



[<<previous](#) | [index](#) | [next>>](#)

NEGLECT OF THE ENVIRONMENT

The oil industry in southern Sudan is expanding rapidly—producing up to 240,000 barrels per day in 2002 from no production in 1998. There has never been any comprehensive study done of the potential effects that oil production could have on the environment—flora and fauna and the complex web of Nile, sudd, and toic waters where so many species flourish—or on human populations or their migrations on which their agro-pastoral economy depends. The government has not mandated any study—except one done on the intended pipeline route in August 1998, which passes mostly through central and northern Sudan, avoiding the White Nile and the Bahr El Gazal and Bahr El Jebel—and if the oil companies have produced any others, they have kept the results hidden.

Warnings by Sudanese environmentalists in 1999 of possible damage by the oil companies' methods of work were effectively swept under the carpet.

Environmental Issues Regarding the Sudd and the Jonglei Canal

The sudd is the largest freshwater wetland in the world, covering an area of 1.7 million square kilometers in the rainy season. It encompasses many oil concession blocks, including part of Block 4, most of Block 5A, Block 5B, and territory south and east of them, in the concession of TotalFinaElf, Block 5.

The sudd is home to many migratory birds and animals; the known 550 shoebill storks in the world are only found in the sudd, according to one source.¹¹²³ Some 350 plant species have been identified in the sudd and up to 250 species of birds have been recorded. The area is rich in fish and wildlife: hippopotami and crocodiles live permanently in the swamps, in greatly diminishing numbers. The sitatunga antelope is also adapted to living in the southern swamps. Elephants and buffaloes used to migrate between the swamp and the toic, and other wildlife including zebras, Mongala gazelle, reedbuck, giraffe, ostrich, waterbucks, and white-eared cob migrate seasonally from the toics. The most hunted animal is the tiang antelope.¹¹²⁴

The environmental impact of the Jonglei Canal, projected to cut an almost straight line through Block 5 with a 360-kilometer canal northeast from Bor on the White Nile to the Sobat River, draining an estimated 25 million cubic meters of water per day from the sudd and toic, was studied by the British prior to independence.¹¹²⁵ The canal, however, has not been a viable project for two decades, due to the war. It was not complete before the civil war broke out again in 1983, in 1984, using its first-graduated troops from Boma, Ethiopia, the SPLA destroyed the mechanical digger, the largest in the world, and drove out the French consortium building the canal, CCI.¹¹²⁶ It is unlikely that this project will be revived until the war is over, if ever. Southerners say that the Jonglei Canal would suck all the water from other tributaries and the sudd, destroying their ability to water their cattle in all seasons. Conflicts over grazing and water sources would escalate as herders would be forced to crowd together on the edges of the canal.

There is already oil development in the sudd, in Block 5A, where an all-weather elevated road has been built. The road inserts a barrier to the movement of floodwater, but its effects on the local population and environment have not been studied. Nor does it seem likely that these vital factors nor the pipeline to be extended into Block 5A will be studied as a consequence of government law or regulation, or oil company conscience.

The International Partners' Forum Working Group (IPF-WG), which supports the regional peace negotiation effort undertaken by Sudan's neighboring countries through the Intergovernmental Authority on Development (IGAD),¹¹²⁷ was tasked with formulating a planning framework for recovery of the war-affected areas of Sudan following a peace agreement. The IPF-WG, whose active members are eight governments, the E.U., and five U.N. agencies,¹¹²⁸ developed several themes for which consultancies were undertaken. A low priority consultancy was assessment of environmental conditions: natural resources, forest, and wildlife. No donor interest was indicated, and there was no consultancy contracted for and no progress reported on this topic.¹¹²⁹ This lack of interest in preservation, conservation, or study of the rich environment of southern Sudan is striking.

Although the southern environment was extensively documented between 1947 and 1983, none of the agencies involved or the authorities nominally responsible gives it any urgency, and species such as the northern white rhino have thus been lost.¹¹³⁰

Warnings about Environmental Impact of Oil Extraction

In February 1999, Sudanese environmentalists complained that the processes China's CNPC, part of the GNPCC consortium, used to extract oil from the wells produced contaminated water which would surely seep back into the underground waters.¹¹³¹ According to the group, Sudanese Environmental Conservation Society (SECS), CNPC had completely ignored their warning of the ecological hazards its project would cause. The SECS is a leading progressive environmental NGO, the pioneer environmental NGO in North Africa, according to a forthcoming book.¹¹³²

Ecologists also criticized the oil industry for not conducting a careful study of environmental impact, blaming local oil planners for failing to consider the effect of the pipeline on access of wildlife to water, in particular. They further stated that the refinery in Jaili, on the Nile river in northern Sudan, would contaminate the river if overflows occurred. They warned that alleged uncontrolled dumping of oil waste by the refinery, under construction by CNPC, constituted a pollution threat. The Malaysian firm hired to supervise the work did not have local expertise necessary to avert such problems, the environmentalists charged.¹¹³³ (That refinery was inaugurated on June 30, 1999 and completed in 2001.¹¹³⁴)

Apparently as a result of this warning by an environmental group, the government announced that it had set up a panel to examine potential environmental hazards that could result from the commercial exploitation of oil. The panel was to be headed by Agnes Lukudu, formerly governor of a southern state and at the time of the appointment, the minister of labor.¹¹³⁵

On May 9, 2000, the minister of energy and mining, Dr. Awad Ahmad al Jaz, addressed a workshop on the role of legislation in environmental conservation in the petroleum industry.¹¹³⁶ A month later, the minister of environment and tourism, Maj. Gen. (Ret.) Al Tijani Adam al Tahir, announced a new environmental protection law to meet challenges facing the environment, and to coordinate between the various agencies to protect the environment. He emphasized the need to conduct environmental impact assessment studies before the implementation of development projects.¹¹³⁷

Talisman forwarded a copy of the environmental legislation passed in Sudan in 2000 to Human Rights Watch, at our request.¹¹³⁸ It was general and did not mandate any action, even the filing of environmental statements by companies. Regulations remained to be promulgated as of the writing of this report.¹¹³⁹

Talisman's and GNPOC's Limited Environmental Impact Assessment, August 1998

At the request of Human Rights Watch, Talisman provided a copy of an environmental impact assessment report carried out for the GNPOC pipeline system. It was completed in August 1998, prior to Talisman's full involvement in Sudan. The assessment in English was a forty-two page document, with an additional five annexes and eight illustrations, and contained a section on "Resettlement and Compensation (if any)," less than one page long.¹¹⁴⁰

It appears that only the pipeline, flowing mostly through government-controlled territory, was assessed. It does not appear that any environmental assessment was conducted with regard to the large area of exploration and development of the oilfields (the "upstream" sector) in the GNPOC concession of Blocks 1, 2, and 4, which includes the area referred to by the Sudanese environmentalists. Further contacts with Talisman elicited the following response from representative David Porter:

To the best of my knowledge, an environmental assessment was not completed in advance of upstream developments [exploration and extraction], probably because upstream exploration and development proceeded incrementally over a protracted period of time.

The [Sudan] Environmental Policy Act (1998) does articulate a requirement for environmental impact assessment in support of major development projects; however, much of the development in the upstream would have already taken place prior to the advent of this statutory requirement. We (Talisman) are in the process of recommending to GNPOC that they institute an environmental planning standard for new developments in the upstream (road access, wellsites, borrows, facilities, etc.).¹¹⁴¹

Talisman also forwarded its GNPOC HSE (Health, Safety, Environmental) Policy for operations in Sudan, which was very general.¹¹⁴²

Block 5A: Lundin Claimed Environmental Impact Study Done

Lundin said that it carried out an environmental impact study with a specialized third party organization based in the U.K. (later identified as Metok PLC of London) but it has not shared that study with any NGO to date, nor made it public, although Human Rights Watch requested a copy.

It is startling that no environmental assessment of Block 5A has been published by Lundin, considering that the White Nile (Bahr El Jebel) flows through Block 5A and that the Ryer/Thar Jath discovery is only a few miles west of the Nile. Indeed, Lundin was even exploring from a platform on the Nile in 1999, before it suspended operations. Eyewitnesses referred to the platform as "on the Nile;" Lundin said that it was actually in the "swamp." As water floods annually throughout this flat land, the difference between swamp drilling and Nile drilling for environmental protection purposes may not be significant.

The location of Block 5A astraddle the White Nile raises the question: what if there is an accident during the production and oil spills into the Nile, a river on which millions of people depend? The oil spillage would flow downstream, that is, north, to Khartoum and Cairo. An oil spillage not directly into the Nile but into the sudd or toic would also have enormous environmental impact, particularly during the rainy season when the entire area is flooded. As the waters recede, oil slick would remain on the pastures and in the fishing areas far and wide.

Lundin should describe how it plans to handle such a possibility, starting with precautions taken during the exploratory phase of development.

Lundin featured in its annual report for 2000¹¹⁴³ a page on Lundin Oil environmental policy, with a case study of Sudan. In that study, it stated that Lundin commissioned two environmental studies for its operations in Sudan, conducted by Metoc PLC of London.

The first study, a risk assessment for IPC [Lundin] Sudan's operational bases, was done "to formulate a policy and programme on how to deal with safety and environmental issues related to the former Chevron bases and any impact from these on Lundin Oil operations." It reportedly concluded that there were no major issues identified giving rise to serious environmental or safety concern.¹¹⁴⁴

The second study was called the "Environmental Assessment for Exploratory Drilling and Operations Review – Sudan," which consisted of an examination of the drilling project from the operational and management perspectives. Potential impacts on the human population, domesticated animals, vegetation, wildlife, surface and subsurface watercourses allegedly were analyzed and the conclusion was that "no significant environmental impacts were identified, either during normal operations or in an emergency situation."¹¹⁴⁵

The study is not publicly available, so it is not possible to evaluate its conclusions, in particular that an oil spillage would have "no significant environmental impact." In its Code of Conduct, Lundin stated that it strives "to limit adverse impacts on the environment."¹¹⁴⁶

Lundin claimed that the assessment of human habitation of the area between Rubkona and Ryer/Thar Jath "indicated low density population settlements in the area."¹¹⁴⁷ What month and year the study was made are not known.¹¹⁴⁸ The Jikany, Leek, and Jagei Nuer living in that area were agro-pastoralists and moved seasonally with their herds. Even in normal times, it would be possible for someone studying the area when the agro-pastoralists were in seasonal migration to conclude that the population was very small—but conditions in that part of Block 5A have not been "normal" for years. As a result of the forced displacement of Leek Nuer from their lands north of Bentiu in the 1980s and 1990s, more rather than less Leek Nuer would be living in Block 5A, because the Leek traditionally straddled Blocks 1 and 5A and those from Block 1 fled from the army and the Baggara to their kin south of the Bahr El Ghazal (Nam) River in Block 5A in the 1980s and 1990s. Now the Leek have been pushed south and west, into Bahr El Ghazal.

While the environmental program of OMV is extensive, it makes only passing reference to Sudan, and it does not appear that OMV has conducted an environmental impact statement with regard to its investment in Block 5A.¹¹⁴⁹

Nor, to the knowledge of Human Rights Watch, has there been any environmental study of the effects of the extension of the pipeline from Block 1 to Block 5A—nor to Block 5B.

Satellite Evidence of Alteration to the Environment and Drying Out of River/Stream Bed

Talisman, as part of its campaign to disprove the existence of human beings in its concession areas, commissioned a special report of satellite images showing the changes in carefully selected parts of the earth's surface in Western Upper Nile/Unity State from 1965 to 2000.¹¹⁵⁰ This was presented for the purpose of showing a lack of human habitations, but other interesting material is available in the expert analysis provided by Talisman itself.

Looking at the Bamboo exploration and drilling site, to the southeast of Heglig (far from those alleged to have been displaced), it is noted that:

[W]here the new road intersected the previous line of water drainage/flow [as evinced from the growth of law scrub and other vegetation] [sic] the natural flow of moisture may have been inhibited and effectively dried out the river/stream bed

. . . the imagery indicated changes to the underlying water table of the area with the construction of numerous raised roadbeds and survey excavations. . . . Although the principal north/south watercourse appears little changed interim, the remainder of the area displays apparent changes to the probable flood plain.¹¹⁵¹

In other words, the water table was affected by the construction of the roadbeds and survey excavations. In other countries, similar effects on drainage caused by roads built for oil companies have caused devastating problems for the local environment.¹¹⁵²

¹¹²³ S.L. Laki, "The Impact of the Jonglei Canal on the Economy of the Local People," *International Journal of Sustainable Development and World Ecology* 1 (1994), p. 90.; Sam L. Laki, "Management of water resources of the Nile Basin," *International Journal of Sustainable Development, World Ecology* 5 (1998), p. 292; another source says that the shoebill stork occurs also in Zambia and Uganda, and is very rare. Philip Winter, email to Human Rights Watch, August 22, 2003.

¹¹²⁴ "The Impact of the Jonglei Canal," p. 93; "Management of water resources of the Nile Basin," p. 292.

¹¹²⁵ "The Impact of the Jonglei Canal," p. 89; see *Jonglei Investigation Team*.

[1126](#) "Impact of the Jonglei Canal," p. 91.

[1127](#) IGAD is an East African body created under the Organization of African Unity in 1986, comprising Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Uganda, and Sudan, initially called the Intergovernment Authority on Drought and Desertification (IGADD). IGAD now stands for the Intergovernmental Authority on Development.

[1128](#) The IGAD Partners' Forum included the following: Norway, Italy, Belgium, Canada, Egypt, Finland, France, Germany, Greece, Ireland, Japan, the Netherlands, Sweden, Switzerland, the U.K., the U.S., the European Commission, the United Nations Secretariat, the UNDP, the UNHCR, and the WFP. The Russian Federation as observer attended the seventh meeting of the Committee on Sudan of the IGAD Partners' Forum in Rome on March 20, 2001. Draft Second Interim Report, "IPF Working Group on Planning for Peace in Sudan," prepared for the IPF meeting, Rome, March 20, 2001, internal agency document.

[1129](#) Ibid., p. 8.

[1130](#) Email, Philip Winter to Human Rights Watch, August 22, 2003.

[1131](#) Although the wells' location was not specified, at the time CNPC was engaged in the GNPOC project.

[1132](#) The environmental conservation movement in Sudan started in the 1960s with the founding of the National History Society in the University of Khartoum, followed by the Nature Conservation Society in 1970. The SECS was established with fifty members with research and academic backgrounds in 1975. Its membership increased to 3,000 by 1992. It has about fifteen chapters throughout Sudan (except for the south) and about 6,000 members. Mohamed Ibrahim Elgadi, *Oppression Evaluation: Covert Agenda in Program Evaluation* (Amherst, MA: Center for International Education, University of MA, forthcoming).

[1133](#) Yahya el Hassan, "Sudan Keen to Avert Oil Industry Pollution," *PANA*, Khartoum, February 1, 1999.

[1134](#) "Sudan's President Bashir Slashes Fuel Prices," *PANA*, Khartoum, June 30, 2000.

[1135](#) Ibid.

[1136](#) "Sudan: Energy Ministry keen to make oil production environmentally friendly," *SUNA*, Khartoum, in English, May 11, 2000, from *BBC Monitoring*, May 11, 2000, *World Reporter*, May 11, 2000. John Dor was state minister for petroleum. John Dor, Human Rights Watch interview, Khartoum, July 25, 1999.

[1137](#) "Sudan adopts new law on environmental protection," Sudan TV, Omdurman, in Arabic, June 5, 2000, as translated in *BBC Monitoring*, June 5, 2000, *World Reporter*, June 5, 2000.

[1138](#) "Environmental Policy Laws, Sudan," in English, Reg Manhas, letter to Human Rights Watch, September 4, 2001.

[1139](#) Ibid.

[1140](#) "Muglad Basin Oil Development Project, Pipeline System EPC II, Environmental Impact Assessment Report," revised by Institute of Environmental Studies, University of Khartoum, for China Petroleum Engineering Construction Corporation, August, 1998. Faxed from Reg Manhas, Talisman Energy, to Human Rights Watch, February 13, 2001.

[1141](#) David Porter, Talisman, email to Human Rights Watch, March 21, 2001.

[1142](#) Ibid.

[1143](#) Lundin Oil Annual Report, 2000, page 6, fax from Christine Batrusch, Lundin Oil, to Human Rights Watch, June 5, 2001.

[1144](#) Ibid.

[1145](#) Ibid.

[1146](#) Lundin Petroleum AB, "Code of Conduct, Attitude Towards the Environment," <http://www.Lundin-petroleum.com> (accessed May 28, 2002).

[1147](#) Lundin Oil press release, "Lundin Oil Looks into Allegations on Sudan," Geneva, March 15, 2001.

[1148](#) Christine Batruch, Lundin Oil, letter to Human Rights Watch, attaching Lundin Oil Annual report, p. 6, faxed March 7, 2001.

[1149](#) OMV, "Environmental Report," <http://OMV.com/mainframe.html> (accessed March 18, 2001).

[1150](#) "Kalagate Imagery Report, Sudan Oilfield Exploration Concession," April 2001, published by Talisman Energy, Calgary. Inside the cover is the report of Geoffrey John Oxlee, Kalagate Imagery Bureau, "Report KIB/035-1/2001, Subject: Sudan Oilfield Exploration Concession," April 2, 2001.

[1151](#) Ibid., pp. 5-6, and Image 2. The "new road" refers to the oilfield road.

[1152](#) See, for example, Human Rights Watch, *The Price of Oil: Corporate Responsibility and Human Rights Violations in Nigeria's Oil Producing Communities* (New York: Human Rights Watch, 1999), pp. 68-72.

[<<previous](#) | [index](#) | [next>>](#)

November 2003