**AMIT PERFORMANCE TEST**
**IN**
**MASVINGO PROVINCE**
**ZIMBABWE**

# THE MICRO VOICES

***At ITDG Mutare office, see the BUCKET KIT irrigating flowers in 2000***

***Does technology work to reduce poverty?***

ITDG Southern Africa is facilitating field-testing of AMIT kits in Zimbabwe's Masvingo Province. Twenty drum kits were distributed to farmers in Chivi, Bikita, Zaka, Masvingo, and Mwenezi Districts in the year 2000. Ten others were distributed to secondary schools in Chivi District. The purpose of the research is to identify and address constraints to adoption of low-cost, improved, non-surface irrigation technologies by resource poor farmers on a commercially sustainable basis. The overall goal is improved availability of water for sustainable food production in semi-arid areas.

***The DRUM KIT irrigating a just planted crop of tomato at Mrs. Gwatinetsa's homestead.***

***Mr. Gore made a technical loss!***

"I did not know that it supplies insufficient water for crop establishment. I had bought tomato seedlings in Zvishavane, 25 km away. This row immediately in front of me was a complete failure. I have now resorted to watering with the can during day time and I run the kit once at night just for the sake of utilising it. But I have already made a loss".

*Mr. Gore is one of the farmers in Chivi who does his gardening on heavy anthill soils. Crop water requirement is very high on these soils. Mr. Gore used the kit with inadequate information about the water requirements of tomato on such soils.*

***Mr. Gore explains his misfortune***

***Mai Ndigwirei demonstrating how she unclogs a blocked micro-tube by sucking***

***The Technology is laborious!***

"Never leave the kit running unattended. You risk fooling yourself that every plant is getting water. I draw clean water from a borehole, but I wonder why my emitters get blocked so often. I therefore spend more time attending to these emitters than I do when I use my can. It has actually become a liability to my production programme".

*Mrs. Ndigwirei is a primary school teacher at Chigwikwi in ward 4 of Chivi District. She walks to school every morning. She substitutes her income with market gardening, which she does very early in the morning and late in the day after school. By using the AMIT kit she had hoped that she would fill the drum very early in the morning and late in the day so that it runs whilst she is at work and asleep. Blockage of emitters did not allow her to do that.*

"If it had worked properly on this experimental plot, I would have wanted to buy five such kits, then I would be home and

***Mr. Mangwiro comes to the garden three times a day.***

### *You go there thrice a day!*

*Mr. Sifelani Mangwiro's garden is a diatance away from home. He fills the drum twice a day. He also needs to secure the kit at the end of the day as he fears for theft. He therefore makes three trips to the garden a day. This is what he said:*

"The kit is good for me. I am impressed with its performance. But it takes too much of my time from home. There is need to increase the capacity of the drum to something that is not easy for thieves to carry. These drums are used for home-brewing".

### *Filling the drum is a challenge for women!*

*Mrs Magwizi has a borehole in her garden. She uses a 20-litre bucket for watering. She has two major challenges*

"I use a lot of energy to draw water from the borehole into the bucket. I also need to lift the bucket close to eleven times about two metres high to fill the drum, doing that twice a day. It is a real challenge. You cannot delegate children to fill the drum – it's too high for them. There is really need for better ways of filling the drum".

*Mrs. Magwizi filling the drum*

***Mr. Mangwiro's stick innovation***

***You need to be innovative***!

"You really need to be innovative in order to make profit with the technology. I had to lay the laterals on sticks to minimise blockage of the micro-tubes. It really has saved me this season as compared to the previous one".

*Mr. Mangwiro's innovation was also adopted by Mrs. Magwizi and Mr. Pikirayi. They also considered it vital in minimising blockages.*

***Towards destructive innovation!***

*Assume Mr. Mangwiro was going to irrigate three hectares, what would be the extent of damage to the young forest?*

***Let's make a closer look at Mr. Mangwiro's innovation and relate it to good environmental management practice.***

***Mrs. Kuuya is feeling sombre after losing out the better proportion of her tomato crop to poultry***

***You really need a fence!***

"I cannot put it in the main garden which is three kilometres away from the homestead because it will be stolen. Here at home the whole crop was destroyed by poultry. There is strong need for a fence if ever I need to continue testing the kit next season", *said Mrs. Kuuya whose tomato crop was almost completely whipped off by poultry soon after planting.*

***You cannot grow four around a micro-tube!***

*Mr. Tapera, a teacher at Chinembiri Secondary School in Chivi had this to say:*

"Sure, you cannot grow 4 plants around each emitter, they will starve because Chivi is hot. You would rather need to significantly reduce the spacing of the emitters so that you increase their number".

***Mr Tapera, an Agriculture Teacher is worried about the spacing***

### *AMIT – Who Afford?*

*Mr and Mrs Ndlovu are both retired teachers. Most of their children went to university and other tertiary colleges. They now live on farming, but get a lot of income as remittances from their working children. In a wealth ranking exercise that was facilitated by ITDG in 1994, they were classified among the richest in ward 4 of Chivi district. They spent about Z$12000 fencing the experimental garden. They had a very wonderful crop under AMIT kit, better than the control plot. Their main worry was not the performance of the kit, but the limited economies of scale when using the kit. The question is "will the poor afford AMIT, let alone the poorest of the poor?"*

***Mrs. Ndlovu fenced the experimental garden***

***Mrs. Ndlovu's sweet cabbage in the control garden. The experimental garden had a better crop than this in both quality and quantity.***