps that have handles they cannot reach or manipulate or that they have not been trained to repair.

Women's agricultural practices must usually be adapted to soil moisture conditions that depend on the vagaries of the climate and the conditions of their soils. When women's survival strategies lead to erosion, their farming practices can be major sources of watershed instability.

Women and children provide nearly all the water for the household in rural areas. Domestic water is used for processing and preparing food, for drinking, bathing and washing, for irrigating home gardens and watering livestock. Women know the location, reliability and quality of local water resources. They collect water, store it and control its use and sanitation. They recycle water, using grey water for washing and irrigation and runoff from these for livestock.

It is now recognised that the exclusion of women from the planning of water supply and sanitation schemes is a major cause of their high rate of failure. International initiatives, such as the International Drinking Water Supply and Sanitation Decade and the United Nations Conference on Environment and Development (UNCED), have been instrumental in promoting the role of women in water management. They are increasingly trained on water pump operation and maintenance and perform leadership roles in Drinking Water Users' Organizations.

Yet, the incorporation of gender issues in the planning, design and implementation of irrigation programmes has been far more limited despite the number of studies documenting the failure of irrigation schemes due to mistaken assumptions regarding the intra-household division of labor and organization of production.

Gender analysis can help irrigation planners and policy-makers to improve the performance of irrigation schemes. There are three broad areas in irrigated agricultural production systems that require particular attention, and where a more thorough gender-based analysis of local situations will help to create more effective, equitable and sustainable irrigation policies and programmes.

NEEDS OF RURAL WOMEN TO SUPPORT NEW IDEAS AND ENTERPRISES

At the United Nations Fourth World Conference on Women, held in Beijing 1995, participating governments undertook to carry out a comprehensive platform of action intended to ensure that a

gender per-sportive is reflected in all our policies and programmes and recognised gender mainstreaming as the principal mean to achieve these objectives (OECD/DAC, 1998).

Ensuring women's use and control of land and irrigation water is fundamental. Studies have shown a direct correlation between independent land and irrigation rights for women and a higher productivity of land and labour. Thus, land allocation under irrigation schemes should be to individual farmers rather than to households.

Water delivery schedules should be devised in such a way as to accommodate both men's and women's needs with respect to quantity, timing and quality of water. In addition, training in water control and management, cropping calendars, and system maintenance should be extended to women as well as men.

Given that women's incomes are considerably lower than men's and that the capital requirements to invest in irrigated crops can be quite high, access to credit systems should be made available to women irrigators. Access to credit will also facilitate women irrigators' access to technology.

Local communities must participate in all phases of water management, ensuring the full involvement of women in view of their crucial role in the practical day-to-day supply, management and use of water (UNCED, 1992).

Gender mainstreaming can be implemented at two levels: global and national/institutional by implementing the following:

1. Global Level:
   - Mainstreaming gender in the development of global efforts: the latest global movement towards developing international policy to guide the long-term vision on water life and the environment in the 21st century has been launched recently by the World Water Council. The vision process, which seeks to raise awareness among the civil society and decision makers in order to foster political, will and leadership for the future action should ensure that gender equity concerns should be integrated into the design and implementation of the framework of Action Affirming Appropriate follow-up.
   - Policy changes in bilateral and multilateral organizations to mainstream gender as part of the strategy of water management. This requires taking gender equity concerns in all policy, programme, administrative, and financial activities, and in organizational procedures thereby contributing to a profound organizational transformation. Specifically, it brings the outcome of gender socio-economic and policy analysis into all decision making processes of the organizations and tracks the outcome.

2. National/institutional level:
   - Legal Frameworks and institutional reform incorporate gender considerations so that women and men have equitable access to productive resources such as land, credits, fertilizers, etc. At the moment, 90 countries still have not fully adopted the UN convention on the elimination of all forms of discrimination against women. This means women do not always have rights of property or inheritance.
   - Building capacity of women to increase the understanding of gender implications for water management, as part of an effort to empower them so they can acquire the skills to enter water management at a senior level. This involves an increase in technical and scientific education for women.
   - A proactive effort to gender sensitive water management approaches at senior policy making levels in national structures as part of a strategy to ensure equity and increased women's involvement in these processes.
   - Gender training for men and women working in water-related national and regional bodies non-governmental organization and private water companies.
   - Policy changes so that gender becomes an intrinsic of the water resources management strategy of the countries.
   - Gender stratification in research and planning. Most current investigations of users and their needs fail to collect data differentiated along gender lines. The results in faulty assessment of levels of need and patterns of need. When information is gathered it takes into account specific gender needs, users are often more willing to pay the costs involved in supply infrastructure and maintenance.

- In-depth gender sensitive consultation processes that allow participation of both women and men in decisions regarding the location of water insulations technology and price implications. This may require separate meetings to ensure that women feel free to their opinions and the use of females as well as male project staff.
- Care in ensuring gender-balanced participation in management at community levels since the provision of water has been a women's responsibility in many societies, there is a great danger that efforts to increase community participation can have the grotesque effect of increasing the work women are expected to undertake. Women continue to provide unpaid manual work while men secure any managerial or decision-making role that becomes available.
- Capacity building so that women are able to perform managerial functions, this includes the development of skills in financial management decision-making, community participation, leadership, confidence building and communication.
- Gender training for both men and women at local levels so that men understand and support the changes taking place in social organizations. This requires training of trainers.
- Capacity building to equip women to perform technical functions.
- Strategies to ensure that both women and men share the benefits of changes in water supply management

Clearly, the time has now come for this long-standing interest and concern to be optimized. However, women cannot be expected to play effective roles as managers and decision makers, if their position is undermined by greater society. Therefore, their status in society, their self-confidence as managers, the development of their technical skills, and their autonomy to act as independents, make it capable for them as members of the human race to be supported. For this to happen, a gender approach in integrated freshwater resources management is essential. This will lead to greater:

- **Effectiveness:** the infrastructure, as well as valuable freshwater resources will be more widely and optimally used and sustained by all user groups, rich and poor, women and men.
- **Efficiency:** with limited funds and resources, the sector agency can reach more individuals.
- **Development:** The service and its social process will not only bring water, it will increase consumption, production, income, environmental security, health and overall family welfare.
- **Sustainable use in freshwater ecosystems:** Women and men's direct and fair participation in research and project implementation can increase the potent ional flexibility and creativity in responding to environmental insecurity and changes in resource systems.
- **Equity:** Burdens and benefits will be shared more equitably between women and men in the household and in the community at large. The benefits will accrue to society, to the environment, and to the water sector.
- **Economic:** If women have a more effective role in water management, it will boost economic production in both agriculture and small industry. Use of irrigation methods will increase an improved and both food security and cash crop production will benefit. Increase services (in beer brewing and provision of refreshments for example) will result.
- **Nutrition and health:** Since women are generally more concerned with family nutrition and hygiene than men are, their greater autonomy over water use will boost health. A gendered approach will also spread concern for nutrition, child-care and health among men.
- **Social:** A larger share of the community responsibility for women tends to increase mutual respect within communities and families. It unlocks creative potent ional currently imprisoned by the pressure of maintaining artificial hierarchic and relieves men of the stress of sole responsibility for the family through the wider community. It allows natural skills and talents to flow to the surface, where they can contribute to community and national development. Skills levels in general increase, leading to a rise in incomes.
- **Environmental:** Broader social participation will result in more effective uses of existing water resources through rehabilitation activities, waste reduction, and innovative arrangements. Women's involvement in a wide range of activities will facilitate freshwater ecosystem maintenance and protection, and some potential water conflicts can be resolved. An improvement in strategies for water conservation, pollution protection and demand management can be expected.
- **Financial:** Real user demand is more efficiently mobilized so that payments for valued services are less of a problem.
- **Cultural:** An effective and socially useful improvement in women's position has many spin-off effects. The contribution of half of the world's population is more effectively mobilized towards other sustainable development goals.

REFERENCES

Abu Al-Hayyja, I. and Al-Ammari Al Shahroori, M. 2006. Women's Role in Agricultural and Water Extension.

FAO and United Nations World Food Programme. 2007. Comprehensive Food Security and Vulnerability Analysis, West Bank and Gaza Strip.

OECD/DAC. 1998.The Beijing Declaration

United Nations Conference on Environment and Development (UNCED). 1992. Agenda 21