

PRINCIPLES OF RECLAMATION AND REFORESTATION
OF MINING AREAS

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This project is investigating the process of Reclamation and Reforestation of the Amiantos mining area. Surface mining works in the area left the entire mine area damaged. The forest landscape of the area was malformed creating a stripped, rocky scenery. The Reforestation and Reclamation of the area was essential not only for aesthetic, but also for health reasons. The operation of the mine and the efforts for the stabilization and re-profiling of wastes are briefly described in this project. It mainly concentrates on the work of reforestation, giving details on the problems encountered and the techniques adopted to overcome difficulties and achieve the objectives of rehabilitation. The geologists and engineers had to stabilize the waste tips, to enlarge areas for reforestation and redesign and reform the topography of the area so that it complies with the neighbouring slopes. Vegetation also had to match with the adjacent forest areas, so many different species of plants, bushes and trees were used for revegetation. Large volumes of topsoil were needed to cover the whole mined area so that the topography of the area was altered as required. The cost of the revegetation reforestation task is expected to reach CY £18 000 while the cost of the whole project is expected to cost many millions of pounds and the funds will be covered by annual state budget.



Amiantos mine

Introduction

The Amiantos Mine operated during the period 1904-1988 and is situated in the Troodos Mountain Range in the heart of a National Forest Park, about 45 km north of Limassol and 70 km southwest of Nicosia at altitudes between 1200 m and 1600m. The Troodos range geologically constitutes part of an ancient geological ocean floor and has been known as the Troodos Ophiolitic Complex. It consists of asbestos veins in the form of chrysotile veins scattered within serpentine (serpentinized charzburgite) appearing in the central part of the range at altitude of 1500 meters. The thickness of the veins ranges between just a few millimeters to 2 centimeters.

Cyprus is considered to be one of the oldest asbestos sources and until recently it has been one of the largest chrysotile asbestos producing areas in Europe. Mining and use of asbestos in Cyprus has been carried out since ancient times and in particular the Classical and Roman Ages. Asbestos this fibrous mineral was used for making incineration plaques for the dead, shoes, wicks for lamps, and for other purposes. The more recent history of the mine as well as the large scale exploitation of asbestos begun when asbestos was being used for the manufacturing of asbestos slates, bricks, heat insulation, pipes, motor vehicle brakes etc.

The first mining lease in Cyprus was signed in 1904 in this area and included 600 hectares of land within the state forest of Troodos. Asbestos mining during the first decades of this century was carried out by primitive means, mainly simple tools and was done manually. This was the period when the largest number of personnel had been employed here. It is said that during the 1930s the number of people employed at the mine, including those manning various

services exceeded 10,000. Around the mine, a small community was created, with people living in houses or temporary dwellings. It was a time when the mine provided more income to the economy than any other single industry or enterprise in the island. Most people employed at the mine originated from the surrounding villages, there were however people from every corner of the island, in particular people coming from poor areas. The community provided a large and fully equipped hospital, a school, a police station, a cinema, grocery shops, butchery, coffee shops and in general all commodities found in every small town.



The old mine