

One consequence of this shifting pattern is that farmers need access to other farmland elsewhere. In many cases, farmers own several pieces of land, so shifting is not that much of a problem. However, some farmers don't own enough land elsewhere to shift to, so they either borrow land from a relative or rent in land.³³ They farm this borrowed or rented land until shifting back to the fallow land which they own. This is a common pattern in this area.

One adverse effect which shifting has on poor farmers is that due to time and money constraints they often cannot afford to clear a piece of land for cultivation comparable to the piece they left fallow. As a result, they may cultivate as much land as they can afford to clear during the first year of shifting, and rely on wage labor earnings to make up the difference. Thus, many poor farmers rely on wage labor activities to a greater degree during the initial phases of shifting than they do at other times. The second and third year after the shift, poor farmers will be less dependent on wage labor because they will have had sufficient time to finish clearing their land for cultivation. Given their current circumstances, this periodic dependency on wage labor during the shifting cycle appears to be one consequence poor farmers cannot avoid.

Agricultural Inputs

An important objective in farming systems research is to identify the inputs farmers have access to that impact agricultural production. The following discussion will focus on the major agricultural inputs of seed, chemicals, and labor used by farmers in this region.³⁴

Seed Requirements

Before discussing where farmers get their seed, we will examine how much seed farmers use to grow each crop. Farmers were asked how much seed they used in planting sesame, millet, sorghum and groundnuts. To standardize these data, we calculated the average amount of seed planted per mukhammas for each crop. These amounts are expressed in a volumetric measure called locally a mid,³⁵ which is the standard measure used by farmers in this area. Groundnuts, on the other hand, will be expressed in sacks per mukhammas since this is the common measure farmers use for planting this crop.³⁶ Table 11

³³ Population pressure in this area is causing a reduction in the size of landholdings owned by farm families. Renting-in land has become a common practice, as a result. Also some farmers opt to rent land near the village rather than farm a piece they own which is hours away.

³⁴ One important input not included in this discussion is farmers access to drinking water. This was extensively addressed in an appendix in the first field report, so it will not be discussed here.

³⁵ A mid is the same as a mallowa in Eastern Sudan, which is 4.125 liters.

³⁶ A sack of groundnuts refers to a sack of unshelled seeds.