Dr Emil Salim in the newspaper article "World Bank must reform on extractive industries" in the Financial Times on 16th of June 2004.

"Not only did the oil, gas and mining industries fail to help the poorest people in developing countries, they have often made them worse off. Scores of recent academic studies and many of the (World) Bank's own studies have confirmed our findings that countries that rely primarily on extractive industries tend to have higher levels of poverty, child morbidity and mortality, civil war, corruption and totalitarianism than those with more diversified economies. Does this mean extractive industries can never play a positive role in a nation's economy? No, it simply means that the only evidence of such a positive role we could find took place after a country's democratic governance had developed to such a degree that the poorest could see some of the benefits. Before the fundamental building blocks of good governance - a free press, a functioning judiciary, respect for human rights, free and fair elections and so on - are put in place, the development of these industries only aggravates the situation for the poorest. As a development institution,

the bank should use scarce international public funds to build up the preconditions of good governance and transparent institutions to ensure that private investment benefits poor countries, rather than disappearing in corruption and mismanagement."

Dr. Emil Salim is a former Indonesian State Minister for Population and Environment and led the World Bank Extractive Industries Review.

natureand poverty*

Initiatives

■ Diamonds for Development Initiative (DDI): DDI's basic challenge is to enhance both the work environment and the prices for artisanal miners. This will involve education for miners, access to credit and artisanal mining equipment, training in diamond valuation, government intervention to help streamline marketing, and improved labour laws (www.blooddiamond.

15 Kerboule

16 Belahouro

22 Nkamouna

24 Bogoin-Boali

27 Kouilou region

25 Quadda Ouadda

28 Mt. Yaoure - Angovia plant

△19

105

BÉNIN

Oil

Vegetation

23 Minam

26 Bria

BURKINA

Minerals

Diamonds

Cement

△ Gold

♦ Zinc

Iron

Cobalt

Nickel

Bauxite

Copper

Tin

Coltan

Phosphate

Manganese

Uranium

△ Silver

Magnesium

GHANA

This is a selection of an extended list of mines present in the area

Sources: Petroleum Services at Deloitte, USGS Yearbook,

17 Liguidi Malguem

19 Goulagou-Rounga

21 Atokara Mountains

20 Mana Fobiri Property

pacweb.org/ddi).



■ Energy and Biodiversity **Initiative**: an initiative of conservation organizations and companies designed to produce practical guidelines, tools, and models to improve the environmental performance of energy operations, to minimize harm to biodiversity and to maximize opportunities for conservation wherever oil and gas resources are developed (www.

■ Extractive Industry Review (EIR): an internal review of seven extractive projects in which the World Bank Group is involved. The Extractive Industries Review (EIR) consulted many stakeholders, including representatives of civil society, labour, industry, and governments. EIR, which was published in December 2003, noticed that these projects did not contribute to poverty reduction and that strong reforms were needed. In August 2004, the World Bank responded to the EIR recommendations and decided that it would continue investments in oil, gas, and mining projects, as these remain an essential part of the development of many poor nations (www.ifc.org/eir). ■ IUCN ICMM Dialogue: An ongoing dialogue between The World Conservation Union (IUCN) and the International Council on Mining and Metals (ICMM) on mining and biodiversity. It aims to improve the performance of mining industries in the area of biodiversity conservation and to raise mutual awareness and understanding between the conservation community and the mining industry. It strengthens the IUCN Protected Area Management Categories System and it explores and pursues the options for addressing the related issues of restoration (of legacy sites), prior informed consent, and the empowerment of indigenous peoples and local communities. In 2005 the Good Practice Guidance for Mining and Biodiversity was published. ■ World Bank safeguard policies: environmental and social safeguard policies to support to sustainable poverty reduction. The objective of these policies is to prevent

and mitigate undue harm to people and their environment in the development process. The World Bank Safeguards Policies focus amongst others on environmental assessment, natural habitats, forests, involuntary resettlement and indigenous peoples (www.worldbank.org/safeguards).

31 Boundiali

32 Nielle

33 Tehini

34 Kolwezi

35 Kipushi

36 Kalukundi

37 Dikulushi

38 Twangiza

39 Kamituga

40 Lugushwa

42 Ruashi-Etoile and

43 Tenke-Fungurume

SÃO TOMÉ & PRINCIPE

44 Lonshi Mine

Lubumbashi Slag Heap

41 Namoya

45 Kulumaziba

46 Kambove

47 Bisie Mine

48 Mbuji-Mayi

49 Bakoudou

54 Moanda Mine

56 Konongo

57 Bonte Mine

58 Iduapriem

NIGER

NIGERIA

EQ. GUINEA

CAMEROON

GABON

52 🔷

50 <

55 Belinga and Milingui-Tchibanga

50 M'Bigou

51 Kango

52 Sud

53 Nord

■ The Business and Biodiversity Offset Program (BBOP): a partnership between companies, governments and conservation experts to mainstream biodiversity offsets into development practice to achieve long-term and globally significant conservation

outcomes (www.forest-trends.org/biodiversityoffsetprogram). ■ International Petroleum Industry Environmental Conservation Association (IPIECA): the single global association representing both the upstream and downstream oil and gas industry on key global environmental and social issues. IPIECA aims to develop and promote scientifically-sound, cost-effective, practical, socially and economically

acceptable solutions to global environmental and social issues pertaining to the oil and gas industry. ■ Kimberly Process: A certification scheme launched in 2003 to regulate the international trade in raw uncut diamonds and to stop the trade in 'blood diamonds'

(see box 'Transparency & Kimberley Process').

60 Damang-Abosso fields

61 Bogoso - Prestea Mine

62 Wassa Mine

63 Ahafo

64 Akyem

65 Chirano

66 Bibani

67 Tarkwa

68 Ayanfuri

69 Teberebie

70 Teberebie

71 Amansie

72 Siguiri

75 Bidikoum

76 Sangaredi

79 Mount Nimba

80 Kindia deposits

N'Djamena

CONGO

Brazzaville

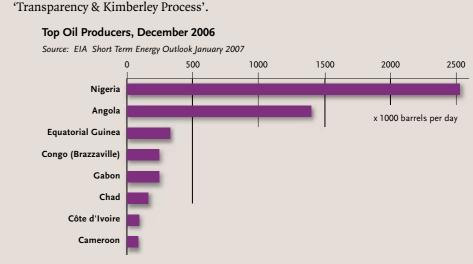
77 Silidara

78 Tougue

73 Kiniero Project

74 Friguia deposites

■ Oro Verde: a certification program for social and environmental responsible gold production in Colombia (www.greengold-oroverde.org). ■ Publish-What-You-Pay (PWYP): a worldwide coalition of over 300 NGOs that calls for the mandatory disclosure of the payments for the extraction of natural resources made by oil, gas and mining companies to all governments (www.publishwhatyoupay.org). ■ Transparency Initiative EITI: an initiative founded in 2002 by several national governments, companies and NGOs to support improved governance in resourcerich countries through the full publication and verification of company payments and government revenues from oil, gas and mining (www.eitransparency.org) and see box



■ Voluntary Principles on Security and Human Rights: The governments of the United States, the United Kingdom, Norway and the Netherlands, plus companies operating in the extractive and energy sectors, and non-governmental organizations developed principles to guide companies in finding a balance between safety needs and respecting human rights and fundamental freedoms (www.voluntaryprinciples.org).

82 Aredor Mine

84 Gbapolu

87 Gondoja

88 Cestos

89 Zwedru

90 Wuejua

93 Mabong

97 Yatela

98 Syama

99 Kalana

101 Tasiast

CENTRAL AFRICAN

DR CONGO

ZAMBIA

Lusaka

CHAD

91 Yekeba area

92 Mano Godua

94 Kpo Range area

100 Guelb Moghrein

102 Guelb El Rhein

103 Kedia d'Idjill

104 M'Haoudat

96 Sadiola (and Loulo) Mine

83 Farim Phosphate Project

86 Nimba Diamond concession

85 Grand Gedeh Prope

105 Samira Hill Project

106 Akouta

107 Arlit

108 Taiba

109 Sonfon

110 Nimini Hills

111 Pampana

112 Baomahun

113 Port Loko

115 Kono Districts

118 Coastal sediments

114 Mokanji

117 Kenema

119 Ewekoro

120 Ashanka

122 Ikorodu

129 Edea

121 Benue State

123 Kivu Provinces

125 Kabolela Mine

126 Panda at Shituru

124 Kakanda and Kambove

127 Mayo Dala Department

128 Bonaberi and Figuil

130 Various locations

SUDAN

131 Cotounou-Ongibolo

116 Bo

Extractive industries in West and Central Africa Nature & Poverty issues and spills, often caused by negligence, sometimes result in water contamination. Poorly TRANSPARENCY & KIMBERLEY PROCESS managed mining activities may result in leakage of heavy metals, acids and other toxic chemicals into underground aquifers. In Ghana's Wassa District, mining activities

Mines

1 Alto Cuilo

6 Perkoa

8 Youga

9 Kampti

10 Malba

13 Bondi

2 Medio Kwanza

3 Camafuca-Camazambo

11 Taparko-Bouroum Permit

12 Sega (Seguenega Permit)

Petroleum Economist, and Infomine

CÔTE D'IVOIRE

14 Essakan Main Zone deposit 30 Agbaou

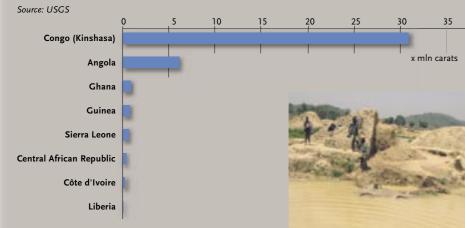
4 Fucauma Concession

5 Luarica Concession

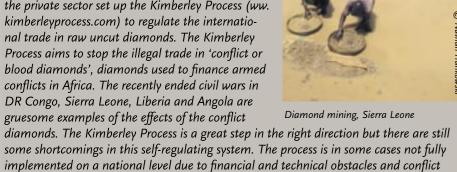
7 Bombore Permit

Transparency – In 2002 the Extractive Industries Transparency Initiative (EITI, www.eitransparency.org) was launched by national governments in cooperation with companies from the extractive industry sector and several civil society groups. The objective is: "to support improved governance in resource-rich countries through the full publication and verification of company payments and government revenues from oil, gas and mining." Good governance of mining activities is required to increase the profits from natural resources so it can set off economic growth and alleviate poverty. Contradictory it is statistically proven that countries with natural resources often suffer from poverty, corruption, conflicts, high foreign debts and bad governance; this is called the 'resource curse'. So far almost twenty countries have joined the EITI, the majority of these are West African (e.g. Cameroon, Equatorial Guinea, Mali, Mauritania, Niger, Nigeria, and Sierra Leone). In 2005, the DR Congo joined the EITI. The main reason to join was to regain control over the mines, push back smuggling, implement a new Mining Code, improve transparency and reform the mining sector. Publish What You Pay (PWYP) is a global civil society coalition that campaigns for transparency in the payment, receipt and management of revenues from oil, gas and mining industries and keeps a close watch on

Diamond production in 2004



Kimberly Process - In 2001 a representation of international NGOs, national governments and the private sector set up the Kimberley Process (ww. kimberleyprocess.com) to regulate the international trade in raw uncut diamonds. The Kimberley Process aims to stop the illegal trade in 'conflict or blood diamonds', diamonds used to finance armed conflicts in Africa. The recently ended civil wars in DR Congo, Sierra Leone, Liberia and Angola are



diamonds can still be smuggled into countries that are a member of the KPCS and so reach the diamond stores. Although the wars have ended, revenues from natural resources threaten the fragile peace and stimulate human rights violations. While companies and governments profit, the local population suffers. Initiatives like EITI and PWYP develop tools to enhance transparency in the resource sector while the Kimberley Process stimulates the discussion on certification schemes. Initiatives that help close the gap between natural wealth and poverty. Fatal Transactions, a consortium of European civil society organisations working in close collaboration with African partners, wants to increase public awareness of the link between Western consumer goods manufactured with 'conflict resources' and the fuelling

of armed conflict and human rights violations. Fatal Transactions (www.fataltransactions.org/ www.niza.nl)

Impacts

The term 'extractive industries' covers a range of industrial operations including open cast mines, underground tunnel mines, open-air quarries, onshore oil wells, offshore platforms, pipelines, ocean tankers and refineries. Operations in extractive industries range from artisanal (mostly in the mining sector) to multi-billion dollar investments (generally undertaken by joint venture consortiums involving national and multinational companies). Extractive industry operations of all sizes have impacts on biodiversity, economies and societies. Such impacts can be significant and negative, while well-planned and well-managed extractive industry projects may co-exist with biodiversity and livelihoods, and support local economies.

Impacts on biodiversity Extractive industries require an infrastructure for the transport of construction material, work force and extracted resources. In many cases this means newly built roads,

bridges and buildings, or the improvement of existing infrastructure. In places where

Gold production in 2004

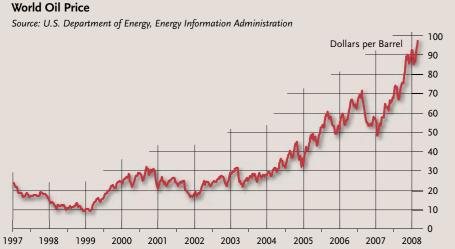
Source: USGS

the targeted resources are located in remote areas, this transport infrastructure provides access to previously untouched areas. This may result in further impacts on the area from other economic activities such as farming, poaching and logging. Another important impact of extractive industries Burkina Faso on biodiversity in West and Central Africa is deforestation. Open cast mines require the complete removal of vegetation, while the construction of underground mining tunnels can

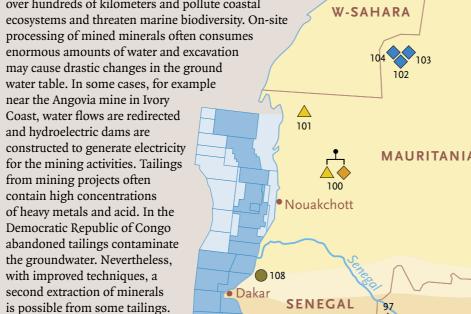
involve the use of large amounts of logs, often harvested in the surroundings of the mine. Charcoal fueled casting ovens on mine sites can be another source of local deforestation. The construction of oil pipelines in forested areas also results in deforestation and habitat fragmentation along the pipeline route. In Sierra Leone, Ivory Coast and DRC widespread artisanal mining has led to deforestation. The government of Senegal took action to prevent further deforestation by not allowing any extractive permits in designated forest conservation areas from 2003 onwards. A side effect of the presence of an artisanal workforce near or even in a forested area is the increased consumption of bushmeat. Hunters supplying the mining concessions will shoot birds, monkeys and other mammals in the forest to sell the meat to the miners. When these populations of forest fauna have been drastically reduced, a possible next phase will be the development of agriculture and cattle farming in the area, speeding up the deforestation rate. Deforestation and the



construction of infrastructure can lead to increased **soil erosion**, particularly in mining locations in tropical regions. Further impacts on down-stream ecosystems can occur if soil material is allowed to be washed away by heavy rains, thus affecting fish stocks and the discharge capacities of rivers. Accidents



caused pollution of surface and groundwater with cyanide. Picked up by offshore sea currents, oil spills can spread over hundreds of kilometers and pollute coastal



oil spills spread rapidly GUINEA-BISSAU in an environment of GUINEA marshes and creeks. The Niger Delta, one of the biggest wetlands of West Africa, faces numerous oil spills every year affecting fish stocks and vegetation. SIERRA According to Shell Nigeria, there were 262 oil LEONE 116 spill incidents involving 2,700 tonnes of crude oil in Nigeria in 2002 alone.

The large-scale draining and

water usage that is often part of

extractive operations is especially threatening for wetlands, and

Impact on livelihoods Where governance is weak and/or project management is poor, the extraction of oil and minerals can cause conflicts among local communities, companies, and in-migrating communities over property rights and land use rights. Such conflicts are particularly likely where local people are displaced

84, 87, 90, 92-94 by extractive industry activities. In the diamond concessions of the Lunda provinces in Angola, traveling, economic activity and human settlement is limited and often prohibited. Populations of villages in diamond concessions are forced to leave the area without any compensation. Indirectly, land conversion, contamination of water and soil, and loss of plants and animals confronts local farmers, fishermen or hunters with a loss of income. Contamination of drinking water as well as dust continuously blown from mining sites has caused health problems in local communities. In 2003, a team from the independent nuclear watchdog Commission de Recherche et d'Information Indépendantes sur la Radioactivité (CRIIRAD) visited an uranium mine in Arlit, Niger. They concluded that not enough had been done to seal off radioactive scrap metal to prevent the spread



of radioactive dust and the contamination of water supplies. In Nigeria gas flaring of oil companies often results in precipitation of fumigant downwind of the flares. It also generates a considerable emission of greenhouse gases and light pollution. The Nigerian government has a 'flares out' policy that should be implemented by 2008, but

The **sound** of machinery and controlled explosions can be a stress factor for people living nearby. In underground mines, workers face a high risk of (fatal) injuries because of the absence of safety measures. Extractive projects require the semitemporary presence of an external workforce, which may have an impact on the health of the local community with venereal diseases such as HIV. In Cameroon, extractive projects of Chinese companies have resulted in the appearance of a Chinese middle class in the capital Yaounde, and the increased competition in several professions has caused tension with the local middle class. On the other hand, local people may benefit from the presence of the extractive industries by getting employed or selling services to the company. However, in countries with weak governance, including several West African countries, there is a risk of destabilization of local economies and social **structures** because people are deprived from their traditional way of living. Artisanal mining areas often show high rates of **child labour**. Women and indigenous people suffer most from the socio-economic destabilization, because the rights of these vulnerable groups are not well protected. Although minerals and oil could contribute positively to the prosperity of many, thousands of people in the Katanga region in DRC are digging for minerals such as gold, diamonds and coltan (columbo-tantalite) in harsh conditions for only I USD a day.

TICKING TIME BOMBS

The search for offshore oil and gas is speeding up on the African coast, because deepwater oil production is made possible by new technologies, and the exploitation of small fields is made profitable by rising prices. One way to save costs, is to convert old, single-hulled oil tankers into floating production, storage and offloading ships (FPSOs).

These are the cheapest option,

deepwater fields where opera-

especially in the smaller African



Floating Production, Storage and Offloading Vessel

tional costs are critical to profitability. The reputable ship classification society Bureau Veritas (BV) clearly states that oil tankers are not suitable for this work. During their recent worldwide survey, dangerous cracks were found in converted FPSOs off the African coast. At least 50 single-hulled tankers are currently being converted into FPSOs, mostly for Africa. In US waters, only purpose-built and double-hulled FPSOs are allowed. Environmental experts call converted FPSOs ticking time bombs. They fear one may go off before the international community insists that African fishermen should have the same protection from oil pollution as their fellows in the North Sea and the US. Western Africa's new oil and gas boom is taking place in very productive seas, where millions of people depend largely on fishing for survival. In the northern sector, from Mauritania to Guinea Bissau, fisheries are worth about 500 million euros a year and they are the most important source of foreign exchange. Well-planned offshore oil production can co-exist with fishing, but unregulated development has serious effects on fish stocks and habitats. Fishing communities need strict laws to control pollution and disturbance, surveillance and publication of the activities of the offshore industry and enforcement to ensure that oil companies do not violate the law.

International Trends Affecting West and Central Africa

Tropical forest

Tropical woodland

Oil concessions

Active oil concessions

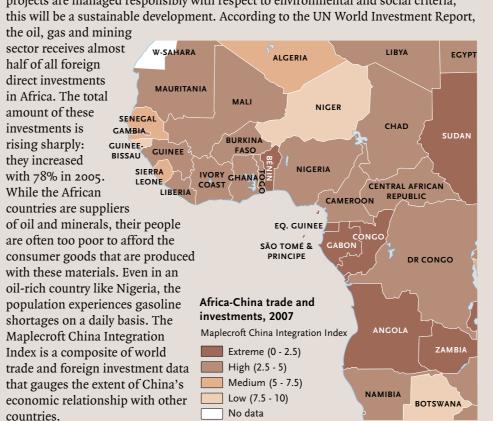
Grassland/steppe

Hot desert

Scrubland

Savanna

Rising prices for oil and minerals have an impact on the West African economies and ecosystems. A growing number of multinational companies and financiers are interested in the natural resources of this region. In the past decade, Asian and Latin American companies have entered the West African extractive industries sector and the traditional Western dominance is declining. The global arena regarding the export of raw materials is changing and production is intensifying because of the surging global demand for oil and minerals. In recent years, West African countries have entered into large trade and investment agreements with China. These billion dollar deals often lack the environmental and social criteria of similar agreements with, for instance, World Bank or the EU. In reward for investments in the local infrastructure (roads, railways and bridges), Chinese companies are allowed to exploit natural resources. The extraction of these resources and the construction of the infrastructure are mainly carried out by a foreign workforce, denying local communities the benefits from the increased economic activity in their region. However, the absence of social and environmental criteria to these investments is favorable for African governments who seek more independence from foreign interference. As a result, World Bank, IMF and Western countries are losing ground to new stakeholders in the extractive sector from Asia and Latin America. These partnerships between Africa and new global powers such as China or Brazil are a chance for development. However, only when these projects are managed responsibly with respect to environmental and social criteria, this will be a sustainable development. According to the UN World Investment Report,



Recommendations

NAMIBIA

ANGOLA

Recommendations for the stakeholders (FIN: financial sector, GOV: governmental sector, COR: corporate sector: CIV: civil society)

FIN Use the Equator Principles as a benchmark to manage social and environmental

issues in project financing FIN, COR, CIV Integrated environmental and social impact assessments (ESIA) are carried out (by an independent party) for any new major development project and are part of a broader Strategic Environmental Assessment (SEA) which is publicly

available GOV, COR Apply only Best Available Technology (BAT)

FIN, GOV, COR, CIV Define and respect No-Go areas. Protected Areas (PAs) category I-IV are not allowed to host extractive projects within their borders, while category V and VI and High Conservation Value Areas (HCVAs) require agreements with the PA

GOV, COR Disclose revenues and payments from extractive industry projects. Subscribe to the Extractive Industries Transparency Initiative (EITI) and Publish-What-You-Pay (PWYP) to disclose payments to a wide audience in a publicly accessible, comprehensive and comprehensible manner

GOV Implement an Oil Spill Response Plan and set up a National Spill Fund GOV, COR Support the Kimberly Process

GOV, COR Conduct long-term ecological monitoring of the environment CIV Countries with extractive industries should form Regional Citizen's Advisory Councils (RCACs), including local farmers or fishermen, environmentalists, indigenous peoples, municipalities, and business owners. RCACs develop a comprehensive social and environmental profile of each company involved in

extractive industries in their region and update this profile annually COR, CIV Start stakeholder consultations as early as possible and continue throughout

FIN The World Bank Group should fully implement the recommendations of the

Extractive Industries Review GOV, COR Subscribe to and operate according to the OECD Declaration on International Investments and Multinational Enterprises

CIV Non governmental organizations should engage in the dialogue and share information with the extractive industry and take an active part in the design, industries to secure biodiversity conservation and sustainable development

monitoring and evaluation of the process of obtaining transparency in the extractive COR Metal product sellers, such as jewelry retailers, electronics manufacturers, and telecommunication companies, should commit to sourcing their materials only from environmentally and socially responsible mines

Production: IUCN National Committee of the Netherlands, 2008

In cooperation with: SEAPRISE/CEESP and Fatal Transactions

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