

A REPORT ON INTRODUCING A PROJECT FOR ENVIRONMENTAL
CONSERVATION AT MTANANA "A" AND "B" VILLAGES

Hydrological corridor initiative in Kongwa



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1. INTRODUCTION

The Hydrological corridor initiative project is a project conducted in Kongwa aiming in restoring environmental degradation and peoples livelihood at Mtanana "A" and "B" villages in Kongwa District. The project team is comprised by the following:- *Justdigit* Organisation who is the sponsor of the project under consultation from METAMETA organisation that was represented by Francesco, Daan and Mackenzie together with representatives from the Vice President's Office Dr Masinde Bwire and Is-haqa Juma. With this team are experts from the regional secretariat Mr Msangi and a representative from Dodoma Municipal Council Ms Happiness Kalugaba and the District representatives including Mr Jackson Shija, Mr James Nkini, Dr Omary Nkullo, Mr Unambwe Erasto and Deus Petro. It is the planning design of the project which is conducted for ten days and the activities for each day are as presented below.

2. DAY ONE

Morning Session

The team from VPO and regional secretariat met with the CMT for discussion concerning the project. The project idea was introduced to the District Council Management Team (CMT). The meeting was chaired by Mr Mwaipopo A.A who was Ag. DED. In this meeting Mr Francesco explained the idea and the objectives of the project. He explained that; this project will improve the environment and the livelihood of Mtanana community if it will be implemented effectively. He also presented the selected project area for discussions.

Members discussed and agreed about the selected area but they cautioned that one of the areas selected belongs to the National Ranching Company (NARCO) so there is a need to discuss with the Management of the ranch to check if there is a possibility of using the proposed area for pasture development.

Members were divided into groups for discussing different related issues of the project such as Improved Water Availability, Hills and Mbuga, Open Farmland, Improving Peoples Livelihood, Farming Systems, Grazing Land Improvement in order to improve the tabled ideas. The improved ideas were presented by each group after the discussion



Figure 1: Members of the workshop in group discussion

Afternoon session

The session was for pricing on Equipment, Machinery and Tools, Inputs and Labour. Questionnaires were divided in each group for response. After which feedback was presented.



Figure 2: Members filling questionnaires

After feedback presentation; members from the District council were selected to join the team from VPO and consultants for defining on how the work should be conducted in the coming week. Closing remarks were given by Dr Bwire from VPO whereby he requested cooperation from the selected members. The meeting was closed at 17 hours.

3. DAY TWO

The project team visited Mtanana villages (Mtanana "A" and "B") to meet with representatives (Village councils) from both villages. In this meeting the team presented the idea of the project to the representatives. After receiving the project idea; the representatives and the project team had a time for discussing some project related issues. Questions were raised and answered during the discussion. From this discussion it was agreed that there should be a workshop meeting with village chairpersons, village councils' members and the project team. The workshop aimed at providing a detailed information and planning design of the project together through participatory approach.



Figure 3: Project team meeting with Mtanana representatives

Appointments were made to the National Ranching Company (NARCO) and Tanzania Livestock Research Institute (TALIRI) for cooperation. NARCO was targeted because the proposed area for pasture land improvement is in the Ranch and TALIRI because they are dealing pasture research and therefore their knowledge and equipment are essential in the project implementation.

4. DAY THREE

Morning Session

The project team visited NARCO to meet with the Management to introduce the project idea and see whether there is a possibility of using the area for pasture for Mtanana villages also possibility of visiting the grazing land. The management agreed with the project idea and promised to cooperate and insisted on fencing the area. However; he cautioned that; he has to see the area before approval.



Figure 4: The project team at NARCO

Afternoon Session

The team visited TALIRI to meet with the management for introducing the project idea and possibility for cooperation in terms of knowledge and equipment. The management impressed with project idea and promised to cooperate with the team.

Also the Director Dr Munis promised to offer equipment and experts to the project when need arise.



Figure 5: The project team at TALIRI

5. DAY FOUR

Morning session: Workshop was conducted at Mtanana Secondary School whereby about 61 participants attended including the project team. The project idea was introduced to participants. Some elders who worked during the colonial era at which Mtanana was among of the units of groundnut scheme explained the historical timeline of Mtanana since arrival of Bob Clayton (1948), during independence (1961), Dividing Mtanana into two villages (1995) and Mtanana today.



Figure 6: Elder explaining Mtanana historical timeline

Afternoon Session

Participants were divided into five groups to discuss on sectoral challenges (Water, Agriculture, Livestock, Soil and Forest) faced by the community. Each group tasked to provide challenges from each sector and the following were the outputs provided:-

Water challenges

- Poor water infrastructure leading to inadequate water supply
- Unreliable and erratic rainfall
- Flooding in mbuga area
- Sharing of water sources between human and animals

Soil challenges

- Depleted soil fertility
- Soil erosion
- Insufficient land use plans

Agriculture challenges

- Poor farming methods
- Low productivity

Livestock challenges

- Inadequate pasture due to overstocking
- Pests and Diseases
- Poor genetic potential of the local breeds
- Uncontrolled livestock movement
- Inadequate water especially during the dry season
- Unreliable markets for livestock and livestock products

Forest challenges (Trees)

- Deforestation
- Dependence on one source of fuel (fire woods)

Together with the challenges participants were also discussed systems in groups and presented their views as follows:-

Improved grazing land

- Reseeding grass species
- The area must have fire breaks
- Bailer machine
- Livestock keepers have to be in producer organization

- There has to be a system of cutting and bailing instead of grazing the area
- Livestock keepers has to contribute on labour
- The area has to be fenced and regularly patrolled
- Planting fodder trees
- Introducing bee keeping

Improved water availability

- ❖ Water harvesting from roads
 - Making water channels from roads
 - Planting trees
- ❖ Pond rehabilitation
 - Planting trees around the ponds
 - Removing earths from the ponds
 - Improving knowledge on sustainable pond management
 - Introducing fish farming
 - Introducing irrigation farming
- ❖ Nursery
 - There has to be a forest protected area
 - There has to be a multipurpose nursery
 - Improve knowledge on nursery management

Hills and Mbuga

- Planting more multipurpose trees like cashew nuts
- Planting pasture grasses like elephant grasses in the mbuga area
- Introducing bee keeping
- Planting pigeon peas, sunflower
- Introducing infiltration trench
- Introducing oil mills for processing oil seeds

Open farmland

- Introducing timber and firewood trees
- Introducing poultry keeping
- Introducing bee keeping
- Pasture grasses
- Charcoal dam construction
- Terracing

Improving peoples' livelihood

- Making live fences

- Collecting rain water
- Practicing zero grazing
- Vegetable production
- Composite preparation
- Planting multipurpose trees
- Introducing oil seed mills
- Biogas production



Figure 7: Presentation on Challenges and Systems

6. DAY FIVE

The project team visited the proposed pasture land at NARCO together with the assistant ranch Manager. A survey of the area by using drone (small helicopter) was conducted and the assistant Manager proposed to select another area because the proposed area is in the middle of the ranch and hence will be difficult to control encroachers. Ranch Manager proposed another area at the periphery of the ranch near Mtanana Secondary school. The team visited and surveyed the new proposed area and soil sample were collected for analysis.



Figure 8: Soil sampling at the new proposed pasture land

7. DAY SIX

The project team visited the farmland at Mtanana for surveying the contour bands and soil sampling. The team noted that some of the contour bands are degraded and gully erosion have started along the farmland



Figure 9: Soil sampling at Mtanana farmland



Figure 10: Gully erosion at the farmland

The team also surveyed the area by using the drone, visiting the pond site and discussed the appropriate site for dam construction

8. DAY SEVEN

The project team visited Mtanana villages to check some of the contour bands and soil sampling. The team also visited one progressive farmer Mr Zaid who has woodlot and cassava farms.



Figure 11: Project team with Mr Zaid at his woodlot



Figure 12: Project team with Mr Zaid at his cassava farm

On the same day the team visited the farming land with red soil and took soil samples.



Figure 13: Soil sampling at the red soil

After soil sampling, the team visited Mtanana Secondary school where there is degraded farmland. On the way to Mtanana Scondary School; the team visited godowns that were used for storage of groundnuts at Mtanana during the groundnuts scheme. The team proposed this one to be rehabilitated for purpose of storing hay for livestock.



Figure 14: Used to be groundnuts storage house



Figure 15: Soil degradation at Mtanana Secondary School farmland

During the colonial era, Bob built one pond, but the purpose of this pond at that time was not clear to the village chairperson. However; currently it is used as a reservoir pond for domestic use when the boreholes are not functional.



Figure 16: A pond built during the colonial era

9. DAY EIGHT

The project team visited one pond located between Mtanana A, Ndalibo and Soiti villages. After discussion with one of Soiti villagers it was noted that part of the pond is in NARCO area and a small part is in Ndalibo village and no part is in Mtanana A.

From this pond the team visited Mtanana grazing area. The team noted that large part of the grazing land is covered by floods and animals are grazing on the remained part.



Figure 17: Mtanana grazing land

On this area the team took a video by using the drone in order to have a clear understanding of the grazing area. Thereby the team visited Mtanana B, where there is flood on the water sources. At this site it was noted that the sources are not in use due to the flood that covers the water pumps.



Figure 18: Water source for Mtanana villages covered by flood

10. DAY NINE

The team was working on preparation of the workshop and report writing



Figure 19: Report writing

11. DAY TEN

This was a workshop day. The workshop was conducted at Mtanana Secondary School whereby village government council representatives from Mtanana “A” and “B” villages attended. Apart from village council representatives other invitees are Elders, one progressive farmer Mr Zaid, councillor of Mtanana Ward and representatives from the regional secretariat.

Mr Francesco presented the findings from the activities conducted during the period of two weeks in the villages



Figure 20: Mr Francesco presenting

After the presentation there was a discussion on the presented findings whereby different questions were raised and answered



Figure 21: Discussion after the presentation

After the presentation there was a demonstration on the importance of the contours. During the demonstration, a towel, water and table were used. Three different people were selected among the group. One was named “water” the other “land” and the third one “contour”. From this demonstration it was very clear that the participants understood the importance of the contours on preserving water.



Figure 22: Demonstration on the importance of the contours

Participants had a chance of setting system priorities for project implementation. There was a big discussion on the priorities in such a way that they requested more time for the discussion so that to reach consensus. At the end of the discussion it was agreed that the first priority is the area without contours, the second; area with contours, third; household improvement, fourth earth pond improvement and fifth the grazing land improvement.

After the priorities participants were given chance to give reasons for their priorities. One reason was that area without contours covers both villages and therefore the project will benefit both villages. However after sometime during the workshop they were asked if they would be given a chance to change their priorities what would be their choice? They answered that the grazing land would be their third priority and the last would be household improvement.

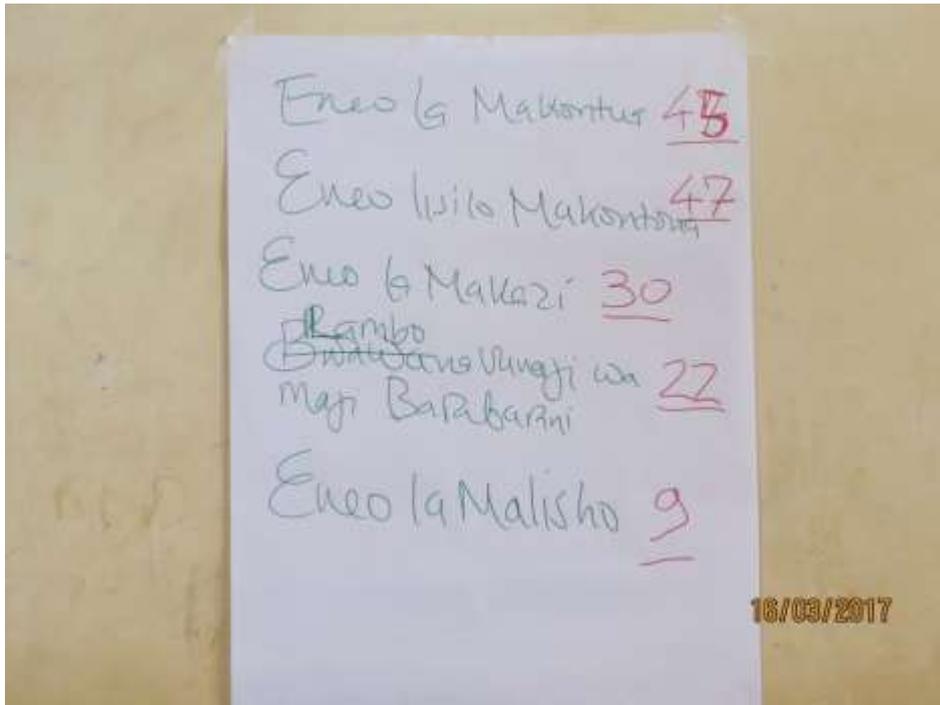


Figure 23: System priorities

On the set priorities; participants were asked to mention the contributions from Mtanana community. They agreed that the community will contribute the following:-

- Planting trees and animal grasses
- Making gully plugs
- Repairing the contours
- Building animal houses
- Taking care of the beehives
- Land

Participants were facilitated to set villages land use plan. They were asked if they can write important plan areas and the following are their views:-

- Human habitats
- Farming areas
- Grazing areas
- Open area
- Institutional area
- Forest protected areas
- Water sources
- Infrastructure
- Graveyard

- Investment area

They were asked if they have and implement this plan. It was noted that there is no such plan but they agreed to have such plan in place.

Closing remarks and way forward

- The villages must have land use plan otherwise this project won't succeed
- Control livestock movement in the village (Preferably go for zero grazing)
- Community contribution is very crucial to this project (Willingness to contribute)
- Both villages must plan together as one
- Leaders of the villages must find the true owners of the farms with contours because most of the people who are currently farming there have hired
- Reduce the number of animals, keep few animals but with high productivity