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WOMEN'S ROLE IN FOOD SECURITY IN TUNISIA

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INTRODUCTION

Tunisia is situated in the north-east tip of Africa. Together with Sicily it delimits the eastern and western basins of the Mediterranean.

It is bordered in the west by Algeria (1,050 km of coast lines), in the south-east by Libya (480 km), in the north and in the east by the Mediterranean (1,300 km of coast lines). Its territory is greatly diversified from the north to the south.

The north is crossed with mountain and woody massifs (Kroumirie, Nefza, Mogods, Tebessa mountains and the Tunisian Dorsal that extends up to Cape Bon, separated by large plains with sufficient rainfall (700 mm/year) and fertile soils (suitable for cereals, tree crops, vegetable crops and animal husbandry). Rivers and oueds (Medjerda, Mellégue, Meliane...) flow through this part of the country.

The Centre: a steppe region extending to the east in the Tunisian Sahel, an area with olive groves and tree crops. This part of the country receives less than 350 mm rainfall per year. Jebel Chaâmbi with a peak of 1544 m is situated near Fasserine, in the centre-west of the country.

The South: an arid and desert zone. It is bordered in the east and in the west by mountains that peak at 1165 m in the region of Gafsa and then descend to the Sebkhas: chotts el-Djerid, el-Fedjadj, el-Gharsa. The south-west is the region of oases and extensive desert (Great Eastern Erg).

To meet economic requirements though preserving the ecosystem, since 1960 the Tunisian government has pursued a policy of reforestation and struggle against erosion and desertification.

The surface area of Tunisia is 162,155 km². Arable lands are estimated to be 4 071.4 million hectares, with 360,000 hectares of irrigated land (National Institute of Statistics, 2003).

Table 1. Cultivated land (million hectares)

	1999	2000	2001	2002
Cereals	1519	1588	1271	1172
Fodder crops	336.2	361.2	402.2	411.7
Legumes	80.3	81.0	74.2	74.3
Vegetable crops	156	171	139.4	142.7
Tree crops	2103.5	2125.9	2143.9	2136.9
Other crops	21	23		

Agriculture represents 16.0% of the GDP in Tunisia (National Institute of Statistics, 2002) and contributes 9% of goods export; it provides jobs to about 22% of the active population. The key agricultural products are: olive oil, citrus, cereals and dates. Water resources of the country are estimated to be 4 236 million m³ per year. 68% of surface water is exploited.

Since 1990, the implemented strategy has included a water resources development plan over a period of 10 years and the construction of 21 dams, 203 hilly lakes and 1000 artificial lakes, 1760 wells and 98 treatment stations. A restructuring plan of the State-owned land was equally implemented.

The agricultural sector has performed quite well and has allowed the country to achieve self-

sufficiency in most of its products. Recently, Tunisia has become self-sufficient in milk (1999) whereas the national production hardly covered 50% of requirements at the beginning of the '90s.

For the other products, self-sufficiency has consolidated despite the rapid increase in demand resulting from population growth and the increased per capita demand subsequent to better income.

As for the contribution of agriculture and fishery to the national growth effort, it is to note that this sector contributes an average 13.5% to the Gross Domestic Product. This value might vary from year to year depending on the climatic conditions, but it has never been smaller than 11% and has exceeded 16% in favourable years.

As for marketing, and despite the six years of drought (1988, 1989, 1994 and 1995, 1997 and 2000), the food balance of trade has definitely improved. The cover rate has reached 87.7% in the period 1990-2000, whereas it was smaller than 50% in the period 1980-89. This was achieved through the efforts made to boost production and the dynamic policy of operators for the conquest of new markets and diversification of exported products.

Food security ranks first among the priorities of Tunisia for development. The structural reforms it had started, the programmes it had implemented to achieve integrated development and promote rural areas and rural populations, and women in particular, as well as the solidarity mechanisms it had created, have given positive results with strong impacts on the improvement of the quality of life in the country.

Indeed, over the last fifteen years, Tunisia has succeeded in increasing by 40% its agricultural production and achieving self-sufficiency over a wide range of products, with a view to reinforce food security. The poverty rate was curbed to 4.2 per cent in 2001 (42.1% in 1990). However, living condition indicators have constantly improved, especially in terms of fresh water supply, health, education and electrification.

From the achievements in the implementation of the action plan of the World Food Summit, it is clear that the concept of food security is now fully assimilated.

According to the Tunisian report (2004) on the application of the action plan of the World Food Summit and based on the following indicators, the food security situation in Tunisia is satisfactory:

- Food availability is always at appreciable levels, even during the years of low agricultural output, thanks to the capacity of the country to finance its imports.
- Food supply is regularly ensured, through satisfactory management of stocks, of markets and distribution circuits.
- Access to food is practically guaranteed at any moment and to everybody, thanks to inflation control, salary adjustments and the planned and implemented economic and social interventions.

Tunisia evolves by improving the level of food security measured with respect to the number of people permanently having access to enough food for an active and healthy life.

This paper reports the efforts made by the State for social promotion through, on one hand, social assistance and the programme to combat poverty, preventing conflicts and creating a peaceful environment. The paper describes, in particular, how rural women contribute to food security. An effort was made to strengthen gender equality and women empowerment. Despite such efforts, the State has difficulties in distinguishing the role of the rural women in food security through their role in agriculture.

IMPLEMENTED POLICIES AND ACTIONS TO IMPROVE EVERYBODY'S PHYSICAL AND ECONOMIC ACCESS TO FOOD

In the Struggle Against Poverty

Specific policies and targeted income-generating and job creation interventions for poor urban population. This is made through the implementation of economic and social programmes to eradicate

poverty, like periodical wage-adjustments, targeted subsidies and financial assistance to disadvantaged families.

Equally so, the development of programmes favouring job creation, including start-up training periods, investment guidance towards labour-intensive production sectors and mainstreaming young people in employment through the National Employment Fund (21-21).

In Agriculture

Specific policies and targeted interventions were elaborated to create income and jobs on-farm and off-farm, to the benefit of poor rural populations and to women and minority groups. These are strategies for developing and diversifying the production of the key agricultural products, promoting disadvantaged areas, especially rural areas, based on integrated development projects for boosting production and improving the citizen's income, and finally develop a rural development strategy sustained by direct aid given by the *Union Tunisienne de Solidarité Sociale* (Tunisian Union for Social Solidarity) and the associated concerned facilities.

Some measures have been taken to set up social protection systems aimed at protecting special needs social classes, this being one of the major axes of the economic and social policy of the country. They also aim at strengthening social policy in the field of health, social security, protection of people in need, like the handicapped, the elderly, the illiterate, children at risk of delinquency or with no support, and low-income families.

Equally, measures have been taken to elaborate participatory and sustainable policies and practices in the field of food, agriculture, fishery, forests, sustainable development, pest control, drought and desertification.

The following strategies and initiatives have been set up in the following fields:

- policies and measures to intensify and diversify food production
- improving productivity and yields in agriculture through promoting producers' training, encouraging investments and facilitating access to agricultural credit.
- Measures to boost development of animal production, fruits and vegetables that are however highly demanded.
- Measures to strengthen research and dissemination especially in the field of selected seeds and animal feed.
- Programmes to extend irrigated land.

As for past or expected effects of each of these actions on income, food availability and access to food, the following is given:

- the widespread use of selected seed varieties and promotion of organic farming to regenerate soil fertility, increase production and raise income;
- participatory approach was established within the framework of integrated rural development programmes and for many other projects and programmes of water and soil conservation in order to directly involve the target population and give it the benefits of the project;
- building farmers' capacity in maintaining irrigation structures, in rehabilitation of irrigation networks and land management;
- A gene bank was established at the *Institut National de la Recherche Scientifique et Technique* (INRST) in order to guarantee sustainable development to farmers.

In the Field of Environment Protection

Actions aimed at struggling against environmental threats that affect food security and national programmes for plant and animal health protection through the regional and sub-regional cooperation in the framework of the struggle against the grasshopper plague.

In particular, measures were taken within the framework of the ten-year strategy to struggle against deforestation and forest fire, reforestation and artificial regeneration through the forestation programme and struggle against desertification. Some special measures like the creation of green

belts, dune fixation and oasis protection. Other measures for pasture and forest management in scarce-resource areas were taken to favour their regeneration and increase their potentials.

In the Field of Food and Agricultural Trade

As for the plans relative to the food and agricultural trade and exchange in general, and in order to strengthen food security, an efficient internal communication and transport system has been established to improve connections between national and foreign markets and within different markets. In fact, the reform of the distribution circuits by the law no. 86 of 1994 relative to the circuits of the agricultural products and fishery was implemented. Specifications fixing the modes of organization and operation of wholesale agricultural markets came into force in August 1998.

Also, agricultural tracks were fixed up to improve economic activity in rural areas and facilitate links between production and consumption areas.

Moreover, road infrastructures in urban environment were developed.

Finally, Tunisia took measures in favour of trade liberalization and development of the private sector. Great importance is given to national infrastructure, storage plants, the credit system and marketing through non-tariff barrier abolition, and the support to the private sector in export promotion. Equally, Tunisia has guaranteed that national policies related to international and regional national agreements have no negative effect the food security-based economic activities, and woman-related activities in particular.

These aspects were always considered in bilateral and/or multilateral negotiations, both at the country level, or at the level of regional groups. The State has always supported special measures in favour of developing countries to preserve food security.

In Case of Natural Catastrophes and Crises

Strategies or initiatives implemented in these fields will focus on the institutional set up relative to rapid warning and communication of preliminary information on possible emergency situations.

- At the national scale, the State has implemented a package of measures aimed at preventing emergency situations, like strengthening the capacity of the systems for crop surveillance.
- At the regional and international scale, Tunisia cooperates to the efforts made to prevent catastrophes of any kind and having harmful effects on food security, including the elaboration of prevention and rapid warning systems.

As for the mechanisms introduced to combat catastrophes, the State has taken measures to build food stocks and face emergency situations and seasonal variations, and intervene in due time to meet the needs of vulnerable groups, as well as to strengthen the logistic capacity of the country to intervene efficiently upon emergency.

RURAL WOMEN'S CONTRIBUTION TO FOOD SECURITY

A Firm Political Will to Promote the Women's Role

Tunisia has signed the Convention on the Elimination of All Forms of Discrimination against Women in 1980 and ratified it in 1985. The State set up mechanisms aimed at encouraging promotion of women through the creation of the Ministry of Women's, Family and the Elderly Affairs; the creation of a Commission for Women and Development aimed at setting up a strategy to promote women in the framework of the 8th Development Plan: the Units within the technical Ministries for professional training of women.

In order to promote the rural women's role, a special action plan in favour of rural women was set up to give visibility to the rural women's role in development. The national Commission on Women

and Development played a major role in the multi-sectorial strategy and programmes and in the implementation of measures in favour of rural women. Communication is assumed to have taken place between the government and its ministries.

This was the case for the Ministry of Women's, Family and Children's and the Elderly Affairs, for the Ministry of Agriculture, of Social Affairs and Solidarity, of Education,... The creation of an Agricultural Training and Extension Agency (AVFA) in the Ministry of Agriculture. The appointment of several women to important posts in different Ministries, should contribute to improving the incorporation of women's needs for training and technical assistance in projects and programmes (Mellouli, 2006).

Different measures were taken to encourage equal participation of women in the economic, political and social life.

Women's participation in the labour market has been ever-increasing over the years. A study was started in 2004 to define the capabilities and potentialities of women, in order to further consolidate their integration in the market of new crafts.

Women promotion extends to strengthening the reforms relative to the legal, institutional, political and social fields to favour women mainstreaming into all socio-economic, cultural and political activities.

Current Status of Rural Women in Tunisia

Available studies, surveys, publications and statistics give a relatively accurate idea of the structure of rural gender. They also confirm that the Tunisian rural family works following the same logic as any rural family elsewhere: an agriculture-oriented life and conditioned (with or without farm or animal husbandry) by seasonal or cultural constraints and others, where the members of the family have to contribute to provide livelihood, especially when means are scarce in small farms (2 ha) (Mellouli, 2006).

Water Supply

Fetching drinking water and access to drinking water is a task of the rural woman in Tunisia. The report by CREDIF (Centre for Studies, Research, Documentation and Information on Women) (2000) reports that rural women/young girls averagely spend 0.5 h/d with almost 1h/day in the north-west. Men contribute to water fetching in the same area as well as in centre-south, where water is frequently transported by towed tank.

The task of water fetching takes 5 to 8% of the daily time of the woman, and she is the one in charge of it. Water is also fetched by children (boys and girls).

Drinking water supply in rural environment is made from equipped networks (SONEDE (National Company for Water Exploitation and Supply), GIC (Collective Interest Associations) in most cases, including supply from nearby douar in unequipped locations. Fountains are located at a maximum distance of 500 m from houses.

Households that cannot have access to drinking water through an association (GIC) or a network (SONEDE) transport donkey-drawn water from natural or artificial sources (2 to 6 km), or by tractors (belonging to the family or a water vendor). An average water cost is 2 to 5 DT per m³. Paid water is mostly used for drinking and physical hygiene.

Poorer families can use water of alternative sources free of charge for any use and resort to the charity of neighbours. In the south, majels and rain water collecting tanks are quite common. This water is usually used for family uses since there is nothing better.

The construction of Drinking Water Supply systems has globally improved the condition of women who are fully in charge of water supply to the household. Therefore, water payment per quantity

(bucket, bin, and barrel) is a supplementary burden on the small female economy (Mellouli, 2003). The sale of water is a secondary but profitable activity to men who have a tank-tractor, and the construction of water supply systems is not a benefit to them (Mellouli, 2006).

Education

In 2005, all 6 year-old rural children were imposed school attendance, but girls at primary school rarely stay more than 2 years, whereas boys can stay up to 6 or 7 years or longer. The reasons why school-attendance of girls is shorter are related to two factors: (1) girls and older ones in particular - have to contribute to house works more than boys; (2) the cost for school-attendance of children leads the family to make strategic choices in terms of "long-term investment" that favours schooling of boys rather than girls, which is also the case in some industrialised countries and in urban environment.

Adult literacy rate varies with age and sex. It was 62% for men in 2001. Women's literacy rate is 50% until the age of 30, 43% from 30 to 40, 13% from 40 to 60 and 2.5% older that. These figures reflect the history of schooling of children over the 50 year-life of the Tunisian state (Mellouli, 2006).

The schooling rate is no longer affected by the water fetching task since it has deeply evolved both for girls and boys and reached 82% for girls and 88.7% for boys in 1994.

Rural Woman in Agriculture

The studies made between 1996 and 2001 (Ben Boubaker, 2001) give the same picture of rural women. A woman working in small farms contributes a key share of supplementary labour and a mass of low and short-time wage-earning workers for small repeated periods. She rarely has access to work in national arenas; when their husbands migrate for long and repeated periods, depending on the areas, many of them are indeed heads of the family.

The tasks of women in the farm and in the production system are animal husbandry, tree cultivation, vegetable crops, processing of agricultural products, handicraft; she can represent periodical and supplementary labour in agriculture.

Access to Credit

Women's access to credit is still low both because of lack of guarantee or dissemination of information. The existing micro-credit programmes have still a small impact in terms of access of women to this service.

An Opposed Political Will

Donors play a very important role in the integration of the new approaches to development (participatory approach, gender approach...). Donors consider that through participatory approaches, all classes of users would be involved. Nevertheless, the elaboration of action plans that involve gender has not covered the water policy objectives. Therefore, participatory approaches did not succeed to promote the gendered roles in Water Users' Association (Groupement d'Intérêt Commun (GIC)). Water projects did not focus much on the role of gender in water management. The adopted policy has not really considered that women, socially and culturally marginalized in the rural world, need much more attention to participate and be involved (Mellouli, 2003).

Donors (JBIC, JIC, KWF...) have really bet on women's participation in the water sector; nevertheless, some weaknesses are evident in the perception of the gender approach in the implemented projects. In fact, the gender perceptions by donors and by the Ministry of Agriculture, are quite far apart. Donors consider that women's participation in water management is important, whereas at the national level, a sea of difficulties separates the expectation of adopting the gender approach and succeeding in fitting it into the programmes. In addition, the organization of rural families and related constraints are a natural obstacle.

Some of the weaknesses refer to the short and inadequate time available to communicate and dialogue with beneficiaries, a too small number of meetings, insufficient preparation, which results in poor involvement and a miserable number of participants in meetings, as well as in their inability to understand their obligations or express their expectations. This has a negative impact on the elaboration and implementation of projects.

The *triple social role of women* (production, reproduction and family care) leaves not so much time for women to participate in something else.

Custom and tradition explain why women are not allowed to take part in public meetings. Even when women would like to participate, their husbands, fathers and brothers do not allow them to. Even old women disapprove and they misjudge those who dare to take part in public meetings. Young women are more open to such an idea and consider public meetings to be a chance for exchange, discussion and searching a solution to their problems.

Education is another important factor that really is self-censorship to women. They consider themselves to be too "ignorant" as compared to men, although men do not consider their illiteracy to be an obstacle to participating in meetings (Mellouli, 2003). It is interesting to remind here that 75% of women favour women's participation but only one third imagines she could also play a role.

The results of the study by Ben Boubaker (2001) prove the women's willingness to take part in the development process. According to this study report, they are ready to be an odd wage-earner and acquire new know-how, even if it is a poorly rewarding and low-income activity. Their ambition is to diversify the sources of income (that are multiple, often spotty, modest, seasonal), mainly to contribute to meet the family food needs.

The constraints about women's participation are related to the fact that the organizational modes proposed in the projects do not allow women to express their needs in public. They don't feel too much concerned; their numerous daily priorities prevail on what is proposed and the way it is proposed. If, on one hand, the Committees' willingness is to favour women's involvement, they do not really perceive the role they could play and their presence is not granted (Mellouli, 2006).

This remark calls for the need to elaborate and implement awareness-raising, training and animation programmes at any level of population, development structures, public or not, formal and informal organizations.

The promotion of women's role in development cannot be realized through exclusively women-oriented projects or by "women-specific" activities, but rather through projects that take into account the different actors of the community and their constraints (Ben Boubaker, 2001). Insisting on "specificity" could contribute to further isolation and increased women's marginalisation against the willingness to promote women.

THE ROLE OF WOMAN IN AGRICULTURE

Tunisia considers irrigated agriculture to be a strategic pillar for its water management policy. Irrigated agriculture contributes to the national economic development. At present, it ensures more than one third of agricultural production, whereas irrigated surfaces represent only 8.3 per cent of total farm surfaces. Fully irrigated or mixed farms represent 30.5% of total farms (Mellouli, 2006).

The "structure" survey made in 2004 by the Ministry of Agriculture and Water Resources (MARH) showed that irrigated agriculture employs considerable labour, namely 40.8% of home help and 67% of permanent workers. They provide 55.4% of working days for odd wage-earner. 52% of these farms fully provide for the needs of 4 persons and more (against 32.8% in dry farms) (Mellouli, 2006).

Rural Women in Irrigated Farms

The oldest study about the role of women in irrigated schemes was made in the irrigated schemes of Sidi Bouzid in the early 80s (Ferchiou, 1985). Other studies were equally conducted within the

framework of the project "rural women in agriculture in 1995-1996, in particular, a case study on the scheme of Hichria of Sidi Bouzid and a far-reaching "time-budget" survey on 5 governorates that allowed obtaining quantitative indications on the use of time by women in agricultural works (CREDIF, 2000).

The "94-95 structure" survey highlights that female active population in agriculture was estimated at 771.100 individuals (namely 45.4% of the total population). It was almost by 92% formed by unpaid home help.

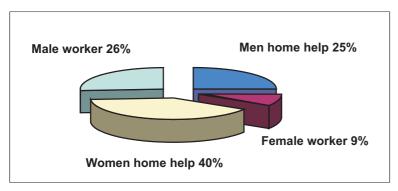


Fig. 1. Subdivision of working days in PPE (irrigated areas) disaggregated per nature and gender (Tunisia: Survey, PI, 2002).

The "structure" survey made by MARH in 2004 showed a remarkable increase in the number of women head of enterprises, followed by a sharp reduction in home help, especially for women. Such a decrease could partly be due to the increased level of education that facilitates girls' access to a paid work out of agriculture. The evolution of staffed odd wage-earners has no longer been followed, but figures relative to working days allow confirming an increase in wage-earners, especially odd ones.

Women Heads of Enterprises

The definition given by the FAO¹ to determine the status of head of enterprise, a concept used by the Ministry of Agriculture, requires further refinement for better exploring the place of women in this position, so much so that the double activity of men is an expanding phenomenon (40% has a lucrative off-farm activity against 35% in 1994).

In fact, according to the statistics of the Ministry of Agriculture and Water Resources, they would represent 5.6% in 1994. They are at present 33,000 and represent 6.4% of calculated number. This statistics is still underestimated, considering the difficulties in seeing the position of "virtual women heads of enterprises", due to the permanent occupation of their husbands in another sector of activity.

Women-farmers are, on average, heads of smaller farms than those of men. They own 4% of the agricultural area.

They represent 9.9% of landless farmers but only 1.5% of farmers having more than 100 ha. 45.8% of men heads of enterprise are employed in a secondary lucrative activity; this rate is clearly smaller for women, namely 24.9%.

On the other hand, farms are less intensive: 7.2% of women heads of enterprise have small or no production capital. 31% declare to be scarcely involved in agricultural activities (against 10.5% for men) (Mellouli, 2006).

¹ The concept of head of enterprise in Tunisia is based on the Food Agriculture Organisation criteria that determine the head of enterprise by the presence of at least one of the two production factors, namely animal husbandry and land, on one hand, and decision-taking power of production on the other hand.

Increasing Women's Participation in Agricultural Work

Statistical surveys of the Ministry of Agriculture (1994-1995 and 2004-2005) show an increase in women active population in the agricultural sector though, globally, there is a regression in the working population involved in agriculture.

Follow up surveys of agricultural campaigns highlight this trend, though variations in numbers are equally influenced by the economic situation and the way data are collected.

As Family Labour

In 1994, women thus represented 64.3% of agricultural family labour (equal to 708.700); today this figure has reduced to 58.5% (equal to 610.440 against 444.410 for men). But a net increase in seasonal agricultural labourers is observed.

As Home Help in Irrigated Farms

Women labour is certainly quantitatively greater in dry farms (that are greater in number and surface area). Women are proportionally more active than men. In irrigated farms and in mixed farms, women are involved almost on equal basis as men. However, on hectare basis, irrigated farms require almost 4 times more family labour than dry farms.

The seasonal character of irrigated agriculture is less evident than in dry farming, since more intensive cultivation is possible. The importance of agricultural work for family labour is thus more important in terms of share of time devoted to such a task. This concerns men in particular.

25.5% of home-help men work full time in irrigated farms against barely 8.8% of women. Comparatively, in dry farms, if the full-time family labour is a minority, women invest considerably more time than men.

The estimate of contributions following the approach of "Working Days (WD)" of PI surveys gives facts from a different angle, where the difference in performance between men and women is considerably smaller:

- 40.0% of total WD of home help is made by women.
- 65.7% of WD of « men » home help is made by permanent men home help.
- 56.9% of WD of women home help is made by permanent home help women (Mellouli, 2006).

Conclusively, we can state that subdivision is sensibly comparable for agriculture as a whole. The "farm size" term doesn't seem to significantly affect labour employment. Nevertheless, it highlights the different involvement of women as compared with men, depending if they are dry or irrigated farms.

As Wage Earner

Women's contribution is quantitatively higher in mixed or dry farms. In irrigated farms, only 14.3% of temporary working days refer to temporary women wage-earners.

Women's participation is proportionally more important on farms greater than 5 hectares, whereas seasonal employment of men especially concerned small farms; they are involved mainly in relatively qualified tasks like pruning of tree crops.

However, we should be careful, since one hundred per cent irrigated farms represent only a small number of farms that practice irrigation; since the highest share refers to mixed farms.

The analysis of data from the irrigated areas survey allows toning down these results (though the difference in evaluation is not fully explained) (Mellouli, 2006):

- Women perform 9.7% of WD of permanent wage-earners in PPI and 41.2% of WD of temporary wage-earners.
- Women act as a labour reservoir, employed on seasonal basis and depending on expected production in large farms and high labour-intensive ones.

The contribution of women is even higher in vegetable crops (41.9%), especially as temporary home help (they make more than 54% temporary working days).

To be noticed that women are less present in tree crops growing (25.2% of working days, but even in this case there is a great regional variability). They refer mostly to wage earners and temporary home help.

CONCLUSIONS

Rural women in Tunisia perform indispensable tasks to meet food and nutritional requirements of their families, guaranteeing the three pillars of food security (food production, economic access to food and nutritional security) but, unfortunately, they have inadequate resources and limited access to resources. If constraints faced by women were eliminated and if they had access to the resources made available to farmers, they could improve food security of their families.

In Tunisia, despite any effort, rural women still deserve more concrete actions in order to be really involved in management, in the access to natural resources. In order to allow women to fulfil their potential in food security, the Tunisian government has to strengthen decision-taking measures in three big areas:

- Increase in physical and human capital of women: women capacities to play their role of food
 producers would be enhanced if their access to resources, technologies and information were
 improved. Efforts should be made to protect traditional women's rights to landed property through
 non-discriminatory measures of registration and procurement of possessory titles, and by explicit
 inclusion of women as individual or joint beneficiaries of land reform programmes.
- Extending education to girls, in rural areas in particular, is a means to guarantee stocks of human capital for the next generation.
- Protection of sanitary and nutritional state of women: good health and adequate nutrition are important for women at any stage of their life. Women have to protect their health and nutritional state to be able to perform their producing and procreative role.

REFERENCES

CREDIF (Centre for Studies, Research, Documentation and Information on Women). 2000. Budget-Time of rural household and the invisible work of rural women in Tunisia.

Ferchiou, S. 1985. Les femmes dans l'agriculture tunisienne: Cas de PI de Sidi Bouzid - Edisud : Cérées productions, 1985.

Mellouli, K., 2003. Gendered participation in Water User's Associations : case studies from Tunisian, Wageningen University and Research Centre, Wageningen, The Netherlands.

Mellouli, K. 2006. Study on the impact of AEP (Drinking Water Supply) and PPI (Irrigated areas) programmes on rural women's life in Tunisia, 2006.

Ministry of Agriculture. 2004. Tunisian report on the application of the action plan of the World Food Summit.

National Institute of Statistics, December 2003.