

Tracks in the desert are a big problem

One of the worst forms of visual pollution in the Namib Desert is vehicle tracks, especially on the gravel plains. Antje Burke, who is in charge of the Ministry of Environment and Tourism's Southern Namib Restoration Ecology Project in the Namibian National Biodiversity Programme, filed the following report on this environmental concern.

Vehicle tracks spoil the aesthetic value of arid wilderness areas, making them appear no longer pristine and untouched by human interference. However, during exploration activities for mineral riches, systematic drill-lines and grids have to be developed, often at close intervals, and these – if not rehabilitated – may remain for decades.

This problem emerged in the Sperrgebiet (Diamond Area 1) in south-western Namibia, where several exploration companies are presently active. Since this is one of Namibia's prime wilderness areas, but is also believed to be harbouring further mineral riches in addition to diamonds, the problem needed to be addressed.

So what can be done to make tracks disappear within a reasonable time frame? Conventionally tracks are raked to loosen the compacted soil and thus enable plants to re-establish themselves and cover the tracks. However, plants grow extremely slowly in a desert environment and in some habitats even raked tracks are still visible after very many years – far too many, maintain Ambase Exploration and the Chief Warden of the Ministry of Environment and Tourism (MET) in the area. More needs to be done to make them disappear faster.

In what is a pioneering effort in Namibia, a dedicated rehabilitation team, employed by the exploration company, took track rehabilitation one

step further. They not only prepared the area with rakes and agricultural implements for re-establishment, but also lifted plants from close by and planted them in the rehabilitated tracks. Using the surroundings as model and simulating plant composition, spacing and surface cover (e.g. with stones and branches), many of the tracks were no longer visible six months later.

However, this was during the dry season when all the plants looked pretty dead. Although the visual impact of the tracks was removed, whether the plants have survived the procedure is still a critical question. In the Sperrgebiet many plants are protected and some have very limited distributions. Hence, removing plants from their natural environment, even for a well-intended purpose, could have negative side effects. To establish whether or not this method could be developed and recommended to other instances operating in the area, the Southern Namib Restoration Ecology Project (under the umbrella of the Namibian National Biodiversity Programme at the MET) set out with students from the Polytechnic and UNAM to count survival rates of transplants on the rehabilitated tracks during the winter growing season.

The team worked in the Obib Valley some 20 km west of Rosh Pinah, an area of particular conservation importance because of its concentration of protected and range-restricted plants. As expect-



Antje Burke

Assisted by Ambase's track rehabilitation team, Julien Cloete and Isaskar Uahoo are counting survival rates of plants on a rehabilitated track.

ed, the results were mixed. Of the six species investigated, four did well in sandy areas, but for two (*Eberlanzia* spp) nearly all relocated plants were dead. This could mean either that the plants did not tolerate being transplanted – unfortunately the rehabilitation in this area happened during the dry season when it was very hot – or that these species are generally not suited for relocation, in which case some other method of re-establishing them, for instance by seeds, should be tried.

Although the long-term success can only be evaluated properly after the plants have gone through at least one entire seasonal cycle, the first results are certainly encouraging. The positive side is, therefore, that the majority of the plants survived the first six months and that those species, once the required permits have been

obtained from MET, can now be further recommended for use in rehabilitation.

Nonetheless, there is much more that we need to know, e.g. how other species perform and how they adapt in different habitats, and what the long-term effects are. For now we say: please carry on and let's have another look later. There are certainly ways to make a difference – Ambase Exploration has shown what is possible with foresight and commitment on its part. ■

For information on the Southern Namib Restoration Ecology Project visit <http://www.enviro-science.info/04research/snare/snare.htm> or <http://www.dea.met.gov.na/Programmes/Biodiversity/snare.html>.