



Brazilian Academy of Sciences

13th and 14th of August 2013

SYMPOSIUM

Mineral Resources in Brazil: Problems and Challenges

The symposium

Understanding that the exploitation of mineral resources requires a massive use of the scientific knowledge available on the subsoil and on the genesis of mineral deposits, and seeking to draw scenarios for the future demands on these mineral resources, including energy related minerals, ABC decided to organize the symposium "Mineral Resources in Brazil: Problems and Challenges". The initiative - besides highlighting the concern of the Academy concerning the bottlenecks and policy, research and mineral exploration challenges in Brazil - aims to lay the groundwork for ABC to cast a more attentive look towards the Brazilian mineral sector.

The dynamics

The symposium will be divided into four sessions, each one containing two presentations, which will be followed by interventions made by high-level experts, who were specially invited to serve as panelists. Following each block of presentation and interventions by the speakers, we will have time for a brief plenary discussion.

Session I:

Brazil in the mineral world

Currently, the Brazilian mineral policy is focused towards the export of commodities, instead of building a national industry based on raw materials of mineral origin. This session will analyze topics related to the Brazilian perspective with regards to mineral economics: strategic minerals (rare earth elements and fertilizers), mineral and industrial policy, domestic market, import and export, transportation. This session will also discuss the governmental institutions and the mining companies, in light of regulatory frameworks and investment in the sector.

Session II:

Mineral potential of Brazil

Brazil, despite having a considerable quantity of mineral resources, still depends on the import of many others. In this session, the existing and the potential resources will be specified, as well as the recent discoveries and the role of the government and of private enterprise in the pursuit of strategic reserves. In addition, bearing in mind that the metallogenic processes are highly complex, the role of science and how can it contribute to mineral exploration will also be discussed.

Session III:

Energy related mineral resources

This session will describe the different uses of mining products, used as energy resources in Brazil, with special consideration to the economic and environmental aspects. Emphasis will be given to characterize the relative importance of fossil fuels (oil, coal and gas) and nuclear (uranium), as well as its participation in the Brazilian energy matrix and the possible future developments.

Session IV:

Mineral Brazil, the vision of the future

In this session the Brazilian mineral resources will be discussed in terms of their importance within national planning, both at present and in the future. The discussion should be holistic, taking into account the country's needs with regards to a sustainable development, considering the environmental and social aspects.

Program:
August 13th (Tuesday)

9am OPENING

SESSION I: BRAZIL IN THE MINERAL WORLD

Mediator: *Diogenes de Almeida Campos*

Debaters: *Fernando Lins* (Cetem); *Iran Machado* (Unicamp); *John Forman* (J. Forman Consulting); *Miguel Nery* (ABC); *Renato Ciminelli* (INCT-Acqua); and *Virgínia Ciminelli* (UBC/UFGM)

9:10am *Carlos Nogueira da Costa Júnior* (MME)

9:40am Debate

10:40am Presenter's Synthesis

10:50am COFFEE BREAK

11:10am *Elmer Prata Salomão* (ABPM)

11:40am Debate

12:40pm Presenter's Synthesis

12:50pm Mediator's Synthesis

1:00pm LUNCH

SESSION II: MINERAL POTENTIAL OF BRAZIL

Mediator: *Aroldo Misi* (ABC/UFBA)

Debaters: *Breno A. dos Santos* (Consultant); *Elmer Prata Salomão* (ABPM); *Jones Belther* (Votorantim Metals); *Jorge Bettencourt* (USP); *Márcio Godoy* (Vale); *Marcondes Lima* (ABC/UFPA) and *Rafael Avena Neto* (CBPM)

2:30pm *Manoel Barretto da Rocha Neto* (CPRM)

3:00pm Debate

4:00pm Presenter's Synthesis

4:10pm COFFEE BREAK

4:30pm *Orildo João Marini* (ADIMB)

5:00pm Debate

6:00pm Presenter's Synthesis

6:10pm Mediator's Synthesis

Program:
August 14th (Wednesday)

9am SUMMARY OF THE PREVIOUS DAY

SESSION III: ENERGY RELATED MINERAL RESOURCES

Mediator: *Umberto G. Cordani* (ABC/USP)

Debaters: *Aquilino Senra* (INB); *Colombo Tassinari* (ABC/USP); *Edison Milani* (Petrobras); *Gilmar Bueno* (Petrobras); *John Forman* (J. Forman Consulting); *José Goldemberg* (ABC/USP); *José Israel Vargas* (ABC/UFGM); *Maurício Tolmasquim* (EPE); *Paulo Heibron* (CNEN) and *Roberto Villas-Bóas* (Cetem)

9:10am *Guilherme Estrella* (geologist)

9:40am Debate

10:40am Presenter's Synthesis

10:50am COFFEE BREAK

11:10am *Luiz Pinguelli Rosa* (ABC/UFRJ)

11:40am Debate

12:40pm Presenter's Synthesis

12:50pm Mediator's Synthesis

1:00pm LUNCH

SESSION IV: MINERAL BRAZIL, THE VISION OF THE FUTURE

Mediator: *Adolpho José Melfi* (ABC/USP)

Debaters: *Evando Mirra* (ABC/UFGM); *Guilherme Estrella* (geologist); *José Tundisi* (ABC/IEE); *Luiz Bevilacqua* (ABC/UFRJ); *Renato Ciminelli* (INCT-Acqua); *Roberto Dall'Agnol* (ABC/Tech. Inst. Vale Sust. Develop.) and *Roberto Villas Bóas* (Cetem)

2:30pm *José Goldemberg* (ABC/USP)

3:00pm Debate

4:00pm Presenter's Synthesis

4:10pm COFFEE BREAK

4:30pm *Sergio Machado Rezende* (ABC/UFPE)

5:00pm Debate

6:00pm Presenter's Synthesis

6:10pm Mediator's Synthesis