



National Agricultural Research Institute
PMB 526, Serrekunda,
The Gambia, West Africa
Tel: (220) 484 931 (Office), 484 925 (Director
General)
Fax: (220) 484 921, E-mail: www.nari.gm

SUMMARY REPORT OF ITC, NARI AND DLS COLLABORATIVE ACTIVITIES

1 Integration of moringa-horticulture-livestock schemes in the Greater Banjul Area

Research and development activities in The Gambia resumed in September with the strengthening of the horticulture-livestock integrated systems available in the Greater Banjul Area of The Gambia.

After an initial mobilization and sensitization period (September and October 2009), the women in Banjulinding and Lamin Horticultural Gardens constructed two housing units capable of accommodating at least 20 micro-livestock units such as rabbits and/or grasscutters at their own expense.



Micro-livestock housing unit at Banjulinding Horticultural Garden

Results obtained as the women in BHG were further encouraged to embrace integrated approach to urban farming as the rabbits were maintained solely on the residues generated from the garden's horticultural activities with remarkable success in terms of increased income for the women farmers. However, all efforts made to encourage an integration of moringa cultivation into the existing farming system in the garden did not yield the anticipated results. The report of a sociological study on the non-adoption of the moringa technology in BHG that was conducted in the last quarter of 2008 showed that the observed non-adoption of moringa technology by the women resulted from the non-devotion of adequate time for moringa cultivation as well as the availability of many suitable alternatives to moringa as livestock feed in the garden. While the promoted integrated approach to urban farming succeeded in BHG, discouraging results were obtained in the other intervention sites; Lamin Horticultural Garden (LHG), The successful integration of the by-products generated from the farming activities in BHG with rabbit production with the resultant positive impact on the income generation potential of the group was empirically confirmed by a consultant's report in the last quarter of 2008 on the economic assessment of the rabbit/horticulture integration efforts.

Arising from the difficulties that were encountered in integrating moringa cultivation and micro-livestock husbandry into the women gardens in

Banjulinding, Lamin and deliberations on the matter during the visit of Dr. Francois Gasengayire, attention was shifted to women groups with small ruminants in addition to their gardening activities and who were willing to establish moringa feed gardens. This was in response to one of the minimum conditions recommended for the project to move on along the right track. The other recommendations included a packaging of moringa conservation technologies for effective transfer to the appropriate targets, and the conduct of a study on the apparent non-integration of moringa by the Banjulinding Women Horticultural Garden into their farming system. Five new farmers' groups in Koubariko and Mandinaba in the Western Region, as well as in Kerr Njarga, Jamagen and Sambakalla in the North Bank Region of The Gambia, were selected for the promotion of the moringa technology after initial exploratory visits which were followed by data collation on the identified groups, their screening for suitability and a consultative meeting with the short-listed groups in the third week of October 2009.



Field visit during consultative meeting with women farmer groups



Group photograph with women farmer groups after consultative meeting

About 500 multi-nutrient blocks were produced on-station for promotional activities to encourage their adoption by the new farmers' groups. In promoting the moringa multinutrient block formulation technology among the newly-identified participating farmers' groups, three steps were adopted namely; sensitization of the farmers on the benefits inherent in the utilization of the blocks, particularly as dry season feed supplements for their small ruminants, animal health-related programmes so that the full benefits of the moringa multinutrient block supplementation efforts can be evident within a reasonable period, and about 100 moringa multinutrient blocks were given to each farmers' group in the third step for animal acceptability and performance trials, monitored over a period of four months, between March and June 2009.



Moringa multi-nutrient block presented to women in Mandina Ba



Women farmers in Kubariko receiving moringa multi-nutrient blocks



Animals taking moringa multi-nutrient blocks before being released for grazing in Mandina Ba



Animals being released for grazing after supplementation with moringa multi-nutrient blocks



Weighing of animals during weekly monitoring of moringa multi-nutrient block evaluation.

Growth rates ranging from between 28g/day and 35g/day were observed between March and June 2009 before the commencement of the 2009 rains. These rates compared favourably with reported growth rates for sheep and goats on supplemented diets in the tropical region.