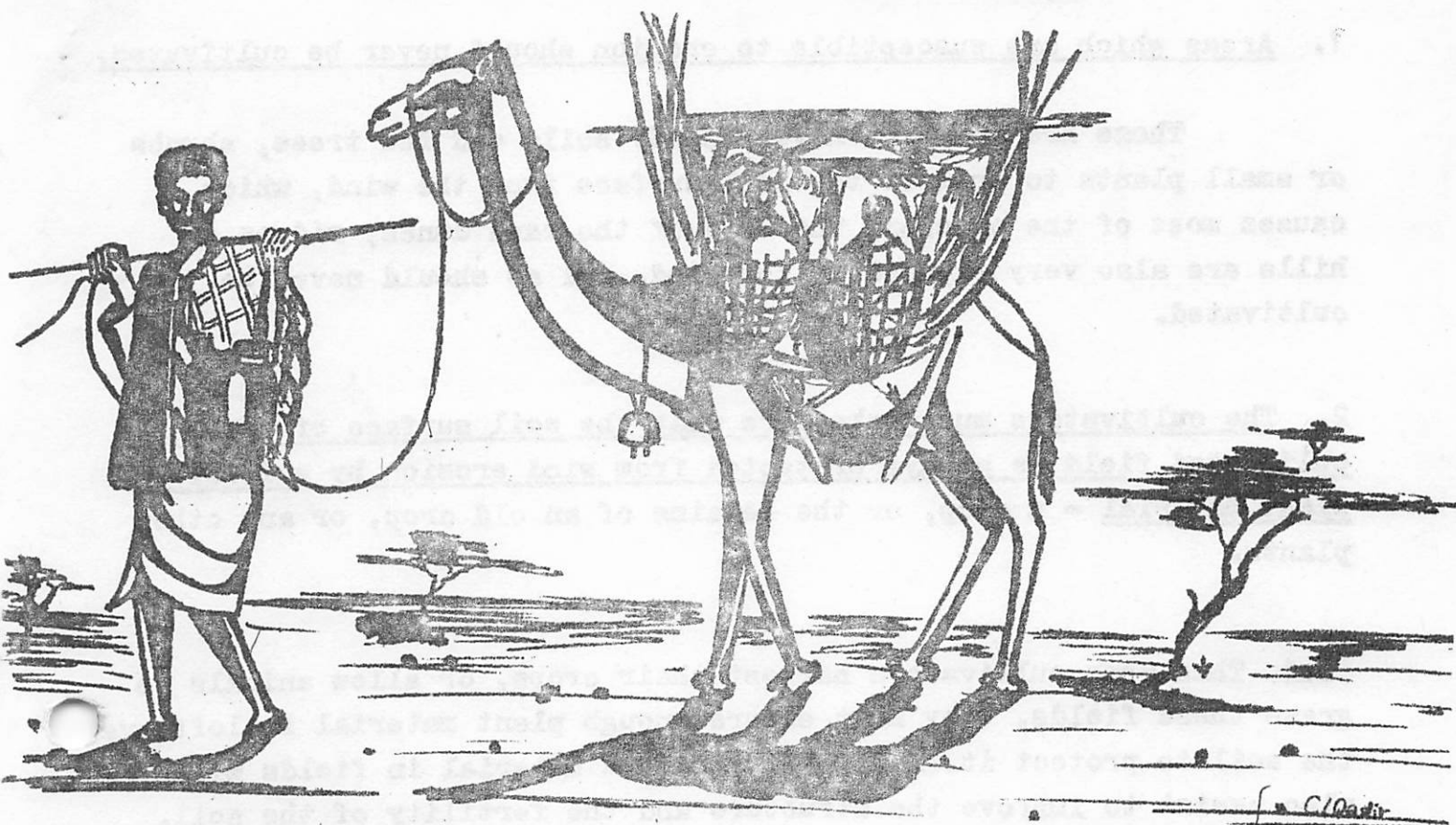


CENTRAL SOMALI RANGELAND EXTENSION LEAFLET NO.1. APRIL 1982



SHIFTING CULTIVATION AND WIND EROSION

DOES SHIFTING CULTIVATION CAUSE WIND EROSION AND A DECREASE IN THE PRODUCTIVITY OF LAND IN THE 3 CENTRAL REGIONS, MUDUG, GALGUDUD AND HIRAAN ?

In some very small areas bad cultivation and clearing practices have had an undesirable effect on the land. Observations suggest however that in most cases shifting cultivation has not caused significant wind erosion. In fact in some cases it has improved the country. With good management, it is possible to cultivate many areas without harming the country. However great care must be taken of this arid Somali land or it can be damaged permanently.

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HOW CAN SHIFTING CULTIVATION BE CARRIED OUT SO THAT IT DOES NOT CAUSE EROSION AND MAY ACTUALLY IMPROVE THE PRODUCTIVITY OF THE LAND?

1. Areas which are susceptible to erosion should never be cultivated.

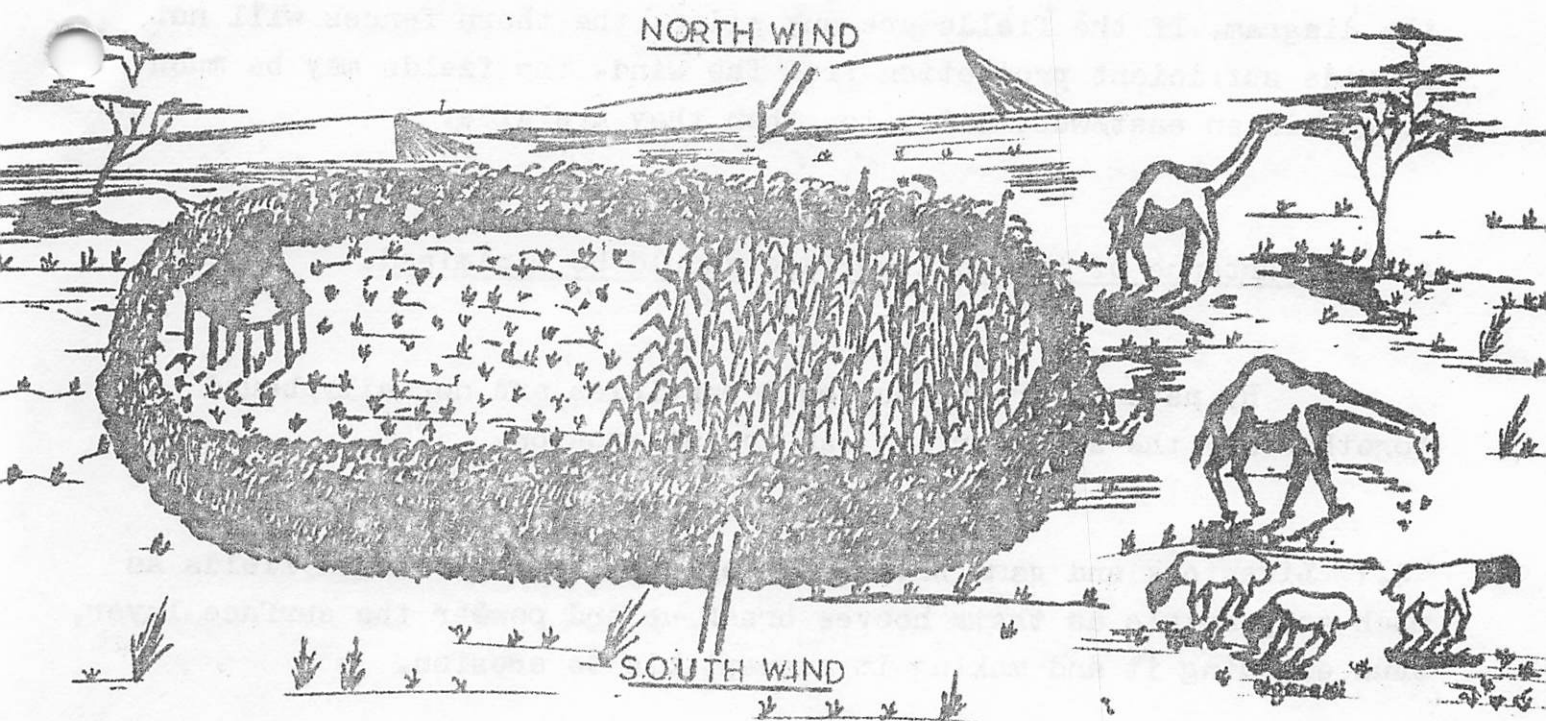
These are areas with very sandy soils and few trees, shrubs or small plants to protect the soil surface from the wind, which causes most of the erosion. The tops of the sand dunes, ridges or hills are also very exposed to the wind, and so should never be cultivated.

2. The cultivators must make sure that the soil surface of their cultivated field is always protected from wind erosion by sufficient plant material - a crop, or the remains of an old crop, or any other plants.

2.1 Thus when cultivators harvest their crops, or allow animals to graze these fields, they must ensure enough plant material is left on the soil to protect it. Leaving this plant material in fields will also assist to improve the structure and the fertility of the soil.

Cultivators in Central Somalia usually protect their crops, from animals with thorn fences. These should be used all the year to prevent the fields from being overgrazed.

2.2 When pasture or crops are harvested by hand for animal fodder, the plants should not be pulled out by roots or cut very close to the ground.



3. The shape, orientation and structure of the cultivated fields and their thorn fences can be planned to minimise the possible of erosion.

3.1 The thornbush fences around the cultivated fields should be used as much as possible, as windbreaks, or structures to slow down the wind in the cultivated fields. By slowing down the wind, the possibility of wind erosion is greatly reduced. Generally the higher and the thicker the windbreak, the more effective it is.

In the building of a windbreak fence, plants such as Commiphora should be planted where possible, so the cutting down of trees and shrubs is minimised. All natural vegetation near the windbreak fence should be protected and left growing. Naturally in the rangeland, shrubs and other plants act as windbreaks, so cultivators should cut down as few of these possible. Larger trees should be left in the fields. Instead of cutting down and killing trees for thorn fences, firewood or building, only a few branches should be cut off so the trees will recover and continue to grow.

3.2 The cultivated fields should be built so they are no more than 50 steps (50 meters) wide in a north/south direction, as shown in the diagram. If the fields are any wider, the thorn fences will not provide sufficient protection from the wind. The fields may be much longer in an east/west direction than they are wide.

4. Disturbance of the soil surface should be minimised.

By natural processes, soil particles are normally bound together and the soil surface can resist erosion.

4.1 Livestock and game should be kept off the cultivated fields as much as possible as their hooves break up and powder the surface layer, thus exposing it and making it susceptible to erosion.

4.2 Similarly, cultivators should disturb the soil surface as little as possible when planting, weeding, and harvesting the fields.

DEFINITION OF TERMS.

' Shifting cultivation ' : in the Central Regions of Somalia this term refers to the practice of rainfed (not irrigated) farming, in which a field is farmed for a certain number of seasons, (usually 2-7 years) then is abandoned and another area is cleared for cultivation.