Water harvesting in Kenya



Water harvesting scheme layout of fields below a rainfed gulley near Lokitaung



Building walls around the fields

"The desert and the parched land will be glad; the wilderness will rejoice and blossom. Like the crocus, it will burst into bloom; it will rejoice greatly and shout for joy". (Isaiah 35:1,2).

Isaiah's prophetic words hit me on a visit to Israel in the early 70's. I had heard about a system of farming practised by the Nabateans in the Negev desert during the Byzantine period (circa A.D. 330 - 630). South of Beersheba one of the old Nabatean farms had been rejuvenated and was being used to demonstrate that without power driven pumps and irrigation equipment it was perfectly possible to grow crops and fruit trees in the desert. The system used rainwater which, perhaps for only a few hours in a year, flowed down from the hills into gullies and was normally lost. The Nabateans however channelled this water into fields surrounded with low stone walls and, once the water had soaked into the ground, planted their crops. So long as the soil was deep enough it could store enough water to provide for the crop until it was mature. Here before my eyes was the fulfilment of Isaiah's prophecy. The Salvation Army had a feeding centre and primary school

at Lokitaung in Turkana, northern Kenya. It was a harsh area of desert and scrub but I had

seen sites where I thought the system could work. With funding from World Vision we were able to support а volunteer, Francis Hillman, the son of missionaries, came and worked with the Turkana people to try the system Traditionally out. the people planted crops of sorghum along the banks of the one river that flowed through the district once the water had subsided after the annual



Rainwater flowing from field to field

rains. Francis provided food for work to build the walls and get the channels ready for when the rain would fall.



Harvesting sorghum from one of the fields

I remember arriving one year just as the rain fell. Turkana, like the Negev, only received one or two showers heavy enough to produce runoff in a year. I was able to see the rain water flow off the hillsides into the gullies prepared and then flow from field to field over foot high spill ways. It was a wonderful sight. Was the soil deep enough to store enough water for the crops ? The sorghum seed was planted as soon as the soil was dry enough. The little plants came up and were weeded. They grew and flourished and later I went back and was able to see the crop being harvested.