

# Maendeleo ya TIP

5th Edition February 2004

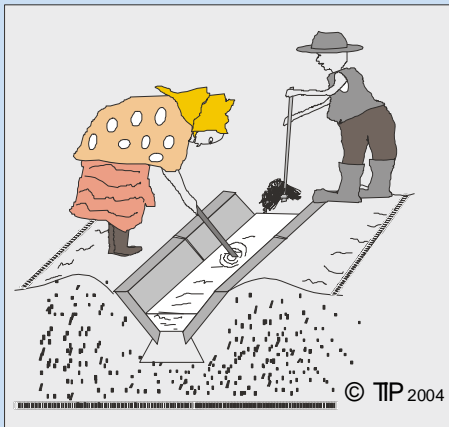
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## "Clean Canal Carry More Water": The Need for Good Maintenance

*"by Jan Moejes"*

Over the years, TIP has become well known all over Tanzania. Some schemes that have been assisted by TIP receive many visitors every year. The visitors may be farmers from other parts of Tanzania, but also from other countries in East Africa. Other important visitors are the donors that support TIP in helping traditional and small-scale irrigators.

The Chinese say, "a picture is worth a thousand words", meaning that, it makes a stronger impression



when you see leaves than what you can read from words alone. Visitors will remember much better what they see

and observe in your scheme, than what you can tell them. And what is it that they will see? Are the terraces level and strong, are the fields clean, or full of weeds, are the canals clean, or full of grass and with broken banks?

The maintenance of the scheme provide the first impression of a scheme to visitors. Maintenance reflects the strength of the scheme organization, and the commitment and sense of ownership of the farmers. Exporters, for example, prefer to deal with farmers that have clean and well-maintained farms, because they can see that these are serious and hard working farmers who are proud of their farms, and will grow good quality crops.

Regular cleaning and repair of canals is needed to limit loss in irrigation water. Weed growth and sedi-

ment in the canal will reduce the flow of water. Low and narrow canal banks, and poorly closed farm off-takes cause water losses.

What is needed for good maintenance? In the first place time and labour. Regularity is important here. Frequent maintenance will keep the irrigation system in good shape, and requires less work. It is good habit to work on the canal system once a week.

Secondly, some money will be needed for repair work on the structures in the irrigation system. Here it is important that the Water User Group has a bank account. Farmers pay their fees whenever they are able to, and money is kept in the bank until it is needed for repair work.

Thirdly, a good scheme organization is important. The WUG needs to have clear by-laws on maintenance and maintenance fees. The scheme committee has to carry out regular maintenance inspection of the irrigation system ( in some scheme this will also include the drainage system). The scheme committee should have power to impose fines on farmers who do not maintain their part of the irrigation system, as poor maintenance in one part will affect farmers in another part of the scheme.

A well-maintained irrigation system will impress visitors, will make you feel proud, but above all it will help you as a farmer to produce more, because clean canals carry more water.

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## **Producer Empowerment and Market Linkages In Arumeru District**

*“by Loyce Kaitira”*

Traditional Irrigation and Environmental Development Organization (TIP) has become one of the Partner Agencies to facilitate the implementation of Agricultural Marketing Systems Development Programme (AMSDP) in Arumeru District, Arusha Region. The programme has been designed to integrate smallholder farmers, small-scale traders/processors into the rural market economy and increase returns from agricultural produces and other market related activities. Specific objectives of this program are:

(i) To enable small holder producers to increase and diversify production and to more actively participate in an improved marketing system

(ii) To facilitate the provision of incentives for small and medium scale entrepreneurs to operate in rural areas and interact with smallholder producers

In collaboration with Arumeru District officials, TIP will facilitate implementation of component two of this developmental programme namely, **Producer empowerment and market linkages**. The support to smallholder farmers and small-scale traders/processors will be principally through groups, which will be organizationally strengthened before the commencement of marketing activities. Field based activities will take place in selected focal areas in the district.

For the period January to June 2004, TIP will do the following activities:

(i) Identification of existing groups and formation of new groups for smallholder farmers

This will be done at the selected focal areas using secondary data and mobilization meetings. The selected groups will be subjected to PRA process. PRA will explore problems, opportunities, group initiatives and strategies to address identified problems within their localities.

(ii) Group specific implementation plan

The groups will be facilitated to come up with a work plan. The work plan will be used as a guideline for preparation of a group based proposal. The proposals will clearly stipulate the group's weaknesses, threats, opportunities and future plans.

(iii) Training design

The existing training modules will be updated to suit the groups' need according to the PRA and group based proposals. This activity will be done in a participatory way, involving the PA and other collaborators. Handouts, manuals/modules and timetable for specific training will also be developed.

(iv) Identification/formation of trader/processor groups

Following sensitization meetings, groups of traders/processors will be identified/formed. The groups will be supported in relation to their priority needs. The identified groups will be trained in business awareness and thereafter conduct a market research. Then they will be linked to potential producers and processors in order to establish a forward and backward market linkage.

**Let us cross our fingers for the success of this Programme in Arumeru!!**



**Your mail box**  
 Have your suggestion, comments, stries and ideas printed!!  
 Send them to us with your fullname and address to our  
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### **ACKNOWLEDGEMENT**

TIP would like to express its  
 Gratitude for funding recently received from NOVIB,RNE, EOJ and  
 UNDP for implementing various projects proposed by the communities  
 where TIP intervenes

## LAND CONSERVATION IN IRRIGATED CROPLANDS UNDER TIP

*“by Peter Mjata”*

Soil and Water Conservation - SWC has been one of the main components in TIP interventions for improving traditional irrigation systems before the engineering construction works starts.

SWC and afforestation is applied to ensure a long period of soil moisture for plants and other living organisms in the soil. SWC and afforestation is also sustaining water use efficiency when irrigating and thus increasing land productivity.

Before application of the SWC and afforestation component in an area, through participatory approaches, technicians from TIP together with the farmers observe and discuss the common land management measures in the area, the traditional local materials and the indigenous technical know how that are in use for managing the irrigated land in an area. Also, they make a soil and landscape (slopes) survey of the irrigated crop farms in the area. This is to enable them develop together better measures for managing land for an improved irrigated crop farming in the area.

After the observations and discussions, TIP organizes trainings for Village Technicians in agronomic measures including land conservation through physical construction, biological and supplementary measures.

The trainings involve farmer exchange visits and establishment of demonstration plots for the trained fields. Farmer study visits and establishment of demonstration plots is expected to give farmers an opportunity to develop, modify and or improve their indigenous land management know how and the commonly used traditional land management materials in a sustainable and more economic way.

The expected results or outcomes from such undertakings include prevention of the land under irrigation from accelerated surface erosion, conservation on soil moisture and soil conservation in the irrigated land, maintaining quality performance of the engineering irrigation infrastructures as well as ensuring sustainability of the whole traditional irrigation improvement intervention.



*Farmers of Heigugu WUG in Mwanga District establish and run home stead tree nurseries for multi-purpose trees after attending the SWC training.*

### **Avoid AIDS to Develop Your Economy**

**The effect of HIV/AIDS is death and manpower reduction which is important in developing our economy**



**HIV/AIDS is a threat to your life**



TIP stands for the Traditional Irrigation and Environmental Development Organization. TIP has been registered as an NGO in Tanzania since August 1999. The NGO was established to institutionalize the achievements and experiences of the previous TIP programme (1988-2000) and to ensure the continuation and quality of its integrated approach- the TIP Package. TIP provides services to farmers through Water User Groups, NGOs, and donor-funded projects to achieve the improvement of traditional and small-holder irrigation based on sustainable use of land and water resources.

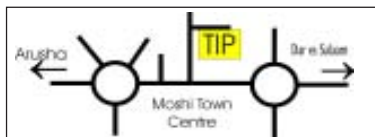
**TIP  
YOUR PARTNER  
IN  
DEVELOPMENT**

The objective of the organization is to improve the standard of living of the community in traditional irrigated areas in Tanzania using a gender balanced perspective in the context of sustainable development of catchments with regard to irrigation, natural resource management, soil and water conservation, afforestation and organizational development.

The target group of TIP is the small-scale farmer (female and male) living in the catchment areas of the traditional irrigation systems in Tanzania.

The TIP package consists of four main components:

- Organizational Development and Gender
- Participatory Land Use Planning
- Market Access & Agro-enterprise Development
- Irrigation Improvement



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## TIP's New Product development

*“By Eng. A.L Maro”*

TIP has developed a new innovation of using closed pipe system instead of open irrigation channel system in the transport of irrigation water for the following reasons:-

- a) To minimize water losses in the conveyance system
- b) To increase irrigation efficiency.
- c) Marching the topography with the appropriate irrigation method that does not cause soil erosion.

For irrigation systems with discharges ranging from 5 – 20l/s, to transport such small volumes in an unlined canal is uneconomical due to huge water loss. Furthermore, as most of TIP areas are in the highlands, the design takes the advantage of difference in elevation between the intake and the irrigated fields.

The cost per meter of lined canal whose capacity is 20l/s is 18,000/= . But if PVC class ‘B’ pipes are used the cost reduces to 7,000/= . This new system was successfully tested in Chome Catchment, Same district and Mlombola, Mwanga district.

Farmers contributed to the cost of installation of the pipes by purchasing outlet fittings as well as construction of individual water storage ponds.

**Results:**

- i) There was recorded increase of irrigated area of 14 acres in Mwanga and 5 acres in Same after adopting pipe conveyance system.
- ii) Productivity per unit area has increased by 20%.
- iii) There has been an increase in irrigation efficiency from 30% to 65%.

