

Pursuant to of November 17, 2010 Law No. 60/2010/QH12 on Minerals;

Pursuant to Politburo Resolution No. 02/NQ-TW of April 25, 2010, on the mineral strategy and mining industry orientations through 2020, with a vision toward 2030;

Pursuant to the Prime Minister's Decision No. 2427/QĐ-TTg of December 22, 2011, approving the mineral strategy through 2020, with a vision toward 2030;

Pursuant to the 2011-2020 socio-economic development strategy;

At the proposal of the Minister of Natural Resources and Environment in Report No. 36/TTr-BTNMT of May 7, 2013, and Official Letter No. 2629/BTNMT-DCKS of July 10, 2013,

DECIDES:

Article 1. To approve the master plan on basic geological surveys of minerals through 2020, and orientations toward 2030, with the following principal contents:

1. Viewpoints:

a/ To plan the survey and discovery of minerals together with the making of maps of area geology, hazard geology, environmental geology, marine geology and mineral resources, and geological and mineral research maps of 1:50,000 scale for the mainland and of 1:500,000 or larger for Vietnam's maritime zones along with detailed surveys, aiming to clarify the structure, genesis and development of the earth's crust to serve socio-economic development, national defense and security demands.

b/ To prioritize the assessment of the potential of each kind and group of important minerals, especially in geological settings with mineral prospect up to the depth of 500 m and 1,000

THE PRIME MINISTER

Decision No. 1388/QĐ-TTg of August 13, 2013, approving the master plan on basic geological survey of minerals through 2020, with orientations toward 2030

THE PRIME MINISTER

Pursuant to the December 25, 2001 Law on Organization of the Government;

m in some regions so as to clarify the potential of each kind of mineral to serve mineral exploration, exploitation, processing and use and reasonable national mineral reserves;

c/ To step up detailed surveys of minerals with prospect in Vietnam's maritime zones;

d/ To mobilize domestic resources in combination with international cooperation aiming to raise the technological level and increase investment funds and speed up the basic geological survey of minerals;

e/ The results of basic geological survey of minerals must actively serve the management of mineral resources in association with environmental protection and constitute important sources of data for forecast about and formulation of measures to control natural disasters in Vietnam, meeting the international integration requirements.

2. Objectives:

a/ To make geological and mineral survey maps

To complete the making of geological and minerals survey map of 1:50,000 scale in concentrated mineral areas and in association with regional economic development planning; mineral survey maps of 1:500,000 scale in association with detailed surveys of regions with mineral prospect in Vietnam's maritime zones, to continue with surveys about geological hazards and environmental geology and geological research; to further clarify the geological settings and mineral distribution, and zone off areas with mineral prospect, serving as a basis for socio-economic development, national defense and security planning.

b/ Mineral assessment

By 2020, to complete the overall assessment of the potential of minerals, focusing on coal,

iron, lead-zinc, gold, tin, manganese, radioactive ore, kaolin, feldspar, walling and flooring stones and minerals of great domestic demands, which serves as a basis for planning mineral exploration to serve the sustainable development of the mineral exploitation and processing industry and national mineral reserve.

To invest in the assessment and discovery of new mines in favorable structures at the depth of up to 1,000 m and marine minerals at the depth of over 300 m.

c/ To enhance capacity and international cooperation

To raise the scientific and technological level: To step up research and training, renew equipment and use advanced technologies; to establish and consolidate a national geological and mineral database.

To formulate projects on basic geological survey of minerals, attaching importance to international cooperation for application of high technologies and large investment.

d/ Environmental protection

To establish a geological and mineral database by 2020, satisfying the formulation and application of measures for effective environmental protection and hazard prevention and control.

3. Tasks:

So far, the survey for making geological mineral maps of 1:50,000 scale has been completed on 196,000 km², accounting for 57.37% of the mainland area; the survey for geological, geochemical, mineral and environmental maps of 1:500,000 scale at the depth of from 0 to 100 m underwater has been completed on 245,261 km², representing 24.5% of the Vietnam's maritime zones; a number of

onshore marine areas have been surveyed for making maps of 1:50,000 and 1:100,000 scales. This covers the following major tasks:

a/ To make geological and mineral survey maps; establish a geological and mineral database

- To make geological and mineral survey maps

+ The period up to 2015:

To complete the making of geological and mineral survey maps of 1:50,000 scale, investigating and assessing geological hazard risks of 10 groups of sheets already made before 2010. To survey, assess and forecast areas prone to landslide and erosion. The mineral geological surveys of maritime zones will concentrate on tasks being underway and projected at stage I of the project on “detailed survey of mineral geology, hydrological geology, engineering geology, environmental geology and hazard geology on islands and sea areas adjacent to islands of Vietnam”, giving priority to islands of Truong Sa archipelago.

To survey the geological characteristics, geodynamics, mineral geology and environmental geology and forecast geological hazards in Binh Thuan- Ca Mau sea areas at the depth of 300 m underwater, at 1:500,000 scale. To research, survey and assess geological structures with hydrate gas prospect in Vietnamese maritime zones.

To conduct airborne magnetic and gamma spectrometric and gravity surveys at 1:50,000-1:25,000 scale in western Nghe An. To conduct airborne magnetic and gamma spectrometric and gravity surveys of Vietnamese maritime zones.

+ The 2015-2020 period

To make geological and mineral survey maps of 1:50,000 scale, investigate and assess the

geological hazard risks of 15 groups of sheets on the mainland areas of the northern midland provinces and some Central Highlands areas;

To conduct airborne magnetic and gamma spectrometric and gravity surveys at 1:50,000-1:25,000 scale of Bac Kan-Tuyen Quang, Thanh Hoa and Lao Cai- Yen Bai; to continue with the airborne magnetic and gamma spectrometric and gravity surveys of Vietnamese maritime zones;

To complete the surveys of mineral geology, environmental geology, geodynamics, geological hazards at 1:500,000 scale in association with detailed surveys of areas with mineral prospects in the remaining maritime zones of Vietnam; to complete the project on “Research, survey, assessment and zoning off of geological structures with hydrate gas potential and prospect in Vietnam’s maritime zones”.

+ The 2020- 2030 period

To make geological and mineral survey maps of 1:50,000 scale in 10 remaining groups of sheets of Central Highlands, southern and northern delta provinces.

To conduct airborne magnetic and gamma spectrometric and gravity surveys of 1:50,000 and 1:25,000 scales of Dak Glei- Kham Duc, the northeastern edge of Lo Gam, Lai Chau- Son La, and the remaining maritime zones of Vietnam.

- Topical research in association with geological survey of minerals

In the course of making geological and mineral survey maps in the period through 2020, to conduct topical researches into petrology, stratigraphy, tectonics, general and zone-based metallogeny, types of mineral mines and forecast of surface and underground areas with prospect. To conduct overall surveys

of geological heritages to serve the construction and development of geo-parks in our country.

- To establish a geological and mineral database

To formulate and implement the project on enhancing the capacity for application of information technology to basic geological survey of minerals. By 2015 to implement phase 1 of the project “Building capacity for application of information technology to basic geological surveys and mineral exploration”, aiming to attain the target of maximum computerization of the field collection of documents on geological survey of minerals and 100% of in-office summarization of reports will be computerized and placed in the unified GIS environment fully meeting the international integration standards.

From 2015 to 2020, to complete the mineral geology database, ensuring the unified storage of geological and mineral database nationwide. To build up the center for information and archive of geology with modern physical facilities and equipment on par with regional and global ones.

To consolidate and expand the indoor and open-air geological museums, storing and preserving systems of geological and mineral specimens and relevant information, satisfying the demands of management, survey and knowledge dissemination to the community. To enhance the capacity and modernize the systems of specimen display at geological museums.

b/ To assess the potential of each kind and each group of minerals; to identify regions of mineral prospect.

To prioritize the overall evaluation of the potential of each kind and each group of

important minerals according to the orientations of the mineral strategy through 2020, with orientations toward 2030, concretely:

- In the period up to 2015:

To complete the assessment of mineral potentials of projects being underway and projects assigned by the Government: To survey for overall assessment of bauxite and laterite ore potentials in southern Vietnam; to assess Vietnam’s uranium potential.

To basically complete the Project on survey and overall assessment of coal resources on the mainland and the Red river basin and the projects on overall assessment of the potentials of a number of minerals with domestic consumption demands.

- In the 2015- 2020 period:

To conduct the overall assessment of the potentials of gold, lead-zinc, tin and copper for general determination of their potentials and accurate selection of regions with mineral potential and prospect; to assess the hidden potentials of minerals in areas with favorable structures, with regard to lead-zinc, tin and gold ores.

To make region-based overall assessment of the potentials of a number of minerals with great demands to serve the national planning on mineral exploitation and reserve.

- In the 2020-2030 period:

To assess the hidden potentials of minerals in areas with prospect for discovering new mines, giving priority to tin and gold ores. To assess minerals in areas with prospect within Vietnamese maritime zones.

The list of projects and implementation time frames are provided in Appendixes I, II and III to this Decision (*not translated herein*).

c/ To enhance scientific and technological capacity for basic geological survey of minerals:

- Analyzing and testing equipment: To add and furnish new modern and synchronous equipment, meeting the requirements of analyzing geological and minerals specimens; paying attention to investment in equipment for consolidation and development of the isotope analysis method;

- Geophysical equipment: To additionally invest in modern equipment (seismographs, gravity, magnetic and electrometers to serve geophysical gauging on the surface and underground; geophysical measuring equipment for bores up to 2,000 m deep;

- Other equipment: To additionally invest in remote-sensing analytical devices for the formation of a strong remotely sensed image interpretation center on par with regional ones; boring equipment for the depth of up to 1,200 m and vehicles to serve geological surveys on the mainland and sea;

- Capacity building: To consolidate and build basic geological survey units with high quality and neat organization, high professional qualifications, and modern surveying and data-processing equipment.

4. Solutions to implementation of the master plan

- To complete and renew policies and mechanisms for management, allocation and settlement of non-business economic funds for basic geological surveys in accordance with the budget law and practical situation;

- To develop a mechanism for management and allocation of investment capital for basic geological surveys from revenues earned from mineral activities;

- To renew and improve the processes, norms, standards and technical regulations on basic geological survey of minerals, conforming to the development level and advanced technological capacity of regional countries;

- To concentrate investment in researching and selecting advanced and modern methods and equipment of high precision and efficiency in basic geological surveys of minerals and lab analysis of geological and mineral specimens;

- To zone off areas for making a list of projects in basic geological survey of minerals in which organizations and individuals are encourage to invest;

- To intensify international cooperation on mineral research and forecast, with regard to deep structures of mineral potential for discovery of new mines; cooperation for approaching geological scientific achievements of advanced countries, stepping up the application of modern methods, equipment and technologies to basic geological survey of minerals. To prioritize international cooperation on basic geological surveys of minerals in Vietnam's maritime zones.

5. Implementation fund

a/ Projected investment funds by planning period

- Fund for basic geological surveys of minerals on the mainland through 2020 is estimated at VND 3,900 billion, including:

 - + VND 1,000 billion for the period up to 2015;

 - + VND 2,900 billion for the 2015-2020 period.

- Fund for basic geological survey of minerals in Vietnam's maritime zones is

estimated at around VND 3,800 billion, including:

+ VND 2,200 billion for the period up to 2015;

+ VND 1,600 billion for the 2015- 2020 period.

- In the 2020-2030 period, it is estimated at about VND 2,900 billion. Based on the survey results up to 2020, the tasks and investment fund will be adjusted to suit the socio-economic development situation.

Fund for every specific project will be approved by competent authorities according to regulations.

b/ Funding sources

- The investment fund for implementation of the master plan on basic geological survey of minerals will come from the following sources:

+ The state budget (non-business economic expenditures); revenues from refunded expenditures for basic geological surveys of minerals, state-invested expenditures for mineral exploration; revenues from the licensing of mineral exploitation rights and proceeds from auctions of minerals exploitation rights;

+ Funds contributed by domestic and foreign organizations and individuals to basic geological surveys of minerals for projects on the list of encouraged investment projects approved by the Prime Minister.

Article 2. Organization of implementation

1. The Ministry of Natural Resources and Environment shall:

- Assume the prime responsibility for, and coordinate with related ministries, sectors and

localities in, organizing the implementation of the master plan;

- Make a list of encouraged investment projects on the basis of the list of projects under the master plan, submit it to the Prime Minister for approval and promulgation for organizations and individuals to contribute their investment funds, thus speeding up the implementation of the master plan;

- Evaluate the progress, quality and efficiency of the performance of tasks under the master plan twice in the planning period (5 years), report the evaluation results to the Government for use as a basis for further implementation.

2. On the basis of evaluation of the progress, quality and efficiency of investment in the projects under the master plan, the Ministry of Planning and Investment and the Ministry of Finance shall allocate revenues from minerals activities for the implementation of the master plan as scheduled.

3. Provincial-level People's Committees shall coordinate in and facilitate the basic geological surveys of minerals as planned within the areas under their administrative management.

Article 3. This Decision takes effect on the date of its signing.

Article 4. Ministers, heads of ministerial-level agencies, heads of government-attached agencies and chairpersons of provincial-level People's Committees shall implement this Decision.-

Prime Minister
 NGUYEN TAN DUNG