

THE FUNCTIONAL POTENCIAL ASSESSMENT OF THE LANDSCAPE AFFECTED BY THE EXTRACTION OF RAW MATERIALS

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ABSTRACT

The article analyses the basic issues of procedural methods for evaluating the environment affected by the exploitation of mineral resources in the Czech Republic. The areas that were affected by the industrial activities in the past and are not used currently are called Brownfields. These areas create the side effects called externalities from their very beginning. The first part explicates the basic views of the methods of assessment and evaluation of the environment and related negative and positive externalities incurred. Another part of this paper assesses the affected area using two methodical manners. The first manner is the commonly used called Hessian method and the second is new proposed methodical manner so-called **FUPO** „The **F**unctional **P**otential assessment and resultant externality in the industries areas” which has been created in VŠB-Technical University of Ostrava.

Keywords: brownfields, real functional potential, positive externalities, environmental evaluation

INTRODUCTION

The greatest destruction of landscape and environment in the Moravian-Silesian Region in the Czech Republic is associated with the mining of mineral resources. The area of Ostrava-Karviná Coalfield belongs to the areas where the mining industry is highly developed. An integral part of mining activities is spoil heap construction. In spite of the fact that generally spoil heaps are regarded as undesirable, they can be, on the contrary, understood as very valuable habitats with a high potential. Spoil heaps become suitable safe sites for endangered, often even critically endangered species, above all animals [1, 4, 5]. An integral part of mining activity is the emergence of side effects, or externalities, which can be called positive and negative externalities [3,7]. From an environmental point of view are examples of negative externalities of water contamination, air or soil, which may occur up at the wrong mining or reclamation. Conversely examples of positive externalities is increasing biodiversity, increasing the effects of societal functions of forest trees on a properly carried out the reclaimed land areas of mining subsidence basin or aquifer, which is in a relatively short time become Refugio many species of plants and animals [5].