



## **Preface to the Special Issue of Green Mining**

### **“Mineral Resources, Mining and Environmental Management in ASEAN”**

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Received: 15 May 2013/ Accepted: 20 August 2013/ Published online: 10 February 2014

This issue of Applied Environmental Research includes seven of the papers that were presented at a Regional Workshop on “Mineral Resources, Mining and Environmental Management in ASEAN”, held in Bangkok from 6-8<sup>th</sup> June, 2013. The theme of the meeting concerned the approach to sustainable mining adopted by the different ASEAN nations that were able to attend, namely Thailand, Laos, Myanmar, Vietnam, and Indonesia, with additional papers from the UK and Germany.

An important aspect of the meeting was to compare current practice in individual countries, and this is reflected in the content of the papers published here. Manning's paper on the situation in the United Kingdom uses case studies to illustrate how the approach to sustainable mining has changed during the last two centuries. A legacy of the consequences of mining over this period has developed into an approach in which mining operations are designed to improve the environment, working with local people from the earliest stage in a project.

The design of tailings dams has a major impact on the risk posed by a mining operation, especially following recent dam failures in Hungary and Spain. Coldewey's paper summarises the key issues relating to the design of tailings dams used to store mine wastes. Much mining in SE Asia involves small scale, artisanal, mines, for which such large facilities are not appropriate.

Aung Kyin describes the distribution of artisanal mines in Myanmar, emphasizing the importance of small-scale mining as an employer. Importantly, artisanal mines provide an opportunity to locate and identify targets for large scale mining operations. Kyi Htun goes on to describe the history of mining in Myanmar, with a large number of illustrated examples of current mining operations. The mineral potential of Vietnam is described by Nguyen Ngoc Khoi, who provides a summary of the mined products from Vietnam in the context of the country's geology.

Environmental management of mining is considered in the context of the Lao PDR and Thailand. Phonvisai and Gajaseni summarise the mineral deposits of Lao PDR, and describe the legislative framework that guides environmental monitoring and management. Niyomthai and Wattanawan describe the legacy of problems from past mining in Thailand, and the steps that are being taken to design environmental management protocols that enable mining to take place, while at the same time reassuring the public that environmental harm is minimized.

All papers in this special issue address mining within the context of sustainability – social, economic and environmental. The authors come from academic and non-academic backgrounds, and so this collection of papers provides a valuable insight for a wide audience into current thought and practice in this important area. Importantly, mining is essential for

sustainable development that helps eliminate poverty and generates employment. It creates wealth that with appropriate management can be used to improve the environment, creating amenities for people affected by mining and remediating the effects of earlier mining activity that might have caused environmental harm.

As Guest Editor, I would like to thank the referees who reviewed the manuscripts prior to acceptance, namely Dr Oliver Heidrich (Newcastle University), Dr John Lamont-Black (Electrokinetic Ltd), Clive

Mitchell (British Geological Survey), Dr Hazel Prichard (Cardiff University), Professor Peter Scott (Exeter University), Professor Frances Wall (Exeter University) and Professor Paul Younger (Glasgow University). Notwithstanding the help given by the referees, any errors in the review process are the sole responsibility of the Guest Editor. I would particularly like to thank the editorial team at Chulalongkorn University's Environmental Research Institute for the excellent support I have received as Guest Editor.

