

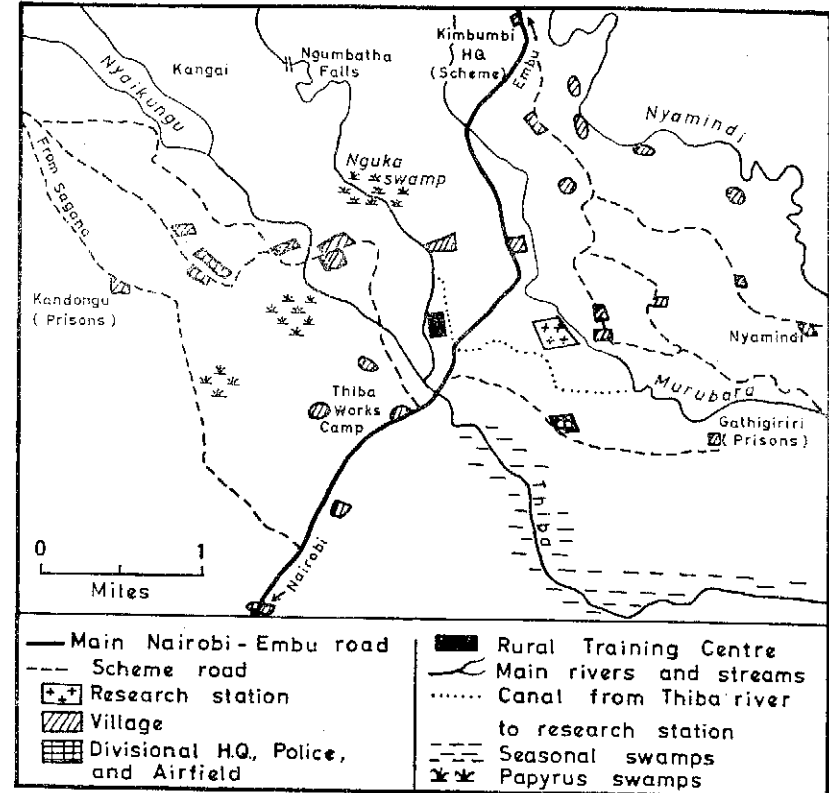
In 1960 the scheme became fully operational and hand cultivation gave way to mechanical cultivation. Since then the scheme has passed from the experimental phase and is now realizing an operating surplus of about £20,000 per year.¹ The scheme is thus on a sound financial footing and this quick success is attributable to the facts that the topography of the Mwea-Tebere plains does not require expensive water storage facilities, that the tenants have accepted a high standard of discipline so essential for the success of such an expensive project, and that high prices have been paid to producers by restricting imports of cheaper rice from Tanzania and from Asian countries.

The tenants reactions towards mechanical cultivation ranged from scepticism at the beginning of the operation associated with aversion to carrying the portable bridges over which the 35 Massey Ferguson tractors cross from one holding to the other, to the enthusiastic desire for mechanical cultivation to be extended to harvesting. This mechanical cultivation has in general increased the overall rice output in the scheme but the average acreage cultivated by each tractor per day has decreased from about 5½ in 1962 to about 3 in 1965. As the scheme manager said in his 1964 report, "the poor performance was almost entirely due to the mechanical breakdown of machines through lack of maintenance and faulty fitting of spare parts . . . as the settlement has had no mechanic during the year with ability to diagnose minor troubles . . ." Despite this problem, it was in 1964 that the highest individual yield of 58.8 bags per acre, thought to be a world record, was reached.

In 1965, 30% of the total tenants failed to meet the aim of the scheme of producing rice worth £100, but about 3% realised more than £200. Because the processing of the Mwea-Tebere rice mainly at Mombasa, has been wasteful and uneconomic the government has decided to establish a rice mill in the scheme to be jointly owned by the tenants and the government through the National Irrigation Board. This board was established on June 1st 1966 to improve the organization and supervision of the three national irrigation scheme at Mwea-Tebere, Perkerra and Galole, and to advise the government on the other small schemes in the country.

The major pest on the rice crop has been *Quelea Quelea aethiopica* (the Sudan Dicoch Bird) and in 1957 this bird did so much damage that the crop was nearly eliminated. Similarly in 1965 this same bird and also wild duck reached plague proportions so that by the time the Game Department tried to get rid of them by spraying from the air with 'parathion', they had already done considerable damage to the young seedlings. 'Leaf miner' has also been a very significant pest on the crop, while bilharziasis has become a common disease among the children on the schemes and this disease has replaced the ravages of malaria of the earlier days.

The Mwea-Tebere scheme is one of spectacular potential. Much of this dry grassland area still remains unexploited and undeveloped, and extensions are continuing, financed by the United Kingdom Freedom from Hunger Committee. It is the intention of the Kenya Government to increase the present acreage of 6,432 to 10,360. Well over 80% of rice consumed in Kenya is now grown here, the production being 12,000 to 15,000 tons a year, worth over £300,000, and the scheme has provided a livelihood for well over 3,000 people (the tenants and their families, labourers employed by the tenants and government employees). Land which without irrigation would have continued to be virtually unusable, with only a few pastoral nomads on an extremely eroded and waterless plain, has been converted to an area of high agricultural production.



The scheme has achieved its aim of healing the depleted and eroded lands along the two main rivers, the Nyamindi and the Thiba, and has brought about an agrarian and social revolution and a radical change in landscape. The once dry plain is covered with numerous rectangular flooded holdings of rice, and grass-thatched houses are scattered all over the scheme. Canals have been dug to distribute water over the plain and the people have worked hard to change the almost useless land into an economic asset where about £1,000,000 of Kenya Government capital has been invested.

It is one of the few schemes in the tropics to succeed after a very unpromising birth and it has pioneered irrigation and rice cultivation in Kenya. As the World Bank report said, "one very important result has been achieved; it has been demonstrated that African families with experience only of dry-farming can adapt themselves to efficient intensive production under irrigation."²

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References.

1. Kenya Development Plan 1966-1970, Nairobi, 1966, p. 356.
2. The Economic Development of Kenya, Nairobi, 1962, p. 55.