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In the above discussion we have perhaps implied that all shelterbelt planting is carried out by individual farmers or households. In many cases "community" organisation is required in order to plant larger-scale shelterbelts to protect entire villages. The SOS Sahel projects have devoted much effort to awareness-raising and institutional development as prerequisites for such communal projects. Many successful village shelterbelts have been established around Shendi.

The design of these larger-scale schemes is of course "participatory"; it is always the result of intensive discussion and planning within the village, but a "unified" design and plan of action must emerge. In other cases where farmers prefer to work independently but share identical objectives, a unified design can emerge from many individual efforts. At the villages of Affad, near Ed Debba, shelterbelts planted by many individual farmers at the foot of the oncoming line of dunes on the northern edge of the agricultural land have combined to form a single, eight-kilometre belt.

Social and economic considerations affect the degree of unity of purpose in villages. When a mobile dune front is encroaching on agricultural land at five metres per year, the farmers in the front line may lose their entire plot within ten or twenty years, while neighbours who farm land just half a kilometre away know it is safe for the next century. People's perceptions of time and sustainability come into play. We may hope that the village will show unity of purpose in protecting its members and thinking of the long term. But, there is clearly an economic case for those who are furthest from the dunes to free-ride and leave the task to those in the front line.

There may be deeper reasons for lack of unity. In many of the northern farming areas, there is a broad distinction between older villages within the agricultural schemes belonging to groups with a long history of settled farming, and villages on the fringes of the schemes, belonging to ex-nomadic groups who have settled more or less re-

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cently. There are underlying tensions between these broad groups, including disagreements over land ownership. At Affad, most land close to the dunes is farmed by ex-nomadic villagers. They are motivated to plant shelterbelts not only by the immediacy of the threat of sand encroachment, but also by the expectation that tree planting will reinforce their informal claims to land tenure. Thus the burden of sand stabilisation has tended to fall on the generally much poorer ex-nomadic villages for whom the debate over “sustainability” is by no means academic.

The concept of “sustainability” and permanence in this context is indeed a difficult one. Many of the criticisms made of farmers’ shelterbelt designs in the early days of the Ed Debba project revolved around questions of time-scale. Farmers seemed more interested in immediate results and short-term solutions than in permanent stabilisation. But the desert is vast and contains an endless supply of sand. Many of the villages are small. Some are still dilapidated from the effects of the 1988 and 1994 floods. Acute sand accumulation around villages and farm land is in fact rather rare and only occurs in sites exposed to the prevailing wind. But where it does happen, as for example at the village of Argi in Northern Province, it must not be imagined that a permanent solution, or complete stabilisation will ever be possible. The whole situation is dynamic, since there is evidence that the course of the Nile itself has moved. New agricultural lands are also created by the river and by dissipation of dunes overlying good soils. In the end, the long-term sustainability of the villages, their agriculture, and admirable way of life are more threatened by Sudan’s desperate economic problems than by anything sand can do to them.

Flexible management of the interface between the desert and the farms and villages is more appropriate than an attempt to achieve a permanent technical solution. The durability of any shelterbelt is important. But sustainability is more a question of villagers’ understanding, experience, skills, technology, resources, determination, organi-