

## TREES AND REFUGEES

By William H. Helin

In environmental terms, Somalia has paid a heavy price for its welcoming attitude toward refugees. Over the last decade, the land around refugee camps has been stripped of vegetation, leaving extensive areas of barren, sandy soil. Efforts are being made to reverse this trend, but large-scale rehabilitation will prove very difficult.

Duugo was a farmer in Ethiopia before he fled his homeland and became a refugee. He and his family found shelter in the Ali Mataan refugee camp, next to the Juba river and five miles south of Luuq.

As a refugee, Duugo's future in Somalia was uncertain. Despite that, he took a risk and made a new home for himself and his family. He began by starting a small farm along the river. While most of the other refugees in Somalia became totally dependent on UNHCR for their food, Duugo started producing his own food crops, even irrigating his farm by hauling water with a bucket.

UNHCR and Inter-Church Response (ICR) helped Duugo and some other refugees by bringing in pumps, technical expertise and seeds. While many of his compatriots were not willing or able to help themselves when this assistance was given, Duugo persevered and made his farm productive. He grew vegetables to supplement his family's diet and soon had some surplus to sell in the local market.

Duugo was able and willing to adopt new ideas, one of which was to grow trees alongside his food crops. He learned about forestry and planted leuceana, a tree valuable for its wood and leaves, and the nitrogen it adds to the soil.

### **Profitable Venture**

Just over three years later, Duugo collected his first wood, cutting only enough to ensure a good regrowth. He found that anything from a finger-sized sapling could be sold and that a tree with a three-years' growth was worth \$5 US. This was a profitable venture, considering that a laborer in Luuq earns little more than \$10 US per month.

Luuq is an ancient town, located on the trade routes of south-west Somalia. Most of the surrounding area is arid rangeland. Local nomads, tending their camels, goats and sheep, know the land and its conditions very well. They grow food crops, especially sorghum, but their life revolves around the animals they herd. There is also a narrow belt of fertile land on the banks of Luuq's lifeline, the Juba river. This readily available water supply allows local farmers to grow a wide range of crops.

Between 1978 and 1981, thousands of refugees like Duugo fled into Somalia from Ethiopia, and settled in camps. An estimated 140,000 were housed in eight camps near Luuq and along the river. Their need for construction materials and fuelwood soon resulted in large-scale deforestation.

Over the last ten years, the number of animals in the area has grown. They come and drink from the river, as well water is difficult to locate and often very salty. As the animals move between the river and the brushland, they eat whatever is available. Such grazing has added to the environmental problem; the result is increased erosion, soil degradation and desertification.

Over the last few years, a number of initiatives have been taken to halt and reverse these trends. The Somali National Range Agency (NRA) and ICR, started a natural resources project around Luuq in 1982. They worked with any interested refugee, with the aim of helping them to understand the benefits of trees and forestry.

Two years later, the US Agency for International Development established contact with the NRA and began to work with refugees and local residents, concentrating on the development of irrigated farms along the Juba river. In 1988, Church World Service - a member of ICR - saw the need to create a sustainable program for Luuq and its residents after other international organizations had left the area.

One objective of the NRA/ICR program was to involve people with no prior forestry experience. The system was called the Step Plan, a method of setting out tasks which are successively more difficult and rewarding. The plan's major goals were to encourage people to plant trees, increase fuelwood production, and thereby slow down the deterioration of the environment.

In little more than one year over 2,000 people - 90 percent of them women - had reached the stage where they could produce in excess of 200,000 trees, all without a central nursery. The program was so popular that numbers had to be limited.

Participants in the scheme first grew amenity trees, and tens of thousands were planted near their homes, schools and mosques. They then grew drought-tolerant fuelwood species in areas set aside for the purpose. Unfortunately, the first major planting took place in 1984, a year of minimal rainfall. Consequently, the results were poor.

In the following years, efforts continued and planting strategies were revised.

Tree survival was greater, but still below the target. The productive capacity of the land had been overestimated. Although small, the irrigable area by the river provided the best potential. Farmers were encouraged to participate, and seedlings of numerous species were grown in a central nursery and distributed free of charge.

A local expert was on hand to discuss the merits of growing trees alongside other crops. A system of incentives, paying for labor to plant and protect young trees, was used to gain initial impetus. The idea was successfully taken up by farmers. In 1988, this system of incentives was discontinued. Free seedlings were still provided, but only to those who had proved their commitment to the scheme.

A survey of participants completed in 1989 showed that 55 percent had sold poles and leaves in the market, with construction materials providing the best return. Thirty-six percent of those surveyed were content to have windbreaks for the protection of their land. In addition, almost 40 percent had also planted fruit trees.

These efforts have already made an important contribution to the environment and development of the area around Luuq. At the same time, the project has equipped a group of refugees with a valuable skill which they will be able to take back to their homeland.

Nevertheless, the potential for growing trees on irrigated land in Luuq will never satisfy the area's overall demand for tree products. Growing trees on rainfed sites will require sound management techniques, the planting and maintenance of drought-resistant plants, the reduction of livestock numbers and controls on the cutting of firewood. And the whole-hearted cooperation of the people directly involved is essential to the success of such measures.

Thus a more permanent solution is needed to the problem of deforestation in Luuq. The only way to effect a large-scale rehabilitation program in the area is by reducing the level of livestock and human pressure on the land. If this is achieved, then nature can take care of itself.

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