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Bari : CIHEAM

Options Méditerranéennes : Série A. Séminaires Méditerranéens; n. 77

2007

pages 3-16

Article available on line / Article disponible en ligne à l'adresse :

<http://om.ciheam.org/article.php?IDPDF=800474>

To cite this article / Pour citer cet article

Scullos M.J., Tomassini B. **Food security and food safety in the Mediterranean**. In : Sagardoy J.A. (ed.), Lamaddalena N. (ed.), Quagliariello R. (ed.), Chimonidou D. (ed.), Guelloubi R. (ed.), Pinca V. (ed.). *Mainstreaming gender dimensions in water management for food security and food safety*. Bari : CIHEAM, 2007. p. 3-16 (Options Méditerranéennes : Série A. Séminaires Méditerranéens; n. 77)



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FOOD SECURITY AND FOOD SAFETY IN THE MEDITERRANEAN

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INTRODUCTION

Food security and food safety are understood as the two sides of the same coin. Mediterranean people, as in any other part of the world, require an adequate quantity of food so that no part of the population is undernourished. At the same time they also require food of good quality and balanced nutritional value, which contains all necessary elements for the development of humans while avoiding pollutants and contaminants from the overall environment or from the agricultural practices employed that are accumulated frequently via the food chain.

For food security, agriculture is the major contributor. Agriculture today, also in the Mediterranean region, is carried out at various different scales all of which are important. Agriculture relies, on one hand, on valuable natural resources which are in scarcity in our region (e.g., water, fertile soil and healthy ecosystems), and on the other on human resources. The latter includes also women who represent a very high percentage of the agricultural working force. To link local and global production trade is important. For food security fair trade is needed. The prospects for a Euro-Mediterranean Free Trade Area are critical.

Population growth, rapidly changing consumption patterns and new fashions exert very severe pressures on both natural and human resources resulting in environmental degradation, unemployment, poverty, social marginalization, forced cultural changes etc., which affect in particular women who are already among the less privileged parts of the Mediterranean population.

The present paper tries to make a link between the various pieces of the puzzle focusing mainly on two issues: in the first part, on the interconnection between food security, food production, environmental conditions and needed natural resources (among which water is crucial), as well as on trade and in particular on the impacts of the Euro-Mediterranean Free Trade Area.

On the second part, the emphasis is given to the examination of the status of women in certain Mediterranean countries for which data is already available.

It is noteworthy that the data coverage of the region is very uneven and therefore the present work contributes only partly to the understanding and analysis of this complex issue.

FOOD PRODUCTION VERSUS CONSUMPTION

The major provider of food is agriculture. Agriculture, in the majority of cases, contributes directly and indirectly to poverty reduction and food security. It supports poor people with income and employment opportunities and also contributes not only to the supply of food but also of raw materials and environmental, social and cultural goods and services. Although increased food production or investments in agriculture on their own, are not enough to reduce hunger and poverty, particularly in the case of many poor consumers, such as the urban poor, the rural landless and the destitute, for many rural communities, agriculture remains the main source of employment and income and represents the engine of the rural economy.

With 9% of the population undernourished (FAO, 2006), the Near East and North Africa is the region with the lowest prevalence of undernourishment among the developing regions.

Relatively higher incomes and/or a tradition of food support and subsidy policies in some countries account for a large part of the difference. The region is home to around 5% of the undernourished and around 8% of the population of the developing world.

The majority of the poor in the region - about 70% - live in rural areas, while the rural share of the population is 43%. For many rural communities of the region farming is a direct contributor to food security although adverse environmental situations, such as volatile climatic condition, especially rainfall, coupled with water scarcity, soil erosion and land degradation limit the scope for agricultural expansion, placing the livelihoods of agricultural and rural people in the region under heavy stress.

The three major food systems - rangelands, croplands, and marine fisheries - have started to decrease their outputs (even though human input has continued to grow) while competition for the use of natural resources is a major problem in global food production (e.g., increased use of grains such as maize and soya for feeding livestock). Indeed, the last two decades have been characterized by a shift of entire populations from grain-based diets to consumption of meat and dairy products and other non traditional cereals, such as wheat, which has replaced traditional meals based on cereals and vegetables as well as local grain and root dishes. For those Mediterranean countries whose dietary traditions have survived, it seems therefore important to initiate serious and structured action to ensure that traditional foods "survive" while at the same time acknowledging the realities of the modern context and the demands of a modern lifestyle. This will help to preserve the basic structure of the diet and its components and will thus guarantee continuity in the valuable nutritional qualities of a traditional food system while preserving the rural environment.

Projections show (IFPRI, 1999) that developing countries, as a group, are expected to demand twice as much cereal and meat products as the developed countries in 2020. Accelerating urbanization trends with the consequent growth of cities, a phenomenon typical of the entire Mediterranean region but especially of the Middle East and North African countries, could result in rapidly rising demands for water and food - particularly cereals and livestock products.

It has also been estimated (IFPRI, 1999) that, due to the increase in demand for animal feed cereals, the demand for maize in developing countries will become higher than that of rice and wheat. As a direct consequence of all these altered consumption patterns it is expected that countries which have traditionally been exporters may become net-importers and vice versa.

INTERDEPENDENCE BETWEEN FOOD PRODUCTION AND ENVIRONMENTAL PRESSURES

Both food security and food safety rely on the proper functioning of healthy natural ecosystems which support agricultural and livestock production.

Sometimes the large scale quantitative approach is adopted for securing adequate food backfires food safety.

Once again sustainability requires balancing quality and quantity and parallel production of different types of food at a multitude of production systems.

Prerequisite though is to avoid all forms of irreversible damage to soils, waters and the biodiversity or introducing contaminants to humans via the food chain.

Various schemes have been proposed for the sustainable use of farmlands. Perhaps less has been said for the pasture lands and marginal lands that are also extremely important because they are closely linked to particular forms of poverty.

Increasing demands for livestock products in urban areas and unregulated growth of urban and rural based industrial forms of livestock management are resulting in unprecedented pressures on the landscapes of the steppe and highlands as well as on the people who manage these livestock (FAO and WB, 2001). This phenomenon adds to issues related to natural resources management arising partly from the continuing deterioration in quality of both water and soil resources. Agriculture in the Mediterranean uses approximately 80% of the available water resources. Non-renewable water resources are under increasing threat due to excessive extraction in several areas. Soil erosion by wind and water continues to be a fundamental problem in the region, often as a consequence of inappropriate cultivation methods and heavy grazing pressure in specific areas. Climatic changes are likely to result in greater extremes of drought conditions, which may well affect the low-rainfall areas more severely than those that currently have moderate rainfall. There is therefore a need to pay much

grater attention to water management and to its interaction with soil and external inputs as well as to control and regulate better the use of agrochemicals, particularly those used for vegetables and fruits close to urban markets. Lower external inputs and organic systems, yielding crops that are safer for humans and soil that is healthier in the long-term should be also promoted.

While a great attention will continue to be paid to high potential areas that represent the most valuable lands for the production of cereals, fruits, legumes and cash crop and therefore for contributing to national food security in grains and basic food, it is also important to support areas of low resource potential (FAO and WB, 2001). The latter do not only support crops, which are key elements in rainfed systems, such as barley, but also could support large numbers of livestock (sheep and goats). The net productivity of livestock across all the systems that are utilized can be quite high if farmers and herders collaborate systematically and are granted the access to both livestock and barley growing land. Otherwise, if not cooperating, their options may be quite limited and poverty and migration are the consequences. The forces of modernization, such as the financing of large numbers of livestock from urban bases and the provision of transport for animals and water, mean that many areas are placed under constant environmental pressure because of grazing and have little opportunity to recover. Forms of communal resource management, of land, forest, shrubs, animals and water, where women can play a major role, may make these areas more stable and their use more sustainable. Such areas would need to be protected through combined regulation and support under appropriate enabling policies. Appropriate protection and conservation of the low potential lands of the region (sometimes even arid) is a vital task for governments, local authorities and external agencies, as these areas contain some rare plants and fauna and provide seasonal grazing resources for many millions of livestock.

THE ROLE OF FARMERS IN FOOD SECURITY

It is important to understand that food security and food safety are very complex issues and in particular when they are viewed simultaneously at different levels: regional (e.g. entire Mediterranean), sub-regional (e.g. Maghreb), national or local.

Food security requires reaching a certain balance between regional, national and local levels in terms of food production and self sufficiency.

Often the national level is the one on which governments focus although with the current expansion of the global economy, more strategic is the regional (according to geopolitical clustering) and more vulnerable is the local. There, the role of individual farmers and small or medium size farmers' communities is crucial.

At local level and in small or medium scale there are definitely more possibilities to ensure also higher food safety. More controlled use of agrochemicals, use of organic fertilizers or of varieties which are less vulnerable etc. could lead to safer agricultural products which, at the end, may be marketed better not only in the local markets, but also in the international ones.

Both high and low potential areas and low and high altitude zones contain large and small farms. Farm lands, even smallholdings, are often fragmented in rainfed farming systems. In several countries, the lands around nuclear village settlements are managed in blocks, which facilitates mechanized management of land preparation and harvesting. It also eases the management of sheep grazing in the post-harvest period. The older systems of co-operation between smallholders need to be studied in order to evaluate their advantages and deficiencies particularly with respect to input management, quality control and marketing of the products. The owners of large farms are also extremely crucial in obtaining food security. They are usually relatively wealthy and may often be based in town. Often the daily operation of such holding is left to foremen who may lack incentives for good management of the land, including water resources. There is often much scope for improved soil and water management on these holdings, which could result also in improved productivity.

Improving the productivity of the small and medium-sized farm sector is seen as being strategic in terms of ensuring food security for local populations. Generating extra demand for local goods and services could be a key factor in transferring resources to the poorest social groups and women and will therefore have a broader effect on poverty reduction than equivalent productivity increases on

large mechanized holdings, which typically generate more food but less additional demand for local goods and services.

The challenge is for countries to identify specific agricultural and rural development needs and opportunities and to focus investment in areas where the greatest impact on food insecurity and poverty could be achieved. Two major groups continue to be excluded from most development initiatives: poorer farmers in dryland areas and pastoralists. There are many threats to the stability and sustainability of systems based on natural resources and additional pressure has resulted from weak or inappropriate food policies, which have supported low urban prices at the expense of poorer farmers and livestock herders. Nonetheless, lessons have been learned and there has been a gradual acceptance of the need to re-orientate development towards the elimination of poverty, based upon sustainable resource use (FAO and WB, 2001).

One untapped source of agricultural growth could lie in reducing the bias against women in agriculture. FAO estimates that women account for more than half the labour required to produce the food consumed in the developing world while the crucial role of women in assuring food security through the supply of the three necessary basic ingredients (food availability, economic access to available food and nutritional security) has been widely acknowledged (IFPRI, 1995).

Nevertheless, rural women are still among the poorest; they rarely take advantage of development possibilities, have difficulties in reaching the basic services and income resources and are faced with adverse cultural and traditional rules hindering the improvement of their status.

The need to design and implement effective programs to enhance women's potential seems therefore very urgent, also in view of the establishment of the Euro-Mediterranean Free-trade Area (EMFTA) by 2010 which, as shown by different studies, is expected to have adverse impacts, at least for a transition period, mostly on small-farmers and rural women.

THE EURO-MEDITERRANEAN FREE TRADE AREA AND ITS IMPACTS ON RURAL DEVELOPMENT

The Sustainability Impact Assessment of the Euro-Mediterranean Free Trade Area (SIA-EMFTA) is a project undertaken by the European Commission to assess the economic, social and environmental impacts of this evolving Free Trade Area.

The study (IARC, 2006) identified that opportunities arising through agricultural trade liberalization measures foreseen in the framework of EMFTA will mostly benefit commercial farmers, whereas many of the threats will be experienced in the small scale traditional farming sector where the involvement of rural women is more prominent. This will be mainly caused by the prices' fall for particular products (e.g. cereals, other field crops, livestock and dairy produce), due to the competition from EU exports, making it difficult for small farmers to compete with these productions. In parallel, the increased export opportunities for specific products are expected to favor commercial farms rather than small scale farmers so that employment will rise mainly in areas where agriculture is primarily commercial and there will be increased incentives for commercial farms to expand their land use, reducing that available for traditional farming.

The study reveals that in the absence of measures to mitigate these effects, a considerable fall in rural employment is to be expected, with higher poverty levels and increased migration to the cities in search of alternative livelihoods. This in turn would have adverse effects in urban areas, as well as direct effects in rural ones.

These changes in agricultural production are expected to have significant gender impacts considering that a large proportion of rural women works in traditional food production and is often unwaged. The commercial farms which are most likely to benefit from the export opportunities tend to employ a smaller proportion of women, as paid labor. Some export products such as fruit and flowers may employ a larger female workforce but in conditions that may be less healthy and provide a poorer standard of living than traditional agriculture. It should be stressed that the potential effects of the EMFTA are not new but, rather, are an exacerbation or acceleration of long term trends that have been occurring in the region for several decades.

Improved export opportunities to EU markets for the Mediterranean Partner Countries (MPCs), varying in degree between countries, for products of different water demand needs including olive oil, sugar, sugar products, fruits and vegetables such as tomatoes, strawberries, grapes, dates, green beans and sweet melon are expected to raise through the establishment of a Free Trade Area in the region.

However, the SIA has identified a number of agricultural products and countries for which problems are likely to arise, mainly due to water resources scarcity, namely: olive oil in Tunisia and Lebanon; sugar in Morocco, Egypt and Turkey; and fruits and vegetable in Egypt, Morocco, Jordan, Lebanon, the Palestinian Territories and Syria.

The SIA also assesses that without effective parallel measures, the EMFTA may have significant adverse impacts on water resources in areas of high existing stress, in both southern Europe and MPCs. This is linked to environmental services liberalization and also to potential targeting of EU assistance. A rise in water prices in response to scarcity is likely to have a direct adverse effect on rural livelihoods and exert pressures on women managing households. Urban poverty is directly linked to rural poverty, through rural-urban migration.

Among MPCs stresses on resources are expected to be particularly high in Egypt, Israel and the Palestinian Territories (where the exploitation index¹ of renewable natural resources is 75% or higher), as well as in Syria, Tunisia and some catchments of Morocco (index above 50%).

The index of unsustainable water production² exceeds 10% in Israel and 20% in the Palestinian Territories. Over-exploitation of renewable water is increased by fossil-water withdrawals, which brings the index values to 22% in Tunisia and 35% in Algeria (Plan Bleu, 2005).

Potential problems are expected to arise in those areas where production increases due to an increased water usage for some products exported to the EU and where water resources are already under stress. In many of these areas, the problem already exists and the effects of the EMFTA reinforce the need for better water resource management.

Many countries of the region operate agricultural support systems which provide irrigation at below its real cost and so increased export production would increase the existing adverse economic effects of inefficient resource allocation, as well as creating an adverse environmental impact in areas of water scarcity. The introduction of real cost water pricing would counter these adverse social effects for low-income farming communities affected. The management of the issue therefore requires appropriately designed transitional arrangements to avoid adverse effects during the period of adjustment that would include a further deterioration in food security in urban as well as rural areas. Appropriate awareness raising and training addressing also or in particular women will be requested.

In the Maghreb countries, the food self-sufficiency rate declined from 116% to 23% between 1970 to 2000 (compared with a rise from 90% to 132% in France). Cereals account for about 20% of agro-food imports in MPCs and imports are expected to rise further through the liberalization measures of the EMFTA. All of the MPCs except Morocco are net importers of agricultural products (IARC, 2006).

This is not necessarily bad from the environmental-water management point of view. For instance, the use of fossil-water in order to produce wheat in Libya to guarantee self sufficiency (or even exports) is a totally unsustainable practice.

Although still relatively low, food insecurity in the region is persistent and actually rising both in absolute numbers and prevalence (FAO, 2006). Between 1990-92 and 2001-03 the prevalence of hunger increased from 8 to 9%, which, combined with high population growth rates, led to an increase

¹ Exploitation index (percent): Withdrawals of conventional freshwater resources (surface and groundwater) in relation to total renewable resources.

² The Mediterranean's unsustainable water production index is the result of groundwater overexploitation by multiple, unsupportive and short-term users, and increased use of fossil resources. It is calculated at the catchment basin level or Mediterranean catchment basin level and shows what % of water supply is probably already being taken from unsustainable sources: overexploitation of renewable resources (Km^3/year) / Demand in water (Km^3/year).

in the number of undernourished people from 25 million to 38 million (data for the entire North Africa and Middle East region, including Yemen, United Arab Emirates and Kuwait). In most countries, except Jordan and Morocco, the prevalence of undernourishment lies below 5%. In Jordan, between 1990-92 and 2001-03 the number of hungry people increased from 100 000 to 400 000 and the prevalence of undernourishment from 4% to 7% of the population. Limited resources, especially water, make Jordan highly dependant on food imports. Agriculture accounts for only 3% of GDP and employs only 10% of the labor force. Despite a large external debt, the government has succeeded in mobilizing public expenditures towards social activities such as health and education. However, unemployment is still high and poverty remains despite progress is reducing it. While fewer than 2% of the population is below the US\$1-a-day, WB international poverty line, 7% live on less than US\$2 a day. With the labor force growing at 4% per year, the lack of job opportunities is currently considered the major threat to food security. In the longer run, serious water scarcity could constrain the country's growth and development prospects.

It seems therefore very important to undertake parallel action so that the EMFTA would not add to these trends.

THE STATUS OF RURAL WOMEN IN THE MEDITERRANEAN: CONSTRAINTS AND OPPORTUNITIES

It is clear that the role of women in managing water in an efficient and sustainable way in order to have a positive impact in food security and food safety in the entire Mediterranean region should be put into a more general framework.

The basic components of such framework are governed by the overall status of women in the current Mediterranean society and in particular in the rural one where food is produced and initially processed and where the higher concentrations of less privileged women live and work.

The political will to enhance the role and participation of rural women into social and economic development in the Mediterranean has been lately reiterated at the Euro-Mediterranean Ministerial Conference on "Strengthening the Role of Women in Society", held in Istanbul on 14-15 November 2006. In particular, Euro-Mediterranean partners agreed to undertake measures that improve women's social and economic rights, as well as rights in the cultural sphere among which figure the following:

- Create equal employment opportunities.
- Pursue the establishment of gender responsive budget initiatives and ensure more effective anti-poverty strategies at national and local levels.
- Promote women's representation and participation in economic decision-making positions, in particular in employer's association, workers' unions and other socio-economic structures.
- Promote women's entrepreneurship by improving, inter-alia, women's access to land, finance, markets, information, training and networking and encourage financial institutions to tailor products to women's needs, in particular by providing micro-credits.
- Ensure empowerment of women through grater access to education at all levels and to vocational and technical training.
- Promote equality and fight against discrimination between girls and boys in education and culture so as to convey a positive and non stereotyped image of girls and women, also with the help of media and where appropriate identify new pedagogical materials.

Recognizing the existing gaps in relevant and updated information, Euro-Mediterranean partners also decided to promote and strengthen national capacities in order to regularly collect and analyze gender disaggregated data, including on the informal sector and on the impact of macro-economic reforms on women and men as well as to develop research focused on gender to enable the elaboration of efficient strategies aiming at strengthening the role of women in the economy.

These measures would help challenging some of the most important actual constrains faced by women farmers, including weak land rights, limited access to common property resources, lack of

equipment and appropriate technology, limited contact with agricultural extension³, lack of access to credit, lower levels of education. These constraints are interlinked and often co-dependent.

While Euro-Mediterranean partners committed to work towards the abovementioned objectives over the next five years reviewing and monitoring closely their implementation, initiatives have been undertaken since several years in most of the countries to enhance the role of rural women in the participation to economic development.

A FAO report (FAO, 1995) shows that some of the South-East Mediterranean countries had already carried out studies on the role of women in agriculture and rural development in order to highlight their roles and impacts on the social and economic life, identify their needs, constraints and possibilities in channeling assistance as well as key areas for future actions. Some of them have also inaugurated a number of innovative programmes, projects and initiatives in support of women in agriculture including animal production husbandry (rabbit production package, small poultry production and improved manufacturing of salt cheese in Egypt, sheep and rabbit husbandry, milk products, domestic bird processing and bee husbandry in Jordan), plant production (medicinal plants, palm forest and home gardening projects) in Jordan and olive processing in Egypt.

All these activities are linked also to water uses but there is no clear reference or provision for special attention to water management.

The FAO report also mentions training projects targeting rural women in specific sectors and countries.

Egypt

In Egypt women were trained in the efficient use of agricultural residues (biogas technology and its efficient application) as well as in the adoption of new concepts in nutrition and food habits in parallel with the introduction of up-to-date technology for food production. The aforementioned project created work opportunities and small-scale investment enterprises for food production. The training of women extension officers and women leaders was also supported.

In spite of all this, more recent data show that the female participation rate in Egypt's economy is still lagging behind that of men (UNDP and INP, 2005). This is due to cultural constraints, upon which men, either fathers, brothers or husbands, are opposed to women working outside the household as well as to the poor employment opportunities available in villages and rural areas. As a result, 67% of rural women are obliged to work in the fields. Often this work is unpaid while poor women's productivity is limited by lack of information, no assets for collateral for credit and low education levels. Encouraging news are provided by the MDG report for Egypt (2005), which states that, although gender disparities in education have been persistent in the country, conditions are improving rapidly due to considerable efforts exerted by the government over the last 15 years.

Literacy rates in rural areas amounted to 57.3% in 2004, while in urban areas they were 84.6%. The incidence of illiteracy among female-headed households is 85% in rural areas and 57% in urban areas (UNDP and INP, 2005). Education has become a priority in Egyptian villages. In each of them there is at least a school for each cycle while in the biggest next city there is also a University. Access to education is not anymore a privilege of rich families.

UNICEF statistics show that approximately 70% of people living in villages can write and read, 67% are enrolled in primary schools, 55% in secondary schools while 30% have a University diploma. Most families, even the poorest, are ready to sacrifice a portion of their budgets in order to secure education to their daughters.

The phenomenon of large scale male labor migrants to cities and to other Arab countries has greatly increased women's duties and responsibilities. Their role is not only production - and therefore

³ Agricultural extension services include the provision of capacity building, education and information to farmers on agricultural production technologies designed to increase production, protect natural resources and the environment, or achieve some other specific objectives.

in managing irrigation water - but also in the marketing of agricultural products has also been enhanced by the absence of many men in the age to work.

Although women's work is crucial in sustaining food security, their role is still often devalued and the complex and changing roles of women in agriculture remain hidden from the public. Media also downplay the activities of women in rural areas.

Development programs concentrate mainly on production issues where water use is evident. However they are paying much less attention to what happens to crops or animals after they leave the farm. Processing, packaging, transportation, storage, wholesale and retail marketing and distribution are critical. Studies have shown that women, especially in the delta, are crucial in the rapid marketing of highly perishable foods helping in this way to save products that would otherwise be lost.

The establishment of the Principal Bank for Development and Agricultural Credit has encouraged women to make use of available credit by setting-up special funds for women farmers. In 1993 (FAO, 1995) the percentage of women who obtained credit was quite small. Compared to men, women constituted 12% of all short-term production loans and 16% of investment loans. Women in rural Egypt have also the possibility to obtain credit from agricultural cooperative societies.

Jordan

In Jordan, although the majority of women participate in household activities -especially agriculture and livestock raising- decision making is in most cases the privilege of male heads of households within the patriarchal structure of family. There are no particular references for women's role in water management (Land and Human to Advocate Progress - LHAP).

Food drying, storage and processing of agriculture products are activities performed by women for household consumption. They also market some products either directly from the farm or in the village. Among the activities performed by women figure: drying of cereals, vegetables and fruit; vine leaves, processing of vegetables (pickles), cereals (cracked wheat) and fruit (grape juice, jam), storage in plastic or glass containers. Women can also sell milk, cheese, butter, eggs and vegetables.

Many women are especially interested -sometimes involved- in the production of traditional handicraft such as sewing, knitting, embroidery carpet making because they do not have other alternatives. Most of women do not have income and if they get a small income this contributes to the family well-being and that is why only a household approach is appropriate regarding any kind of gender project. A constraint that operates in households is the resistance for wives to participate in independent economic spheres with the mobility that this implies. Popular attitudes and mentalities generally disapprove the work outside the house for women. In conservative areas, it is regarded as shameful for the man if his wife is working to earn added income. It is generally difficult for rural women to have an activity that would take them frequently outside the home although nowadays a rapid social change is undergoing. Education is seen as the key to improve income and increase the social status. In spite of the progress made in the field of education, the rate of illiterate rural women is about 25%. But, despite some gaps between males and females, the clear trend is a steady increase in female schooling at all educational levels including at university level. Farmers in both countries are highly individualistic with little history of participating in group-based activities. This individualism is still more important at the female level according to the cultural context, the withdrawal into the family, the lack of external contacts and technical support. It is obvious that these conditions influence also their role in managing water.

Generally, there is no or poor collective cooperation between the villagers neither in producing nor in marketing products. Despite the obvious contribution that women provide on the farm and in processing products, they do not have the same contacts as the males have with agricultural extensionists since most of them are males. The Extension and Information Directorate is represented at governorate and district levels and there are no extension units in the villages. GTZ is charged with formulating a new strategy and planning framework for extension.

Lack of access to land remains one of the main obstacles to the full participation of women in rural development. The land and even joint property is registered in the husband's name and even if the husband dies the property will generally go to the husband's male children or to his brother.

Women face great difficulties trying to fulfill the requirements governing access to credit because of the lack of guarantee (generally the possession of lands). In addition, one has to take into consideration the level of difficulty to undergo the loan application process. Women are not experienced in dealing with formal institutions such as banks and are reluctant to approach them. Most credits are contracted by male households. In Jordan, major sources include government organizations (as Agricultural Credit Cooperation) and different NGOs, but in general guarantees are needed (land possession or state workers in the family).

The Agricultural Credit Cooperation (ACC), a fully owned government organization, does not have a gender approach to loan disbursement. In 1993, 6% of total loans were disbursed to women while at the Agricultural Credit Organization only 4.6% of its clients were women and women constituted only 3.4% of the agricultural and agro-industrial loans disbursed by the Development and Employment Fund in 1993. ACC has recently started a Rural Families Credit Program targeting rural women heads of households with an annual income of 1200 JD. If the woman does not have land or fixed assets to take the loan, it will be given with the signature of two guarantees financially responsible for her. ACC is also collaborating, with IFAD in the income Diversification Project (IDP) which operates in the higher rainfall areas through the Ministry of Agriculture and the Jordanian Cooperatives Organization. The Income Diversification Project targets low income families and provides short and medium term credits to upgrade the production of small flocks of sheep and goats, to plant trees, to produce vegetables, food processing, etc. Among the activities supported is also water harvesting. Some of these activities (like livestock raising, milk processing and marketing) foresee that priority will be given to women. The Project is just beginning.

Queen Alia Fund for Social development (QAF) has played a leading role in revitalizing urban and rural community for many years (the Foundation was created in 1977). It has a network of over 40 Community Development Centers which provide local points for a range of services, training programmes and projects and involve the local organizations in running the projects. Many of the community centers are run by local women known as rural leaders. To encourage women to participate and take up leadership roles in their communities, QAF introduced the pioneering concept of women's committees at village and governorate levels. Educational workshops and seminars cover a wide range of topics and issues, as literacy classes, health, environment, agricultural and animal production, domestic economics etc. QAF has recently set up Business Advisory Units to help women to start up business, offering training and assistance, from the generation of ideas to market research. Women who attended a business ideas generation course are currently setting up a variety of business like jam production, dairy processing, sewing, opening grocery stores, goat and sheep raising to sell milk and cheese, etc. In 1992, QAF introduced a Revolving Loan Fund Project which offers loans on easy terms for men or women wishing to set up or expand their business.

The General Union of Voluntary Societies in Jordan (GUVS) is very active in vocational training. Training for females entails primarily knitting, sewing and weaving courses. The promotion of income generating activities is recent and concerns only 3% of the projects. It is addressed to the less-fortunate and low income families and individuals through its Productive Family Program. This is carried out in cooperation with the Development and Employment Fund. Sewing and knitting machines are given on a basis of easy-term loans, with the aim of increasing their income. GUVS has implemented a Credit Fund Program which has proven to be successful. This project started in 1992 through the Near East Foundation as a pilot project. The program aimed at establishing credit funds to provide loans for poor families and individuals to help financing their productive projects. The loans are repaid from the project returns. Each fund amounts to 7,000 JD and the settled revolving loans guarantee the continuity of the project. About 100 projects exist at the present time.

The Business and Professional Women's Club, funded in 1976 in Amman, provides assistance to women by informing them of their legal rights and responsibilities and by promoting the establishment of women entrepreneurs.

The present perception is that the handicraft market is saturated except for goods of high quality. Women tend to ask assistance in the traditional areas because this is the activity they know and they are not offered other alternatives.

"Save the Children" supports projects for rural women and "Care International" also implements projects for community development, some of them specifically targeted at women. Since 1993 "Care

Community Projects” are assisting local grass roots organizations to strengthen their capacities and provide income to the local communities through a number of productive projects (main elements concern loans for small ruminants, food processing etc.). The “Savings-Credit Project” is a new and original approach in Jordan that allows small groups of women to turn their small savings into loans for themselves. Training and support are provided. Care is also committed to sharing experiences with other agencies concerned with local community development. It participates to the implementation of the Watershed Management Project (Wadi Ibn Hammad) with GTZ financing.

The “Near East Foundation” is one of the oldest NGOs in Jordan. Its main goal is community development and it runs small-scale rural credit programmes in various southern governorates.

UNIFEM, the branch of the United Nations for the promotion of women's development, has a small business programme established on a regional basis in the Near East. The UNIFEM Project, Strengthening Institutions for Enterprise Development of Women, is being developed with the assistance of local NGOs, especially the Business and Professional Women Club. The Development Fund has the role of an umbrella organization for the finance and credit area. The project's objective is small scale enterprise development with the support of training, transfer of technology and credit. Meetings are organized directly with women to identify activities and to form groups for training. UNIFEM is developing models for income generating activities with adequate loan windows and financial support; training in using improved technology is incorporated in the model as an additional value. Expected economic and social benefits are among others such as the creation of revolving funds and additional income for women as well as the development of leadership and management capabilities. UNIFEM has streamlined its work into the programme: "Economic Empowerment for Women in Jordan".

Lebanon

In Lebanon specialized extension services were also offered to women farmers and other important projects were started among which: an agricultural cooperative was established to assist women farmers to purchase inputs at subsidized costs, obtain credit and extension services and assistance in marketing; annual agricultural exhibitions were established where women marketed their products; a training centre for women in areas dedicated to bee-keeping and poultry production was set-up; literacy programmes and trainings for women to acquire a diploma in agricultural social work were started. Many of the projects were discontinued due to war. This was also the main reason why access to credit by men and women farmers has been extremely limited in Lebanon. Since the majority of cooperative members are men, women rarely benefited from cooperative loans. Some NGOs have established short and medium-term loan programmes for rural women (FAO, 1995).

Morocco

The FAO report (FAO, 1995) shows that in Morocco, the Ministry of Youth and Sports Programmes had a network of 360 women's units (experiencing though a lack of resources), half of which located in rural areas, serving as focal points for women's education, family planning, income-generating activities and the creation of women's cooperatives. The Ministry of Employment and Social Affairs Programme had 300 socio-educational centers providing education to mothers, the 2/3 of which located in rural areas. It also had 458 Education and Work centers, half of which located in rural areas and dealing with the training of young women in sewing and embroidery, providing training in functional literacy and income generating activities. At the time the FAO report was drafted no gender-disaggregated data were available from the Caisse Nationale de Credit Agricole (CNCA), the main lending institution for rural activities in Morocco. However, a pilot study showed that special arrangements for women can increase their application rate: in this pilot zone women clients increased from 400 to 2 000.

Tunisia

In Tunisia, at the beginning of 90s there were no projects specifically targeting rural women, with the exception of one project to train young women in handicrafts. Projects indirectly benefiting women

included the Productive Family Programme, aimed at agricultural intensification and the improvement of infrastructure by introducing appropriate technologies and the training of professional women in agriculture, the Support of Single Parent Families Project, implemented by the Ministry of Social Affairs in 1992 to provide aid in agricultural production for 223 small women landowners and heads of households in Kairouan and the Office of Pastoral Development in the North West, in which framework a women's training and extension unit was formed to target women farmers in mountainous and forest zones of the region (FAO, 1995).

A proper National Strategy for the promotion of rural women and their real integration in development processes has officially started in 1999 and it is based on 6 main axes:

- 1) The promotion of women human resources in rural areas through schooling, fight against analphabetism, health and reproduction health, professional formation and cultural animation. There is an on-going project realized in collaboration with the Spanish Technical Cooperation.
- 2) The amelioration of rural women life conditions through the improvement of basic infrastructure and services.
- 3) The consolidation of rural women's economic role in the family through a diversification of the activities in the field, creating mechanisms for the marketing of products, facilitating their access to arable land and micro-credits.
- 4) The enhancement of rural women's role in the agricultural sector through, among others, an equitable participation in decision-making and professional structures, improved access of services, resources and production means in agriculture.
- 5) The amelioration of the integration level of rural women in security systems and of the provision of social services.
- 6) The improvement of rural women's participation in the dynamic of social development.

In all these axes, water management must find its way although nowhere this is explicitly mentioned.

Two further measures at the level of axe 1 were added at a later stage (8th of August 2001).

The first relates to the improvement of education opportunities for rural girls, the setting-up of specialized centers and the promotion of agricultural education, adapting it to the needs and specificities of women working in the sector. The second measure concerns the creation of a National Commission for the promotion of rural women affairs by the Ministry for Women, Family, Childhood and the Elderly, having the aim of coordinating and following-up the development of the strategy both at sectoral level and at the regional one.

At the level of incentives, a Presidential prize has been dedicated to the promotion of rural women and is awarded during the Rural Women's Day (15th of October) while micro-credits amounts have been increased from 1000 dinars to 1500 Dinars. The maximum amount of micro-credits has reached 2000 dinars.

The follow-up report prepared for the year 2005 shows that the National Strategy has reached 525 589 rural women and girls in the specific year. 436 686 (83%) have benefited of the first axe of the strategy, 7 903 (1%) of the second one, 9 522 (1.8%) of the third, 48 540 (9.5%) of the fourth, 22 182 (4.5%) of the fifth and 756 (0.2%) of the sixth.

The report also highlights some of the most common difficulties rural women and girls still face. These include the insufficiency of public centers, which discourage girls and women to pursue an education or training. Rural women are often reticent to follow education sessions in the centers managed by the National Union of Tunisian Women (UNFT), particularly in the provinces of Sfax, Zaghouan, Monastir and Tozeur, due to inadequate infrastructure and equipment. Another problem is the persistence of cultural/traditional barriers, so that many parents still refuse that their daughters receive an education (particularly in the region of Beja). The education levels are in general below the objectives set by the country. Girls often abandon school after the first level of education. This is particularly evident in the Sfax province. Although authorities have taken measures to limit illiteracy, still a lot remains to be done.

The report also shows that efforts made to ameliorate health and reproduction health are still ineffective due to the absence of adequate communication means, of still widespread prejudices and

of the difficulties to reach health centers due to their distance. The report also mentions that transportation problems are hindering the access to basic products as well, resulting in alimentary unbalance in certain areas.

On the other hand, the number of beneficiaries of credits is getting lower because of debt problems. This happens particularly in the province of Bizerte. In addition to this, there are several difficulties in products' marketing and investment chances are reduced.

Turkey

The Area Based Services for Children and Mothers in the priority Provinces Project was launched by UNICEF and the Turkish Government for the period 1991-1995 aiming to enhance social development and included the development of social infrastructure through education oriented activities (reducing illiteracy of girls and women) and mobilizing, creating and strengthening women's groups and houses. Women's houses, created through the use of local material and physical input provided by the villagers are used to improve communication among women and provide basic health, nutrition and awareness raising activities (FAO, 1995).

In the Southeastern Anatolia Project (GAP) where rural women appears much behind the modern community life standards, Multipurpose Community Centers (ÇATOMs) have been established aiming to improve gender equality and women's knowledge and capabilities in non-traditional areas (Gilcubuk, 2003). Apart from this, there are also activities directed to men and children at ÇATOMs. At the end of August 2003, there were 28 ÇATOMs in 9 provinces of the region. These community based centers, established either in urban poor neighborhoods inhabited by rural migrants or in some centrally located villages, aim at building awareness among young girls and women over the age of 14 about their problems, creating opportunities for the solution of these problems, ensuring their participation to the public sphere, promoting gender balanced development by empowering women and developing replicable models relevant to local context.

ÇATOM programs and activities focus on five basic areas including education and training, health, income generation, social support and cultural-social activities. Specific programs are determined with the participation of local female groups and with due consideration of local circumstances and needs. In the implementation, an integrated approach is adopted where women attending ÇATOMs are encouraged to take part in all running programs.

Presently running programs are listed below. Many of them touch upon water management (e.g., the Health Programs):

- *Education and Training Programs:* Regular training programs cover literacy, pre-school education, home economics, nutrition, maternity training, computer skills, etc.
- *Health Programs:* Training in general health, family health, maternal and child health and hygiene as well as partial polyclinic and mobile health services.
- *Income Generating Programs:*
 - (i) training programs designed to build and/or improve skills for specific occupations and income generating trades (e.g., kilim weaving, machine knitting, cutting-sewing, embroidery, garments, silverwork, stone working, felt processing, hair dressing, computer skills, production of souvenir items from local materials, etc.);
 - (ii) training for entrepreneurial skills for helping people start their business and extension of micro-credit;
 - (iii) marketing-sale related activities (exhibition, fairs, etc). A catalogue of ÇATOM products was developed to introduce and market these products in electronic environment, which is now available in the web page of GAP.
- *Social Support Programs:* ÇATOMs act as supportive intermediaries in towns, villages and neighborhoods where they are active to help people have access to services offered by both governmental and civil society organizations. Examples include the issuance of green cards for poor citizens, social support programs and grant of scholarships to successful and needy students.
- *Cultural-Social Activities:* Social-cultural activities organized by ÇATOMs include stage plays, seminars on various issues relating particularly to women, exhibitions, interactive meetings, celebration of such events as World Women Day and Mother's Day, excursions and official marriage contracts for couples who were married through conventional ways.

All activities in ÇATOMs are planned and put into practice with the participation of target groups and cooperation of related public institutions, local administrations and NGOs. Applied programs are designed on the basis of target groups' needs and specific areas' conditions.

Between November 1995 and May 2003, 75 000 people have been reached by 28 ÇATOMs:

- (i) *Educational programs*: Totally 6399 persons participated in ÇATOM programs (5249 women, 359 children and 791 men). 824 participants have benefited from literacy programs, 350 women, 376 participants have kept going to second stage literacy course. 477 children have taken advantage of pre-school programs. 1565 women, 2100 people have benefited from libraries within ÇATOMs. 552 participants have taken advantage of computer courses and 195 participants of English courses.
- (ii) *Health Programs*: 2089 persons have benefited from partial polyclinic services, 3606 persons from mobilized health services, totally 5695 persons have benefited from health services. Also 1120 participants have joined to health education programs.
- (iii) *Programs for Income Generating and Supporting Woman Entrepreneurship*: 1450 participants have benefited from income generating programs. 182 women who have participated in ÇATOM programs have found job in the area of textile, cleaning, child care, designer, secretary, shop assistant, hairdresser, master educator, etc. In Batman, ÇATOM's participants have opened 3 sewing workshop with 2-3 partners and in Mardin one coffee shop. Participants that established their own business have been trained for entrepreneurship and supported by micro credits.

Social Support Programs: ÇATOMs have helped for aid in kind and in cash for 6534 persons, green card (for health service) for 528 persons, scholarship for 226 students (199 primary school, 19 high school and 8 university).

GENERAL REMARKS FROM THE COUNTRIES OF THE REGION

Rural tourism and agrotourism, the provision of recreational activities and new market outlets for handicraft employment are avenues which have been pursued in some of the countries in the region and which may offer some potential for further economic expansion also through the active involvement of women. Some of these activities may indeed help to relieve the pressures on rural women as well as more generally. These and other economic activities may best be enhanced through local communities or common interest groups, which can identify and promote particular opportunities for innovation and help to develop the necessary capacities and resources of the various social groups involved. As discussed in the Agri.Med report (CIHEAM, 2005), much of the institutional infrastructure needed to accelerate the diversification of rural economies is weak and has not been actively promoted in many of the MPCs. In general, those measures, which have been undertaken to establish infrastructures and public facilities, have not been accompanied by efforts to promote and support particular economic activities that can generate acceptable incomes (complementary to those from agriculture, e.g. rural or agrotourism etc) for local populations. Initiatives are particularly lacking for women and young people, which can have a strong influence on rural population growth and particularly on the trends for migration to the cities.

Many government initiatives have tended to have insufficient funding to have any major effect while in some cases they have been focused more on the needs of urban rather than rural populations. In general, the non-farming rural economy has retained its traditional structure, based on activities that are directly connected with farming or traditional craft sectors, which have been in decline. Without a concerted effort to diversify rural economies in ways that capitalize on the capabilities of local communities and local competitive strengths, all the existing problems of rural unemployment, rural-urban migration, rural and urban poverty and social unrest may continue unabated.

Opportunities could also rise for MPCs' products after the establishment of the EMFTA provided environmental and product standards can converge with those of EU countries (IARC, 2006). Product labeling, geographical and origin indications, quality certification and organic farming, all represent opportunities for an increased value and volume of products' export to the EU and elsewhere. As far as market opportunities for organic products and for hydroponic products (such as cucumbers or strawberries grown without soil and with low water consumption), most MPCs are reported to be at various stages of introducing organic agriculture, mainly for export markets. There are strong

indications that all MPCs would benefit if they introduce national strategies for organic products, although the potential market size at present does not appear to be large enough for either domestic or export demand.

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