

THE CYANIDE LEACH TECHNOLOGY IN GOLD AND SILVER MINING HARMFUL EFFECTS AND SUGGESTIONS FOR REMEDYING

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Rezumat. *Regiunea numită Roșia Montană a devenit celebră din cauza resurselor sale minerale. Produsul cel mai valoros, care asigură traiul pentru oamenii care trăiesc acolo este aurul. Mina de aur a funcționat timp de mulți ani, iar poluarea continuă din cauza obținerii aurului a devenit foarte periculoasă. Toate aceste deșeuri cu conținut de cianuri sunt periculoase pentru viața sălbatică, resursele naturale și sănătatea omului, dacă nu sunt gestionate în mod corespunzător. Consecințele toxicității cianurii pot fi devastatoare, adeseori ori letale pentru flora și fauna zonei. Nici până astăzi nu a fost găsită o soluție adecvată care să împace beneficiile economice ale aurului și menținerea dezvoltării durabile.*

Abstract. *The region named Roșia Montană became famous due to its rich mineral resources. The most precious treasure which has been found is the gold. A state-run gold mine functioned for many years and the continuous pollution due to the gold extraction became very dangerous. All these cyanide-containing waste are hazardous to wildlife, natural resources and human health if not properly managed. The consequences of cyanide hazards may be devastating, sometimes killing everything for several miles downstream. It has not yet been found a way of both taking advantages of the economic benefits of gold and maintaining a liveable habitat.*

Keywords: cyanide, Roșia Montana, cyanide hazards, sustainable development of gold mining

1. Introduction

The region named Roșia Montană became famous due to its rich mineral resources. This region is located in Alba County in the Apuseni Mountains of western Transylvania, Romania. The name came from Roșia River which flows in Valea Roșiei [4]. The mineral resources on this area have been exploited since Roman times or before [4]. The most precious treasure that has been found is gold. A state-run gold mine functioned for many years and the continuous pollution due to the gold extraction became very dangerous. For this reason the mine was closed in 2006. Since then a major investor Gabriel Resources from Canada plans to reopen a renovated mine with modern technology of gold extraction [4]. This fact triggered large protests because of the cyanide pollution. On the other hand, it could be useful by providing jobs for the locals and importing funds in country.

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