

To the Ministry of Finance

Recommendation of 15 February 2008

Contents

| 1 | Intr | oduction | 1 | |
|---|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---|--|
| 2 | Bac | kground | 1 | |
| 3 | The Council's assessment of environmental damage associated with the Grasberg mine | | | |
| 4 | Tinto's involvement in the Grasberg mine | 6 | | |
| 5 | The Council's assessment | | | |
| | 5.1 | Rio Tinto's reply to the Council's enquiry | 7 | |
| | 5.2 | The Council's assessment of Rio Tinto's complicity in severe environmental damage | 9 | |
| | 5.3 | Conclusion | 9 | |
| 6 | Rec | ommendation | 9 | |

1 Introduction

At a meeting held on 25 June 2007, the Council on Ethics for the Government Pension Fund – Global decided to assess whether the investments in the company Rio Tinto may imply a risk of the Fund contributing to severe environmental damage under the Guidelines, point 4.4.

At the end of 2007 the Government Pension Fund – Global held shares worth some NOK 4,419 million in Rio Tinto Plc. and upwards of NOK 428 million in Rio Tinto Ltd.

Rio Tinto, an international mining group, is Freeport McMoRan Copper&Gold Inc.'s joint venture partner in the Grasberg mine in Indonesia. On 15 February 2006 the Council on Ethics submitted a recommendation to the Ministry of Finance proposing the exclusion of Freeport from the Government Pension Fund's investment universe. At Grasberg, Freeport mines copper using a natural river system for tailings disposal. Moreover, there is a great risk that acid rock drainage from the company's waste rock and tailings dumps will cause lasting ground and water contamination. The Council found that continued ownership in Freeport would imply an unacceptable risk of the Fund contributing to severe environmental damage.

The Council has assessed whether Rio Tinto, as Freeport's joint venture partner, is contributing to the environmental damage caused by the mine (Chapter 4), and whether the Fund's investments in Rio Tinto will imply an unacceptable risk of the Fund in turn contributing to severe environmental damage (Chapter 5).

As prescribed by the Guidelines, point 4.5, the Council has contacted Rio Tinto through Norges Bank, requesting the company to comment on its participation in the mining operation and on the basis of the Council's recommendation for exclusion. Norges Bank received the company's reply on 21 December 2007. Rio Tinto's response confirms the company's investments and role in the Grasberg mine, but disputes the Council's assessment that the mining operation causes severe environmental damage. The company regards the discharge as not being environmentally harmful, and the environmental damage as not being irreversible. However, the company fails to present new information that alters the Council's perception of the environmental damage in this case.

The Council has reached the conclusion that the Ethical Guidelines, point 4.4, second clause, third alternative, provide grounds for recommending the exclusion of Rio Tinto due to an unacceptable risk that the Fund, through continued ownership in the company, will contribute to ongoing and future severe environmental damage.

2 Background

The Rio Tinto Group is an international mining corporation that mines and processes aluminium, copper, diamonds, energy products, gold, industrial minerals, and iron ore. Its main operations are concentrated in Australia and North America, but the company also has considerable production in South America, Asia, Europe, and southern Africa.³ The Rio Tinto

1

¹ In this paper also referred to as Freeport.

² See the Council's recommendation on the exclusion of Freeport McMoRan Copper&Gold Inc, available at the Council on Ethics' website, www.etikkradet.no

³ http://www.riotinto.com/whoweare/business_overview.asp

Group is made up of the British company Rio Tinto Plc. and the Australian company Rio Tinto Ltd. Being run as a single economic entity, the Group is headquartered in London. 5

Freeport owns and operates the Grasberg mine, a large mining complex located in the province of Papua (formerly known as Irian Java), in the western part of the island of New Guinea. The mine is operated by the subsidiary PT Freeport Indonesia, in which Freeport McMoRan has a 90.64 per cent stake, and the Indonesian state owns 9.36 per cent.

In 1996, Rio Tinto, at the time RTZ, formed a joint venture with PT Freeport Indonesia. The joint venture agreement gives Rio Tinto a 40 per cent interest in the Grasberg 1995 mine expansion.

On 15 February 2006, the Council on Ethics submitted a recommendation to the Norwegian Minister of Finance proposing the exclusion of Freeport McMoRan Copper & Gold from the Pension Fund's investment universe due to an unacceptable risk of the Fund contributing to severe environmental damage. The Council has assessed whether the Fund's investment in Rio Tinto, as Freeport's partner in the Grasberg joint venture, involves an equally unacceptable risk of the Fund contributing to severe environmental damage.

The Grasberg mine

Freeport signed its first contract for the mining operations with the Indonesian government in 1967. Through the contract, Freeport received exclusive rights to run mining operations within a 10 sq km area in Ertsberg, which is part of the Grasberg complex. In 1988, the Grasberg copper and gold reserves were discovered, and production began in 1990. The contract was renewed in 1991 and is valid for 30 years, with the possibility of a 10-year extension. The mine has the world's largest gold reserve and the second largest copper reserve. It is expected that the mine will be profitable until 2041, provided that new mines, among which a new quarry within the mining complex, are opened. ⁷

The Grasberg mine is situated 4,000 m above sea level, and borders on the Lorentz National Park, a UNESCO heritage site. The mine is an open pit mine, but also includes zones of underground operations. In 2004 about 640,000 tons of rock was mined, yielding approximately 185,000 tons of ore per day. Annual production rates are expected to range between 600,000 and 750,000 tons per day through 2015. According to the company this will give a daily output of 240,000 tons of ore. Overburden and waste rock will consequently

http://www.riotinto.com/investors/shareholder_services.asp "The two companies are joined in a 'dual listed companies' (DLC) structure as a single economic entity, called the Rio Tinto Group." According to Rio Tinto's home page the two companies are "managed as a single economic unit, even though both companies continue to be separate legal entities with separate share listings and share registers."

New Guinea is the World's second biggest island. One half of it, Papua, is Indonesian territory, whereas the other half belongs to Papua New Guinea.

⁷ Freeport-McMoRan Copper&Gold Inc. Form 10-K Filings to the Stock and Exchange Commission (SEC) 2004, p. 8; available at http://www.sec.gov/Archives/edgar/data/831259/000083125905000021/fcx200410-k.htm

⁸ See footnote 7, p.11, Freeport 2006: *Response of FCX to the Draft Report by the Advisory Council on Ethics for the Norwegian Government Petroleum Fund,* p. 2. In its reply to the Council, Freeport states that after 2015 it expects the production of ore to be reduced to 200,000 tons per day and the opencast mining to cease. Underground mining does not produce overburden.

⁹ Freeport 2006: Response of FCX to the Draft Report by the Advisory Council on Ethics for the Norwegian Government Petroleum Fund, p. 2.

⁴ http://www.riotinto.com/whoweare/business_overview.asp

amount to 360,000 – 510,000 tons a day. In 1997 Freeport received environmental approval to expand the daily milling rate to 300,000 tons of ore. ¹⁰

The ore containing gold, silver, and copper is transported by conveyor belt to a flotation plant situated 1,000 meters below the mine. The processing yields around 9,000 tons per day of copper concentrate. 11 On a daily basis, the tailings, amounting to 230,000 tons, are discharged directly into the Aghawagon River, which again feeds into the Otomona River. The Otomona River runs through a plain covered by rainforest before flowing into the Ajkwa Estuary. ¹² The greater part of the tailings settles on the flood plain, while the remainder reaches the estuary where it is poured into the Arafura Sea, being dispersed along the coast by tidal waters and ocean currents.

Overburden and waste rock are disposed of in two valleys adjacent to the mine, amounting to 360,000-510, 000 tons per day. ¹³ According to existing plans, a total of some 3 billion tons of rock will be extracted during the mine's life cycle. 14 The waste rock now covers an area of approximately 8 sq km and is up to 300 m deep in some places. 15 Acid rock drainage from the deposit sites was first observed in 1993, 16 and leaching into the groundwater has also been reported, ¹⁷ causing the pollution of springs in the Lorentz National Park, among others. ¹⁸ Acid rock drainage is considered one of the most serious mining-related environmental problems across the world. It occurs when sulphurous minerals come into contact with both water and air, forming sulphuric acid. In this process the heavy metals that are naturally present in the ore may be mobilized. The result is the generation of acid water containing heavy metals, which may lead to considerable pollution of groundwater and water systems. Once this process has been initiated, it is irreversible and may go on for centuries.

The Council's assessment of environmental damage associated with the Grasberg mine

In its assessment of whether there is an unacceptable risk that the Fund may contribute to severe environmental damage the Council will emphasize whether:

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¹⁰ Freeport-McMoRan Copper&Gold Inc. Form 10-K Filings to the Stock and Exchange Commission (SEC)

¹¹ Mining for the Future, Appendix J: Grasberg Riverine Disposal Case Study. Commissioned by the International Institute for Environment and Development, April 2002; available at http://www.iied.org/mmsd/mmsd pdfs/068c mftf-j.pdf

¹² An estuary is a transition zone between the river mouth and the sea where freshwater from the river is mixed with more saline seawater. Low flow contributes to the deposition of finer sediments that often form a delta. Estuaries are valuable habitats for marine life, birds, and other fauna.

¹³ Freeport 2006: Response of FCX to the Draft Report by the Advisory Council on Ethics for the Norwegian Government Petroleum Fund, p 2; Freeport-McMoRan Copper&Gold Inc. Form 10-K Filings to the Stock and Exchange Commission (SEC) 2004, p. 11, based on Freeport's figures for rock extraction and ore production.

¹⁴ Based on information that the Council has had access to; on file with the Council. The source refers to Freeport's own documents: AMDAL 300K (1997) and the Freeport and Rio Tinto Environmental Risk Assessment (2002).

¹⁵ Perlez, Jane and Bonner, Raymond: Below a Mountain of Wealth, a River of Waste, New York Times 27 December 2005.

See footnote 15.

¹⁷ Bryce, Robert: *Printed in Stone*. The Austin Chronicle, 23. September 2005; available at http://www.austinchronicle.com/issues/dispatch/2005-09-23/pols feature.html; IIED 2002: Mining for the Future. Appendix J Grasberg Riverine Disposal case study, s J-7; see also footnote 15.

¹⁸ See footnote 15.

- The damage is significant.
- The damage causes irreversible or long-term effects.
- The damage has considerable negative consequences for human life and health.
- The damage is the result of violations of national laws or international standards.
- The company has neglected to act in order to prevent the damage.
- The company has failed to implement adequate measures to rectify the damage.
- It is probable that the company's unacceptable practice will continue.

Included in the Council's recommendation to exclude Freeport is a detailed description of the mining operation, the disposal of tailings and waste rock, as well as the Council's assessment of the environmental damage this entails. The main points in the Council's assessment are summarized below:

In the Council's opinion riverine tailings disposal is undoubtedly the major environmental problem associated with the mining operation today as the daily disposal of 230,000 tons of tailings generates severe and long-term environmental damage. Furthermore, the Council deems it probable that acid rock drainage from the stockpiles will constitute an increasing and considerable environmental problem with potentially far-reaching harmful effects in the future. Consequently, the Council takes as its point of departure that the damage is severe and that there is an unacceptable risk that the environmental impact caused by the mining operation is lasting and irreversible.¹⁹

The Council also evaluated the operations with regard to national legislation and international norms. ²⁰ In its reply to the Council Freeport claimed to comply with all national environmental regulations. ²¹ In this context the Council found it relevant to point out that the environmental standards required by Indonesian authorities fall significantly short of current rules in Freeport's as well as Rio Tinto's home countries, where riverine disposal is prohibited. Weak environmental legislation and lenient enforcement indicate that there is no system in place to reduce the damage caused by mining, something that contributes to further aggravate the risk of severe environmental damage.

The Council placed great importance on the fact that riverine disposal is internationally considered an unacceptable discharge method for mine waste, due to the environmental damage it provokes. The World Bank no longer finances projects which make use of riverine tailings disposal. Neither does *The International Finance Corporation* accept this method.²² Moreover, the World Bank's "*The Extractive Industries Review*" (EIR) from 2003²³ and the

Freeport 2006: Response of FCX to the Draft Report by the Advisory Council on Ethics, p 10.

¹⁹ The Council's recommendation on the exclusion of Freeport McMoRan, section 4.2, third paragraph.

²⁰ See the Freeport McMoRan recommendation, section 4.2, paragraphs 5-10.

²² In the Freeport recommendation, the Council refers to IFC 2004: *Environmental, Health and Safety Guidelines for Precious Minerals Mining*. Draft. In December 2007 the IFC adopted new *Environmental, Health and Safety Guidelines for Mining* establishing that riverine tailings disposal is not considered good international practice (p. 7); available at

http://www.ifc.org/ifcext/enviro.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_Mining/\$FILE/Final+-+Mining.pdf

²³ "The Extractive Industries Review was launched by the World Bank Group to discuss its future role in the extractive industries with concerned stakeholders. The aim of this independent review was to produce a set of

international project "Mining, Minerals and Sustainable Development" (MMSD) 24 advise against riverine disposal because of the environmental damage it entails. The EIR states: "Scientific evidence clearly demonstrates that this method of waste disposal causes severe damage to water bodies and surrounding environments... In practice, this technology is being phased out due to recognition of its negative consequences." 25

On these grounds, the Council judged Freeport's practice as clearly in breach of accepted international norms. The Council is of the opinion that Freeport through this conduct is taking advantage of the low environmental standards and the lenient law enforcement in the country where it operates.

Freeport has repeatedly claimed that riverine tailings disposal is the best solution, given the difficult terrain, the earthquake threat and the rainfall. ²⁶ Low infrastructure and maintenance costs are the main advantages attributed to riverine disposal. The Council finds it reasonable to assume that this has been a decisive factor for Freeport, an assumption supported by the company's previous marketing of itself as 'the world's lowest-cost copper producer'. ²⁷ The Council is of the opinion that Freeport knew riverine disposal could cause severe damage to the natural environment, but that the company and the Government attached little importance to environmental concerns.

recommendations that will guide involvement of the World Bank Group in the oil, gas and mining sectors." See www.worldbank.org

Business Council for Sustainable Development (WBCSD)" See http://www.iied.org/mmsd/
²⁵ EIR 2004: Striking a Better Balance - The World Bank Group and Extractive Industries: The Final Report of the Extractive Industries Review, s 33; available at http://siteresources.worldbank.org/INTOGMC/Resources/finaleirmanagementresponse.pdf. In this context it

may also be mentioned that the world's biggest mining company, BHP Billiton, has declared that it does not intend to use riverine tailings disposal in new projects. The reason for this is the extensive environmental damage caused by riverine tailings disposal at the OK Tedi mine in Papua New Guinea, which BHP co-owned with the Papua New Guinean government until 2002; see www.bhpbilliton.com

²⁴ "Mining, Minerals and Sustainable Development (MMSD) was an independent two-year process of consultation and research with the objective of understanding how to maximise the contribution of the mining and minerals sector to sustainable development at the global, national, regional and local levels. MMSD was a project of the <u>International Institute for Environment and Development</u> (IIED) commissioned by the <u>World</u>

²⁶ Freeport 2006: Response of FCX to the Draft Report by the Advisory Council on Ethics for the Norwegian Government Petroleum Fund, pp. 8 and 16. According to OPIC's review, other alternatives were presented in connection with the concession application, but were dismissed without sufficient and consistent analysis. See EnviroSearch International 1994: Environmental Review of P.T.Freeport Indonesia Copper and Precious Metals Mine Irian Jaya, Indonesia. Submitted to the Overseas Private Investment Corporation, p. 14; on file with the Council.

This statement was prominent on Freeport's home page http://www.fcx.com/aboutus/co-overvw.htm at the time when the Council issued its recommendation on Freeport. The homepage has been changed, but the statement can be found in Freeport's Annual Report from 2002; on file with the Council.

4 Rio Tinto's involvement in the Grasberg mine

In 1995, RTZ, currently Rio Tinto, ²⁸ and Freeport McMoRan Copper & Gold signed a letter of intent to form a joint venture related to the expansion of the Grasberg mine. As previously mentioned, the joint venture itself was established in 1996. The agreement between the two companies stated that RTZ would finance the mining expansion and future exploration projects in return for a 40 per cent dividend-paying stake. This implied that RTZ would receive 40 per cent of the revenues once the production increased from 80,000 tons a day to 118,000 tons a day. RTZ paid USD 184 million for the expansion. ²⁹ Additionally, RTZ brought USD 500 million in new capital to Freeport, giving Rio Tinto a 12 per cent stake in Freeport McMoRan. ³⁰

Freeport's own description of the joint venture agreement presented to the Security and Exchange Commission (SEC) states that "RTZ and FCX will establish an Exploration Committee to approve exploration expenditures [] RTZ will pay for all further exploration approved by the committee until RTZ has paid an aggregate of \$100 million." Both parties will share additional expenditures in proportion to their respective stakes. "For future expansion projects in Area A of PT-FI's COW, ³¹ [] RTZ will provide up to a maximum of \$750 million for 100% of defined costs to develop such projects. RTZ will receive 100% of incremental cash flow attributed to the expansion projects until it has received an amount equal to the funds it has provided plus interest based on RTZ's cost of borrowing."³²

According to Freeport, the expectations were high regarding the cooperation with RTZ: "RTZ is expected to contribute substantial operating and management expertise to FCX's business. Representatives of RTZ America, in proportion to RTZ America's ownership in FCX, will be nominated to the FCX Board of Directors. In addition, RTZ and FCX will exchange management personnel and establish an Operating Committee, consisting of personnel of FCX and RTZ, through which the policies established by the Board of Directors of FCX will be implemented and operations will be conducted."³³

Robert Wilson, RTZ's CEO at the time, expressed himself thus: "We are delighted to have this unique opportunity to participate in the future development of Grasberg, one of the world's most remarkable mineral resources, and in the exceptional exploration potential of Irian Jaya. Grasberg is a large and complex operation, but given RTZ's experience in other major open pit copper orebodies such as Bingham Canyon, Palabora and Escondida, we anticipate considerable mutual benefit from combining our skills in this way."³⁴

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²⁸ According to Rio Tinto's website "The RTZ Corporation (formerly The Rio Tinto-Zinc Corporation) was formed in 1962 by the merger of The Rio Tinto Company and The Consolidated Zinc Corporation. CRA Limited (formerly Conzinc Riotinto of Australia Limited) was formed at the same time by a merger of the Australian interests of The Consolidated Zinc Corporation and The Rio Tinto Company. RTZ and CRA were unified in December 1995. [...]In June 1997, The RTZ Corporation became Rio Tinto plc and CRA Limited became Rio Tinto Limited, together known as the Rio Tinto Group", http://www.riotinto.com/whoweare/timeline.asp.

²⁹ http://findarticles.com/p/articles/mi_m0EIN/is_1996_Oct_11/ai_18754973

 $[\]frac{http://query.nytimes.com/gst/fullpage.html?res=940CE6DF1730F930A15750C0A9629C8B63\&n=Top\%2fNews\%2fBusiness\%2fCompanies\%2fFreeport\%2dMcMoRan\%20Copper%20and\%20Gold%20Inc\%2ews%2fBusiness\%2fCompanies\%2fFreeport%2dMcMoRan%20Copper%20and%20Gold%20Inc%2ews%2fSusiness%2fCompanies%2fFreeport%2dMcMoRan%20Copper%20and%20Gold%20Inc%2ews%2fSusiness%2fCompanies%2fSusiness%2fCompanies%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusiness%2fSusines$

³¹ PT- Freeport Indonesia's Contract of Work

³² http://www.secinfo.com/dpBXk.ab.d.htm

http://www.secinfo.com/dpBXk.ab.d.htm

³⁴ See footnote 33.

In 2004 Rio Tinto sold its stake in Freeport, but according to the company's website this does not affect the joint venture: "Rio Tinto remains committed to the Grasberg Joint Venture, which in 2003 contributed \$104 million to Rio Tinto's adjusted earnings of \$1,382 million. The management of the Joint Venture will not change as a result of this transaction." In 2006 the earnings from the mine totalled USD122 million, a USD 110 million reduction compared with the previous year's result. Sie Rio Tinto is still represented on the joint venture's operating committee.

Rio Tinto's 40 per cent share of production exceeding 118,000 tons lasts until 2021. After this the company has a 40 per cent share in the whole output at the Grasberg mine (Block A). According to Freeport, Rio Tinto also has "a 40 percent interest in PT Freeport Indonesia's Contract of Work and Eastern Minerals' Contract of Work. In addition, Rio Tinto has the option to participate in 40 percent of any of our other future exploration projects in Papua." To the Council's knowledge, Rio Tinto has so far exercised its option to participate in all exploration projects.

Since 1996 Rio Tinto has made significant investments in the Grasberg mine; these amount to an estimated USD 1 billion.³⁷

5 The Council's assessment

5.1 Rio Tinto's reply to the Council's enquiry

In accordance with the Guidelines, the Council sent a draft recommendation, through Norges Bank, to Rio Tinto on 4 December 2007 in order to give the company an opportunity to comment on the basis of the Council's recommendation. The company responded to the Council's enquiry in a letter dated 17 December 2007.

In the letter Rio Tinto confirms its role and participation in the Grasberg mine: "While PT Freeport Indonesia is responsible for the management of the Grasberg operation, Rio Tinto engages with Freeport and positively influences outcomes on a wide range of operational, community and environmental issues." It also states that: "Rio Tinto maintains the highest environmental standards at all its operations wherever they are located, and it contributes technical support to its joint venture partners to ensure that the most appropriate solutions are identified and implemented." ³⁸

However, the company disputes the Council's assessment of environmental impact. Rio Tinto claims that the tailings consist of ground natural rock and are not harmful to the environment. The deposition area on the flood plain is, according to the company, "an engineered, managed system for deposition and control." Rio Tinto also argues that even before the discharge of tailings started, the river had formed one of Papua's largest sediment deposition areas (depocentres).

³⁵ Rio Tinto's Annual Report 2006; available at

http://www.riotinto.com/documents/FinancialResults/riotinto 2006 annual review.pdf

Freeport McMoRan 2006 Sec Filings form 10-K, p 1; available at

http://www.fcx.com/ir/downloads/FCX200610K.pdf

Moody, Roger 2005: The Risks We Run. Mining, Communities and Political Risk Insurance, p. 117. International Books, Utrecht.

³⁸ Letter from Rio Tinto to Norges Bank/ the Council of 17 December 2007; on file with the Council.

Rio Tinto also points out that considerable revegetation is taking place in the deposition area on the flood plain, partly as a result of Freeport's reclamation programme and partly naturally. According to the company, there is also natural ecological succession, both inside and outside the deposition area. As an example it is mentioned that sediment deposited at the river mouth forms new land where new species establish themselves, including mangrove trees.

In the same way as Freeport, Rio Tinto emphasizes that riverine tailings disposal is the only viable tailings disposal alternative because of high rainfall and earthquake threats.

In the Council's view, it may seem as if Rio Tinto is trying to play down the effects of discharging 230,000 tons of tailings every day into a natural river system, a procedure that cannot be compared to natural erosion processes. Even if the tailings contain high levels of ground rock, this does not mean that the discharge is harmless. When rock is crushed, its physical properties also change, which may trigger the release of metal components. In addition to the purely physical effects of elevated sediment content in the water, the tailings therefore release a considerable amount of heavy metals into the environment, particularly copper. In practice this has led to the destruction of most aquatic life in the waters affected by the discharge. Blevated levels of heavy metals in the sediment have also been detected. There is a considerable risk that the heavy metals enter the food chain, something that may have significant long-term effects on the ecosystems far away from the actual deposition area. On the ecosystems far away from the actual deposition area.

It is hard to attach importance to the company's assertions that considerable revegetation is taking place as this is not quantified. On its website Freeport states that 50 hectares of the deposition area had been reclaimed in 2006. The Council is not aware of the size of the areas where vegetation has established itself naturally. The Council has learnt that Freeport carries out plant trials and research on natural revegetation, and that the company considers these trials to be very promising. Nevertheless, the Council does not find it probable that the affected areas may be restored to their original state. Neither does the Council find it substantiated that successful plant trials on a small scale may ensure sustainable reclamation of an area covering 230 sq km (23,000 hectares), not least considering that the overburden consists of sand and soil up to 17 meters deep with high heavy metals content and lacking in important plant nutrients.

The Council would also like to point out that the risk of severe and irreversible environmental damage associated with acid rock drainage from the waste rock stockpiles was part of the basis for its assessment. These are issues that Rio Tinto does not address. Acid rock drainage is occurring. Groundwater contamination has been detected in the highlands, and there is also a risk of acid rock drainage developing in the deposition area in the lowlands.

In the Council's view, Rio Tinto's reply presents little new information regarding the environmental impact caused by the operation. Thus the Council does not find reason to make a new environmental assessment.

http://www.walhi.or.id/attachment/d016df19778a7c563cd1c99afe29c43a/a01327b72b86341664c513225f7d93 52/WALHI Freeport Report Part 1.pdf

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³⁹ See the Council's recommendation to exclude Freeport McMoRan, chapter 3, and Walhi 2006: The Environmental Impacts of Freeport-Rio Tinto's Copper and Gold Mining Operation in Papua, p. 10; available at

⁴⁰ Walhi 2006: The Environmental Impacts of Freeport-Rio Tinto's Copper and Gold Mining Operation in Papua, chapters 5 and 6.

5.2 The Council's assessment of Rio Tinto's complicity in severe environmental damage

Based on available information from the companies, the Council is satisfied that Rio Tinto, through its participation in the joint venture with Freeport, is a considerable part-owner of the Grasberg mine.

Rio Tinto's capital supply has evidently played a substantial part in bringing about the expansions at the Grasberg mine. The amount of tailings discharge has increased accordingly, being the cause of the environmental damage which formed the basis of the Council's recommendation to exclude Freeport McMoRan.

In the Council's view, Rio Tinto seems, through its participation on the joint operating committee, to have cooperated closely with Freeport in the areas of mine management and operations, technology and analyses, including environmental impact reports. This is also being confirmed in Rio Tinto's letter to the Council. The Council therefore deems it probable that Rio Tinto during the years of cooperation has exerted considerable influence on decisions regarding tailings management and disposal of waste rock, which in turn have been crucial to the environmental damage.

The Council takes as its point of departure that Rio Tinto, through its participation in the joint venture, has played, and still plays, an active role in the operation and development of the Grasberg mine, and that the company therefore is directly responsible for the severe environmental damage that the mining operation is, and will be, inflicting.

Rio Tinto has a considerable share of the mine's production, and this will increase significantly after 2021. In view of the investments made by the company, the Council infers that it has a long-term interest in the Grasberg mine, which is expected to remain profitable until 2041.

5.3 Conclusion

Based on the information at hand, the Council finds that Rio Tinto, through its participation in the joint venture and part ownership in the Grasberg mine, through its capital supply to the expansion of the mine and exploration activities, through its influence on mine management and operations, and through its present and future share of production, is directly involved in the severe environmental damage caused by the mining operations. There is thus an unacceptable risk that the Fund, by maintaining its investments in Rio Tinto, will contribute to severe environmental damage.

6 Recommendation

Based on this assessment of Rio Tinto's involvement in the Grasberg-mine, and in light of point 4.4 of the Ethical Guidelines, the Council recommends that Rio Tinto Plc. and Rio Tinto Ltd. be excluded from the *Government Pension Fund – Global*'s investment portfolio owing

⁴¹ Rio Tinto and Freeport conducted an environmental risk analysis of the impact caused by tailings. The study was completed in 2002.

to an unacceptable risk that the Fund, through continued ownership in these companies, will contribute to present and future severe environmental damage.

| Gro Nystuen Chair | Andreas Føllesdal | Anne Lill Gade | Ola Mestad | Bjørn Østbø |
|----------------------|-------------------|----------------|------------|-------------|
| (Sign.) | (Sign.) | (Sign.) | (Sign.) | (Sign.) |