

**4th World Congress of Biosphere Reserves (4WCBR) 'A New Vision for the Decade
2016-2025 - UNESCO Biosphere Reserves for Sustainable Development'**

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**Biosphere reserve and mining activities:
learning experiences and commitments**

Working Group on "Biosphere Reserves and Earth Resources"

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Large-scale mining – Dam disaster

FINANCIAL TIMES

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March 2, 2016 10:44 pm

Samarco faces R\$30bn dam disaster bill

Samantha Pearson in São Paulo

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Business, Politics, Technology & Finance News

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Published On: Thu, Mar 3rd, 2016 Business | By Sylvia Dellis

BHP Billiton Agrees To Compensation Agreement For Samarco Dam Failure

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Planète

PLANÈTE: Le virus Ebola · Énergies · Biodiversité · Ressources naturelles · Population · Agriculture & Pêche

Au Brésil, 6 milliards de dollars pour réparer les dommages de l'immense coulée de boue

Le Monde 5 avr 2016 AFP | 03/03/2016 à 09h41 · Mis à jour le 03/03/2016 à 10h17

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EL PAÍS

CONTAMINACIÓN

El tsunami de barro tóxico, el mayor desastre medioambiental de Brasil

- Un vertido minero hace estragos por el río Dulce y pone en riesgo todo un ecosistema
- Miles de personas no saben si están consumiendo agua contaminada con metales pesados
- FOTOGALERÍA Peces muertos en Río Dulce

HERIBERTO ARAÚJO | Resplendor (Brasil) | 31 DIC 2015 - 10:23 BRST

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Brazil's slow-motion environmental catastrophe unfolds

Toxic mudslide from collapse of dams spreads as BHP Billiton fined \$66m



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Mining Firms Samarco, Vale and BHP Billiton Settle With Brazil Over Dam Disaster

Agreement could allow them to pay far less than government lawyers originally sought.

By PAUL KIERNAN
Updated March 2, 2016 6:09 p.m. ET

RIO DE JANEIRO—Mining companies responsible for a disastrous dam failure in Brazil last year signed an agreement with authorities Wednesday that could allow them to pay far less than the 20.2 billion Brazilian reals (\$5.2 billion) originally sought by government

Accident of Mariana/ SAMARCO - 2015

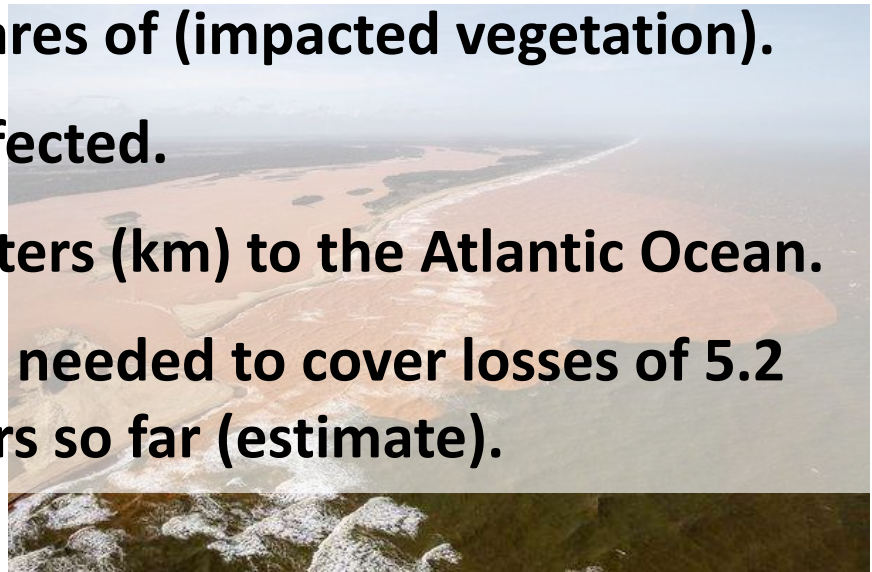




- 50 to 60 million t of tailings released an important Brazil's watershed.
- Shortage of water for human consumption.
- Standstill of the economy: fishing, agriculture, industry and tourism.



- 2.000 hectares of (impacted vegetation).
- 37 cities affected.
- 600 kilometers (km) to the Atlantic Ocean.
- Investment needed to cover losses of 5.2 billion dollars so far (estimate).



**Community
interests and
social control
representative to
participative**

**Municipalities
with greater
preparation for
economic
alternatives**

**Ecosystem
conservation
Traditional Culture
and People**

**Guarantees and
security**

**Mining waste
management**



FINAL REPORT (p. 40)

International Advisory Committee for Biosphere Reserves

25-28 January 2016

254. **Espinhaço Range Biosphere Reserve (Brazil)** The Advisory Committee welcomed the first periodic review report for this biosphere reserve, designated in 2005 and congratulated the national authorities for the high quality of the information provided. The Advisory Committee noted with satisfaction the work done in this biosphere reserve for the last ten years in order to promote conservation and sustainable development (training courses, seminars, and development of educational and information material) in line with the principle of the Biosphere Reserve.

255. The Advisory Committee considered that the site meets the criteria of the Statutory Framework of the World Network of Biosphere Reserves, however, recommended to put more attention on mining activities developed in the Biosphere Reserve and explore how to better manage them.



Proposal:

1 - Platform for dialogue

2 - Call for other Biosphere Reserves

3 - References

4 - Schedule of events

5 - Database

6 - Cooperation plans

7 - Guidelines (best practices) for Mining in BRs

1. Build of a dialogue platform: conformation of WG (Working Group) international in the framework of UNESCO MaB-IGCP.

- Mapping of actors and partners considering the events already carried out: "Biosphere Reserves & Earth Resources Expert Meeting" (Paris/2011), "Seminário Internacional sobre Mineração e Sustentabilidade Socioambiental em Reservas da Biosfera" (Brazil/2013).
- Organization of infrastructure and agenda of virtual and present events.
- Implementation of a communication system amongst participants.

2. Documents of reference: Gathering of main documents and guidelines produced by UNESCO programmes and by mining sector.

- Set up an Observatory of Mining Good Practices and BRs
- Bibliographic Research.
- Discussion about ICMM guides and other.
- Proceedings of Belo Horizonte Seminar (2013).
- Letter of Lima/Peru 2016: Agreement and recommendations.
- ODS.
- Mining Code.
- Environmental compensation.
- Social-environmental Licensing.
- Documents of BR (Recognition and Periodic Review)



3. Events and working meetings: Mapping of the situation of mining activities in BRs territories including all continents and ecosystems and integrating the managers and experts.

- Organization of seminars, workshops and virtual meetings.
- Expand the group of participants.
- Exchange of information.
- Identification of good practices and initiatives of mining companies, government, NGOs, MaB Committees in BRs territories.
- Evaluation of initiative , practice and operation convergences of mining companies toward guides of UNESCO MaB programme.

4. Data Base: Systematization of information

- Information collection.
- Information treatment
- Data crossing and integration.
- Georeferencing.
- Organization of thematic groups related to divers stages of mining activities.
- Data availability and management.
- Data evaluation, monitoring and periodic review.

5. Proposals for cooperation: Development of cooperative between mining sector and BRs committees.

- Undertake practical actions integrating the companies initiatives and management of BRs.
- Evaluate the feasibility of financing proposals of the World Network of BRs.
- Promote the integration of on-going and future actions amongst the divers involving actors.



6. Final product: Guide of best practices for Mining activities in BRs.

- Based on experiences, the analysis of information and evaluation of cooperative proposals, the Working Group send to MaB a set of practices in form of Guide to direct managers, experts and mining companies.
- International Workshop for definition of Executive Summary and cooperative accountabilities.
- Set up the Observatory UNESCO/MaB – Mining in Biosphere Reserves.



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GRACIAS!