# *From the Editor*

It is now absolutely clear that the law number 4 year 2009 about mineral and coal mining has already reflected to implement a new paradigm in the mining sector, in which the mining must be conducted in accordance with benefit, justice and balance; national interest; participation, transparency and accountability; as well as sustainable development and friendly environment. In other words, this can be stated that this country faces a new challenge and opportunity in exploiting mineral resources that have a huge reserve with a certain regulation. Unfortunately, the governmental regulation of exploiting those resources is not complete yet, because it is still being finished by the related ministries such as: the Ministry of Energy and Mineral Resources, the Ministry of Forest, the Ministry of Internal Affairs, the Agency for National Development Planning, the Agency for National Land and so forth. Moreover, preparation of the regional mining area in all of parts of the country has not been yet carried out by most of the regional governments. This is an obstacle in developing the mining sector and this crucial issue must immediately be solved. In addition, coping with this issue, a lot of R&D centres have tried and carried out improvement in value added for mineral and coal commodities. This proves that researchers are always doing any innovation of improving a better quality for mineral and coal products. When the governmental regulation is totally completed in the short time, probably in the next years, these innovation and improvement could be directly applied in the mining sector.

In this current issue, five papers are really expected to be able to cope with the above statements, especially in anticipating and resulting in competitive mineral and coal. These papers focus on exploration, processing technology and environmental issues.

Typically high vitrinitic coal geochemical features of Muaraenim coal beds in South Sumatera basin indicate the principle target for CBM development. The development of this energy is one of the challenges in diversifying energy in this country that depends only in oil and gas energy in which this reserve will decrease in its reserve in next decades. Therefore, this energy should strongly be developed in coping with the decline of the oil and gas reserve.

Compressional and shear wave velocities within rocks are mostly investigated by testing in the laboratory, because it is easier and cheaper. Nevertheless, it is more confident with investigation result obtained from the field, due to the actual situation and condition. The results of this study are expected to be applied in mining activities in implementing good mining practices in this country.

Goethite is relatively abundant when compared with hematite and magnetite in the main iron ore minerals. Unfortunately, it is not usual to be used as feed material in iron making industries. Limitation in a high quality of iron ore resources causes the industries to seek another iron ore source like low grade iron ore of goethitic ore.

Indonesia needs NPK fertilizer for agricultural purposes. However, this commodity is mostly fulfilled by imports. In order to fulfil this need, the R&D Centre for Mineral and Coal Technology has conducted to produce this commodity in a special treatment to process K-bearing minerals into K-fertilizer.

Corporate social responsibility should be implemented by mining companies, as stated in the law number 4 year 2009. The application of this is expected to encourage mining company to allocate its profit for developing the local community who lives around the mining operation. This good effort could be increased in the future to make beneficial for the regional sustainable development.

All the ideas of the above papers are really expected in accordance with the new regulation in the mineral and coal mining that focuses on the value added aspect. They are also expected to be able to anticipate self sufficiency of the commodities, which are mostly imported from China. Of course, this opportunity should be developed and this is a big challenge for researchers and engineers to prove their capabilities for the better future of this country.

The Editor