YEMEN ARAB REPUBLIC
MINISTRY OF AGRICULTURE & FISHERIES

and

UNDP

report about the workshop on

WOMEN IN AGRICULTURE

9 APRIL 1988

Joke Burings
(editor)

held at the premises of the
HAF/Veterinary Project
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Preface

Three years after the seminar Integrated Rural Development as a Means of Improving Conditions of Life of Rural women, organized by the Rada' Integrated Rural Development Project in Rada' from 12–15 May, 1985, a follow-up was organized by the Ministry of Agriculture and Fisheries in cooperation with UNDP on April 9, 1988. It was hosted by the Ministry at the premises of the Veterinary Project in Sana'a.

The workshop was organized in the first place to enable female members of rural development projects to meet each other and to exchange experience, while on the other hand providing the opportunity to meet with Yemeni and expatriate officials in order to continue the process of developing a common strategy for improving the position of rural women.

Participants had been asked to provide a brief presentation in the morning session regarding the achievements and constraints encountered in their projects. Thus, it was hoped to obtain an overview of the current state of affairs and to arrive at relevant recommendations for the near future.

In the afternoon discussion was planned around the themes of training of women, agricultural extension and livestock, reducing women's workload and key factors in project planning as these were seen as central to the current discussion regarding women's role in rural development.

The meeting was opened by Ms. Fatma Al-Horeiby, Deputy Director General of the Rural Development Project Department at the Ministry of Agriculture and Fisheries as representative of the participants, by Mr. Mohamed Azzam, Resident Representative of UNDP and Mr. Yahya Ali Zabra, Assistant Deputy Minister of Agriculture and Fisheries.

In this report the presentations given by the participants are given, followed by the outcome of the discussions held during the afternoon.

Joke Buringa
Opening Statement

I am delighted that, with the assistance of the UNDP office, a seminar about the improvements of women's involvement in agriculture is being held with. This seminar is to provide the means by which the activities of female extension agents in rural development will be stimulated.

Yemeni Development Plans have given priority to the agricultural sector, inasmuch as it forms the backbone of our country's economy. The great roles which are played by women in agriculture should not be overlooked. Also, one the ultimate significance of improving women's agricultural skills, which will lead to the increase of women's productivity in husbandry and agriculture should not be underestimated.

During this seminar, many lectures and speeches will be delivered by representatives of several rural development projects, which are working toward the development of rural women. Those lectures and speeches will define the problems and the obstacles, which are confronting the implementation of rural development programmes aimed at women. Recommendations and feasible solution will be offered, which are aimed at upgrading women's involvement in livestock care and agricultural activities.

Today, several foreign partners will participate in this seminar, who are involved in the improvements of development projects. They will suggest ways of coordination and cooperation, which will be enable us to formulate appropriate development programmes for women in the Yemen Arab Republic.

Finally, I have left to say, but to extend my support to the political leadership, headed by Brother/President of the Republic Ali Abdallah Saleh, Secretary General of the People's Congress, whose leadership is dedicated to support the Yemeni citizen - both male and female - to participate in the general development of the country. If it were not for his support, we would not have been here today.

I would like to extend my gratitude to the UNDP Office and to the FAO, who have provided their support and assistance to make the implementation of this important seminar possible. Again, I do express my thanks to all of you, who made efforts to be present with us here. I invoke God in our favour that He my help us all to follow the straight path of good deeds.

Fatma Al-Horeiby
I would like to express my delight and pleasure that today an opportunity is given to all of us to meet each other. In this seminar we shall shed light upon some important aspects of the YAR economy. At the same time, I would like to express my joy and delight to see many representatives of several organizations, which are working in Yemen. These organizations are involved in a large number of development projects, whose activities are mainly directed at rural women.

I think that, for the first time, an opportunity is given to representatives of foreign partner-organizations to come together in one place, to talk, and to share with each other information and experiences which they have encountered in relation to Yemeni women in agriculture. We, at UNDP, think those meetings give each person a chance to examine what others have achieved. Information, when shared, will lead to a better utilization of the available resources, which are allocated for rural 'women in development' projects.

As you know, the Yemeni economy is - up until now - dependent on agriculture. It is the essential component of Yemeni economic development. Years ago, we were accustomed to see that women were at the backstage, although statistics had proven that women's agricultural production was not less than men's. Nevertheless, men used to take precedence over women, their contributions were repeatedly shown, while women's were kept behind the scenes.

We, at UNDP, think that the real meaning of this seminar is not only to acknowledge women's roles in agriculture, but also it is to recognize her major roles and her status in the economic domain as a whole. Instead of playing their roles at the backstage, women are to break the chains which hold them back from playing their essential role in the forefront. The Yemeni woman has a place in her country's economy. I think 35 per cent of the Yemeni women work in the economic sphere. This seminar is organized to raise women's consciousness, and also to support women's roles in the Yemeni economy.

It is not necessary to disdain the tradition, norms and values, which have evolved over many years. Nevertheless, we are given a chance to distinguish between the ethical, moral and social values and the traditional practices which were inherited and had no moral or social values. Here, we do not wish to put our finger on the tradition, the norms and the moral values, which have developed for centuries.

As you know, UNDP has pioneered in supporting women's activities. In this domain, our progress has not been firm and decisive yet. UNDP has only one project: the rural development project in Alhawlan. I think our experience is humble and modest, yet it will be expanded. Give me the chance to explain an important subject. UNDP is not too ambitious to resolve women's problems in Yemen. Women's problems are to be solved by women themselves. Women should bear the torch of liberation, they should play their essential roles in Yemeni society, without disdaining the tradition, the norms and the moral values.
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If this seminar would help us to make small steps forward in that the Yemeni women would become capable of playing her designated role and the Yemeni man would be convinced of women's roles, which ought not to be undervalued, we at UNDP would have achieved a modest contribution. A contribution which will support women's efforts toward the realization of women's active participation in development.

We consider this seminar as an initial step toward a series of activities. I repeat that the UNDP is willing and ready to support and to contribute to the realization of training activities. Certainly, this seminar will generate theoretical and practical procedures, which are necessary to support women's activities in the Yemeni society and are wished by all representatives of counterpart organizations.

I thank you all for attending this seminar and I wish you success and a fortunate outcome of your discussions. Again, let me repeat that this seminar is an initial step toward a series of activities which the Yemeni women deserve all the credit for, the Yemeni women that shall carry the torch of liberation and progress.

Mohamed Azzam
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Speech by the Assistant Deputy Minister of Agriculture and Fisheries

First of all, please give me the chance to convey the greetings of Brother/Minister of Agriculture and Fisheries Dr. Hussein Abdalla Al-'Amri to you. He wished to come, yet he was not able to attend. Certain work obligations prevented him from coming.

I am delighted to welcome all of you at the commencement of this seminar about the improvement of women’s contribution to agriculture, which is being held here with the assistance of UNDP. We are accustomed to UNDP’s sincere assistance with regard to the establishment of training courses and seminars. This seminar which is being held now, is one of many seminars that are aimed at upgrading the performance of tasks and functions by Yemeni citizens - both men and women.

We all know that the Yemeni woman has positively participated in agricultural activities for centuries. She used to share man’s agricultural work. She worked with him in tilling the soil, sowing the seeds, irrigating the land, harvesting the crops and livestock care. She worked side by side with her husband, children, father, relatives and other village girls. This fact is undeniable and it is recognized by all of us.

There has always been a strong connection between the Yemeni citizens and his/her historical environment. At present, in the democratic era, the Yemeni woman is exploring new horizons after she armed herself with education. She generously contributes to the agricultural, the health, the educational, the cultural and the socio-economic field. Today, women’s participation is modernized and developed. She uses technical instruments to a large extent. We wish that women’s contributions will be ultimately effective since more educational opportunities are granted. The educational college at Sana’a University, agricultural schools and several other institutes in many fields are widely open to both males and females.

In may be mentioned that many efforts are exerted in the area of development. We all know that our rightly guided leadership which is headed by Brother/President Ali Abdallah Saleh, Commander-in-Chief of the Army, Secretary-General of the People’s Congress, has displayed the fruits of its sincere intentions toward agricultural development.

Animal and agricultural products of good quality are seen in the market-place throughout the year. The establishment of agricultural projects, dams, water channels, special livestock and agricultural farms, nurseries, agricultural colleges, institutes, schools, research centers, agricultural extension centers and other institutions, that render agricultural services, are only signs and indications of our progress towards the development of the agricultural sector.

Finally, I again extend my gratitude to UNDP which collaborated and cooperated with the Ministry of Agriculture and Fisheries to establish this training
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seminar, which is considered to be one of the most important seminars that are aimed at the improvements of work-fulfilment.

I thank all who are present here and I wish that the outcome shall be positive and successful.

Yahya Ali Zabara
Enactment of laws related to women and agricultural development policies

Planning in the Yemen Arab Republic (YAR) started many years after the 1962 Revolution, because the YAR Government was involved in the Civil War to defend the revolution against the royalist supporters. Hence, after the end of the Civil War, peace was spreading in the country and the YAR Government started to focus on restoring order and planning for development programmes to stimulate the growth of the country’s economy and the well-being of the people.

In this presentation I would like to talk to you briefly on the legal status of women in the YAR, the development policies and plans of YAR related to women, and finally, the achieved recommendations of the Rada’s seminar on Integrated rural development as a means of improving conditions of life of rural women (held in May 1985) which was funded by the Dutch Government.

The legal status of women in YAR

Women’s legal status particularly concerning family law and inheritance is primarily determined by Shari'a Law and its current interpretation by local Muslim authorities and by recently enacted written laws.

Politics is an area where women’s position has clearly improved since the Revolution. While, in the past, women’s participation in politics was inconceivable, they now officially have the vote when elections take place and can even be members of political bodies.

Finally, I would like to brief you on the Labour Law of YAR, which makes certain provisions aimed at assisting and protecting women. On the whole women are protected by the Labour Law in the same way as men, insofar as the law defines a worker as male of female (art. 2). In addition, it gives the women special protection: they may not work at night (between 6 p.m. and 6 a.m.), nor in dangerous activities. Women are entitled to 70 days of maternity leave and they are to be paid 70% of their salaries.

YAR development policies and plans as related to women

The importance of women's role in development has been recognized in the country’s First, Second and Third Five-Year Plans as the following were among their objectives:

1. Improving and updating training and teaching of women to have a sufficient number of qualified personnel of both sexes for the process of development.

2. Encouragement of women’s participation in the economy by joining the workforce to work and to produce.

3. Social training of girls to work in women's associations and centers and agricultural training of girls to work as extension agents in the field of agriculture.
4. Expanding the people's participation in defining their regional socio-economic choices and encouragement of women's participation in development.

In summary, YAR development plans paid special attention to development issues, especially in relation to women and their participation in implementing the plans.

Last but not least, I am very pleased that since May 1985, when the Rada' seminar on integrated rural development as a means of improving conditions of life of rural women was held, five recommendations have been achieved as follows:

1. This workshop on Women in Agriculture is a continuation of the seminar.

2. Female extension agents have been and are being trained in the Tihama, Khowlan and Rada'. There are for instance 25 female extension agents in the Tihama and 5 women from Khowlan were sent to Egypt for training. Many more female extension agents have been trained over the past two years.

3. Intervention sources to finance women in development are available, e.g. Unifem is funding the project in Khowlan.

4. Within the General Directorate of Rural Development Department in the Ministry of Agriculture and Fisheries a subdepartment for Rural Women's Development will be established. It has been approved by the Government and at present is in the final stage awaiting a ministerial decree to be established.

5. Female Arab experts and volunteers have been recruited in different projects, e.g. Tihama, Khowlan, Rada' and Central Highlands.

In conclusion, I would like to thank all of you for listening to my presentation and I wish that this workshop will be successful and fruitful.

Fatma Al-Moreity
Introduction on the role of rural women and their involvement in agriculture

First of all I want to show you simply and clearly that rural women work in agriculture and how they work in agriculture. They are a crucial component of the agricultural labour force in Yemen and are also key decisionmakers, particularly in livestock. By teaching them via agricultural extension programmes to do their jobs better, you will influence agricultural production in the country as a whole.

Let me give you some statistics: 68% of all women over 10 years of age in the Yemen actively work and of the female workforce 98.5% work in agriculture and livestock activities. One can say that they are responsible for 70 - 75% for all agricultural activities in the country.

The following discussion is based on observations which were made over 18 months in the Dhamar region. They may provide a guide to women's agricultural involvement in other regions of the country too. I would like to start off by saying that I believe that the high brideprice, which rural women command in the Dhamar region is an indication that society recognizes and values the economic contribution of rural women to the household.

Agriculture in Yemen is still a family enterprise. 90% of its population lives in the rural areas and women comprise 49% of the total population. Since men started to migrate in great numbers in the 1970s, they have witness an increase in the dual responsibility of working in agriculture and in the home. However, there is an attitude that prevails and that is that women are of secondary significance in the rural sector in spite of the fact that they play a crucial role in the family as well as in agricultural production. And finally, because the work done by rural women is not paid for in cash, normally it is not classified as gainful employment by many countries in this Middle-Eastern region.

Work roles of rural women

Above all other tasks, the rural woman is a wife and mother, responsible for teaching her children the social values, traditional beliefs and way of life of her people. In Arab culture, this function of women is praised and reinforced. Workroles within the household are also clearly defined, varying with age, sex and social class. Men and women have certain tasks, children and old people have others. The description which follows should be treated as a general overview of perceived tasks. Domestic responsibilities include caring for children, cooking/cleaning and clothes-washing, fetching adequate supplies of water and collecting/making fuel for the kitchen.

Regarding agricultural responsibilities, there is still some ambivalence in the way that women's roles in agriculture are perceived. Rural Yemenis are likely to emphasize that agricultural activities are shared and that husband and wife help each other in the fields. Simultaneously, for those Yemenis who have had extensive contact with cities, women's work in agriculture is
sometimes thought to conflict with the prevailing ideology, that the man as head of the household should be the sole provider for all household members. On the whole: the pattern of labour allocation will differ according to the type of agricultural practices and the crops produced.

The work that women do is also dictated by age, land tenure, social class and area of residence. Older women carry out the lighter tasks such as sowing seed, thinning and weeding. Children assist with weeding and thinning. Sometimes women of the elite do not work at all. They are relieved of their agricultural tasks by day labourers and remain at home. Women in rural towns work less on the land than do women in small villages. Their lands are rented out.

Also, the work that men and women do is task-specific. There are some jobs that only women do and some other that only men do and in between it is dependent on how much labour is available in the household. Here are some examples of the type of work done by women in some of the major crops. On irrigated land the labour requirement is spread throughout the year and it is quite heavy. Crops include: grains, legumes, cashcrops like potatoes, vegetables (onions, carrots, tomatoes) and alfalfa.

Men's work is land preparation, esp. in the cultivation of grains (sorghum, maize, barley, wheat) and cashcrops (potatoes) and fruit production. It also includes the construction and repair of terraces, and irrigation pump and canal maintenance. Sowing cereals is a two-person operation, with one man pushing a plough and another man or woman walking behind and dropping the seeds into the furrow.

Harvesting of alfalfa to be used as fodder for the housecow is done by the women on a daily basis in the morning and sometimes in the late afternoon. The thinned stalks of maize, sorghum and weeds are collected by women from the fields for fodder. Sorghum is harvested by all adults in the household. The heads of the sorghum are threshed by men. Maize is husked and shucked by hand - usually by women, although men help. Wheat and barley are harvested by men and women. It is threshed by a donkey, which is led by a man or woman. Adult women are solely responsible for cleaning and grinding the grain to make it into flour.

Vegetables (which are now appearing in the Dhahar region, like tomatoes and onions) are harvested by both men and women. Fruit (apples, peaches, grapes) are planted and cultivated by men, but may be harvested by both men and women. Planting and irrigating coffee trees is men's responsibility in the initial stages, but harvesting is done by the whole household. Qat cultivation is usually men's work. Potatoes are cultivated by men, but harvested by all the family.

Animal production

Probably the most important area of women's work is in animal production, in livestock care (except for milking the camels in the Dhahar). If a household has cows, donkeys, chickens, rabbits, goats and sheep, women and children share the work of the livestock care.
First of all we will look at cattle production. Almost all households in Hammam Ali, Qa' Bakil, Al Jum'a and Qa' Jahran (all in the Dhamar region) have at least one cow, which is usually tethered for most of the day and is hand-fed by the women of the household. Feeding starts between 6 and 8 a.m., with threshed wheat and barley straw fed loose, whilst the cow is being milked. The main feeds are between 9-11 a.m. and 3-6 p.m. Sorghum stalks wrapped with sorghum leaves and alfalfa are held at the animal's mouth and pushed in until the lollipop is taken.

Milking is usually done by women 2-4 times a day (also depending on the stage of lactation), although normally 3 times. Processing dairy products is a woman's job. Butter is made daily from the previous day's milk, to which sheep's milk may have been added. Milk is not usually drunk fresh, but rather laban is drunk daily with bread for breakfast. In an extended household, where several women share domestic and agricultural tasks, the care of the cow and processing of its milk is the responsibility of the old women of the house.

Sheep and goats are herded together. Herding is the responsibility of the sons or daughters of the flock owner. In the area of poultry production we see that the raising of chickens is women's work. Chickens and eggs are used for a household cash-income, gifts and domestic consumption. If the husband is away, women control the income produced from chickens and eggs. Donkeys are looked after by the entire family, though it is women and girls who fetch their fodder. On the whole, women perform laborious agricultural tasks all the year round, even when the cropping is slack or it is not the planting season.

The sharing of responsibilities

Most agricultural labour is household based. Tasks are allocated among the available household members, who perform them as needed. The women of the household take turns performing domestic and agricultural tasks in the extended household, where brothers live together with their wives, parents and unmarried sisters. But in nuclear households, all domestic and agricultural chores must be performed by one woman until her children grow old enough to help her.

Summary

As we have seen, women's agricultural responsibilities are primarily in:

- livestock care, including poultry;
- collecting fodder (stover, weeds);
- cutting alfalfa;
- husking maize;
- processing grain, and
- processing dairy products.

The following tasks may be performed by men, women or by men and women together:
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- harvesting crops (other than qat);
- threshing grains, and
- winnowing.

Worth bearing in mind is the following classification of activities, stated by village women according to those jobs that they consider least productive and most time consuming, which could serve as a basis for further discussion:

- grinding grains by hand;
- hauling water;
- collecting fuel and making dung cakes;
- gathering fresh fodder;
- handfeeding sorghum stalks;
- manually processing milk into butter, and
- threshing and winnowing grains.

Helen Dubok
Report from the Southern Uplands Rural Development Project

Before presenting a brief report on the Women’s Section at the Southern Uplands Rural Development Project (SURDP), I would like to discuss the situation of the Women’s Sections in rural development projects in general. It is clear that the subject of women and development has attracted a good deal of attention recently. Interest in the subject has come as part of a larger movement to recognize that all populations have subgroups that participate in and benefit from change in different ways.

In the developed world women are just one subgroup that has been focussed on. Both governmental and non-governmental organizations have been forced to take a more sophisticated approach to change and development and now are dissecting both the process of change and its beneficiaries.

First I would like to tell you something about how the Women’s Section in SURDP started. It began in 1978 as a small section that provided some of the services that rural women needed at that time, such as literacy education, health services and also some extension regarding agriculture. The first phase lasted until about 1980. Afterwards, the section expanded and started to provide more services. The number of extension centers increased to in 1985. At present we have a new project for rural women and this project may be regarded as a pilot project, which can serve as a model for other rural development projects in the future.

This pilot project centers around agricultural activities. This means that our Women’s Section has come to provide the rural women with all they need in the agricultural sector, like seedlings, vegetable seeds, plant protection and extension that can be given by extension agents at the home. She can be taught how to increase the yield from her home garden and what to do with the increased crop with cooking and preservation techniques. The women are also taught how to make cheese, instead of drinking and/or selling the milk. Thus, they do not have to buy cheese in the market.

We will look at this pilot project in more detail. Nine centers participate in it, six in Taiz and three in Ibb. Each center will have three extension agents, two of which will be well-trained in agriculture and animal husbandry and the third one will also be a specialist in home economic activities.

The main objectives of the women’s extension service are:

- to increase the agricultural productivity in the project area and this can be done by providing agricultural extension directly in the field of grain crop production, through the introduction of improved practices of cultivation, the use of fertilizers and improved seeds;

- to introduce and/or to expand the cultivation of vegetables, both as field crops where possible with irrigation and a small household garden, in order to improve family nutrition and thus family health standards;
- to introduce the cultivation of fruit tree in villages, both for improved family nutrition and consumption as fresh fruits and desserts but also as a possible source of income through the sale of part of the produce;

- to introduce improved animal husbandry practices;

- to introduce a number of appropriate technologies in agriculture;

- to introduce a number of appropriate technologies in the home to improve living and working conditions;

- to improve health and nutritional standards in the project area by increased agricultural production, health and nutrition education and the teaching of better child care practices, and

- to establish a basis for the expansion of women's extension service in the future by creating an effective body of subject matter, specialists, and competent managers at the headquarter, and by creating a body of professional female extension staff who will form the core of a larger service in the future and work within an attractive career structure with good promotion prospects.

Faiza Saeed
The Women's Section has started its activities in January 1988 as an orientation phase. Before that, the water hygiene campaign has been launched since May 1987 as an introductory phase for the Women's Section. However, from this campaign a lot of information about the rural women's needs and problems in agriculture and animal husbandry have been discovered.

The objectives to which the project contributes:

1. To gain the confidence of rural women in activities by the Women's Section esp. in the field of agriculture and livestock.
2. Discovering the women's real needs in agriculture and animal husbandry.
3. Training of female extensionists in the fields mentioned above.
4. Offer agricultural extension services for women.
5. Carrying out training courses for women in agriculture and livestock.

Achievements:

The section is new and therefore our involvement in the fields mentioned is very limited. However, the achievements include the following points:

a. Partial achievement in finding out about rural women's needs in agriculture and livestock.

b. Identification of a female agricultural extensionist. The procedure of employing her has not been finished. She is going to start vegetable growing (home gardening) in July 1988.

c. Identification of a female Yemeni counterpart.

d. Identification of a male veterinarian, who is now giving extension messages about animal health issues upon request.

e. Identification of a female veterinarian, who is going to work as coordinator between the women section and the veterinarian. Procedure has not yet been finished.

f. Advice rural women about agriculture and livestock upon request.

g. Organization of cooperation with the women's section and agricultural and veterinary sections.

h. Organization of cooperation with the national and international institutions Ministry of Agriculture and Fisheries in Sana'a, FAO and UNDP.

Constraints

1. Lack of intensive studies on women's role in agriculture and animal husbandry.

2. Lack of enough female experts - esp. local ones in the field of agriculture and livestock.

3. Lack of qualified extensionists in the areas mentioned above and who are willing to work in rural areas.
4. Lack of enough counterparts (only one).
5. Lack of transport (only one car and villages are scattered in different areas).
6. Lack of special places for rural women to meet.
7. Lack of special center or units to train the female extensionists in the fields mentioned above.

Solutions

1. Intensive research study on the role of women in agriculture (July 1988).
2. Two experts from Germany or from other nationality available in Yemen to do the study (shortterm experts).
3. Recruiting of more experts who speak Arabic in the field of agriculture and livestock.
4. Recruiting of more extensionists in the field of agriculture and animal husbandry (at least two).
5. Identification and recruiting of rural women to be trained as extensionists in the fields mentioned above.
6. Training measures for the extensionists, consisting of practice in other women's projects, workshop and on the job.
7. Cooperation with the agricultural and livestock sections of the Mahweit Rural Development Project.
8. Organization of meetingplaces in rural areas.
9. Provision of financial support for education materials, one additional car and 2 to 3 manmonths to evaluate the activities.
10. After four years the women's section could adopt the decentralized or regionalized integrated approach of extension system. This will help in establishing a district integrated center. The extension facilities like lab for veterinary work, coordinator, nurseries etc.

This system could be illustrated in the following diagram:

![Diagram of Extension System]

Najwa Babaker Abdallah
Report on the Rada' Integrated Rural Development Project

The main goal of the Rada' Integrated Rural Development Project (RIRD) is to improve the quality of life for people in rural areas through adequate development and to lessen poverty and nutrition deficiencies by increased production. Also, the change that is taking place in the society may have a positive or negative effect upon women. Therefore, all her activities and needs must be included in the development programmes, to encourage her to be more active and to be an effective member in the society, because she is the producer and the decisionmaker.

The main objective of the Women's Section in RIRD is therefore to design a suitable programme, which will contribute to realize and increase the participation of women in the communities through these objectives. The sections' objectives are to answer nutritional, environmental and sanitary needs, to provide mother-and-child care, to stimulate income-generating activities, to develop handicrafts skills, to promote adequate technology in agriculture and livestock activities. Further, the section wants to promote women's capabilities, resources and skills, to fight illiteracy of all age-groups (especially among the women) and to facilitate leadership training programmes.

To achieve all these objectives, the section is implementing programmes to meet the real needs of the rural women through its centers in the project area promoted by its well-trained extension agents. It is important to provide the families with vegetables and fruit to increase the consumption and/or correspondingly the daily consumption and selling the surplus. Agricultural activities are gradually added to the programme because it increases the chance that women are involved in practicing agricultural activities.

Cooperation between women who manage their own farm and the question of how to obtain their interest was included to improve the technical know-how. Operating thresher activities is recommended as an agricultural operation to help women in saving time and money, especially during the harvesting season. Establishing nurseries and making compost is recommended in the programme to provide the women with healthy seedlings and organic manure at the right time. Distribution of fruit and forest trees is also one of the section's recommendations. Availability of agricultural tools and other inputs is the section's responsibility.

Raising domestic animals and poultry is traditionally a woman's job although she lacks the technical know-how. To solve this problem the section implements a programme for distributing goats of high milk production, layers for high production of eggs, bonemeal as substitute for imported feed for chickens and animals, together with giving extension lessons and scientific advice in the improvement of housing and feeding, as well as veterinary service.

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1A small part of the speech given was not recorded, unfortunately.
Intensive on-the-job training for both fieldstaff like extension agents and local leaders is taking place to improve the technical skills and to gain more experience through learning-by-doing. With these kinds of activities continuous follow-up is a must. Awareness of the achievements and failures needs to be stimulated.

Faiza Abdallah Mohamed
At the beginning of my talk I would like to extend our gratitude and our thankfulness to the UNDP office, which has invited us to attend this special seminar about women's involvement in development and agricultural activities.

The viable and active roles, which are played by women in the lives of the family and the society are widely recognized and cannot be ignored. However, women are not capable of playing their roles unless they have had the opportunities of obtaining the appropriate education and knowledge. Therefore, education opportunities, if widely open to women, shall expand women's horizons of knowledge and understanding. Then, women will be capable of carrying out their responsibilities toward their families and societies.

A common saying points out that: 'If you teach a man, you teach only one person; if you teach a woman, you teach a whole family'. In the same vein, the Tihama Development Authority has directed its careful attention toward education and acculturizing Tihama rural women. Namely, the rural female workers have provided guides, instructions and advice to Tihama rural women.

The Tihama Development Authority has taken the initiative to achieve for programmes in the southern district, Rima' and Zabid Project. Four training courses were organized and implemented during the years from 1981 until December 1985. These training courses were the primary sources from which female agricultural extension agents were recruited.

The training courses focused theoretically and practically upon the following subjects: basics of nutrition, rudiments of health, agricultural extension activities, acculturation, rural development, food technology, malaria prevention and control, animal resources, veterinary medicine, plant protection, appropriate agricultural methods for growing vegetables and fruit, non-formal education (literacy crusade), first aid, child immunizations, weight of children under 5 years, artifacts, utilization of local raw materials like palm leaves and doom palm, preparation and constitution of complete nutrition, the mass-media techniques and methods, forestry and desertification control.

There are now 25 female rural workers. Their activities are concentrated in Wadi Rima and Wadi Zabid. Wadi Rima has 4 districts which include 18 villages. Wadi Zabid has 2 districts with 8 villages and Hays includes 4 villages. Therefore, the activities of the extension workers are spread over 30 villages. In-service trainings are continuously being held. Thus, the rural women's extension agents' information and skills are always refreshed in all facts of health, nutrition, agriculture, livestock and artefacts (manual skills).

Following the establishment of the project, women extension agents have started fieldwork activities. They have made house visits to other women and organized meetings in homes and fields, which have been utilized to teach rural women modern and improved farming techniques. Women extension agents
have participated with other women in agricultural work. Besides, they utilized their trainings in all aspects mentioned before, informing and educating rural women.

The project in Rima' and Zabid has paid careful attention towards the care of poultry and livestock and it has brought to the rural women's attention the economic importance and the nutritional value of livestock. With UNICEF assistance the project distributed chickens to several rural women.

The Tihama Development Authority has noticed that in the absence of the men, who may be working as migrants in Arab countries, Tihama women do all kinds of farming work and activities. Thus, the rural workers' roles are expanded. The TDA is to introduce Tihama women to farming methods and techniques; besides, its female extension agents are to participate with rural women in field activities.

Female extension agents have helped in establishing small garden plots next to the homes. They have introduced Tihama women to the importance of horticulture, which could provide vegetables and fruit of nutritional value. They have also taught them to pay attention to field crops and have educated them about aspects of agriculture like time, irrigation, fertilization, plant protection, methods and techniques of gardening and rationalization of water usage.

Besides, rural women were taught how to make plant-nurseries, they were introduced to transplantations and to the techniques by which plants are removed from nurseries to their place in the field, where they were planted at appropriate distances from each other - in accordance with the requirements of each crop. In addition, rural women were taught how to harvest and store crops which could be used throughout the year.

Female extension agents have never hesitated to seek the advice of project consultants and technical specialists, whenever possible, in all technical fields of farming and livestock care. We are about to establish female extension agents who will employ all modern and appropriate methods of farming and agriculture.

Deducing from what we have already mentioned, nutrition is closely intertwined with agriculture and farming. Nutritional improvement is dependent on farming nutritional crops which are beneficial to rural families. Social development is only attainable, when women are wholly involved in the development process. Their capabilities and efforts will increase agricultural productivity and productions and will lead to the improvement of their living standards. The improvement of women's living standards corresponds to the improvement of the general welfare of the country.

Yasmin Ahmad Khalil
On behalf of all my colleagues in the rural women's development project in West Khowlan area, I am pleased to congratulate the women of Yemen on this occasion and I wish this workshop every success in its endeavour to raise the standard of the rural women as a mother, household manager and as a farmer, so that she can ascertain her presence in life, in the community and in her country.

On this occasion I would like to talk about one of the Yemeni projects: Community Action in West Khowlan, which aims to improve and support women in the rural community to raise the level of her knowledge, skills as well as her agricultural and economic production, thus raising her standard of living. The project provides technical assistance in basic and income-generating activities for example: agriculture and backyard farming, nutrition, health, childcare, food processing, handicrafts, home-economics, literacy as well as animal and poultry care.

Our project established three training centers in the West Khowlan area in three different villages, namely Jehana, Hosn El Abyad, and Asnaf. Three Egyptian UN Volunteers with three Yemeni counterparts are training the rural women in the fields mentioned above, either at the centers or at their homes. This project also trains the rural women and helps them to be more productive and contribute in the various fields especially crop production, raising poultry and animal production.

We guide the rural women in the following areas:

*general health and nutrition*

The women are taught about the health of the pregnant and lactating mothers and the importance of a balanced diet for the mothers and babies. They also learn how to prepare at home the infant's ideal food mixtures to complement the mother's milk, instead of bringing it from the market.

The rural women also learn in the centers about the common diseases which affect the infants and cause death and how to protect them against such diseases, by vaccination at the proper time. Teaching is done theoretically through lectures and practically by using illustrative materials.

*nutrition*

The participants learn about the importance of a balanced diet and the principle components of the proper meal, theoretically by lectures and practically by cooking the meals using the local products which are found in the village itself.
Food processing

We teach them ways of preserving vegetables and fruits in the season of abundance, when they are cheap for consumption in the time of shortages when they are expensive. These include preparation of jams and pickles, dried vegetables and beans as well as making cheese. These activities have helped the rural women increase their income by selling these products.

Literacy

The project includes also literacy classes for adult women and young girls, who did not go to school, giving them lessons in Arabic, reading, writing, arithmetic and Islamic religion. Those who learned reading and writing are now able to keep records of lessons on nutrition, hygiene, etc.

Agriculture

We train them in cultivating home gardens with fruit trees and vegetables, including proper methods of irrigation, drainage, harvesting etc. In raising poultry and animal production, we distributed to 20 families in each village five egg-laying chickens with cages and with food (balanced diet) and we follow-up in their homes teaching them how to raise them. The eggs are used in the family diet and also sold to others.

Handicrafts

The women are given classes in crochet, knitting, embroidery and sewing traditional dresses with some new elements as well as the Yemeni traditional dresses, trousers and belts.

We feel there is progress in our project. More women are coming every day to the centers. Attendance has increased from 20 to 40-45 women per center. They are active and understand everything they have in the Center and they want more and more. They apply it in their daily life and encourage each other to come. Also neighbouring villages have asked the Ministry for new centers there. We can say that we are achieving our goals and we are contributing to the integrated rural development of rural women in West Khowlan area.

Sawsan Mohamed Al-Turky
The programme of the Women's Extension Section of the Central Highlands Rural Development Project (CHRDP) at Dhamar aims to increase food production at the family farm or household level. More specifically, it aims to improve the work efficiency of rural women by providing them with the information, skills and appropriate technology to upgrade their knowledge of agricultural activities. Secondly, labour-saving equipment or techniques are to be introduced to reduce women's workload and thirdly, women's knowledge of health and nutrition is to be improved. The section's aims also include the production of extension support materials to be used by rural women.

Achievements to date

Fieldwork began in December 1986 and the number of villages worked in to date is 17. The additional objective of this activity is to identify key women at village level, who will be future extension agents of the village. Since the main activity of the project is extension, and since at the present the background has not yet been established, use is made of this methodology. It allows the CHRDP to get to know the women of the area, so that they can be used in future training activities.

1. Extension messages include small-scale vegetable growing - practical training courses held at village level. Species include cabbage, cauliflower, carrots, red radish etc.

2. This activity is always followed by a food preparation demonstration (on how to cook cabbage and cauliflower).

3. In the area of backyard poultry nutrition use is made of meat and bonemeal as a protein supplement to the diet of household scraps and waste grains.

4. Demonstrations are given about how the diet of house-cows is supplemented by using a meat and bonemeal-wheat bran mix.

Activities follow on in sequence 1. vegetable production, 2. poultry nutrition and 3. housecow nutrition. The objective is to identify potential leader women in the villages for future training. This strategy works. Women are very receptive to agriculture training and although all are illiterate, they can take information and use it to their advantage.

At no point has there been any conflict with the men of the villages. They have also been very pleased to receive project members and to learn new things. Although the messages are aimed at women, in the end there is a big response from male farmers as well, who are very encouraged by the attention that is given to their wives. The women are regarded as part of a team.
**Constraints**

a. Lack of a Yemeni counterpart to work in the section and

b. Lack of training facilities; i.e. a culturally acceptable building on site from where a training session can be held.

In response to this the following strategy has been adopted. Cassette tapes are being used as training aids (which also overcome the problem of illiteracy). Future training strategy will be to hold training sessions with the leader women in the villages, possibly grouped according to location.

Helen Dubok
A number of visits were carried out in three districts. This was done in cooperation with the extension agents and the local councils. As a result of these regular visits, nine villages have been selected to start with. After collecting the needed data, a plan of work and an annual programme have been formulated for implementation during 1988.

With the cooperation of the livestock division a number of layers were distributed to villagers. The idea behind this activity is to increase the production of eggs. The division contacted and is in close cooperation with the following organizations: USAID, FAO, Ministry of Health, Ministry of Education.

A programme of vaccination for children against six diseases has been formulated and will be implemented with the cooperation of the Ministry of Health.

The programme for livestock, which has been implemented in the Dhamar section, will be replicated in Sana'a with the help of Dr. Ferguson and Ms. Dubok.

Ibtisam Marghni
The Government of the Yemen Arab Republic is aware of the importance of the country's rangelands as a natural resource that is estimated to cover about 70% of the land surface and sustains an appreciable proportion of the rural population. The Range and Livestock Improvement Project in the Dhamar Montane Plains was established to investigate aspects of preserving and possibly improving the overall productivity of the rangelands, in order to increase national production and to improve the position of the rural population that is largely or entirely dependent on the rangelands.

The project is a joint Yemen-Netherlands Government development project, which functions under the umbrella of the national Agricultural Research Authority (ARA) since 1984. Besides three sections that cover Range, Livestock and Forage, a fourth project section is concerned, amongst other things, with the contacts between the project and the local villagers. This Communication and Training Section links the project's research with the various target groups and channels feedback from the villagers to the research sections.

The 1984 and 1986 project documents, jointly drawn up between the Yemeni and Dutch authorities, have stressed the need of involving rural women in the processes of range and livestock improvement. More specifically it was stated "to improve the participation of women in the project activities" and elsewhere "to study village practices, including: ownership, grazing rights, role of women, livestock production, grazing methods, land use".

Among the project's staff there are two female expatriate staff members who have, amongst other duties, the responsibility for aspects of women's participation through extension work. Some of their activities at present are aimed at finding out the part which village women, farmers' wives, play in the total agricultural system, and more specifically, their roles in sheep husbandry and in the collection of fuelwood from the range. Women's involvement with the feeding and milking of the house-cow and their more seasonal work with field crops, for instance during harvesting time, have so far not been studied by this project.

Preliminary findings concerning the role of women in sheep husbandry have been presented in a summary, which is included elsewhere in this report. In brief, it may be stated here that there role in sheep husbandry can be three-fold as follows:

- involvement in husbandry matters such as herding of sheepflocks and cleaning out the sheepstall, with a related purpose of collecting the fresh dung for making dung cakes, an important household fuel;
- involvement in, and often total responsibility for, home fattening of lambs or sheep, whereby a number of different practices can be distinguished, with varying degrees of labour involvement;
- total responsibility for the milking of sheep, an activity less well-known, but almost certainly as widely practised as the milking of cows. The consequent processing of the sheepmilk into products such as butter and butter oil again is a woman's task.
The first mentioned involvement is mostly on a family-shared labour basis and brings no direct benefits or revenues for the women involved, except for the subsequent dung cakes. The latter two activities, however, can be of considerable importance to individual women, since they yield products with an economic value, which may be realised through barter or through sale. Thus these activities may bring either benefits in kind, or, even more attractively, they produce cash which is usually for her to keep.

Thus the home activities based on the sheep flock and carried out by women are rewarding to them in the sense that they may provide an independent income. Further study of these activities and research directed towards improvements of certain practices would need to be done with the involvement of these women, and could result in better working conditions and higher cash returns on their labour and other inputs. An assessment of these women's activities and their returns in economic terms should be carried out in order to arrive at an estimation of the women's contribution from sheep husbandry to the regional or even national economy.

The most severe constraint in carrying out such work is the total lack of counterpart staff, more specifically, female counterpart staff, who in addition would act as translators.

Thus, as an example, women's involvement in the single aspect of sheep husbandry, besides many other activities in the total spectrum of the village farming system, in itself already merits more investigation, and research, in order to come up with possibilities for improvement. Such an improvement is not limited to improving the position of rural women, but, just as important, could clearly represent a women's contribution to an improvement of the nation's rural economy. A purpose well worth working for!

Lucy Maarse
PROJECT REPORTS

Report on the Veterinary Poultry Project

Poultry, in the Yemen Arab Republic, forms an important part of the animal resources sector. It represents approximately 25% of the animal resources. Certainly, most of the chickens are imported from abroad, only 2-3% are home-raised chickens (local chickens which are especially raised in villages).

It is noticeable that rural women pay careful attention to poultry because chickens produce eggs at home. If rural women increasingly cared for these eggs, they might be able to compete against imported eggs at the market.

As you know that imported chickens have nutritional value. However, imported eggs are more expensive than home-eggs. We wish that rural women would pay more attention to raising chickens locally, so that they would be able to improve their incomes.

A hybrid of local and imported chickens would improve the production of local eggs, which are usually smaller than imported eggs. Hybridization would produce a surplus of locally produced eggs.

Ihsan Mounibary

Due to a misunderstanding, Ms. Mounibary had not been informed beforehand that she was expected to give a short presentation. Therefore her contribution was impromptu.
WORKSHOPS

Report on workshops

Introduction

During the morning session of the workshop the participants had been able to become acquainted with each other in a more formal setting, where representatives of the different rural development project had briefly sketched the activities aimed at women. They had been asked to concentrate on constraints and achievements. Several of the themes that came up were to be discussed in smaller groups in the afternoon. These working groups were centered around the training of women, agricultural extension and livestock, reducing women's workload and key factors in project planning. After the group sessions, reports were presented in a final session with all participants.

Training of women - group leader Ms. Fatma Al-Horeibi

Integrated rural development programmes are without exception facing many obstacles in trying to recruit trained female extension workers. In this group participants discussed constraints they had noted in this respect and possible solutions.

First of all, there exists a relatively complex web of factors that contribute to the present shortage in trained female extension agents. These include for instance the absence of a curriculum for teaching women. Within the Ministry of Agriculture and Fisheries no specific budget exists for the training of women.

Another factor centers around the absence of a training institute in rural development issues for women inside the country. No women are enrolled at the existing secondary agricultural training institutes, as it is considered to be inappropriate for women. Thus, the potential number of female students is severely limited because they have to travel abroad for training, which may not be allowed by their relatives. Inside the country the restricted movement of women may also be an obstacle to training, but this is decreasing. Yet, not enough local women are recruited for training and afterwards employed in their home area.

Extension activities as carried out at present are not specialized. Female extension agents are expected to be knowledgeable on many diverse topics ranging from children's vaccinations, via sewing and vegetable growing to livestock care. Lastly, media coverage of extension work is limited.
WORKSHOPS

The working group therefore came up with the following recommendations:

- to produce a manual for extension agents by coordinating and combining the knowledge and expertise of all the experts working in the country;
- to stimulate the flow of information between integrated rural development projects by regular visits between projects;
- to increase attendance of female extension agents of all relevant seminars within the Arab world;
- to investigate the possibility of a separate budget in projects for the training of women;
- to establish communication training facilities for part of the female extension workers, and
- to look into the possibility of establishing a training institute in rural development issues for women.

Agricultural extension and livestock - group leader Ms. Helen Dubok

The aim of this working group was to discuss and develop, in the light of the morning's speeches, an appropriate agricultural extension programme to rural women in the Yemen Arab Republic. It was hoped that the group discussion would prioritise the work tasks that women perform, and thus set priorities for an agricultural extension programme designed for women. In this meeting a brief discussion could take place regarding the character of YAR, including its financial and physical limitations in order to suggest a plan appropriate to Yemen's needs.

This working group was the largest of the four groups and included both native Arabic speakers with little knowledge of English and the other way around, which posed a considerable obstacle to a free discussion, as at least half the available time was spent on translations.

No agreement could be reached on the kind of agricultural extension strategy to adopt. Would it be better to concentrate on 2 or 3 villages (within a rural development project area) and 'blanket' the village with a whole range of extension messages from health, child care to agriculture, or would it be better to choose extension messages with popular appeal, guaranteed to affect the largest number of people? Also, when trying to place agricultural extension work within a Women's Extension Programme the question arises concerning the importance of these activities in relation to traditional home economic tasks like teaching hygiene and child care.

Eventually, it was decided that Yemen has minimal financial and human resources. Within a Women's Extension Programme, activities such as hygiene teaching and food preparation teaching require intensive work. The human resources available to do this kind of intensive work in all the villages of Yemen are not available.

For an agricultural extension programme it is better to concentrate on those extension messages which are popular, i.e. affect the maximum number of people
possible, with their relevance and appropriateness. Such a programme should consider livestock-related work (whether this be house-cow or sheep etc.), depending on the region. An agricultural extension programme should involve extension messages which can lead to income-generating activities in crop or vegetable production.

Reducing women's workload - group leader Ms. Joke Buringa

In the introduction on rural women's work and their involvement in agriculture by Ms. Dubok, it was mentioned that village women consider grinding grains by hand, hauling water, collecting fuel and making dung cakes, gathering fresh fodder, handfeeding cows, dairy processing and the threshing and winnowing of grains as least productive and most time-consuming activities. Also, their workload tends to be quite heavy during the whole year.

In planning activities for rural women, it is sometimes overlooked that women may not respond due to lack of time and/or energy. Also, activities may actually add to their workload. Modernization for rural women may mean first of all an easier life with less physical labour to them. Attention is therefore needed in the areas of water, fuel, livestock and agriculture. To these childspacing was added, as an early start of repeated and shortspaced energy puts heavy demands on women's time, energy and physical well-being.

The group presented the following recommendations:

1. The needs and knowledge of women regarding domestic water supply and sanitation should be taken into account in all phases of a project's cycle and form the basis of an appropriate health education campaign.

2. In agriculture women should become acquainted with better seedlings and labour-saving devices (on the condition that they are used by women) in order to increase the output. Further study is needed to obtain insight in the consequences of the shift from subsistence to cashcrop farming for the nutritional state of different household members, for women's income-generating possibilities and decision-making power in agricultural matters.

3. In livestock efforts should be directed at enlightening the work and improving the working conditions of women (e.g. the stable on the groundfloor of the house). More knowledge is needed regarding the income-generating and/or substituting (dungcakes for fuel) reasons for keeping livestock and possible changes through migrant labour in the household, different agricultural patterns etc.

4. To lessen women's workload regarding the domestic fuel supply efforts are needed that will not put a higher burden on the household's cash reserve. To answer the demand for gasbottles, more distribution points are needed. In other areas shrub enclosures close to villages may be useful. It may also be worthwhile to test a village baker as a means to reduce workload and saving fuel.
5. To stimulate an educational programme on childspacing aimed at both men and women, while ensuring an adequate supply of contraceptives in the different areas of the country.

Key factors in project planning - group leader Ms. Costanza Farina

The theme was chosen to attract the attention of international and Yemeni officials directly involved in the sector of project planning. Eight people participated in the group, two of whom were Yemeni, all working for international organizations/projects. The group undertook a theoretical exercise going through the logical steps of the process of a proper project identification and design, taking into consideration the essential factors.

Though not all participants were familiar with this kind of exercise, they were very responsive and cooperative. Once the exercise was completed, the group worked on a list of different projects which would reflect the priorities for the Yemen Arab Republic, as felt by the participants. At the end of the workshop the participants had obtained a basic idea regarding the necessary steps to follow and factors to consider before and during a project planning exercise.

The factors include a needs assessment through conducting a survey, defining target groups and collecting gender specific data. Next, objectives need to be identified and reviewed with the target group. In the following stage the results that are to be achieved will have to be specified. With this information in mind a plan of operations can be drawn up, based on which the necessary inputs, resources, funding and budgeting can be estimated.

The workshop formulated the following recommendations:

- to collect gender-specific data on women's role in rural development;
- to improve and expand agricultural extension activities aimed at women;
- to increase the number of drinking water schemes and health education activities in this field;
- to increase attention to public health issues relevant for women;
- to safeguard and expand current income-generating activities of women;
- to increase functional literacy activities, and
- to incorporate home economics in the curricula of training institutes.
This workshop on *Women in Agriculture* has been organized by the Ministry of Agriculture & Fisheries in close cooperation with UNDP. It should be seen as a follow-up of one of the recommendations which came out of a three-day seminar on how to improve conditions of life for rural women through integrated rural development, which was organized in Rada' in May 1985 by the Rada' Integrated Rural Development Project.

The morning session of the workshop has brought out that rural women are actively involved in the agricultural and livestock production of the country. Many of the actual tasks they perform could specifically be classified as "women's work", but the extent of their involvement in agricultural production depends on the crop under discussion (i.e. there are some crops in which hardly any women are involved e.g. qat production). Livestock production (including cows, sheep, chickens, rabbits and care of donkeys etc) appears to be the responsibility of the women of the house, with the help of children (and in the case of sheep - old men). By careful observation it is possible to assess the proportion of time spent daily on tasks - particularly animal care.

There followed a series of speeches, aimed to review current women's extension work in Yemen. At the onset, it is necessary to say that the majority of speakers emphasized future recommendations, instead of concentrating on the actual field successes and constraints to their work programmes, as they related to agricultural extension.

Many women's extension programmes, that had started out as Home Economics Programmes, have gradually been incorporating small-scale agricultural activities, like vegetable growing and poultry production into their programmes. House-cow care (although taking up 6-8 hours daily of a woman's time in some rural areas) is only recently being emphasized by women's extension sections.

A number of the topics brought up in the morning were discussed in smaller groups during the afternoon session. Themes included training of women, agricultural extension and livestock, reducing women's workload and key factors in project planning. For each group one woman provided the introduction, acted as facilitator and presented the findings in the final session.

A major achievement of the workshop is the meeting of around fifty people (the majority of which were female) from different areas in Yemen and from abroad, all working in agriculture-related projects/organizations. In this way the network, which modestly started three years ago, received a much-needed stimulus. Formally and informally people exchanged information and opinions and discussed specific issues of interest to them in the area of women's role
in rural development. It is hoped that this meeting will have contributed to the establishment of a solid basis from which Yemenis and expatriates can start developing coordination among themselves.

Secondly, the participants came up with concrete recommendations, which will be submitted to the Yemeni Government for discussion. It is hoped that the recommendations will stimulate new projects/activities in agriculture, where women's needs are properly addressed.

These main recommendations include:

1. To lessen women's workload while at the same time improving their working conditions in the areas designated by village women as least productive and most time-consuming, including manually grinding grains, fetching water, collecting fuel and making dung cakes, gathering fresh fodder, handfeeding sorghum stalks, manually processing milk into butter and threshing and winnowing grain.

2. To collect more gender-specific data on women's role in agriculture and animal husbandry.

3. To increase functional literacy activities in rural areas aimed at women as well as men.

4. To conduct more research into women's role in sheep fattening and milking.

5. To take into account women's needs and wishes in all phases of domestic water supply and sanitation projects, including appropriate extension messages.

6. To continue the efforts for recruiting and training more female experts and female extension agents.

7. To take care not to take away current income-generating activities for women, and to possibly encourage these tasks.

8. To aim at specialization in extension messages, instead of the current practice whereby all extension agents work in all field.

9. To stimulate attendance by female extension agents of relevant courses and seminars organized in other Arab states.

10. To develop a manual for extension agents based on the combined knowledge and experience of all female experts and extension agents.

11. To include home economics in the curricula of training institutes.

12. To aim for a separate budget for female training activities within projects.

13. To organize regular regional and national meetings for female extension agents to exchange knowledge and experience.
14. To investigate the possibility of establishing a national training institute for rural development issues for women. Such an institute would contribute to an increase in trained female extensionists in all relevant areas, as women would no longer need to travel abroad for training. It could serve as a coordinator between projects in the exchange of information, ideas, experience etc.
MINISTRY OF AGRICULTURE AND FISHERIES WITH UNDP

WORKSHOP ON WOMEN IN AGRICULTURE

P R O G R A M M E

9.00

Reading of the Koran by Ms. Yasmin Ahmad Khalil

Opening Statement by Ms. Fatma Al-Moreibi as representative of the participants
Speech by Mr. Mohamed Azzam, Resident Representative UNDP
Speech by Mr. Yahya Ali Zabara, Assistant Deputy Minister of Agriculture & Fisheries

9.45

Tea/Coffee Break

Enactment of laws related to women and agricultural development policies
by Ms. Fatma Al-Moreiibi, Deputy Director General of the Rural Development Project Department/Ministry of Agriculture & Fisheries

Introduction on the role of rural women and their involvement in agriculture
by Ms. Helen Dubok, Women’s Extension Adviser, Central Highlands Rural Development Project

Review of current women-related programmes in the YAR: achievements and constraints
1. SURDP - Southern Uplands Rural Development Project reporting by Ms. Faiza Saeed (Taiz)
2. MRDP - Mahweet Rural Development Project reporting by Ms. Najwa Babaker Abdallah
3. RIRD - Rada' Integrated Rural Development Project reporting by Ms. Faiza Abdallah Mohamed
4. Zabid Rural Development Project reporting by Ms. Yasmin Ahmad Khalil
5. Community Action for Rural Families in Khowlan reporting by Ms. Sawsan Mohamed Al-Turky
6. CHRDP - Central Highlands Rural Development Project reporting by Ms. Helen Dubok (Dhamar)
7. CHRDP - Central Highlands Rural Development Project reporting by Ms. Ibtisam Marghani (Sana'a)

8. RLIP - Range and Livestock Improvement Project reporting by Ms. Lucy Maarse (Dhamar)

9. MAF - Ministry of Agriculture & Fisheries/Veterinary Project reporting by Ms. Ihsan Mouabary

Questions arising from the above reportings.

1.00 p.m. Lunchbreak

2.30 p.m. Working groups on four themes:

1. Training of women
   Groupleader: Ms. Fatma Al-Moreiby

2. Agricultural extension and livestock
   Groupleader: Ms. Helen Dubok

3. Reducing women's workload
   Groupleader: Ms. Joke Buringa

4. Key factors in project planning
   Groupleader: Ms. Costanza Farina

3.30 p.m. Afternoon tea/coffee break

4.00 p.m. Final session with working group presentations, findings and recommendations
List of participants

<table>
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<tr>
<th>Name</th>
<th>Position</th>
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Sheep husbandry, not just a men’s business

Some reflections after one and a half year’s observations on sheep husbandry practices in four selected villages of the Dhamar Montane Plains

Introduction

When visiting rural areas around the town of Dhamar sheep grazing on the rangelands can be observed. First impression is that the flocks are herded by older men, often accompanied by young boys or girls. Keener observations shows that also women are doing this job, notwithstanding the fact that villagers, if asked, see herding as a man’s task.

Not only are the women to a certain extent involved in herding, but at home their involvement with sheep is often more intensive. That rural women are managing the house-cow is known mainly, because the hand-feeding of the cow is a visible activity. And although the information related to the house-cow is still scarce, nobody will deny that women's impact on this matter is important. The extent of village women's involvement in sheep husbandry on the other hand is still largely unknown to outsiders; the present paper provides some tentative information on the subject.

Women’s involvement in sheep husbandry

Introduction

During one and a half year survey activities were carried out on sheep fattening and - milking. This task has been executed within the scope of the Range and Livestock Improvement Project’s goal to carry out research that results in recommendations applicable at village level. The survey has studied village practices and was carried out in four villages, respectively Al-Dheig (الphinx), Hanqadah (هانقادة), Al Qa’ma (الPRESS) and Al Khariba (الخريبة) situated in the Dhamar Montane Plains. All findings and data mentioned in the following text are originating from these four villages.

Sheep husbandry

On the Dhamar Montane Plains sheep rearing forms part of the integrated farming system, based on rainfed and irrigated cropping and exploitation of the rangelands. Half of all rural households are rearing sheep, though not all in the same way.

1In the invitation to the workshop each project had been asked to give a short presentation. Achievements and constraints regarding the activities of their projects in the area of women and rural development were to be described briefly. This paper did not fit the criteria and was therefore not read but distributed among the participants of the workshop. It has been included as annex to the report for its relevance to the subject.
About one quarter of the households rear a big breeding flock producing lambs for sale and/or fattening; in such flocks there usually are quite a number of ewes that may be milked. With such a flock a member of the household has to go out for 5-8 hours daily, herding on the range- and (fallow) croplands. According to the season supplementation with fodder before and/or after grazing takes place. Normally, the ewes reproduce once a year and after a period of suckling women start to milk the ewes two to five times a day. After mixing sheep's milk with cow's milk, mainly butter (zhada, زِيَدَة, dhina لَحْنَة), butter oil (sann, سِنَن) and sour milk are prepared from the milk. The milk products are in the first place for home consumption, though bartering and/or selling of butter and butter oil takes place.

About one third of the households engage in fattening, mainly of weaned ram lambs. Different practices for lamb fattening can be distinguished.

- Fattening lambs reared day and night at home. They are fed with straw, fresh alfalfa, some grain, remains of lunch and kitchen waste. This so-called home fattening is mainly a women's activity; two methods, allafa (اَلْفَاهَة) and draiij (الدرّيج) are distinguished. Differences between the two methods are related to the way the sheep are housed and the number of lambs in the group.

- A more market-oriented method is fattening through grazing called sarhat (سَرْحَة). A flock of fattening lambs (up to 60) is herded daily in the wadi and on the range. Stover/straw and grain is fed at home before and/or after grazing. In general men are responsible for this method, but women assist in feeding and are responsible for cleaning the sheepshed.

- A more labour extensive and long term fattening method is that of castrated rams indicated as bain al ghanam (بيَن الْغَنْام). These castrated rams are reared together with the breeding flock. The last months before selling they receive supplementary fodder. The degree to which women assist in or take responsibility for this method depends on the way the breeding flock is managed.

Though it is possible that a household owns a breeding flock and a fattening group (22%), the tendency is that households choose just one practice in order to reduce the labour input in sheep related activities.

In two fields of sheep husbandry, homefattening of lambs and sheep milking, the involvement of women is pronounced. In a third field, general management of the breeding flock, women's involvement can be considerable too. Below, the role of women in each of these field will be described and their considerable part in total production will become evident.

Homefattening

The two methods and women's involvement

One method of homefattening, allafa, traditionally takes place in the kitchen. Approximately six months before the 'Id al Adhba (عِيد الأَضْحَى) women build or repair the sheep pen, mahnaza (مَهْنَازَة), which is situated in a corner of the kitchen. With a mixture of clay, straw, manure and water (مِرَاجِيَة),
they build two low walls and use two walls of the kitchen in order to obtain an almost square pen. Small holes are constructed in the front wall and in front of these openings a fodder trough is placed.

When the pen is ready, 1 to 5 lambs are housed and they will not leave the pen until the moment of slaughtering or selling has arrived. Restricted movement and no sunshine (light) is women's advice for optimal growth. During the whole day the sheep receive different kinds of fodder: straw, alfalfa, grains and of course all the remains of the meal. At the time of the 'Id al Adhba one or two rams can be sold and the remaining ones will be for home consumption.

The practice of *allafa* is entirely a women's responsibility; in general men are not at all involved in *allafa* fattening, some don't even know how many sheep their wives are rearing. Whether the woman receives the money from the sold sheep depends on the origin of the fattened sheep. If she got them from her father or brothers, the money usually belongs to her. Sometimes she has to repay the initial value. If the fattening lambs originate from the own breeding flock or if the lambs were bought at the market, it depends on the relation to her husband whether she can keep the money or not.

The second method of homefattening, *draiji*, does not take place in a *mahnaza*, but in a separate shed or enclosure (*mahwa*) near the house. In case it is an open enclosure, the sheep have another accommodation for the night. Sometimes the sheep are taken out for grazing around the village for some hours. Young girls or boys herd them or women take the small group of sheep with them, for instance when they have to cut alfalfa in the field. The main ration fed is as within *allafa* fattening.

Within *draiji* fattening, men are sometimes involved, especially if the number of lambs is more than five. However, this doesn't mean that they take over the daily tasks as feeding or cleaning. No, their involvement will be limited to following the growth rate of the lambs, discussing the fodder ration and deciding the moment to sell them.

Within this fattening methods some fattening lambs can belong to the woman and she will receive the money when such an animal is sold. Women's involvement in *draiji* fattening is to a large extent similar to *allafa*, specially in villages where the last methods hasn't developed traditionally. A rather important difference is that the pen for *allafa* fattening is always constructed by women and in case of *draiji* fattening only if the day accommodation is an enclosure (*mahwa*). To some extent both fattening methods (*draiji* more than *allafa*) are practised throughout the year.

**Women's interest in home fattening**

When talking with women about their sheep fattening activity they never give evidence of disliking or being obligated to do this activity. On the contrary, they gave will pronounced motives for it, such as:

- "We like to use otherwise valueless resources as straw, kitchen waste, etc."
- "Sheep dung is very useful for making dung cakes. It improves the quality of dung cakes from cow dung and therefore we like to mix sheep- and cowdung."
- "In case we need money we can decide to sell a sheep with or without
permission from our husbands or fathers."
- "Big fat rams are too expensive to buy and without rearing them ourselves we will never be able to slaughter a big one for home consumption. Especially the big ones provide a lot of fat (wadak ջջ), which we can use for cooking purposes."
- "Home fattened sheep taste better."
- "When I have two fat rams I sell one and I reserve one for the 'Id al Adhha. With the money I receive I buy two young rams and the rest of the money is my profit."
- "We had always sheep at home and we like to continue sheep fattening."
- "When my husband is going away for a while I can still supply the family's needs with the help of my two sheep."
- "For the marriage of our son we need a lot of fat sheep. Rearing them ourselves is less expensive and we can invest step by step."

It is obvious that women have motives which men will not always share. As long as a regular family income is not guaranteed, women will not stop sheep fattening if they can decide about that. In how far they can decide this depends on the family's situation. Do the women in the extended family, sisters and mother in law, share the same opinions? Do the sisters-in-law have good relationships with their fathers and brothers and above all, is there a good understanding between husband and wife?

However, married women originating from landowning families (which is the case for most rural women in the study area), mostly own a piece of inherited land in their father's or brother's care. Instead of cultivating this plot by herself, her family may give her every year one or two young rams as rent paid in kind.

Another remarkable fact is, that women try to continue sheep fattening when the head of the household has decided to abandon the breeding flock. The women don't want to loose the possibility to have, from time to time, a sheep for home consumption or some additional income. The main reasons behind the tendency to abandon breeding flocks are: more off-farm activities, a changing agricultural pattern (more irrigated cropping) and the fact that children attend school more and more, and thus aren't available for herding.

The importance of home fattening

The women's home fattening activities are very valuable both for the women themselves and for the development of sheep fattening in general. The following values are the most important.

| Experience | Home fattening of lambs has always been, and still is, a women's activity. Women have built up a lot of experience and are capable to fatten lambs very efficiently. |
| Efficiency | Since women are largely involved in crop production and processing, they know exactly what kind of crop by-products and residues are available. Their knowledge about good, medium or poor fodder for sheep is considerable and they are very practical in using all kinds of fodder and kitchen waste. |
Additional income

In many cases rural women have 1-5 sheep for fattening purposes. In case of selling they often dispose of the money. This does not mean that they are able to spend the money for themselves, but they can set priorities for spending it for family purposes.

Assurance

By way of the fattening activity, women can on the one hand assure the family an animal for sacrifice at 'Id al Adhha, on the other hand they can supply some of the basic family needs in case the husband is away for a while.

Fattening is not just a small-scale activity as can be seen from the following table:

Table 1: Percentage of sheep owning households practising fattening by method and by village

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<td>28</td>
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<td>3-4</td>
<td>31</td>
<td>81</td>
<td>19</td>
<td>13</td>
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<td>3. Sarahat</td>
<td>15-20</td>
<td>11</td>
<td>5</td>
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<td>4. Bain al ghanam</td>
<td>2-3</td>
<td>24</td>
<td>7</td>
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<tr>
<td>Non-fattening</td>
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<td>6</td>
<td>7</td>
<td>24</td>
<td>41</td>
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Source: L.N. Maarse and A.A. Idriss 1988

The highest number of fattening sheep are involved within saraha fattening, but in general home fattening according to draiji is practiced most frequently.

The common occurrence of home fattening and its above mentioned values give an indication of the importance of fattening for rural women. A net profit of at least 2500 Yemen Rial can be made in a year from fattening five sheep, an amount which experienced fatteners fetch without problems. It is therefore important to ensure that the "real" fatteners are taken into account when new ideas and techniques on sheep fattening are developed by research institutes and disseminated by extension services.

Sheep milking

Introduction

The cow is important for rural women, but it isn't the only source of milk as non-rural people sometimes think. On a yearly basis a normal breeding flock can produce more sour milk, butter and butter oil than a cow. The quantity of milk produced per sheep is small and the milking period short. However, the
fat content of sheep milk is high and in general the number of ewes milked is large. Sheep milk also has a high consumer preference, because of its desirable taste. This has made sheep milking an activity highly valued by women.

**Milk**

At the age of two months the young lambs are separated from the ewes at night, so that the sheep milking can begin the next day. The first milking starts often after the first praying al-fajr (الفجر) (4-5 a.m.), the second at 6-7 a.m., the third just before the sheep go out for grazing (9-10 a.m.), the fourth when they come back from grazing (4-6 p.m.) and the fifth and last milking is done in the evening after al-'isha (العشاء) (after 8 p.m.). Not all women are milking the ewes five times a day. This depends on the availability of fodder and the season in which lambs are born.

Milking takes place with a little cup in one hand, the ewe held between the legs and the right hand on the teat. Sometimes the ewes are let out in an outside open enclosure called hawia (حوية), but often milking takes place in the night stable called zariba (زريبة). In the last case it is really a hard job, because the stable is often overcrowded, the smell is horrible and there is almost no light.

**Milk processing**

Together with the cow’s milk the daily amount is collected in a calabash called dhuka (دُخة) (also zaafaض فم or munbaż مَنْباز). The calabash is smoked with a fire of special branches of Acacia-, Apricot-, Peach- or Quince trees in order to give the milk a special taste. A little sour milk of the day before is added and when all the milk is sour, the next day, shaking of the calabash will take place for 30-40 minutes (depending on the day’s temperature) in order to separate the fat from the milk.

When the fat is separated, little butter clots float on the milk. These butter clots are taken out of the milk, put into a pot filled with water and formed by hand under the water into one big ball (midsa,ISHMA) which is stored till Thursday. On that day all the balls from one week will be brought together in a smoked cooking pot. A little sorghum dough is added and the butter will be cooked until butter oil (sema) is obtained. The dough has the function to absorb dirty particles and will be removed after oil has formed.

**Milk and products**

On Friday dishes with butter oil will be served and also on other days if still available. Butter is also used in meal preparation, for body care and further given to new-born children who often receive a tea-spoon full several times a day. Daily the sour milk is prepared with herbs and served at lunch time.

Butter and butter oil can be bought at the Dhemar market and although women’s first priority is to have milk products for home consumption, they like to
barter and sell the surplus. Bartering takes place with related families and neighbors and is mainly done to help each other in times when neither sheep nor cows of a family are in lactation. Selling takes place to other villagers who don’t have sheep and cows. Prices vary per village and are higher where relatively fewer sheep flocks exist.

Sheep milking is a real activity of women

The whole milking activity of both cows and sheep is very important for rural women. They put a lot of work in milking and milk processing. The working conditions are not always optimal and could be improved. Further it is important that planners, researchers, extension workers etc. don’t overlook the fact that sheep milking takes place on a large scale. In literature about sheep husbandry in the Yemen Arab Republic, wool/hair and meat are seen as production purposes and only sometimes it is mentioned that sheep milking occurs occasionally in case a household doesn’t have a cow.

However, in the villages studies it has been shown that the presence or absence of a cow doesn’t influence the fact that sheep are milked. Further, it turned out that about 80% of the households having sheep practice sheep milking. All these are reasons for research workers and extensionists to become aware of the importance of sheep milking both for the daily family diet and for the village women who can get some income from it.

Management of the breeding flock

Herding

Herding of the breeding flock is normally a men’s task in which they get assistance from young boys and girls. However, in some cases rural women find sheep breeding so important that they decide to take care of the daily herding of the flock themselves in situations where men aren’t available and where otherwise sheep breeding would have been abandoned.

Cleaning

In the morning when the breeding flock has left the house, women start cleaning the night stable (zariba) with the purpose of collecting the fresh dung for making dung cakes, an important household fuel.

Feeding

In periods when the grazing doesn’t supply enough fodder, supplementary feeding of the breeding flocks takes place. Women often assist in or are responsible for supplying fodder to the sheep and cleaning of the feeding place. (Stover leftover are used for fuel.)

Because the involvement in sheep husbandry of the breeding flock is mostly on a family-shared labour basis, it brings no direct benefits or revenues for the woman involved, except for the subsequent dung cakes. Yet it is important to
be aware of women's part in the sheep husbandry. Their involvement here isn't as clear as with home fattening and sheep milking, but in so far milk production is also influenced by feeding and breeding policy, it is clear that women participate on the level of decision-making related to the management of a breeding flock.

Conclusion

The role of women in sheep husbandry has become clear although an assessment of these women's activities in other regions of the Yemen Arab Republic and their returns in economic terms would need to be carried out. The women themselves however would be more interested in a research and extension policy focusing on the women involved in sheep husbandry, that would provide them with tangible, applicable results. For the "real" sheep fatteners and milkers this could include:

- decreasing workload (butter making; fodder supplying; cleaning stable and feeding place etc.
- improving working conditions (dirty, bad-smelling sheep housing; herding up to 10 km; transport of fodder etc.)
- increasing revenues (fodder; housing; diseases etc.)

References:
Maarse, L.M. and Idriss A.A., *Sheep fattening practices in four selected villages in the Dhamar Montane Plains* Dhamar/RLIP publication 1988 (in preparation) and
*Sheep milking practices in four selected villages in the Dhamar Montane Plains* Dhamar/RLIP publication 1988 (in preparation)

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