

Introduction

The Republic of Chad began its current effort to develop its oil resources in 1969. The oil deposits that have since been discovered in southern Chad appear to be the country's only significant natural resources at the present time. Given the country's poor economy and resulting lack of education and infrastructure, the oil deposits currently appear to be the country's only realistic hope for improving the quality of life of its citizens.

Exploration History and Background

Chad has neither the financial resources, expertise, or oil industry base to develop producing oilfields and to construct the transportation system necessary to deliver the oil to market. It has, therefore, chosen to pursue outside development in partnership with a consortium of oil companies. The Consortium will take responsibility for project financing and management, and the selling of the crude oil. Chad will receive a percentage of the sale proceeds in royalties and taxes. Cameroon will receive transportation fees and taxes.

The Consortium consists of Esso Exploration and Production Chad, Inc. (Esso, 40% share), Société Shell Tchadienne de Recherches et d'Exploitation (Shell, 40% share), and Elf Hydrocarbures Tchad (Elf, 20% share), with the Esso affiliate designated as the Operator.

Although exploration wells revealed the existence of oil by 1975, a civil war that began in 1979 caused a halt in exploration in 1981.

With the return of peace, exploration resumed soon after that time, and the legal foundation for the current project was put into effect in 1988. The convention agreement signed that year between the Republic of Chad and the Consortium grants an exploration permit that will be valid until early 2004. The Convention of 1988 provided for a long-term concession (30 years) to develop the oilfields at Doba in southern Chad and to produce and transport the oil to market, assuming the success of the exploration effort.

By 1993, significant oil resources had been confirmed in the Doba region of southern Chad, within the original exploration territory designated in the earlier 1988 agreement. In 1997, an amended Convention was enacted by the Chadian National Assembly. This agreement sets out the relationship between the Consortium and the Republic of Chad, including the processes for environmental protection, land acquisition and compensation, as well as royalty and tax payments that could approximately double the size of Chad's annual budget if the project comes to fruition.

From 1993 into mid-1996, a three-dimensional seismic exploration program was conducted and additional appraisal wells were drilled. This pre-development activity further defined the extent and location of the oil deposits in southern Chad. The exploration data also allowed designers to determine the preliminary locations for wells and other oilfield facilities while providing sufficient information to reduce projected land usage.

Although the "Permit H" exploration area set out in the Convention covers a wide area within Chad, exploration has not identified any economically viable developments other than the one currently proposed and described in this environmental documentation. Any future new oil developments will respect the same level of environmental analysis and consultation that has been conducted for the proposed Chad Export Project. The overall scope of oil development for the proposed project was determined during the alternatives analysis and that process is described in the Scale of Oil Development Alternatives section, page 5-4.

Although the project is aimed at developing oil resources in Chad, the Republic of Cameroon is also crucial to the success of the project. Because Chad is a landlocked country, it has no direct access to the ocean, which is the only practical means to move large quantities of crude oil to world markets. As a practical matter, without some way to transport it to market, the Chadian oil resources would be nearly worthless. The limited economy of Chad would not provide a sufficient market for the oil. For this reason, the project includes the construction of an approximately 1,070-kilometer underground pipeline to carry Chadian crude oil across Cameroon to a proposed marine shipping terminal 11 kilometers offshore the coast of Cameroon.

In 1996, Chad and Cameroon agreed to a bilateral treaty that provided for the construction and operation of the pipeline and other oil transportation facilities. In 1998, Cameroon's National Assembly enacted a Convention of

Establishment setting out the relationship between the pipeline company (COTCO, see page 2-6) and the Republic of Cameroon. The Cameroon Convention establishes the processes for environmental protection and land acquisition during construction and operation of the pipeline. It also sets out the transportation fees and taxes that will produce significant revenues for the government of Cameroon if the project proceeds.

Purpose and Need Statement

The purpose of the project is to develop the oil resources that have been discovered in Chad's Doba region by constructing and operating oilfield development facilities, as well as the transportation system required to deliver the oil to market.

- Chad needs the project to help alleviate poverty through royalty and tax revenues, employment and training opportunities and infrastructure improvements. Aside from the development of its oil resources, Chad has virtually no other near-term realistic prospects for economic development.

To ensure that project benefits will reach the people and will result in poverty alleviation, the Republic of Chad has enacted a Revenue Management Plan, which has been developed with the assistance of the World Bank Group. Another objective of the plan is to foster sustainable economic development in Chad.

- Cameroon's need for the project parallels that of Chad: The need is for alleviation of poverty through transportation fees and tax revenue, employment and training opportunities and infrastructure improvements.

The existing socioeconomic conditions in Chad and Cameroon have been summarized in two tables beginning on page 2-4.

As with any private sector investment and development project, the project also meets the acknowledged commercial interests of the sponsoring investment partners. In addition to the project's potential for poverty alleviation, it is consistent with the Consortium's business mission of meeting long-term world energy needs.

As a private sector development project undertaken in cooperation with the World Bank Group, a fundamental goal of the Consortium and the republics of Chad and Cameroon is to bring to fruition the potential positive impacts the project will have in the two host countries while controlling and mitigating the project's potential adverse impacts.

Table: Socioeconomic Conditions in Chad

	Chad	World (avg.)	25 Highest GNP Countries (avg.)
Quality of Life			
GNP per capita	\$160 (96,000 FCFA) <i>(5th poorest in world)</i>	\$5,130 (3,078,000 FCFA)	\$25,870 (15,522,000 FCFA)
Infant mortality rate	115 per 1,000 births	54 per 1,000 births	6 per 1,000 births
Literacy rate <i>(age 15 +)</i>			Near universal
males	62%	79%	<i>(both genders)</i>
females	35%	62%	
Life expectancy at birth			
males	47	65	74
females	50	69	81
Pupil-teacher ratio <i>(primary school)</i>	62	32	17
Population			
Total population	7 million	5,754 million	919 million
Avg. annual pop. growth	2.3%	1.2%	0.3%
Births per woman	5.6	2.8	1.7
Health and Sanitation			
No access to health care	74%	n/a	n/a
People per physician	30,030	3,770	522
No access to safe water	76%	22%	6%
No access to sanitation	79%	53%	8%
Adult HIV-1 sero-prevalence	2.7%	0.6%	0.3%
Economy			
GDP avg. annual growth rate			
1980-90	6.1%	3.1%	3.2%
1990-95	1.5%	2.2%	2.0%
Inflation, avg. annual growth			
1980-90	1.1%	15.0%	4.8%
1990-95	8.9%	56.6%	2.4%
Labor force sectors			
Agriculture	83%	49%	10% ¹
Industry	4%	20%	33%
Services	13%	31%	57%

¹ Data for "industrialized countries," UNDP, *Human Development Report, 1997* (All other data from World Bank, *World Development Indicators, 1997 and 1998*)

Table: Socioeconomic Conditions in Cameroon

	Cameroon	World (avg.)	25 Highest GNP Countries (avg.)
Quality of Life			
GNP per capita	\$610 (366,000 FCFA) <i>(47th poorest in world)</i>	\$5,130	\$25,870
Infant mortality rate	54 per 1,000 births	54 per 1,000 births	6 per 1,000 births
Literacy rate (<i>age 15 +</i>)			
males	75%	79%	Near universal
females	52%	62%	<i>(both genders)</i>
Life expectancy at birth			
males	55	65	74
females	58	69	81
Pupil-teacher ratio <i>(primary school)</i>	46	32	17
Population			
Total population	14 million	5,754 million	919 million
Avg. annual pop. growth	2.4%	1.2%	0.3%
Births per woman	5.5	2.8	1.7
Health and Sanitation			
No access to health care	85%	<i>n/a</i>	<i>n/a</i>
People per physician	11,996	3,770	522
No access to safe water	59%	22%	6%
No access to sanitation	60%	53%	8%
Adult HIV-1 sero-prevalence	3%	0.6%	0.3%
Economy			
GDP avg. annual growth rate			
1980-90	3.3%	3.1%	3.2%
1990-95	-1.0%	2.2%	2.0%
Inflation, avg. annual growth			
1980-90	5.9%	15.0%	4.8%
1990-95	5.1%	56.6%	2.4%
Labor force sectors			
Agriculture	70%	49%	10% ²
Industry	9%	20%	33%
Services	21%	31%	57%

² Data for "industrialized countries," UNDP, *Human Development Report, 1997* (All other data from World Bank, *World Development Indicators, 1997 and 1998*)

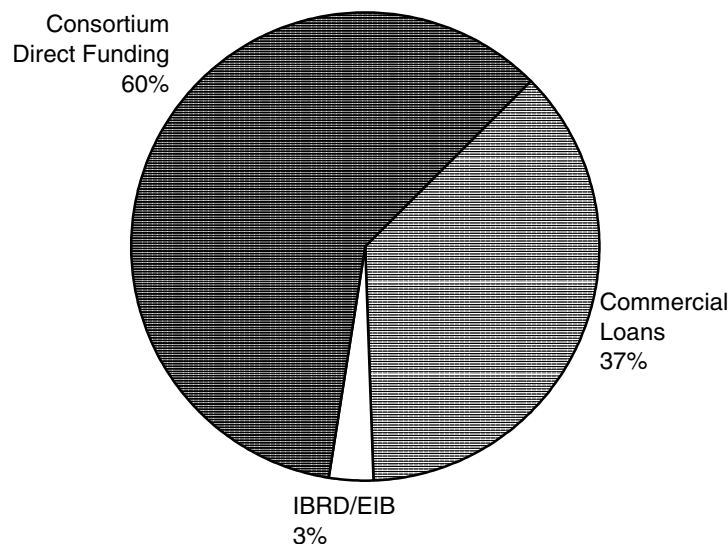
TOTCO and COTCO Although Esso Exploration and Production Chad, Inc. (EEPCI) is the Consortium's designated operator for the oil field, the pipeline transportation system will be owned by two companies that have been formed for this purpose – the Tchad Oil Transportation Company S.A. (TOTCO) and the Cameroon Oil Transportation Company S.A. (COTCO). In their respective countries, these two companies will have formal responsibility for constructing, operating and maintaining the pipeline.

Through equity shares in TOTCO and/or COTCO, the two host countries will have an ownership stake in the project, as well as a degree of management responsibility that includes directorship positions on the executive boards of the two companies. Based on the preliminary Finance Plan (August, 1998), Chad will have a 15% equity stake in TOTCO and a 5% equity stake in COTCO. Cameroon will have a 12% equity stake in COTCO. (The remaining equity in the two companies will be shared between the Consortium partners in proportion to their stakes in the project.)

Project Financing Under the preliminary Finance Plan (August, 1998), the total required funding will be \$3.8 billion (2,280 billion FCFA), including the financing costs. The estimated construction costs are \$3.5 billion (2,100 billion FCFA) for the oilfield development project and the two pipeline companies (TOTCO and COTCO). The total funding requirement will be met as follows:

- The Consortium partners and affiliates will directly fund approximately 60% of the project cost, comprising 100% of the upstream (oil field development) funding and equity stakes in the two pipeline companies.
- TOTCO and COTCO will fund approximately 37% of the project cost through market rate loans arranged through the International Finance Corporation, export credit agencies and commercial sources.
- The governments of Chad and Cameroon wish to make equity investments in TOTCO and/or COTCO. The value of these investments will represent about 3% of the project cost. To fund their investments in TOTCO and COTCO, the host countries have applied for a total of approximately \$115 million (69 billion FCFA) in loans from the International Bank of Reconstruction and Development (IBRD) and the European Investment Bank (EIB).

**Graph:
Sources of
Financing**



**World Bank Group
Financing
Participation**

The World Bank Group has been asked to participate in project funding in two ways.

- Host Country Equity Participation:** Chad has applied for loans of \$45 million (27 billion FCFA) from the International Bank for Reconstruction and Development (IBRD), as well as the European Investment Bank (EIB), to fund its equity participation in TOTCO and COTCO. Cameroon has applied for loans totaling \$70 million (42 billion FCFA) from IBRD and EIB to fund its equity participation in COTCO. In all, the loans totaling \$115 million (69 billion FCFA) for the two countries will amount to approximately 3% of the funding for the project.
- Market Rate Loan Facilities:** TOTCO and COTCO have also requested market rate project loan facilities through the International Finance Corporation (IFC), as the World Bank Group agency that is responsible for fostering private sector investment in developing countries. If approved, IFC will provide "A" funding of \$100 million (600 million FCFA) and arrange for "B" commercial loans of up to \$300 million (180 billion FCFA). Remaining market rate loans will come from the commercial banks, backed in part by export credit agencies and the capital markets.

World Bank Group Role Although project funding is one mechanism for World Bank Group involvement in the project, it is not the only, or even the primary, role that could be played by the Bank. Aside from funding assistance, the Consortium and the two host countries have sought World Bank Group participation because it provides a number of significant development benefits.

- **Revenue Management Assistance:** With assistance from the World Bank Group, the Republic of Chad has developed a Revenue Management Plan that ensures that project revenues benefit all segments of the population of Chad, with specific provisions made for residents of the oil producing area. The World Bank Group has made a mechanism for revenue management a precondition for its involvement and Bank staff has been providing technical assistance in development of the program since 1995.
- **Environmental and Social Oversight:** World Bank and IFC Operational Directives and Policies have been of fundamental assistance in designing the project to meet standards for environmental protection and in guiding the project's public consultation process. Environmental and social experts on the World Bank Group staff have met extensively with the Consortium and the two host countries, and staff advice has had a significant impact on the final design of the project.
- **Risk Mitigation:** Because the host countries are already World Bank Group clients, Bank participation in the project provides continuity and an important stabilizing influence. Thus, Bank funding participation acts as a catalyst for the project's other funding sources by mitigating some of the investment risk for lending institutions which are providing commercial loans to the project.
- **Catalyst for Future Private Sector Development:** World Bank Group participation leads the way for other potential investors by demonstrating that major private sector projects can be successful in Chad and Cameroon. Such a demonstration has the potential to act as a catalyst for future private sector investment efforts.
- **Environmental, Social, Financial and Legal Advisors:** The World Bank Group has funded an Expert Panel of advisors from

multiple scientific fields to advise the host countries during the Environmental Assessment process. In addition, the World Bank Group has funded a team of financial and legal advisors who have assisted the two countries during their financial negotiations with the Consortium.