

Role of women in small ruminants' chains in Ouled Slimane and Sekouma-Irzaine communities of Taourirt province, Morocco

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Abstract

This study is part of the Mashreq Maghreb project in its third phase (M&M III) launched since 2005 with the objective of providing technical, policy and institutional options that empower local communities and promote sustainable livelihoods and production systems and the conservation of agropastoral resources. Ouled Slimane and Sekouma-Irzaine communities were selected for implementing M&M III project activities in Morocco. The revisiting process of those communities' development plans revealed serious knowledge gaps regarding women's vital contributions, their practical and strategic needs and their perspectives. The study aimed at filling the gaps through examining the existing gender division of labor with emphasis on the role of women in small ruminants' chains and prospecting most suitable income earning options for women in agro pastoral communities from women's perspectives. Based on survey and qualitative methodology, the study presented concrete evidence on women's substantial work in the livestock sector especially sheep production. The study argued that raising small ruminants, particularly sheep fattening for Al Adha is probably one of the most suitable economic activities for women in agro-pastoral communities. Not only may the activity be nicely fitted in women's work calendars but it can be an important source of income and status especially when accompanied with capacity building opportunities and adequate community infrastructure. The study also argued that the valuation of rural women's work is necessary. Women in agro pastoral communities contribute substantially to key productive activities, particularly daily labor demanding livestock associated tasks such as watering and feeding. In fact, without family women's unpaid work, this type of production systems in terms of current diversification and scale would not have been possible.

Keywords: *Ouled Slimane, Sekouma-Irzaine, women, small ruminants, agropastoral, practical and strategic needs.*

دور النساء في سلاسل المجترات الصغيرة بأولاد سليمان وسكومة - إرزاين، إقليم تاوريرت المغرب

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ملخص

تندرج هذه الدراسة في إطار مشروع مشرق- مغرب في مرحلته الثالثة بهدف وضع الخيارات التقنية والمؤسسية الداعمة لتمكين المجتمعات المحلية وتشجيع سبل العيش المستدامة وحفظ الموارد الطبيعية. لتنفيذ أنشطة المشروع بالمغرب تم اختيار الوحدات السوسيو- ترابية أولاد سليمان و سكومة-إرزاين، إقليم تاوريرت بالمنطقة الشرقية.

أظهرت مراجعة المخططات التشاركية للتنمية للوحدتين نقصا واضحا في معالجة إسهامات النساء وحاجياتهن العملية والإستراتيجية ومنظورهن. تهدف الدراسة إلى تحليل التقسيم السائد للعمل حسب الجنس خصوصا دور النساء في الإنتاج الحيواني وخاصة تربية الأغنام واستكشاف أفضل الخيارات المدرة للدخل بالنسبة للنساء. استخدمت الدراسة منهجية الاستبيان مرفقة باستخدام أدوات تشاركية. تؤكد النتائج المتوصل إليها مدى مساهمة النساء في قطاع تربية الأغنام وخاصة تسمين الخرفان لعيد الأضحى نظرا للمكانة المتزايدة التي يحتلها هذا النشاط بالمنطقة. وقد تبين أيضا أن تسمين الخرفان يمكن أن يكون نشاطا مدررا للدخل بالنسبة للنساء يتواءم مع أنشطتهن الأخرى على مستوى المزرعة العائلية لاسيما إذا كان النشاط الاقتصادي مقترنا بأنشطة داعمة لتقوية قدرات النساء وتحسين مستوى الخدمات السوسيو إقتصادية و البنيات التحتية على صعيد الجماعة. في المجتمعات الفلاحية-الرعية تساهم النساء بصورة أساسية في مختلف الأنشطة الإنتاجية خاصة الأعمال اليومية المتكررة و المستهلكة للوقت و الجهد. فبدون إسهام قوة العمل النسائية في المزرعة العائلية يصبح من المتعذر استمرار أنظمة الإنتاج المعتمدة أساسا على العمل.

الكلمات المفتاح: أولاد سليمان، سكومة-إرزاين، النساء، الأغنام، فلاح-رعوي، حاجيات عملية وإستراتيجية

Rôle des femmes dans les chaînes des petits ruminants dans les communautés de Ouled Slimane et Sekouma - Irzaine, province de Taourirt, Maroc

Résumé

L'étude s'inscrit dans le cadre du projet Machreq-Maghreb dans sa troisième phase lancée depuis 2005 dont l'objectif était la mise au point d'options techniques et institutionnelles permettant 'l'empowerment' des communautés locales, la promotion de moyens d'existence durables et la conservation des ressources agropastorales. Au Maroc, les deux unités socio - territoriales choisies pour la mise en œuvre des activités du projet étaient Ouled Slimane et Sekouma-Irzaine, province de Taourirt. La revue des plans de développement communautaire des deux communautés a révélé des gaps importants en matière de connaissance des rôles que jouent les femmes dans les systèmes agropastoraux, leurs besoins pratiques et stratégiques et leurs perspectives. Ainsi, les objectifs de cette étude étaient d'examiner la division du travail prévalant dans ces communautés avec accent sur le rôle des femmes dans la filière ovine et de prospecter les options les plus appropriées aux femmes pour générer des revenus. Sur la base des méthodes participatives et des enquêtes, l'étude a démontré la diversité et l'ampleur des contributions des femmes dans la production ovine. L'élevage, tout particulièrement l'engraissement d'ovins pour la fête Al Adha est probablement une des options les plus adaptées aux conditions des femmes dans les communautés agropastorales. Laquelle activité peut aisément s'intégrer dans le calendrier du travail des femmes tout en leur permettant une source de revenus surtout si elle est accompagnée avec des opportunités de renforcement des capacités et de provision d'infrastructures de base au niveau de la communauté. L'étude a également insisté sur la nécessité de la valorisation du travail des femmes. Dans les communautés agropastorales, les femmes contribuent substantiellement aux activités productives de l'exploitation familiale, essentiellement les tâches quotidiennes consommatrices de temps et d'énergie que nécessitent l'engraissement d'ovins. Au fait, sans la contribution du travail familial féminin, de tels systèmes de production ne seraient pas possibles.

Mots clés : *Ouled Slimane, Sekouma-Irzaine, femmes, ovin, agropastoral, besoins pratiques et stratégiques.*

Introduction

This study is part of the Mashreq Maghreb project in its third phase (M&M III) launched since 2005 in Jordan, Iraq, Lebanon and Syria in the Mashreq and Algeria, Libya, Morocco and Tunisia in the Maghreb. The principal objective of the project was "to provide technical, policy and institutional options that empower local communities and promote sustainable livelihoods and production systems and the conservation of agro pastoral resources" (ICARDA, 2004). The Ouled Slimane and Sekouma-Irzaine (Taourirt province) are the two selected communities for implementing M&M III project activities in Morocco.

One of the strongest features of M&M III was its participatory approach. The adopted five steps / phases methodology included 1) characterization of the community (knowledge / learning phase), 2) participatory diagnosis and planning, 3) participatory programming, 4) organization of the population, and 5) implementation of a community development plan (Nefzaoui et al, 2007). However, when implemented this participatory approach stopped short of effectively and adequately integrating a gender perspective in the community development plans (INRA, 2006a; INRA, 2006b). Women were reached in the participatory diagnosis during which problems and constraints were identified and classified. As the local tradition does not allow the presence of women and men in the same workshop, all the remaining steps including the survey, the restitution, analysis of problems and solutions and their validation, the planning, were implemented with men of the community. The essential of the knowledge and the community characterization upon which later steps were built was gathered with men of the community through the survey with male household heads. Transects and focus groups were conducted with male key informants and technical data were gathered by the project team on soils, land use and resources.

Why a study on the role of women in small ruminants chains in the two communities?

Practically, with the exception of workshops conducted with groups of women as parts of the community participatory diagnosis, no fact-finding or literature searches have been attempted regarding women, their status in the community and their perspectives. Most importantly, no information was provided on the role of women in farm production in general and small ruminants in particular. Studies on similar agro-pastoral systems reveal substantial contributions of women as labor suppliers, natural resource users, and knowledge holders (Niamir-Fuller, 1994; FAO, 1995; IFAD, 2002; Steinmann, 2006). More importantly, prevailing development interventions in the region also fell short of conducting research and producing knowledge on gender issues. They often responded to rapidly assessed needs without much concern with women's workloads, interests and perspectives. More precisely, the IFAD report on the Rural Development Project for Taourirt – Tafaralt (PDRTT) implemented in the region, clearly stated that "given the lack of a comprehensive study assessing the conditions and needs of rural women, the Provincial Directorate of

Agriculture of Oujda, the project's implementing agency, has relied on the existing extension units to identify areas of intervention in favour of women" (IFAD, 2002). Even declared assessments of women's needs as parts of what was called the socio economic component were not to be found and attempts to get report or data bases from concerned departments have been vain. As also suggested in the same IFAD report, "the project faced a number of serious constraints in its efforts to reach out to and work with women (IFAD, 2002).

In fact, the revisiting process of the Ouled Slimane and Sekouma – Irzaine community development plans revealed serious knowledge gaps regarding women's vital contributions, their needs and perspectives. The Rural Development Project for Taourirt-Taforalt considered as a main source of information was not of much help when it came to gender issues in general and women in particular.

In the light of these considerations, it became necessary to ascertain women's real contributions in small ruminants' production and possibilities of valuing their experience and know-how through most suitable income earning and capacity building options.

The present study aims at filling the gaps in our knowledge of women's role in small ruminants' chains in the agro pastoral communities of Ouled Slimane and Sekouma-Irzaine. As emphasized throughout the M&M III documents, this is a research project that should produce publishable results (ICARDA, 2005). Therefore it is hoped that the study brings into light women's productive contributions in agro pastoral communities based on scientifically produced knowledge as a necessary positive complement to the community development plan.

In Morocco women's productive roles in agro-pastoral communities are becoming more substantial as production systems tend to intensify and men spending more time searching for off-farm income earning opportunities. Changing climatic conditions, particularly recurrent droughts, combined with governments livestock protection programs and increasing demand for livestock products brought livestock husbandry on-farm. Small scale semi-intensive sheep fattening for Al Adha, dairy cattle and fattening bull-calves are few examples of the emerging practices in agro-pastoral communities. Women are providing the essential of the labor required by these family enterprises. Yet, stereotypic images on rural women have not changed much. Even women's self-images seem to undervalue their productive contributions. Research can help uncover occurred changes and their implications for women and for society.

Objectives

- To examine the existing gender division of labor with emphasis on the role of women in small ruminants' chains.
- To prospect most suitable income earning options for women in agro pastoral communities based upon women's own perspectives.

Methodological approach

The adopted methodological approach combined three different but complementary components. First there was the analysis of secondary data, essentially official statistics on the rural communes of Gteter and Tancherfi where the study communities are located (Figure 1).



Figure 1 : Localization of Ouled Slimane and Sekouma-Irzaine communities

The second component was the community and women profiles based on the Ouled Slimane and Sekouma-Irzaine community development plan reports and database. It should be pointed out that the CDPs have been elaborated using the five steps participatory approach combining participatory diagnosis and planning processes with surveys. The surveys used for the characterization of the communities were conducted with 155 male household heads in the case of Ouled Slimane and 176 in the case of Sekouma-Irzaine.

The third component was the women-focused study undertaken to complete the existing knowledge gaps in elaborated CDPs. The latter consisted of working with women through a questionnaire based survey and a number of focus group discussions in each of the two communities. Before the survey, qualitative tools have been used during the reconnaissance visits to the communities and contacts with women. Tools included focus groups discussions, in-depth semi structured individual interviews with key informants both among men and women, activity and access to resources profiles.

The sampling frame

Ouled Slimane community is composed of 240 households located in the two douars of Lamryniyne and Dâanine with 150 in the former and 90 in the second. The initial survey covered 103 households from Lamryniyne and 52 from Dâanine. On the opposite, the Sekouma-Irzaine community is characterized by a high number of douars with extremely dispersed housing and the initial survey included 176 households from eleven douars. Since the focus of the study is on the role of women in small ruminants' chains, households without small ruminants which represent respectively about 23% and 14% of initially surveyed households in Ouled Slimane and Sekouma-Irzaine were discarded.

Also, the sampling framework considered the distribution of households based on the size of herds of small ruminants. Consequently, the number of cases per douar was proportionally similar to the share of the douar in the overall survey and cases were randomly selected among predominant herd sizes. The sample thus elaborated included 20 cases from Lamryiine and 10 cases from Dâanine in the case of Ouled Slimane. This represents 23% of total number of the surveyed households with small ruminants. In the case of Sekouma-Irzaine, women were randomly selected from the three douars with the highest number of households. The sample thus elaborated included 14 cases from Ouled Ahmed, 10 cases from Zrakha and 6 cases from Khatyine. That represents 19% of total number of the surveyed households with small ruminants. Figure 2 indicates the degree of dispersion of selected douars in the Sekouma-Irzaine community.



Figure 2: Localization of selected douars in the Sekouma-Irzaine

The questionnaire elaboration and pretest

The design of the questionnaire was focused on women and was pre-tested in a neighboring community to the study area. The questionnaire tended to have several questions with coded answers to facilitate data entry. However, in the administration of the questionnaire, women were asked questions without being informed about the codes and received answers were put in the closest category, otherwise they were put in the “other” category with provided specifics. The fieldwork was conducted during the month of April 2008 by a team of four female surveyors relatively familiar with the area after being familiarized with the questionnaire, ways of formulating questions in local dialect and local measurement units. More importantly, the authors were permanently present in the field supervising the work and the female author participated in questionnaire administration.

Results and discussion

A gendered perspective on the study area based on available official statistics

This section describes the study area at the province and rural commune levels in order to provide the socioeconomic context for the selected M & M III communities with emphasis on women. As previously indicated, the study communities belong to two different rural communes with Ouled Slimane located in the rural commune of Gteter and Sekouma-Irzaine in the Tancherfi rural commune.

The population of Gteter was 6,732 at the 2004 census with a positive growth rate of 1.5 between the 1994 and 2004 censuses in contrast to many other rural communes of Taourirt province experiencing population declines including Tancherfi. This population growth may have something to do with implemented projects in the area and development programs of the Office Régional de la Mise en Valeur Agricole de Moulouya. The population of Tancherfi was 7,452 at the 2004 census with a negative growth rate of 0.5 between 1994 and 2004 (HCP-RGPH 2004). That is consistent with observed trends in most of the rural communes in Morocco because of out-migration.

Another significant difference between Gteter and Tancherfi relates to their respective levels of poverty. Gteter is characterized by the lowest level of poverty, one of the lowest vulnerability rates, a relatively highly communal human development index and a low communal social development index in comparison to remaining communes of Taourirt province. The Tancherfi poverty level estimated at 34.5% is more than twice as much that of Gteter (HCP, 2005).

The extent of poverty at the province level is evidenced by the number of rural communes above the 30% threshold used by the Initiative Nationale du Développement Humain (INDH) for rural commune selection. Seven out of the eleven rural communes of Taourirt province including Tancherfi are above the defined threshold and currently covered by the INDH. Consistently, Tancherfi has both low human development and social indices.

With respect to the situation of women within the two communities, it is important to point out the high illiteracy and low activity rates in both communes. According to available official statistics, 82% and 85% of the adult female population are illiterate in Gteter and Tancherfi respectively. Women's activity rates are estimated at 8.6 in Gteter and 13.5 in Tancherfi compared to 57.8% and 59.7% among men respectively. Conversely, women are predominant in the family aid category in both communes with 86.3% in Gteter and 95.1 in Tancherfi (HCP-RGPH 2004).

Based on available statistics of the latest agricultural census, there are only five female farmers in Gteter and six in Tancherfi among almost two thousand farmers in the former and 1435 in the second (MADRPM, 2000). The fact of having few women farmers in formal statistics is not surprising given the definition adopted in agricultural census. Considered a farmer is the person responsible for farm management and important decisions regarding the use of resources. He or she has also the technical and financial responsibility for the farm (MADREF, 2000). However, this does not mean that women in rural communes do not contribute as family aid in agricultural work. As previously indicated most women are classified in the family aid category.

With respect to land endowments, Gteter commune is endowed with 33398 hectares of arable lands of which 31785 ha are rainfall dependant and 1613 ha under irrigation. The quasi majority of the commune's land is collectively owned. Contrarily, 99% of total arable land in Tancherfi is privately owned (MADRPM, 2000).

Community and women profiles in Ouled Slimane and Sekouma-Irzaine communities

The 240 households of Ouled Slimane community are grouped near the irrigation perimeter of Chaâbat Kharouba in the two douars of Lamriyine with 150 and Dâanine with 90. In fact, this grouped housing can be considered an important asset that the community could exploit for implementing basic infrastructures and nearby community facilities. Unfortunately, socially rooted conflicts tend to override possible opportunities.

Located at about 15 km from the city of Layioun, the Sekouma-Irzaine community is composed of 176 households distributed unevenly in eleven villages with very scattered houses over a large area except few douars which have relatively grouped houses such as Khatiyine and Zrakha. Based on the Ouled Slimane and Sekouma-Irzaine community development plans, both communities display high rates of illiteracy especially among women.

Located in the 250mm average rainfall zone, both communities depend primarily on livestock as the main activity and the main source of household income. Small ruminants, predominately sheep, constitute the pivotal component of livestock. While reproductive sheep is the most generalized livestock practice, sheep fattening, especially for the Al Adha occasion, is increasingly practiced in both communities.

The community development plans reported that agro-pastoral activity is by far the most important activity of surveyed household heads followed by farming alone and livestock alone. Secondary activities, practiced by less than one fourth of surveyed household heads, were rather limited with low contributions to household income. Out-migration both within Morocco and abroad are still limited.

Characteristics of surveyed women in Ouled Slimane and Sekouma-Irzaine communities

The majority of surveyed women consist of wives of agro-pastoralists having participated in the initial survey used to develop the communities' books of knowledge. Like surveyed men, surveyed women come from all age groups in both communities. As expected, the quasi majority of surveyed women declared not having any schooling at all. Surveyed women are found to have many children. In Ouled Slimane, over half of surveyed women have between four and six children and another 27% having between seven and nine children. In the case of Sekouma-Irzaine, 47% of surveyed women have seven children and more. Having these many children implies intensive reproductive roles as women's primary responsibilities. Consequently, the substantial work of women in small ruminants' chains is achieved under high domestic demand for women's labor and thus should be considered

as a valuable contribution to the household economy and well-being. One of the interesting and unexpected findings of the survey is the women's perception of their work. Asked about the most important activity they engage in on a frequent and regular basis, more than three fourths in both communities said they were engaged in agro-pastoral work (Table 1).

Table 1: Surveyed women's perceptions of their main activity in Ouled Slimane and Sekouma-Irzaine communities

Type of activity	Ouled Slimane		Sekouma-Irzaine	
	Frequency	%	Frequency	%
Agro-pastoral work	11	37	17	57
Livestock	12	40	7	23
Domestic work	7	23	5	17
Salaried agricultural work			1	3
Total	30	100	30	100

The fact that women perceive themselves as parts of and as contributors to the prevailing productive systems is in itself a step forward towards fairer valuation of women's work. This means that these women are self-conscious with their productive role. Years ago, these same women would have described all their activities under the lump together notion of domestic work.

Patterns of the division of labor in Ouled Slimane and Sekouma-Irzaine communities

Crop production receives the least work from women in comparison to livestock. Nevertheless, cereals and forage crops are partially produced with labor inputs from women either as essential or shared responsibilities particularly in the case of Sekouma-Irzaine. In the case of trees and vegetables, women's contributions are less significant. Contrarily, livestock tends to be the area where women play a key role. More specifically, for those households who have cattle, half the women acknowledged their essential role in caring for the animals while another 29% indicates a shared responsibility in Ouled Slimane (Table 2). In the case of reproductive sheep, almost two thirds of the women are either essentially responsible or contributing to caring for this type of sheep in both communities. In the case of fattened sheep, provided answers are evenly distributed among the three possibilities in Ouled Slimane and half of the women declared being essentially responsible for this type of sheep in Sekouma-Irzaine. In the prevailing gender division of labor, craftwork generally for household use, collecting fuel and fetching water are acknowledged as women's responsibilities while off-farm salaried labor and market associated activities defined as men's in both communities.

Table 2: The gender division of labor in Ouled Slimane & Sekouma-Irzaine communities (%)

Tasks	Ouled Slimane			Sekouma-Irzaine		
	Men	Women	Shared	Men	Women	Shared
Cereals	77	3	20	33	20	47
Forage crops	89	0	11	36	32	32
Vegetables	86	0	14	64	0	36
Trees	70	0	30	69	0	31
Cattle	21	50	29	54	31	15
Reproductive sheep	35	39	26	33	40	27
Fattened sheep	33	33	33	32	50	18
Commerce / trade	96	4	0	100	0	0
Salaried work	100	0	0	100	0	0
Craftwork	9	91	0	0	100	0
Fetching water	0	100	0	4	96	0
Collecting wood	12	82	6	4	96	0
Organization of community events	48	4	48	52	8	40
Building shelters for community use	86	0	14	83	4	13
Conflicts Resolution	68	0	32	91	0	9

In the communities, the two crop-associated tasks benefiting from women's labor inputs are weeding and harvesting (Table 3). In Sekouma-Irzaine, women may contribute to seeding and to a lesser degree to land tillage or even irrigation. In Ouled Slimane, in the case of reproductive sheep associated tasks, women are responsible for watering, feeding and cleaning the animal pen while men are responsible for herding, veterinary care, marketing and shearing animals. Similarly, in the case of fattened sheep, the three important tasks performed by women are watering, feeding and cleaning the pen. Marketing and veterinary care when applied are performed by men. In Sekouma-Irzaine, in addition to watering, feeding and cleaning the pen, shepherding is essentially or partially performed by two thirds of women. It is important to note that men's tasks particularly in the case of fattened sheep are often one-day operations. Contrarily, women's work is daily, repetitive, labor and time demanding.

Table 3: Women and men's tasks in Ouled Slimane & Sekouma–Irzaine communities (%)

Activities	Ouled Slimane			Sekouma–Irzaine		
	Men	women	Shared	Men	Women	Shared
Farming						
Land tillage	100	0	0	83	3	14
Seeding	100	0	0	62	14	24
Irrigation	100	0	0	50	50	0
Weeding	87	0	13	25	46	29
Harvesting	67	0	33	30	19	52
Reproductive sheep						
Watering	15	81	4	3	90	7
Feeding	11	78	11	0	80	20
Cleaning the pen	4	96	0	3	97	0
Veterinary care	100	0	0	100	0	0
Traditional animal health care	67	17	17	38	50	12
Shepherding	95	0	5	28	43	28
Marketing	100	0	0	96	4	0
Shearing	100	0	0	100	0	0
Fattened sheep						
Watering	11	74	16	0	86	14
Feeding	5	74	21	0	76	24
Cleaning the pen	0	100	0	10	90	0
Veterinary care	100	0	0	94	6	0
Traditional animal health care	100	0	0	44	44	11
Selling	100	0	0	100	0	0

The argument often advanced to justify women's performance of almost all livestock associated daily tasks is their presence at home in comparison to men who engage in off-farm work and out-migration or simply travel to the closest town or urban center to meet with other men. According to key informants, more than half the men of Ouled Slimane visit regularly the city of Taourirt which is located at 30 kilometers from their villages and spending time in the city's cafés is a common practice on market days as well as on other days.

Women's access to resources in Ouled Slimane and Sekouma-Irzaine

One of the interesting aspects of the survey relates to resources. In answering the question of whether or not surveyed women dispose of any resources as their own, 27% and 40% in Ouled Slimane and Sekouma-Irzaine respectively denied possession of anything of value. Some women declared having more than one resource. The remaining cases recognized their possession of few heads of sheep and poultry. Money, jewelry, land and a house were identified by individual cases. According to key informants, it is common in Ouled Slimane to deprive women from their inheritance rights especially when the asset is land. With respect to main sources of money, 77% and 42% in Ouled Slimane and Sekouma-Irzaine respectively recognized asking their husbands.

Women's expressed practical and strategic needs in Ouled Slimane and Sekouma-Irzaine

Securing water for domestic use and electricity are most visible practical needs from women's perspectives. The Ouled Slimane community survey results show that both douars of Lamrinyine and Dâanine are not yet connected with electricity and that 94% of households use candles, butane gas and solar energy. Likewise, the two douars are not serviced by public drinking water with 95.5% of households using wells (INRA, 2006a). The responsibility of provisioning water for the household is often assumed by women. Therefore, it is not surprising that water comes at the top of their list of practical and priority needs (Table 4).

Similarly, drinking water is a priority concern for women in Sekouma-Irzaine followed by electricity and a health service unit. These results are entirely in harmony with the findings of the participatory diagnosis workshops conducted previously with separate groups of male heads of households and groups of women in the two communities (CDPs, 2006). In both communities, women's strategic interests included a women' center, literacy courses and a women's association. Undoubtedly, women are aware of the importance of appropriate structures, learning and organization as prerequisites for their advancement.

Table 4: Women's expressed practical and strategic needs in Ouled Slimane and Sekouma-Irzaine communities

Practical need	Ouled Slimane		Sekouma-Irzaine	
	Frequency*	%	Frequency*	%
Water for domestic use	26	43	17	27
Electricity	17	28	14	22
Health service unit	4	7	11	17
Flagging /current house	6	10	0	0
Money	3	5	9	14
Refrigerator	3	5	4	6
Livestock	0	0	2	3
Other	1	2	7	11
Total	60	100	64	100
Strategic need				
Women center	17	30	10	22
Literacy courses	14	25	18	39
Association	11	19	6	13
Employment	6	11	2	4
Public bath (hammam)	4	7	0	0
Information	2	4	5	11
Have money /capital	0	0	2	4
Does not know + other	3	4	3	7
Total	57	100	46	100

* The total is more than the number of cases because some answers had expressed more than one need

Income earning options for women: possibilities and constraints

In the two communities, women were asked whether or not they were interested in income earning activities and what would those activities be? Raising small ruminants, particularly sheep, was identified by 57% and 40% of surveyed women in Ouled Slimane and Sekouma-Irzaine respectively followed by poultry as the second best income earning option. None of the women mentioned craftwork or carpet weaving in the case of Ouled Slimane. In Sekouma-Irzaine, 21% of surveyed women still consider weaving as an income generating activity.

Women's preference of small ruminants has been shown in a study on innovation and change in the female world based on a sample of 181 women from six rural communes of the Eastern part of Morocco (Hammoudi, Rachik and Tozy, 1993). In this study, it was found that 50% of sampled women in El Ateuf rural commune, 45% in Bouarfa, 41% in Ain Bni Mathar expressed the desire to engage in activities outside the domestic sphere and livestock was identified as the preferred activity by 33% of all those desiring to engage in productive work (Hammoudi, Rachik and Tozy, 1993).

Women, livestock and decision -making

It must be noted that it is presumptuous to construct analyses of the extent to which women are effectively making decisions from answers to a few survey questions. Decision-making is a complex process especially at the household level and it is hardly reducible to one facet description. According to Lubbock, "Decision-making is a process in which different members of the family interact. It is not enough simply to ask 'who takes the decision'. The answers will tend to refer only to the final action required to put that decision into practice, to the formal decision. Looking at how the decision is taken and on the basis of which knowledge and whose, tells us a great deal about who contributes to that decision" (Lubbock, 1998). In fact, Lubbock pinpointed the linkage who does what / who decides. Her argument was that the understanding of who decides in a specific area must be looked at in relation to detailed knowledge on who does what, who has which kind of information / knowledge, distinction between areas of shared and those of separate decision-making and the consideration underlying the decisions (Lubbock, 1998).

The following is only indicative of areas with men and women influences as seen from the women's point of view. In general men are the key decision makers in almost all spheres from children education to marketing agricultural products. However, certain spheres appear more open to shared decisions than others. In other words, the tendency to shared decision-making is greater in family matters than it is for farming matters. Within the latter, livestock knows lightly more shared decisions than crops.

Women of the study communities are actually more involved in decision making regarding small ruminants than what is shown through the survey questions. In focus groups discussions with women, it was recognized for example that women are responsible for

selecting the lamb to be slaughtered on the occasion of Al Adha and the number of animals to keep on-farm. Women are heavily involved in caring for sheep whether reproductive or fattened. This involvement makes them more knowledgeable about these animals than the men of the family. Their knowledge represents the basis upon which decisions are taken. In Lubbock's report, it has been argued that "Women's care and responsibility for livestock gives them a certain power over decisions related to livestock (the main decision being when to sell). Their daily contact with the animals provides women with unique knowledge, on the basis of which they can express opinions on important issues such as which animal to buy or sell, when buy fodder and in what quantities, and what treatment to use in the case of disease" (Lubbock, 1998).

Table 5: Women's perception of their role in decision-making in Ouled Slimane and Sekouma-Irzaine communities (%)

Decision area	Ouled Slimane			Sekouma-Irzaine		
	Men's Decision	Shared decision	Women's decision	Men's decision	Shared decision	Women's decision
Children's education	50	50	0	59	38	3
Marriage	63	37	0	78	22	0
Health	53	47	0	66	34	0
Livestock production	79	21	0	70	27	3
Livestock marketing	83	14	3	70	23	7
Use of livestock earnings	83	17	0	79	17	3
Crop production	80	20	0	79	14	7
Crop products marketing	83	17	0	77	17	7
Use of crops earnings	83	17	0	78	18	4

Women's wishes for their children

In order to shed some light on the future projects women hold for their children and the extent to which these projects are gendered, surveyed women were asked to express their strongest wishes for their sons and daughters. In both communities, the most important option for their sons was a permanent job (Table 6). Studies and migration abroad are secondarily considered. In the case of daughters, the most important option was marriage. Other options included machine sewing and studies. It is evident that the future models to which women aspire continue to fit in traditional patterns with marriage being the most idealized situation for girls and employment for boys.

Table 6: Surveyed women's desired future for their children in Ouled Slimane and Sekouma-Irzaine communities (one option question)

	Ouled Slimane		Sekouma-Irzaine	
	Frequency	%	Frequency	%
Sons				
Permanent job	17	63	10	34
Studies	5	18	5	17
Migration abroad	5	18	6	21
Other			8	28
Total	27	99	29	100
Daughters				
Marriage	12	43	8	27
Machine-sewing	7	25	5	17
Studies	5	18	6	20
Salaried job	3	11	3	10
Living in town	1	4	3	10
Other			5	17
Total	28	101	30	101

Insights from the qualitative work

Several focus groups have been conducted in different douars of both communities during several visits before the survey. Interestingly, the first interaction with women in Ouled Slimane led to believe that they did not engage in any farm work. In a focus group in Dâanine with about 15 women and girls of all ages, women said that their principal responsibility is food preparation and were astonished of being asked about their contribution to agricultural work. In one woman's word, "here we do not have any professional skill (*sanâa*) except bread making and meals preparation (*lkhoz wa lgamila*)". In the subsequent visit a few months later, a focus group discussion with women from the same douar revealed the great extent of women's implication in farm activities particularly in livestock production. The seeming discrepancy between women's responses in the first encounter and later visits may be explained by their perceived self-image and their actual role in livestock production. According to participating women and girls in the focus group discussion, there is clear division of labor in Dâanine with men being in charge of all crop activities and crop associated tasks. Women do not work in crop fields. A little precision is needed here concerning the distinction between crop fields and olive trees near the irrigation canals on one hand and home gardens and olive trees in the vicinity of the house on the other. In the latter, women are providers of most of the labor needed. One of the women of the group disagreed with the others stating that as a widow she regularly goes to the fields to help her sons even the fields located near the irrigation canals. Another woman then said that she operates the water pumping engine and irrigates the family olive fields wherever they are.

These examples may be indicative of changes of women's involvement in crop production in need of further investigation.

In the case of livestock, the participants were unanimous about their involvement and their responsibility for most of the fattening sheep associated tasks. Women's vital role in sheep production is not unique to Dâanine, but found in the second douar of Ouled Slimane and the visited douars of Sekouma-Irzaine. Development agents working in the area acknowledge the important contributions made by women in livestock production as they care for cattle, sheep husbandry on-farm, poultry and rabbits.

An important feature closely tied with women's involvement in small ruminants' production is women's acquired knowledge and their practice of traditional health care. Because of the daily care for the animals, women have developed experience and knowledge about phases of the reproductive cycle, nutritional requirements of different categories of animals, the health status of the herd, etc. They even know the names of the grazing areas, shepherding arrangements, market fluctuations and feed prices. In the case of animals kept for fattening, women know the varying feeding needs during the fattening period.

Lessons learned

Lesson one: Participatory approaches are not automatically gender inclusive nor are they always sufficient

The use of generic terms such as population, people, community, grassroots organizations in reporting leads to believe that women's concerns and views have been considered. In addition these terms are used interchangeably to refer to particular groups or individuals within a community or population based upon the assumption that participatory is automatically inclusive. It is often assumed that the use of participatory approaches and tools exclude the search for and use of secondary data sources. As a result, efforts to search for sex-disaggregated data or seek and analyze available secondary data on women remain limited in development reports. Then the question becomes how to combine data sources and techniques in order to develop a coherent output allowing a better understanding of the situation or the group of interest.

Lesson two: Role of women in small ruminants' chains is currently important and tends to increase

It is clear that women are aware of the demand made upon them in terms of their domestic and reproductive responsibilities as well as family labor suppliers for agricultural production especially small ruminants which constitute the main activity of the study communities and neighboring communities. As argued by Nassif (2008), "One of the consequences of observed trends and changes in livestock management in Morocco because of climatic conditions and frequent droughts, among other factors, is the increase in women's involvement in livestock. When livestock intensification is looked at in the light of farm size, herd size, and the status of labor supply, it becomes clear that women play an important role in allow-

ing the development and consolidation of the new practices. In the past, small ruminants used to be continually moved to available water and grazing areas. Today, growing numbers of farmers and herders are developing small-scale fattening activities to satisfy the high demand of the feast of sacrifice for lambs and increased demand of urban growing populations. This short term lamb fattening at home is often achieved with family female labor".

Lesson three: Women's actual roles in production and in decision are culturally bound

Gender roles are culture bound, their change will be part of larger processes of social change and thus cannot be attained rapidly based on sensitizing efforts. Their change takes time. But they do change. Development initiatives are interested in immediate actions and immediate results. Very often, one shot research initiatives fall into simplistic generalizations which can be detrimental to gaining fuller understanding of socio cultural processes.

Lesson four: Most suitable income earning options: Women engage in what they know and do best but earn income and status from it

Livestock in general and sheep fattening for Al Adha in particular appears to be a suitable income option for women. It is a seasonal activity carried out over three to six months. Women have the skills and the necessary know-how to carry it out successfully. The activity can easily be integrated in the family sheep fattening operation because it is primarily conducted at home. Market opportunity and marketing time and risk are relatively known. Most importantly, women themselves seem interested. The two key eventual constraints remain the availability of initial funding resources and the willingness and preparedness of the family men to support women.

Conclusions

Despite the increasing evidence on women's substantial work in the livestock sector, prevailing perceptions, policies continue to undermine this role. Gender analysis must be integrated in addressing livestock and climate change linkages because it can be instrumental in bringing about useful insights towards better performance of the sector and greater social equity. Identifying and promoting better livestock management practices and best sector development policies to reduce its vulnerability to climate change requires understanding of the evolving gender roles in agro-pastoral systems.

Raising small ruminants, particularly sheep fattening for Al Adha is probably the most suitable economic activity for women in agro-pastoral communities. Not only may the activity be nicely fitted in women's work calendars but it will be a source of earning badly needed income. However, if income generation activities are important to increase women's economic benefits, capacity building is equally important. Without literacy programs, skills development, access to relevant information and strong household and community support, opportunities for women remain curtailed and their inner capacities untapped. Increasing women visibility and ensuring that their needs and their perspectives are fully integrated as parts of the community development are beneficial to the community before they benefit women.

The valuation of rural women's work is necessary. It can never be emphasized enough to say that women in agro pastoral communities contribute substantially to key productive activities, particularly daily labor demanding livestock associated tasks such as watering and feeding. In fact, without family women's unpaid work, this type of production systems in terms of current diversification and scale would not have been possible. Sometimes, as girls marry and leave the home, farm-households do not practice fattened sheep, reduce the herd size, or abandon the whole venture of sheep husbandry.

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