图书基本信息

书名：<<中国干旱地区土地退化防治最佳实践>>

13位ISBN编号：9787503853401

10位ISBN编号：7503853409

出版时间：2008-11

出版时间：中国林业出版社

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页数：216

内容概要

Land degradation is a prominent ecological problem in dryland areas and a focus of many countries and in-temational organizations. Continual worsening of land degradation in dryland areas caused not only declineof soil fertility and reduction of food production directly impacting on farmers' livelihood, but also deterio-ration of ecosystems threatening the foundation for human survival. Therefore, it is an obligatory responsi-bility of countries, international organizations and scientists to improve the ecological situation in drylandareas, to prevent land degradation and to achieve sustainable land management as soon as possible.China has a wide distribution of dryland and land degradation is severe. Land degradation has become thekey factor restraining sustainable economic and social development in dryland areas. In order to improvethe ecological conditions in dryland areas, Chinese government and its people have taken many measuresfor ecological improvement and protection and have made tremendous achievements in land degradationprevention and control, obtaining a series of applicable experiences and techniques which have greatly con-tributed to ecological improvement and land degradation control in dryland areas.While committed to ecological improvement and environment protection, Chinese government attachesgreat importance to strengthening international cooperation and exchange. In 2002, Chinese governmentestablished a strategic partnership with the GEF in land degradation control, i.e. China-GEF partnership onland degradation in dryland ecosystems. This was the first partnership of GEF established with a govern-ment in ecological fields. The partnership was aimed to create a multiagency, cross-sector and inter-regionalintegrated natural resource management system, a new approach to addressing land degradation problemfrom the grassroot. Therefore to stop land degradation, restore dryland ecosystems, reduce poverty, andpromote sustainable development in western China and protection of global environment.

书籍目录

章节摘录

High vertical living barrier is a protective barrier set in the wind and sand strickenareas. The barrier with certain height and penetrability is made up of growing plantssuitable for dry and sandy conditions to alleviate the wind and sand drifting speedthrough the rows of plants, and finally piling up the drifting sand. It is an effectivesand fixation approach to protect infrastructure from being ravaged.Vast deserts are distributed in north China where soil is seriously desertified. The rail-way service has experienced frequent suspensions in Qingshui section of Lanzhou-Xinjiang railway line suffering immense economic losses. In 1980s, the railway de-partment raised funds to construct high vertical living barrier with technical supportprovided by Gansu Desert Control Research Institute. Since its operation, the projecthas played an important role in intercepting sand encroachment and protection of nor-mal operation of railway service.The high vertical living barrier is set in a strip formation in the areas where wind anddesert hazard is severe. 2-4 belts of windbreak are proper for the seriously affectedareas and 1-2 belts are suitable for lightly affected places. Specifically, the first beltof windbreak should be planted perpendicular to the wind direction about 200m to therail tracks to be protected at the windward side. Further, windbreaks should be plantedin 20m intervals to total 2-4 belts in parallel with the first one. Calligonum klernentzii,Haloxylon ammodendron, Salix psammophila, etc. may be planted. 25cm or longercuttings, or one year old seedlings in 30cm are proper for the plantation of Calligonumand Salix psammophila; one year old seedlings of 30cm in length suits planting ofHaloxylon ammodendron. Initial density should be kept in 10-12 trees/m. After treeplanted, drip irrigation or other types of irrigation shall be applied in low moisture dunesto facilitate survival of the plants.
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