

The Chad-Cameroon Oil Pipeline— Hope for Poverty Reduction?

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The constant search by the West for alternative suppliers of energy sources has led it to channel billions of dollars toward oil exploration and pipeline projects (including the Caspian Sea, Mediterranean, and Chad-Cameroon projects). Many developing countries see the exploration for and exploitation of oil as an open path to economic liberalization and an opportunity to control the influence of Western governments and international financial institutions from whom they have constantly begged for assistance and/or high-priced loans. To these countries, exploitation of the oil resource is seen as the best hope for economic, political, and social self-sufficiency, which would pave the way for a transition from a shaky subsistence existence to an industrial economy. The paradox surrounding such hopes is that a total transformation from reliance on primary products to finished processing entails a range of human and technical resources that are lacking or cannot be sustained in many of these countries. Consequently, they are forced to seek assistance to finance exploration of primary resources from the very entities from whom they seek to break.

In Chad, exploration wells revealed the presence of oil in 1975, but efforts to develop this potential were halted in 1981 because of a civil war, which had started in 1979. With the restoration of peace, exploration resumed, and the legal foundation for a Chad-Cameroon pipeline was put into effect in 1988. An agreement was signed that year between the government of Chad and a consortium of Shell, ELF (the French oil company), and

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ExxonMobil, which was granted an exploration permit valid until 2004. The 1988 agreement called for a thirty-year concession to develop the Doba oil fields in southern Chad and to produce and transport oil to market. However, on 7 February 2000, Shell and ELF pulled out of the consortium because the project was progressing painfully slowly and was becoming too costly. Subsequently, Chevron and Petronas indicated an intention to buy the shares in the consortium held by Shell and ELF. This essay examines the roles played by the governments of Chad and Cameroon, the World Bank, the oil companies, and other interest groups in developing a framework for the project and examines the flaws that are inherent in the project.

The Project in Context

In order to understand the context of the Chad-Cameroon oil development project, it is useful to recall that Chad is a landlocked country with a population of approximately 7 million in the central African region. It is one of the poorest countries in the world, with a per capita gross domestic product of \$230 and 40 percent of its national product derived from agriculture, primarily livestock. Cotton and food products are grown in the wet season. In 1995, as Chad was emerging from a protracted era of economic and political crisis, the government embarked on an aggressive program of macroeconomic reform supported by the World Bank, the European Union, France, and Switzerland. The primary objective of this structural adjustment program was to institute meaningful economic reforms that would lead Chad out of the economic problems that had also paralyzed political life. By 1999, Chad had made substantial progress in its reform efforts, although its weak management capacity precluded abiding completely by the reform commitments. Since 1995, Chad has experienced annual growth rates of 5 percent and has maintained low inflation.¹ But these reform efforts have not begun to address the chronic problem faced by so many: poverty. In fact, those who have suffered the most adverse effects of economic reforms have been those with the lowest incomes.

1. World Bank "The Chad-Cameroon Petroleum Development and Pipeline Project," *Concept Paper*, March 1998.

Cameroon is situated directly to the south of Chad. It has a population of about 14.7 million with an estimated per capita GDP of \$650. The country is richly endowed with tropical rainforests, fertile soil, a favorable climate, and a variety of mineral resources. From 1960 to 1985, Cameroon experienced an average annual growth rate of 7 percent. Subsequently, this impressive growth rate was adversely affected by declines in crude oil prices, a collapse in its terms of trade, dubious and unproductive public expenditures, and a sharp appreciation of its exchange rate. As a result, Cameroon experienced an annual 6 percent decline in GDP from 1986 to 1993, which caused a 50 percent fall in personal incomes. A 1988 structural adjustment program was designed to enhance its competitive position through internal price adjustment, trade liberalization, restructuring of the public and financial sectors, and civil service and social reforms. Following a 1994 devaluation of its currency, Cameroon began once again to experience positive economic growth. In 1994, the economy grew at a rate of 3.5 percent, and from 1996 to 1998 it grew 5 percent annually. Despite progress made in macroeconomic and private sector development, however, poverty continues to be the main problem afflicting Cameroon.²

The socioeconomic indicators for Chad are among the lowest in the world. In 1998, the infant-mortality rate was 115 per 1,000 births; the literacy rate (age 15 and over) was 62 percent for males and 35 percent for females; the average life expectancy at birth was 47 years for males and 50 years for females; the primary-school pupil-teacher ratio was 62 pupils per teacher; the average birthrate per woman was 5.6; the ratio of persons per physician was over 30,000; and 76 percent of the population had no access to safe drinking water.³ Given such horrible conditions and the need to recover from a civil war that had destroyed much infrastructure, the government needed urgently to look for new avenues to redress its difficulties. Restoration of peaceful conditions gave the authorities a chance to continue with the oil exploration project, which had been interrupted for seven years by fighting and unstable conditions.

2. Ibid., 2–3.

3. Data from World Bank, *World Development Indicators* (Washington, D.C.: World Bank, 1997), and the 1998 edition of the same.

By 1993 the government of Chad had confirmed that the southern region of Doba contained significant oil reserves. In 1997, the Chadian National Assembly enacted an amended version of the 1988 convention, including provisions for land acquisition and compensation, tax payments by the oil companies, and royalties that have the potential of doubling the national budget of this impoverished country. In order to define the extent and location of the oil deposits in the southern Chad, a program of drilling appraisal wells and three-dimensional seismic exploration was conducted.⁴ The exploration data permitted engineers to determine preliminary locations for wells and other potential oil fields and provided information needed to limit projected land usage.

The Chad-Cameroon Petroleum Development and Pipeline project (PDP) is the largest privately financed infrastructure project in Africa. Initial plans called for ExxonMobil to drill three hundred oil wells in the Doba oil fields. Other drilling areas included Bongor, Dosea, and the Lake Chad Basin. The original 1980s' plan envisaged that the consortium could have oil on-stream by 2001.⁵

Although the project is geared toward development of oil resources in Chad, Cameroon is also vital to the success of the overall project because of the landlocked geography of Chad. Producing oil without a means of transport to the industrial countries' markets would be worthless because limited domestic consumption in Chad cannot provide an adequate market. Construction of a 650-mile pipeline was envisaged to transport crude oil from the Doba oil region in Chad across Cameroon to the seaport of Kribi on the Atlantic. Other components of the project included production of 225,000 barrels of oil per day and construction of a marine pipeline from Kribi to a floating storage vessel.⁶

In 1996, Cameroon and Chad reached a bilateral treaty that called for construction and operation of the pipeline and other oil transportation facilities. In 1998, the Tchad Oil Transportation Company S.A. (TOTCO) and the

4. EssoChad, *Environmental Assessment: Executive Summary and Update*, at www.essochad.com/eaff/essochad/document/summary/2.html.

5. "Chad/Cameroon: Oil Project," *Oxford Analytical Brief*, 6 October 1999, 5.

6. Environmental Defense Fund, *The Chad-Cameroon Oil and Pipeline Project: Putting People and the Environment at Risk* (New York: Environmental Defense Fund, 1999), 1.

Cameroon Oil Transportation Company S.A. (COTCO) were established to construct, operate, and maintain the pipeline. According to the preliminary financial plan of August 1998, Chad would have a 15 percent equity stake in TOTCO and a 5 percent equity stake in COTCO and Cameroon would have 12 percent equity in COTCO. The remaining shares in the two companies would be distributed among the consortium partners in proportion to their stake in the project.⁷ It is important to note that although Esso Exploration and Production Chad Inc. is the consortium's designated operator for the oil fields, the pipeline is owned by TOTCO and COTCO.

The various actors involved in the Chad-Cameroon project had a single purpose: to develop the oil resources in Chad's Doba region by constructing and operating the oil fields and development facilities as well as the transportation systems needed to transport the oil to market. Sponsors of the project assert that the project will have potential positive impact on Chad and Cameroon. Among the benefits are the following:

1. For Chad, the project will generate royalties and tax revenue that will be used to alleviate its poor economic and social conditions. It sees the project as a source of employment, training opportunities, and infrastructure development.
2. Cameroon sees the project as a source of additional revenue (from taxes and transportation fees) essential for socioeconomic development and the alleviation of poverty. Cameroon also believes that the project will provide employment, training, and the improvement of public infrastructure.⁸

The oil consortium, while acknowledging its commercial interest, says it is determined to minimize and mitigate the potential negative environmental and other impacts of the project.

The estimated cost of the project is \$3.5 billion, including \$1.5 billion for the development of oil facilities in Chad and \$2.0 billion for the pipeline and marine facilities construction. The private-sector sponsors will finance 60 percent of the cost of the project from their own resources, including the

7. EssoChad.

8. Ibid.

full cost of the oil-field facilities and about 25 percent of the export system. The World Bank appraised and approved loans to Chad and Cameroon totaling \$90 million, or 3 percent of the project cost.⁹ The World Bank argued that given the project's potential for improving Chad's development prospects and generating substantial revenue for Cameroon, it and the European Investment Bank (EIB) should approve a \$55 million loan to fund Chad's equity participation in TOTCO and COTCO. The World Bank and EIB also approved a \$70 million loan to Cameroon to fund its equity in COTCO. TOTCO and COTCO also requested market-rate loan facilities through the International Finance Corporation, (IFC) a World Bank agency responsible for encouraging private sector investment in developing countries.¹⁰ The World Bank said its support for the Chad-Cameroon project is based on the project's potential of reducing poverty and increasing investment in education, health and basic infrastructure.

The World Bank's involvement in the project is not limited to helping provide funding. The bank assisted the government of Chad in developing a revenue management plan to ensure that the project revenues benefit all citizens of Chad and that the program is designed to support efforts of the government to focus expenditures on the development of human resources (health, education, and related activities) and rural development, especially in the areas around the oil fields. Initial elements of the plan included

1. targeting revenue to poverty-alleviation activities,
2. improving local capacity to manage expected revenues,
3. promoting transparency regarding uses of revenue,
4. increasing the participation of parliament, civil society, and the private sector in revenue-management decisions, and
5. building an extensive information and education campaign regarding the oil project.¹¹

9. International Bank for Reconstruction and Development/International Development Association (IBRD/IDA), *Project Information Document: Chad-Cameroon Petroleum Development and Pipeline Project* (New York: IBRD/IDA, 1999), 4.

10. EssoChad, chaps. 1 and 2.

11. World Bank, "The Chad-Cameroon Petroleum Development and Pipeline Project."

The World Bank made implementation of the revenue management plan a precondition for the loans to the Chad government and for its involvement in the project.

Additionally, the World Bank and IFC played a significant role in designing the environmental protection standards for the project. Environmental and social experts from the World Bank held discussions with the consortium and officials from Chad and Cameroon. The project's private-sector sponsors assumed a significant responsibility for managing environmental impacts, while other aspects of managing environmental concerns rest with Chad and Cameroon.

The consortium and the governments of Chad and Cameroon developed an environmentally and socially acceptable route for the pipeline to comply with the World Bank's policies on natural habitats. The project considered river, rail, road, and pipeline as alternative means of transporting the crude oil to the market. The pipeline option was selected as the only means of transporting 225,000 barrels per day at cost-effective rates. The project sponsors also argued that this mode of transport offered the best opportunity to maximize safety and minimize adverse environmental impacts.¹²

The planning process for environmental assessment and mitigation included public consultation. Based on field observations, community input, and feedback on the draft documents, changes were made to the original pipeline plan in order to avoid sensitive environmental, social, and cultural features. Examples included "relocating the pipeline on the escarpment above the Mbere Rift Valley rather than through the valley, adjustments in the alignment through the Atlantic littoral forest to minimize impacts on biodiversity, cultural sites and local, especially indigenous people." The sponsors of the project asserted that this optimization of the pipeline path led to the "complete avoidance of any population displacement in Cameroon."¹³

After careful consideration and evaluation of many sites, the Cameroon coast was identified as the only possible site within a "zone of feasibility" to locate and construct a marine terminal. Many other locations were rejected for a variety of reasons. Locating a terminal within the Douala seaport was

12. IBRD/IDA, 22.

13. *Ibid.*, 23.

rejected, because the heavy, silt-deposited waters would increase the cost of construction and the project would disturb the ecosystem, particularly wetlands. The area south of Douala to the Nyong River was eliminated, because the project would disturb the Douala-Edea reserve and a wetland and mangrove area, and the area south of Grand Batanga to the coast was eliminated, because the pipeline would traverse a relatively pristine forest and the Campo reserve. Consequently, Limbe and Kribi were identified as the only possible feasible sites for the offshore loading facility.¹⁴ The area south of Kribi was chosen for environmental and technical reasons. Although onshore and offshore possibilities were considered, an offshore facility with floating storage and offloading (FSO) was selected because it would be less costly and would have the least significant environmental impact. The FSO will be anchored in a fixed location.¹⁵

With respect to the possibilities of an oil spill, project documents assert that the project design will comply with international standards and therefore the risk of spill would be minimal. These standards include the applicable policies and guidelines of the World Bank as well as standards and specifications developed by the American National Standards Institute, the American Society of Mechanical Engineers, the American Petroleum Institute, the American Society of Testing and Materials, and the Decommissioning, Remediation and Reclamation Guideline for Onshore Exploration and Production Sites. The operations integrity-management system, developed by Exxon, includes rigorous internal environmental management systems and standards that the project is expected to comply with.¹⁶

The project has been designed to minimize the possibility of an oil spill. Pipelines will be thirty inches in diameter and buried about three feet underground. The pipeline exterior will be made up of high-quality carbon steel and will vary according to need, with heavy, thick-walled pipes used in locations such as river crossings. The outer surface of the pipe will be protected with a polyethylene coating, and cathodic protection will be used to prevent electrolysis, a primary cause of corrosion. Flow lines will be con-

14. Ibid.

15. Ibid.

16. Ibid., 24–5.

structed of fiberglass and be impervious to corrosion. These designs will help prevent leaks. Mainline valves will be installed along the length of the pipeline at about twenty-two-mile intervals to facilitate system operation and limit potential environmental damage in case of a leak or spill. Additionally, during the operational phase of the project, the transportation system will be monitored around the clock by an electronic leak-detection system. The system will have frequent airborne and ground patrol inspections that will monitor for any signs of possible pipeline leakage or unauthorized activities that might affect the overall operation of the system. The project will put in place a system to monitor soil erosion, river discharge rates, activities at railway crossings, the state of nearby streams, and any problems with encroaching bushes and trees.¹⁷

The project's sponsors acknowledge that there are few preexisting waste management facilities in either Chad or Cameroon. Consequently, the project will be responsible for construction and operation of the needed facilities. Waste management and the disposal of hazardous materials will be arranged in accordance with regulations of the World Bank, Chad, and Cameroon and other internationally accepted standards.¹⁸

The project documents indicate that the plans will be executed in total compliance with all the applicable laws of Chad and Cameroon, including the Convention of Establishment that had been enacted by both parliaments and signed by Esso Exploration and Production Chad Inc., TOTCO, and COTCO. Additionally, all future project facilities must follow the standards set forth by the international petroleum industry. At the end of the project, all facilities will be left in place for use by the host country where feasible. However, where it is not feasible, facilities will be decontaminated in place, removed for reuse, or recycled as scrap. Project sites will be reclaimed.¹⁹

Project documents also show that procedures at each construction site include provisions requiring that, where appropriate, topsoil removed during construction will be stockpiled and spread on disturbed surfaces when construction has been completed. Topsoil stockpiled for more than six

17. EssoChad, chap. 3.

18. Ibid.

19. Ibid.

months will be fortified with fertilizers, soil enhancers, or other organic materials to maintain viability prior to use in restoration.²⁰

Additionally, vegetation removed during pipeline construction will be conserved and spread over the easement during reconstruction, if it is practical, to help control erosion. Following removal of facilities, land surfaces will be recontoured and revegetated. Revegetation, seeding, and planting will be from native seeds and seedlings, compatible with local soil conditions and climate.²¹

Except in cases where a local community wishes to retain a project construction facility for continued use, construction sites, including easements and construction camp locations, will be returned to natural contours and grade at the same time that topsoil is spread over disturbed areas. Topsoil stripping and construction of new borrow pits will be limited through the reuse of laterite from old exploration infrastructure, such as well pads and airstrips.²²

Benefits to Chad and Cameroon

For Chad, prospects for poverty reduction are predicated on what is done with oil revenues. The development of oil in the southern region of Chad will have a profound effect on the development prospects of the area over the next several decades. Given that Doba contains about 900 million barrels of recoverable oil, if revenues to be derived from the project are properly managed and channeled into human development and infrastructure, this could lead to rapid economic growth and substantial increases in public expenditures. Oil revenues from this project could greatly improve standards of living and the human development index of Chad. Under current projections based on world market oil prices, the project would raise approximately \$2.5 billion in revenue from royalties, taxes, and dividends over twenty-five years. It is assumed that these revenues will be used for long-term capital investment that will be beneficial to the people of Chad. Additionally, the project

20. Ibid.

21. Ibid.

22. Ibid.

would create new employment opportunities, especially in the construction and service areas, and lead to substantial private-sector growth.

Cameroon stands to earn \$60 million per year in direct revenue from the pipeline and additional amounts from other related economic activities. Assuming that this income is invested in human resource development and capital formation, benefits will be extensive and valuable. The pipeline will also generate thousands of short-term construction and operational jobs for the local population. Earnings from these jobs will help many individuals and their families who at the present live at subsistence levels or in abject poverty.

Criticisms of the Project

Given the magnitude of the project and the nature of risk, it is inevitable that the project will not be problem free. The World Bank asserts that the project will help alleviate poverty, but others have argued that the bank's involvement in projects of this magnitude divert limited resources away from the financing of such social programs as education and health.

It is hard to argue that the World Bank's investments in the oil project will have an immediate, positive, direct effect on improving human resource development and on poverty reduction. As a matter of practical reality, neither Chad nor Cameroon has the infrastructure in place to implement a program that would benefit the poor in the short run. Another unanswered question is how sustainable such a program will be.

The legal conventions governing the Chad-Cameroon pipeline project were ratified by the parliaments of both countries and thus supersede national law should there be a conflict. The provisions of these conventions include provisions that grant the consortium unilateral powers to have access to any private or public land for the purpose of investigating the causes of or remedying an emergency or a dangerous situation, without prior authority. It could execute such an operation with the assistance of the public or private emergency services. Thus it is evident that the conventions entrust the consortium with vast powers. There is little doubt that the sanctioning of such a provision is a subversion of national law in favor of corporate interest. There is also the likely possibility that the conventions could

take precedence over environmental assessment studies and World Bank policies.

The State Department's annual reports on human rights in Chad and Cameroon reflect severe abuses and lack of freedom of speech and association in both countries. The capacity of citizens to change their government is nonexistent in Chad and very limited in Cameroon.²³ It is difficult to see how the World Bank's claims of development benefits for Chad and Cameroon can be evaluated without due consideration to the effects on the political economy of both countries. Chad's human rights record is abysmal. Chadian security forces have reportedly killed two hundred unarmed civilians in the Doba oil region, but no investigations into the allegations took place. There are concerns that pipeline construction in southern Chad could further exacerbate decades of tension between the government and the primary opposition movement. In recent years, skirmishes have also occurred in northern Chad that could spill over into the oil region to the south. President Idriss Deby recently capitalized on these events to divert to the army \$4.5 million of the \$25 million "bonus" that was given by the consortium to the government of Chad. Deby justified his actions by arguing that there could be no development without security.²⁴

In 1999, Transparency International ranked Cameroon as the world's most corrupt nation. There is also considerable doubt about the extent of the consultation process with communities to be affected by the pipeline.²⁵ The massive dislocation of the indigenous Bagueli people by the pipeline as well as potential destruction of habitats and marine pollution that could be caused by the project have raised serious concerns among environmental and human rights groups. The Bagueli people stand to lose their culture, and some significant archaeological sites could be affected.

In 1998, consortium member Chevron was linked to human rights abuses in Nigeria. As a consequence, protests against its oil-drilling operation ensued. A Human Rights Watch report indicated that Chevron requested the

23. U.S. State Department, *Country Report on Human Rights: Cameroon* (Washington, D.C.: State Department, 1999).

24. Amnesty International, "Chad Cracks Down on Dissent," in *Annual Report 2000*, at www.amnesty-usa.org/justearth/countries/chad-cameroon2.html.

25. Ibid.

assistance of Nigerian military forces and police to stop about one hundred unarmed protesters at one of its production platforms.²⁶ The military crack-down resulted in the death of two protesters and the arrest of eleven others. Nigeria shares borders with Chad and Cameroon. Will Chevron repeat the same course of action in Chad and Cameroon, assuming that there are future protests against operations in these countries? What action has Chevron taken to avert a reoccurrence of the 1998 episode in Nigeria? Answers to these questions are absolutely imperative to understanding the future roles of corporations in developing countries that are striving toward institutionalization with democratic governance.

It is an undeniable fact that oil pipelines contribute to environmental hazards. Assuming that the most sophisticated technology is used in the Chad-Cameroon oil development project, there is still a 0.002 percent chance that a leakage could occur.²⁷ The project is expected to produce an estimated daily capacity of 225,000 barrels. This implies that under the best available scenario, 2,000 gallons of crude oil could leak daily without detection. The heavy metals from such potential leaks will contaminate underground water, aquifers, and rivers and their habitat. The pipeline would make seventeen major river crossings in Cameroon and will run along the Sanaga River, one of Africa's most important rivers. The failure to include a detailed oil spill response plan in the environmental impact assessment means that an oil spill or leak could have significant ecological and economic impacts on the Atlantic coast of Cameroon.²⁸

Conclusion

The Chad-Cameroon oil development project is the largest undertaking of its kind in Africa. The governments of Chad and Cameroon entered into the project with the assistance of the World Bank and an oil consortium (Exxon-

26. Quoted in Amnesty International, "Chad and Cameroon Oil and Pipeline Project," 29 March 2002, at www.amnesty-usa.org/justearth/earthday2000/chad.html.

27. Kenneth Walsh, *World Bank Chad-Cameroon Oil and Pipeline Project* (New York: Environmental Defense Fund, 1997), at www.nativenet.uthscsa.edu/archive/nl/9703/0076.html. Calculation provided by Lois Epstein, EDF engineer and pipeline expert.

28. Amnesty International, "Chad Cracks Down."

Mobil, Chevron, and Petronas). The World Bank has argued that the revenue from the project will help alleviate poverty in these two countries. Despite the benefits of the project, there are concerns about the potential problems that the project will create with respect to the environment and biodiversity and whether the citizens of both countries will actually reap the benefits of this project. It has been argued that with nontransparent governments in Chad and Cameroon, revenue generated by the project could have a negative impact in the two countries. Additionally, the project has the potential of aggravating an existing volatile situation in Chad. As has been evident in Sierra Leone, Congo, and other African countries with huge mineral deposits, resources can be used by corrupt political leaders as a source of personal enrichment and as a means to consolidate their control of power at the expense of their people. Such situations have often culminated in bloody civil wars. Africa has a long history of natural resource extraction, which has done little to improve the quality of life of the individual African. The arguments that the project in Chad will yield a different result fall short of reality and available facts.

Inasmuch as economic reform is the principal reason for the World Bank support of investment projects in developing countries, it is important to caution that reforms without corresponding political and social change cannot bring about a meaningful sustainable development effort, let alone create a conducive atmosphere for stable governments to flourish. It is hoped that the World Bank's undertaking of development projects with the sole aim of promoting political and social development is a new change of philosophy in its development efforts. If such a change is sustained over a period, it would help restore prestige for an institution that has been the subject of devastating and harsh criticisms from various interests around the world.