

to one. The broadcast announcer should be a native of the region and should speak in one of the main local dialects rather than in Modern Standard Arabic.

#### 5. Transport and Storage

These operations do not in general appear to be major areas of constraint at the village level. Transportation of crops from the fields to the villages and after that to nearby markets is largely performed by human and animal labor. A farmer who does not own a donkey to carry his crops can borrow one from a neighbor. Nor is there a serious shortage of motor transport in any of the villages we are studying. Villages which have no trucks have forged reliable arrangements with truck-owners from neighboring villages who will haul their crops as often as a truck load can be assembled, which during the height of the market season may be several times per week. During peak marketing periods a village may be visited by several trucks. Crop marketing occurs during the dry season, so the flooding out of roads and tracks is not a problem. Presently, the major constraint to transporting crops to market is the shortage of diesel fuel and its high price. In some cases, truck hauling rates have increased 50-100% since the beginning of the year. Farmers are responding to this by relying more on animal (particularly camel) transport.

Storage does not pose a serious problem for farmers or merchants in the villages. The incidence of pest attack is reported to be low. Crops are most securely stored for a period of four to six months by burying them in pits that are lined with millet chaff and covered over with sand. Crops for which there may be a more immediate need are stored in gunny sacks inside a hut or storehouse. In this case there is some danger of loss due to fire or pest attack. To control insects, DDT, which is widely available and cheap, is the chemical protection of choice.

#### Recommendation

1. Transportation and storage do not have to be given a high priority at the village level because the existing technology is efficient.<sup>103</sup> The greatest improvement to transportation is likely to come from the development of a domestic petroleum industry for the Sudan. Bulk storage at depots and urban centers is more likely to benefit from technological improvement than is storage in the villages around el-Obeid.

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<sup>103</sup>This statement holds for the el-Obeid area but is probably not justified for the wetter lands to the south.