



mutiso consultants ltd.
development management
p.o. box 14333 nairobi
telephone 747010

INCREASING WOMEN PARTICIPATION IN IRRIGATION

G-C.M. MUTISO

PREPARED FOR THE IRRIGATION AND DRAINAGE BRANCH
AND SMALL SCALE IRRIGATION DEVELOPMENT PROJECT,
MINISTRY OF AGRICULTURE, KENYA.

December 1991

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SUMMARY

The consultant was requested to visit three different irrigation schemes and to investigate ways in which women participation can be increased. This was to be done within the evolving new strategies for the IDB. Consequently some of the key documents outlining new frameworks and procedures were the to be used as the basic documents outlining the institutional context. Two specific problems were highlighted. These are whether women sought support in other activities outside the farm and whether there was preference for women group activities.

It is the conclusion of this report that women prefer support for irrigation farming rather than for activities outside the farm. Also the desired support is for individual women and not women group activities. Further, women would like to get support for production activities over and above the already planned support for irrigation infrastructure. Finally women in South West Kano, Kamayoga "A" desire that the new lands to be opened after the scheme comes on stream to be used exclusively for horticultural crops and other crops and not rice.

There is some evidence that where cash crops are grown women labour is increased if horticultural crops are introduced. This suggests that horticultural crops irrigation should be expanded in Zone 4 and 5 where there are no competing cash crops and where women will not be required to increase their labour. In Zones 2 and 3, horticultural crops irrigation should only be expanded if there is clear evidence that families are exiting from cash crops.

1. INTRODUCTION

The consultant was requested to visit three selected schemes, representing different irrigation "enterprises" in different parts of the country. These are:

Meru District: Ngare Ndare: Group Based Horticultural Irrigation Scheme. (Gravity)

Nyeri District: Tetu: Individual Horticultural Irrigation. (Pump)

Kisumu District: Kamayoga A : Group Bases Rice Irrigation. (Gravity)

This study is a first attempt to conceptualise the factors involved in women development issues in smallholder irrigation and drainage in Kenya. Concurrently two demand studies, with a bias to women development issues, are being carried out in the enterprises "group based (gravity) and individual (pumped) horticultural irrigation and group based rice irrigation (gravity). Demand studies for group based rice are envisaged in early 1992.

It was decided that over and above literature review, the work be done in three schemes which had different origins and were located in different parts of the country. The Work schedule which is shown in Appendix 1.

The visits were made and with the cooperation of the different field officers, irrigation farmers were identified for interview. The consultant sought to interview the committee first and then selected farmers. Those interviewed in Nairobi and at the different schemes are shown in Appendix 2.

Although interviews of women irrigators at Ngare Ndare, scheduled for the second day the consultant was in Meru, could not take place for the roads were impassable, the consultant still managed to interview 57 farmers of whom 35 (61%) were women and 22 (39%) were men. Over and above the farmers interviews, the consultant interviewed a wide selection of field officers and NGO personnel. These are similarly identified in Appendix 2.

The consultant thanks all the farmers and field officers who shared their knowledge. Special thanks go to O. Onchoke, D. Ombara and T. Irura who accompanied the consultant during most of the field interviews in Meru, Kisumu and Nyeri respectively and who translated when necessary.

During the two days spent in Meru, the consultant interviewed GoK/MoA officials attached to the DAO's office, the District Commissioner, the Ngare Ndare Water Committee, three women irrigators, two women leaders of the two women self help groups in

Ngare Ndare, and representatives of three NGOs working in the district. It was not possible to interview many more women irrigators since the roads were totally flooded and no vehicle could get to Ngare Ndare on the second day when more interviews were scheduled.

For S. W. Kano, the consultant interviewed women farmers, the Kamayoga "A" scheme committee, the District Commissioner, the Ahero NIB Scheme Manager, the DAO and the District Extension Coordinator and PIU officers. Interviews with PfP aborted since the offices in Kisumu and Kakamega were not manned.

Although the Nyeri interviews were conducted two days before Christmas, significant numbers of MOA officials were on station and were interviewed. So were male and female farmers in Tetu Division and Kieni East. Kieni East is one of the major horticultural areas of the District and it was decided to visit it to get a comparison to the Tetu area where horticulture is relatively new. Women participate in horticulture extensively in Kieni East and marketing channels are developed.

2. NGARE NDARE SCHEME AND MERU STRATEGY

The scheme committee pointed out that the majority of the scheme members are Kikuyu, followed by Mukogodo Maasai and Meru. The groups organised to buy the farm in 1965. This is an important point in terms of establishing the leadership and cohesion of the scheme community for that far back most of the settler farms were either being purchased for the Million Acre or Haraka Settlement Schemes through GOK programmes but these farmers created the company to buy it on their own.

The population in the scheme was constituted out of four clear groups whose origin were Timau, Nanyuki, Gathuthi and Thimagua. Thimagua was essentially made up of squatters and workers in the original Ngare Ndare farm. It is a mixture of all sorts of tribes and has lived in the area for a long time for the group was formed to buy the farm. The Timau, Nanyuki and Gathuthi groups settlers in the scheme are also mainly former white highlands workers perhaps with land in other parts. However these groups account for the majority of shareholders who have not settled on the land they bought. It is estimated that 50% of the land buyers are still to settle.

Ngare Ndare has taken off for it is widely known that there will be improvements in the scheme. The DDC, through the RDF, has committed Ksh. 700,000 to 1,000,000 for the scheme. Consequently land prices have jumped in the last year. One acre of land is in 1991 sold for Ksh. 20,000. The absentee shareholders are selling shares usually to some well capitalised new farmers. These new shareholders are also doubling as traders in the produce. Since prices have jumped so high, some of the old settlers cannot buy the land and are subdividing for their sons and DAUGHTERS. These do not get more than a quarter of an acre. These two strands of land transfer should be monitored.

The scheme committee was very clear that there was no way they could get women to be the direct infrastructure loanees other than in the situations where the women were the shareholders and thus land holders. They argue this from a ease of management point of view. That is, for them to control the water, they only recognise the land owner. If he has tenants, wives or any other persons irrigating the plot, they argue that is not their concern. They argue that by only dealing with the land owner they are able to be sure of their management of the water resource. If there is loan defaulting, they will extend the current practice of turning off the water and distributing it to the rest of the farmers who can increase their operations so as to pay the debts of the defaulting farmer.

The committee estimated that out of the total of 900 scheme members only about 10 members were women without husbands (not necessarily widows) and thus had their own independent shares. The committee

also estimated that there were 50 polygamous families (two wives). The committee estimated that of the 300 members who have already paid to be included in the water scheme about a third, that is 100, will effectively be run by women since their husbands are away. Thus taking into account all the various categories of women, it is estimated that 210 plots will be effectively headed by women. This is 70 % of all plots.

The committee was of the view that it was not their business to give loans to women unless they were shareholders, and thus land owners, for there would be no legal basis for making sanctions against their defaulting. They do not expect husbands to lease land to wives formalistically over and above their position that the individual shareholder was free to do whatever they wanted with the land, definitely not of interest to the committee.

Interviews with the three women irrigators and the two women self help group irrigators leaders pointed out that in the Ngare Ndare scheme women have access to the proceeds of horticulture. This is so although, other than the women without husbands, most women do not own shares and thus land. They work on land formally owned by their husbands. The pieces are given to them by husbands as part and parcel of the tradition of giving a wife land for her production. However most families without extensive land, the majority in the scheme, work on the family unit together.

Women are generally responsible for the major work in vegetable growing and selling. Consequently they are in on all the major decisions on what to plant, when to hire labour and when and at what price to sell. They do not have any doubt that the husbands will sign on the infrastructure loans and leave them to continue working the plots as before.

The women argued that they could not see any other economic activity in the region which will give them as much control and cash as horticulture. In fact the two women groups are looking for extra land (to lease) so as to expand their horticultural activities.

Interviews with Meru based NGO's involved in women programmes and irrigation stated clearly and very strongly that in Meru, there is clear division of the gender economic domains. Where there are cash crops, tea, coffee and miraa, the cash is controlled by men even if the work is done by women. This is true for Agro Ecological Zones 2 and 3. When irrigation for horticultural crops is done in these zones, the men are not interested in the income for it is money in the women domain. Since there is irrigation in Zone 4 and 5, where generally the plots are larger than in Zone 2 and 3 and where the main family income is generated from livestock (including bees) horticultural incomes are still left in the women domain.

The logical conclusion out of these comments is that women are the

direct beneficiaries of any horticultural incomes. However, it should be clear that this is only so at the expense of increasing their work load for they must also put labour into the cash crops.

The consultant is of the view that Ngare Ndare may be unique in having sorted out the control of family finances given the squatter or settler worker origin of the main membership as well as its poly tribal composition. Migrant communities develop new roles and practices which usually defy traditional practices. In this sense irrigation in communities dominated by migrants may lead to new roles across the family structure unlike old settled communities.

To minimise this loading of women with extra labour, it is clear then the first areas to expand the horticultural production should be in Zone 4 and 5 for the cash crops in Zone 2 and 3 have very high labour demands and the women will be hard put to allocate significant resources to horticulture. Second, it is not likely there will be other income generating opportunities to compete with horticulture in these areas. However, it is important to go under the general rubric of horticulture and to specify that those crops destined for export and for which formal contracts are issued, ie french beans or indian vegetables, are more than likely to get into the male domain for they are usually contracted to be grown and marketed by men. The horticultural crops which are consumed locally and nationally eg bananas, onions, tomatoes, fruits etc., stay in the women domain for they are not subject to long term contracting.

Interviews with officers with long experience in the district generally confirm the fact that cash crops are in the male domain and horticultural crops are in the female domain. They also point out that women irrigators lack the capital to expand horticultural operations for they do not have title to the land which could enable them to get into the national credit system so dominated by title to land.

3. KAMAYOGA "A": THE RICE STRATEGY IN SOUTH WEST KANO

The most striking sociological fact in Kamayoga "A" is the large numbers of widowers. Out of 200 family plot holders, the scheme committee counted 59 (30%) widow/widowers. The committee also counted 50 (25%) polygamous families. By implication the rest of the families ie 150 (75%) are monogamous.

J. Hulsebosch in the Gem Rae study of 30 households came up with 37% polygamous households and 63% monogamous. She further established that 30% were widow/widowers.

The committee was not able to tell how many households have male migrants and thus are essentially female headed or how many have both husband and wife residing at home. Nor was the committee able to establish the number of land renters in the scheme. They argued that they will be able to establish these categories once the scheme is designed into the seven blocs and the scheme rules come into operation. This point was supported by PIU staff who pointed out that the scheme did not have a formal survey to establish the two key categories ie plot users and plot owners.

The committee pointed out that in this scheme land is not recorded as belonging to women. However, given the Luo traditions, each married woman is customarily shown a piece of land which is hers and which she can pass to her son(s). From this still surviving tradition, the committee points out that there are many plots in the scheme which effectively belong to women farmers. It is not likely that these will soon be formalised as land belonging to the women in formal land law if the experience in the region is anything to go by. In the NIB Ahero Scheme, where the original tenants, in 1966, were all men, currently only 36 women have been legally assigned the plots. Men have 476 plots and minors (sons) have 4. The Ahero scheme manager however points out that many more women control the plots de facto.

Although the scheme committee chairman estimates that 85% of the scheme users are women and 15% men, discussion with women interviewees and PIU field staff suggest that in this scheme the widows and other women who control a plot assigned to them under traditional practices control about 60% of all plots. Plots controlled by men lots are estimated to be about 40%.

In the view of the committee the traditional practice will enable women to pay water fees with provision of irrigation water. The committee pointed out that it is the women who are the more serious irrigators. It did not see any problem in the repayment for the women also control other resources which they could utilise in repayment! The committee was not in favour of women group loans.

The committee and the PIU did not have any data on how many acres and numbers of plots are used by renters and how many are farmed by

family members. However, it is generally argued that the rent for an acre of irrigated land is Ksh. 500 per season.

The committee pointed out that the wish of the community is to restrict rice irrigation to the areas where it exists now. The irrigated land, to be opened after the design is implemented, should be used for horticultural crops. The committee was extremely emphatic that there be no expansion of the rice fields. The committee also pointed out that there was no women group farming of rice in the scheme.

The scheme committee argued that marketing of scheme produce should be through the Katho Farmers Cooperative Society which is relatively new. 8 of the 16 scheme committee members are also committee members of the cooperative.

Interviews with women farmers on whether there were activities outside farming which they would be interested in getting group support for were negative. The reasons seem to be tied to experience with their group in the recent past and the economic opportunities in the region. The women interviewed were already in a women group which covered the community. This group had participated in a broiler project which was a disaster for there were no proceeds paid to them. After that they went in for layers which are not laying supposedly because of bad feeding. They complain bitterly that they did not get systematic advice from either Livestock or Agriculture extension staff. They continue to get fantastic losses. The women were also aware that other women groups in the region, particularly at the lake shore had problems running their group activities for all did not contribute equally to the work or get the proceeds equally.

The women pointed out that the individual trading opportunities in Ahero market, the only substantial market near, were limited. They were mainly in the secondary and tertiary trade in fish. Profits were low and fish supplies unstable. This kind of trade in or near the homestead did not lend itself to any significant profits.

Women did not see either individual or group opportunities in the wholesale trade in fish at the lake shore for it was far and transport unreliable. Nor did they see trade in consumer goods locally as viable for most families got their supplies in Ahero market, which they visited frequently for social and other needs.

Women were interested in getting the individual infrastructure water fees payments for they realised that the design of more reliable infrastructure would assure them more rice irrigation water and thus reliable production. An interesting idea was that even if the rice crop failed they could repay the loan from proceeds of other crops, for example green grams, which could be grown either as a rotation crop in the rice fields or as a dryland crop.

Most important for women, was the point that creating more reliable irrigation infrastructure would lead to opening of new land for horticulture which they were convinced would give them more income as well as providing more food. Women argued that it was extremely important that there be no rice fields expansion because land was limited and the new irrigated land should be managed in such a way that it produced other crops. The PIU indicated that the expansion area is 40 ha. out of the scheme 90 ha.

Keeping the expansion area for crops other than rice was raised both with the scheme committee and the PIU who agreed that it was so agreed in the initial planning meetings on the expansion of the scheme, although there seems to be some question on whether the September 1991 design takes this into account. It was later clarified, in Nairobi, that it was possible to re-design to enable deeper drainage for non-rice crops. Among the crops mentioned were tomatoes, kale, cabbages, pigeon peas, cowpeas, sorghum, maize, sweet potatoes, green grams, beans, cotton, millet etc.

One major reason women wanted the new irrigated land locked into crops other than rice was the fact that a lot of the young people do not like working in rice fields. It was argued that since the other crops did not demand working in flooded fields, they may attract the young to invest their labour. This would not only maximise household labour but would increase household incomes.

Women clearly were interested also in facilitating families, including the young, to get a more steady cash flow from the alternative crops for they argued that the cash needs of the family, especially the young, would be facilitated by other crops which could be sold all year round. Some of the horticultural crops, for example tomatoes, kale and cabbages, had been tried in niches in the scheme and the returns were very high.

Women raised the issue of production loans as distinct from irrigation water fee payments. These are desired because there are activities like land preparation, which on the women plots cannot always be done by family labour. There also is need for inputs and equipment. This had not been emphasised by the PIU for it was assumed that the Lake Basin Smallholder Rice Project would service the scheme. Both women interviewees and the scheme committee pointed out that the envisaged service by the Lake Basin was not available.

Production loans for inputs and operations could be facilitated for scheme women in group credit form. Women will have to create groups to be responsible for lending to individual women. Whether the individual women use the credit for horticulture or rice could be left to the individual applicants. Of course the group would have to be satisfied about the credit worthiness of the borrowers. The credit scheme could be a revolving fund for the specific scheme women.

The demand for expansion into horticultural crops does raise the issue of its extension. Interviews with District agricultural staff made it clear that they do not see themselves involved in the schemes. They were emphatic that they have no role there. It is obvious then that specialist horticultural extension staff will have to be posted into the region to service the farmers who will be interested in horticulture as is the case in Tetu. Key extension problems will be agronomic practices, diseases and marketing. Such officers are found in Kieni East Division.

The demand for expansion into horticulture crops also raises issues on the design and water management regime of the scheme. These matters can be easily settled by discussion with the community and the PIU so as to serve the strong women irrigator interests.

4. TETU INDIVIDUAL PUMP HORTICULTURAL STRATEGY

The existence of many permanent streams has led to the Individual Pump Horticultural Scheme in Tetu Division of Nyeri District. Out of a large group, for which investigations were conducted, 36 farmers were identified and designs prepared for them. Of these 36, it is estimated that 7 are women. This first group has already been introduced to ICDC who are to lend them money for the pump, pipes and fittings. Generally, it is estimated that the average cost will be in the order of Ksh. 55,000 for an irrigation system limited to 20 metres head and generally able to irrigate about an acre. The individual farmers are not organised into a cooperative or any other organisation for horticultural purposes although many are members of coffee cooperatives or women groups.

According to the District staff, the loans will be for 4 years at 19% interest. Farmers with individual title can provide it as a guarantee although it would not be attached. Those without title deeds can get two guarantors. The key innovation in this scheme is that ICDC will give the loan on guarantee rather than tying it to a formal title deed. This opens possibilities for women and young people who cannot show evidence of owning land.

However, there is a stipulation that the individual loanee should show Ksh. 6,000. The logic is that this is working capital and should be shown before the installation of the pump. District staff state that 50% of the farmers want the project to start in January 1992 but the rest claim there is no money available in January and thus the scheme should be delayed and started in the middle of the year when their cash flow is better.

Of the 10 plots visited 5 were for women applicants. Of these five one was a widow who held title to the land. One had been guaranteed by a nephew since the land had not been subdivided to the sons (including her husband). Three had been guaranteed by their husbands. On the remaining 5 plots, a father had guaranteed his just married son who had trained in agriculture in the National Youth Service. A brother-in-law had guaranteed a male applicant. On 3 plots, the husband had title to the land and was the applicant.

The point one wants to emphasize out of this limited sample is that relaxing the possession of the title deed as a requirement for credit enabled 7 out of 10 applicants to qualify for the loan. Of these 7, five were women. Husbands and other relatives are willing to assign land and the title to women and sons for credit in Tetu.

All the applicants interviewed had grown some horticultural crops at the riverside by either local canal system or bucket irrigation. Among the crops mentioned are tomatoes, onions, cabbage and kale. One of the lady applicants had already bought her own petrol engine and out of her experience with it (it had cost her Ksh. 300 to irrigate for a day) was questioning the utility of petrol engines.

If this farmers experience is relevant, although one does not know how much land she irrigated with the Ksh. 300, it points toward the need for production loans.

Of the ten applicants, the main complaint was the demand to deposit Ksh. 6,000. One woman argued that most of the applicants had to sell a grade cow to raise this kind of money. This is significant datum for milk is an already established high income earner in the region.

Only one of the farmers in Tetu had any experience in marketing anywhere outside the division. This was a young farmer who had been guaranteed by his father. Even this farmer had only been able to sell some of the produce in Nyeri town which is very near, less than 20 km. All the previous small scale production was absorbed locally.

Discussions with District Officials pointed out that the drier parts of the district had a sophisticated marketing system where farmers were selling their produce as far away as Mombasa in bulk and thus were able to get extremely good prices. There was a possibility of connecting these new farmers to the existing trading networks in the district. Of interest is the fact that some officials of Tana and Athi Rivers Development Authority were trying to organise produce in the area for export. It was not clear whether this was institutional or individual business.

There are 200 home economics groups in the district. Using them as loose marketing outlets for horticulture was raised by some of the district agriculture officials. Some of the women farmers in Tetu, who belong to some of the local home economics groups pointed out that they would be selling to themselves if the purpose was not to organise for marketing outside the district. The majority expressed the idea that it would be better to just sell at farm gate and not risk produce with the cooperative or other traders on credit.

Discussions with District officials and farmers in Kieni East Division elicited the fact that the control over horticultural crops by women is the practice since it is the obvious cash crops like coffee and tea which are mainly in the male domain in the places like Tetu. This is so if the production is not extensive and thus purely commercial as is the case in some of the large operations in the drier parts (Zone 4 and 5) of the district which are also settlement areas and thus husbands are more than likely to be on the farms.

Given that the designed scale of irrigation is not large scale in Tetu and also the fact that husbands also occasionally migrate out for work, it can be expected that even in the situations where women are joint operators with their husbands, they will control the selling and proceeds from the sale of horticultural crops.

Discussions with women applicants in Tetu and women horticultural farmers in Kieni East did not elicit either a need for loaning to women groups activities on farm or outside it. Even when the issue of a possibility of joint women marketing of horticultural produce to the national market was raised, the farmers did not think a women group should be doing it. The argument by Tetu women was that they did not know the markets. For the fairly large scale women farmers in Kieni East, they were thinking of marketing nationally, especially Mombasa, where prices are highest, but not on women group basis. It was a mixed group of farmers who would jointly send their produce to Mombasa.

The point one wants to emphasize is that the Tetu Division, where the pumping scheme is based, is not seen as a major horticultural area of the district. Market institutions are therefore not developed as they are in Mathira Division, Kieni East and Kieni West. Therefore the scheme farmers will need assistance in marketing for their produce is likely to swamp the local demand and depress prices. Given the cost of petrol, the economics of producing for the localised market are not likely to be attractive in the long term as more farmers produce. Further discussion on market development outside the area with the women farmers will be necessary.

The issue of needed production loans was raised by women and male farmers in Tetu. They argued if they were to put up the Ksh. 6,000, required as evidence of operating capital, in a bank as a lump sum, they would have to liquidate other production assets like a grade cow. This would be decapitalising their operations. A grade cow is a daily source of cash flow for milk is sold locally. Liquidating this asset is not useful to the farmer in the long term and it may be necessary to accept it as a source of operating capital if a farmer can show sales in the previous year to the level of Ksh. 6,000. It also may be important to establish what other elements of a farmers operations generated that cash flow the previous year and accept that in lieu of a deposit. Over and above milk sales, income from other crops, and /or cash repatriation from elsewhere, which was banked over the same period, should be considered. This should be discussed with women irrigators further.

The major production cost needing ready cash, will be petrol to run the pump. Other production inputs needing cash are fertiliser, manure and pesticides.

5. CONCLUSIONS AND RECOMMENDATIONS

A. WOMEN AND LAND OWNERSHIP

It is clear from field work, past studies and consultancies that women nationally do not have formal title to land in statutory law. It also is clear that out of tradition women have access to the use of land and the proceeds of the land produces especially when the produce is not cash crops or large scale horticulture which is contracted. It also is clear that where husbands are away at work, the women make most of the decisions pertaining to production on the land.

The legal land ownership system, which discriminates on women formally owning land, is such a central feature of the country that it is not likely to change soon. Consequently, to enable women to get higher incomes out of the land they work now, credit which is not tied to land ownership (title deeds) is of great essence. The SSIDP has already planned irrigation infrastructure fee system which is not tied to title deeds for both horticulture and rice. What has not been clear in the documents is the issue of whether these loans will be given to the women users rather than the plot owners.

THERE IS NEED TO TAILOR MAKE ALL APPROACHES FOR INCREASING WOMEN PARTICIPATION IN IRRIGATION TO THE NORMS AND ECONOMIC CIRCUMSTANCES OF THE SCHEME COMMUNITIES. HOWEVER, UNTIL MORE KNOWLEDGE ON THESE ISSUES IN THE VARIED COMMUNITIES IS GATHERED, BY INTERVIEWING IN THE COMMUNITIES MORE INTENSIVELY, IT IS RECOMMENDED THAT IDB IMPROVE WOMEN BARGAINING POWER IN THE SCHEMES AND HOUSEHOLDS BY ADOPTING THE FOLLOWING MEASURES:

THAT WHERE WOMEN ARE THE MAIN USERS OF A PLOT, WITH RIGHTS DERIVED OUT OF TRADITIONAL USUFRUCT OR THEY ARE WIDOWS, THEY SHOULD BE THE ONES ASSIGNED THE GIVEN THE RESPONSIBILITY OF REPAYMENT OF THE WATER FEES REPAYMENTS BY IDB TO PREVENT OTHERS TAKING ADVANTAGE OF THEIR CIRCUMSTANCES

THAT IN SITUATIONS WHERE WOMEN ARE THE MAIN IRRIGATED PLOT USERS, SINCE HUSBANDS ARE MIGRANTS, THE IDB SHOULD REQUIRE THAT THE MEN ASSIGN THE LAND FORMALLY TO THE WOMEN FOR THE PERIOD OF THE IRRIGATION INFRASTRUCTURE LOAN BY WRITING SO TO THE SCHEME. SUCH ASSIGNMENT SHOULD BE WITNESSED BY THE LOCAL SUB-CHIEF, CHIEF AND VILLAGE ELDERS/CLAN HEADS AS APPLICABLE AND A COPY SHOULD BE FILED WITH THE OFFICIALS ENUMERATED ABOVE.

THAT IN THE INDIVIDUAL PUMP IRRIGATION SCHEMES, WOMEN SHOULD BE FAVOURED BY FORMALLY GOING OUT OF THE WAY TO IDENTIFY THOSE NEEDING LOANS. THIS CAN BE DONE BY PLANNING THAT 50% OF ALL LOANS BE FOR WOMEN IRRIGATORS. LIMITED EXPERIENCE IN TETU HAS SHOWN THAT WOMEN IRRIGATORS ARE ABLE TO ORGANISE GUARANTEES.

B. IRRIGATION AND EXTRA LABOUR ON WOMEN

The issue of increasing the labour load of women by introducing irrigation has received some comments in some of the documents supplied by SSIDP. Several comments are apropos on our part although no formal labour studies (especially return on labour and maximisation of return on family labour by utilising idle school leavers) have been conducted to the best of our knowledge in the three schemes we visited.

First, where women have been irrigating by canal, bucket or unreliable water supply, formalising irrigation infrastructure and supply clearly will lessen the women labour load which more often than not does not lead to stable production and returns. Women in Tetu and Kamayoga "A" and Ngare Ndare were clear on this. They said that canal and bucket irrigation demanded more work although the returns were uncertain at times. The informal system in S.W. Kano also led to work without always sure returns.

On the Kamayoga system, the issue has been raised on whether the maintenance work would be more than the current labour input. The farmers and PIU personnel do not seem to think so.

The second point is that better irrigation infrastructure will lead to higher returns per unit input of labour. This will raise the incomes of the women and therefore lead to their reducing the labour they put into other activities in attempting to raise their incomes.

IT IS THEREFORE CONCLUDED:

THAT THE IMPROVEMENT OF THE IRRIGATION INFRASTRUCTURE WILL MORE THAN LIKELY NOT LEAD TO WASTEFUL INCREASE IN WOMEN LABOUR.

THAT THE NETHERLANDS EMBASSY UNIT WITH RESPONSIBILITIES FOR WOMEN PROGRAMMES INVESTIGATE THE POSSIBILITY OF A MULTI PROJECT REVIEW OF HOW AREA SPECIFIC NORMS AND ECONOMIC CIRCUMSTANCES DETERMINE WOMEN LABOUR DEMANDS AND RETURNS. THIS WOULD BE OF USE TO SSIDP BUT DOES NOT ELEGANTLY FIT INTO THEIR MANDATE FOR IT INVOLVES QUESTIONS OVER AND ABOVE WOMEN LABOUR WITHIN IRRIGATION. THE CONTEXTUAL SOCIAL AND ECONOMIC ISSUES MAY BE MORE IMPORTANT THAN THE SPECIFIC ANALYSIS OF LABOUR WITHIN IRRIGATION.

C. THE IMPORTANCE OF PRODUCTION LOANS

The SSIDP has essentially thought out a system of financing irrigation infrastructure and its maintenance. To date no systematic proposals have been made for production loans. The consultant's initial instructions were that such functions should not be handled by the bodies created to handle irrigation

infrastructure. Production loans for women irrigators are important if women incomes are to be assured for the provision of reliable water is only one of the two key interventions. In the consultant's view, production loans are particularly important since women have few other credit channels for agricultural production.

Production credit for inputs and operations could be facilitated for the women in the scheme in group credit form. Women will have to create groups to be responsible for lending to individual women. Whether the individual women use the credit for horticulture, rice or other productive activities should be left to the individual applicants. Of course the group would have to be satisfied about the credit worthiness of the borrowers. The credit scheme could be a revolving fund for the specific scheme women. SSIDP should monitor the loans to establish preferences, assure equity and determine future women credit planning.

IT IS THEREFORE STRONGLY RECOMMENDED:

THAT SSIDP INVESTIGATE LINKING THE FARMERS WITH EITHER STATE INSTITUTIONS WHICH GIVE AGRICULTURAL PRODUCTION LOANS OR NGOS WHICH CAN CHANNEL AND SUPERVISE SUCH CREDIT IF SOURCED FROM THE SAME DONOR AS SSIDP OR OTHER DONORS.

THAT LENDING ON PRODUCTION CREDIT MUST CLEARLY BE BASED ON GROUP LENDING IN THE SAME WAY AS THE IRRIGATION INFRASTRUCTURE LOANS. HOWEVER LENDING SHOULD BE TO INDIVIDUAL FARMERS. THE DOCUMENT 'PROPOSED SMALLHOLDER LOAN SCHEME FOR IRRIGATION EQUIPMENT BY INDIVIDUALS AND EXISTING WOMEN GROUPS' IDENTIFIES "INDIVIDUAL FARMERS, GROUPS OF 2-5 FARMERS AND EXISTING WOMEN GROUPS WITH BUCKET IRRIGATION" AS LOANING TARGETS. FOR THE PRODUCTION LOANS, THE CONSULTANT SEES THE SAME GROUPS BENEFITTING FROM THE INDIVIDUALISED PRODUCTION LOANS AND THE GROUPS ACTING AS GUARANTORS ONLY.

SOME OF THE ORGANISATIONS WITH EXPERIENCE IN GROUP PRODUCTION CREDIT ARE SEFCO, PARTNERS FOR PRODUCTIVITY, KENYA RURAL ENTERPRISE PROGRAMME, VARIOUS CATHOLIC AND CHURCH OF THE PROVINCE OF KENYA DIOCESE, THE METHODIST CHURCH IN MERU ETC.

A PRIORI, THIS CONSULTANT DOES NOT SEE WHY THE IDB, WHICH HAS CREATED SISO AND SISDO, CANNOT, BY CREATING A LINE ITEM IN THEIR OPERATIONS, REQUEST THEM TO HANDLE SMALL HOLDER IRRIGATION PRODUCTION CREDIT IN THEIR AREAS OF OPERATION.

THESE ORGANISATIONS SHOULD HAVE A FORMAL MANDATE TO EMPHASIZE LENDING TO WOMEN IRRIGATORS. THE SISO DOCUMENT RECOGNISES THAT "...THE ABSENCE OF AVAILABILITY OF CASH AT THE START OF THE RICE SEASON IS ONE OF THE MAJOR HANDICAPS IN WOMEN HEADED HOUSEHOLDS AND HOUSEHOLDS WITHOUT MIGRATING HUSBANDS WHO CAN PROVIDE CASH THROUGH SALARIES". IN THE INDIVIDUAL PUMP SCHEMES, START UP FUNDS WILL BE REQUIRED BY MANY WOMEN AS

WOULD BE THE CASE IN OTHER GRAVITY FED HORTICULTURAL SCHEMES.

CREATING THE PRODUCTION LOAN FUND PROCESS WITHIN SISO AND SISDO IS MORE DESIRABLE THAN FRAGMENTING SUCH CREDIT BETWEEN ORGANISATIONS WHOSE REASONS OF EXISTENCE ARE PANORAMIC. IF SUCH LOANING PROCESS IS CREATED IN SISO AND SISDO, THE STEPS IN LOAN APPLICATION AS IDENTIFIED IN 'APPRAISAL AND DESIGN LOAN SCHEME FOR GROUP BASED SMALLHOLDER IRRIGATED HORTICULTURE' COULD BE USEFUL.

D. REPRESENTATION OF WOMEN IN IRRIGATION

Women are under represented in committees. In Ngare Ndare they were a minority in the committee. Few were committee members in Kamayoga "A". Tetu is not formally organised.

The issue has been raised as to what level is most desirable and effective for women representation. The simple and complex answer is at all levels for decisions which affect them as the dominant users of most plots will be discussed at all levels. This view is held after consideration of the literacy level needs found in some documents about what committee officials need to have. Women irrigators are also literate and the consultant does not see why they cannot be elected to the offices which are deemed as requiring literate persons. It is only by getting comprehensive women representation that those issues of concern to women irrigators will be assured systematic consideration in all levels and at all times.

IN VIEW OF THE ABOVE, THE CONSULTANT RECOMMENDS:

THAT SUBJECT TO LOCAL ACTIVITY NUANCE AND THE PROBLEM OF A MALE DOMINATED TECHNICAL RESOURCE PERSONNEL, WHICH SHOULD BE PART AND PARCEL OF THE SUGGESTED MULTI PROJECT STUDY, THE TARGET FOR WOMEN PARTICIPATION SHOULD FORM AT LEAST 50 PER CENT OF ALL COMMITTEES WHERE FARMERS ARE GETTING LOANS AND/OR WHERE THERE IS A WATER FEES SCHEME. THE BASIS OF THIS RECOMMENDATION IS THAT WOMEN SEEM TO CONTROL BETWEEN 40 AND 60 PER CENT OF ALL PLOTS EITHER BASED ON THEIR TRADITIONAL RIGHTS, WIDOWHOOD OR MIGRATION OF HUSBANDS. THE SELECTION OF COURSE IS A MATTER FOR THE SCHEME COMMUNITIES.

FURTHER, IN BOTH THE NGARE NDARE BLOC COMMITTEES AND THE MAIN COMMITTEE, WHERE THERE ARE ONLY A HANDFUL WOMEN, THEIR NUMBERS SHOULD BE INCREASED TO THIS TARGET LEVEL THROUGH ELECTIONS IN THE NEW YEAR. IN KAMAYOGA "A" WOMEN COMMITTEE MEMBERS SHOULD BE INCREASED TO THE SAME LEVEL BOTH AT THE CLAN/GROUP LEVEL, THE SCHEME LEVEL, THE CLUSTER COMMITTEE LEVEL AND ULTIMATELY IN THE S.W. KANO PROJECT COMMITTEE AGAIN BY ASKING THE COMMUNITY TO HOLD NEW ELECTIONS BEFORE THE START OF IMPLEMENTATION. WHEN TETU IS ORGANISED THE SAME PRINCIPLE SHOULD BE MAINTAINED. THE PRACTICE SHOULD BE EXTENDED TO ALL

SCHEMES WHERE LOAN SCHEMES OR WATER FEE PAYMENTS ARE INSTITUTED.

E. WOMEN IRRIGATORS AND WOMEN GROUPS

Several documents by SSIDP discuss the possibility of utilising women groups for expansion of the role of women in irrigation. The 'Evaluation of Small Scale Irrigation Development Project: Appendix C; Irrigation Design: A technical and Social Process: Report on the Method of Participatory Design' by M. Thairu and G. Diemer, states:

"...[I]t is our contention that if women on the rice schemes were to organise their resources they could buy plots there, which they would own. In this way the proceeds would become theirs. And in line with what other groups have done, the re-investment of funds into buying more land would create a sizable group of women land owners." (p10)

There is not much argument against organising women to buy land for irrigation, particularly for rice. However, from a national point of view one has doubts on how many of the women groups have bought and can buy land and work it with equitable distribution of its produce. Second, we did not find much support for women groups in our discussions.

The point one wants to make is that women can have access to irrigation land in a complex way as we discussed above for the three cases. Irrigation land is not registered in formal law to them. The consultant does not therefore see the issue of formal land ownership as a priority one in current operational terms.

More serious though is the track record of the women groups. They have become the main vehicle for donors and politicians. There is reason to believe that their economic outputs are dubious at best. Furthermore, whatever comes out of the group activities is at times not equitably distributed to the members. In our field work the issue of equal contribution of inputs, particularly labour, to the group as well as the economic performance of the group activities did come up as being iniquitous. Women did not share the donor and politician driven preference for channelling support to women groups. On the other hand, we found that women prefer to get support for activities of individual women. The challenge is to increase the number of individual women benefitting out of irrigation.

BASED ON FIELD WORK, STRONGLY SUPPORTED BY PAST RESEARCH AND CONSULTANCIES ON WOMEN GROUPS, THE CONSULTANT CONCLUDES:

THAT SUPPORT SHOULD BE TO INDIVIDUAL WOMEN IRRIGATORS RATHER THAN TO WOMEN GROUPS. GROUP CREDIT MECHANISMS WHERE GROUPS DETERMINE INDIVIDUAL LOAN LEVEL AND PURPOSES HAVE BEEN EFFECTIVE IN KENYA AND SHOULD BE ENCOURAGED.

F. WOMEN AND IRRIGATION IN DIFFERENT AGRO ECOLOGICAL ZONES

Women are generally responsible for the major work in horticultural growing and selling. Consequently they are in on all the major decisions on what to plant, when to hire labour and when and at what price to sell.

Interviews with Meru based NGO's involved in women programmes and irrigation stated clearly and very strongly that in Meru, there is clear division of the gender economic domains. Where there are cash crops; tea, coffee and miraa, the cash is controlled by men even if the work is done by women. This is true for Agro Ecological Zones 2 and 3. When irrigation for horticultural crops is done in these zones, the men are not interested in the income for it is money in the women domain. This argument for Meru seems to have bearing on other districts which have different ecological Zones and thus cash crops. Since there is irrigation in non-settlement Zone 4 and 5, where generally the plots are larger than in Zone 2 and 3 and where the main family income is generated from livestock (including bees) horticultural incomes are still left in the women domain. The logical conclusion out of these comments is that women are the direct beneficiaries and managers of horticultural incomes.

IT IS THE CONSULTANT'S CONCLUSION THEREFORE:

THAT WHERE IRRIGATION IS INITIATED IN ZONE 4 AND 5 AREAS, THE IMPACT ON WOMEN INCOMES IS LIKELY TO BE MORE DRAMATIC THAN IN ZONE 2 AND 3 WHERE WOMEN LABOUR IS DEMANDED BY CASH CROPS WHOSE INCOME THEY DO NOT CONTROL DIRECTLY.

THE PROGRAMMING IMPLICATION OF THIS CONCLUSION FOR THE DISTRICTS SISDO IS EXPECTED TO WORK IN, KIRINYAGA, MURANGA, NYERI, EMBU, MACHAKOS, MERU AND TAITA-TAVETA, WHERE THERE ARE SIGNIFICANT CASH CROP AREAS IN ZONES 2 AND 3, IS THAT HORTICULTURAL CROPS IRRIGATION SHOULD BE EXPANDED IN ZONE 4 AND 5 FOR THE TWIN OBJECTIVES OF INCREASING WOMEN INCOMES DIRECTLY AND ALSO FOR TAKING ADVANTAGE OF THE LARGER PLOT SIZES AND THUS HOUSEHOLD ECONOMIES OF SCALE AS WELL AS REDUCING WOMEN EXTRA LABOUR IN ZONES 2 AND 3. THIS CONCLUSION SHOULD BE "TESTED " AS IDB PLANS ITS INTERVENTIONS IN THE LISTED DISTRICTS BY CONSULTING WOMEN PARTICIPANTS ON THE POINT.

SINCE THERE IS EVIDENCE THAT SIGNIFICANT NUMBER OF FARMERS IN ZONE 2 AND 3 ARE EXITING FROM THE GROWING OF CASH CROPS, ESPECIALLY COFFEE, THE PLANNING OF EXPANSION OF HORTICULTURAL CROPS IRRIGATION SHOULD BE ONLY IN THOSE FARMS AND REGIONS WHERE CLEARLY IT IS HAPPENING AND WOMEN LABOUR IS NOT CAUGHT BETWEEN CASH CROPS AND HORTICULTURAL CROPS.

IN THE S.W. KANO SYSTEM, WHERE RICE IS BOTH A FOOD CROP AND A CASH CROP, AND FURTHER WHERE THE REGION IS A HORTICULTURAL

PRODUCE DEFICIT AREA, IRRIGATION EXPANSION SHOULD BE FOR HORTICULTURAL CROPS WHICH WILL ALLOW WOMEN TO IMPROVE THEIR INCOMES AS WELL AS SPREADING THEIR CASH FLOW ALL YEAR ROUND WHICH IN RURAL ECONOMIES IS EXTREMELY IMPORTANT PARTICULARLY FOR THE FEMALE HEADED HOUSEHOLDS AND HOUSEHOLDS WITHOUT MIGRANTS REPATRIATING CASH. SUCH A STRATEGY MAY ALSO INCREASE THE THE PRODUCTIVITY OF HOUSEHOLD LABOUR BY ATTRACTING THE YOUNG.

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Appendix 1. WORK SCHEDULE

4/12/91

1. Briefing by W. Scheltema, MOA/IDB
2. Interviews/Library Kenya Rural Enterprises

5/12/91

1. Reading Background Materials Office

6/12/91

1. Reading Background Materials

10/12/91

1. Travel to Meru
2. Interviews in Meru and Ngare Ndare

11/12/91

1. Travel to Maua
2. Interviews in Maua and Meru
3. Travel to Nairobi

13/12/91

1. Writeup of Meru notes.

16/12/91

1. Drive Nairobi to Kisumu
2. Discussions with PIU Staff
3. Interviews at Kamayoga A Scheme Committee
4. Interview Selected Kamayoga A Scheme Farmers]
5. Interview Ahero NIB Scheme Manager

17/2/91

1. Interview DC Kisumu
2. Interview DAO Kisumu
3. Interview Selected Kamayoga A Scheme Farmers

18/2/91

1. Discussions with PIU
2. Aborted Interview with District Home Economist
3. Aborted Interviews with PFP in Kisumu and Kakamega
4. Travel Kakamega to Nairobi

19/12/91

1. Discussions with Scheltema
2. Reading new project materials
3. Kisumu Notes

23/12/91

1. Discussions with District Irrigation Officer
2. Discussions with DAO and other MOA Officers
3. Pump Scheme Farmer"s Interviews

24/12/91

1. Discussion with District RYO/Home Economics Officer
2. Discussion with District Marketing Officer
3. Interviews with Kieni East Divisional Agricultural Officers
4. Interviews with Kieni East Horticultural Farmers
5. Travel Kieni East to Nairobi

27/12/91

1. Report Writing

30/12/91

1. Report Writing

31/12/91

1. Report Writing

2/1/92

1. Report Editing and Printing

Appendix. 2. PERSONS INTERVIEWED

A. NAIROBI INTERVIEWS

4/12/91

1. Wouter Scheltema IDB/SSIDP
2. K. M. Mutua Kenya Rural Enterprises Programme
3. Aleke Dondo Kenya Rural Enterprises Programme

19/12/91

1. Wouter Scheltema IDB/SSIDP

B. MERU INTERVIEWS

10/12/91

1. Peter Saisi DC, Meru
2. D.G. Kingo'ri DAO, Meru
3. D.W. Onchoke District Irrigation Engineer Meru
4. S. M. Waweru Divisional Irrigation Officer Timau Division
5. M.I. Kimani Irrigation Officer, Meru
6. Kiramba Ole Kimiri Chairman, Ngare Ndare Water Committee
7. Elizabeth Gathoni Vice Chairman
8. John Wanjau Secretary
9. Bernard Maina Treasurer
10. Samuel Muchemi Committee Member
11. Joseph M'Ruchu Ditto
12. Mary Muringi Ditto
13. Stephen Mugambi Ditto
14. Musa Cherono Ditto
15. Silveria Mukure Muriithi Woman Irrigator
16. Ruth Wanjiru Mugo Woman Irrigator
17. Janet Mwongera Woman Irrigator
18. Margaret Wangui Chairlady, Thayu Women Group
19. Flora Mumbi Member, Mwiyeheri Women Group

11/12/91

1. Bishop M. Kanake Methodist Church, Nyambene Synod. Formerly Development Coordinator
 2. Alphas Kadi Plan International, Agriculture Officer
 3. Beatrice K. Kiruja District Youth Officer, Formerly District Home Economics Officer,
 4. Geoffrey Katana Deputy Director, Save the Children Canada.
- Total Farmers 14 Female 7 (50%) Male 7 (50%)

C. KISUMU INTERVIEWS

16/12/91

1. J.O. Ochieng Ag. Officer In Charge PIU Kisumu
2. D.K. Kapkiyai Agricultural Engineer PIU Kisumu
3. H.O. Ogindo Extension Officer PIU Kisumu

4. J. Hulsebosch	Irrigation Engineer
5. D.C. Ombara	Extension Officer PIU Kisumu
6. Moses Ohoba	Ahero NIB Scheme Manager
7. Charles Migam	Kamayoga A Scheme Committee Member
8. Solomon Onguma	"
9. William Lake	"
10. W. Juma Oyawe	"
11. Pamela Josiah	"
12. Albert Akalo	" Treasurer
13. Caleb Nyamwaya	" Secretary
14. Ezebon Dola	" Organising Secretary
15. Grace Nyamwaya	Farmer

17/12/91

1. R.N. Asol	DAO, Kisumu	
2. W. Nyayiera	District Extension Officer	
3. Godfrey Mate	District Commissioner Kisumu	
4. Patrick Owiti	Kamayoga A Scheme Chairman	
5. Evelyne Okoth	" Committee Member	
6. Mary Ogendo	" Farmer	
7. Bilia Nyamwaya	"	
8. Helida Akelo	"	
9. Joan Akelo	"	
10. Grace Nyamwaya	"	
11. Magdalena Olilo	"	
12. Lonna Owiti	"	
13. Ada Abele	"	
14. Penina Akelo	"	
15. Yucabeth Nyamwaya	"	
16. Isidora Otieno	"	
17. Agnes Achieng	"	
18. Margareta Akeyo	"	
19. Regina Onyango	"	
Total Farmers 25	Female 17 (68%)	Male 8 (32%)

D. NYERI INTERVIEWS

23/12/91

1. J. G. Njuki	DAO
2. M.N. Mburugu	District Agricultural Extension Officer
3. T. Irura	District Irrigation Officer
4. M. T. Wambeti	District Extension Coordinator
5. E. G. Njuguna	Farm Management Officer, Tetu Division
6. M.W. Ndung'u	Rural Youth O./Home Economics Officer
7. Catherine W. Kamithi	Pump Scheme Farmer
8. Stephen M. Ciira	"
9. Joseph Wangura	"
10. Agnes Wangura	"
11. Helen W. Ndengwa	"
12. Jacinta W. Githaiga	"
13. Samuel Githaiga	"
14. Susan Wambaire	"

- 15. Kesiah W. Mwangi "
- 16. Lucy W. Ndungu "
- 17. Josphat K. Gaita "
- 18. Gerald K. Wachira " and Subchief Ugachiku Subloc.

24/12/91

- 1. Alice Kyeba District Marketing Officer
- 2. M.W. Ndung'u Rural Youth O./Home Economics Officer
- 3. John C. Mugai Farm Management Officer, Kieni East Div.
- 4. Raymond M. Murungi Irrigation Officer, Kieni East Div.
- 5. R. W. Gichobi Acting Div. Agr. Officer/Home Econ. O.
- 6. B. W. Mugo Horticultural Officer, Kieni East
- 7. Ann Kimani Horticultural Farmer
- 8. Stephen Kagunda "
- 9. Mrs. S. Kagunda "
- 10. David Ndungu "
- 11. Janet M. Ndungu "
- 12. Josephine Thiongo "
- Total Farmers 18 Female 11 (61%) Male 7 (39%)

SUMMARY STATISTICS

TOTAL FARMERS INTERVIEWED	57	100%
FEMALE FARMERS INTERVIEWED	35	61%
MALE FARMERS INTERVIEWED	22	39%