Abstract

Deep-sea mining in the Clarion-Clipperton zone is currently still in the exploration phase but it is getting closer to the exploitation phase. Therefore, in this thesis we will examine current techniques and developments as well as the ecological impact of deep-sea mining. Each part of the deep-sea mine operation is discussed separately. Ranging from the Clarion-Clipperton Zone to the manganese nodule itself and how it is formed, as well as the deep-sea mining process and the social and economic relevance of deep-sea mining. The environmental issues associated with deep-sea mining are also discussed in more detail, with specific reference to the company GSR as well as the future perspective of deep-sea mining. For all these components, the most recent sources have been used, based on research carried out in recent years. Since the demand for elements present in the manganese nodules will continue to increase in the coming years and the onshore stocks thereof will shrink and become more difficult to reach, an alternative will have to be sought. Deep-sea mining could offer a solution here. The future will show whether the benefits of deep-sea mining outweigh the disadvantages so the exploitation can begin in the Clarion-Clipperton zone. The road to this exploitation will mainly depend on further testing and research into new techniques.