

River Diversions

Who should read this page?
Investors, NGO's, private companies interested in supporting small-scale agriculture.

Community managed river diversion (CMRD) schemes are a traditional irrigation method. They are usually temporary or semi-permanent dams and earthen canals that divert surface water from rivers.

CMRD schemes are managed by farmers without external support. They are often characterized by poor infrastructure and water management, leading to low yields. Where river diversion schemes have been improved, the farmers earned considerably more than those in unimproved schemes.

There were also differences in yields even between plots in improved schemes suggesting that infrastructure alone is not sufficient. Farmers also need to be given advice on irrigation and agronomic practices, as well as types of crops to grow if they want to market their produce.

Farmers also need microcredit to enable them to take advantage of the opportunities offered - to buy seeds and fertilizers, and to develop the irrigation infrastructure that brings the water from the feeder canals to their fields. Such credit facilities are often lacking.

Tanzania - CMRD

How to Support

Expand and improve infrastructure, concentrating on off-takes and main canals. This can be based on models used by IFAD's smallholder paddy rice irrigation project in semi-arid and marginal areas, and the World Bank's River Basin Management and Smallholder Irrigation Improvement Project (RBMSIIP).

Improve on-farm management and income by enhancing extension services and offering training in on-farm water management, farming practices, book-keeping and marketing. Innovative approaches such as practiced by Kilimanjaro Agricultural Training Centre (ATC) show that improving the information given to farmers can lead to yield increases of 30-75%.

Facilitate infrastructure improvements and investment in better farming practices, strengthen micro-credit facilities, by separating savings and credit cooperative organizations (SACCOs) from the banking system, investing directly in credible SACCOs and enforcing transparent lending terms. A micro-credit organization in Mkindo is experimenting with delayed bulk selling - they give credit at the beginning of the season and farmers repay the debt in bags of paddy. The organization stores the paddy and sells later in the season when prices are higher.

Where to Invest

In Sub Saharan Africa, there is good potential for expansion of community managed river diversions in terms of application area and rural population reached.

The main constraints however, are the limited availability of runoff, and the relatively high cost of investment. You can find out more about suitable areas for investing in this brief.

Regional Analysis

