



Foto: Revista Brasil Mineral

Iron ore exploitation in Conceição do Mato Dentro (MG) has social and environmental impacts

DATE
03/11/2011

DISTRICT
MG - Conceição do Mato Dentro

LATITUDE
-

LONGITUDE
-

SUMMARY

Conceição do Mato Dentro lives the dilemma between preserving its cultural and tourist vocation and the mining activity. The reason for this is a new mineral project, the Minas-Rio System, which is already under implementation by Anglo American, with capacity to produce 26.5 million tons/year of iron ore, from the second half of 2013, when it comes into operation.



Foto: Revista Brasil Mineral

CASE DESCRIPTION

The municipality of Conceição do Mato Dentro (MG) is located in the middle of Serra do Espinhaço, 168 km of Belo Horizonte, and near the Serra do Cipó National Park (PORTAL CMD, 2010). With 1,726,829 km² and a population of 17,908 inhabitants (IBGE, 2010), the municipality has a historic heritage dating back to the 18th century, high biodiversity, natural riches, such as the Tabuleiro Waterfall – the second highest waterfall in Brazil – as well as cultural diversity, being considered the 'Capital of Ecotourism' (PORTAL CMD, 2010).

The city is divided between the preservation of its historical, cultural and tourist vocation and the mining activity. On the one hand, mining promises to substantially increase the municipality's cash flow through increased tax collection and payment of royalties. On the other hand, the concern with the environment and with sustained growth is increasing, since the city is in the Serra do Espinhaço, recognized by the United Nations Educational, Scientific and Cultural Organization (Unesco) as a Biosphere Reserve of the Espinhaço Mountains (FURBINO, 2010).

The reason for the dilemma is the Minas-Rio System, under implementation in the region. The system was initially designed by MMX Mineração e Metálicos, of the EBX Group, and is being run by the South African Group Anglo American, which bought the business in 2008 (FURBINO, 2010) and created Anglo Ferrous Brazil to implement it (KATTAH; MASSOTE, 2009). Total investments in the project revolve around US\$ 7 billion (MAPA DA INJUSTIÇA AMBIENTAL E SAÚDE NO BRASIL, 2009).

The enterprise is located "at the headwaters of the Santo Antônio River, the westernmost point of the Doce River basin, in the vicinity of the watershed of the São Francisco and the Jequitinhonha River Basins" (PARECER ÚNICO SISEMA Nº 001/2008, p. 4 apud ENEBIO, 2009, p. 10). The area is considered of extreme importance for the conservation of biological diversity of fish species in the region (MMA, 2000 apud ENEBIO, 2009).

The initiative comprises an open-pit iron ore mine, the Sapo-Ferrugem Mine, in Conceição do Mato Dentro, a beneficiation unit in the neighboring municipality of Alvorada de Minas, a

525- km-long pipeline – the largest under construction in the world and which will cross 25 municipalities in Minas Gerais and 7 municipalities in Rio de Janeiro - a power transmission line and an iron terminal at the Port of Açu, located in São João da Barra, Rio de Janeiro State. Anglo American holds a 49% stake in the terminal, a joint-venture with LLX, another company of the EBX Group (CAMARGO CORRÊA, 2010). Moreover, it foresees the construction of a water pipeline - catching the water from the Peixe River, basin of Doce River, in the city of Dom Joaquim, Minas Gerais. The pipeline will supply water for the Minas-Rio System industrial process as well as for the ore pipeline (ENEBIO, 2009).

The Sapo-Ferrugem mine, with an operating life of around 40 years, has reserves of 1.5 billion tons, with 37.9% content of iron oxide (Fe₂O₃). The beneficiation unit will produce 26.5 million tons of iron ore per year (BECKER; PEREIRA, 2011). The ore destination is the foreign market, which has grown significantly in recent years thanks to the price boom caused by the Chinese demand (ANGLO AMERICAN, 2009).



O Sistema Minas-Rio atravessará 26 municípios mineiros e 7 fluminenses.

The Minas-Rio System has strategic importance to Anglo American, the world's fourth largest mining company, which aims at a 10% stake in the world iron ore market until 2016. Today the company accounts for only 3% (PORTO, 2010; BRASIL MINERAL, 2009). As for the State, the project is seen as a lever for regional development (BECKER; PEREIRA, 2011).

The ore pipeline is a project of great complexity. In order to transport ore through a tube, it must be mixed with a lot of water (PORTO, 2010) - hence the need to build a pipeline in Dom Joaquim (MG). The ore pipeline itself should consume 2,500 m³ of water per hour, the equivalent of 3.15% of the flow of the Peixe River (HOJE EM DIA, 2008). In addition to ensuring the use of the River, Anglo Ferrous has to build the largest water pumping stations ever made for a work of this size and also a dam to receive 25 million tons of tailings (MAPA DA INJUSTIÇA AMBIENTAL E SAÚDE NO BRASIL, 2009; PORTO, 2010).

With respect to changes in the water dynamics arising from the enterprise, there are controversies about the assessment

made by the Environmental Impact Study and the Environmental Impact Report (EIA/RIMA) on the impacts of the project. According to the report, the actual impact during the installation phase will be low, as long as a water resources management program and a sub-program for hydrogeological studies as mitigating measures are adopted. At the operation stage, however, the environmental report points out a medium impact. Nevertheless, biologists argue that the report would have underestimated the damage that many economic activities, such as agriculture and tourism, may have with the reduction of available water. The fauna and flora of the countryside and the river banks can also be affected (GOULART, 2007).

Another issue is the impact caused by the drawdown of water table and the repositioning of springs in Serra do Sapo. This can lead to a worsening of water quality in the agricultural and tourist activities, as well as changes in the biological community (fish, reptiles, amphibians, riverside wood, etc.) downstream of the project, i.e. where the waters flow to (GOULART, 2007).

The pipeline on the Peixe River could compromise the aquatic ecosystems and river populations living off its resources. Moreover, ore extraction in the regions of aquifers may damage the water quality because in order to perform iron ore beneficiation, toxic materials are used (ENEBIO, 2009).

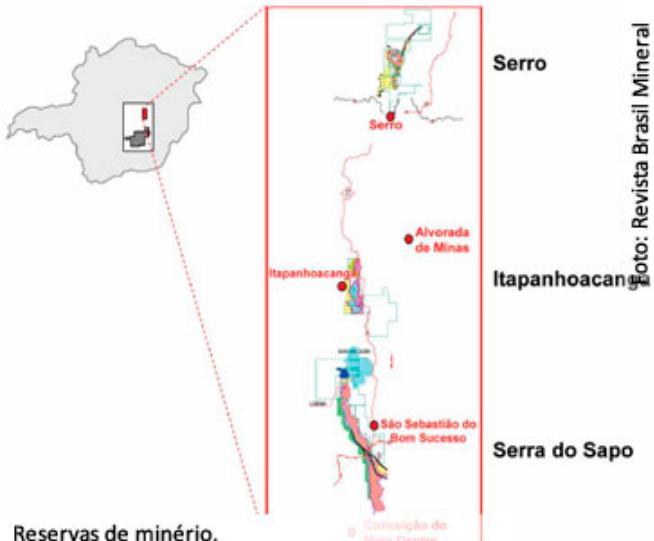
Anglo Ferrous produced a 70-page document in response to these questions and claims that the potential impact on the springs and groundwater may occur only at the time when it will be necessary to lower the water level for the implementation of the mine activities, when granting requests will be made to the environmental agency. In addition, the company states that it is monitoring the water levels of aquifers in various representative areas and says that there is an ongoing record of springs in the region (ANGLO FERROUS MINAS-RIO MINERAÇÃO S.A., 2008).

The controversy, however, continued. On July 31, 2009, the Court of Justice of Minas Gerais (TJ-MG) granted an injunction that suspended the environmental licensing for the construction of the mine in Conceição do Mato Dentro. The lawsuit contests the validity of the Previous License (LP), which would have been issued without the environmental agency's examination of all issues relating to the environmental feasibility of the project. In addition, the Organic Law of the municipality requires the hiring of insurance or security deposit for recovery of the environment, a condition not met by Anglo Ferrous (COSTA, 2009a).

Less than a month later, on August 12, the Federal Public Prosecutor's Office (MPF/MG) and the Public Prosecutor's Office of Minas Gerais also called the nullity of the licensing procedures and of the licenses granted so far, an attribution it claims to be of exclusive competence of the Brazilian Institute of Environment and Renewable Natural Resources (Ibama) (KATTAH; MASSOTE, 2009).

The analysis on the impacts generated by the enterprise was,

according to the MPF/MG, "unduly fragmented", since the elements of the project (mine, pipeline and port) were licensed separately by Federal and State bodies. These structures, in the MPF/MG's point of view, do not exist independently and are "inseparable" (KATTAH; MASSOTE, 2009), and according to the environmental agency, separate licensing has been chosen to give greater transparency to the whole process (MINE BLOG, 2009).



On September 3, 2009, the Superior Court of Justice overturned the injunction granted by TJ-MG that paralyzed the licensing process of the iron mine in Conceição do Mato Dentro (COSTA, 2009b). Yet, on December 17, 2009, Anglo Ferrous obtained another decision favorable to it: the Environmental Policy Council granted the company the Installation License (LI) for earth-moving works in the whole mine area and in the beneficiation plant (DURÃO, 2009).

The ore pipeline obtained the Installation License (LI) in June 2008 from Ibama and began construction on section 3 (earth-moving works in the municipalities of Porciúncula, Natividade and Itaperuna), and the implementation of the pump stations in Santo Antônio do Gramá and Conceição do Mato Dentro. The port obtained the LI in 2007, granted by the then State Foundation of Environmental Engineering (Feema) and the works on the pier and the filter area are advanced, with more than 2,000 workers and likely to reach 5,000 (MINE BLOG, 2009).

Anglo Ferrous intended to start operation of the Minas-Rio System in 2012 but was forced to revise its schedule. Firstly due to the delay in obtaining other licenses, and secondly because the pipeline (LAGUNA, 2010) goes through 1,200 properties, which requires negotiating the compensations individually with each owner (PORTO, 2010).

The Government of Minas Gerais declared that the strips of land necessary for the construction of additional facilities at the ore pipeline and the implementation of the iron ore mine and its beneficiation plant are subject to expropriation for public utility in favor of Anglo Ferrous. It also expropriated 752 properties in the municipalities where the pipeline will pass. Moreover, it decreed as public utility the areas for intervention

and removal of vegetation in any stage of regeneration, located in the Atlantic Forest (MINAS GERAIS, 2009 apud BECKER; PEREIRA, 2011). As for the Government of Rio de Janeiro, it expropriated 369 properties in the municipalities where the ore pipeline will go through (RIO DE JANEIRO, 2009 apud BECKER; PEREIRA, 2011).

As a compensation for the communities where the ore pipeline will pass, the company claims to be implementing several environmental projects, such as a sanitary landfill of collective use that will suit eight municipalities of Minas Gerais and two of Rio de Janeiro, in the basins of the Paraíba do Sul River and the Doce River. Since 2007, the company has been performing, in partnership with LLX, the Sandbank (restinga) Recovery Program in the Açu Superport. An area with 60,000 m², among the Iquipari and Gruçáí Lagoons, has already been recovered and received over 76,000 seedlings of 50 native species of the region (MAXPRESS, 2010).

In March 2011, Anglo Ferrous started the construction works of the beneficiation plant and the tailings dam, as well as the opening of the mine. The company estimates a term of 27 to 30 months to build and commission the mine and the plant, complete the works and perform the first iron ore loading by ship (VALUE ONLINE, 2011). (VALOR ONLINE, 2011).

GEOGRAPHIC LOCATION

BIBLIOGRAPHIC REFERENCES

ANGLO AMERICAN. Anglo American participa da Exposibram 2009. In: Site, Rio de Janeiro, 21 ago. 2009. Disponível em: http://www.angloamerican.com.br/aa_br/media/releases/2009pr/2009-08-21/. Acesso em: 06 ago. 2010.

ANGLO FERROUS MINAS-RIO MINERAÇÃO S.A. Resposta ao Laudo Técnico elaborado pelo Sr. Fernando Figueiredo Goulart, sobre o Relatório de Impacto Ambiental referente ao empreendimento de extração de minério de ferro nos municípios de Conceição do Mato Dentro, Alvorada de Minas e Dom Joaquim pela empresa MMX. Belo Horizonte, dez. 2008. Disponível em: http://www.google.com/url?sa=t&source=web&cd=1&ved=0CBIQFjAA&url=http%3A%2F%2F200.198.22.171%2Fdown.asp%3Fx_caminho%3Dreunioes%2Fsi stema%2Farquivos%2Fmaterial%2F%26x_nome%3DResposta_ao_Laudo_sob r e _ R I M A _ - _ A n g l o _ F e r r o u s _ M i n a s - R i o _ M i n e r a %25E7%25E3o_S.A..pdf&ei=NLNITMrsD4GB8gbG_NyPCQ&usg=A FQjCNEfCXWZ69UvGhYKZuRT1qsFLf_sQ&sig2=Rj7mkARBm0Iru1xqAn_RQ . Acesso em: 13 ago. 2010.

BECKER, Luzia Costa; PEREIRA, Denise de Castro. O projeto Minas-Rio e o desafio do desenvolvimento territorial integrado e sustentado: a grande mina em Conceição do Mato Dentro. In: FERNANDES, Francisco Rego Chaves; ENRIQUEZ, Maria Amélia; ALAMINO, Renata de Carvalho Jimenez. Recursos minerais & sustentabilidade territorial: v. 1. Grandes Minas e Comunidades Locais C E T E M / M C T I , 2011. Disponível em: <http://www.cetem.gov.br/workshop/pdf/vol1grandesminas.pdf>. Acesso em: 04 nov. 2011.

BRASIL MINERAL. Anglo quer expandir produção com projetos no Brasil. São Paulo, 16 dez. 2009. Disponível em: <http://www.brasilmineral.com.br/BM/default.asp?COD=4637&busca=&numero=432>. Acesso em: 07 ago. 2010.

CAMARGO CORRÊA. Sistema Minas-Rio: Maior mineroduto do mundo está sendo construído no Brasil. In: Metalica.com.br, São Paulo. Disponível em: <http://www.metalica.com.br/sistema-minas-rio-maior-mineroduto-do-mundo-no-brasil/>. Acesso em: 07 ago. 2010.

COSTA, Breno. Justiça de Minas Gerais suspende projeto de exploração de ferro. Folha Online, São Paulo, 3 ago. 2009. 2009a. Disponível em: <http://www1.folha.uol.com.br/folha/dinheiro/ult91u604456.shtml>. Acesso em: 09

ago.2010.

_____. STJ destrava licenciamento de mina da Anglo Ferrous em Minas. Folha Online, São Paulo, 3 set. 2009. 2009b. Disponível em: <http://www1.folha.uol.com.br/folha/dinheiro/ult91u619255.shtml>. Acesso em: 09 ago.2010.

DURÃO, Vera Saavedra. Anglo American obtém licenças para Minas-Rio. Valor Online, São Paulo, 21 dez. 2009. Disponível em: <http://www.valoronline.com.br/?online/empresas/11/6013132/anglo-american-obtem-licencias-para-minasrio&scrollX=0&scrollY=209&tamFonte=>. Acesso em: 07 ago. 2010.

ENEBIO, Entidade Nacional de Estudantes de Biologia. Recursos hídricos no Brasil: Estudo de caso. Universidade Federal do Ceará (UFC). Fortaleza, jul. 2009 . Disponível em : <http://d.yimg.com/kq/groups/17805016/1277854277/name/Cartilha1+ENEBio+RH.pdf>. Acesso em: 09 ago. 2010.

FURBINO, Zulmira. Disputa entre mineradoras e preservação deixa cidade em pé de guerra. Jornal Estado de Minas. In: Portal Uai, Belo Horizonte, 28 mar. 2010 . Disponível em : http://www.uai.com.br/htmls/app/noticia173/2010/03/28/noticia_economia,i=153341/DISPUTA+ENTRE+MINERADORAS+E+PRESERVACAO+DEIXA+CIDAD+E+EM+PE+DE+GUERRA.shtml. Acesso em: 08 ago. 2010.

GOULART, Fernando. Laudo sobre o Relatório de Impacto Ambiental referente ao empreendimento de extração de minério de ferro nos Municípios de Conceição do Mato Dentro, Alvorada de Minas e Dom Joaquim pela empresa MMX. Belo Horizonte, set. 2007. Disponível em: http://www.google.com/url?sa=t&source=web&cd=1&ved=0CBQQFjAA&url=http%3A%2F%2F200.198.22.171%2Fdown.asp%3Fx_caminho%3Dreunioes%2Fsti_stema%2Farquivos%2Fmaterial%2F%26x_nome%3DLaudo_sobre_RIMA_-_Angelo_Ferreiros_Minas-Rio_Minera%25E7%25E3o_S.A.pdf&ei=_KdITJ_PLYK78gbrqJiRCA&usg=AFQjCNHR3pDkVlsvkXWI-crOKQbJ3xhJA&sig2=JeJRfnfom3I0sHJIRS_Msw. Acesso em: 08 ago. 2010.

HOJE EM DIA. Decreto garante desapropriações para mineroduto da MMX. In: IBRAM - Instituto Brasileiro de Mineração, Brasília, 7 mar. 2008. Disponível em: http://www.ibram.org.br/003/00301009.asp?ttCD_CHAVE=52660.Acesso em: 14 ago. 2010.

IBGE. Instituto Brasileiro de Geografia e Estatística. Conceição do Mato Dentro (M G) . In: IBGE Cidades, 2010. Disponível em : <http://www.ibge.gov.br/cidadesat/xtras/perfil.php?codmun=311750&r=2>. Acesso em: 03 nov. 2011.

KATTAH, Eduardo; MASSOTE, Raquel. MPF pede paralisação de obras do mineroduto Minas-Rio. Agência Estado. In: Estadão.com.br, São Paulo, 12 ago. 2009. Disponível em: <http://www.estadao.com.br/noticias/economia,mpf-pede-paralisacao-de-oberas-do-mineroduto-minas-rio,417799,0.htm>. Acesso em: 07 ago. 2010.

LAGUNA, Eduardo. Projeto da Anglo American no Brasil atrasa. Valor Online, São Paulo, 30 jul. 2010. Disponível em : <http://www.valoronline.com.br/?online/mineracao/185/6409582/projeto-da-anglo-american-no-brasil-atrasa#ixzz0w2raRgrv>. Acesso em: 08 ago. 2010.

MAPA DA INJUSTIÇA AMBIENTAL E SAÚDE NO BRASIL. Mineração e transposição de águas para grande empresa é licenciada de forma irregular pelos governos estadual e federal, condenando uma das áreas com patrimônio natural e cultural mais significativos de Minas Gerais, 21 dez. 2009. Disponível em: <http://www.conflitoambiental.icict.fiocruz.br/index.php?pag=ficha&cod=229>. Acesso em: 04 nov. 2011.

MAXPRESS. Anglo American promove ações socioambientais nas comunidades de Catuné e Água Santa de Minas. In: IBRAM - Instituto Brasileiro de Mineração, Brasília, 10 jun. 2010. Disponível em : http://www.ibram.org.br/150/15001002.asp?ttCD_CHAVE=113034. Acesso em: 15 set. 2010.

MINE BLOG. Minas-Rio obtém licenças de instalação. São Paulo, 17 dez. 2009. Disponível em: <http://www.inthemine.com.br/mineblog/?p=276>. Acesso em: 09 ago. 2010.

PORTAL CMD. Conceição do Mato Dentro. Informações gerais, página atualizada em 14 ago. 2010. Disponível em : http://www.portalcmd.com.br/#gerais_tribur.page.where_0.7420467120856166_1281820160983. Acesso em: 14 ago.2010.

PORTO, Eduardo. Terreno minado. Época Negócios, São Paulo, 5 abr. 2010. Disponível em : <http://epocanegocios.globo.com/Revista/Common/0,,EMI131170-16642,00-TERRENO+MINADO.html>. Acesso em: 07 ago. 2010.

VALOR ONLINE. Demanda cresce e mineradoras investem, São Paulo, 11 abr. 2011. In: Notícias Mineração. Disponível em :

<http://noticiasmineracao.mining.com/2011/04/11/demanda-cresce-e-mineradoras-investem/>. Acesso em: 03 nov. 2011.