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Future trend of mineral industries development in Indonesia

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Abstract: The aim of this study is to figure out the vision of effort of utilizing the remainder of the available mineral asset in the country, where Indonesia is necessarily seeking new opportunity toward developing mineral industry (hydro-carbon, metal, and non-metal) such as fine chemical industry, alloy (stainless/tool steel), fibre, ceramic block, super/semiconductor in the purpose of supporting super downstream industry that could produce massive mineral products containing high added value. Moreover, those downstream industries require high quantity and quality of minerals as raw material. The methodology applied in this study is based on a descriptive analytical method combined with dynamic commodity models to find the problems encountered in the effort to gain highest added value in mineral utilization.

Keywords: Indonesia, Mineral Resources, Super-Downstream Industry, Added Value

1. Introduction

Two key words in the title are future and mineral industry, that would be studied in this article. In this article what so called minerals are including fossil energy mineral resources. In principle, the future constitutes era of globalization that as has been wide spread flared up within the last one human live period or era, while human live period per se has performed since the last 800 human live periods. One human live period is around say 60-70 years of age.

Alfin Toffler divides human live period that has spread since around 50,000 years in the past or around 800 human live periods. Within 799 human live period that initiated by stone age or living in the cave within 650 human live periods, then continued by the transition of engage in planting as early stage of agricultural cultivation within 140 human live periods, and era of metal or metal period when typing machine was initially utilized within 70 human live periods and followed by utilizing electrical machine within 3 human live period. And then human live is in the industrial era up to the present time as within the current one human live period.

In the last present live period, human start to begin with entering the era of modern industry or superindustry all at once in the transition of the present information era and supermodern industry that are mostly utilizing alloy or alloy of superconductor and semi conductor as well.

Red line in the path of human live period is measured based on the stage of utilizing mineral that is stone age, era of metal and era of industry and information era or era of super and semiconductor. Era of information constitutes era of telecommunication and computer where "chip" technology is as its back bone, and the raw materials of chip are rare elements or rare metal elements that are extracted from rare minerals like monazite containing yttrium, or other minerals containing scandium, europium, strontium, lantahnium, and its certain kind that function as super or semiconductor (Soelistijo, et al., 1993).

The aim of this article is to expose result of thought to observe about widening the outlook on the direction of utilization policy of various kinds of mineral and energy resources that actually contained in the Indonesia's earth facing the future of nation.

Toward the future, human still needs the three kinds of minerals as a whole, either minerals of energy, metal, nonmetal or industrial minerals. Minerals of energy either