



The Current Column
of 22 June 2009

**Desertification and efforts to combat it –
Are things not bad enough as it is?**

By Dr. Susanne Neubert,
German Development Institute /
Deutsches Institut für Entwicklungspolitik



Desertification and efforts to combat it – Are things not bad enough as it is?

Bonn, 22 June 2009. 17 June was the annual international observance of the UN World Day to Combat Desertification and Drought, the third UN World Day this year dedicated to the conservation of a natural resource. And once again we can point to numerous actions and training activities as a success.

Be that as it may, though, at present some 70 percent of the world's arid regions are faced with desertification processes, and in a total of roughly 110 countries, most of them poor, desertification represents a threat to an area roughly the size of Europe. Desertification leads to annual losses of some 20 million tonnes of grain, and over the past 40 years a total of one third of the world's arable land has been abandoned due to degradation.

Even though there is no doubt as to the causes of desertification, and the strategies needed to combat it are known, no turnaround is yet in sight. Why is it that neither the UN Desertification Convention nor countless initiatives and programmes have proven able to halt the ongoing process of desertification?

It will be recalled that the principal drivers of desertification are unsustainable land management and climate change. As far as land management is concerned, one key factor involved is "incorrect farming practices." The latter include the cultivation of annual crop species coupled with management methods that intermittently leave soils uncovered and exposed to erosion. Other aspects of "incorrect" farming practices include faulty irrigation and either a total lack of fertilisation or lopsided use of mineral fertilisers. This often leads to soil mineralisation, particularly in tropical regions, depriving soils of their capacity to store water. Carbon compounds, previously fixed in the soil in the form of organic matter, are now released into the air in the course of the mineralisation process. This reduces the soil's buffering capacity for drought and flooding, at the same time directly contributing to climate change.

A good number of resource problems are closely interlinked: Together, deforestation, species loss, climate change, growing scarcity of water resources, and loss of the organic matter in soils are responsible for desertification; they are at once its cause and effect.

Does this mean that we have no choice but to capitulate? No. What it means is that by developing and using intelligent approaches we can achieve several goals at once. Even though the matter is sometimes more complicated when it comes to details, soil conservation techniques, including e.g. erosion control walls, agro-forestry, and organic fertilisation, do represent methods that are at once effective and widely known. They need only to be applied on a larger, region-wide scale. The reason why the picture continues to be dominated by individual measures is not technical in nature, indeed this must be seen as a problem bound up with economic incentives and political interests.

In view of the fact that agriculture is organised primarily along private lines, soil conservation measures need to be carried out mainly by the private sector. It is essential that incentives be set to ensure that investments in farmland yield returns, and the relatively high prices currently commanded by agricultural goods offer a good opportunity. There is considerable evidence that farmers carry out soil protection measures on their own if they lack more profitable alternatives and if the wherewithal needed for the purpose - know-how and cost viability - is given. There is no lack of instructive examples, and German development cooperation offers a good number of them. It is high time to start providing farmers in desertification-prone regions with appropriate



advisory services as well as with the funds they need to transport stones to build erosion control walls, etc., and to do so not intermittently but as a general rule.

However, both agro-industry and institutional conditions also need to be modernised. One correct and promising approach would be to encourage the agrochemical industry to gear production more to soil substrate additives. Moreover, the agricultural policies of developing countries urgently need to be re-oriented to reduce the fertiliser subsidies so widespread today and instead to increase the credit available in the agricultural sector. And land rights need to be modified in such a way as to ensure that farmers have incentives to undertake soil conservation measures.

Instead of continuing to generate vast amounts of greenhouse gases by producing and using mineral fertilisers incapable of achieving the hoped-for results on degraded soils, it would make far more sense to engage in organic agriculture keyed chiefly to on-farm resources. This could serve to enhance soil storage capacity and – in cases where the organic matter needed is unavailable – to regenerate it by using industrially produced soil substrates. Land management of this kind tends to raise yields per unit area to earlier levels, and to do so precisely in arid regions.

But it is also essential to protect land at the supra-farm level, on state-owned land. This, though, calls for a huge supply of labour. In keeping with a proposal advanced by the United Nations Environment Programme (UNEP), a “Global Green New Deal” could be used to realise the action plans adopted to implement the UN Desertification Convention, and in times of recession this would at the same time amount to an effective labour market policy. This should also include large-scale projects – like e.g. the building of “green walls” in China and the Sahel Belt – and efforts to link them with the numerous individual participatory measures already in progress, in order to achieve synergy effects. It would be important to implement measures geared at once to conservation and re-cultivation in order to come up with comprehensive measures that serve to reach several goals at the same time: protection of forests, water, climate, and soils. This is a realistic aim in that the different organisational phases involved tend basically to correlate positively with one another.

How much time do we have left? The good news is that in many cases desertification is reversible. The bad news is that this goes hand in hand with declining marginal utility, and when a certain stage of degradation has been reached, re-cultivation proves so labour-intensive that it is more attractive for the population to migrate to urban areas. In other words, we have no time to lose. This is not a question of “aid” but of global responsibility.



By Dr. Susanne Neubert,
German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE).