



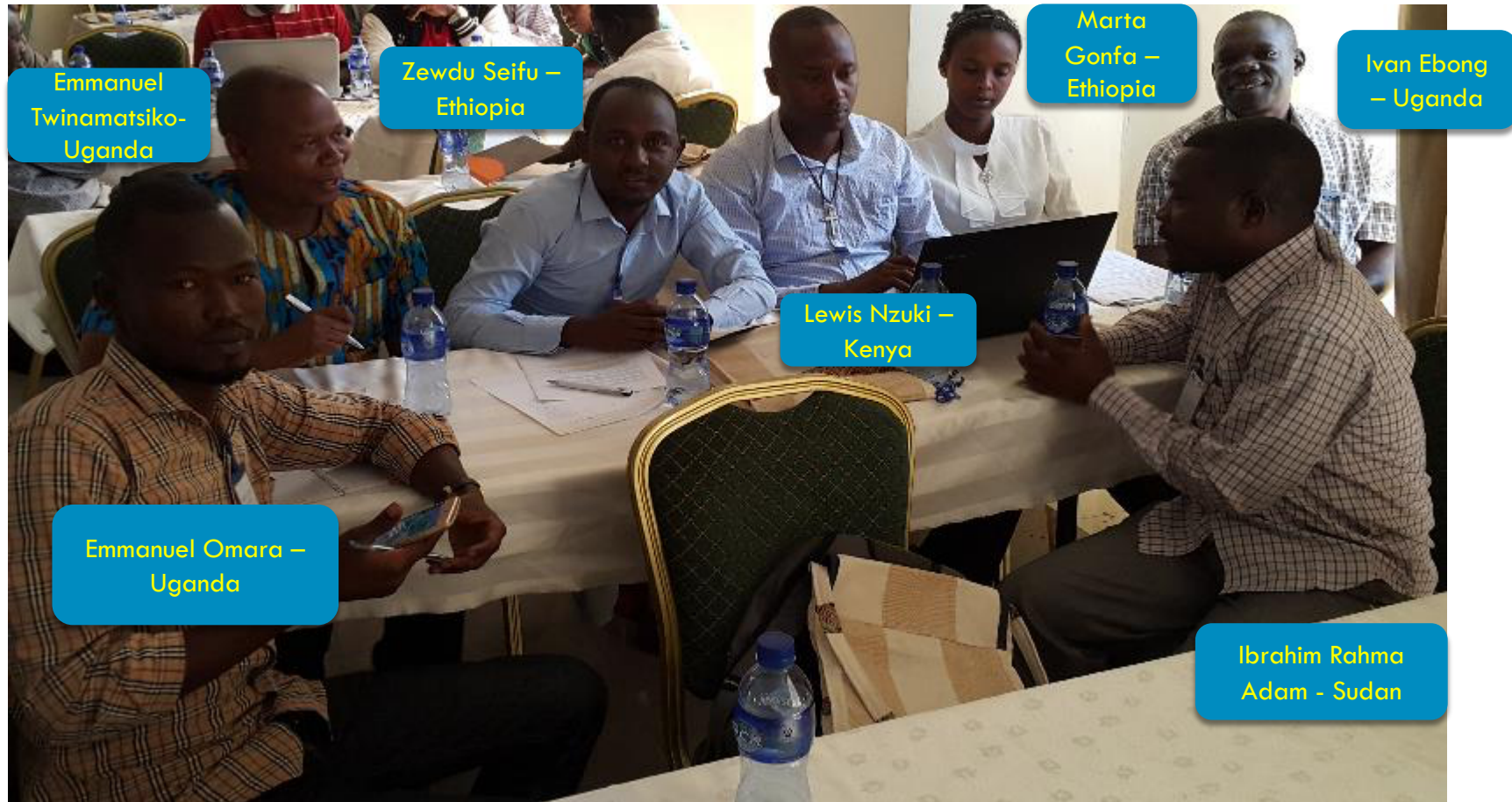
# ROADS FOR WATER SECURITY WATER FOR ROADS SAFETY

## RHINO'S FIELD REPORT @ TIGRAY-ETHIOPIA

*By: LEWIS NZUKI  
Feb.2017*

# RHINO GROUP MEMBERS PHOTO

2



# Observation (Day 1 & 2)

3

## **Day 1: Enderta Wereda district, at Felege selam**

Tree planting on slopes and along roads for water shed management

Stone bund along the contour

Series of earth dams to reduce run off and encourage ground water recharge

Slope protection using trenches excavation

Irrigation fed agriculture through gravity system

Culvert water diverted for ground water recharge and reduced run off using stone bunds

Community mobilized for voluntary participation in conservation work

# Cont'd

4

## **Day 2: Wukro- Abreha Watsbeha area and Hawzien- Freweign**

Series of check dam to control run off and recharging of ground water

Collection of silt from run off for manuring and improve soil fertility

Irrigated agriculture practiced also with 3,000 fruit trees planted and bee keeping

Enhance biodiversity with wetlands creation

Stone bunds along the contours

Sandwich check dams using local material and plants

Water banking and integrated smart farming from champion farmer

Road water harvesting including use of pits to recharge the wells

Church hewn on a rock at Abraha we asbehe and first mosque away from mecca at Negashi

Bridge under renovation and the road works



# strengths

5

National policy on water banking and policies formulated on community mobilization for conservation is a show of Government commitment.

Land owned government with community cluster settlements organized.

Low cost undertaking since the conservation is voluntarily done, local knowledge and local materials availability.

Needs based approach to community development.

# Community involvement in development

6



# Weakness

7

Lack of proper technical assistance in the construction of structures may lead to structure integrity compromise.

Inculcate other players in the projects execution like health and agriculture departments. Notice the sustained lack of sanitation as well as tomato crop failure due to blight.

Open water bodies could be breeding areas for vectors and diseases like mosquitoes, bilharzia, cholera e.t.c

Use of cow dung as cooking fuel as opposed to fertilizing the land

Use local native species of plants in the conservation of water shed.

Mechanization is lacking.



# Roadside water storage structures

8





# Eroded structures

9



# Opportunities

10

National policy on water banking and policy formulation on community mobilization for conservation is a Government commitment.

Several organizations apart from the government that assist in this initiatives.

Availability of land, local material and voluntary labour.

Large scale farming opportunity

Investment in renewable energy especially solar and biogas



# Initiatives on water banking

11



# Risks

12

Open burrow pits full of water and other large water storage structures could be a danger to the children and animals.

Risk of ground water contamination from use road water as well as lack of proper sanitation.



Unfit t-shirt / Assistance—— lol



Now it is fit :))



**Fighting to reach to the top**  
**/phase 1/**



**Keep going men — /phase 2/**



**End**

Asanteni Sana  
Ameseginalew  
Yeken-yeleye  
Thank you