## Reconnecting raw materials with society: A case study for the Lignite mines in north-western Greece

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## ABSTRACT (USE 'HEADING 1' STYLE)

This paper focuses on the environmental impacts caused by the operation of lignite mines in northwestern Greece (along the Florina-Amynteo-Ptolemaida-Kozani zone). Despite social arguments over time the government has made no great effort so far to resolve the problem. Meanwhile, mining operations never stopped.

The basic difference from other mining projects is that the license in this case is granted by the Hellenic State, regardless of who owns the land, to the person who successfully carried out mining research. It is therefore a special license, with the possibility to transcribe, inherit and transfer or even sell it by auction; yet, any transfer applies only after the approval of the competent minister.

Production begun in 1957 at the Main Field mine near Ptolemaida. Current reserves based on nowadays' technical and economic conditions are 1,800 Mt. The most important deposits are located primarily in the prefecture of Kozani and secondarily in the prefecture of Florina. These are exploited by PPC S.A., having brought significant economic benefits, but also having generated severe environmental problems: freezing of land for the expansion of mining operations, disturbance of the balance and pollution of soil and groundwater, the impact on flora and fauna, having the highest percentage of air pollutants in Greece, the impact on the microclimate of the area, the burden on the health of local residents that caused most of them to abandon their houses, and last but not least, the change in the socio-economic fabric of these regions.

Compensations considering expropriation and other costs have been ratified by the Court over the years but not for the benefit of those affected. Eventually, after a qualitative overview based on scientific literature and the evaluation of measurements taken in situ, it is recommended that a new environmental impact assessment report for social licensing is needed.

Key words: socio-environmental impacts, lignite exploitation, electricity production