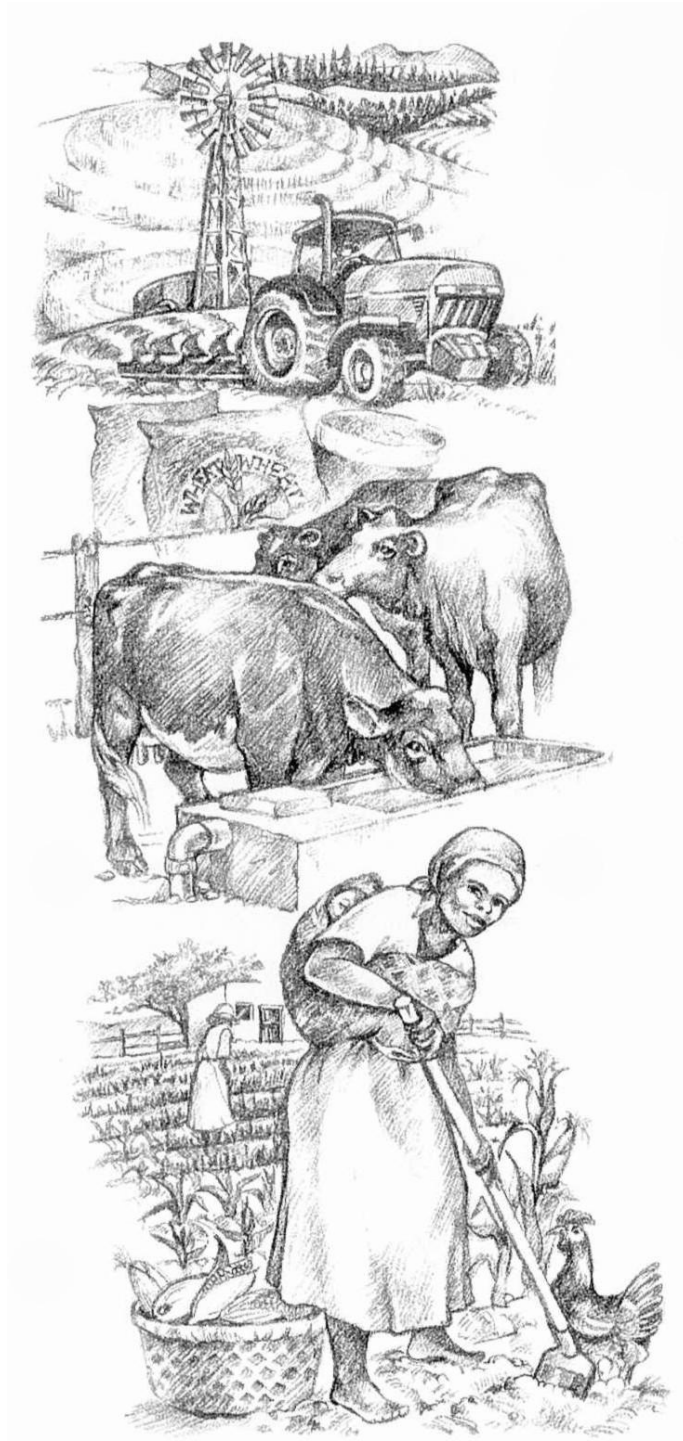


The mighty Orange-Senqu River



Finding Out More

Enviro Fact: Food Security



Food security is "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life." (FAO 2001).

Malnutrition. The World Health Organisation (WHO) recommends a minimum dietary consumption of 2 100 kilocalories per day, including a daily protein intake of 56g and 48g for the average adult man and woman respectively.

The Food and Agriculture Organisation (FAO) defines undernourishment as food consumption of less than about 1 900 kilocalories per day. Undernourishment may lead to malnutrition, which reduces human well-being by impairing physical functioning, the ability to work and learn, and processes such as growth, pregnancy, and resistance to disease.

Malnutrition is defined by the WHO as "the cellular imbalance between supply of nutrients and energy and the body's demand for them to ensure growth, maintenance, and specific functions".

Food security in the Orange-Senqu River basin. Although there is enough food produced in the Orange-Senqu River basin for the entire population, poorer inhabitants still suffer from undernourishment and even malnutrition because of social inequalities and differences in income.

According to the FAO publication "*The State of Food Insecurity in the World*" (2009), the undernourishment rates for the four basin countries during the period of 2004-2006 were: Botswana: 26%, Lesotho: 15%, Namibia: 19%; estimates for South Africa around 5%.

On average, livestock farming in the Orange-Senqu River basin provides enough meat to supply sufficient dietary protein for a population three times its current size. This does not mean that there is sufficient protein available, as livestock are in many cases seen as social assets rather than production assets. Export opportunities also mean that red meat is largely unaffordable, particularly to the poor.

A similar trend has been observed for cereal. Although the Orange-Senqu River basin produces 20% more cereal than is required by its population, half of the cereal produced in the agriculturally intensive "maize belt" is either exported or used

as fodder in areas of surplus, and not distributed to areas of deficit in the basin.

Erratic rainfall does not allow for extensive crop production in most of the basin. As a result, many households still rely on produce purchased from urban markets. South Africa is the only Orange-Senqu River basin country that generally meets food demand through domestic production. Namibia, Botswana and Lesotho regularly have to import maize to meet annual demands. In an average year, Namibia produces approximately 50% of its cereal crop requirements domestically.

Vulnerability. Poor people spend most of their resources on purchasing or producing food for subsistence. Pursuit of food security frequently involves trade-offs, such as reduced expenditure on healthcare and education. This in turn further undermines the capacity of individuals to improve living conditions or increase their resilience to stress and shock, thus increasing their vulnerability. Enabling communities to break this cycle of poverty is the key to addressing food security over the long term.

Adapted from the Orange-Senqu River Awareness Kit