ANNEX I FINAL EVALUATION

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ANNEX I FINAL EVALUATION

I.1 Record of Final Evaluation Workshop

GENERAL

Date: 30th & 31st Oct. 2003.

Venue: Njuweni Hotel (Kibaha)

Participants:

Ministry

Mr R. L. Ishengoma - MAFS - Irrigation Dept - Morogoro & Technical Service Zone Ms Tabu Likoko - Agricultural Officer

Region

Mr A. H. Mwenkalley (RAA)

JICA HDQ Japan

Mr Ota Mitsuhiko

Ms Aizu Naho

JICA Tanzania side

Mr Jackson Biswaro

JICA Study Team Kibaha

Mr S. Nakada

Mr M. Nishiya

Mr J. Nkondo (Supporting Staff JICA Study Team)

Kibaha District

Mr J. Maliyawatu (DALDO/DAOF)

Mr A. S. Mkungu (DSMS/ADACO)

Mr T. Mwiru (DACT)

Mr E. Magai (DSMS Irr.)

Mr M. H. Barua (VAEO M/pole)

Mr C. Frances (VAEO V/ziwa)

Mr F. Ngítu (VAEO M/bwito)

Ms C. Limota WAEO (M/pole & K/fipa)

Mr A. Mohamedi Hort. (Zegereni Farm)

Mr Longido S. O. (WAEO R/Darajani)

Mr Mangowi F. F. (Farm Manager Zegereni)

Mr John Luputi (KKM Chairman K/fipa)

Mr Felician Bwemelo (KKM Chairman M/pole)

Mr juma Lukali (KKM Secretary M/bwito)

Ms Ashura Kihawa (KKM Secretary V/ziwa)

Mr M. A. Molid (KKM Chairman v/ziwa)

Mr Salumu K. Kawembwa (KKMChairman M/bwito)

Bagamoyo District

Mr R. A. Teggo (DEO)

Ms M. Amanzi (DSMS Hort.)

Mr James Rugemalira (WAEO)

Mr P. Kagambi (VAEO)

Ms A. Malamsha (VAEO)

Mr Mussa S. Kipolpolo (KKM Chairman R/D)

Mr M. Haji (KKM Secretary R/D)

Mkuranga District

Mr D. S. Ndesaiya (DSMS Crops)

Ms Rither Valentine (DSMS Hort.)

Mr J. M. Kwetukia (VAEO)

Ms Imelda Liwola (VAEO)

Mr R. Monyo (WAEO)

Mr Selemani Mgalusi (KKM Chairman M/baya)

Mr Sultani M. Dako (KKM Chairman Mkuranga)

Mr. Saidi A. Mahela (KKM Secretary M/baya)

Mr Saidi A. Tindwa (KKM Secretary Mkuranga)

Kisarawe District

Mr M. A. Mwenunge (VAEO)

Mr A. M. Rashidi (WAEO)

Mr Salehe S. Kahanja (KKM Chairman Vigama)

Mr Ibrahimu Kapama (KKM Secretary Vigama)

Others

Mr Deionise G. Mahilane (Monitoring and Evaluation Expert)

Ms Aisiana Meghiji (Consultant Dar es Salaam)

Discussions in Workshop on 30-31 Oct. 2003

- > The W/shop Chairman Mr A.H. Mwenkalley, RAA, opened the w/shop around 10:05am.
- He thanked all Participants for their attendance to the W/shop that was to take two days, 30th and 31st Oct.
- > He then suggested as Secretariats of the w/shop Mr. T. Mwiru and Mr. John nkondo, which was adopted.
- > Thereafter the chairman invited all the participants to introduce themselves and introduced himself the guests from JICA HDQ Japan Mr. Ota and Ms. Aizu.
- ➤ After the introduction, he charged Mr. A. S. Mkungu to read the minutes of the last Mid-term Evaluation meeting of 18th – 19th November 2002. After completion of the reading, all the participants accepted the written document.

Matters Arising (18th & 19th Nov. 2002)

- > RAA asked the Viziwaziwa Chairman about the progress of the construction of the reservoir in his field.
- > The Chairman of Viziwaziwa Mr. M. Abdallah said that the construction of the reservoir was already completed and he has already resumed using it pumping water with one of the provided treadle pump. The remaining treadle pumps were kept at the KKM office.
- > The 2nd question of the RAA was directed to Mwanabwito regarding problems within the different groups.
- > Mwanabwito KKM secretary Mr. Juma Lukali recognised that their problems were related to cooperation and group efficiency as the result of the scattering of the different fields.

Input Credit

> RAA invited the Members from each Village to explain about the real condition of the input credit.

> Viziwaziwa KKM Chairman

> Mr. M. Abdallah said that concerning repayment from the Loanees, some members were still paying under the supervision of a loan follow – up committee, which was following up on the members collaterals pledge.

> Mwanabwito KKM Secretary

Mr. Juma Lukali, the secretary, explained the situation instead of the newly appointed KKM chairman by stressing that there was no follow-up on collaterals as some members were not around to sign up their loan agreements.

> Mwendapole KKM chairman

> Mr. Felician Bwemelo said that after the court, Loanees agreed to pay but they paid at a low speed. So the established loan follow up committee failed to work on it.

> Kwa-Mfipa KKM chairman

> Mr. John Luputi said that his explanation was not too far from what the M/pole chairman explained.

Matters rising from Capacity Building

The chairman of the Meeting asked about the Budget for training to all Districts.

- (i) **Mkuranga** they have already plan for it and budgeted
- (ii) **Kisarawe** WAEO and VAEO they are not sure about the issue because DALDO was not attending the W/shops. But the chairman said that for Kisarawe they have already planned and also they have planned the budget of training VAEO from PLAN INTERNATIONAL.
- (iii) **Kibaha** DALDO (J. Maliyawatu) said that they planned on Monday, the training would start for VAEO
- (iv) **Bagamoyo** (DEO TEGGO) said that they planned and budgeted.
- (v) The chairman insisted them to continue with budget for training because it is needed.

Raised Matters from Multipurpose Shed

> Vigama

The chairman of the meeting asked about Leadership problems at Vigama, (VAEO of Vigama Mr. Mwenunge) explained that the problem was already solved after electing a new leadership. But another problem is the lack of funds to make the Milling machine and multipurpose shed more operational. Attempts to get fund from Kisarawe District council and JICA were tried but did not yield any success. However, they are expecting to get something from a NGO (COCOBA).

> V/ziwa KKM Chairman

> The KKM chairman Mr. Abdallah said that there is a possibility for the youth group to hire their store room and start tailoring activities in the multipurpose shed.

> R/Darajani KKM Chairman

Mr. Mussa Kipolopolo explained that they are using their multipurpose shed for selling their crops and tax about Tshs 50/= per bucket of plastic sold.

Matters raised from milling Machine

- > RAA recognised the physical problems experienced by the milling Machines in all the villages and asked for an update of the situation.
- > The KKM Secretary of M/bwito explained that their Milling Machine was generally working, but the lack of customers remained their main problem. Also they were experiencing small problems with the engine of the husking Machine.
- > The KKM Secretary of Vigama Mr. Ibrahimu Kapama said that the Husking machine was working, but there was some speed problem. Though the milling machine was working fine, there were not many customers.
- > The KKM of V/ziwa Mr. Abdallah also said that the milling machine was in good

condition, and the faulty husking machine was in the process of renovation by the JICA Study Team.

Matters Raised from Zegereni Seedling Farm

The RAA, Mr. Mwenkalley, asked about two issues concerning Zegereni Farm directly to Mr. Mangowi, the Farm Manager

- Mr. Mangowi, the farm Manager of Zegereni said that the problem was solved after getting the result of the soil test and the advice from Mr. Diwani to stop using cow dung for mango seedlings. Now the result is good after following the advice.
- > The chairman requested the manager of Zegereni to bring the result of soil analysis at his office for more discussion.
- > To address the high expenditure of the farm, the manager said that they reduced,
 - (i) Number of labour from 15 to 10
 - (ii) Labour salaries to 1500/=per day

However, income and expenditure are still not balanced.

The chairman asked Mkuranga about the Purchasing of farm land for growing seedling.

Mkuranga KKM chairman said that they have already purchased the land for Tshs 120,000/= and they have already planted seedlings

INPUT CREDIT

The RAA invites Mr. A. S. Mkungu to explain about input credit.

- Mkungu explains about the history, success and problems of the project.
- > The Chairman asked again about the DAOF staff ability concerning input credit.
- > They DAOF agreed low ability to perform their activities due to few days of training, but they succeeded to some areas for example.
- > Good performance of Ruvu Darajani due to effort of DAOF staff and members good relation.
- > Good timing in providing a pump and input to the groups after assessing a good leadership.
- > Chairman is sure that KKM can manage and make the project sustainable.
- > In addition, the chairman of the meeting was worried about the low repayment rate of input credit in many villages. Also JICA representatives from Tokyo HDQ. Ms. Aizu asked if the project can be sustainable.
- > All chairmen from the Villages of the project they agreed that it can be sustainable after changes made. Then the chairman of the meeting agreed we can modify the condition in order to make the project sustainable

PROBLEMS AFTER EVALUATION

The members agreed after discussions that major problems are

- > DAOF staff fail to some extent and perform little to other extent, so it is better to clarify which side was worse and which side was performed better.
- > Although chairman said that I know that during documentations of entire was worse after training of consultancy but they made changes with the head of dept. and now it is OK.

- > Also members agreed that main problems originated from group formation, lack of legal ability for manage input credit smoothly.
- > Problem of big loan size also seems not true, but the real problem is low repayment. Chairman seems that members prefer minimum loans size to be Tshs 300,000/= up to 500,000/=. Also even after reducing loan size up to 60,000/= some members continue fail to payback.
- CPMU and DAOF did not have proper information concerning Loanees vegetable growing, yield earnings and so forth at the time of repayment.
- > RAA said that this is untrue because so many data's was gotten from VAEO and WAEO for example the farm amount harvested etc. Members agreed that the problem is farmers are not honest.
- > Legal exaction did not work properly, members agreed that not true, but during the legal exactions was peak of drought, number of production so that is why don't work properly.

Lessons Learned

A certain amount of savings as collateral shall be collected before loan

- Members agreed that the sentence should be a certain amount of saving as collateral from each members shall be collected before loan. Also apart from saving members add down payment of 20,000/= can be collected before loan.
- > Water shall be indispensable for pledging loan for vegetable cultivations.
- > Members agreed that land must be added and statement will be land and water shall be indispensable for pledging for vegetable cultivation.
- > The other statements are OK.

IMPROVEMENT OF WATERING

The chairmen invited Mr. E. Magai to present the minute about different activities, history success and problems of pumps.

The chairman asked if water improvement project could be sustainable according to this situation to each chairman of the KKM.

- M/bwito secretary said that after getting training from R/Darajani, now farmers are coming to our office and took pumps for use. However, no plan for maintenances and loan repayment. Also he said that another problem no input, people are not easy to implement their activities.
- > The chairman of the meeting said that it is important to arrange uses of pumps, loan repayment to service it if they want to be sustainable.
- > Viziwaziwa KKM Chairman explained that there is difficult to use treadle pump at Viziwaziwa but he started to use after having water reservoir. He is sure that some farmer may use after see an example from KKM chairman.
- > The chairman of the meeting and members worried about the ability of purchasing/building water reservoir for Viziwaziwa farmers which cost about 55,000/= each, so they decided to put a deadline for using it with farmers and if not, pumps can be sold to another villagers which is internal of the project.

> The chairman of the meeting said that leaders would propose date of deadline for those pumps.

PROBLEMS RAISED ABOUT PUMPS

- > To quit from the project (M/bwito) the secretary said that main reason is women get married and lack of fund to operate the pumps.
- Leadership is not strong for (M/bwito).
- Poor attendances during the meeting (M/bwito)
- Treadle pumps are not used except one (V/ziwa)
- > Most of the farm land for group members was hired and majority are scattered.
- > Pumps must be given with complete package including inputs for better result like R/Darajani.

Lessons Learned

- 1. It is difficult to get farmers real mind.
 - > The chairman of the meeting said that this is not true, but what is needed is to know why farmers are changing mind. Main problem is that farmers are not given pump and inputs.
 - Members agreed that after getting pumps the technology and achievements appear is a changing of technology, so after changing technology there is a high demand of inputs.
- 2. Social conditions and Geographic environments shall be considered
 - > Members agreed that this is not the point about pumps, but some points are added such as.
 - > Maintenances and care of the pumps is important for project to be sustainable.
 - > Treadle pumps must be given to farmers who demand it.

2nd day 31st Oct. 03

CAPACITY BUILDING

The chairman of the meeting started by explaining purpose implementation results and what we have learned on ext. staff.

- Mr. Monyo the WAEO M/mbaya Mkuranga said that it is important because since completion my course I didn't get any training about horticultural crops production but now I learned through this project so many things.
- > Ms. Aizu the JICA HDQ Japan asked the changes obtained after and before training.
- > The KKM chairman V/ziwa said that the VAEO now are more competent, they are not depending on district staff. Other members also added that VAEO now they visit farmers several times after training compared before training.
- Mr. Magai asked why training based on horticultural crops only, instead of other dept. like M/shed and M/machine, pumps handling, processing marketing etc.
- > The chairman of the meeting said that this is due to shortage of fund and time of training is limited.

Lessons Learned

- > Training was given a first priority on this project.
- > District must budget and use fund for training also many things must be taught according to curriculum.
- > Training needs enough time because it include many skills to be taught e.g. training on pumps and m/machine handling, farm structure, processing etc.

CAPACTY BUILDING FOR COMMUNITY

GROUP LEADERS TRAINING

- 1. Leaders are now knowledgeable on group dynamics administration and advancements. They should up-build the knowledge.
- 2. The leaders can extend their knowledge to other members of their group.
- 3. Training of leaders is important before start up of a project.

COMMUNITY CAPACITY BUILDING

- > Farmers have leaned new skill in carrying such horticultural activities and they should uphold now.
- > A farmer to farmers contact has enabled smooth transfer of technology and knowledge. This exercise should be continued.
- > The farmers are now able to take up horticultural knowledge from the extensions staff. They should continue to contact extension staff.
- > They developed self- reliance and respect. This should continue with hold farmers and cultivated with new farmers also.

MULT-PURPOSE SHED

Success

- R/Darajani started to sell their product at m/shed.
- > The chairman of V/ziwa said that they will start to rent youth at their Mult purpose shed.
- > No success for Vigama up to date.

Lessons Learned

- > Mult purpose shed can increase income for KKM and Village Govt.
- > Increased relationship with Villagers.
- > KKM has no capacity for using M/shed Vigama.

Ms. Aizu (JICA HDQ Japan) asked if KKM could build M/shed without any assistance fron JICA team.

- > It seems that they can not build without assistance, especially for building materials such as iron sheet, cement, timber wood, etc.
- > Ms. Aizu asked again if they can start saving and then build m/shed.
- > The chairman of the meeting said that it is noted that according to their low income they did not save anything.

Milling machine

- > The chairman started explain about the importance, activities problems of milling machine.
- Ms. Asiana (the private Consultant) explained problem of farmers they don't say the truth during need assessment survey.

Lesson Leaned

The same like mentioned on the final evaluation report

District Seedling Farm Zegereni

Farm manager (Mangowi) started to explain history, purpose, Activities and problems.

- > Main problem is
 - (i) High expenditure than income
 - (ii) Low price on vegetable good

Solution

- > To reduce number of workers and labour salaries
- > The salary now reduced 3000/= 1500/=

Lessons Leaned

The RAA asked what did we learn about the situation of Zegereni seedling farm.

- > Good place for training to farmers and extension staff.
- > Good source of seeds and seedling for Kibaha district and other district.
- > It is necessary to have income and expenditure budget plan.
- > Also it is important to have market survey analysis.
- > Zegereni must have separate expenditure of demonstrations plots and production field.
- > Labour employment depending on the activities will be needed.

DEMOSTRATION PLOTS AND NURSERY SEEDLINGS

Mr. Zegereni (Mohamed) explained the progress of the Demonstrations plots and nursery seedlings.

Lesson Learned

- > Better to learn ecological reconcilements of new crops e.g. garlic
- > Find alternative crop to cultivate.
- > They learned on type of fertiliser and uses.

DEVELOPMENT OF VILLAGES

The chairman of the meeting reads details for each village started with V/ziwa, Vigama, etc.

- > Members agreed that many things are repetition, so decided to discuss few things.
- Ms. Aizu (JICA HDQ Japan) asked for those who are not in project how did they feel.
- > The KKM chairman of R/Darajani said that now there is great demand to join the project.
- M/bwito KKM Secretary they feel jealous.
- > V/ziwa KKM chairman explained the income for the group members are high compared to not group members.

- > K/fipa KKM chairman said that they have some lacks.
- > M/pole KKM chairman said that they need to join.
- > Ms. Asiana (consultant) asked what are most important advantage to join the project.

<u>V/ziwa</u> to join together, to know each other.

Vigama to get training and skill.

M/pole to get input credit at a low price.

Resolution of Workshop on 30-31 Oct. 2003

Input credit

- 1. Through the use of input farmers have gained technical know how on the proper application of fungicides and insecticides.
- 2. Farmers who were seriously engaged in horticultural production increased their production per unit area.
- 3. Input credit should be administered by (NGOS) and government staff should provide technical know how.
- 4. Owing to the use of agrochemicals and good crop husbandry the quality of their vegetables has improved
- 5. Selection of Loanees should be based on:
 - > Knowledge and skills of the candidate on vegetables production.
 - > Sincerity on repayment and commitment of the farmer in vegetable production.
 - > Assessed ability to repay.
- 6. CPMUs should be capacitated in handing input credit and in management.
- 7. Amount of loan should be determined by type of input to be used and their cost and size of land to be used for production of horticultural crops and new farmer should start low input.
- 8. Every farmer should have collateral before advanced input credit.

Additional Loan size will be 0.25 of an acre minimum according to the price of 2001/2002 will be Tshs 60,000/=.

WATERING IMPROVEMENT

- 1. Treadle pumps seem to be laborious to farmers in the groups therefore other farmers should be given the opportunity to buy them in Viziwaziwa. If they fail to procure them within a set period of time, the pumps should be sold to any farmers within the four District, Mkuranga, Kisarawe, Bagamoyo and Kibaha. The money should go to the Revolving Fund.
- 2. The use of pumps should be complemented with inputs and technology of horticulture, so that they can be used profitably.
- 3. Properly maintained and cared for engine water pumps can be used for a long time and enable the farmers to get a profit. Every farmer should adhere to maintain those equipments.
- 4. Use of engine water pumps at Mwanabwito has basic problems. In addition, the plots are scattered, the pumps are used on individual basis among the group members, there is no

coercions among the group members and there is no schedule for service and maintenances. This normally must be rectified.

EXTENSION STAFF CAPACITY BUILDING

- 1. The training staff is of prime importance before a project start to operate therefore the staff should be trained before the start of the project.
- 2. A training budget is necessary for every district to guarantee that the activity takes place. Training should be done according to the curriculum developed.
- 3. Training should be located sufficient time to cover the topics and to enable recipients understood all the topics.

GROUP LEADERS TRAINING

- 1. Leaders are now knowledgeable on group dynamics administration and advancements. They should uphold the knowledge.
- 2. The leaders can extend their knowledge to other members of their groups.
- 3. Training of leaders is important before start up of a project.

COMMUNITY CAPACITY BUILDINGS

- 1. Farmers have learned new skills in carrying such horticultural activities and they should uphold now.
- 2. A farmer to farmers contact has enabled smooth transfer of technology and knowledge. This exercise should be continued.
- 3. The farmers are now able to take up horticultural knowledge from the extensions staff. They should continue to contact extensions staff.
- 4. They have developed self-reliance and respect. This should continue with old farmers and cultivated with new farmers also.

MULTIPURPOSE SHEDS

- 1. They are at present not fully utilised due to inadequate horticultural crops to be sold in the structures.
- 2. They are good premises for multipurpose activities but they have not been advertised.
- 3. The Ruvu Darajani structure is used as a market for the members of KKM and pays 50 Shs per bucket of tomatoes. Other products are charged accordingly. Other structures can follow such as R/Darajani.
- 4. The multipurpose sheds have increased community participation and coerciveness; therefore, they should be continued.

MILLING MACHINES

- 1. Most of the Milling and Husking Machines are ill functioning; therefore, proper selection of technology is very important before start of the project.
- 2. Rehabilitation of the Machines is necessary so as to be beneficial to the community.
- 3. Machines have helped reduced women's workload and they should continue to serve the people in the project villages.

- 4. Mwanabwito machines are generating at very high cost. More information should be generated on the use of these machines so that they become economically viable and sustainable.
- 5. Members have developed a sense of working together; this should be continued.

ZEGERENI FARM

- 1. Planning is important to ensure that farming activities are carried out profitably.
- 2. Labours is the most expensive item and its utility should be according to labour profiles and a working time should be adopted.
- 3. The Horticultural Seedling farm should not carry out experiments using the farmers resources.
- 4. Dependence on grafted seedling takes 9 12 month before selling cannot bridge the gap between high expenditure and low income. Therefore short-term crops should be planted.

EXPERIMENTAL PLOTS

- 1. Timing of new crops e.g. leeks is important.
- 2. Farmer can be able to diversify his crops.
- 3. Certain crops which were not traditionally grown in the area coved be produced and farmers should be advantage of this.

Closing speech.

- > The RAA thanked participants and urged the groups to improve on the said problems, if not JICA will not be happy if the projects failed to be sustainable.
- > He insisted M/pole and K/fipa to open the Bank account immediately other wise will be no one to blame. Also he stressed the importance of registration.
- > He insisted on the necessity to continue repaying the loan other wise sustainability will not be achieved.

Closing at 18:05pm Thank you

I.2 Record of Evaluation Workshop conducted in October 2003 (Prepared by the Facilitator)

2.1 Outline

At the end of description on evaluation, participants will be able to conduct evaluation exercise to the verification study on the small-scale horticultural development project for poverty alleviation to farmers in Coast Region.

Important message

Evaluation is essential (very basic) for project sustainability.

Evaluation is a seasonal measure to make follow up on project activities to know if implementation has been done as planned, its outcome (results) and its benefits.

Importance of evaluation

Evaluation usually points out useful information to project implementer or stakeholder to know if:

- Program benefits have reached to beneficiaries.
- Program activities satisfy expectations and objective needs.
- Project programs have been implemented.
- Are there any an unexpected results (outcome).

Evaluation tools

- Schedule of work (plan of implementation schedule)
- Various implementation reports e.g. weekly, monthly, quarterly, yearly etc.
- Mid term evaluation reports
- Physical site visits

Schedule

•	Viziwaziwa	Oct.	6	(Mon),	7	(Tue)
•	Mwanabwito	Oct.	8	(Wed),	9	(Thu)
•	Mwendapole	Oct.	11	(Sat)		
•	Kwa Mfipa	Oct.	13	(Mon)		
•	Ruvu Darajani	Oct.	14	(Tue)		
•	Mwanambaya	Oct.	18	(Sat)		
•	Mkuranga	Oct.	20	(Mon)		
•	Vigama	Oct.	21	(Tue)		

GENERAL QUESTIONS RELATED TO WORKSHOPS

- 1. Did the project produce any good/bad effect on you/your village?
- a) Which good effect?
- b) Which bad effect?
- c) Is the effect the cause of one component alone? (Milling machine?, Multipurpose shed?, Pump?, Input credit?, Training? etc.) or an interaction of 2 or more components?
- d) Which interaction do you think? (start by good effect and then bad effect)
- 2. Regarding the facilities constructed or equipment provided.
- a) Have you used these as planned initially?
- b) Have there been any constraints in such a use?
- c) Can we see together how to solve these constraints?
- d) How many new ideas for their use have been presented and actually implemented by community?
- 3. Group Leaders (any groups)
- a) Since the project started in your community, has farmers' incentive to participate in any group activity promoted? If yes, how? If no, why?
- b) How many groups have started new activities?
- c) Is there anything groups have spontaneously started or are going to start by themselves or together with village and District?
- 4 Group Leaders and Groups
- a) Are project activities conducted following constitution established by groups?
- b) Are meetings held regularly as planned? What frequency?
- c) Are records taken?
- d) Are account books regularly maintained, and earnings and flow of money regularly recorded?
- e) How much money has gone to KKM?
- f) How much money has gone to you?

QUESTIONS CONCERNING SEPECIFIC COMPONENT

A.	Input Credit (Viziwaziwa, Mwanabwito, Mwendapole, Kwa Mfipa, Ruvu Darajani)
a)	Do you think it was good to join the (Input Credit) Project, (even your suffering from repayment: for the ones who are suffering from repayment)? Yes (Why? No (Why?)
b)	Do you have any intention to continue Input Credit? Yes (Why?) No (Why?)
c)	How much income did you earn from the produce made using input?
d)	How much improvement is made for farming balance?
в.	Improvement of Watering (Viziwaziwa, Ruvu Darajani, Mwanabwito)
a)	Do you have any intention to continue Improvement of Watering? Yes (Why? No (Why?)
c.	Group Nursery (Vigama, Mkuranga, Mwanambaya)
a)	Did the group nursery give you any positive impact? Yes (How?) No (How?)
b)	Did you have any difficulties in works of group nursery (group management, technical problem, etc.)? How?
c)	Do you like to continue the group nursery to your farmland in near future? Yes (Why? No (Why?)
d)	Give us any comment on the group nursery micro-project.
D.	Soil & Water Conservation (Vigama, Mkuranga, Mwanambaya)
a)	Are you interested in the soil & water conservation techniques? Yes (How?) No (How?)
b)	Do you like to introduce the soil & water conservation techniques to your farmland in near future? Yes (Why? No (Why?)
c)	Give us any comment on the soil & water conservation micro-project.

2.2 VILLAGE: VIZIWAZIWA

MILLING MACHINE

(1a) GOOD EFFECT

- Before the project, the community used to walk 8 km. Following milling service that was not available at the village. To date the milling service is available at the village premises.
- Before the milling project, most women used to mill cassava manually. Now they can do it by milling machine, thus introduction of milling machine has reduced work-load to women.
- The time that was spent in walking 8 km and manual milling, it can now be used for development activities such as horticultural crops production.
- The income to group members has increased through money collected as milling charges.
- The Viziwaziwa community is getting milling services at a relatively cheaper price than other private milling machines at Kwa Mfipa.
- The group members have managed to work together thus group members have learned to work in groups.

(1b) BAD EFFECT

No bad effect produced by milling machine.

(1c) INTERACTIONS

Good effects were influenced by good interaction from various components. They included training whereby farmers understood what and how to do things. Good cooperation and readiness to learn by farmers i.e. to grasp and practice what is being taught. Good leadership and governance by CPMU, District leaders and JICA team through frequent instructions and directives. Logistics support by JICA and Tanzania government all these made implementation possible.

(2a) Regarding the construction of the milling machine at Viziwaziwa, the facilities have been used as planned i.e. for milling purposes.

(2b) Constraints of the milling machine

Frequent machine break down: When the milling project started group members were highly motivated and performing wonders in every aspect. Now group members seem to be discouraged and do not follow their constitution properly. During discussion they pointed out that this condition was due to frequent break down of the machine. Since September last year the de-husking machine is not operating. Many customers who need to process maize flour go to nearby village where de-husking and milling is made (Kwa Mfipa).

The milling machine group is currently facing higher running costs due to frequent repair of the machines.

Production of cereal crops was very low due to drought. Thus villagers have almost nothing to mill this implies very few customers. This has resulted to very small earnings by milling machine project.

(2c) Due to very small earnings obtained so far from the milling machine project, the group has failed even to afford repair of the machines. During the discussions, requested to JICA to assist in repairing the de-husking machine.

The facilitator asked the group members suppose the donors (JICA) responds negatively to their request of repairing the machine, what was their alternative solution?

They said alternative solutions were: - either to sell the machines and use the obtained fund for another project, or privatisation of the machines.

(2d) The group members are facing a problem of not following regulations regarding their day-to-day activities. This being the case, therefore they agreed together to obey and follow group regulations and bylaws. They also agreed to set schedule of work and timetable for machine operations.

(4) Project activities are conducted following conditions established by the group. But one big problem facing the group is poor attendance of group members to the meeting and sometimes attending the machines. They said were discouraged by frequent breakdown of the machines.

About record taking and keeping, they said it was well done. This included account books, balance books about earning as well as flow of money. They appreciated that the training and directives empowered to them was appropriate and proper for them to work independently.

Up to date no money have gone to either KKM (CPMU) or group members. Milling machine balance on 7/10/2003 was 29,125/=.

EXPERIMENTAL PLOT

Comments from experimental plot group members:

The agricultural inputs i.e. seeds and fertilisers were not supplied to farmers in time.

They commented that agriculture inputs should be supplied at the right time e.g. garlic seeds were supplied in July while the right time for planting garlic is May every year.

Various seeds have been planted on experimental plots. Farmers in project area used planting only tomato and okra.

Experimental group advised their fellow farmers to try other vegetables such as garlic, tomato, carrot etc. They are good as price change is very minimal and can be stored for few days as compared to tomato and okra, which are easily damaged just after harvesting.

INPUT CREDIT

(1a) GOOD EFFECT

- Farmers have increased production per unit area and hence increased income, e.g. for tomato production: before the project farmers harvested 20-30 plastics but now are harvesting 80-100 plastics per acre. For cucumber from 1 tonne up to 3 tonnes per acre.
- Farmers have gained more knowledge on horticultural crops husbandry practices such as spacing, fertiliser and chemical application. They can do all these practices timely and properly.
- Farmers got input at the village in time and at a cheaper price e.g. NPK 250/= instead of 400/= per kg., CAN 200/= instead of 300/= per kg.
- Village Extension Workers can visit the farmers more frequently than before the project. This enabled farmer's empowerment exercise successful.

(1b) BAD EFFECT

Farmers who failed to pay back input credit were sent to court. The court ordered them to pay back otherwise their property worthy the same value as loan will be sold to pay to input credit.

(1c,1d) Good effects were influenced by good interaction from various components. They included training whereby farmers understood what and how to do things. Input and watering practices by farmers made it possible to increase production. Provision of logistics support by JICA made things to move as planed. Self-driven and motivated farmers made implementation possible. Good leadership and governance from CPMU, District, Region and JICA.

(2a) Facilities were used as planed initially.

(2b) Constraints

• Some of farmers have failed to pay back input credit. Reasons for failure to do so include draught and low price of agricultural produce. Due to draught, some farmers failed to water their crops that resulted to very low yield although they applied inputs timely and properly.

- They suggested making wells should be one of the project components.
- Some farmers had good harvest but because were not trustful did not pay back to input credit loan. Farmers said probably this was so because of paying back period after 24 weeks. They Proposed to pay back just at harvesting period.
- Farmers who completed paying back the loan in time was not considered for further input loan. Proposed it is better for those doing good in paying back loans be considered for further loans.

MULTIPURPOSE SHED

(1a) GOOD EFFECT

- The Viziwaziwa community has a permanent meeting place.
- The Multipurpose shed can be used on hiring bases to various users both inside and outsiders for various occasions.
- The groups now have office and store as essential facilities.

(1b) BAD EFFECT

No bad effect produced by multipurpose shed.

(1c) CONSTRAINTS

• Farmers do not sell their agricultural produce at the multipurpose shed as planned. Farmers do not bring the produce just after harvesting instead they sell their produce to retailers/vendors at farm.

TREADLE PUMPS

(1a) GOOD EFFECT

Farmers reported that no good effects.

Receiving 5-treadle pump as planned and requested by the group members.

(1b) BAD EFFECT

No bad effect produced by treadle pumps.

(1c) CONSTRAINTS

Most farmers due to the following reasons abandoned treadle pumps:

- It needs two people for peddling and watering.
- Its horse pipe is too heavy to work with especially when changing from one row to another.
- During watering and changing processes the horse pipe may damage the crop.
- Farmers proposed construction of water tanks in the field, then treadle pumps are used to fill the tanks and use watering can to water the crops.
- They also mentioned the type of pumps bought are difficult
- To work with. If possible better buy pumps from Arusha, which are simpler in using than pumps from Morogoro (the ones they have).

(1c) In most cases the effect was caused by interaction of more than one component e.g. although inputs were applied properly in time, shortage of water (draught) resulted to less yield as the watering process was affected.

(2a) Initially the multipurpose shed was planned for meeting, office and selling place for farm produce.

For the time being it is not used as a selling place of farm produce as most farmers sell their produce at farm.

• The input credit was used as planned by most farmers with the exception of one farmer who sold his inputs and disappeared from the village.

(2d) New ideas for facilities use: Multipurpose shed:

It is now free for hiring services to any customer for official and social cultural functions/ceremonies. This has already started.

Input credit:

The input credit was given only once even to those who paid back their credit in time.

Farmers proposed that the next credit should be considered to farmers who paid back their input credit in time and pumps should be re-arranged/re-organized.

GROUP LEADERS:

- (1a) Since the project started, in Viziwaziwa farmers incentives to participate in group activities have been promoted due to benefits from the said/started projects.
- (1b) Up to September this year about 5 groups have started new activities.
- (1c) Most of groups started agricultural activities, vegetable production in particular. They have started such activities on their own initiatives.
- (4a) Project activities are conducted following conditions set or established by groups themselves. CPMU (KKM) usually makes arrangements possible for meeting by all members. The problem is turn up of members is not encouraging i.e. poor attendance. It was reported that poor attendance was due to fear of some members especially input credit who have not yet paid back input credit.
- (4b) Regarding record keeping, it was reported that most records are well recorded and kept.
- (4c) Regarding the account books, it was reported that most group accountants are poorly performing. Those contributed during the discussion feared that they were not properly trained to do that job. They therefore proposed that they should be trained just few and simple things in accounts which they are ready to use in every day's work.
- (4d) On balance book about earning were not much problems. More on job training and close supervision will help them to manage their job.
- (4e) Almost all activities are done on self-help bases. So far there is no money paid to either PCMU or group members. Expenditure is only to other things but not paying allowances of any kind to any member. The multipurpose shed project has a balance of 35,600/= on 6/10/2003.

2.3 VILLAGE: MWANABWITO

MILLING MACHINE

(1a) GOOD EFFECT

- Milling services is now available at the village. Thus villagers have saved walking for 6 hours following the similar service available at Mlandizi.
- They can mill at a cheaper price; at the village 30/= per kilo while at Mlandizi 40/= per kilo.
- Advocacy for the village: "Nearby villages such as Ruvu station, Kitomondo and Kikongo are getting milling machine customers at our village (Mwanabwito).
- Increased money circulation to the village: Milling machine customers from nearby villages usually do trade transactions with Mwanabwito villagers e.g. shops, Mama lishe etc.
- Has created employment to machine technician and permanent operators.
- Time spent for milling before the machine is now spent for development activities/purposes such as horticultural crops production.
- Has increased income to group members so far members has distributed a share of 37,000/= to machine members.
- Group members have acquired knowledge on machine operation, maintenances and record keeping.
- De-husked by products are now used as animal feeds. Number of local chicken keepers has increased.
- Peace atmosphere to the village has settled. Before the project, some villagers on their way from milling at Mlandizi their foods were taken by force.

(1b) BAD EFFECT

- To some families of group members some social misunderstandings have occurred. Three women have divorced and two have dropped from being members on conditions set by their husbands. This was due to a very tiny timetable whereby women had to work even at night.
- Suspicious and jealous by community members:

The community thinks that group members are earning more money.

(1c) INTERACTIONS

These good effects as already listed above were due to good interactions between project components. These included: Training that is provision of knowledge, good cooperation between group members, good CPMU coordination, Logistics support by JICA and good governance from different levels.

- (2a) The machine has been used as planned just for milling purposes.
- (2b) Problems arises in using the milling machine:
 - Frequent breakdown of the machine especially the de-husking machine.
 - This year (2003) Mwanabwito has been hit by severe drought. There are no cereals to mill; this has resulted to almost no customers to mill.
 - Milling time is longer than expected. It takes 8 minutes to mill 12 kg maize while expected was 5 minutes. This has resulted into higher running costs. The machine operator said this was due to low capacity of milling part. The milling machine has two components: the engine (drive) and the milling part. Engines are very powerful and capable while the milling and de-husking parts are too small to be run by those engines. As a result there is higher diesel consumption.
 - The operator also said that tankers for cooling machines are too small. This result to overheating of the machines and sometimes they have to stop operation to allow for cooling.
 - He proposed to think of fixing new big cooling tanks.

- Belt safety guards are not yet fixed putting in danger customers and operators. He proposed that they should be fixed immediately.
- The group is faced by problems of poor attendance by members in meeting and group activities. This make most activities not to go as planned.
- Knowledge and understanding of money keeping i.e. all transactions regarding book accounts is still low. They proposed training on accounts be taught to group accountants.
- (2c) Concerning milling machine and de- husking machine problems, most members said the machines were not right ones for them. They are poorly performing with higher running costs. They propose to be changed with new machines with high performances like ones at Mlandizi. They were worried to pay back loan if the remaining with such machines.

Lastly they said that they are planning to have discussion with donors about the machines problems before March 2004.

• The facilitator asked them that this year no customers due to drought. What was their plan in using the machines? They said that they are planning to request credit from CPMU (KKM) for purchasing cereals so that they mill and sell maize flour.

About poor attendances by members they insisted using their constitution set by themselves.

- (3a) To most member incentives to participate in-group activity were promoted. They participated fully in machine house construction also in implementation and supervision of day-to-day activities.
- (3b) No group has started new activity other than milling.
- (3c) Are planning to request credit from CPMU for purchase of cereals and milled then sell to customers.
- (4a) Regarding meetings: Only PCMU (KKM) is performing well. The machine group is forced by poor attendance as already said in (2b) & (2c).
- (4b) Most records are well recorded and kept. But still the extension officer is responsible in regular checking; he/she will empower the members on how to manage well.
- (4e) So far the machine group money records stands as:
 Paid to KKM 266,000/=
 Group members 37,000/=
 Balance -

INPUT CREDIT

(1a) GOOD EFFECT

- Farmers gained knowledge of vegetable management in nursery and in the field. This included fertiliser application, chemical application, crop rotation, irrigation etc.
- Production has increased per unit area.
- Before the project in one acre used to harvest to about 10 tengas. Now farmers are harvesting 20 tengas in the same acre.
- Easy access to inputs: inputs were provided during implementation
- Managed to produce crop with good quality.
- Before the project was introduced, used to plant only tomatoes and okra but now have planted various vegetables such as carrots, garlic, onions etc.
- The knowledge empowered to the group members has spread to other community members.

- Before the project most community members did no know the village extension officer. Now visits regularly above all some community members can follow him seeking extension services.
- Before the project, vegetables i.e. tomato and okra were planted only in June after rain season. But now we can grow vegetables throughout the year.

(1b) BAD EFFECT

- High production resulted in flooding the market which eventually resulted in low prices of vegetables
- Input Credit members failed to pay back credit were reported to courtsome have paid but others not yet.

Bad effects have caused by several reasons as follows:

- Due to low price, farmers' income was too low to pay back the credit.
- Some farmers did not or harvest very little due to drought, thus very low income to pay back the credit.
- Some farmers had good harvest but were not faithful enough to pay back the credit.

(1c) INTERACTIONS

These good effects as already listed above were due to good interactions between project components. These included: Training that is provision of knowledge, good cooperation between group members, good CPMU coordination, availability of input credit and good governance from different levels.

(2a) Input credit was used by most farmers as planned Some did not use all inputs and are still having them in their store.

(2b, 2c) CONSTRAINTS

- To most farmers production was low due to change of weather (drought).
- The input credit group are requesting also to be considered for pumps.
- \bullet Some farmers did not use all the inputs provided for several reasons: $\underline{\text{Drought or heavy rains}}.$ They did not see the importance of applying fertiliser to the drying plants.
 - Some were lazy to follow directives of extension officer. They had to apply fertiliser three times which few of them did not do. More extension advices are strongly needed to these farmers.
 - Low price of vegetables:

Farmers are advised to change cropping season and pant the crop in good marketable season.

Also planting vegetables easy to store e.g. garlic and onions (perish ability).

(2d) On input credit pay back, farmers had two ideas:

Let them pay back just after harvesting.

Some said they have already formed village task force on follow up of credit so let it do the work assigned for. (Follow up and collecting loans.)

- (3) For question 3 & 4 the same as milling machine.
- (4e) Money record for input credit

Pay back to KKM 586,000/=

Group members -

Balance -

- The input credit members said that it was good to join.
- The reasons given are similar to those good effects listed under input credit (1a).
- Most farmers said that they have the intension to continue with input credit they also added that input credit should be considered for pumps members. The reason for that was to increase production by getting the

- inputs timely.
- On how much income farmers get from farming did not tell the truth; but it shows that they are earning something that is why they still want to continue.
- On the improvement of farming balance; to this year due to drought and low price no balance was saved/kept.
- (2) All farmers said they intended to continue watering because by watering they are certainly to harvest.

TREADLE AND ENGINE PUMPS

(1a) GOOD EFFECT

- Introduced pumps have reduced workload to farmers since before the project used manual watering.
- Most farmers can now irrigate/water their crops, before the project most farmers depended on rains.
- Farmers can produce vegetable throughout the year. Before the project farmers were producing only during rain season.
- Farmers have gained/acquired knowledge on vegetable production technology e.g. application of chemicals: timely, rates and amount, crop husbandry management practices etc.
- Farmers outside the group are motivated they also have started watering their crops.

(1b) BAD EFFECT

There were no bad effects sighted by farmers due to introduction of pump project.

(1c) The above good effects came about through interaction of different components.

Training was the major one as farmers were taught how to do watering; crop husbandry practices, use of agricultural inputs.

An interaction of different components made watering successful.

- (2a) The pump groups were given pumps for watering purposes. They are still using the pumps for similar purpose.
- (2b) In using pumps some problems have occurred:
 - One of the five pumps initially provided had serious problems. It was changed to new one.
 - Another problem was drop out of pump group members. Reasons given for drop out were: - From economic point of view some failed to pay in time their contribution for inputs e.g. seeds, pump running cost (oil and petrol).
 - Suspicious and jealous within the group members which resulted into lack of cooperation.
 - The same group having plots to different localities. Having plots for the group in one locality was one of the conditions for group members for smooth operation. Mainly this happened due to lack of cooperation and trustfulness among group members. Eventually this lead to separation (dropout).
 - Most dropouts were lazy. Group members did not tolerate laziness hence dropout.
 - Pump group leadership was not strong enough to supervise group activities especially groups income and expenditure.
- (2c) The group members thought these problems might be solved using and obeying the constitutional set by group members. It was agreed that those dropping out should put in writing about their dropout. Once one member drops, then the rest

members should be responsible to pay back credit. They finally insisted to run day-to-day activities using set constitution. If the constitution is not implement able, then follow procedure for amendments/ revision.

- (2d) The pump group proposed to be considered for input credit loan.
- (3a) When project started, farmers' participation was good but dropped gradually as they proceed.
- (3b) Up to now no new group has started a new activity.
- (3c) Existing groups are planning to increase the area of production e.g. one of the group members reported that he started with 0.5 acre; this year expanded up to 0.75 acre and is planning to expand his area up to 1 acre next year. Some of groups said that they are trying their level best to promote other farmers outside the group to do the same (vegetable watering).
- (4) Usually PCMU conduct their meeting regularly as planned. The problem is to pump groups. Usually there is poor attendance. This is due to laziness of the group members.

In records keeping i.e. account books, balance books, flow of money and pump operation records, there are still some problems. During discussions they raised reasons that they do not record because they have no proper account books, no files etc.

According to them they thought all these should be provided by JICA.

They were advised to practice to work independently by buying important and simple tools, which enables them to work, by keeping records.

The extension officer was told that one of his responsibility is supervision of such records thus she/he should check regularly and advise accordingly.

- (4e) Money records by pump groups
 - Mshikamano group KKM 20,000/= Group members Nil
 - Umoja group KKM 183,500/= Group members Nil
 - Juhudi group KKM 22,000/=
 - Mtaji wa Maskini group reported to have paid to KKM chairperson but the secretary had no information
 - Maendeleo group Nil.

EXPERIMENTAL PLOT

- (1a) GOOD EFFECT
 - Farmers have developed good habit of record keeping in crop production from planning (sowing) up to harvesting.
 - Farmers have learned and practiced crop husbandry techniques i.e. farmers have knowledge on proper nursery and field management.
 - Have acquired knowledge on how to use of chemicals in vegetable production. They have known what chemical to apply, how much and when to apply.
 - They have tested newly introduced crops such as watermelon, garlic, carrot, and onions in their locality. Before the project used to grow only tomato and okra.
 - Farmers of experimental group have extended the obtained knowledge on vegetable production to the rest of the community.
 - Have managed to produce good quality vegetables.

(1b) BAD EFFECT

No bad effects reported by experimental group.

(1e) All these good effects were obtained due to good interactions between more than two components.

These included training by extension workers.

Component of input, which included fertilisers and insecticides. The knowledge of watering and other field cultural practices. All these made it possible.

(2a) The experimental plot group conducted different and various experiments. There were mostly given inputs, which were used in the experiments. They reported to have used these facilities as was initially planned.

(2b,2c,2d) Farmers reported to have met some constraints during experimental trials. These included:

- The chemical (Karate) used in spraying did not bring good results as expected.
- Bringing chemicals in good working order can solve this problem.
- Some of the trials were late introduced to farmers, as a result there was poor performance. Garlic and onions were introduced in August instead of May due to favourable weather.
- This can be solved introducing or conducting a right experiment at a right time.
- It is proposed that garlic and onions should be planted May in order to bring good results.
- Some of farmers were lazy i.e. did nit follow properly what they were instructed as a result performed poorly.
- Generally weather was not good for crop production in some areas. This condition gave stress to some crops sensitive to weather conditions. Timely planting and considering ecological requirements of a particular crop can solve this.
- (2d) If possible, they proposed some farmers be selected and considered for input credit for multiplication of the experimental results to their own plots. (Mass production at farmers' level).
- (3a) Since the project started at Mwanabwito community farmers' incentives to participate in-group activities was promoted to most farmers
- (3b) So far there is no group started on its own to conduct experiment trials.
- (3c) Farmers have planned to extend experiment to their private plots.
- (4) Like other groups, experimental plot groups did not differ much as some of group activities were not conducted following conditions established by group members.

Also attendance was poor; some of records were not properly recorded. Some of farmers were lazy to perform/do all activities as instructed. Agricultural extension worker should be close for supervision and advise to farmers for project sustainability.

OPINION/COMMENTS FROM EXPERIMENTAL PLOT

- To use effective and right chemical at a right time.
- Experiments should start at a proper time relative to crop requirements.
- Experimental plot group members requested to be considered for input credit at their own private plots.

2.4 VILLAGE: KWA MFIPA

INPUT CREDIT

(1a) GOOD EFFECT

- Provision of input credit was a good capital for smallholder farmers.
 Thus they thank the government for such good arrangement.
- To some farmers yield per unit area increased. Before the programme average production was 200 plastics per acre; which rose to 300 per acre.
- As yield increased also farmers income increased.
- Farmers have acquired knowledge on horticultural crops production.
- Cooperation between farmers themselves and Extension workers increased.
 With this good cooperation farmers have managed to solve their problems through group discussion.
- Agricultural inputs were available the village and at relatively cheaper price. E.g. CAN was available at 200/= instead of 300/= per kg, NPK-was available at 250/= instead of 400/= per kg.
- Input credit interest was relatively small; farmers paid back input credit with interest of 8%.
- Agricultural produce had good quality.
- Farmers had easy access to use some of the tools such as sprayers. Before they used to hire at 500/= but now can use project tools.
- Farmers now use good quality inputs. Before the project cases of using expired inputs had happened.

(1b) BAD EFFECT

- Some farmers have not paid back input credit as expected. They have been taken/reported to court for further action.
- Jealous condition between farmers who have paid back input credit and those who have not paid. Those who paid think that they would have been considered for next input credit if all farmers had paid back in time.

(1c) INTERACTIONS

Good effects were influenced by good interaction from training component. Some farmers reported that success was seen to those who got training. For those who did not get training production remained the same, as they did not know how to apply the inputs credit.

For bad effects, some farmers faced several problems in production process, which resulted to low yield hence low income. These included draught, low price and out break of diseases and insects.

- (2a) Inputs were well used by most farmers with exception of one farmer who sold his inputs and started another business.
- (2b) Farmers reported to have met the following constraints during the period of using inputs in the production process:
 - Input credit came out late, thus farmers did not get the inputs to the right time according to their schedule.
 - There was no technical training to some farmers on how to apply provided inputs.
 - Low price to agricultural produce. This was due to bumper harvest from various areas, which flooded Kariakoo market in Dar es Salaam.
 - Harsh weather: draught affected the area such that some of wells dried.
 - Out break of diseases and insects. This was also influenced by harsh weather, diseases also and insects were resistant to some chemicals
 - Some members did not pay back input credit as planned.

(2c,2d) Farmers discussed on how to solve these constraints and put forward their proposals on how to be solved.

- On Input Credit: They should be given to farmers in time as requested. Farmers should prepare their requests at least one month so that arrangements are made as early as possible.
- Farmers Training: Farmers said that there is a great need of being trained on how to apply the inputs. They proposed theory and practical knowledge on horticultural crop production be taught to farmers.
- Low price of agricultural produce:
- Farmers said sustainability to great extent depended on price of agricultural produce.
- They proposed: establishment of small processing unit in the village that will be owned by KKM. Timely planting to fetch good market. Usually good price for tomato is from November to July while low price is from August to October.
- Draught: Farmers said they depended fully on watering to produce vegetable crops. They proposed the components of making wells and pumps should be considered.
- Insects and diseases:
- They proposed more research to be conducted on insect pests and diseases so that to come with recommendations on right measures to be taken.
- (3a) since the project started most farmers participated fully in-group activities. This speed has drastically been decreasing as we proceed.

The reasons given included: - some farmers did not pay back input credit in time

- Harsh weather- draught
- Low price.
- (3b) Two groups have started activities.
- (3c) Group plans of activities to be implemented soon: -
 - Jitegemee group: Are planning to start mixed agriculture. It will involve animal keeping, which will provide organic manure.
 - Tumaini group: Are planning to start poultry keeping for the same reason as above.
 - Umoja ni nguvu group: Are planning to increase production area (farm size) from 0.5 acre to 1 acre per farmer.

(4a-d) Generally there are problems in conducting the project activities following conditions established by groups themselves.

To some extent PCMU is doing good while the input credit group is poorly doing. They said almost are records are not timely and properly recorded.

They gave reasons for that as: - no training was given so that the groups to know what to do and how to do.

(4e) Input credit provided at Kwa Mfipa 2,800,000/=
Amount paid back to PCMU 2,000,000/=
Amount not yet paid back 800,000/=

INPUT CREDIT:

All farmers said that it was good to join the input credit.

Reasons for that include: -

- Increased production per unit area.
- The customer use first and pays later.
- Inputs were available at village and good price.
- Increased income to farmers.

All farmers said that have intention to continue with input credit program with the same reasons as above (1).

Income earned by farmers different due to the reasons mentioned in (2b) above.

One of the farmers reported his earnings as follows: -

- He earned about 240,000/=
- Farming balance 138,000/=.

2.5 VILLAGE: MWENDAPOLE

INPUT CREDIT

(1a) GOOD EFFECT

- Increased production of vegetables. For tomato production increased from 30 debe to 600 debe per 0.25 of an acre.
- Produced good quality vegetable.
- Income generated from vegetable production has increased.
- Inputs were available at the village at a very good price, chemical fertilisers costed 250/= instead of 400/= per kilo. Organic fertilisers coasted 500/= instead of 700/= per bag.
- Expanded the area of production from 0.25 to 0,50 acre.
- Benefited from training and study tours to different areas sharing experience with other farmers.
- Extension workers are now active than before, thus farmers are benefiting getting knowledge from them. In case of any problem the extension officer and farmers sit together and discuss about that particular issue.
- Farmers use good quality inputs before input credit it sometimes-happened farmers to buy expired inputs.
- Easy access to use some of tools such as sprayers, which they used to hire before.
- Farmers working in groups: this has increased farmer's vision and moral concerning production of horticultural crops.

(1b) BAD EFFECT

Two farmers sold the provided inputs while one farmer has escaped/shifted from the village on fear because has not paid back input credit.

- (1c) Good effects were influenced by good interaction from various components. They included training whereby farmers understood what and how to do things. Input and watering practices by farmers made it possible to increase production. For bad effects: some farmers were affected by draught some were not faithful although had good harvest. Bumper harvest from other areas flooded the Dar market, which resulted to low price.
- (2a) Inputs were well used by most farmers with exception of two who sold there given inputs.
- (2b) There was some constraints/problems faced the input credit programme. These include:
 - Change of weather: Due to draught wells did not yield enough water to water the crops.
 - Due to very harsh weather, there were break of diseases and insects, which affected the crop.
 - Due to bumper harvest from various production places in Tanzania, the Kariakoo market was flooded by vegetables which resulted to low price 500/= instead of 5000/= per debe.
 - Some of input credit members did not pay back their input credit.
 - Most farmers reported that the training provided on horticultural crop was not sufficient enough to work independently.
- (2c,2d) Discussion on how to solve above problems and new ideas presented to solve these problems:
 - On drought: farmers proposed to JICA to incorporate the component on drilling wells.
 - Be considered for pump component (treadle pumps).
 - Some insects are resistant to insecticides used.
 - Farmers proposed to carry out more research on effective insecticides.

- Due to low prices:
- Farmers proposed to JICA to incorporate processing component to vegetable crops. Also they proposed changing the cropping pattern, and introduction of other vegetable crops such as garlic, onions etc.
- Most farmers proposed more training on horticultural crops.
- Input credit should be given to farmers at right time.
- Those who finished to pay back input credit should be considered for further input credit.

(3a) Since 2002 when the project started most farmers participated fully in-group activities.

The speed on participation to group activities has been decreasing as we go on. Most farmers said this was due to the following reasons: -

- Harsh weather i.e. draught.
- Low price of their produce.
- Poor vision by few farmers thinking that the provided input credit was a grant.
- (3b) Up to date only one group with three members has started vegetable growing.
- (3c) Farmers said were planning to expand their production plots.
- (4) Generally project activities are not conducted following conditions established by group members.

To some extent CPMU (KKM) has tried but is forced by poor attendance of members. To input credit groups, they said currently do not meet at all.

To records taking and keeping on account books, balance book and flow of money, they said it was not applicable. Generally there are leadership problems.

Input credit gone to Mwendapole 2,900,000/=
Amount paid to CPMU 2,000,000/=
Input credit not yet paid 900,000/=

INPUT CREDIT:

All farmers said that it was good to join the input credit.

The reasons for that were:

- Increased production per unit area.
- Increases income of farmers.
- Inputs were available in time at the village.
- It enabled them to use first and pay later.

All farmers reported to intend continue input credit with similar reasons as on (ii) above.

For farmers who planted timely got good earnings e.g. one farmer said he got 120,000/= managed to pay back input credit but no balance for farming improvements. Most of them said due to problems listed in (2b) above got little income such that they have paid back input credit from other sources of their income.

Most farmers intended to continue improving watering. This was due to the fact that watering gives certainty of harvesting.

2.6 VILLAGE: RUVU DARAJANI

(1a) GOOD EFFECT

Multipurpose shed:

- Farmers reported that they now have office, store and hall for meeting.
- The multipurpose shed is used as a selling place for horticultural produce.
- Sometimes the shed is used on hiring services, thus the source of income to CPMU.
- Good cooperation among group members in all project activities.

Pump:

- Crop watering has been made simpler than before the project. Before the project one person managed to water 300 plants while now 800 plants per day.
- Group members can hire pumps in watering their private plots.
- Group members have gained more knowledge on pump operation and maintenance.
- Farmers have increased their plot size and hence increased production as well as income.
- Horticultural crops production is now possible throughout the year. Before the project produced only during rain season
- Farmers have acquired more knowledge on horticultural crops production.
- Agricultural extension workers are now more close to farmers advising accordingly on crops production.
- Farmers can now work better in groups.
- Farmers have managed to grow new horticultural crops. Before the project used to grow only tomato and okra, now have extended to egg plant, cucumber, sweet pepper, watermelon garlic and onions.
- Farmers have benefited from training and study visits
- Farmers out side the project have been motivated and also started horticultural crops production along Ruvu River.

Input credit:

- Inputs were readily available in time and at relatively cheaper price. (NPK available at 250/= instead of 400/= per kg, CAN available at 200/= instead of 300/= per kg)
- Farmers had a chance to use first and pay latter.
- Production has doubled hence farmers' income increased.
- Farmers have learned how to use the agricultural inputs timely and properly.
- Farmers applied agricultural inputs at right and right amount.

(1b) BAD EFFECT

Multipurpose shed:

There is suspicious and jealous situation between group members and some community members.

Pump:

Farmers said no bad effects produced by pump project ever seen.

Input credit:

Farmers said that no bad effect produced by input credit.

(1c,1d) Interactions

These good effects as already listed above were due to good interactions between project components. These included: Training that is provision of knowledge, good cooperation between group members, good CPMU coordination, availability of input credit and good governance from different levels.

(2a) All facilities were used as planned.

(2b,2c) Constraints

Multipurpose shed:

Some of community members are reluctant to use the shed as selling place to various commodities claiming that there is no electricity and water services.

Some farmers reported that village government leaders have negative attitude towards mobilizing villagers to use the shed as planed.

Farmers proposed to improve the shed by connecting electricity and water services. Village government should take immediate action to mobilize the community to use the shed as planned.

Stolen money:

A total of 366,300/= paid back from pump project was stolen in hands of CPMU. In discussing the issue, some farmers proposed CPMU should pay the money from its various sources of earnings. Others said let it be one of the agenda on Wednesday meeting where it will be discussed in detail and suggest actions to be taken.

Input credit:

Karate and theonix insecticides were not effective such that insect damage to crops continued. They changed to selecton, which was effective. Farmers proposed to conduct research on insecticides effectiveness and advise them the right insecticide to use.

Some farmers reported to have been affected by insecticides during chemical sprays. They were also advised to wear protective gears during chemical sprays.

(3) Farmers' incentives to participate in group activity have been promoted.

So far no new groups started new activity.

New activities planned to start in the near future include:

Juhudi group reported to start poultry keeping.

CPMU general plan is to start poultry keeping and opening agricultural input shop.

(4) At Ruvu Darajani most project activities are conducted following conditions established by groups.

Meetings were held regularly as planned. All records are taken and well kept. Account books, balance book and money transactions were well recorded and maintained. Pay back schedule and its implementation observed fixed on office walls.

Pump groups have paid back 1,150,500/= to CPMU.

Questionnaire concerning Input Credit

(a) All farmers said that it was good to join the input credit project. The reasons for that included:

- Pump and input components were the only solution to increase production.
- It gave opportunity to farmers to use first inputs and pay latter.
- Inputs were available in time and at good price.

All farmers intended to continue with input credit project. Reasons for that are same as above.

Almost all income currently earned is used to pay back pump and input credit. Thus so far no money kept as farming balance.

- (b) All farmers said that they intend to continue the improvement of watering. Reasons for that were:
- Certainty of harvesting.
- Agricultural practices are possible throughout the year.

2.7 VILLAGE: MWANAMBAYA

GROUP NURSERY

(1a) GOOD EFFECT

- Farmers have acquired knowledge on nursery preparation and management. They specifically learned on how to raise tree fruits seedlings such as mangoes and citrus.
- The nursery project has increased farmer's income. This was achieved through sales of grafted mango seedlings. One farmer reported that he earned enough money from his private nursery, which he used to pay school fees for his two children.
- Tree seedlings have been produced at the village and planted by group members and some community members.
- Group members have gained experience on working in groups.
- The village extension officer is frequently visiting the groups. Group members benefit a lot from her visits by discussing various issues on agriculture.
- Some farmers had study visits to various places where they learned a lot including agriculture on slopping landscapes "ngoro".
- Farmers have acquired knowledge on organic farming. They know how to prepare and apply farmyard manure.
- There is good cooperation between agricultural officers and nursery group members.
- New nine (9) groups have started nursery activities.
- Nursery project has created employment to some community members. Two youths have been employed by private farm in Kisarawe. Employment was subject to knowledge on grafting.

(1b) BAD EFFECT

(1c,1d) These good effects were due to good interaction of various components. Through training farmers acquired knowledge. Good coordination and governance made logistics available in time. Self-driven farmers to learn and act made implementation of plans possible.

(2a) Equipment provided was used as planned.

(2b,2c,2d) CONSTRAINTS

(i) Harsh weather: - Long draught caused some of wells to dry out.

Due to draught, Tegemeo group has shifted its activities to permanent water source.

Farmers proposed that for sustainable project making wells and provision of pumps should be components of the project.

(ii) Provision of weak scions.

Mango scions provided from Morogoro were weak such that most of them died when grafted.

- Farmers proposed to bring strong scions. Also proposed to buy/use scions from Mkuranga private farmers where farmers can graft them immediately.
- Farmers should be trained on ho to manage and handle scions.

(iii) Insect damage to seedlings:

Proposal: - To use a right insecticides timely and properly.

(3a) Farmers incentives to participate in - group activities was promoted. Farmers showed good cooperation in - group work activities. Some farmers also prepared their private nursery at their homes.

- (3b) So far nine (9) groups have started new activities.
 - (3c) Some of groups have started horticultural crops production close to their sites.

<u>Strategies:</u> By the year 2004 each group member should have planted to his or her farm at least 25 mango trees as mother plants. Each group member should prepare at least 5,000 seedlings (root stock). It is expected that each group will earn 10,000,000/= as sales of grafted mango seedlings by the year 2005.

- (4a) Project activities are conducted following constitution established by groups. Meetings are held regularly as planned. There are some weaknesses due to poor attendance. Reasons given for poor attendance include: -
 - Poverty- some members do casual labour
 - Suspicious and jealous by some group members to CPMU leaders that they get more money through seminars.

(4b, 4c, 4d) Records are taken.

Account books are regularly maintained; earnings and flow of money are also well recorded but requested more training to group leaders on account bookkeeping.

GROUP NURSERY:

- All farmers said nursery project gave positive impact (the same as 1[a].
- Difficult in works of group nursery- they said not much technical problems.
- All farmers reported to like continuing the group nursery to their farmland for reasons that it increases farmer's income and environmental conservation.

COMMENTS

Farmers said this project was good and proposed to be extended to all villages of Mkuranga district and to the Coast region as all.

They requested to JICA to support the extension of this project to all villages.

SOIL AND WATER CONSERVATION:

- All farmers said to have interest in soil and water conservation.
- They practised ngoro that protected land from soil erosion.
- Cultivation is possible to the abandoned slopping lands.
- All farmers with slopping land farms reported to introduce soil and water conservation techniques to their farmland.
- Because they wanted to prevent erosion to their farmland. To use the abandoned land for agriculture purposes.

COMMENTS

Most farmers said that it is a good practise as the abandoned slopping land can be well utilized. They said that they are ready to transfer such knowledge to other community members within the village, district even to regional level. - They requested good plans including logistics be prepared by district management and JICA, while they will be trainers of their fellow farmers outside the group.

2.8 VILLAGE: MKURANGA

GROUP NURSERY

(1a) GOOD EFFECT

- Farmers have acquired knowledge on nursery preparation and management. They also gained knowledge on propagation practices such as grafting for mangoes and budding for citrus.
- Farmers benefited from seminar and study visits whereby they got chance to share experiences with host5 farmers on horticultural crop production.
- Farmers are working in groups where they get chance to discuss various issues concerning horticultural crops production.
- The nursery project has increased farmers' income through sales of extra tree seedlings.
- Farmers have produced their own mango seedlings and planted them to their own farms.
- Farmers have learned and practiced agriculture on slopping landscapes "ngoro".
- Farmers learned and practiced using agriculture principals in crop production such as timely and properly planting, spacing, fertiliser application, insecticides application etc.
- Farmers have learned and practiced farmyard manure preparation and application.
- Farmers outside the group have been motivated and now are doing the same. At the moment five new groups have started nursery work. Group members are also producing vegetables for their own food and for sale.

(1b) BAD EFFECT

None.

(1c) Good effects were achieved through various project components.

<u>Training</u>: The knowledge on agriculture was provided through instructions, group discussion, study visit and cultural practices.

Good cooperation between group members:

Farmers were self-motivated and willing to learn and practice.

Good coordination and governance from CPMU, district leaders, regional leaders and ${\tt JICA}$ team.

They arranged good plans, supervision, monitoring and arrangement and provision needed logistics by JICA.

(2a) Equipments provided were used as planned.

(2b) CONSTRAINTS

- Harsh Weather: Due to long draught some traditional wells dried out. This affected the nursery as it depends on availability of water. Through discussion farmers proposed to shift places with permanent source of water. They also proposed to look for possibilities of making wells.
- Mgawa group has faced theft incidences to their tree seedlings. It was decided that each group should have identification mark by planting the seedlings.
 - Each group to establish security means day and night to protect the seedlings from the t.
 - Training more community members on nursery management practice, this will involve even thieves to have their own nursery hence stop stealing.
- Domesticated animals feeding on seedlings:
 Seedlings can be protected by either of the followings:

- Fencing the nursery area.
- One nursery member to be at site during the day time.
- Livestock keepers to take care of their animals.
- If it happens, then the livestock owner is charged according to the law.
- (3a) Farmers incentives to participate group activities were promoted. The plan was to have five members in each group. The CPMU reported that when they started many farmers turned up instead of five members to each group they have 7-8 members to each group. All these members are fully participating in-group activities as planned.
- (3b) Six groups have started new activities in nursery and horticultural crops production.
- (3c) The CPMU chairperson reported that they are in preparation to start mushroom production soon. For the time being six people have already been trained on mushroom production.
- (4) Project activities are conducted following constitution established by group members.

Meetings are held regularly as planned.

Sometimes there are some problems on attendance during the meeting. Reasons given for that included some - members said did not attend because were sick.

Poverty, some group members have to attend casual labour to get something for family survival.

Records on group activities are recorded. Account books and balance books about earnings are also recorded and well maintained.

Farmers requested more training to group leaders so as to master their job on keeping records.

The money gone to groups depends on production of seedlings by group members. A minimum of 50 seedlings has so far being produced by each group. These seedlings have been distributed to group members where they plant to their own farms and sell the surplus.

Comments on GROUP NURSERY

- 1 All farmers reported that nursery group gave positive impact.
- 2 All farmers reported to have difficulties in works of group nursery especially grafting and budding. But after doing it several times there is ni more difficulties.
- 3 All farmers reported to continue the group nursery to their farmland in future.
- Farmers appreciated to the training and knowledge acquired in group nursery. They are requesting to training organizers (JICA) to be awarded certificate of attendance in- group nursery activities. They requested to JICA to do regular visits after Marc 2004 so as to see how they are proceeding.

Comments on SOIL AND WATER CONSERVATION:

- 1 All farmers reported to have been interested in the soil and water conservation techniques.
- 2 All farmers with farms on slopping landscapes reported to introduce soon soil and water conservation techniques to their farmland.
- Group members said that they were interested with soil and water conservation project as: It utilizes abandoned slopping landscapes to agriculture activities. The land is protected against soil erosion. Water runoff through rains is retained within the farmland. To district, they requested to mobilize farmers outside the group to practice "ngoro" agriculture. They said to volunteer on training their fellow farmers.

2.9 VILLAGE: VIGAMA

(1a) GOOD EFFECTS

MILLING MACHINE:

- Milling service is available at the village premises.

 Before the project milling services were available t Kisarawe where they had to pay fair 400/ and spent about 4 hours.
- Community members have saved time for milling and spent it for other development activities.
- Children can help parents in milling which they could not do before due to long distance. Thus parents can do other development activities.
- Milling machine has increased farmer's income through milling charges earnings.
- Milling machine has reduced workload to women as some of them used to mill manually.
- Milling machine has increased good cooperation between Vigama village and nearby villages by getting milling services. Money circulation has increased to the village as customers do trade transaction by Vigama villagers.

MULTIPURPOSE SHED

- Farmers have got the selling place for their agricultural produces such as cassava, vegetables etc.
- The community has got the meeting place thus protected from sun as well as rains.
- The CPMU have got office and store for keeping group properties.
- One of the sources of income through rental to any user.
- Multipurpose shed has become attractive place and famous investors from Dar es Salaam are hunting for plots near the shade. It has become the bus stand.

NURSERY:

- Farmers have acquired knowledge on nursery preparation and management for various horticultural crops. They know how to conduct grafting and budding practices.
- Farmers have learned and practiced principles of crop production such as land preparation, spacing, crop pests management but a few to mention.
- Farmers have learned and practiced agriculture on slopping landscapes "ngoro".
- Farmers have started increasing their income through sales of grafted mango seedlings as well as budded citrus. Planted seedlings to their own plots.
- (1c) Good effects as listed above came about through interaction of different components.

The training component was the major one as training changed farmers mind from their traditional ways of doing things to the desired one.

Good cooperation by farmers and readiness to learn made the learning process to be easy and simple.

Good coordination governance by CPMU, district leaders, and JICA team through planning, implementation a monitoring.

Logistics support by JICA made the implementation of projects possible.

(2a) The facilities were used as planned initially.

(2b,2c,2d) CONSTRAINTS

Milling machine

• Few customers: There are few customers due to long draught hence very

little agricultural produce. The machine group are planning to get loan from COCOBA then buy maize, mill and sell maize flour. COCOBA is an NGO providing credit to small-holder farmers.

- Poor performance of the machine.

 Farmers complained on poor performance of the machines. They said it takes about 10 minutes to mill 20 kg of maize. Thus there are higher running costs making little profit. The operator when asked to give the relationship on fuel consumption and grams milled, answered that 5 litres of diesel can mill 400 kg of maize. This was a contradictory answer to his basic argument on higher running costs. He was asked to
- Low production of cereals by community members

 The community especially group members were asked to increase production of cereal crops and cassava so as to get more customers.
- Initially had leadership problems (KKM).

 First elected KKM leaders had problems such that used the machine money 34,440/= for their own private.

 Now new election is made all farmer KKM leaders have been kicked out

Now new election is made all farmer KKM leaders have been kicked out and ordered to pay back the money they spent.

MULTIPURPOSE SHED

- Harsh weather:
 - Due to long draught, there is almost no agricultural produce to sell on the multipurpose shade.
- Low capital by community members Some community members have joined COCOBA on the purpose of raising their capital. Once they get such credit, are expecting to start business and utilize the shed effectively.

NURSERY:

- Harsh weather
 - Due to long draught most traditional wells dried out. This made nursery work to be more difficult to manage. Most seedlings died even all coconut seedlings planted on ngoro demonstration plots died.

Farmers requested to JICA to include component on making wells. Farmers proposed group members to shift their nursery project near to permanent water source where applicable.

- Insect damage to seedlings
 - Ants destroyed some of the transplanted coconut seedlings. Some of mango and citrus were damaged while at nursery stage.
 - Farmers were advised to use the right insecticides timely and properly. Also using right materials such as good soil essential.
 - Experience showed that seedlings rose by using forest soil performed better
- Using poor quality seeds/scions.

look again to fuel consumption.

- Passion fruit seeds supplied to farmers did not germinate. Also some scions from Morogoro almost all died. Farmers proposed that planting materials should carefully be handled. This knowledge is also essential to be taught to farmers.
- (3a) when the project started, farmer's incentives to participate in-group activities were promoted. Participation seemed to decrease few months ago but now is increasing again. This was due to problems by former KKM leaders who used project earnings for their own private. This condition discouraged most farmers' hence decreased participation.

New KKM leaders have been elected. Newly elected leaders are doing well such that most farmers joined them hands. Thus there is an increase in farmers' participation.

(3b) Only one group has started new activities on soil and water conservation

at Kazimzungu.

(3c) Nursery group is planning to construct the nursery shed where tree seedlings will be grown.

Nursery groups are planning to raise 2,000 seedlings. Half of seedlings will be planted by group members to heir own farmland and the rest be sold.

To the milling machine, they have set strategies to former KKM leaders to return the money they spent during their leadership.

Milling machine members were reminded to 200/= per month as per group constitution.

- (4) Project activities are conducted following conditions established by groups.
- (4a) Meetings are held regularly as planned. The KKM chairperson reported that there are some weaknesses to some members in attending the meeting. Poor attendance was due to the following reasons:
 - The way of doing things by former KKM leadership discouraged them, some of group members stopped even paying their monthly fee (200/=).
 - There were no report on earnings and expenditure to machine and shed facilities.

(4b,4c,4d) Records are taken. Account books and balance books about earnings are regularly maintained. The newly elected KKM leadership are doing all these without being trained. They are requesting to be trained so that to master better their job.

(4e) KKM have got 42,000/= from multipurpose shed which is already deposited on bank account.

From milling machine; all the money are in hands of former KKM leaders. They have to pay back 34,440/-. The money was spent by six people whereas each one has to pay back 5,740/=.

No money has gone to group members.

Comments on GROUP NURSERY

- Three farmers said that group nursery gave positive impact because they managed successfully to do grafting and budding practices.
- 10 farmers said that group nursery gave negative impact because most seedlings dried due to draught and weak scions provided.
- Most farmers reported to initially face technical difficulties in works of group nursery. After doing the same several times they see the job now to be easy and simple.
- All farmers reported to like continue the group nursery to their farmland in near future.
- Farmers were taught to do wedge grafting but after study visits to their fellow farmers at Mkuranga learned side to side grafting which they practiced and succeeded. They now prefer and recommend side to side grafting to be used.

Comments on SOIL AND WATER CONSERVATION

- All farmers said to be interested in soil and water conservation techniques.
- All farmers said to like introduce soil and water conservation techniques to their farmland in the near future.
- Soil and water conservation micro project should be extended to most farmers in Kisarawe as most farms are on slopping landscapes.
- Ngoro is very important agricultural practice that prevents land from soil erosion.

I.3 Questionnaire to Farmers

Final Evaluation Survey - Questionnaire to Farmers

Verification Study on

Small Scale Horticultural Development Project for Poverty Alleviation in Coast Region

Interviewer		Date		
Interviewee		Position in community or group		
Name of Site	Sub-Village	Village	District	

A Household

- [1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani,
- 6. Vigama, 7. Mwanambaya, 8. Mkuranga]

A-1 Family Structure (Family status, age, occupation)

	Male-1	M-2	M-3	M-4	M-5	Female-1	F-2	F-3	F-4	F-5
	1. Head	1.	1.	1.	1.	1. Head	1.	1.	1.	1.
	2. Son	2.	2.	2.	2.	Daughter	2.	2.	2.	2.
Family Status	Parent	3.	3.	3.	3.	Parent	3.	3.	3.	3.
i airiiiy Status	Relatives	4.	4.	4.	4.	Relatives	4.	4.	4.	4.
	5. Employee	5.	5.	5.	5.	5. Employee	5.	5.	5.	5.
	6. Others	6.	6.	6.	6.	6. Others	6.	6.	6.	6.
Age										
	 No education 	1.	1.	1.	1.	No education	1.	1.	1.	1.
	Primary	2.	2.	2.	2.	Primary	2.	2.	2.	2.
Education	Secondary	3.	3.	3.	3.	Secondary	3.	3.	3.	3.
Luucalion	High school	4.	4.	4.	4.	High school	4.	4.	4.	4.
	Diploma/Cert.	5.	5.	5.	5.	Diploma/Cert.	5.	5.	5.	5.
	Adult educat.	6.	6.	6.	6.	Adult educat.	6.	6.	6.	6.
School	 Attending 	1.	1.	1.	1.	Attending	1.	1.	1.	1.
SCHOOL	Complete	2.	2.	2.	2.	Complete	2.	2.	2.	2.
Literacy	1. Yes	1.	1.	1.	1.	1. Yes	1.	1.	1.	1.
Literacy	2. No	2.	2.	2.	2.	2. No	2.	2.	2.	2.
	1. Employed	1.	1.	1.	1.	1. Employed	1.	1.	1.	1.
	Self-employed	2.	2.	2.	2.	2. Self-employed	2.	2.	2.	2.
Occupation	3. Farmer	3.	3.	3.	3.	3. Farmer	3.	3.	3.	3.
Occupation					4.	 House wife 	4.	4.	4.	4.
	Fisherman	5.	5.	5.	5.	Fisherman	5.	5.	5.	5.
	6. Others	6.	6.	6.	6.	6. Others	6.	6.	6.	6.

Note: M=Male, F=Female,

O: It indicates the person who is mainly engaged in vegetable production.

 \triangle :It indicates the person who sometimes helps vegetable production.

A-2 Income Source

What is the main income source of your family?

01. Agriculture 02. Livestock 03. Fishery 04. Petty Business 05. Wage earning 06. Remittance 07. other, please specify (

A-3 Important Crops

If you answered "	' 01.Agriculture", please	specify two impo	ortant cash crops.
First:			
Second:			

A-4 Farmland

Total Farmland	Food Crops	Vegetables	Fruits	Others
acre	acre	acre	acre	acre

B Agriculture (Vegetable)

[1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani, 6. Vigama, 7. Mwanambaya, 8. Mkuranga]

B-1 Cropping Calendar

Month Crops	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tomato												
Okra												

Note: ×;Sowing ○;Transplanting -----;Harvesting

B-2 Watering

Do you irrigate (do watering) for crops (or vegetables)?

01 Yes, I irrigated

02 No, but I irrigated before

03 No, I have never irrigated

01 "Yes"	02 or 03 "No"
1) For which crops?	1) Why not irrigated?
2) How many acres irrigated	In order to obtain an income at the dry season, what are you doing?
3) Source of Irrigation Water 01. River 02. Pond 03. Kisima 04. Deep well 05. Other ()	season, what are you doing?
4) How to get irrigation water ? 01. by manual 02. by hand-pomp 03. Other ()	
5) How many times do you fetch water to irrigate vegetables land (acres)? At dry high temperature; times/day At dry low temperature; times/day	
6) How many hours do you spend to fetch water to irrigate vegetables land (acres)? At dry high temperature; hours/day At dry low temperature; hours/day	
7) How many times do you need to repair the equipment?	

B-3 Vegetable Production

Crop	Tomato	Okra			
Item					
Variety					
Area (acre)					
Production (kg)					
Sold Amount (kg)					
Price (TShs/kg)					
Amount (TShs)					
Mainly sold to:	Comsumer	Comsumer	Comsumer	Comsumer	Comsumer
_	Local middleman				
	DSM middleman				

B-4 Inputs and Costs

Crop	Tomato	Okra		
Item	Tomato	OKIA		
Seed				
Amount (kg)				
Price (TShs/kg)				
Amount (TShs)			 	
Fertiliser				
Name 1				
Amount (kg)				
Price (TShs/kg)				
Amount (TShs)				
Name 2				
Amount (kg)				
Price (TShs/kg)				
Amount (TShs)			 	
Name 3				
Amount (kg)				
Price (TShs/kg)				
Amount (TShs)				
Agro-Chemical				
Name 1				
Amount (kg or lit)				•
Price (TShs/kg or lit)				•
Amount (TShs)				
Name 2				
Amount (kg or lit)				
Price (TShs/kg or lit)				
Amount (TShs)				
Name 3				
Amount (kg or lit)				
Price (TShs/kg or lit)				
Amount (TShs)				
Others				
Hired Labour				
Land Rental Fee				
Fuel (pump)				
Oil (pump)				

B-5 Intension to Input Credit / Watering Improvement

	1	2	3	4	5
Input Credit	Don't know it	Don't like apply	Willing to apply	Already a	Satisfied as a
		it	it	member	member
Water Pump	Don't know it	Don't like apply	Willing to apply	Already a	Satisfied as a
		it	it	member	member

B-6 Have you improved the vegetable production method?

Check every items improved	How?
☐ Improved, fertiliser application method ☐ Improved, chemical spray method ☐ Improved, watering method ☐ Improved, cropping pattern ☐ Improved, other cropping method ☐ Not improved yet	

B-7 Input Credit

(1)	Do you think if it was good to join Input Credit?
	01. Yes
	02. No

- (2) Did you grow vegetables properly using input?
 - 01. Yes
 - 02. No
- (3) Do you feel improvement of your living standard compared with it of before joining Input Credit?
 - 01. Yes
 - 02. No
- (4) Did you still want to continue Input Credit?
 - 01. Yes
 - 02. No
- (5) How much worth are your assets? TShs. _____/=

C Agriculture (Fruit)

[1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani,

6. Vigama, 7. Mwanambaya, 8. Mkuranga]

C-1 Fruit Production

	Crop	Coconut	Mango	Orange		
Item						
Variety						
Area (acre)						
Number of tre	ees					
Production (k	(g)*					
Sold Amount	(kg)*					
Price (TShs/k	(g)					
Amount (TSh	ıs)					
Mainly sold to	0:	Comsumer	Comsumer	Comsumer	Comsumer	Comsumer
		Local middleman				
		DSM middleman				

^{*:} kg or bags (= ___kg)

C-2 Procurement of Seedlings

Crop	Coconut	Mango	Orange		
Item					
Number of seedlings planted last year	nos	nos	nos	nos	nos
Purchased or own produced?	Purchased	Purchased	Purchased	Purchased	Purchased
	Self production				
Grafted or Budded?	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No
With pot?	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No

C-3 Soil & Water Conservation

	1	2	3	4	5
Awareness	Don't know it	Know it, but don't care it	Know it, but don't needed		Already applied. (How?)
Willingness	Don't know it	Don't like to apply it	Like to apply, if supported	Ready to apply	Already applied

C-4 Intension to Improved Seedlings

	1	2	3	4	5
Use of	Don't know	Don't like to	Like to use	Already use	Want to use
Improved	them	use them	them	them	them
Seedlings					continuously
Production of	Don't know	Don't like to	Like to	Already	Want to
Improves	them	produce them	produce them	produced them	produce them
Seedlings					continuously

D

Community Facilities (Multipurpose Shed, Flour Mill)
[1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani, 6. Vigama, 7. Mwanambaya, 8. Mkuranga]

D-1 Multipurpose Shed

1. What use did you foresee for the Shed before construction?
2. Has the shed been used following the plan you made?
() 3. How often do you come to the shed? (times/week for what purpose with whom) 4. Have you seen any change in atmosphere of your village after the construction? (In what way, if any)
5. Do you still think that the shed is a real need for your village development?
6. Do you think that the group activity for the shed will continue despite the problems encountered?
() 7. If yes, How?
(
D-2 Milling Machine
1. How often do you use the milling machine as customer? (a. Very often b. Often c. Sometimes d. Rarely e. Never) 2. What change has the machine made on the village? () 3. Do you still think that the machine is really a need for your village development? () 4. How much time have you saved from your past milling hardships due to the mill installed here? (a. less than 30min b. about 60min c. about 90 min d. more than 120 min) 5. How do you spend the saved time?
6. What do you think is the most possible reason for the machine problem? (a. Faulty design of machine b.a. and poor operation c. Poor operation d. If others specify
7. If you choose b. or c., do you think that the training by officers were enough? (a. enough b. appropriate c. Not enough) 8. Regarding the operation of the machine, have you followed the regulation you made before? (a. Done very much b. Fairly done c. I think so d. Not very much e. Almost never 9. If you choose a, b or c, what made you do so? () 10. If you choose d or e, what made you do so?
() 11. Do you think that the group activity for the milling machine will continue despite the problems
encountered?
12. If yes, How?
/

E Interview to Community Leader / Key Informant (KKM leaders, Group Leaders) [1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani, 6. Vigama, 7. Mwanambaya, 8. Mkuranga]

E-1 Improvement of leaders'ability on project management

Are you keeping records of project operation? ()
What do you think about the volume of documents required in project operation? (a. Too much
3. If you choose a or b, why do you think so? ()
4. Do you feel that these documents are really needed for improving villagers' living standard? (a. Very much so b. I think so c. some are not needed d. they are all useless)
5. By doing the documentation works, what have you got and what have you lost? ()
E-2 Others
Have you seen any new activities which started or is going to start due to the project?)
Do you think that the facilities of the project are used as planned? ()
3. Do you think that the facilities of the project will be continuously used and maintained?)
4. If no, what is the reason? ()
5. Do you think that KKM ability has been improved? How much? (a. Very much b. Much c. To some extent d. Little e. Not at all)
6. If you choose a or b, what have you learnt through the project? ()
7. Do you think you can continue to manage the project and formulate a new project? (a. Confident b. I think so c. With some assistance d. Difficult e. Impossible)
8. Do you think the cohesion of group has improved? (a. Yes, I think so b. Not enough c. Not at all)

Conclusions 1. Viziwaziwa, 2. Mwanambaya, 8. Mkuranga] F-1 Has your income from horticultural crop production increased? (Compare 2000 and 2003) Check one	
☐ Increased very much ☐ Increased somehow ☐ Not changed ☐ Decreased somehow	vviiy:
	ve horticultural crop cultivation further?
	f vegetables Yes – new crops/varieties of fruits
[1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani, 6. Vigama, 7. Mwanambaya, 8. Mkuranga] F-1 Has your income from horticultural crop production increased? (Compare 2000 and 2003) Check one	
☐Yes – marketing method	∐No – not necessary
milling machine, water	ing pump, group nursery, and so on)?
[1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani, 6. Vigama, 7. Mwanambaya, 8. Mkuranga] F-1 Has your income from horticultural crop production increased? (
[1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani, 6. Vigama, 7. Mwanambaya, 8. Mkuranga] F-1 Has your income from horticultural crop production increased? (
[1. Viziwaziwa, 2. Mwendapole, 3. Kwa Mfipa, 4. Mwanabwito, 5. Ruvu Darajani, 6. Vigama, 7. Mwanambaya, 8. Mkuranga] F-1 Has your income from horticultural crop production increased? (Compare 2000 and 2003) Check one Why? Why? Why?	
milling machine, water Check one Very positive impact Positive impact No impact Negative impact	ing pump, group nursery, and so on)?
milling machine, water Check one Very positive impact Positive impact No impact Negative impact Very Negative Impact	How?
milling machine, water Check one Very positive impact Positive impact No impact Negative impact Very Negative Impact	How?
milling machine, water Check one Very positive impact Positive impact No impact Negative impact Very Negative Impact	How?
milling machine, water Check one Very positive impact Positive impact No impact Negative impact Very Negative Impact	How?

Thank you very much for your participation to the Project!
The JICA Verification Study will be concluded soon.
You are expected to make next steps forward by yourselves.

I.4 Result of Questionnaire Survey to Farmers

	g.	osition	B3 Area Tomato	33 Production omato	3 Sell omato	33 Price omato	33 G. Income Fomato	B4 Total Cost Tomato	34 N. Income Fomato	Area ra	33 Production Okra	Sell	3 Price Ikra	G. Income	Total Cost	N. Income ra	_	21							nput 1 Good	nput 2 Grow	nput 4 Cont.
2	Name	Posi	B3 / Tom	B3 F Tom	B3 S Tom	B3 Price Tomato	B3 (Ton	B4 1 Tom	B4 P Tom	B3 Ar Okra	B3 Pr Okra	B3 Se Okra	B3 Pr Okra	B3 G Okra	B4 Tc Okra	B4 N. Okra	B5-1	B5-2	B6	_	2	ω 4	2	9	Input 1	ם	ndu
VZ01	Abubakar Abdallah	Input	0.25	900	800	200	160,000	23,500	136,500								5	4	1,2,3,4,5	_	2	3 4	5	H	1 '	1 1	1
VZ02	Riziki Saidi	Input	0.25	300	210	200	42,000	39,500	2,500								5		1,2,0,4,0	_	Ť		+-			1 1	
	Rashidi Omari	Input	0.25	900	880	100	88,000	41,000	47,000	0.25	100	100	250	25,000	30,500	-5,500	5	4					Į			1 1	
	Fobian Raphael Selemani Alli	Input Input	0.50	1,200	1,200	367	440,000	84,000	356,000	0.25	480	480	83	40,000	42,500	-2.500	5	4	1,2,3,4,5 1,4	1	2	3 4				1 1	1
VZ06	Ashura Kihawa	KKM, Input	0.25	600	600	67	40,000	8,500	31,500	0.25	480	480	133	64,000		49,300	4	4	1	1					1 '	1 1	1
VZ07	Kamara Ramadhani	Input															4		1,4	1		4				1 1	
	Issa Bakari Hamisi Omary	Input Input															4	2	1,2,3,5 1,2,3,4	1		3 4	5			1 1	
VZ10	Rehema Hamis	Input, Plot	0.25	800	400	100	40,000	64,750	-24,750	0.25	400	300	100	30,000			4	3	1,2,3		2	3	\pm		1 '	1 1	1
	Adamu Omary	Input	0.25	600	600	233	140,000	65,500	74,500	0.25	450	450	233					4	1,2,3,4	1		3 4	\perp				1
	Faziri Mohamed Asha Abasi	Input Input, Plot	0.25 0.25	600 300	600 300	50 100	30,000 30,000	13,500 13,500	16,500 16,500	0.25 0.25	300 300	300 300	133 133	40,000	12,000 13,500	28,000 26,500		5	3 1.2.3.4.5	1		3 4	- 5		1 '		1
		Input	0.50	300	300	133	40,000	46,625	-6,625	0.20		000	100	-10,000	10,000	20,000			1,2,3,4	1	2	3 4			1 '	1 1	1
	Sauda Saidi	Input, Plot	0.50				50,000										5		1,2,3,4	1		3 4			1 1		
VZ16 VZ17	Othman Salum Fatuma Ali	Input	0.50	500 180	500 180	100 67	12,000	46,275 14,900	3,725 -2,900	0.25	100	100	200	20,000	15,900	4,100	5	4	1,2,3,4 1,2,3,4,5	1	2	3 4		+	1 .	1 1 1 1	1
VZ18		Mill	0.20	100	100	- 01	12,000	14,500	-2,500	0.20	100	100	200	20,000	10,500	4,100	J	7	1,2,0,4,0	_	Ť		+-	\Box		Ή.	Ť
VZ19	Alphonse Goason	Mill																П			J	Ŧ	Ŧ	\Box	Ŧ	Ŧ	⇇
VZ20 VZ21	Mwangaza Mzee Halima Saidi	Mill	\vdash								-						Н	\vdash		-	\vdash	+	+	+	+	+	+
VZ22	Sada Sultani	Mill																	1,3,4	1	Ш	3 4	1	Ħ		╧	t
VZ23	Omari Idrisa Danka	Mill																П			Д	工	T	П	1	T	L
	Asha Mwamedi Habiba Mwiwshehe	Mill	\vdash															\vdash			Н	+	+	++	+	+	\vdash
VZ26	Tagu Bentjamine	Mill																			П	+	+	\vdash	$^{+}$	\top	H
VZ27	Samson Mwakalinga	Mill																			П	_	工	\Box			匚
	Marim Sumaili Asha Mrisho	Mill																			Н	+	+	\vdash	-	+	₩
	Hadija Bitimkuu	Mill																_		_	П	+	+	+	+	+	+
VZ31	Hassan Omary Hassan		0.25	400	400	100	40,000	10,000	30,000	0.10	100	100	150	15,000	4,500	10,500					◻	_	\perp	П	4		
			1,895							1,290											\vdash	+	+	++	+	+	₩
			1,000							1,230								\dashv			П	+	+	\vdash	+	+	十
	Maliyatabu Shekha	Input								1.00	160	160	100	16,000	0			4	5			\perp	5			1 1	
	Doto Salehe Pazi Sultan Msisiri	Input	0.25	1,500	1,500	50	60,000 75,000	32,100 18,000	27,900 57,000	0.25				40,000	53,000	-13,000		4	1,2,3	1	2	3	+		1 :	1 2	2
MB04	Elias Kulwa	Input	0.20	1,500	1,000	- 50	70,000	10,000	37,000								4		1,2	1	2	+	+	П	1 '	1 1	1
	Said Ramadhani	Input																4	6		Д	Į.	\perp	6	1	2	1
MB06 MB07	Mwanahamisi Juma Se Majuto Lubawa	Mill Input, Plot	0.50	300 1,500	300 1,500	33 33	10,000 50,000	3,800 30,300	6,200 19,700	0.50	300	300	33 33	10,000		6,200 66,950	5	-	1,2,3,4 1,4,5	1	2	3 4		+	1 .	1 2	1
	Maulidi Rubawa	Mill, Plot			1,000							- /				00,000	Ü		1,1,0		П	一:	Ť	П	Ť	1	Ė
		KKM, Mill	1.00	600	600	33	20,000	29,000	-9,000	1.00	75	75	47	3,500		-19,500	3	3			П	Ŧ	T	П	_		E
	Zaituni Sulemani Mohamedi Ramadhani	Mill	0.50	225 600	225 600	27 50	6,000 30,000	6,000 17,500	12.500	0.50	75	75	47	3,500	8,000	-4,500	5				\vdash	+	+	\vdash	1 :	2 2	1
	Athuman Futo	Input	0.50	600	600	33	20,000	11,500	8,500								4	3	1,2	1	2	+	+		1 '	1 2	1
		Input, Plot	0.75	1,800	1,800	27	48,000	5,900	42,100								5	3	1,2,3,4,5	1	2	3 4	5	П	1 '	1 1	1
MB14 MB15		Mill	0.25	300	225	27	6,000	15,200	-9,200	0.25	420	345	17	5 750	29,500	-23,750	4	3	1,2,3,5	1	2	3	5	\vdash	1 .	1 2	1
	Nashiri Mohamed	Mill	0.20	500	220	21	0,000	10,200	-5,200	0.20	720	040	- ''	0,700	25,500	-20,700	7	J	1,2,0,0	_	Ť	∸	╁	\vdash	+	1 2	Ė
	Maimana Monamoa	Mill																			П	1	\perp	ш	_		L
	Maua Saidi Pazi Sanze	Mill Input, Plot	\vdash								-						4	\vdash	4	-	\vdash	4	+	+	1 .	1 2	1
MB20	Rajabu Selemani	Input	0.25	900	900	22	20,000	9,000	11,000	0.25	270	270	28	7,500		0	5				◻		T		1 '	1 2	1
MB21	Selemani Juma	Input	0.25	360	360	56	20,000	11,580	8,420	0.25	450	450	33	15,000	8,780	6,220		3	1,2,3,4,5	1		3 4				1 2	
	Gwankisa Mwankuga Rehema Kibwana	Input Mill	0.25	180	180	28	5,000	10,800	-5,800	0.25	75	75	67	5,000	9,500	-4,500	5	3	1,2,3,4,5	1	2	3 4	5	+	1 '	1 1	1
MB24	Asha Kawambwa	Input	0.25	162	162	17	2,700	4,520	-1,820										1,2,3,5	1	2	3	5	Ħ	1	1 2	1
		Input	0.25	360	360	11	4,000	10,240	-6,240	0.25	300	300	17	5,000		-5,240	5	Į	1,2,3,4	1		3 4	Ŧ	Д	1	I	F
	Jalala Simba Ahmad Saidi	Pump, Plot Pump	1.00	7,920 540	7,920 540	28 44	220,000 24,000	37,100 17,860	182,900 6,140	0.25	450	450	100	45,000	10,650	34,350	3	5	1,2,3 1,2,3		2	3	+	+	+	+	\vdash
	Rajabu Magaila	Pump, Plot		540	540						L							4	1,2,3	1	2	3	1	Ħ		\pm	t
	???	Pump	0.25	360	360	56	20,000	8,000	12,000	0.25	300	300	133					4	2,3,4			3 4		\Box	1	T	L
	Joakim Gwankisa Ramadhani Alfani	Pump Pump	0.25 0.50	270 600	270 600	22 33	6,000 20,000	10,500 13,000	-4,500 7,000	0.25 0.50	150 45	150 45	53 67			2,000 -7,800	3	4	1,2,3,4	1	2	3 4	+	+	+	+	\vdash
	Amri Kibwana	KKM, Plot	0.25	1,350	1,350	33	45,000	16,500	28,500	0.25		450	93					3	1,2,3,5	1	2	3	5	$\pm \pm$	_	\pm	t
		Pump	0.25	4,500	4,500	33	150,000	12,000	138,000	0.25	750	750	33			19,000	Ę	3	1,2,3,4,5	1		3 4	5	П			
MB34 MB35	Jackson Joseph Salum Kondo	Pump Pump	0.50	540 12,600	540 12,600	28 28		51,700	15,000 298,300	0.50	225 1,500		33 33			7,500 37,200	3	4	1,2,3	1	2	3	+	+	+	+	\vdash
	Mintanga Kalega	Input, Plot	0.00	12,000	12,000	26	555,000	51,700	200,000	0.00	1,300	1,300	33	55,500	12,000	57,200	5	H	1,2,3,4	1		3 4	+	+	1 '	1 1	1
MB37	Mohamed Rashid Mgur	Pump															4	4	1,2,3,4,5	1	2	3 4		ロ	1	T	Г
	Amri Salum Chanzi Amina Saidi	Pump Pump	1.50 0.50	1,800 216	1,800 216	28 28	50,000 6,000	22,500	27,500	0.50 0.50	150 300	150 300	167 47			16,000 11,750	5	5	1,2,3,4	1	2	3 4	+	\vdash	+	+	\vdash
	ramilia Jaiul	r amp	0.00	210	210	26	0,000			0.00	300	300	4/	17,000	2,200	11,730	H	J	J		\vdash	-	+	+	+	+	+
500			_ '																								
			3,144							1,079												\pm	士	Ħ			E

No	Name	Position	C1-M-1	C1 Mango area	C1 Mango tree	C1 Mango production	C1 Mango sold	C1 Mango price	C1 Mango amount	C1 Mango market	C1 Orange area	C1 Orange tree	C1 Orange production	C1 Orange sold	C1 Orange price	C1 Orange amount	C1 Orange market	C2-Mango-1	C2-Mango-2	C2-Mango-3	C2-Mango-4	C2-Orange-1	C2-Orange-2	C2-Orange-3	C2-Orange-4
VZ01	Abubakar Abdallah	Input																		-	-		+	+	-
VZ02		Input																					+	+	\dashv
VZ03	Rashidi Omari	Input																					-	\neg	\neg
VZ04	Fobian Raphael	Input																						\Box	
VZ05	Selemani Alli	Input																							
VZ06	Ashura Kihawa	KKM, Input															-			_	_	_	\rightarrow	+	_
VZ07 VZ08		Input Input															-						-	+	-
	Hamisi Omary	Input																		_		-	+	+	-
VZ10	Rehema Hamis	Input, Plot																					+	+	-1
VZ11	Adamu Omary	Input																						\neg	
VZ12	Faziri Mohamed	Input																						\equiv	
VZ13	Asha Abasi	Input, Plot																					_	_	_
VZ14 VZ15		Input																		_	_	_	_	+	_
VZ15	Othman Salum	Input, Plot Input															-			-	-		+	+	-
VZ17		Input																					+	+	-1
VZ18	Mtwanga	Mill																					\pm	\pm	
VZ19	Alphonse Goason	Mill																					⇉		
VZ20	Mwangaza Mzee	Mill																					\Box	\perp	
VZ21		Mill															<u> </u>						\dashv	\dashv	_
VZ22 VZ23	Sada Sultani Omari Idrisa Danka	Mill Mill						<u> </u>				-	-				-					-+	+	+	
VZ23 VZ24		Mill	1							\vdash		-	-				\vdash		\vdash	-	-	-+	+	+	\dashv
VZ25	Habiba Mwiwshehe	Mill																					-	+	-1
VZ26		Mill																					\neg	\top	
VZ27	Samson Mwakalinga	Mill																							
VZ28		Mill																						\Box	
VZ29		Mill																					-	\rightarrow	_
VZ30	Hadija Bitimkuu	Mill															-					-	-	+	_
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MB01		Input																							
MB02	Doto Salehe Pazi	Input																						\rightarrow	
MB03	Sultan Msisiri	Input															-						_	\dashv	_
MB04 MB05	Elias Kulwa Said Ramadhani	Input Input																			_		-	+	
MB06	Mwanahamisi Juma Se																				-	-	-+	+	-1
	Majuto Lubawa	Input, Plot																					_	\neg	_
MB08	Maulidi Rubawa	Mill, Plot																						\top	7
MB09	Juma Lukali	KKM, Mill																							
MB10	Zaituni Sulemani	Mill																					_	\dashv	_
MB11 MB12	Mohamedi Ramadhani	Input																			_		-	\dashv	4
MB12 MB13	Athuman Futo Kongeza Mfunda	Input Input, Plot																					+	+	
MB14	Swaumu Saidi	Mill																					+	+	-
		Input																					\dashv	\neg	_
	Nashiri Mohamed	Mill																						\neg	7
MB17	Maimuna Mohamed	Mill																		П	П	I	I	I	
MB18		Mill															<u> </u>			_	_		4	+	_
MB19 MB20		Input, Plot Input		-						\vdash	-					<u> </u>	<u> </u>		H	-	-		+	+	
MB21		Input														-	\vdash	-					+	+	\dashv
MB22		Input																			\dashv	+	+	+	\dashv
MB23		Mill																					\neg	\top	\neg
MB24	Asha Kawambwa	Input																						\Box	
MB25	Hemedi Rajabu	Input	1							ш					_				\Box	[[[_ֈ՟	Щ	_
MB26	Jalala Simba	Pump, Plot	-										ļ				-						\dashv	+	_
MB27 MB28	Ahmad Saidi Rajabu Magaila	Pump Pump, Plot																			-	-+	+	+	\dashv
MB29	???	Pump								\vdash						 	<u> </u>						+	+	\dashv
MB30		Pump																	Н				+	+	\dashv
MB31	Ramadhani Alfani	Pump															L						二十		
MB32	Amri Kibwana	KKM, Plot																							
MB33	Shida Omary Kabulele																<u> </u>			_	_		\dashv	\rightarrow	_
MB34	Jackson Joseph	Pump	-							\vdash							-						+	+	4
MB35 MB36	Salum Kondo Mintanga Kalega	Pump Input, Plot																					+	+	\dashv
MB37	Mohamed Rashid Mgun	Pump													-					-	-	- +	+	+	\dashv
MB38	Amri Salum Chanzi	Pump																			\neg	- †	+	+	-1
MB39	Amina Saidi	Pump																				- 1	\top	+	\neg
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												l	l			l								丄	

	Aame	osition	1 Conserv.	C3-2 Conserv.	1 Seedling	2 Seedling	-	2	ε 4	5	9	7		3 8	4	. 2 .	7	80	9	1 -	22-12	_	2	9	4 2	_	2	8	4	2	
2	Na	Pos	3-1	ප්	2	C4-2	D1-1	D1-2	전 상 4	D1-5	D1-6	D1-7	7 2	D2-3	D2-4	D2-5 D2-6	D2-7	D2-8	D2-9	D2-11	D2-	E1-1	E1-2	E1-3	E1-4	E2-1	E2-2	E2-3	E2-4	E2-5	E2-7
	Abubakar Abdallah	Input					у	es	yes	yes	yes											10	С	t	,	no	yes	yes		0	a b
	Riziki Saidi	Input					у	es		yes	yes																yes			0	b b
	Rashidi Omari	Input					?		yes	yes	yes											/es	а	á	3		yes			а	a b
		Input						es	yes	yes	yes		_		_				\perp								yes			a	b a
		Input					n		no	yes	yes		_		\perp				\perp			10		_		yes	-	?		b	b c
VZ06	Ashura Kihawa	KKM, Input						es		yes	yes		+		+	+	\vdash	_	+	-	-	/es	b	- 6	1	yes		yes		d	a b
		Input					n	0	yes	yes	yes	-	-		+	-		-	+	-		-	_	+	_		yes			b	b c
		Input						_	yes		yes	\vdash	-	_	+	+		-	+		-	-	-	_	_		yes		-)	b a
	Hamisi Omary	Input					-	-	yes	yes	yes	\vdash	+		+	+	\vdash	-	+	+	Н.		_	-	_		no			d	СС
	Rehema Hamis	Input, Plot						-	yes	1400	yes		+	_	+	+	+	+	+			/es	D	- 6	3	no	yes	yes	-	d	b a
	Adamu Omary Faziri Mohamed	Input					<u></u>	0	yes yes	yes yes	ves		+		+	+		-	+		-	\rightarrow	-	+	_	yes	no	ves	Н,	0	a b
		Input, Plot						0	2	yes	yes	+	+		+	+	+	\rightarrow	+	+	Н.	10	а	۲,		?		yes		d	e b
VZ14	Omari Saidi	Input					v	es	yes	yes	ves	е	+	yes	d	a	С	b	+		 	10	u	+	1	?	yes			a	c b
		Input, Plot					n			yes	yes	b		yes		a	Ŭ	-	+	+		\neg	\neg	_	\vdash	Ė	,,,,,	,,,,	H		+ +
	Othman Salum	Input						es	yes	yes	yes	a		yes		a	С	а	-				_	7						a	b
VZ17	Fatuma Ali	Input						es	yes	yes											Ħ		T	\neg		yes	no	yes		0	b b
VZ18	Mtwanga	Mill					у	es	yes	yes	yes	d		yes	d	а		а		yes						Ĺ					
VZ19	Alphonse Goason	Mill					n	0		yes		b		yes	С	а		а			ш		I	T					ш		$\perp T$
VZ20	Mwangaza Mzee	Mill					n		yes	yes		d		yes	b			а			Ш		_[_[\perp		_		\Box		$\bot\bot$
	Halima Saidi	Mill						es	?	yes	yes	b		ves	ld:	l la		а		yes	\sqcup		_[_	\perp	_	_		\sqcup		+
		Mill	<u> </u>					es	yes	yes		a		yes	d	a	С	а	_	yes	\vdash	_	4	4	+	_	yes	yes		d	c b
		Mill	-		-			es	yes	yes	yes	b			d	?		a	+	?	\vdash		-	+	+	1	-	-	1	0	b b
		Mill	-	-	-			es		yes	no	e			d	a		a	+	yes	\vdash	\rightarrow	+	+	+	nc	145-	1,15 -	\vdash	+	++
	Habiba Mwiwshehe Tagu Bentjamine	Mill	-				n	o es	no yes	yes	yes yes	b		yes		a		b a	+	yes no	\mapsto	\dashv	+	+	+	no yes	yes			a .	b c a a
		Mill						0	yes	yes	yes	a		yes	d	a		a	+	110		-+	-	+	-	yes	yes	yes	+		a a
		Mill						_	no	yes	yes	b			d			a	+	yes			-	+	_				\vdash	_	++
	Asha Mrisho	Mill					n	0	no	yes	yes	c		ves	d	b		a	+	yes		\neg	\neg	_	\vdash	1			\vdash	\neg	++
		Mill						es	no	yes	no	d			d	а		а	\top	no				1							+
VZ31	Hassan Omary Hassani	Mill						0	yes	yes	yes	b		yes	d	b		d		yes	1	/es	b	á	3	yes	yes	yes		0	e b
																													Ш		
													_		_	\perp		_	\perp				_	_			_		\perp		$\bot\bot$
		Input					-	_				\vdash	+		+	+	\vdash	_	+	-	\vdash	\rightarrow	_	٠.	_		yes			а	b a
		Input						_	_			\vdash	-	_	+	+		-	+				a				yes			b	a b
	Sultan Msisiri Elias Kulwa	Input						-				+	+	_	+	+	+	+	+	+			d		1		yes			о a	b c
	Said Ramadhani	Input Input						-		-			+		+	+		-	+		H	/es	a	- 6	1	no	yes	yes		a d	b a
	Mwanahamisi Juma Sei	Mill						_	_				+		+	++		+	+	+	\vdash	\rightarrow	\dashv	\pm	+	110	yes	yes	H	J	- a
		Input, Plot											_						+					\dashv	_				+		+
MB08		Mill, Plot										b	1	yes	d	а	С	а	\top	yes				1					Ħ		+
MB09		KKM, Mill										b		yes	а	а	С	а	\neg	yes									П		TT
		Mill										b		yes	а	b	С	а		yes											
MB11	Mohamedi Ramadhani	Input																													
MB12		Input										е		yes												no			ш		c b
	Kongeza Mfunda	Input, Plot						_					_		+-	+		_	+	_		_	_	_			_		\vdash		++
	Swaumu Saidi	Mill	-				\vdash	-	_	-	-	а		yes		a	\vdash	а	+	yes	\vdash	_	-	+	+	1	1	-	Н.		+
		Input	-				\vdash	-	_	₩		e	_	yes		+ +-	\vdash	_	+		\vdash	-	-	+	+	no	yes	-	₩'	0	СС
MB16		Mill	-				\vdash	-	_	₩	-	a			d	a		a	+	yes	\vdash	-	\dashv	+	+	+-	+	-	\vdash	+	++
		Mill					+	-	_	1		b			d	a		a a	+	yes	┥.	/es	_	١.	,	no	yes	Vec	 	d	b c
MR19	Pazi Sanze	Input, Plot					+	+		1		Н,	+	yes	- u	a	+	4	+	yes	Н:	10	c			110	700	,,,,,	 '	+	+ +
MB20		Input					\vdash	-	-			\vdash	\top		+	+	\Box	\dashv	+	T	H,	-	1	1	+				\vdash	\dashv	++
		Input					\vdash			1			1		\top		\Box	\neg	\neg		\Box		7	\dashv					\vdash		+
MB22	Gwankisa Mwankuga	Input					\sqcap						T					\neg	\neg		\sqcap			\neg	\neg		Π		П		\top
MB23	Rehema Kibwana	Mill										?		yes	d	а	С	а		yes			а	_	3	no	yes	yes		t	c b
MB24	Asha Kawambwa	Input											┸						\perp			/es	С		3	no		yes		b	a b
	Hemedi Rajabu	Input											T		I									T					ш		
		Pump, Plot										а	I	yes	d	$\perp \perp$						/es				yes					a b
	Ahmad Saidi	Pump					\vdash	_	_	_		\perp	\perp		\perp	+	\sqcup	\rightarrow	\perp	-		/es			3	no	yes			d	b a
	Rajabu Magaila	Pump, Plot	-				\vdash	_	_	-	-	Н.	+	+	+	+	\vdash	\vdash	+	+	ш	10	b	- F	1		no			0	b b
MB29	///	Pump	-		-		\vdash	-	_	1	1	d			d	a	L-I	_	+	+	\vdash		_	+	+		yes			0	b a
		Pump	-				\vdash	-	_	₩		b	+	yes	d	a	С	а	+	+	-	/es	D	_	! -		yes			0	b b
	Ramadhani Alfani Amri Kibwana	Pump KKM, Plot	 				+	-	_	 		\vdash	+	+	+	++	\vdash	+	+	+		/es		- (,	no no		yes	 	d	b b
	Shida Omary Kabulele	Pump	 				+	-	_	1	1	+	+		+	++	+	+	+	+	++1	/es	u		+	no	yes			d	b c
		Pump					+	+				1	+	yes	+	+	+	+	+	+	Н,	/es	С	۱.			yes			0	a b
	Salum Kondo	Pump					\vdash	-	_	1		b	+	yes		la	С	c	+	+	H	, 55	-	ď	-	no	yes			d	b a
MB36	Mintanga Kalega	Input, Plot										b	T	yes		d	\Box	-	\top	1	\Box		1	\dashv		Ė	1	1	ΠŤ		11
MB37	Mohamed Rashid Mgun	Pump										b		yes	d	а	С	а	\perp			/es			3		yes			0	a b
MB38	Amri Salum Chanzi	Pump										b		yes	d	$\perp \perp$			T			/es		á	3	yes	yes	yes		0	b c
MB39	Amina Saidi	Pump	-				$\vdash \vdash$	_	_			е	_	yes	d	+	\vdash	\dashv	\perp	+-		/es	С	t		no	yes	yes	1	0	b b
\vdash			-				\vdash					\vdash	+	+	+	++	\vdash	+	+	1	\mapsto	\dashv	-	+	+	1	-	-	\vdash	+	++
\vdash			-		-		+	-	-	1		\vdash	+	_	+	++	\vdash	+	+	+-	++	-	+	+	+	1	+	-	\vdash	+	++
	l									<u> </u>									_								_	1	\perp		

<u>0</u>	e E	ion						
	Мате	Position	F1	F1-2	F2	F3	F3-1	4
1704	Ab. b.d. a. Ab.dallab	I a a a f		0	100150700			
VZ01 VZ02		Input Input		? drought, insect	1,2,3,4,5,6,7,8,9	2	plant tomato	Continue taining & credit
VZ02		Input	_	area up	1,2,3,4,5,6,7,8,9	2	plant tomato	Continue credit (repaid)
VZ04		Input		no improvement	1,2,3,4,5,6,7,8,9	2		Continue credit
VZ05		Input		vield up	1	2		kisima, engine pump
VZ06		KKM, Input		drought, price down	1,2,3,4,7		trainig	credit, kisima, leader training
VZ07	Kamara Ramadhani	Input	2	input	1,2,7		advice	training, repay
VZ08	Issa Bakari	Input		training	1,2,3,4,5,7,8,9	2	drought	continue project
VZ09		Input		drought	1,2,3,4,5,6,7,8,9	4		
VZ10		Input, Plot		drought, low price	1,2,3,4,5,6,7		drought, low price	continue credit
VZ11		Input	2		1,2,3,4,5,6,7	2		
VZ12		Input	2	al a miralla d	1 1 2 2 4 5 6 7	2		None
VZ13		Input, Plot		dorught improved technology	1,2,3,4,5,6,7 1,2,3,4,5,6,7,9			continue credit
VZ14 VZ15		Input Input, Plot		drought	1,2,3,4,5,6,7,9	2		continue project water
VZ16		Input		drought	1,2,3,4,5,6,7,8,9	1		continue credit
VZ17		Input		many problems	1,2,3,4,5,6,7,8,9		watermelon	water
		Mill	Ť	many problems	1,2,0,1,0,0,1,0,0	-	Watermeren.	repair machine
VZ19		Mill						change machine
		Mill		_				repair machine
VZ21	Halima Saidi	Mill						
VZ22		Mill		more agriculture	1,2,3,4,5,6,7,8,9		waste time	continue project
VZ23		Mill	2	bad weather	1,2,3,4,5,6,7,8,9	1	knowledge, VAEO	repair machine, continue project
VZ24		Mill	Ļ			_		repair machine
VZ25		Mill	_	no income from mill	4		no income from mill	repair machine
VZ26		Mill	3	no mill work, drought	4,5,6	2		None
VZ27 VZ28		Mill Mill						repair machine
VZ20 VZ29		Mill						change machine repair machine
VZ30		Mill						repair machine
VZ30 VZ31	Hassan Omary Hassani							repair machine
<u> </u>	riacoan Cinary riacoan							Topan maonine
MB01	Maliyatabu Shekha	Input	2	fertiliser	1,2	3	low price	need pump, more chemicals
MB02	Doto Salehe Pazi	Input	2	input	1,2,3,5,7,8,9	2	irrigation, inputs	need pump, leaders' training
MB03		Input		no water	1,5		drought, low price	need pump
MB04		Input		flood, drought	1,2,5		input, book keeping	leaders' training
MB05		Input		good harcest	4,5		know-how, inputs	need pump
MB06	Mwanahamisi Juma Sei			drought	5	2		market, another project
MB07		Input, Plot		credit	4.4.0.7	2	group working	long repaiment time
MB08 MB09		Mill, Plot KKM, Mill	5 3	drought, low price	1,4,6,7 1,7	1		change machine change machine
MB10		Mill	2	drought, low price	1,7	1		change machine, leaders' train
MB11	Mohamedi Ramadhani		4		1,2,5,7	3		change machine, leaders train
		Input		drought	1,2,3,4,5,6,7,8,9	1		got know-how, need pump
		Input, Plot		drought, low price	1,2,3,4,5,6,7,8,9		know-how	fruit seedling, food crops
MB14		Mill		, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,			continue project
MB15	Mharami Pazi	Input	2	drought	1,2,3,5,7,8,9	2	drought	need treadle pump
MB16	Nashiri Mohamed	Mill					-	continue project
		Mill	Ш					repay machine
		Mill	3		1,2,3,4,5,6,7,8,9		machine	repay machine, livestock
		Input, Plot		drought	1,2,3,5,7		know-how, Ruvu trip	need irrigation & market
		Input		drought	1,2,5,7		know-how, fertiliser	need credit, pump, market
MB21		Input		drought drought, low price	1,2,3,4,5,6,7,8,9		group activity	need know-how, credit, pump, process
MB22 MB23		Input Mill	3	arought, fow price	1,2,3,4,3,0,7,8,9	٥	group activity	need input & pump, training need more assistance
		Input	5	drought	1,2,3,4,5,7	2		need input & pump, need more VAEO
		Input	2	arougin	1,2,3,4,5,7	2		need pump & market
MB26		Pump, Plot		high yield but low price	1,2,3,4,5,6,7,8,9	2		need FYM, continue project
		Pump		know-how	1,2,3,4,5,6,7,9		new idea in meeting	need input & pump
		Pump, Plot		low inputs	1,2,3,4,5,6,7,9	2		need input
MB29		Pump		drought	1,2,3,4,5,6,7,8,9		no reason	need input
MB30		Pump	2	chemical	1,2,3,4,5,6	3	low production	need input & pump, know-how, market
MB31		Pump		no input	1,2,7	2		
MB32		KKM, Plot	2		1,2,3,4,7	2		
MB33		Pump		low input	1,2,3,5,7	2	bad timing	need input, know-how, market
MB34		Pump	2		1,2,3,6,7,9	_		need input, need training
MB35		Pump		pump	1,3,7		pump	need input with fuel
		Input, Plot	2	drought	1,2,3,7	2	group working	good pump, need input credit
MDAT	Mohamed Rashid Mgun		1	drought	1,2,3,4,5,6,7,8,9		group working	need input, training, long hose need input, market
MB37					1.4./	2	İ	mocu imput, maiket
MB38		Pump		high vield		2		need input group cooperation market
		Pump		high yield	1,2,3,4,5,6,7,8,9	2		need input, group cooperation, market
MB38				high yield		2		need input, group cooperation, market

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	_	uo		Total	A2 Income Source	g C	.3-2 Crop	.4-1 Total	14-2 Food	able	4-4 Fruits	4-5 Others	B1-Tomato	kra	B1-Cucumber	B2 Irrigaton	_	8	3	4	5-1	2-5	6-1	6-2	_
9	lame	Position	Date	A1 To	12 Inc	(3-1 Crop	13-2 (4	14-21	۱4-3 /egetable	4-4	4-5	31-To	B1-Okra	7-7-	22 17	B2-1-1	B2-1-2	B2-1-3	B2-1-4	B2-1-5-1	B2-1-5-2	32-1-6-1	B2-1-6-2	B2-1-7
		_					_	-	٩	~ /	٩	٩		ш	ш										
RD01 RD02	Mohamed Haji Mohamed Mbega	Pump, KKM Pump	03/10/14	5 13	1	Tomato Tomato	Eggplant Okra	0.50 3.50	0.00 3.50	0.50	0.00	0.00	5	5	7	1	\dashv	0.50 1.00	1	2	1.0 2.0	1.0	4.0 5.0		+
	Mussa S Kipolopolo	Pump, KKM	03/10/14	10	1	Eggplant	S Pepper	4.00	3.00	1.00	0.00	0.00	5	5	8	1	\vdash	1.00	1	2	2.0	0.3		3.0	\vdash
RD04	Mamisi Urembo	Pump	03/10/14	2	1	Tomato	Okra									Ť			Ť						\top
RD05	Godwin Saimon	Pump	03/10/14	4	1	Cucumber	Tomato																		
RD06	Shomari Saidi Mkinga	Pump	03/10/14	5		Cucumber	Eggplant		2.00																
RD07	Shabani Jumante	Pump	03/10/14	6	1	Tomato	S Pepper	0.00	0.00	4.00	0.00	0.00	6	9	10	1		1.00	1	2	2.0	1.0	3.5	1.5	\vdash
RD08 RD09	Eva Thimoteo Priska Masenga	Pump Pump	03/10/14	14 5	1 4	Tomato Okra	Okra Cucumber	3.00 2.00	2.00 1.00	1.00	0.00	0.00	5	5		1		1.00	1	2	2.0	1.0	6.0	2.0	₩
RD10	Joyce Ngaleni	Pump	03/10/14	4	7		S Pepper	2.00	1.00	1.00	0.00	0.00					-			H					\vdash
RD11	Hadija S Mkumba	Pump	03/10/14	5	1		Ngogwe						4	5		1		1.00	1	2	1.0		3.0		т
RD12	Josephine Ferdinand	Pump	03/10/14	5		Okra	Cucumber	1.00		1.00															
RD13	Lucy Amandus	Pump	03/10/14	4	1	Tomato	Eggplant																		
RD14	Tama Ramadhani	Pump	03/10/14	4	1	Tomato	S Pepper																		
																									\vdash
																	+		_	-					\vdash
MY01	Jumanne Ponzi	Nursery	03/10/18	3	1	Cashew	Cassava	2.00	1.00	0.25	0.25	0.50				\vdash	+			H					\vdash
MY02	Seleman Mgalusi	Nursery, KKM	03/10/18	5	1		Cassava	3.75	0.50	0.25	2.50	0.00					\vdash			П					П
	Omari Kassimu	Nursery	03/10/18	3	1	Cassava	Cashew	4.00	1.00	0.00	3.00	0.00													
	Thomas Paulo	Nursery	03/10/18	1	1		Pineapple	2.50	2.50	0.00	0.00	0.00								Ш					П
MY05	Seif Ndomboloke	Nursery	03/10/18	6	1	Cassava	Pineapple	1.00	0.50	0.00	0.50	0.00		\vdash			\vdash			Ш					Н
MY06	Ramadhani Kisigarile Amina Salehe	Nursery	03/10/18	8	1	Coconut	Cashew	6.00 1.75	3.00 1.50	0.00	3.00 0.00	0.00		\vdash		\vdash	\vdash			Н					H
MY07 MY08	Mashaka Manda	Nursery Nursery	03/10/18	13	1	Cassava	Seedlings Passion	2.00	1.00	0.00	1.00	0.25		H		\vdash	\vdash			H					H
	Saidi A Mahela	Nursery, KKM	03/10/18	9	1	Cashew	Cassava	3.75	3.00	0.50	0.25	0.00													H
	Abdalla Bushiri	Nursery	03/10/18	8	1	Coconut	Mango	0.50			0.20														П
	Salima H. M.	Nursery	03/10/18	8	1	Cassava	Coconut	3.00																	
																									Ш
MK01	Issa Rashidi Muhumba	Nursery	03/10/20	7	1	Coconut	Cashew	6.00	1.00	0.00	2.00	3.00								-					
MK02	Saidi Athmani Tindwa	Nursery	03/10/20		1	Cashew	Cassava	15.00	3.00	1.00	1.00	10.00													+
MK03	Hassan Salehe Mkinga		03/10/20	10	1	Coconut	Cassava	4.00	1.50	0.50	1.00	1.00					-			Н					\vdash
	Ally Mfaume Kombo	Nursery	03/10/20	8	1	Cashew	Coconut	13.00	2.00	0.25	2.00	8.75													
MK05	Said Abdallah Sinde	Nursery	03/10/20	10	1		Coconut	5.50	2.00	0.25	2.50	0.75													
	Nassoro S Mahimbwa	Nursery	03/10/20	6	1		Citrus	7.00	1.00	0.00	3.00	3.00													
	Sauda Musa Bakari	Nursery	03/10/20	6	1	Orange	Pineapple	1.00	1.00	0.00	0.00	0.00					-								\blacksquare
MK08 MK09	Jangwa Kassim Mwajuma Kambangwa	Nursery Nursery	03/10/20	3	1	Cashew	Pineapple	4.00	1.00	0.25	1.00	1.75					\vdash								\vdash
MK10	Juma Ali Mpili	Nursery	03/10/20	6	1	Coconut	Pineapple	4.00	1.50	0.50	2.00	0.00					\vdash								\vdash
MK11	Sefu Juto Bamba	Nursery	03/10/20	5	1	Cashew	Cassava	5.00	2.00	0.00	2.00	1.00													\vdash
	Sultan M Dako	Nursery, KKM	03/10/20	7	1	Cashew	Paddy	15.00	3.00	0.00	2.00	10.00													
		Nursery	03/10/20	6	1	Cassava	Cashew	4.25	2.00	0.25	2.00	0.00													
	Bi Mariam Seif	Nursery	03/10/20	2	1		Coconut	2.00	1.00	0.00	1.00	0.00													
	Hamisi Makunge Bi Fatuma Abdallah	Nursery,KKM Nursery	03/10/20	6 4	1 1	Citrus Cashew	Coconut Pineapple	4.00 3.00	2.00	0.00	2.00 1.00	0.00													
	Saidi Ally Mbangwi	Nursery	03/10/20		1	Coconut	Cashew	3.00	1.00	0.00	0.50	1.25													
14.11.7	caid.7 my inbangm	ruicory	00/10/20			Coconat	Guorion	0.00	1.00	0.20	0.00	1.20					\dashv								\vdash
																	\Box								
VG01	Hadija Athumani	Mill	03/10/21	6	1	Cashew	Cassava	2.00	1.00	0.50	0.25	0.25		\sqcup			\vdash								\sqcup
VG02 VG03	Ibrahim Almali Mwamtoro Ally	Shed Mill	03/10/21	2	1	Cashew	Orange	3.00 2.00	1.00	0.50	0.50	1.00 0.00				\vdash	\vdash			\vdash				-	\vdash
	Ibrahim Kapama	Mill	03/10/21	8 6	4	Cashew	Cassava	3.00	3.00	0.00	0.00	0.00					-+		_						\vdash
	Mariam Monji	Mill	03/10/21	10	1	Orange	Cashew	4.00	3.00	0.00	1.00	0.00					\vdash								
VG06	???	Mill	03/10/21	2	1	Cassava	Passion	3.50	1.50	0.00	0.50	1.50													
VG07	Sharifa Rashid	KKM	03/10/21	5	1	Passion	Tangerine	4.00	1.50	0.50	2.00	0.00													
VG08	Mohamad Ally Nangong	Shed	03/10/21	3	1	Passiom	Cashew	3.00	1.00	0.00	1.00	1.00													
VG09	Zubeba Salehe	Mill	03/10/21	6	1	Passion	Tangerine	2.00	1.00	0.00	1.00	0.00					\sqcup			Ш					Щ
VG10	Ramadhani Shabani Ad		03/10/21	6	1	Cashew	Cassava	3.00	2.00	0.00	0.00	1.00					\vdash			\vdash					Н
VG11 VG12	Shabani Shomvi Nassoro Yussuf	Shed Shed	03/10/21	3 5	1	Cassava Cassava	Cashew Maize	3.00	1.50	0.00	1.50 0.00	0.00 1.50				\vdash	+			H					\vdash
	Ramadhani Kondo	Shed	03/10/21		1	Cassava	Fruits	3.50	1.00	0.00	2.50	0.00				\vdash	+			H					\vdash
	Habiba Mohamedi	Mill	03/10/21		1	Cassava	Maize	2.00	2.00	0.00	0.00	0.00				\vdash	\vdash			\vdash					Н
VG15	Zaina Msa	Mill	03/10/21		1		Maize	2.00	1.00	0.50	0.00	0.50													
	Shomari Nasoro	Shed	03/10/21		1		Maize	2.00	1.50	0.00	0.50	0.00					\Box								
		Mill	03/10/21		1	Cassava		3.00	3.00	0.00	0.00	0.00													Щ
	Salehe Said Kahanja	KKM	03/10/21		1	Cassava	Passion	2.50	0.50	0.00	0.00	2.50					\vdash			\sqcup					Ш
	Asha Nasoro Mangara Mwinshehe	Mill Mill	03/10/21		1	Passion Passion	Cassava	1.00 6.00	1.00 2.00	0.00	0.00 3.50	0.00				\vdash	\vdash			Н					Н
	Dingila	Shed	03/10/21	4	1	1 0001011		0.00	2.00	0.50	3.50	0.00		\vdash		\vdash	+		H	H					H
	Abdallah Mnyimku	Shed	03/10/21	2	1	Cassava		2.00	1.00	0.50	0.50	0.00					\vdash			H					П
	Omari Kondo	Shed	03/10/21	3	1	Cassava	Maize	2.50	1.50	0.50	0.50	0.00													
						10	In .	0.00					_												
VG24	Saidi Majengo Ally Said	Shed Shed	03/10/21		1	Cassava Cashew	Passion Orange	3.00 2.00	1.50	0.25	0.25	0.00													\sqcup

			_	nction			соше	Cost	come	_	uction			ешоош	l Cost	соше									300d	iving	Cont.
o _N	Name	Position	B3 Area Tomato	B3 Production Tomato	B3 Sell Tomato	B3 Price Tomato	B3 G. Income Tomato	B4 Total	B4 N. Income Tomato	B3 Area Okra	B3 Production Okra	B3 Sell Okra	B3 Price Okra	B3 G. Income Okra	B4 Total Cost Okra	B4 N. Income Okra	B5-1	B5-2	B6	_	2	ω 4	n n	9	Input 1 Good	Input 2 Grow Input 3 Living	Input 4 Cont.
																										\top	
RD01	Mohamed Haji	Pump, KKM																4	1,3	1		3				1 1	
	Mohamed Mbega	Pump	0.20			67	8,400	23,500									4	4	1	1						1 1	1
RD03	Mussa S Kipolopolo	Pump, KKM	0.25	500	500	40	20,000	36,200	-16,200	0.25	225	225	27	6,000	34,700	-28,700	4	4	1,2,3,4,5	1	2	3 4	5	\vdash	1 1	1 2 1 2 1 2	1
	Mamisi Urembo	Pump																_			\rightarrow	_	\perp	\vdash		1 2	1
RD05 RD06	Godwin Saimon	Pump																-			\perp	_	\perp		1 1	1 2	1
RD06 RD07	Shomari Saidi Mkinga	Pump	0.05	306	200	20	11,900	13,400	4 500								-	4	40045	1	_	3 4	-		1 1	1 1	
	Shabani Jumante Eva Thimoteo	Pump Pump	0.25	216	306 216	39 33	7,200	6,700	-1,500 500	0.20	750	750	67	50,000	7,750	42,250	5		1,2,3,4,5 1,2,3,4,5			3 4 3 4		\vdash	1 1		
RD09	Priska Masenga	Pump	0.20	210	210	33	7,200	6,700	500	0.20	750	750	67	50,000	1,150	42,250	4	4	1,2,3,4,5	1	2	3 4	1 3	\vdash	1 1	1 1	1
																		4	1,2,3,4	-'-	-	3 4	+		1 1		
RD11	Joyce Ngaleni Hadija S Mkumba	Pump Pump	0.13	108	108	56	6,000	6,700	-700	0.13	45	45	53	2,400	5,200	-2,800	5	\rightarrow	1,2,3,4,5	1	2	3 4	5	\vdash	1 1		
RD12		Pump	0.10	100	100	50	0,000	0,700	-100	0.10	73	75	- 55	2,400	0,200	-2,000	5		1,2,3,4,5	1		3 4		\vdash	1 1		
RD13	Lucy Amandus	Pump															5	\dashv	1,2,3,4,5	1	2	3 4	5	Н	1 1	1 1	1
		Pump															5		1,2,3,4,5				5				1
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MY01	Jumanne Ponzi	Nursery															П	7				\neg		П	_	\top	т
MY02	Seleman Mgalusi	Nursery, KKM																T				\neg		П	1	\top	
MY03	Omari Kassimu	Nursery																					I				Γ
MY04	Thomas Paulo	Nursery																⋾					\mathbf{I}^{-}			I	Γ
MY05	Seif Ndomboloke	Nursery																					L			I	
MY06		Nursery													السلا			J		J		工			I	I	┖
MY07	Amina Salehe	Nursery																┚				\perp				\perp	┖
MY08	Mashaka Manda	Nursery																\Box			\Box						\Box
	Saidi A Mahela	Nursery, KKM																_[\perp	
MY10	Abdalla Bushiri	Nursery																								Ш.	
MY11	Salima H. M.	Nursery																									
																		_		_							
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																		_					\perp			4	Ь.
	Issa Rashidi Muhumba																	_					\perp			4	Ь.
	Saidi Athmani Tindwa																	-		_	_	_	_			—	₩
MK03	Hassan Salehe Mkinga																	_		_	\rightarrow	_	-	\vdash	_	+	₩
		Nursery																-		_	-	-	+		+	+	+-
NIKUS	Said Abdallah Sinde Nassoro S Mahimbwa	Nursery Nursery															\vdash	\rightarrow		-	\rightarrow	+	+	\vdash	+	+	+
																		\rightarrow		\dashv	-	_	+	\vdash	-	+	+
MK08	Sauda Musa Bakari Jangwa Kassim	Nursery Nursery																-		-	\vdash	_	+	H	-	+	+
MKUO	Mwajuma Kambangwa																	\dashv		-	\rightarrow	_	+	H	_	+	+
MK10	Juma Ali Mpili	Nursery															\vdash	\rightarrow			\rightarrow	+	+	\vdash	+	+	+
		Nursery																-					+	H		+	+
	Sultan M Dako	Nursery, KKM																\neg		一						+	-
		Nursery																			\neg			П		\top	\top
	Bi Mariam Seif	Nursery																								\top	
	Hamisi Makunge	Nursery,KKM																								T	
MK16	Bi Fatuma Abdallah	Nursery																									
MK17	Saidi Ally Mbangwi	Nursery															Ш	_[]	Щ			Ш	[_	╨	<u>↓</u>
<u> </u>																	Ш	_		_	\sqcup		_	\vdash	_	4	4
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		Mill															\vdash	\dashv		\dashv	\vdash	+	+	\vdash	+	+	+
VG02	Ibrahim Almali Mwamtoro Ally	Shed Mill				\vdash											H	+		\dashv	+	+	+	H	+	+	+
		Mill										_					\vdash	\dashv		\dashv	\vdash	+	+	\vdash	+	+	+
VG05	Mariam Monji	Mill	\vdash														\vdash	\dashv		\dashv	\vdash	+	+	Н	-	+	+
VG05	???	Mill															\vdash	\dashv		\dashv	\rightarrow	+	+	\vdash	+	+	+
		KKM				H											H	\dashv		\dashv	+	+	+	H	+	+	+
VG07	Mohamad Ally Nangong																H	\dashv		\dashv	+	+		H	\dashv	+	†
		Mill															H	\dashv		\dashv	\dashv	+	+	П		+	T
VG10	Ramadhani Shabani Ad	Shed															H	\dashv			\vdash	+	1	H	1	+	+
	Shabani Shomvi	Shed																7			\vdash	+	1		_	+	T
VG12	Nassoro Yussuf	Shed																7		\neg		\dashv		П	\neg	+	\Box
		Shed															\Box	\neg			\Box	\top				\top	П
		Mill																寸								T	Т
VG15	Zaina Msa	Mill																				\perp	L			I	
	Shomari Nasoro	Shed																J					\perp				Ĺ
VG17	Mwanunu Mwinyumwa																					┸	\perp			I	
VG18	Salehe Said Kahanja	KKM																J				I					ഥ
VG19	Asha Nasoro	Mill																┚								\perp	
VG20		Mill															Ш				П		I	LТ		L	Ľ
VG21	Dingila	Shed											$oxed{\Box}$				Ш	_[]	Щ		\perp	\sqcup		—	\perp
VG22	Abdallah Mnyimku	Shed															Ш	_								\perp	\perp
		Shed															Ш	_		_	\sqcup		1		_	4	Щ
VG24	Saidi Majengo	Shed											\vdash				Ш	_		_	\vdash	\perp	_	Ш	_	+	+
	Ally Said	Shed															Ш						1			丄	

No	Name	Position	C1-M-1	C1 Mango area	C1 Mango tree	C1 Mango production	C1 Mango sold	C1 Mango price	C1 Mango amount	C1 Mango market	C1 Orange area	C1 Orange tree	C1 Orange production	C1 Orange sold	C1 Orange price	C1 Orange amount	C1 Orange market	C2-Mango-1	C2-Mango-2	C2-Mango-3	C2-Mango-4	C2-Orange-1	C2-Orange-2	C2-Orange-3
		Pump, KKM																		\Box	\Box	\Box		
		Pump																	\sqcup	_	—	\rightarrow	\dashv	+
	Mussa S Kipolopolo Mamisi Urembo	Pump, KKM Pump															-			\rightarrow	\rightarrow	\rightarrow	+	+
		Pump																	\vdash	-	\dashv	\rightarrow	-+	-
		Pump																		\neg	\neg	\neg	\neg	_
	Shabani Jumante	Pump																			\Box	\Box		
		Pump																		_	_	_	_	_
		Pump															-		\vdash	\rightarrow	\rightarrow	\rightarrow	+	+
RD11		Pump Pump																		\rightarrow	\dashv	\dashv	-+	+
		Pump																		\neg	\neg	\neg	\dashv	+
RD13	Lucy Amandus	Pump																						
RD14	Tama Ramadhani	Pump																				\Box		
																	-			\rightarrow	\rightarrow	\rightarrow	+	+
\vdash																	-		\vdash	\dashv	\dashv	\dashv	+	+
MY01	Jumanne Ponzi	Nursery			10					-							\vdash	_	\vdash	\dashv	+	\dashv	+	+
		Nursery, KKM			10							5						10	2	1	1		2	1
MY03	Omari Kassimu	Nursery	Kent	1.00							0.50	20						20		2	2		2	2
MY04		Nursery	Apple	0.25	25							_						25		_1	1	[#	
		Nursery		0.50	10					-	0.50	7					-	10		1	1	\rightarrow	+	+
		Nursery Nursery		0.50	6					_	0.50	2					\vdash	15 15		1	1	\dashv	+	+
		Nursery											l				1		-	\dashv	-+	\dashv	+	+
		Nursery, KKM			15												L	L			二十	二十	二十	
MY10	Abdalla Bushiri	Nursery	Ap,Tm	0.50	10						0.50	3						10		1	1	3	2	1
MY11	Salima H. M.	Nursery	Kn,Tm	0.25	20													20	2	1	1	\rightarrow	\rightarrow	$-\!\!\!\!+\!\!\!\!\!-$
-																				\rightarrow	\rightarrow	\rightarrow	-	$-\!\!\!\!+\!\!\!\!-$
																	1		\vdash	\dashv	\dashv	\dashv	+	+
MK01	Issa Rashidi Muhumba	Nursery		2.00								30						2		1	1	\neg	\neg	
	Saidi Athmani Tindwa				30													15		_			2	1
	Hassan Salehe Mkinga			0.50	15						0.25	6						15		1	1		2	1 '
		Nursery Nursery		1.00	10 15						0.25	11 20						10 15		1			2	1 1
		Nursery			13								7000f	7000f	6	42,000	2	13		1				
		Nursery		1.00					5,000		0.50		7 000.	7000.	Ť	12,000	1-			一十	一十	7	\dashv	_
MK08	Jangwa Kassim	Nursery		0.25							2.00							15		1		50		1
	Mwajuma Kambangwa				45	1,000	1,000	200	200,000			120	1,500	1,500	50						_			_
		Nursery	L=10,I=4		10	3,000	3,000	200	600,000	2		50 4	200	200	50	10,000		15		1	1		2	1 .
		Nursery Nursery, KKM	Local	1.00	4					1	1.00	- 4				10,000	-	36		1			2	1 .
		Nursery	Kt,Ap,	2.00	7					Ė	1.00							7		1	1		Ť	_
		Nursery																10	2	1		15		1
			Dodo,Bolibo	1.00	30						1.00	18						7		1	1		2	1
		Nursery		1.00 0.25	5	45	45	300	4,500	1	1.00	10 10						5 15		1	1	10	2	1 1
IVIN 17	Saidi Ally Mbangwi	Nursery		0.25	3	15	15	300	4,500	2	0.25	10					-	15		-4	-4	15		
																			\Box	\dashv	\dashv	\dashv	\dashv	+
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		Mill	Sindano		9		- 00	4.500	20.000	_		3		_	750	4.500	_	_		_	_	_	_	\perp
		Shed Mill	Dodo, Ngitang Dodo	wa	7 5	20	20	1,500	30,000	2		3 16		6	750	4,500	2	3		2	\dashv	4	2	1
		Mill	2000		٥							10						- 3	-	_	\dashv			+
VG05	Mariam Monji	Mill			10							15					L	L		_	\exists	\exists	士	
VG06	???	Mill	Local		5				25,000	2		20				100,000	2	7		1	1	コ	7	
		KKM			7							3				15,000	1	25	2	_[1		2	
	Mohamad Ally Nangong Zubeba Salehe	Shed Mill			10				10,000	1		12				20,000	1	22	\vdash	-	1	10	+	2
	Ramadhani Shabani Ad				10				10,000	+		12				20,000	+	- 22	\vdash	-+	-+	\dashv	+	+
		Shed																		\dashv	\dashv	\dashv	+	+
VG12	Nassoro Yussuf	Shed																						工
		Shed													_		\perp		Ш	[ــــــــــــــــــــــــــــــــــــــ	[——
		Mill Mill		1.00	10				-	2	0.25	12 30	-		-		₩	20 30		_1	1	20	+	+
		Shed		0.25	10					2	0.25	5			 		 	25		1	1		+	+
	Mwanunu Mwinyumwa			1.25						Ť		l ,					\vdash		一	\dashv	\dashv	\dashv	+	+
VG18	Salehe Said Kahanja	KKM																			二			\perp
		Mill																	П	コ	コ		I	工
		Mill	Local	0.50	10				3,000	1	2.00	30				2,000	1	10	2	2	2	30	2	2
		Shed Shed		1.00						1	1.00 0.25						1	12	\vdash	\dashv	\dashv	8	+	+
		Shed								+-	0.25						1	12	\vdash	\dashv	+	5	+	1
		Shed	Local	0.25	6						0.25	15	200	200	400	80,000				\dashv	\dashv	7	2	2 :
V OZ-7		Shed	Dodo,		12	100	100	200	20,000			60				150,000		-		\rightarrow	\rightarrow	10		2 :

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8	Name	Posi	3-1	C3-2	1-42	C4-2	1-10	D1-2	2 <u>و</u> د	01-5	D1-6	7-10	D2-2	D2-3	D2-4	D2-5	D2-0	D2-8	D2-9	D2-10 D2-11	D2-12	E1-1	E1-2	E1-3	E1-4	E2-1	E2-2	E2-3	E2-4	E2-5	E2-6	E2-8
RD01	Mohamed Haji	Pump, KKM					Η,	yes	ye	yes	,	+	+				+	+		_		yes	С	a	_	no	yes	yes		а	е	а
		Pump						yes	ye:													,								С	е	b
RD03		Pump, KKM						yes	ye:		;											yes	а	а	ı	yes		yes	l l		а	b
	Mamisi Urembo	Pump						yes	ye																	no	yes	yes		а	b	а
		Pump					_	yes	ye:		_											yes	b	b)	yes	yes	yes	l l	b	а	b
		Pump						yes	ye			\perp					\perp	\vdash		_			Ш	_	\perp		_		\perp	+	_	
		Pump						yes	ye:			+			\perp		+	-			-	yes	С	b			yes	yes		a	а	а
		Pump					ш	yes	ye	yes	;		-				+	+-					С	b			yes		1	c c	b b	b
	Priska Masenga Joyce Ngaleni	Pump Pump					H		_	_		-	-				+	+				yes	С	b	+	no	yes	yes	1 1	' +	D	а
		Pump					Н,	yes	ye	yes		+ +	_	_	1		+	+						-+	+	+	+	1	+	+	+	+
		Pump						yes	ve			+ +			-		+	\vdash		_	$\overline{}$			\neg	+		+	-	\vdash	\pm	-	_
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	Tama Ramadhani	Pump						,									\top								\top	1				\top	\top	#
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		Nursery, KKM	5	4	5	5	\vdash		+	-	+	++	+	+	\vdash	\vdash	+	+	\vdash	+	+	yes	С	а	4	+	yes			a	b	
MY03 MY04		Nursery Nursery	1	3	5 5	<u>3</u>	\vdash		+	+	+	++	+	+	\vdash	\vdash	+	+	+	+	+	-	Н	+	+	yes	yes	yes yes		b	b	
		Nursery	4	4	5	5	+		+	+	+	+	+	+	\vdash	\vdash	+	+	\vdash	+	+	yes		b	, —	no	yes	yes		a b	c a	a
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		Nursery	4	3	4	4							+				+	t				yes	b	a		no	yes	yes		d	b	b
	Mashaka Manda	Nursery	4	3	4	4																				Ľ	Ĺ	Ĺ		\neg		
	Saidi A Mahela	Nursery, KKM	5	4	3	4																yes	b	а	1		yes	ues	í	а	е	b
	Abdalla Bushiri	Nursery	1		3	3																										
MY11	Salima H. M.	Nursery	1	1	5	5	Ш						_				\perp	_						_	\perp		_		Ш	_	_	
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MIZO1	Issa Rashidi Muhumba	Numanı	4	4	4	4				_		+	-	-	-		+	+		_		1100		_	_	200	1,000	1,00	Н,	d	-	_
	Saidi Athmani Tindwa		4	3	4	4	H			_		+ +	+		\vdash		+	+		_		yes yes		a		no	yes			d	b	a b
	Hassan Salehe Mkinga		3	3	3	5	\vdash		+	+		+ +	+-	-	+		+	+		+-	+	ves	c	a	_	ves		ves	_	c	e	b
		Nursery	3	3	5	5	\vdash		\pm	_		+ +	+	_	-		+		\vdash	+	+	yes	b	۳	+	ycs	700	703	Ħ	+		+
		Nursery	5	5	5	5	\Box								\Box		\top		Ħ			yes	Ť	\neg	\top	yes	yes	yes		b	b	С
		Nursery	3	3	5	5																,					yes			b	b	а
MK07		Nursery	5		5	5	П																				ľ		П		工	
MK08	Jangwa Kassim	Nursery	5		4	5																yes	а	а	1	no	yes	yes			С	а
MK09		Nursery	4																						\perp					_		
	Juma Ali Mpili	Nursery	4		5	5											_	-				yes	С	b	<u> </u>					b	а	
	Sefu Juto Bamba	Nursery	4	3	5	5 4	\vdash		_	_		+	-				+	\vdash		_				a	+	yes	yes			c b	e e	a
		Nursery, KKM Nursery	4	3	4 5	5	H		_	+		-	+-	+	-		+	+	\vdash	_	-	yes	С	- 6	+	yes	yes	yes	H	+	_e	а
		Nursery	4	3	5	5	H			+		++	+	+			+	+						\rightarrow	+	+	yes	yes	۱,	b	а	а
		Nursery,KKM	4	4	3	4	H			+			+	1			+	+			+	yes	С	d	\vdash	?	yes	yes		b	а	
		Nursery	4	4	5	5	Ħ										\top	1				,		T	\top	?	yes	yes		b	十	а
		Nursery	4	3	5	5											\top					yes	С	а	1	yes	yes	yes		С	а	b
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		Mill Shed	1	3 5	1 5	<u>1</u> 5		yes		yes			-	yes	a	d		a e	\vdash	yes	+		Н	+	+	no	yes	yes		a	-	b
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VG04		Mill	5	5	5	5	H	, 53	ye:					yes			С	a	\vdash	yes	\vdash		Н	+	+	ť	yes	yes	 	+	-	-a
VG05	Mariam Monji	Mill	5	1	3	3	Η,	yes	ye					yes			c	a	\vdash	yes	\top		H	\dashv	+	1		T	\vdash	+	+	+
		Mill	5	5	5	5		yes	ye:					yes	d		a	а	\sqcap	yes	\vdash		П		\top	no	yes	yes		۵	b	С
VG07	Sharifa Rashid	KKM		4	5	5		yes	ye					yes	d		c	а		yes	ΙT					L	Ľ	Ľ	LΪ		Ť	1
VG08	Mohamad Ally Nangong	Shed		5	5	1		yes	ye	yes	yes	а		yes	d	а	С	а		yes					Т					I		
		Mill	5	4	3	5	-	yes	ye:		/ -			yes	d		С	а	ш	yes			Ш	[\perp	1			\Box	₩	工	
		Shed						yes	ye:				\perp	+	\vdash	\sqcup	+	1	\sqcup	_	\perp		Ш	\rightarrow	+	1	+	\vdash	\vdash	+	+	+
		Shed					\vdash		ye				+	+	\vdash	\vdash	+	+	\vdash	+	+	-	Н	+	+	+	+	\vdash	\vdash	+	+	+
		Shed Shed					Н.	no		yes			+	+	+	\vdash	+	+-	\vdash	_	+	voc	4	b	. +	no	voc	voc	⊢.	+	- h	-h
VG14		Mill	5	3	3	3	H	no		yes	yes yes		-	yes	d	а	+	a	\vdash	yes		yes yes		- 10	+	no	yes	yes	1	d c	b	b
VG15		Mill	5	3	3	3	Н,	yes		yes yes				yes	d		С	b	\vdash	yes		yes		a	_	+	yes	yes		С	С	С
VG16	Shomari Nasoro	Shed	5	4	3	3	\vdash	,	ye:		yes			yes	d		b	a	\vdash	yes			b	۳	\top	1	yes	yes		c	c	b
		Mill	4	4	3	3	\Box		1,5		1,50	d		yes			Ť	а		yes	\top					no	yes	yes		c	b	
		KKM	5	3	3	3		no	ye:	yes	yes	С		yes		а	С	а		yes		yes	С	а		no	yes	yes			е	b
		Mill					П					С		yes	а		T	С	Ш	yes				\exists	T	no	yes	yes		а	b	а
		Mill	1	2	5	3		yes	no					yes			а	а		yes		yes		а		no	yes	yes		С	С	а
VG21		Shed	1	3	3	3		yes			yes	b		yes	d		С	b	ш	yes	\perp	yes		b				yes		С	С	С
		Shed	5	4	3	3		yes	ye					yes		C	С	b	\vdash	yes	+	yes		b		1	yes	yes	1	c	С	С
VG23		Shed	5	4	3	3		yes	ye:				-	yes	d	C	С	b	\vdash	yes		yes	С	b	-	no	yes	yes		d	С	С
IVG24	Saidi Majengo	Shed	4	3	5 5	5		yes yes	no		yes yes		+	+	\vdash	\vdash	+	+	\vdash	_	+	yes	С	+	+	+	yes	yes	1 9	С	е	а
VCOF	Ally Said	Shed																														

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RD01		Pump, KKM		input	1,2,3,5,7	1	training	more training, need drainage
RD02		Pump	2	good effort	1,2,3,5,7	2		more input
		Pump, KKM	1	5	1,2,3,4,5,6,7,8,9	2		expand to other groups
RD04 RD05		Pump Pump		input input	1,2,3,4,5,6,7,8,9	2	group working	more training
RD06		Pump		reach target	1,2,3,5,6,7,9	1	high yield	more advice, know-how
RD07	Shabani Jumante	Pump		input	1,2,3,5,7	1	ingii yiola	continue project, more VAEO visit
		Pump	1		1,2,5,7	1		more training
		Pump	1		1,2,7	1		more training
RD10		Pump		input	1,2,3,5,7,9		know-how	concrete reservoir, more training
RD11 RD12	,	Pump Pump	1	input	1,2,3,5,6,7 1,2,3,5,6,7	1	group working group working	more know-how, next credit more know-how, next credit
		Pump	1	input input	1,2,3,5,6,7	1	group working	more know-how, next credit
RD14		Pump		input	1,2,3,5,6,7	1	group working	more know-how, next credit
					, , , , , , , ,		3	,
	Jumanne Ponzi	Nursery	2	and another discount of	4,5,7,9	_		need input credit, motorcycle to VAEO
	Seleman Mgalusi Omari Kassimu	Nursery, KKM	2	sell grafted seedlings drought	1,2,3,4,5,6,7,8,9	2		need wells, processing
	Thomas Paulo	Nursery Nursery		know-how	1,2,3,4,5,6,7,9	2		continue project extend all districts, more training
		Nursery	2	seedling sales	3,6,9	1	know-how, income	more training, extend groups
		Nursery	2	occuming caree	4	2	inion rion, modific	continue support
MY07	Amina Salehe	Nursery	2		1,3,4,5,6,7,8,9		know-how, income	continue and expand project
	Mashaka Manda	Nursery						continue support
		Nursery, KKM	2		1			
		Nursery	2	L L	1,2,3,4,6,7	2		more conservation, expand project
MY11	Salima H. M.	Nursery	2	know-how	1,2,3,4,6,7	1		continue and expand project
MK01	Issa Rashidi Muhumba	Nursery	2	seedlings	2,3,4,5,6,7,8,9	2	know-how	like, have improved income
MK02	Saidi Athmani Tindwa	Nursery	2		1,2,3,4,5,6,7,8,9	2	know-how	continue project
MK03	Hassan Salehe Mkinga	Nursery		know-how	4	1		thanks, continue project
		Nursery		know-how	5	1	know-how, grouping	thanks
		Nursery		drought	1,2,3,4,5,6,7,8,9	2		need well & pump
		Nursery	2	seedlings	1,2,3,4,5,6,7,8,9	1	know-how	thanks, frequent visit
MK07 MK08	Sauda Musa Bakari Jangwa Kassim	Nursery Nursery	2		1,2,3,4,5,6,7,8,9			continue project
		Nursery	2	skills	3,4,6,9	1	know-how, grouping	extend project
MK10	Juma Ali Mpili	Nursery	3	trees are young	4,6,9	1	know-how, grouping	extend project
		Nursery	2	skills	1,2,3,4,5,6,8	1	know-how, grouping	more supervision
MK12		Nursery, KKM	2	seedling	1,2,3,4,5,6,7,8,9	2	good seedlings	motivate by certification
		Nursery		good varieties	1,2,3,4,6,7	2		continue project, more components
		Nursery		drought	1,2,3,4,5	_	know-how	
		Nursery,KKM Nursery		drought new varieties	2,3,4,6 1,2,3,4,5,6,7,9	2	know-how	more modifided project
		Nursery		good improvement	1,2,3,4,6,7		watering	continue project, need pump
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ca.array woarigwi			good improvement	1,2,0,7,0,1	É		contained project, need pump
	,	Mill	2		1,2,3,4,5,6,7,8,9	-		
	Ibrahim Almali	Shed	1		1,2,3,4,5,6,7,8,9		dec b.t	more know-how
		Mill Mill	3		1,2,3,4,5,6,7,8,9	3	arougnt	
	Mariam Monji	Mill						
VG05		Mill	2		1,2,3,4,5,6,7,8,9	2	know-how	thanks
	Sharifa Rashid	KKM	-		,_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u> </u>		
	Mohamad Ally Nangong							
VG09	Zubeba Salehe	Mill						
	Ramadhani Shabani Ad							to have market day
	Shabani Shomvi	Shed				_		need credit
	Nassoro Yussuf Ramadhani Kondo	Shed Shed						thanks
		Mill	3	drought	1,2,3,4,5,6,7	3		make effort for sustainability
		Mill		drought	1,2,3,4,5,6,7	3		
	Shomari Nasoro	Shed		grouping	1,2,3,4,5,6,7,8	2		
VG17	Mwanunu Mwinyumwa	Mill	4	drought	3,4	2	drought	
		KKM		drought	1,2,3,4,5,6,7,8,9		no production	more effort
		Mill		drought	1,2,3		exchange view, skill	none
		Mill	4	drought	1,2,3,4,5,6,7,8,9	2	exchange view, group	more effort, work hard
	Dingila Abdallah Mnyimku	Shed Shed	2		1,2,3,4,5,6,7,8,9	2		
	Omari Kondo	Shed	2		1,2,3,4,5,6,7,8			
	Saidi Majengo	Shed	2		1,2,3,4,5,6,7	2		change machine, need deep well or dam
	Ally Said	Shed	2		1,2,3,4,5,6,7	2		more training
			_	·	, , , , , , , , , , , , , , , ,	_		