

## **Promotion of Women's Role in Watershed Management: Challenges and Strategies**

### **A Case Study of Hableh Roud**

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#### **Abstract**

The change in the concept of social development over the last few decades, from the physical aspects to human dimensions has increased women's participation in socio-economic activities and enhancement of their capabilities has been regarded as key strategies in sustainable development. The present study attempts to achieve the following objective: Investigation of the impacts of NGO's activities in enhancing women's socioeconomic participation in the management of watersheds.

This paper has presented the results through employing parts of the phases, methodologies, and techniques of participation Rural Appraisal(PRA) in sample villages located in Hableh Roud watershed in the Garmsar plain. Among the achievements of the project is the actualization of local community participation including women's participation in decision-making on sustainable development, improvement of natural resource management through integration of modern and traditional technologies, increasing local community income sources through production of pharmaceutical plants, planting seedlings, strengthening traditional women's organizations, improvement of exploitation methods and conservation of soil and water resources. The most important result obtained from the present study is the finding that participatory activities are cultural and social issues. As such, work must continue until participation becomes institutionalized in the target community. The milestone and deliverable showing success in this endeavor will be gradual but steady changes observed in the behavior of the rural communities with reference social

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**and economic problems reflecting their self-reliance and self-confidence. Continuity and sustainability of the projects are also determined by direct involvement and participation of local communities, especially women, in all phases of project implementation from concept development to implementation, monitoring, and assessment.**

**Keywords; Women empowerment, NGO's, Participation, Watershed management extension.**

## **1- Introduction**

The term "social development" has recently been associated increasingly with citizens' participation and role in defining their political and social fate. Participation is a measure that prepares the grounds for individuals' empowerment and enhancement of their capabilities and creativities. Participation based on a feeling of belongingness and free expression can be of great impact on social development. One of the strategies promoting social development is the extensive participation of women in environmental and socio-economic activities (Elmi, 2004, 35). The specific activities emphasized in this regard include empowerment of women in terms of social and economic welfare, access to amenities, increased awareness of the problems of their living sphere, their voluntary and active participation in providing solutions and implementing them, their control over resources, and their increased decision-making powers, shoulder to shoulder with men (Taherkhani, 2004, 103).

Population growth over the past two centuries, and the excessive exploitation of natural resources, lack of attention to environmental issues in governmental macro-planning, and the absence of management plans for systematic and sustainable development have all led to the rise of environmental crises and the consequent

degradation of soil and water resources. Soil conservation and watershed management are among the main strategies in alleviating natural disasters (Alirezanejad, 2000, 463). Women make up half of the population and as they are involved equally with men in most agricultural activities, their enhanced participation in soil conservation and watershed management projects will have vital impacts on reduced soil and water degradation and on alleviation of natural disasters. Additionally, women's informed participation will contribute to their empowerment and decisive steps will thus be taken toward social development.

The aim of the present paper is: "to investigate the different aspects and possibilities for women's participation in agricultural and watershed management and identification of the challenges and solutions"

To achieve these objectives, a review will be made about theoretical framework of the requirement for women's participation in social development. The paper will then draw upon the fieldwork studies implemented in the Hableh Roud watershed to investigate the aspects of women's participation in agricultural and watershed management. Challenges facing women will also be addressed. Finally, strategies will be proposed to increase women's participation in activities related to soil conservation and watershed management.



## 2- Theoretical framework

Social development is not a new concept. Its history goes back to developmental policies adopted by post World War II governments, or even earlier, to the development ideas of the 18<sup>th</sup> and 19<sup>th</sup> centuries. Development is much similar to the historical social change in which communities pass through different stages (Cowen, 1996, 7). Early perceptions of social development merely considered development of such social services like public education, public health, and housing. Current perception, however, defies this sectoral understanding in favor of a broader view that finds social development closely related to political, social, and economic development (Nanbaksh, 2003, 167).

The more recent approach to social development incorporates participation into the picture as one of the essential tools of development. Participation, as such, can realize in different aspects of human life (Jabbari, 2001, 235):

1. Family participation emphasizing the requirement for women's equal participation and involvement in family decision-making processes and women's empowerment;

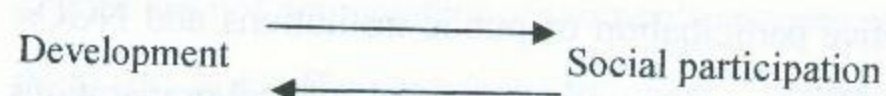
2. Economic participation whereby men and women find equal opportunities to use their capacities and skills for income. Economic participation will also contribute to such human traits as social value, empowerment, and self-esteem (Mirzaie, 2004, 114);

3. Social participation including an assortment of activities related to solving the problems of the local community and larger communities. Social participation level is inversely proportional to poverty level;

4. Cultural participation is closely related to social participation and involves the peoples right to play their role in the development of their culture and the preservation of cultural achievements, and

5. Political participation involves active public participation on policy-making and decision-making processes. One of the essential aspects of political participation is the freedom of election and being elected, which has received strong emphasis for women.

Social participation and development are closely related as participation takes place through a cultural and social medium. It follows then the more effective, constructive, and inclusive the participation, the more powerful the underlying social will be.



Social development especially draws upon social justice and the campaign against all types of prejudice, be it racial, political, gender, etc. Special attention is also given on welfare and empowerment of different social groups and establishment of social institutions and NGOs. It is through these means that social development prepares the grounds for the constructive participation of men and women in all social and political decision-making processes. The cornerstones in social development include, *inter alia*, enhanced economic activities, poverty reduction, and access to social welfare. This approach to social development recommends the empowerment of women realized in increased amenities and social services, access to resources and facilities required amenities and social services, for improving living standards, increased awareness, improved individual participation in social



events and institutions, and increased decision-making. For instance, the development of social services in rural areas through improved and extensive public health and education, access to agricultural financial and physical resources, awareness of natural and social issues in the surrounding environment, and active participation in identifying the causes for existing problems (such causes soil erosion, flooding, etc.) and trying to find remedies as well as efforts to promote decision-making powers in women have always haunted the researchers' and planners' imagination (Shaditalab, 2002,127). It needs be mentioned that realization of the above objectives requires time and calls for drastic changes in views and macro-strategies. Thus, one of the proper strategic avenues to success will be active participation of public institutions and NGOs. Evidently, public awareness and cultural preparations will bring about the radical changes in political and economic institutions required for the empowerment and increased participation of women to win general acceptance.

### 3- Women & participation

Despite the fact that women account for half of the population in rural areas and tribal communities and that they are actively involved in most activities in raising crops and livestock, their participation in sustainable rural development and agricultural development plans are normally negligible (Zoghi, 1986,10).

According to the surveys conducted by Shaditalab, it seems that the women in most cases carry out more than 50% of farming and livestock raising. As an example, women in Mazandaran and Guilan provinces do over 50% of farming activities from sowing to harvesting. According to the same report, over 40% of livestock raising activities in western provinces are left to women. Another report by experts involved in the HablehRud project, a great portion of the farming and crop raising activities in Hesarbon village are done by women (Shaditalab, 2002,139). Table 1 shows the share of men and women in the various stages of planting, growing, and harvesting of crops and horticultural products.

**Table 1** Activities, products, and work share in terms of gender

Product	Summer crops		Cereals		Potatoes		Corn		Vegetables		Walnuts and apples	
Activity	men	women	men	women	men	women	men	women	men	women	men	women
Plowing & land preparation	x		x		x		x			x	x	
Land plotting	x		x		x		x			x	x	
Irrigation	x	x	x	x	x	x	x	x		x	x	
Sowing		x		x		x		x		x		
Crusting	x		x		x		x			x	x	
Weeding		x		x		x	x	x		x		
Fertilizing	x	x	x	x	x	x	x	x	x	x	x	
Spraying	x		x		x		x		x	x	x	
Harvesting	x	x	x	x	x	x	x	x	x	x	x	x
Sale	x		x		x		x		x		x	

(Source:Mafi,1999,14)



As shown in the table, sowing and weeding are commonly done by women while plowing and land preparation, crusting, and spraying are left for men. However, certain activities such as irrigation, fertilizer application and harvesting are common between men and women. It may be concluded that despite the fact that women play major roles in all farming activities, spending their whole days together with their husbands on the farm, and that they additionally take the responsibility for all the household chores, they do not have any direct economic benefits; moreover, their work is not even reflected in statistic published on agriculture.

Women contribution in supporting the household and assisting in farming activities, however, do not exonerate them from some negative aspects. Just as they share the work, they also share the destruction inflicted on the environment. As women play significant roles in most agricultural and livestock growing activities, any planning for soil preservation and watershed management must incorporate women as major players if the plan is to succeed to larger extent.

The way man behaves toward or treats his surroundings and geographical sphere has considerable impact on the natural environment. Prevention is always better than cure and watershed management is one instance of prevention. It is therefore reasonable to define and plan measures and operations, in addition to those watershed management practices that simply show down direct degradation such as soil erosion control practices, which produce changes in man's behavior in mistreating the environment. Such behavior normally stems from cultural and

financial poverty, traditionalism, conservatism as regard to production paradigms, and lack of proper public organization. Such operations and measures once developed will be categorized as extension operations (Jomehpour, 1996, 20).

#### **4- Participation of men and women in watershed development activities**

Most watershed development activities so far have been executed by men for farmers and tribesmen due to their expected superior capability in grasping and implementing the recommendations and trainings. As in most other countries, women in Iran are not yet much considered for development activities despite their roles in agricultural production and dairy food processing. Development offices are not appreciative of women's services and thus do not offer services to them. Women's ignorance of their roles and contributions on the national scale, on the one hand, and national planning systems, on the other, has resulted in a situation where women's role in agriculture and watershed management goes unheeded. One of the national action plans on desertification control is making the provisions required for effective participation at local, regional, and national levels by NGOs and local community consisting both sexes in policy-making, implementation, and review of such plans (Elmi, 2004, 24). However, in the national action plans, nothing has mentioned women's role (Kholdebarin, 2001, 17). During the Consulting Workshop on Desertification Control held in December 2000, of the 87 factors referred to as effective in desertification and its challenges, only one referred to women's lack of participation



in resource conservation and reclamation plans. However, no mention has been made of women in the 55 solutions and recommendations proposed for desertification control during the same event (Anchoring Shifting Sands and Desertification Control; 2001, 28).

In late 1990s, and before the formation of Development Office for Women's Activities in Rural Areas under the Ministry of Jihad of Agriculture, almost no organized movement had taken place to increase awareness and promote technologies for rural women. By the end of the 1980s, of 3000 development workers in Iran, only 200 were women. Although development services in Iran date back to the 1950s, most development workers were men incapable of establishing face to face contacts with women due to numbers of cultural barriers. The cultural barriers have given rise to a kind of inequality between the two sexes, keeping women at the margin.

A major issue confronting the programs is the lack of understanding of development workers about the role of women in the success or failure of rural and watershed management programs. Another issue is the adoption of suitable training, well adapted for rural women (Zoghi, 1999, 11). Despite women's extensive contributions to agricultural and watershed management, they commonly face problems because they fail to avail themselves for such services. In countries where women conduct farming activities and at the same time sponsor their family and household, lack of access to extension services and, hence, agricultural organizations fail to provide them with required technologies or knowledge.

#### **4-1- Women training & non-agricultural activities**

Training has been recently provided to women development workers. However, due to the predominance of a welfare-providing approach in most government macro-policies, most development programs have been tailored to cover non-agricultural activities or need such as child-care, child nutrition, etc. For example, the most important areas covered in rural extension programs during the 1990s in Iran included:

1. Child rights;
2. Family planning;
3. Child nutrition and family nutritional requirements;
4. Environment;
5. Horticulture and agronomy issues.

A glance at the curriculum of most training programs reveals that although space has been allowed to deal with topics on adverse effects of soil and water pollution, housing, possible solutions to these problems, and new practices to increase agricultural productivity as well as topics which raise the level of rural women's technical knowledge, the greatest portion of the programs deals with family planning and child care (Jahad of Agriculture Organization, 1999, 14). It needs to be mentioned that one of the useful and interesting topics covered in these programs though is training on housewifery offered in central Province.<sup>26</sup> girls and women from different regions participated in a workshop organized in central province. The trainers were all rural women with a minimum education level of high school diploma. The most important topics on watershed management during this workshop



included rural and sustainable development, introducing the concepts of development and public participation, history of development activities and the challenges, introducing the organizational arrangement of the development and public participation deputy of the Ministry of Agriculture, sociology of rural women, immigration of rural communities, the role of government organizations in rural communities, and, finally, best practices for growing farm, orchard, vegetable, decorative, and greenhouse products and plant protection issues. It goes without saying that once women development workers gain adequate knowledge of the above topics, they will be in a better position than men are to establish communication with rural women for more effective flow of knowledge and information and thus will fulfill a more fundamental and decisive role in programs dealing with soil conservation and watershed management.

The statistics show that over 60,000 villages around the country are home to about 9 million women above the age of 10. Human resources and suitable facilities will be required to provide services to this vast population. The size and dispersion of this population require thousands of extension workers of both sexes if they are to be adequately served. However, the high expenses required for the provision of such facilities and services make the whole idea to be far-fetched. One possible solution entertained by some authorities would be the integrated use of various facilities already in place in many rural areas. There are a vast number of different organizations affiliated to ministries of health, education, etc. which is delivering different services in rural areas

and have their own facilities and workers. An inter-sector cooperation scheme through which different organizations offer their services may facilitate the provision of staff and facilities required in this sector.

Along these lines, a project for training women development workers has been launched since 1996 which aims to develop inter-sector cooperation among all organizations involved in rural services in order to overcome shortages of facility and staff (Mirmoezzi, 2001, 10). Ever since this project began, numerous workshops were organized in which hundreds of women's development workers, rural health service workers, and illiteracy campaigners have received training on environment, reduction on use of agrochemicals, women's role in rural development, nutrition and food hygiene, fundraising and bank loans, participatory planning, entrepreneurship, and agricultural product processing. In recent years, and simultaneous with the establishment of universities in the deprived places across the country, facilities have been provided for the education of young girls and boys in small towns and villages (Elmi, 2004, 24). Only proper arrangements are required to coordinate the Ministry of Science, Research, and Technology (SRT) and other organizations involved to establish degree programs in applied rural development and particularly in watershed management development to educate indigenous youths in these areas. This proposal will not only boost women's vast participation but will also satisfy the needs for development programs.

Since empowerment of women aims to improve their living standards through providing access to



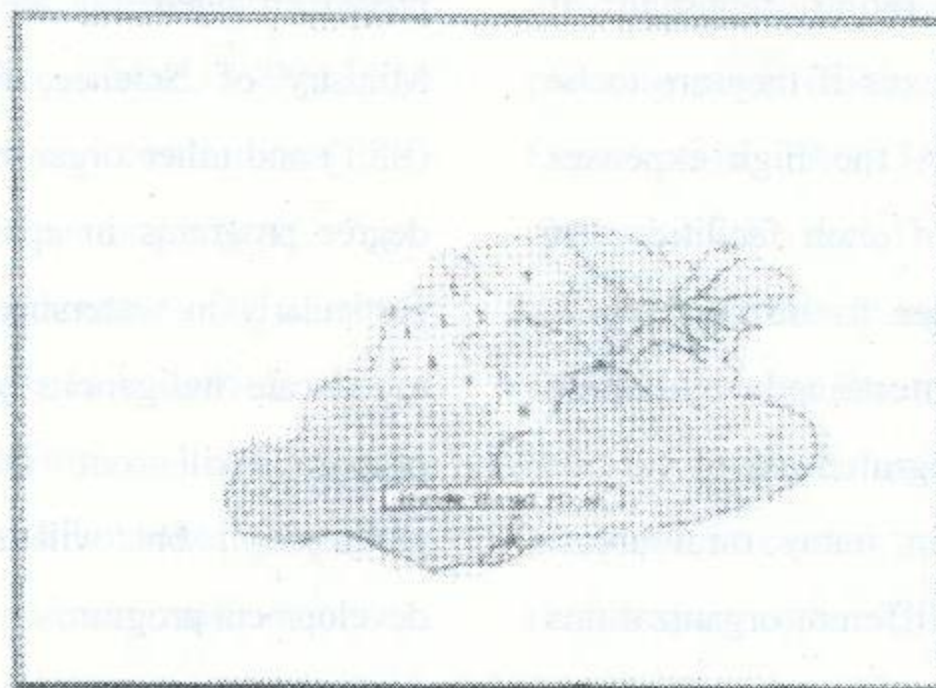
social amenities and welfare and increased awareness and social economic participation, it is essential for extension workers to acquaint themselves with the social status of the women in their domain of activity. Extension workers and social counselors can encourage the establishment of women's institutions and cooperation in different economic and social projects from design to implementation.

The development and Public Participation Center selects and awards the best extension women. Despite the high percentage of women involved in agricultural activities, women account for less than 10% of the workers awarded annually. It seems that more women involved in farming and watershed management need to be encouraged through such programs and providing facilities for their participation in national and international events and by offering more loans and services to them. Increasing the number of female university enrollment in related fields can also be a drastic measure.

##### **5- Women's participation in watershed management activities in Hableh Roud watershed**

The Hableh Roud Project provides one of the best Iranian precedents of women's participation in

agriculture and watershed management development activities. The Hableh Roud Watershed covers an area of 1100000 ha located in Tehran and Semnan Provinces. Given the nationally emerging views on social development and the requirement for women's participation in national development, on the one hand, and following the creation of better capacities in the national planning system, encouragement by relevant international organizations in employing participatory methods (Participation Rural Appraisal; RPA), and employment of traditional management methodology, a project called the Hableh Roud National Project was defined and implemented faintly by the Ministry of Agricultural Jihad, National Management & Planning Organization, UNDP, and FAO. The project aims to develop a national action plan for soil and water conservation in the Hableh Roud watershed. It was provisionally implemented in eight villages including Lazoor, Hesarbon, Aru, Havir, Dehnar, Najafdar, Vazna, and Zarman located in the neighborhood of the two Garmsar and Firoozkoush towns in Tehran and Semnan Provinces (Heidariyan, 1999, 2).



**Figure 1** Map of the Hableh Roud Watershed and its villages



The objective of the project was to develop an exploitation of soil and water resources based on:

- Maximum dependence of development projects on indigenous knowledge base;
- Decision-making and planning for local community development using rural participatory appraisal methodology; and
- Women's and youth's participation in community affairs.

To achieve the above objectives, meetings were held by government authorities in charge of the project and NGO's leaders active in sustainable environmental development in the mosques of seven villages with the rural inhabitants. At least one development woman co-worker and one extension man co-worker were selected from each community to serve as the communication chains between the governmental and non-governmental project authorities and the local communities. It was during this stage that the first effective steps were taken toward a bottom-up decision-making process and public participation including worker to brief them on project objectives and to raise their capabilities. They were then assigned to relate the achievements to the local communities. Another series of workshops were organized by the extension co-workers, facilitators, and project experts in rural communities. The objective underlying these workshops included the participation of the rural communities in reviewing problems and challenges against rural development. Other actions taken within the framework of the project included:

1. Establishment of coordination groups with a management core in each village with participation of women, youth, and the elderly;

2. Visits to different parts of the country to gain familiarity with certain rural institutions;

3. Establishment of a village monetary fund, development of the constitution for these funds based on the local traditions and customs, and opening accounts in the Bank of Agriculture in the presence of board members, women and one of the local elderly (Heidariyan, 1999) ;

4. Visits by rural people (men and women) to soil and water resources, critical and flooding zones in each village;

5. Development of a master plan including the Siahруд Concrete Dam Design, Tarinza Dam Design, a general scheme for planting seedlings, and protection for Kashkezar area, development of a milk collecting system and milk processing plant, design and operation of a textile workshop, establishment of a Gelim weaving workshop, and the plan for collecting pharmaceutical plants.

Another salient feature in the Hableh Roud project is women's participation in three technical workshop as below:

1. Technical Workshop on Watershed Management;

2. Technical Workshop on Developing Rural Plans(DRP); and

3. Technical Workshop on Pharmaceutical Plants.

#### **5-1- Technical Workshop on Watershed Management**

The aim of the first workshop was to familiarize rural communities with watershed management concepts, management skills in implementing mechanical and biological operations in watershed.



Methods of direct campaign against and control of different forms of soil erosion including building banks, dry walls, gabions, terracing; and indirect or biological control methods including seeding; planting grass, animal feed, plating shoots, prohibited (protected) areas, .... The participants in the workshop included 30 people from the rural communities and co-workers from both sexes. It is evident that the active participation of women in these workshops will have great impacts on soil erosion control and watershed management. One of the most important watershed management projects in which men and women participated was the Kashkezar project. The rural community in Lazoor put forward the proposal for this project after a flood event and the subsequent destruction of their property, farms, and residences. They intended to control and preserve their rangeland through provision and development of a plant cover. The proposal consisted of two types of operations: mechanical including construction of dry wall and gabion weirs, terracing, building bunkers, construction of two sedimentation ponds; and planting walnut and almond trees. Interestingly women in Lazoor village participated actively through in coordination group and the village core group in all stages of development and implementation. The stages included defining objectives and justification of the project, time scheduling and organization, mobilizing funds and financial organization, operation and maintenance of the project, and provision of human resources for the implementation.

Below are the interesting results from the survey:

1. In Kashkezar project, many governmental experts and managers overcame their bewilderment and came to gain confidence in local men and women's capabilities in decision-making and planning. They found out that most of the experience and knowledge held by the rural communities were in line with natural resource preservation objectives and that this indigenous knowledge had only to be appreciated and revived to be used toward the achievement of the project objectives.

2. Another finding was that the intervention of governmental organizations in local affairs usually leads to extinction of desirable and useful local traditions and lack of responsibility by local communities for their natural surroundings. The revival of local people customs and participation of the local men and women could bring more confidence to leave the management of agriculture and watershed to the mighty hands.

## **5-2- Technical Workshop on Developing Rural Plans (DRP)**

Another technical workshop was held within the framework of the HablehRud project on the methodology and procedures for conceptual plan development all the way through to project implementation. Of the 18 participants in this workshop, 9 were women. The participants were trained on the stages of project development from writing a project tile, project objectives, justification of a development of an executive plan, timeline development, organizational arrangements, equipment and facilities required financial resources and fund raising, maintenance and operation of a



project. It was after this workshop that the inhabitants of the Aru village independently developed a project on production of traditional starch and the related products. The objective of the project was to create employment for women, mobilization of financial resources to provide support for rural development and reconstruction of mosques, public bathrooms, schools, and revitalization of traditional and local customs. The project was a direct result of participating in the workshop whereby women realized that they were capable of generating plans for independent new sources of income, and its actualization owed much to the availability of the resources within the local community (experience, know-how, materials) the potential market in the neighborhood. Women got involved in all phases of the project and developed among themselves a feeling of independence, self-esteem, self confidence, and mutual cooperation and understanding. The implementation of the project turned women as a marginal group in the village to an active player in the village community life.

### **5- 3 - Technical Workshop on Pharmaceutical Plants**

The third technical workshop was organized for extension co-workers. It was focused on pharmaceutical plants and the venue was the Khojir Natural Resources Research Center. The aim of the workshop was to train rural people and the co-workers on identification of a variety of native pharmaceutical plant species as well as raising knowledge on the economic species. The objectives included familiarizing the rural community with the know-how of planting,

growing, and harvesting special pharmaceutical plant species, creation of an income source, and finally an effective activity aimed at soil improvement. Of the 25 participants from the rural community and co-workers, 13 were women. After the workshop, a number of women proposed a project for growing pharmaceutical plants. Women in cooperation with men plowed and prepared the land, seeded the land and rangeland, and produced 32 thousand plant shoots. The project was assessed to be successful in achieving its objectives.

Another project proposed by the rural community was the rehabilitation of the Hesarbon main road to Sayyedabad. In this project, the rural men and women held consultation meetings and organized all the phases of the project to implementation. They went even far enough to voluntarily submit part of their property which had to be acquired for the construction of the road. They also constructed dry wall weirs on flooding hills along the road. However, the project has not yet finished due to inadequate financing despite its high economic justification and the well-organized coordination between the stakeholders and organizations involved. Once the project is completed, the road connecting these two villages will be one of the few roads across the country for which watershed management activities have been implemented prior to road construction.

An overall consequence of these training and consultation workshops was the realization by the target rural communities that they should assume their roles in their community affairs and that to play their role, they need to learn skills and methods, as how to view their surroundings, how



to identify the potentials and resources in their immediate environment, to identify challenges ahead, to classify their problems, to look for solutions, and how to face their problems in a logical manner. They also learned to develop suitable projects to address these problems and to further implement their projects.

In the light of the above considerations and observations, the most important challenges facing women in their participation in preservation of watersheds include, but are not exclusive to:

1. Cultural and social limitations for communication with women; this factor is complicated by poverty, traditionalism, and conservatism among the rural communities to pose serious problems for the implementation of watershed management schemes that are by nature long-term projects. Stakeholders do not tolerate innovations and new ways;

2. Poor training, in general, and inadequate training programs, and methodologies, in particular;

3. Lack of a properly defined relations between research and extension leading to unfamiliarity of researchers with women's problem;

4. Shortage of full-time professional development workers, particularly women workers, working on natural resources; in addition to expert extension workers, currently some of the natural resources experts whose tasks do not include extension services are also involved in extension activities. Studies have shown that extension workers must be educated for their functions and must have technical and social capabilities for satisfactory performance;

5. Lack of inter sector coordination among the Ministry of Health and Medical Education, Ministry of Agricultural Jihad, Health care organizations, and the illiteracy Campaign for training extension workers and sharing their facilities and resources.

## **6- Conclusion**

The most important solutions to enhance agricultural and watershed management extension services among rural women include:

1. Provision and training of native development workers especially women workers in latest achievements of watershed management by natural resources experts and academia such as Universities across the country (it is essential first to brief the professors on the necessity of having a practical knowledge of watershed management by students);

2. Improved coordination among the ministries and organizations involved;

3. Dissemination and polarization of achievements by women workers through national and international meetings;

4. Enhancement of activities by NGO's active in environmental and social issues through women's participation; and

5. Publication of development journals and newsletters, posters, and educational aids through organizing meetings, workshops, and training courses in schools, mosques, and other relevant public places.

## **References**

[1] Alirezanejad, S. (2000) "Survey of Experiences in Social Forest Management and Women's



- Participation", Proceedings of the Conference on Natural Resources, Participation and Development. Office of Extension and Public Participation affiliated to Forest and Rangeland Organization, pp. 461-473.
- [2] Bureau of Anchoring Sand and Desertification Control (2001) "Summary Report on Organizing Consultation workshop on Developing the National Action Plan for Desertification Control", Forest and Rangeland Journal, No. 51, pp. 26-30.
- [3] Cowen, M.P. and Shenton, R.W. (1996) "Doctrines of Development".
- [4] Elmi, Z. (2004) "Macroeconomic Policies and the Labor Market for Women in Iran", Women's Research, No. 2, Pp. 17-39.
- [5] Heydariyan, S.A. (1998) "Planning for Public Participation and Watershed Management, Continuous Survey", Report No. 5, Hableh Roud National Project.
- [6] Heydariyan, S.A. (1999) "Planning for Public Participation and watershed Management, Continuous Survey", Report No. 6 & 7, Hableh Roud National Project.
- [7] Jomehpour, M. (1996) "Watershed Management Extension Services and its Various Social, Economic, and Political Aspects", Jihad Monthly, 16<sup>th</sup> Volume, No. 184-185, pp. 19-26.
- [8] Jqabbari, H. (2001) "Participation and Social Development", Proceedings of the Conference on Social Development, Cultural and Scientific Publications Co, First Edition.
- [9] Kholdebarin, A. (2001) "National Action Plan for Desertification Control: Challenges and Strategies", Forest and Range Journal, No. 51, pp. 16-20.
- [10] Khoobfekar, H. (2002) "Public Participation, a Source of Development", Jihad Monthly, No. 254, pp. 81-86.
- [11] Mafi, F. (1999) "Report on the Socio-economic Status of Rural Women in Hesarbon", National Hablehrud Project, Watershed Management Deputy of Ministry of Agricultural Jihad.
- [12] Mirmoezzi, M. and Marzban, M. (2001) "Report on Regional Workshops for Co-workers, Social Counselors, Agricultural Counselors, and Rural Facilitators", Ministry of Agricultural Jihad, Deputy for Extension, Agricultural Extension and Research Organization, Office of Rural Women Extension Activities.
- [13] Mirzaie, H. (2004) "Factors impacting Iranian women's Economic Participation", Pazhuhish-i-zanan, Vol.2, No.1, Pp113-132.
- [14] Nanbaksh H. (2003) "Women's Voluntary Participation: Health Workers, Best Practice", Vol.1, No.6, Pp165-186.
- [15] Razavi Arab, M.K. (1998) "Report on Damavand Planning Workshop", National Hablehrud Project.
- [16] Shaditalab, J. (2002) "Rural Women's Bank of Hesarbon: Outcome of a Participatory Approach", Women's Research, No. 2, Pp. 125-152.
- [17] Shaeri, A.M. and Samari, D. (2001) "Culture Development in Natural Resources Using Extension and Public Participation Practices",



## Promotion of Women's Role in Watershed Management:...

Forest and Rangeland Journal, No. 52, Pp. 17-23.

[18] Taherkhani, Mahdi.(2004) "The Impact of Globalization on Women", Pazhuhish-i-zanan, Vol.2, No.1, Pp93-111.

[19] Zoghi, M. (1996) "Sustainable Agricultural Development and Mission for Extension services", Jihad Monthly, Year 16<sup>th</sup>, No. 184-185, pp. 3-12.



## گسترش مشارکت زنان در آبخیزداری، چالشها و رهیافتها پژوهش موردی: حوزه آبخیز حبله رود

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در دهه‌های اخیر تحول مفهوم توسعه از جنبه فیزیکی به رویکرد انسانی و اجتماعی موجب گردیده تا افزایش مشارکت زنان در عرصه‌های اجتماعی و اقتصادی و ارتقا توانمندیهای آنان در راس راهکارهای توسعه پایدار قرار گیرد. فرض بر آن است که مشارکت زنان در مدیریت آبخیزها در مناطق روستایی از طریق تعمیم برنامه‌های ترویج آبخیزداری و با همکاری سازمانهای غیردولتی، نقش مهمی در ارتقا توانمندی اقتصادی و اجتماعی آنان دارد. در این راستا هدف پژوهش عبارت است از: بررسی نقش سازمانهای غیردولتی در گسترش مشارکت اجتماعی و اقتصادی زنان در فرایند مدیریت آبخیزها.

در این تحقیق نتایج به‌کارگیری بخشی از مراحل، روشها و فنون ارزیابی مشارکتی روستایی (PRA) در روستاهای نمونه حوزه آبخیز حبله‌رود در دشت گرمسار بررسی شده است. از دستاوردهای این پژوهش تحقق مشارکت جوامع محلی از جمله مشارکت زنان در تصمیم‌گیریهای توسعه پایدار، بهبود مدیریت منابع از طریق تلفیق فناوریهای مدرن و سنتی، افزایش درآمد جوامع محلی با افزایش تولید گیاهان دارویی و طرح نهالکاری، تقویت تشکلهای سنتی زنان، حفاظت و بهبود بهره‌برداری از منابع آب و خاک است. مهمترین نتیجه پژوهش این است که فعالیتهای مشارکتی مقوله‌های فرهنگی و اجتماعی هستند که باید آن را تا نهادینه شدن مشارکت مردم در امور جامعه ادامه داد. تحول آرام و مداوم در رفتار روستاییان در رویارویی با مسایل اجتماعی و اقتصادی که گویای خودباوری و اعتماد به نفس آنان است، بازتاب این دستاورد خواهد بود. تداوم و پایداری طرحها نیز در گرو مشارکت مستقیم جوامع محلی به ویژه زنان در مراحل تهیه، بهره‌برداری، پایش و ارزیابی آنهاست.

واژگان کلیدی: توانمندسازی زنان، سازمانهای غیردولتی، مشارکت، ترویج آبخیزداری

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