## Site Briefing: Land Husbandry, Water Harvesting & Hillside Irrigation Project (LWH)— Nyabihu Site

Location	Nyabihu, Rwanda (about 25 minutes from workshop hotel)
Sector	Agriculture
Agricultural Context	Rwanda is a hilly country with 90% of the population dependent on agriculture for their livelihoods. The rural population density is on average 416 persons/km2, making Rwanda one of the most populated countries in Africa. Farm sizes average only about 0.6 ha, often fragmented amongst several parcels; many households manage as little as 0.4 ha; production is generally for subsistence targeting the household's own food consumption.
	Population pressure has encouraged people to move on to steeper slopes making agriculture difficult. Lands of 16 – 40 % slope cover nearly 45 % of the country. Moreover, the country loses approximately 1.4 million tons of fertile soils per year due to soil erosion. Soils moreover are often excessively acidic and have limited water holding capacity/high infiltration.
	While slopes in some hillside areas exceed recommended slopes for cultivation, population pressure compels their cultivation. This causes severe soil erosion and yields decline. In order to sustain cultivation and productivity on such steep-slopes, considering soil conservation measures such as land husbandry become a necessity. The government has targeted increasing productivity in these areas and bring abandoned areas back into productive use.
	On the other hand, Rwanda has 589,713 ha of irrigation potential out of which 63% is on hillsides (Rwanda Irrigation Master Plan, 2010). Annual rainfall ranges between 700mm- 1600mm, which is divided between 2 rainy seasons (February-May and September- December). Production is severely affected, both in terms of quantity and quality, by lack of water for crops during the dry seasons. Farmers inform that production could have doubled and vigor of their crops improved if they were able to use irrigated agriculture. However, hillside-irrigation has been insignificant in Rwanda.
Project Overview	Funding: Multi-donor basket funding as follows: GoR (US\$7.33 Million), World Bank IDA (US\$34 Million), Global Agriculture and Food Security Program (GAFSP) (US\$50 Million), USAID (US\$13.265 Million) and Canadian CIDA (US\$7.8 Million), totaling US\$112.4 Million.
	Performance period: June 2009 thru December 2015 (expected close).  Overview: LWH is a Government Project under MINAGRI in Program 1 in the new Sector Wide Approach (SWAP) structure aimed at increasing the productivity and commercialization of hillside agriculture. It utilizes a holistic approach of land-

husbandry, water-harvesting and hillside irrigation (LWH). The project implements a comprehensive watershed approach (but adaptable to the particularities of each site) to facilitate soil erosion control and increase land productivity.

The Project uses several techniques and technologies in land management through developing appropriate land husbandry practices on both rain-fed and irrigated area and provides modern agricultural techniques for higher production of annual and perennial crops.

Project activities include extensive community sensitization and participatory approaches. Communities are further supported to form self-help groups based on land proximity which after their maturity form a business oriented cooperative. A wide range of capacity building programs are carried out for farmers themselves and their structures as well as other institutions that support agriculture like Districts, financial institutions and the private sector. With the current financing, the project will target about 12,940 ha for land husbandry and 1,865 ha for irrigation.

## Project Activities:

- LWH has piloted different techniques on three ecological zones in the sites of Karongi-12, Karongi-13 in Western province, Nyanza 23 in Southern province and Gatsibo-8 Eastern province.
- After successful first-round implementation, the project scaled up its intervention
  to 3 mores sites of Rwamagana 34 and 35, and Kayonza 4 in Eastern province in
  March 2012. In September 2013, the project rolled out its intervention in
  Northern Province in both Muyanza and Gicumbi sites of Rulindo and Gicumbi
  Districts. So far, the project has over 22,689 families (over 100,000 people)
  benefiting from the Project activities.
- Strong farmer groups were formed in these sites and trained on the subjects of agricultural technologies, post-harvest handling, marketing, business planning, compost making, tree nursery maintenance and saving.
- These groups have now formed cooperatives in different sites which are now linked to financial institutions and are enjoying financial services for agriculture value chain. Farmers in project areas are now working with 21 financial institutions which has significantly improved financial literacy, saving and input financing.
- Yields of different crops have tripled and in some areas like Karongi increased 5 times after the land treatment. Farmer net income from sales has also tripled as farmers now market 74% of their produce from 30% before the project.
- Post-harvest infrastructures have been constructed to minimize post-harvest losses and improve the quality of produce.

## Nyabihu site visit

- The visit will start from the Sector Office (where the LWH offices are located) which will include few minutes of introduction with the Executive Sector, and a presentation of the project before going on the sites.
- The visit will include a visit (or observation) of activities of land husbandry (erosion control through radical terracing) and water ways.
- The site is still being developed, we will see interventions-in-progress, including a closer view of irrigation channels and the construction of the hillside irrigation

system. NOTE: requires ~10-min walk on to hillside. Sturdy shoes required; the hike can be slippery!

## **Photos**



