Improving access to timely and quality sweetpotato vines in Tanzania

SASHA
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Six months after the end of the project Decentralised Vine Multipliers (DVMs) continue efforts to respond to the need for quality vines in their communities and see opportunities for additional income from vine and root sales.

Discussing the results of the QDPM inspection Nungwe, Geita, Tanzania (credit: Margaret McEwan)

What was achieved?

Access to timely, quality sweetpotato planting vines in the Lake Zone of Tanzania can improve food security and nutrition, especially during times of drought, crop disease, and hunger. The Marando Bora project was operational between October 2009 and September 2012. The project established and trained 88 decentralized vine multipliers (DVMs) and an estimated 110,000 farmers received quality vines, the majority of who were women.

A survey of DVMs was conducted as part of the end line survey. This brief provides preliminary findings on whether the DVMs were continuing after the end of the project, reasons for continuing or not continuing vine multiplication, use of different technologies which had been promoted by the project; feedback on varieties preferred by the DVMs and their clients; and feedback on participation in the pilot quality declared planting material (QDPM) inspection scheme.

The project worked in twelve districts in Mwanza, Mara, Kagera and Shinyanga Regions of Lake Zone, Tanzania. Catholic Relief Services (CRS) was the in-country lead, working with BRAC, KIMKUMAKA, RUDDO, TAHEA and research and local government extension services to support the training and establishment of DVMs.

What have we learnt about working with decentralised vine multipliers?

Ensuring women participate as DVMs

A total of 88 DVMs were established under the project -72% DVMs were working as a group and 28% were individual DVMs. After the first year of project operation, implementing partners had made efforts to include additional group DVMs as a strategy to ensure that more women farmers were involved in vine multiplication enterprises.

The study found that a total of 940 farmers were members of the group DVMs, of which 51% were female farmers, 39% were male and 10% were youth (under 30 years old). 68% of the groups had 50% or more women. Thirty per cent of the group DVMs were officially registered with the government. Among the individual DVMs 28% were women and 72% men.

It may be easier for women farmers to engage in vine multiplication as an enterprise through group activities; however it is also recognised that internal group dynamics will influence how sustainable the vine enterprise will be in the future.

Technology use

The intervention ended in June 2012. Of the 61 DVMs who were multiplying as of March 2013, 34% were using the rapid multiplication technology (RMT); 61% were using conventional spacing to obtain roots and vines and 5% were using both technologies.

It appears that a higher percentage of female group DVMs[1] compared to male group DVMs were using the RMT of close spaced planting in beds. The practice of using conventional spacing to produce both roots and vines is a strategy which spreads the risk for the multiplier, especially where the market demand for vines is unpredictable.

[1] Female group DVMs are those groups with more than 50% of the members being women.

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MARANDO BORA
MAVUNO ZAIDI

Partners include:

- Catholic Relief Services (CRS)
- Kituo cha Mafunzo ya Kuboresha Mazingira na Kilimo Adilifu (KIMKUMAKA)
- Rulenge Diocesan Development Department (RUDDO)
- Mogabiri Farm Extension Centre (MFEC)
- Misungwi Rural Housing Project (MRHP)
- Diocese of Shinyanga (DOS)
- Tanzania Home Economics Association (TAHEA)
- Buhemba Rural Agricultural Center (BRAC)
- Lake Zone Agriculture Research and Development Institute (LZARDI)
- Mikocheni Agriculture Research Institute (MARI)
- Helen Keller International (HKI)
- Natural Resources Institute (NRI), UK
- International Potato Center (CIP)

97% of DVMs irrigated their plots with the majority using watering cans and buckets. 23% used motorised pumps and 12% used treadle pumps. 87% used fertiliser (organic and inorganic) during the project period with 26% continued to fertilize after the project finished. It also appears that a higher proportion of the female group DVMs compared to the male group DVMs used fertiliser during the project and continued to do so afterwards.

44% of all the DVMs considered "Polista", a popular local variety that was cleaned up, to be the most productive variety, followed by Kabode (17%), a new orange-fleshed variety, and Ukerewe (15%), another popular cleaned-up local variety. A minority of DVMs considered Jewel and Ejumula, both orange-fleshed, as the most productive.

Knowledge and learning

During 2012, DVMs reported that they had been visited by an extension agent four or five times on average. The most useful advice received related to weeding to keep multiplication beds clean, followed by guidance on bed preparation, and rouging to remove diseased plants. The Buselemi Group, in Geita District explained: "we didn't know that even sweetpotato have diseases; we learned about planting spacing and to cut short vines for planting".

A community-based, quality declared planting material (QPDM) inspection scheme for sweetpotato was piloted with a sub sample (12%) of DVMs who reported the following advantages: production of healthier planting materials, production of vines free from pests and disease, identification of pests and disease, production of marketable vines and guing of diseased plants. No disadvantages were reported in relation to inspections and all DVMs were interested in continuing the inspections.

Voucher system

DVMs were key actors in the voucher system, whereby vulnerable farmers received vouchers which they could exchange for vines at a subsidised price. 60% of the DVMs reported that there were no disadvantages to the voucher system. The Nyakiumwa Group, in Geita District stated: "For the group the system was good because every member was aware of the number of vouchers used so there was no cheating for members". The main disadvantages reported were that farmers were "not used to buying vines", late payment or reimbursement for the vouchers, lack of sensitisation on the voucher system and inconsistent voucher availability.

Will decentralised vine multiplication be sustained beyond project intervention?

84% of all DVMs stated their intention to continue. The survey data were analysed to confirm whether intention to continue multiplication was actually followed through in practice. This variable identified those DVMs who stated that they planned to continue and how many actually had multiplication beds in the season immediately after the project intervention had finished (i.e. July-December 2012). In practice in the July – December 2012 period 46% of the group DVMs and 42% of the individual DVMs had actually multiplied and overall, 44% of DVMs were multiplying for sale. Interestingly a higher proportion of DVMs (69%) were multiplying while the survey was being conducted (March 2013) i.e. nine months after the project intervention finished. This highlights different intentions depending on the season (short or long rains); and practices i.e. for vines only or for root and vine production.

There were 19 cases where the DVMs had temporarily stopped due to various reasons but were intending to restart either for their own use or for sale. Their reasons included the need to identify a different site for multiplication, group dynamics and family circumstances or that group members were multiplying individually for their own use.

The reasons for completely abandoning multiplication were as follows: wild-life damage; flooding or lack of a good source of water; group dynamics causing the group to disband; voucher reimbursement issues; local tradition and culture is not conducive to vine sales; the community thinking that the cost of vines should continue to be subsidized or that there is no market for vine sales without vouchers.

The main reasons noted for continuing multiplication were that the need for "marando bora" in the community was high, and that there could be income generation from roots and vines. Mr. Kibipi, Chair of Tunyenye Group reported: "Through the inspection I rejected the diseased plants and distributed only the healthier ones; sweetpotato vine selling is like an employment, we can't leave it, it pays!

Vines = Money. DVM price board includes the price of marando bora (7,000 Tsh /sack $4.5 for 1,000 vines) Tunyenye Village, Sengerema, Tanzania (credit: Margaret McEwan).

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