

CHAD/CAMEROON DEVELOPMENT PROJECT



**PROJECT UPDATE No. 30
MID-YEAR REPORT 2011**

Chad Export Project

Project Update No. 30 Mid-Year Report 2011

This report has been prepared by Esso Exploration and Production Chad Inc., in its capacity as Operator of the Consortium and as Project Management Company on behalf of the Tchad Oil Transportation Company S.A. (TOTCO) and the Cameroon Oil Transportation Company S.A. (COTCO).

Preface

This Project Update, the thirtieth such report for the Chad Export Project (also referred to as the Chad/Cameroon Development Project), covers the period from January through June, 2011. The report reflects the activities of the project operating company and its prime contractors, with a particular focus on compliance with the Environmental Management Plan (EMP). Several entities share responsibility for implementing the project.

- Oilfield development and production in Chad is conducted by Esso Exploration and Production Chad Inc. (EEPCI) on behalf of the Consortium (Esso, Petronas, Chevron).
- Pipeline activities in Chad are conducted by the Tchad Oil Transportation Company S.A. (TOTCO).
- Pipeline activities in Cameroon are conducted by the Cameroon Oil Transportation Company S.A. (COTCO).
- During construction, EEPCI provided project management services to TOTCO and COTCO.

These reports are submitted through, and subject to verification by, the World Bank and Lender Group as a reporting requirement of the project's partnership with the Bank and the two host countries.

This report also represents a commitment to transparency by Esso and its co-venture partners. By publishing this information, the project wishes to make it possible for the World Bank and Lender Group, the citizens of the host countries, interested non-governmental organizations (NGOs) and others to stay well informed about the project as it unfolds.

The reports are posted on the project's website (www.essochad.com). A limited quantity of printed reports is also distributed to stakeholders in fulfillment of reporting requirements and to make information more readily available to the citizens of Chad and Cameroon, where very few people have access to the Internet. Reports are also available in French.

October 2000 has been designated as the official start date of the project for the purposes of data compilation. Currency conversions are based on the rate of exchange at the time of the expenditure and this edition utilizes exchange rates of FCFA to one U.S. dollar as follows:

- 3rd Quarter, 2010 - 515 FCFA
- 4th Quarter, 2010 - 483 FCFA
- 1st Quarter, 2011 - 481 FCFA
- 2nd Quarter, 2011 - 454 FCFA

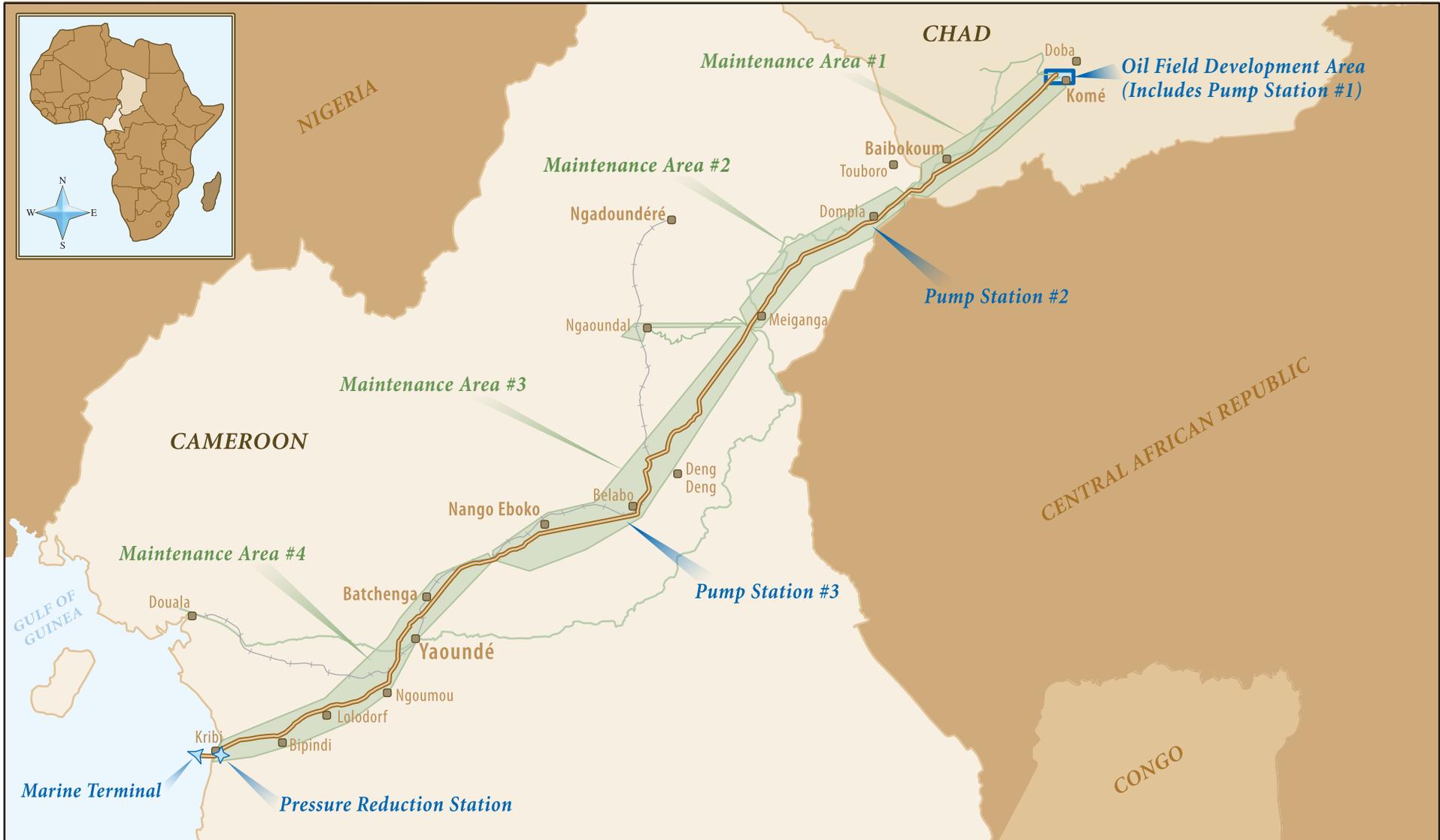
Table of Contents

Snapshot Summary	1
Production & Construction	5
Reportable Environmental Management Plan Situations	11
EMP Monitoring & Management Program	15
Safety	27
Consultation & Communication	31
Compensation	35
Land Use in the Oilfield Development Area	37
Local Employment	47
Local Business Development	53
Health	57
Community Investment	61
Host Country Revenue	67

Snapshot Summary

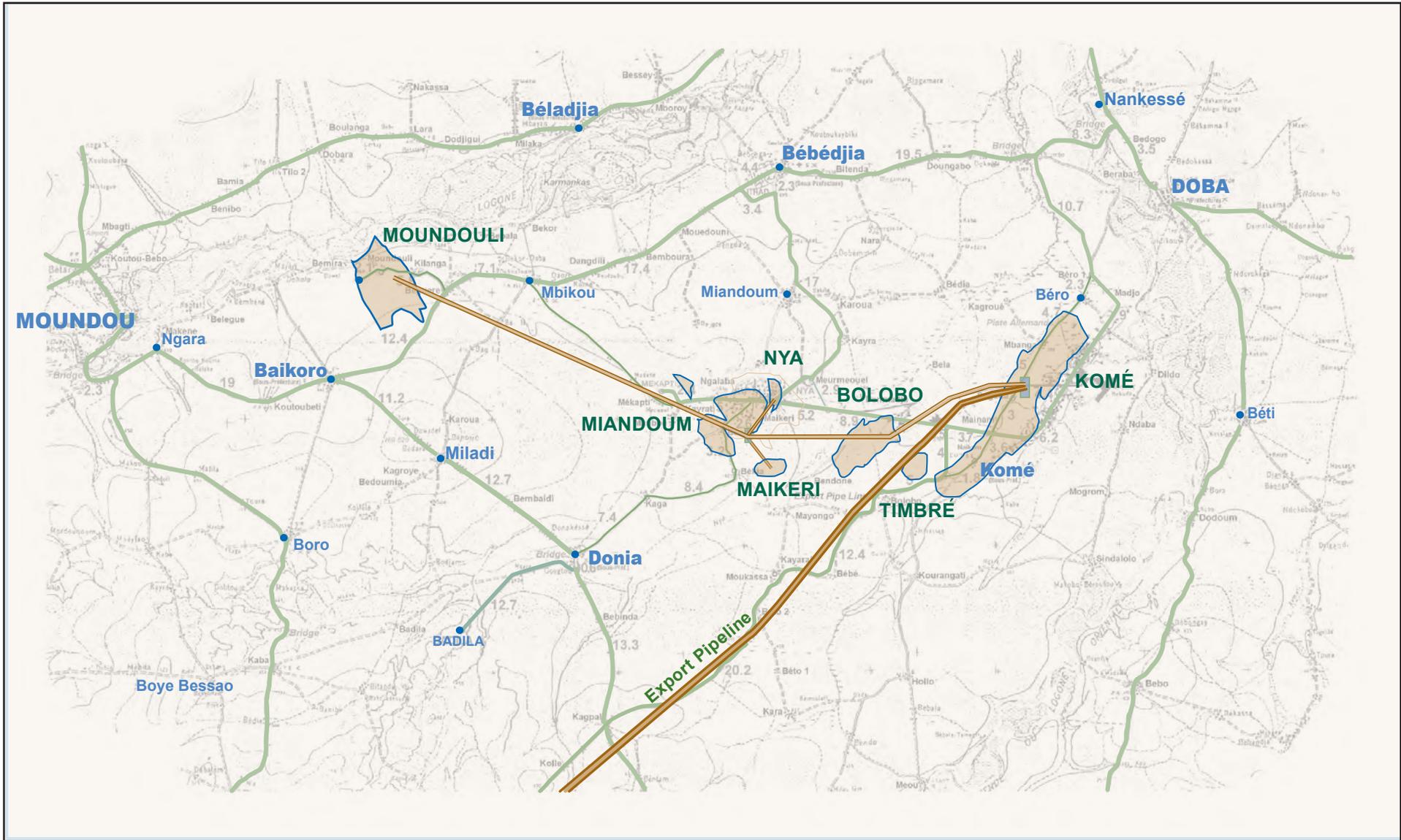
- By mid-year 2011, the project had invested over 1,300 billion FCFA (\$3.0 billion) in initiatives aimed at maintaining oil production levels.
 - In the first half of 2011, spending on production support totaled 160 billion FCFA (\$350 million, including \$250 million in capital investments and \$100 million in day-to-day operations directly related to sustaining production).
 - In addition to drilling 79 new oil wells, the production support investments in the project's Doba Basin oilfields included a high pressure water injection program and hundreds of well stimulation procedures.
 - The project's wellwork team conducted 1,236 renovation and enhancement procedures on oil wells in the last twelve months, 565 of them in the first half of 2011.
- Even as the project's oldest oil wells mature and their output declines, the 2011 daily production rate has so far been sustained at about 117,000 barrels per day, a level roughly 5% below the average level for 2010. At mid-year, project production support investments were contributing about 91,000 barrels per day to the project's crude oil output.
- A total of five non-compliance situations were identified during the first half of 2011, two at Level II and three at Level I. The project also responded to one reportable spill of produced water, which was quickly contained and cleaned up with no lasting harm to the environment.
- The project's environmental and socioeconomic teams put in place the final elements of a right of way inspection and protection program along the export pipeline. In addition, a new waste composting program for the oilfield development area went into full production.
- The project also sponsored a well attended international conference in Cameroon to share the results of the project's archeology program.
- Halfway through 2011, the project workforce was achieving a 300% better safety record than the U.S. petroleum industry benchmark average, and a 14% improvement over its 2010 safety performance.
- In the first half of this year, the project's ongoing outreach efforts added 851 public consultation sessions to the thousands held since the project began production in 2003. The public gatherings this year have taken place in villages in the oilfield area and all along the pipeline right of way, covering topics ranging from public safety to land use compensation and construction of new roads and wellpads.
- Compensation paid to individual land users by the project in the last four quarters totaled over 807 million FCFA (\$1.7 million) in cash and in-kind payments. Over 14 billion FCFA (over \$24 million) in individual compensation has been disbursed since the project began.

- The project has launched a new phase of improvement for its land use mitigation work in the Oilfield Development Area.
 - Using enhanced land use impact assessment tools, the project will be able to respond more flexibly and quickly to the constantly evolving circumstances of individual farm households in the oilfields area.
 - The rich new information from the use of these tools has helped the project fine-tune its land use mitigation efforts.
- The project's contributions to its host country economies in the first half of 2011 included wages paid to Chadians and Cameroonians of 35 billion FCFA (\$75 million).
 - Almost 6200 nationals had jobs with EEPCL, COTCO, TOTCO and their contractors at the midpoint of 2011, about 86% of the total workforce.
 - Over two-thirds of the Chadians and Cameroonians working for the project hold well-paying jobs in the semi-skilled, skilled or supervisory job categories.
- Since the project began, its purchases of goods and services from local suppliers have totaled more than 1.37 trillion FCFA (\$2.5 billion), including 113.7 billion FCFA (over \$234 million) for the last 12 months.
- By the time the peak of the malaria season arrived in the project area at mid-year, the project had recorded zero malaria cases for the first half of 2011. The zero malaria rate was an improvement over the low rates of recent years when the malaria rate has averaged roughly 0.3 cases per 200,000 work hours.
- The project has completed its three year commitment to the Initiative for Economic Empowerment of Women Entrepreneurs, having trained hundreds of women in basic business practices and increased the individual incomes of 1,600 women in the participating cooperative associations by an average of 75%.
- The project's investments to develop and sustain crude oil production levels, coupled with historically high prices for oil around the world, have combined to produce for Chad a total of more than \$7.4 billion in revenue since the project began.



Chad/Cameroon Development Project

Project Overview



Chad/Cameroon Development Project

Overview of the Oilfield Area

Section 2

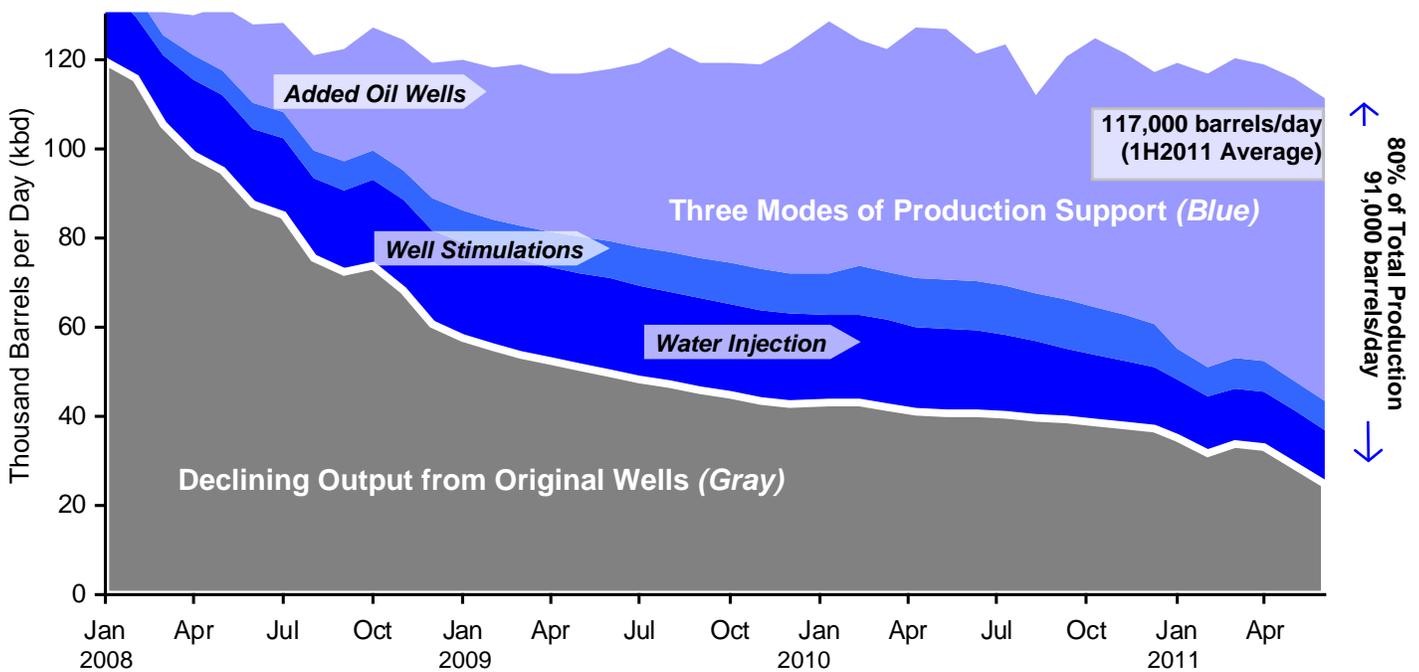
Production & Construction

By mid-year 2011, the project had invested over 1,300 billion FCFA (\$3.0 billion) in initiatives aimed at maintaining production levels. In addition to drilling new oil wells, the production support investments in the project's Doba Basin oilfields included a high pressure water injection program and hundreds of well stimulation procedures. As a result – even as the project's oldest oil wells mature and their output declines – the 2011 daily production rate has so far been sustained at about 117,000 barrels per day, a level roughly 5% below the average level for 2010.

In the first half of 2011, spending on production support totaled 160 billion FCFA (\$350 million, including \$250 million in capital investments and \$100 million in day-to-day operations directly related to sustaining production).

Results from Production Support Investments (in thousands of barrels)

At mid-year, project production support investments were contributing about 91,000 barrels per day to the project's crude oil output. A recent reassessment of the project's reservoir models showed that the natural decline in base production is occurring faster than initially assumed, and as a result, without the Consortium's investments, production would have fallen to about 25,000 barrels – just over one-fifth of the current yield of 117,000 barrels per day.



From Chad to the
World

In the savanna of southern Chad, an intricate maze of pipes, tanks and processing equipment at the Central Treatment Facility turns frothy emulsion from oil wells into valuable pure crude oil ready for sale in global markets. It then sends the crude oil on its way through the 1,070 kilometer export pipeline to the marine terminal where tankers pick up the crude and deliver it to refineries.

Making Chad's
Oil Ready for
Market

Gathering: A network of manifold yards joined by underground pipelines gathers unprocessed oil from hundreds of wells. The oil as it first comes from the ground is called emulsion, a frothy mixture of petroleum, water, gas and impurities. In a series of steps the pipelines and manifolds gather the streams of oil into larger and larger oilfield pipelines, finally delivering the unprocessed emulsion to the Central Treatment Facility.

Separating: At the Central Treatment Facility, the water gets removed first. Water makes up about 85% of the emulsion before it's processed and the water must be removed to make the oil ready for sale. In addition, the emulsion almost always contains some natural gas that must be separated during the treatment process.

Purifying: Freshly extracted oil contains impurities including particles of sand and potentially corrosive compounds. Equipment at the Central Treatment Facility removes these impurities before transporting the oil because they can harm pump, storage and pipeline equipment.

Transporting: Finally, when the Central Treatment Facility has transformed the emulsion into pure Doba crude oil, powerful pumps push the oil into the export pipeline. The pipeline transports the oil from Komé, through southern Chad, across Cameroon to Kribi. There, a floating marine terminal loads the crude oil onto export tankers that take it to market.

Each of these four main processing steps is managed by a control room and powered by an electricity generating station.

Controlling: It is important to note that all of these steps are managed through a state of the art electronic system from a control room at Komé with backup control facilities in several other locations along the pipeline.

Powering: Natural gas separated from the crude oil supplies energy to the four turbines that provide the electricity to power all the oilfield facilities.

From Chad to the World: Making Chad's Oil Ready for Market

This overview summarizes some of the complex processes at the Central Treatment Facility that convert the oil emulsion from the oilfields to pure crude oil ready for shipment to world markets by way of the project's export pipeline system.



Controlling: A team of trained operators manages the entire process from the master control room at Komé.



Gathering: A system of pipes and manifolds gathers the oil emulsion from the wells and delivers it to the Central Treatment Facility.



Separating: The emulsion in these storage tanks is separated into crude oil for processing, and water that is pumped deep back under the earth to maintain production pressure in the oil formations.



Powering: Natural gas contained in the emulsion is also separated and fuels the four-turbine power plant that provides electricity for the facility and the oilfields.



Purifying: Electrostatic treaters remove impurities from the crude oil, a last step before it is ready for shipment in the pipeline.



Transporting: The market-ready crude oil begins its long journey to refineries around the world here, the beginning of the 1,070 kilometer underground export pipeline.

From Chad to the World: Delivery at the Marine Terminal

Twelve miles off the coast of Kribi, Cameroon, this floating marine terminal fills its cargo tanks from the export pipeline and offloads the market-ready crude oil onto arriving tankers. Operations on this Floating Storage and Offloading vessel (the FSO) culminate the efforts of over 7,000 project workers who extract Chad's oil, process it for market and transport it 1,070 kilometers through two countries.



The tanker loading operation requires crews to orchestrate the positions of three vessels. The FSO pivots around a fixed permanent mooring (top) to allow for the forces of wind and sea. The waiting export tanker connects to the FSO through special floating hoses (bottom left) equipped with failsafe valves to guard against any spillage of oil. At the end of the chain, a powerful service vessel (bottom right) maintains constant tension on a cable to keep the FSO and the export tanker aligned.

Production Statistics

◀ Production Statistics for Last Four Quarters (net volume of shipments from marine terminal)

	3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	Last 12 Months	Project to Date
Millions of Barrels	10.2	11.4	10.3	10.5	42.4	396.4
Export Tankers	12	12	12	12	48	438

◀ Production Investment Progress

- The project added 79 new oil wells in the last twelve months with 37 added in the first half of 2011. A total of 609 production wells were on line at mid-2011. *Additional wells help the project overcome the low mobility of the Doba Basin oil. Low mobility limits the effective draining radius of each well, requiring that wells be positioned closer together for optimum extraction.*
- The project’s wellwork team conducted 1,236 renovation and enhancement procedures on oil wells in the last twelve months, 565 of them in the first half of 2011. *The Doba Basin oil resides in unconsolidated sands, producing fine particles that migrate to the wells and clog the producing zones. Techniques to counter this problem include well stimulations to backwash the pores in the oil bearing formation in addition to upgrades and repairs of subsurface well pumps that suffer from the clogging problem.*
- The high pressure water injection program continues and a total of 56 water injection wells were on line at mid-year to support the program. Water makes up about 86% of the fluid extracted from project oil wells. *The high pressure water injection program addresses the sharp drop in pressure that has taken place in the Doba Basin oilfields as oil was extracted. Pressure must be maintained in order to sustain production levels.*

Reportable Environmental Management Plan Situations

A total of five non-compliance situations were identified during the first half of 2011, two at Level II and three at Level I. The project also responded to one reportable spill, which was quickly contained and cleaned up with no lasting harm to the environment. The project has taken action in each case to remedy the issues and prevent future occurrences.

Spill *11 March:* A mechanical seal failed at KG162 manifold station in the Komé oilfield, spilling about 20 barrels of produced water on the ground. The affected soil was removed for proper disposal.

Level II Non-Compliances Two Level II non-compliances were identified in the first half of 2011 and both have been closed out by corrective action. The Environmental Management Plan sets out the criteria for identifying non-compliance situations. For more on this topic see the end of this chapter.

January: The government's Pipeline Steering and Monitoring Committee issued a Level II non-compliance because of a delay in completing recommended inoculations for meningitis. COTCO has cleared the non-compliance by inoculating all workers as recommended by the Cameroon Ministry of Health. In future, the inoculations will be provided in accordance with the three year cycle recommended for the meningitis vaccine.

June: A contractor responsible for pipeline right of way maintenance was failing to pay the people doing the work in a timely manner. There have been repeated wage payment problems with the contractor, including the issuance of a previous Level I non-compliance. The contractor was ordered to immediately pay the workers and was also warned that further occurrences could result in cancellation of the company's contract.

Reportables Tally for 1st & 2nd Quarters

◀ Total Reportable Situations by Country

	1st Qtr 2011				2nd Qtr 2011			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Chad	0	0	0	0	0	0	0	0
Cameroon	1	1	0	2	2	1	0	3
Total	1	1	0	2	2	1	0	3

◀ Non-Compliance Situations by Company

	1st Qtr 2011				2nd Qtr 2011			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
COTCO	0	1	0	1	0	0	0	0
Polyclinic Bonanjo	1	0	0	1	0	0	0	0
3N	0	0	0	0	1	1	0	2
Emploi Service	0	0	0	0	1	0	0	1

◀ Non-Compliance Situations by Category

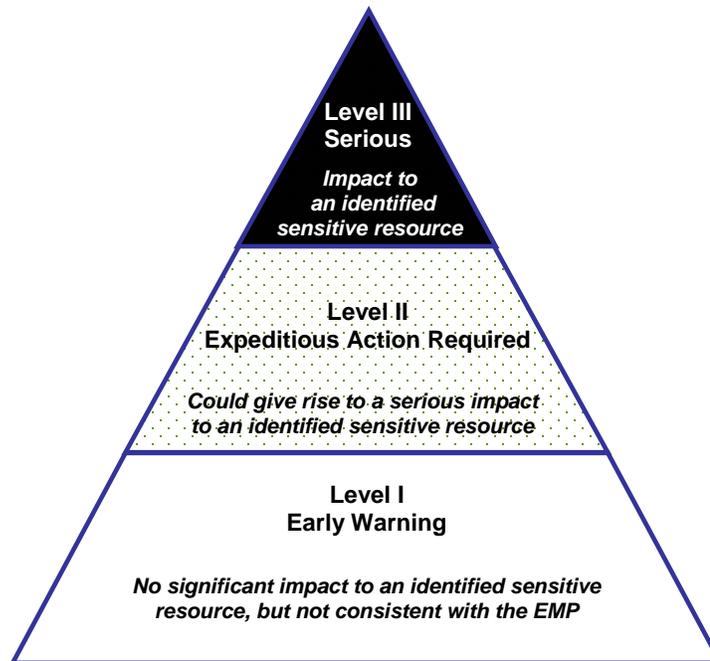
	1st Qtr 2011				2nd Qtr 2011			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Health/Occupational Health	1	1	0	2	0	0	0	0
Socioeconomic	0	0	0	0	2	1	0	3
Total	1	1	0	2	2	1	0	3

Context: The project's Environmental Management Plan includes reporting standards for non-compliance situations and for spills. The standards provide methodical and consistent mechanisms for measuring performance on environmental protections and spill prevention.

EMP Reporting

Non-Compliance Situations

The project's three-level ranking system for EMP non-compliance situations was designed to provide an early warning mechanism to detect issues and help correct non-compliant behaviors and practices well before they became serious enough to cause damage.



This pyramid illustrates the project's early warning system approach for identifying and managing EMP non-compliance situations. The first two levels serve to alert the project to potential environmental impacts. Only the top level, Level III, indicates actual serious environmental impact to a defined sensitive resource.

Spills

The Environmental Management Plan requires the reporting of spills of one barrel of oil, 10 barrels of produced water or 100 kilograms of a chemical.

EMP Monitoring & Management Program

In the first half of this year, the project's environmental and socioeconomic teams put in place the final elements of a right of way inspection and protection program along the export pipeline. In addition, a new waste composting program for the oilfield development area went into full production. The project also sponsored an international conference to share the results of the project's archeology program.

Right of Way Integrity Program

All of the project's many monitoring and maintenance efforts along the 1,070 kilometer export pipeline right of way have now been integrated into a single Right of Way Integrity Program (ROWIP). The unified program fully implements several successful pilot programs and it consolidates and coordinates efforts conducted by several project departments. Among other things, ROWIP:

- Provides enhanced inspections of the pipeline route, including walking inspections on the ground to augment frequent aerial patrols.
- Builds on a pilot program begun two years ago to hire people from villages along the right of way to conduct those ground inspections.
- Cuts grass and brush growing in the right of way and vegetation overhanging the right of way to enhance visibility during inspections.
- Monitors for even the smallest evidence of soil erosion so maintenance crews can keep small problems from growing into bigger ones.
- Inspects regularly the pipeline crossings at rivers and streams.
- Checks for third party activities that could harm the pipeline such as ad hoc road crossings built by tree poachers.
- Educates residents about what can and cannot be grown in the right of way.
- Compiles information on all of these activities into a computer database to document the work and to track issues to make sure they are resolved.

Right of Way Integrity Program: Village-by-Village Involvement on the Ground



These monitors (above) are hired by a project contractor to conduct monthly patrols of the pipeline right of way near their village, an activity taking place at dozens of locations along the entire length of the pipeline. The ground inspections augment aerial patrols and other monitoring methods. By employing local people, the project provides needed cash to villagers and also helps foster in the villages a sense of ownership for “their” section of the pipeline. The monitors look for problems such as erosion from heavy rain. Even minor depressions in the right of way (above, right) are measured and reported so they can be tracked in a database and scheduled for remedy by maintenance crews.

Ngal Nzie Hypolyte, right of way foot patrol monitor (above, blue helmet): *“Ground inspections are able to see things that aerial inspections cannot because they are hidden under the tree canopy. These inspections help protect the pipeline from problems. The people in my village appreciate that this monitoring is happening because it helps protect our community.”*



Right of Way Integrity Program: Cutting Grass and Monitoring Water Crossings

Several times a year, the project hires villagers to cut grass and brush along the entire ten-meter wide pipeline easement (below, left) to ensure visibility for inspections and to ease access in case of a problem. The project's subcontractors choose the people to get jobs by lottery as specified in the Environmental Management Plan to make sure that everyone has a chance to earn the extra income that these jobs provide and preference goes to those who have not taken part in previous campaigns.



Pius Mpoa, lead grass cutter: *“The work is very good. Every time COTCO comes and gives us work, we have money. That’s important because we can buy soap, cooking oil, and lamp kerosene because we have no electricity here. We can buy things that we cannot grow. Our only other source for cash is growing manioc and some cocoa beans. So our women and our children are very happy when we get this money.”*

At least once a year, project environmental monitors check all the locations where the pipeline crosses water such as a river or stream. Annual visual checks (right) include measurement of the width and depth of the crossing plus a check for things like current driven debris and effects from local activities, such as fishing or logging. In addition to the annual visual inspections, every five years the project conducts a more rigorous in-depth technical inspection at major water crossings.



Right of Way Integrity Program: Revegetation to Prevent Erosion

In the highlands of eastern Cameroon, the rainy season brings with it a much needed respite from the many months of dry, hot weather. However, with the rain comes erosion. So the eastern mountainous region of the right of way requires vegetation to be added instead of cut, in contrast with less arid areas of the pipeline. The vegetation reduces the risk of erosion of exposed soil, especially in hilly terrain (top left). Workers prepare the soil and then plant plugs of native plants and grasses (top right). As they take root and spread, they help hold the soil together and prevent erosion (bottom).



Right of Way Integrity Program: Protecting Against Third Party Activities

The leaves of banana trees growing in the right of way could eventually reduce the visibility of the right of way during aerial inspections. The project's monitoring team discovered the trees and flagged the location for action by the project to remedy the situation. To follow up, a project Community Relations Officer came to the site with the monitoring team to discuss the issue with the local Chief and to explain the issue. When he understood the issue, the Chief agreed that the trees should be cut down. The project does encourage certain kinds of farming in the right of way if the plants do not cover the right of way.



Minkoua Issac, Chief of Bidjouka village (above, left): *“It is not a good thing to have plants like these in the right of way, because if the pipeline were to be damaged, our community would be in danger. Please feel free to remove these plants.”*

Right of Way Integrity Program: Tracking and Resolving Issues

To help manage this complex effort, a database system helps the project record all of the findings reported by the pipeline monitors in the field. The system helps the project prioritize issues, assign responsibility for taking action and track them until they are resolved.



A Win-Win Project: Mvondoumba's Road Problem

Braving rough terrain, washed out bridges, poor visibility and flooding, travellers would struggle to navigate the old road from the town of Batchenga to the village of Mvondoumba. For the villagers of Mvondoumba, those eight kilometers were enough to isolate them from the rest of the world – even neighboring towns and villages – and they reached out to the project for help with repairs. The village and the project shared the same problem because the project also needed reliable year round access to a nearby valve station on the pipeline. The project agreed to rebuild the road, hiring local workers to help with the construction.



These photos show the condition of the road before repairs. Rain turned the road into a nearly impassable morass of mud (top left and right). The drainage culverts (bottom left) and bridges (bottom right) were collapsing and dangerous.

A Win-Win Project: Mvoundoumba's New Road

To make sure the new road would last a long time, the project laid down a quality roadway foundation (top left) and used laterite to resurface the road (top right). New bridges and culverts (bottom left) were built to traverse rivers and to channel water runoff that could wash out the road if not channeled. The new road has opened the way for commerce for the village of Mvoundoumba and at the same time provided the project with access needed to maintain its valve equipment.



Mbia Joseph Désiré, Chief of Mvoundoumba village: *“The repair of the road is a good thing. After it was completed, everybody in the village was happy because with the road comes development. There is now better access for the villagers to go to the market and sell things like tomatoes, okra, manioc, plantain. It’s also easier for large buyers to come and buy our cocoa, and in the process they visit our restaurants and make more business for our village. Everybody is happy, because this means they can earn more money.”*

Preserving Heritage: A Groundbreaking Archeology Conference

In May, hundreds of attendees from around the globe gathered in Yaoundé for a three-day conference on the archeological findings brought to light during construction of the Chad-Cameroon Pipeline. Along its entire length, the two meter deep trench for the pipe was examined during construction by a team of professional archeologists. Thus, at 1,070 kilometers, the trench is believed to have been one of the longest archeological study transects in history.



The conference, organized by the project and the government of Cameroon, featured presentations by fifteen professors and researchers (left) and was presided over by Cameroonian Minister of Culture, Madame Ama Tutu Muna (right). One key theme from the conference: The importance of learning from the project experience in order to make similar efforts on future large projects to preserve the ancient heritage of Central and West Africa.



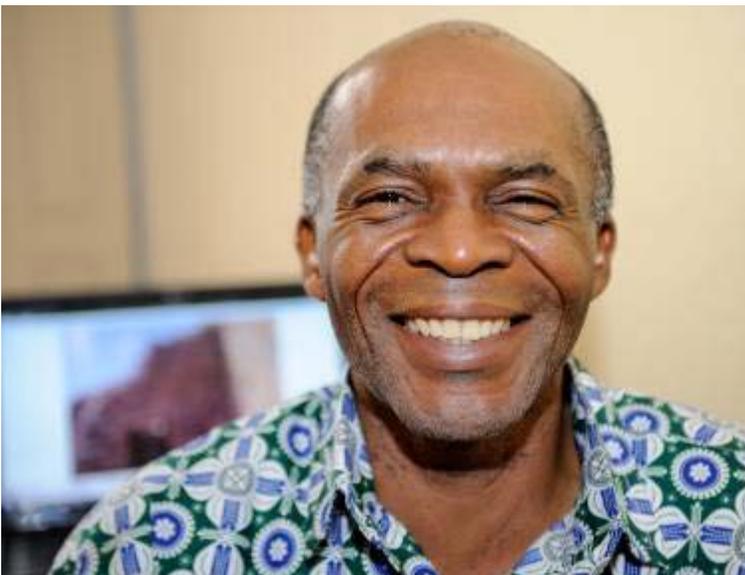
Archeologists say the results of this effort uncovered over 470 sites dating back to the Stone Age and the Iron Age. Many believe the discoveries mark a major breakthrough that is rewriting the history of Central and West Africa, showing that the people of today's Cameroon and Chad have been living there for many thousands of years. Before the project discoveries, scientists had theorized that the people of Cameroon and Chad had recently migrated to the region but now for the first time the evidence shows that they are indigenous. Some of the artifacts were on display at the conference (left and right) and the entire collection has been delivered to the governments of Cameroon and Chad for preservation.

Preserving Heritage: A Groundbreaking Archeology Conference

One of the main archeologists, Dr. Raymond Asombang (below), reflects upon some of his work in *Kome-Kribi: Rescue Archaeology along the Chad-Cameroon Oil Pipeline, 1999-2004*. The book, which was published by the project, provides a permanently accessible record to the international scientific community and the public around the world.



Dr. Raymond Asombang, Senior Lecturer of Archeology, University of Yaoundé 1: *“Without reservation, the project was a good thing because it helped us uncover a wealth of knowledge that now is not only available to all of Cameroon, but to the world community of science. An archeological transect like this has never happened in Central Africa before. This work has created a solid framework upon which we can build – a beginning that hopefully will lead to a number of new discoveries.”*



Dr. Christophe Mbida, Senior Lecturer of Archeology, University of Yaoundé 1: *“This project should serve as an example for future ones with respect to their potential benefits for culture and heritage. From a scientific point of view, the project created access to our community to areas that were not previously explored for archeology, such as the dense forest in the south where we were able to confirm that humans had been there for 7,000 years. It also allowed us to deepen our knowledge of existing areas of study. After a few difficulties in the beginning, we were able to develop a useful collaboration. We hope that other projects in Cameroon will give us the same opportunities for discovery and allow a new generation of scientists to benefit as well.”*

Waste Management: Turning Waste into Valuable Compost

In the oilfields in southern Chad near Komé, this new composting project has been converting tons of project waste into compost to increase farm productivity. The project delivers kitchen scraps and sludge (top left) and wood waste (top right) which will be chipped. The staff then mixes the raw material into piles of mulch (bottom left). Nature then takes its course in an organic process that digests the waste into rich compost. The mixture is carefully monitored (bottom right) to keep conditions just right for rapid decomposition into compost. For more information on how this composting program helps farmers in the oilfield area, see the chapter on *Land Use in the Oilfield Development Area*.



Bolbaye Ngigatoloum, Compost Supervisor, GER-Norwest: *"I've spent the last three years on this composting project. Since composting doesn't really exist elsewhere in Chad yet, I'm learning new skills and developing knowledge that I'll be able to apply in the future. We are transforming material that others would throw away into valuable product that we can help farmers with. I also started my own private garden using our compost – I found a huge difference in productivity between the treated and untreated soil. My papaya and mango trees are growing so much faster than they would have been otherwise. I am convinced this compost is a great thing."*

Waste Management Statistics

◀ Non-Hazardous Waste Management (Tonnes)

	3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	12 Month Total
Domestic Garbage Incinerated On Site	487	2,594	732	805	4,618
Innocuous Solid Waste Buried (landfill)	100	517	293	194	1,103
Recycled to Local Communities	684	1,003	591	452	2,730
Sent to Approved Third Party Facilities for Re-use, Recycling, or Disposal	543	726	943	1,828	4,041
Total	1,814	4,840	2,559	3,279	12,492

Some hazardous waste must be stored while awaiting the availability of batch disposal following guidelines set out in the EMP. At mid-year 2011 the project had also accumulated 600 tonnes of hazardous and difficult to dispose of waste in managed storage and awaiting processing. The project is working with a waste management company for appropriate processing of this waste inventory in the second half of 2011.

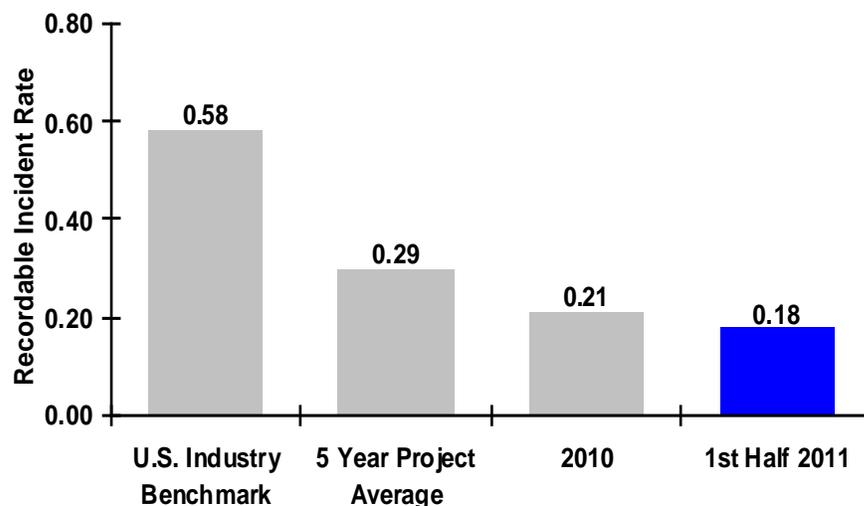
Safety

Half way through 2011, the project workforce was achieving a significant improvement in safety performance compared to last year. During the first half of 2011, the project recorded:

- A 14% improvement over 2010.
- A 39% improvement over the project's rolling five year average.
- A 300% better record than the U.S. petroleum industry benchmark average.

These results are based on the Recordable Incident Rate, a standard measure of overall on-the-job safety.

◀ Recordable Incident Rate — Significant Improvements
(Total Recordable Incidents per 200,000 Work Hours)



The Recordable Incident Rate measures overall safety performance by capturing even minor injury accidents. The project's Recordable Incident Rate has for years been well below the average rate of the petroleum industry as a whole, running about one-third the industry rate. The rate measures recordable incidents per 200,000 working hours and the industry benchmark for the U.S. petroleum industry comes from the most recent reports (through 2010) to the American Petroleum Institute by participating companies.

◀ Traffic Safety Tally

	3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	Last 12 Months	Project Since 2000
Traffic Accidents	8	9	7	4	28	919

Includes all project vehicle traffic incidents, including those not recordable under OSHA guidelines. The total includes minor and major vehicle damage accidents plus injury accidents, including non-recordables.

◀ On-the-Job Injuries (OSHA Reportables)

	3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	Last 12 Months	Project Since 2000
Fatalities	0	0	0	0	0	0
Lost Time	0	0	0	1	1	28
Restricted Work	0	1	0	1	2	142
Medical Treatment Required	5	6	2	3	16	305
First Aid Cases	25	16	22	26	89	2,833
Worker Hours (thousands)	4,382	4,158	3,900	3,946	16,386	267,870

Trend Analysis

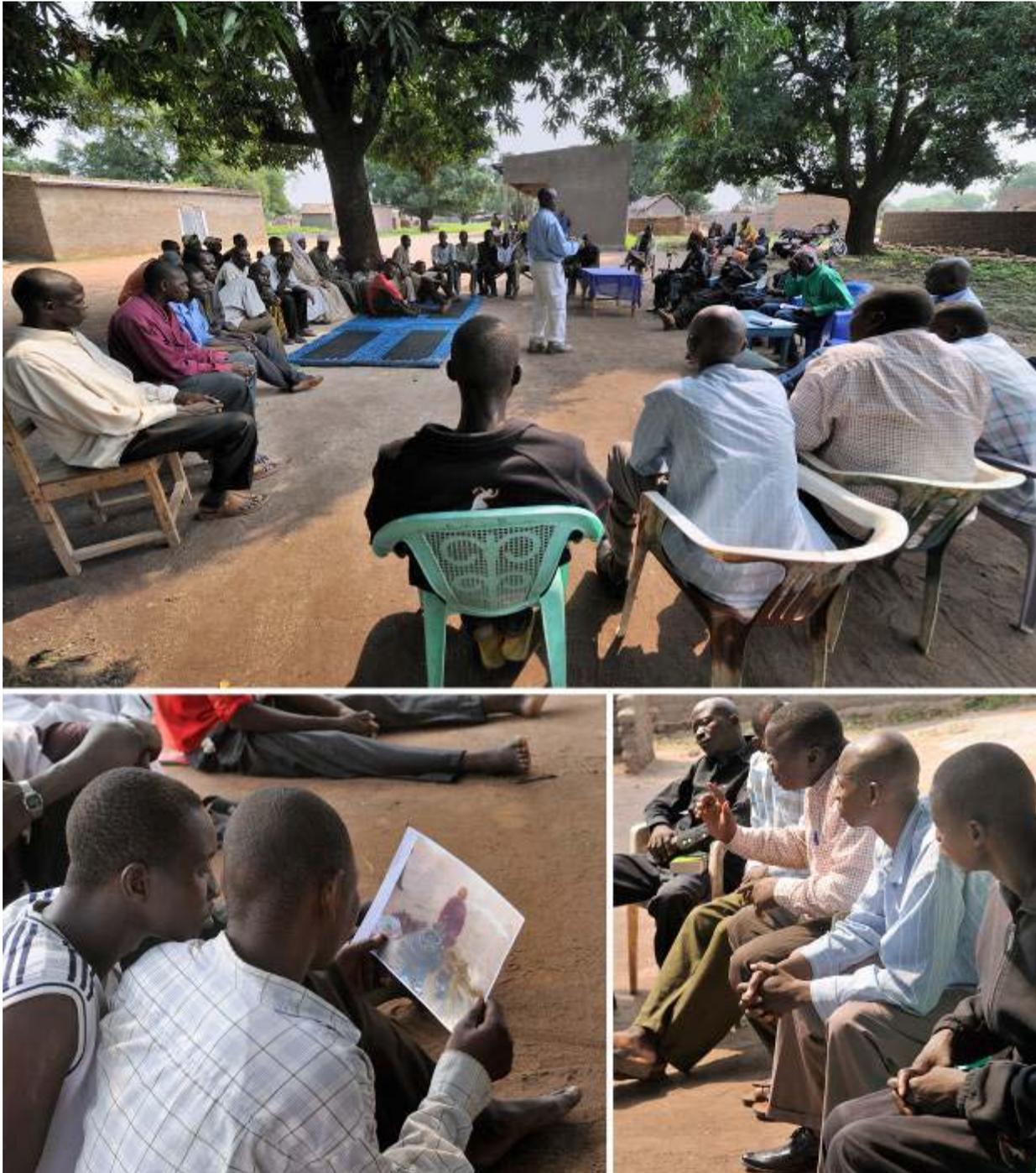
Recordable Incident Rate	0.23	0.34	0.10	0.25	0.23	0.35
Lost Time Incident Rate	0.00	0.00	0.00	0.05	0.01	0.02

These project safety statistics are for EEPCI, TOTCO, COTCO, other affiliates working for the project and their respective contractors. They include incidents involving a location, property or activities owned, controlled or supervised by those entities.

Lost Time Incident *28 May:* A guard fell and fractured his leg during an attempted theft at a wellpad. The guard startled the thief, who was attempting to steal a wheelbarrow during the night, and the thief ran away. The guard was looking for the thief and to gain a vantage point he walked to the top of a dirt retention pile at the edge of the wellpad. In the darkness he tripped and fell, causing the injury.

The project has taken action to help prevent future accidents by changing the lighting at wellpads to improve visibility, taking steps to remove trip hazards and adding pre-job safety briefings for guards on arrival at their assigned wellpad sites.

Community Safety: A Village Safety Awareness & Education Session



For more than a decade - since construction began and during the production era - the project has held hundreds of village safety education and awareness sessions like this one. These sessions take place wherever residents live or farm land near project facilities, including the oilfields, the pipeline and the pump stations. At this community gathering in the village of Begada 1, a project Safety Advisor and a Community Relations Officer described the dangers of children playing in the road (top). They also described the dangers of stealing wire and other materials from oil well sites, showing photos of the consequences (bottom left). The project team responded to questions from the attendees (bottom right).

Community Safety: Response to the Village Safety Session



Kouramluom Fadouloum Le Mongue, Chief, Begada 1: *“Coming out of this meeting, I feel a large responsibility to communicate with my people about the importance of staying safe around project equipment. This effort requires ongoing vigilance, and I have been delivering this message since 2002 – in fact, there has never been a death or major injury in my village from anything related to the project. Safety is everyone’s responsibility, and through everyone working together, we will be able to keep our people safe.”*

Denendiguem Lydian Menagere, resident, Begada 1: *“As a woman and a mother, safety is a big concern for me and my three children. The project has given us many safety meetings and lessons. I am particularly focused on the road safety information, because my children used to play games too close to the road. In addition to teaching my children to be safe near the road, I am also teaching my siblings these lessons so they can be safe as well.”*



Consultation & Communication

For the first half of 2011, the project's ongoing outreach efforts added 851 public consultation sessions to the thousands held since the project began production in 2003. The public gatherings this year have taken place in villages in the oilfield area and all along the pipeline right of way, covering topics ranging from public safety to land use compensation and construction of new roads and wellpads.

The Platform for Consultation and Cooperation

In addition to village level public consultation sessions, the project continues its work with the Platform for Consultation and Cooperation. The Platform provides a process for resolving citizen claims that inevitably arise on a complex project with a long history. Through the Platform, the project works with representatives from four NGOs and the government of Cameroon, and applies a collaborative problem solving approach to claims resolution. Together, the members have built a strong record over the years of mediating claims to the satisfaction of all the parties.



Field investigation trips like this one make up an important part of the work of the Platform. In this case, three Platform members are working out an issue on the pipeline right of way, checking a map as maintenance work continues behind them.

The Platform for Consultation and Cooperation: Successful Resolution of a Case
 Andre Bvouma-Bvouma will receive much-needed surgery on his arm so he can get back to work and earn a living. His arm was broken in an on-the-job accident during the pipeline construction. He filed a claim because his employer completed its construction contract and left the project area years ago. As a result, he has never been able to obtain funds for his follow-up surgery. Platform members investigated the details of his claim, examined his old injury (below, left) and arrived at a solution. The project agreed to pay the medical costs for his treatment.



Andre Bvouma-Bvouma, Mvilé village (above, right): *“I filed a claim with the Platform in January because additional treatment for my old injury was required. The contractor I worked for during construction has left, because their work was completed. Now, at this meeting, the project has agreed to help me by paying the medical bill for my final surgery. That means I can go back to work and earn a living. The claims process has worked for me.”*



Ebenezer Diwouta, Team Coordinator, FOCARFE, an NGO and Platform member (left): *“Since 2006, the government, the project and the NGOs have all worked together to address claims and issues. The NGO’s role is to make it easier for the population to interface with the project. In the beginning, the cooperation was difficult, but after 1 or 2 years, everybody came together to cooperate for the well-being of the people. That is why we have our name – the Platform of Cooperation and Consultation. The platform has been a very big success.”*

Michel Kenmoe, Inspector, Cameroon Pipeline Steering and Monitoring Committee (CPSP), a Platform member (right): *“CPSP is the interface between the project, the government, and the Cameroonian people. There were challenges in the beginning, but we’ve come a long way since then. Together, we have developed a Platform where if anyone has an issue, the Platform can come together and work it out. The Platform allows us to put anything on the table, and if we need to, we can come out to the field, like we did today to see the grass cutting and to see somebody who has a claim – we can come and see for ourselves and investigate.”*



Consultation
Activity
Statistics

◀ Consultation Meetings Tally

	3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	12 Month Total
Chad					
<i>Sessions</i>	74	63	47	35	219
<i>Attendees</i>	3,930	2,835	3,087	1,817	11,669
Cameroon					
<i>Sessions</i>	61	114	257	200	632
<i>Attendees</i>	1,702	2,540	4,362	2,388	10,992
Project Total					
Sessions	135	177	304	235	851
Attendees	5,632	5,375	7,449	4,205	22,661

Many of the project's consultation meetings are focused on safety within the Oilfield Development Area. For more information on these consultations, which cover vandalism, theft, proper pipeline usage and road safety, see the chapter on *Safety*.

The project also frequently engages in consultation meetings on compensation for land, using reclaimed land and land return procedures. For more information on these land use consultation activities, see the chapters on *Compensation* and *Land Use in the Oilfield Development Area*.

Compensation

Compensation paid to individual land users by the project in the last four quarters totaled over 807 million FCFA (\$1.7 million) in cash and in-kind payments. Over 14 billion FCFA (over \$24 million) in individual compensation has been disbursed since the project began.

◀ Tally of Individual Compensation (Millions FCFA)

	3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	12 Month Total	Project to Date
Chad	248.9	175.4	209.4	167.6	801.3	8,756.8
Cameroon	0.4	0.0	0.3	5.3	6.0	5,702.0
Project Total	249.3	175.4	209.7	172.9	807.3	14,458.8

Land Use in the Oilfield Development Area

The project has launched a new phase of improvement for its land use mitigation work in the Oilfield Development Area. With enhanced land use impact assessment tools – in-depth socioeconomic studies and sophisticated computer database software – the project will be able to respond more flexibly and quickly to the constantly evolving circumstances of individual farm households in the oilfields area.

Land Use Impact Assessment Tools

Over the last six years, the project's Land Use Mitigation Action Plan (LUMAP) has built a strong system for data-based land use impact assessment, a system once described as state of the art by the World Bank's External Compliance Monitoring Group.

To assess and respond to land use impact, socioeconomic specialists collect detailed information on affected households (left). The socioeconomic information is fed into a database that displays the information on precision land use maps for study and action (right).



This combination of field socioeconomic studies and sophisticated computer technology helps the project measure, track and predict land use impacts on households and villages as the project continues to develop Chad's oil resources.

- Farmers affected by project land use are accurately identified and compensated.
- Farmers receive livelihood restoration assistance if their household livelihood capacity drops below standards set in the Environmental Management Plan.
- Overall impacts on each community are assessed by aggregating the impacts on individual land users using computer generated maps for analysis.

Step-by-Step Improvements

The new phase of improvement in the project's land use impact assessment tools builds on years of refinement work by the project's socioeconomic team.

Years of Evolution

Pre-LUMAP: During the project's initial land use acquisition, beginning in 1997 and up through the construction phase, a database was maintained of all compensation cases. However, determination of eligibility for resettlement compensation benefits was based almost entirely on declarative information. The project relied on farmer claims about the number of people in a household and did not yet conduct household socioeconomic studies. As improved land use impact assessment tools later revealed, during this period many households received resettlement compensation even though their farm livelihoods didn't qualify them for that compensation according to the Environmental Management Plan guidelines (see below).

Village Land Use Surveys: The Land Use Mitigation Action Plan was developed and launched. The project began conducting house-to-house socioeconomic surveys of every household in all 16 of the most affected villages within the oilfield area. These village surveys included households and their farm fields even if they had not been directly affected by the project. The census provided important baseline data for measuring household and community land use patterns. It stands as one of the most extensive and detailed census surveys ever conducted for a development project in Africa. Socioeconomic information was merged onto a map-based database system to help examine trends and overall effects of project land use in villages.

Affected Household Surveys: With benchmark data in place, the project began focusing its socioeconomic studies on the households that had been directly affected by project land use. Data was gathered on households that had received compensation or qualified for livelihood restoration through one of the resettlement program options. Refinements in the interview and survey methodology gave the project a clearer picture than was possible before, verifying land use and double-checking for conflicting claims, focusing project resources more efficiently towards affected households. The map database was significantly enhanced using satellite imagery and ongoing GPS-based precision ground verification of field boundaries.

In total, the project has now done in-depth socioeconomic studies on more than 3,200 households, including over 14,500 people. In that process, more than 30,200 farm fields have been precisely surveyed using GPS technology.

Today's New Tools

Dynamic Real-Time Data: Enhanced socioeconomic studies and software will allow a dynamic, real-time approach to land use decisions and implementing livelihood restoration. Whenever the project returns or acquires land, all the affected households are resurveyed with an extensive socioeconomic interview process. The resurveys take place within a few weeks and capture any changes that might affect a household's livelihood since the last survey. The number of children supported by the household might have increased. The household might have developed a new income producing business or its total landholdings might have been increased by marriage or reduced by project land use. Follow up

socioeconomic surveys are then conducted to verify that livelihood maintenance strategies are working for households that qualified for resettlement options.

Results of Improved Land Use Impact Assessments

Performance Improved The rich new information from improved land use impact assessments has helped the project fine-tune its land use mitigation efforts.

- Better understanding of the constantly changing socioeconomic circumstances at the household level helps the project take all relevant factors into account when making decisions about land use and livelihood maintenance.
- The volume of data also provides valuable insight into socioeconomic trends at the community level such as population growth rate, death rate, birth rate, divorce rate, land rotation and population density.
- The resurvey process, supported by the map-driven database software, significantly improves the accuracy and speed of delivery of livelihood maintenance for households qualifying for resettlement compensation.
- Over the long haul, the data trends will help predict household and community impacts of the project's land use so adjustments can be made if necessary.

Insights Gained These improvements have produced important insights into the real world socioeconomic conditions in the Oilfield Development Area.

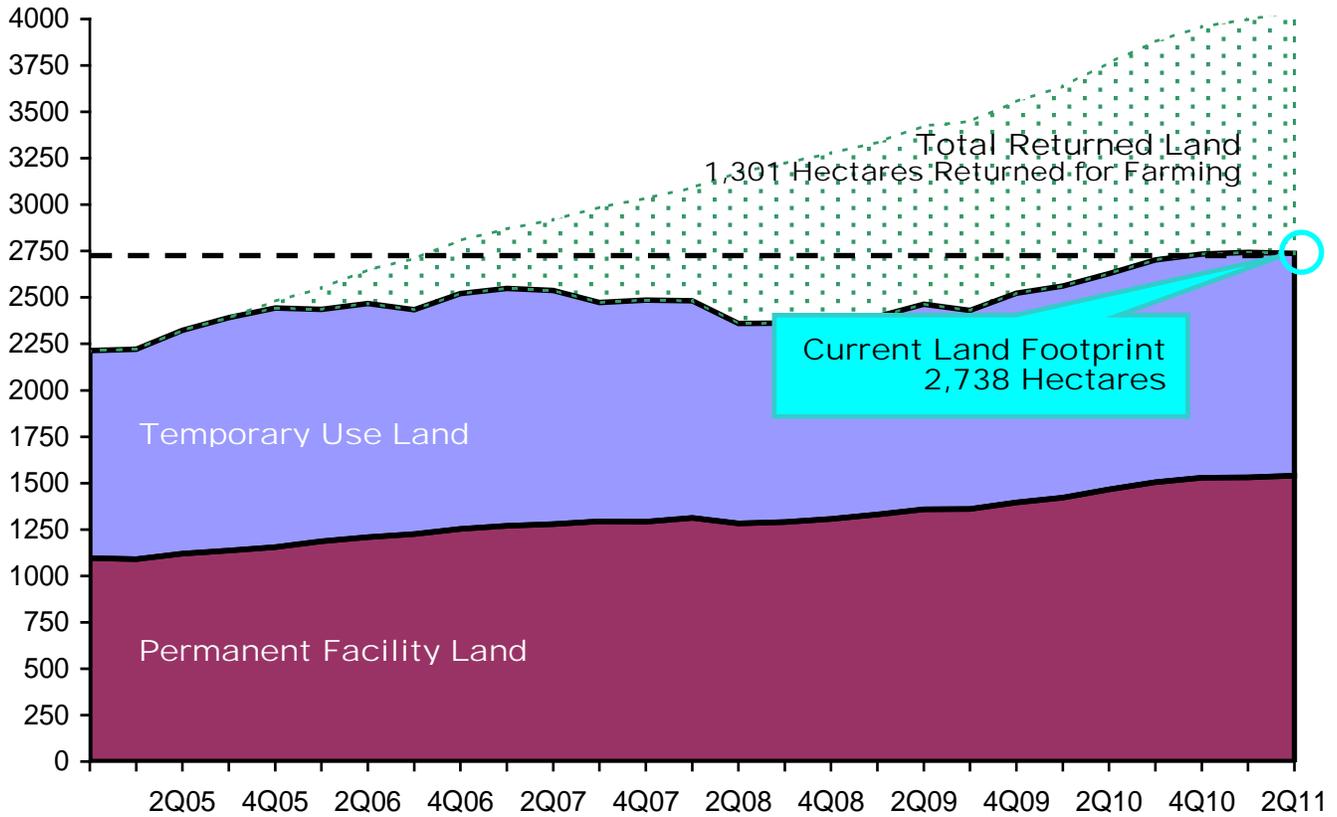
- The house-to-house surveys revealed that the project had initially greatly overestimated its impact on farm livelihoods in the OFDA. The new information shows that across the OFDA, less than one-third of households receiving resettlement options compensation actually qualified for livelihood protection under the Environmental Management Plan.
- Conversely, some households that initially appeared to have solid livelihoods were found to have actually been at risk. For example, a farmer may have had less land or a larger family than originally believed, thus qualifying the household for resettlement option benefits and livelihood maintenance.
- Early livelihood assessment techniques didn't take into account socioeconomic factors that affected resettlement compensation eligibility. For example, it was discovered that many individuals are not strictly farmers, but actually rely on multiple traditional income sources for their livelihoods – a significant factor when assessing the impact of the project.
- Many households in the OFDA actually had access to significantly more land than was originally apparent to the project for a number of reasons, including land acquisition through marriages and other family dynamics.

Improved Land Use Impact Assessments: Two Case Studies

Based on information in the project’s Land Use Impact Assessment tools, this case study table tracks the changing livelihood circumstances of two real households in Mbanga village, both affected by the oilfield development. (Their names have been withheld for privacy reasons.)

Phase	Mbanga Farmer #1	Mbanga Farmer #2
Pre-LUMAP	<p>This farmer was believed to be severely impacted based upon early data collected through the project’s pre-LUMAP assessment techniques and reliance on declarative information.</p> <p><i>The project provided the farmer with resettlement compensation, including livelihood maintenance training.</i></p>	<p>The pre-LUMAP data, relying on declarative information, showed this farmer to have enough land to be above the minimum threshold required for resettlement compensation.</p> <p><i>The project did not provide resettlement compensation to the farmer at this time.</i></p>
Village Land Use Surveys	<p>This more complete survey process revealed that the farmer had much more land than previously understood and did not technically qualify for resettlement compensation.</p> <p><i>The project judged the farmer as no longer at risk following training.</i></p>	<p>The house-to-house surveys discovered that the farmer had married and had a child, which brought him much closer to qualifying for compensation.</p> <p><i>The project classified the household as marginal and maintained it on a watch list.</i></p>
Affected Household Surveys	<p>More extensive socioeconomic study surveys revealed that the farmer was not solely dependent upon farming, but had additional sources of household income. Satellite imaging was able to further refine the exact amount of land used by the household.</p> <p><i>Based on the new data, the project confirmed the farmer as no longer at risk.</i></p>	<p>Satellite and GPS technology verified the farmer’s land with more accuracy. No change in his status was detected.</p> <p><i>The project kept the household on the marginal status watch list.</i></p>
Dynamic Real-Time Data	<p>The project acquired more of the farmer’s land in 2010. This land take qualified the farmer for resettlement compensation for the first time. However, in 2011, the project returned land – enough to move the household above the minimum qualification threshold.</p> <p><i>After the land return, the project re-evaluated the farmer’s status and the farmer was found to no longer be at risk.</i></p>	<p>The project acquired more of the farmer’s land which triggered a resurvey of the farmer’s socioeconomic situation. During the survey, it was learned that another child had been added to the household. The farmer thus qualified for resettlement compensation.</p> <p><i>The project provided resettlement benefits based on the new information from the enhanced land use assessment tools.</i></p>

Land Reclamation & Return: Holding Steady on the Total Land Use Footprint
 Using an array of land reclamation techniques, the project has limited its total land use in the Oilfield Development Area to roughly the same level for the last six years, since the Land Use Management Action Plan began. Although the continuing program of drilling to fully develop Chad's oil resource has required acquisition of additional land in each of those years, the project has aggressively been working to reclaim and return unneeded land to farmers to keep pace with the new land requirements.



As this graph shows, the total project land footprint in the six oilfields of the Oilfield Development Area has been kept to 2,738 hectares. The project's land reclamation and return initiatives have stayed even with the land requirements of the extra drilling by returning a total of over 1,301 hectares of project-use land to farmers since the land reclamation program began.

Land Reclamation & Return: Compost to Improve Reclaimed Ground

An innovative new composting program has been helping the project perform high quality land reclamation in the oilfield area. A team of women (below) has been hired by the composting subcontractor and equipped with red bucket compost spreaders to help with the work. The project, one of the few large-scale composting operations in Chad, produces the compost from the project's kitchen scraps, wood and other waste. To learn more about the project's composting program, please see the chapter on *EMP Management and Monitoring*.



Spreading compost on this reclaimed oil wellpad land is a final step before returning it to the village and the farmers who originally used the land before the wellpad construction.



Mbáihikadjinang Zacharie, farmer, Mbanga 2 Village: *"I am really happy to get this land back, and having the compost is a good thing. I will grow food crops – sorghum, okra, and beans. It's no problem for me to farm near this oil well, and it is good to have the land back. Along with my other fields, this will make it easier to feed my two wives and six children."*

Land Reclamation & Return: Improved Land Return Process

The project has for some time utilized a formal land return process called a quitus ceremony to put land back in the hands of a village after it has been reclaimed. The continuous improvements developed through the LUMAP returns the land sooner and ensures that previous land users are notified of the return. During the return, a project socioeconomic team goes to the field and meets with the farmers and their chiefs. They verify the field locations from maps made during the original compensation (left) and check the quality of the soil reclamation (right) before the chief signs for the return. Beginning with the land returned in 2010, the project socioeconomic team is now surveying use of the returned land and determining who is farming the land.



Madjitonou Moal, farmer, Mbanga 1 village: *“The land looks very good. I know I can get a good crop this year. I will plant a fast-growing type of sorghum, so I can harvest it before the cows and pigs can get to it. I will also plant okra, a sauce herb and beans. Most of the food will help feed my family, but I will also sell some of it to earn money to buy salt, soap, and oil. It’s a good thing that I was paid for my land, and now I have it back to grow on again. I expect to have a good crop because the land was treated well before being returned to me.”*



Ngadeur Amond, Chief, Mbanga 2 Village, signing the quitus agreement (below) to accept back the reclaimed land: *“We have participated in the quitus ceremony many times before and we are very happy to be able to use this plot of land for farming again. The farmers are also happy and looking forward to getting a good harvest this year. With all of the soil work that has been done, the farmers have what they need. Because they are happy, as the chief, I can confirm that this is a good thing for the village.”*



Community Compensation: A Fast Track for a New Masonry School

Below, a headmaster and his schoolchildren eagerly tour their new village school (below), as finishing touches are being completed – just in time for the new school year. The school was made possible through the project’s community compensation program, which, in addition to direct individual farm land use compensation, provides impacted villages in the project area with development projects to make up for diffuse and hard to quantify indirect impacts.

In this case, the village of Maikeri chose their school project using a new rapid-turnaround community consultation approach, replacing the old multi-step community decision process that often took many months. Right from the beginning, the people of Maikeri knew they wanted to replace their old thatched school, so the fast track consultation process dramatically reduced the development time while still making sure that the affected community reached a consensus decision.



Djikoldingam Elysee, school principal (center of group), Maikeri village: *“There are 297 students from this village who attend this school. We used to have to squeeze them in to the uncomfortable old school – five to a bench. The new school will not only resolve the issues of basic comfort and space, but will also hold the children’s attention and reduce the distractions which make it difficult to learn. Now, we will have tables, benches and areas to circulate and move around – overall, a much better environment for children to learn in.”*

Community Compensation: The Fast Track Replaced a Flimsy Thatched School
The people of Maikeri say their new masonry school will be much better for education and they won't need to rebuild their old thatch school rooms each year when Chad's rainy season blows them down.



Mbainamom Caleb, 17-year old student, Maikeri village, looking at his old thatched school: *“I am going to a regional school next year, but if I had one more year here, I wish I could have gone to this new school. The old thatch school was very hot, and we had no desks or proper chairs and we had to sit on horizontal poles. Also, because of the rainy season, we usually could not finish the school year because the wind and rain always blew the classrooms down. I am happy that my little brothers and sisters will be able to attend this new school.”*



Bouyo July, mother of 6, Maikeri village: *“As the mother of six children who are in school, I am very happy about the new building. In the old school, it was very hard to learn, even under the best weather conditions, and when rainy season came, it ended most of our school years early. This sturdy and well-built school will give our children the security and comfort that they need to learn. I hope that with the education my children receive, they can make a positive difference in the development of our village.”*



Richard Koumatoloum, Chief, Maikeri village: *“The school brings smartness, education for our children. Without this school, we would be like a dead village. This new school will help our village be more alive. As chief, I can say that in five years, we will be a much stronger village because of the new school. The community compensation has been excellent for my village.”*

Local Employment

The project's contributions to its host country economies in the first half of 2011 included wages paid to Chadians and Cameroonians of 35 billion FCFA (\$75 million).

- Almost 6200 nationals had jobs with EEPCL, COTCO, TOTCO and their contractors at the midpoint of 2011, over 86% of the total workforce.
- Over two-thirds of the Chadians and Cameroonians working for the project hold well-paying jobs in the semi-skilled, skilled or supervisory job categories.

Nationalization Program: Jobs & Promotions at the Marine Terminal

A proactive employee development program has brought major increases in national employment at the marine terminal's Floating Storage and Offloading vessel (FSO), in addition to training some individuals to move into top jobs once held by expats. Since production began eight years ago, the project has nearly tripled employment of Cameroonians at the FSO, from less than 30% to more than 80%.



Recently promoted Operations Supervisor Christian Lontsi (left, foreground) gives directions to a colleague while supervising vessel operations from the FSO's control room. Meanwhile, newly elevated Engine Room Operations Lead Roland Tamufor (right, foreground) lays out a maintenance plan for several members of his team. Both men are in jobs once held by expats.

Nationalization Program: Three Top Jobs at the Marine Terminal

The steps to nationalize jobs at the FSO have particular significance for two reasons. First, the jobs on the FSO include high skill jobs with some of the highest wage classifications. Second, the nationalization achievement at the FSO demonstrates the power of the project's work force nationalization program. The program includes intensive classroom training, post training mentoring on-the-job and international assignments to broaden experience. The three Cameroonians on this page have recently been promoted to high-level managerial positions on the vessel and have themselves become mentors for those following in their footsteps. The three positions once held by expats include Operations Supervisor, Engine Room Operations Lead and Mooring Master.



Christian Lontsi, Operations Supervisor: *"I started in 2001 as a new hire. COTCO paid for my university and also for on the job training in the United States. Then I came back here for more on-the-job training under the direction of a mentor here on the FSO. I have had ten years of education and training, all paid for by COTCO. Now I know tanker operations, and here I also manage our continuous inspections program that also maintains the integrity of the vessel. This has been a big achievement – the commitment by COTCO to nationalize, and then the opportunity for me to achieve this new job. This experience has changed my life and my income."*

Roland Tamufor, Engine Room Operation Lead: *"COTCO trained me both here in Cameroon and abroad, including California, Seattle, Alaska, England and Scotland. In fact, my mentor just left the country and, after years of training, I am ready to take over his responsibilities. The whole system of mentoring raises the level of Cameroonians in general. I myself was able to mentor and train the person who took my job. I really appreciate this opportunity that COTCO has given me – we have no school for this in Cameroon. It's a milestone, not only for myself, but for all Cameroonians."*



Bertrand Mendugena Ndi, FSO Mooring Master: *"When I was in secondary school, by chance I happened to walk through the Douala harbor for the first time. When I saw those Cameroonian ships and sailors I knew then that I wanted to be a captain. Working on the FSO gives me [the best of both worlds] - a chance to be at sea while remaining close to my family. COTCO provided me with significant training and mentorship, and I appreciate the thorough training process here because it ensures that everybody meets the company's high standards. COTCO and I worked together to achieve our shared goals for nationalization, and I believe the company is doing a good job, especially because things are being done such that Cameroonians are being positioned for success."*

Nationalization Program: World Class Chadian Welders

People who can do gas tungsten arc welding rank as some of the world's most technically sophisticated welders in the world. Now Chad has a whole team of these experts, trained as part of the project's National Welder Training Program. So far, seven welders have been certified in the very difficult art of this special type of welding, in addition to being qualified in other welding techniques for specialty materials and situations. The Project's National Welder Training Program includes eight welding theory modules, practical training exercises and formal certification testing.



Some members of the Chadian specialty welding team are shown here (top) applying their skills at the Komé "hot shop," a fabrication facility where they help assemble customized parts for the Central Treating Facility or in the oilfields. Proud team members (right) took a moment to pose around some of the equipment they have learned to use.

As George Lang, EEPIC Construction Superintendent put it: *"This is a success story for nationalization. The program was developed because of a need for additional qualified welders from the national workforce. A competent national local workforce is the legacy of every successful Construction project. I consider this program one of the highlights of my tenure as Construction Superintendent."*



Nationalization Program: Mentoring Pays Off

Mentoring plays a major role in the success of the project's nationalization program. Once a trainee has completed classroom work, they receive months and sometimes even years of on-the-job experience under the tutelage of an experienced mentor. In many cases, expat mentors have been given the assignment of working themselves out of a job by training a national employee replacement. In others cases, national employees who have risen through the ranks are now qualified enough to be mentors to their countrymen.



Moundjim Saradinangar, Welding Foreman: *"When I graduated from secondary school, it was hard to find a job in Chad, even with a university degree. I looked at my options, decided to start training to become a welder, and was hired by the project after my training. While working on the project, I also had a lot of on the job training and became the first Chadian on the project certified in stainless steel, carbon steel, and pipe welding. Since then, as part of the project's nationalization effort, I have been teaching these specialized skills to other Chadian project welders. We now have a whole team of highly skilled certified welders and a proven process to continue expanding the team. This job helps me support my extended family, and allowed me to send my brother to school as well."*

Romeo Hernandez, Fabrication Shop Supervisor: *"I'm proud to say that we now have these qualified and certified Chadian welders working for the project. It's very difficult to work on specialty materials such as stainless steel, carbon steel and pipe, but I believe that our Chadian welders could do this successfully anywhere in the world. It's great to see them doing this difficult job so effectively. The project and I are both committed to making sure that they succeed. I enjoy teaching and mentoring them because, personally, I believe we should pass along what we know. Sometimes, I even learn a thing or two from them!"*



Willie Ebona, Welding Supervisor: *"I trained and mentored all the Chadian welders in our program in carbon steel, stainless steel and pipe welding. These are difficult specialized skills, but they were all very quick learners. As their teacher, I guarantee they have the skills to weld anywhere in the world. In fact, some of our welders actually left for other opportunities to apply their skills elsewhere in Chad. The mentoring we did was important for the success of our program and the Chadian welders. I also believe that this mentoring and training philosophy is critical for young Chadians to grow up to have a successful future."*

Jobs in the Villages: Maintaining Pipeline Integrity

Hundreds of village residents have jobs with the project as part of the project's Pipeline Right of Way Integrity Program, nicknamed ROWIP. Beginning this year, all along the 1,070 kilometer length of the pipeline, villagers have been trained to inspect for potential issues with the pipeline. A pilot program that began in the highlands of Cameroon around Dompta, was expanded to Chad and now has been put in place all the way from Komé to Kribi. For more information on the ROWIP, see the chapter *Environmental Monitoring & Management Program*.



These villagers in Cameroon were selected for the part time pipeline inspection jobs using a lottery system that rotates the jobs among village residents, giving everyone a fair chance at the work. In this case, they walked their assigned zone of the right of way and found a washed out depression in the soil that will be filled based on their report, preventing a potential future erosion problem.



Kidik Nazaire, Pipeline right of way monitor (left): *"I love this job. As a Cameroonian, I can always use the extra money, which helps me buy kerosene for light, soap, medicine and food for my family that includes four children and two grandchildren."*

Local
Employment
Statistics

Wages

- Wage payments to Chadian workers for the first quarter of 2011 totaled an estimated 14.6 billion FCFA (\$30.3 million). For the second quarter, wages were estimated at 15.2 billion FCFA (\$33.6 million).
- Wage payments to Cameroonian workers for the first quarter of 2011 totaled an estimated 2.5 billion FCFA (\$5.3 million). For the second quarter, wages were estimated at 2.6 billion FCFA (\$5.7 million).
- Total Project Workforce Quarter by Quarter (in Full Time Equivalents)

	<i>End 3rd Qtr 2010</i>	<i>End 4th Qtr 2010</i>	<i>End 1st Qtr 2011</i>	<i>End 2nd Qtr 2011</i>
Chad				
Nationals	5,557	5,525	5,288	5,159
Expatriates	1,120	1,048	932	922
Total Chad	6,677	6,573	6,220	6,080
Cameroon				
Nationals	1,012	1,004	1,082	1,040
Expatriates	63	64	69	66
Total Cameroon	1,075	1,068	1,151	1,106
Project Total	7,752	7,641	7,371	7,186

Estimates of wages and project workforce have been based on the latest available information and may be adjusted in future reports.

Skill Categories

◀ National Workers Employment Skill Levels

Over 71% of the Chadians and Cameroonians working for the project held skilled or semi-skilled positions through the end of 2010. More than 6% held supervisory positions. Skilled jobs include such positions as control room operators, technicians for oilfields, construction, machinery, electrical and instrumentation; EMP monitors and welders. Examples of semi-skilled jobs include food service assistants, security guards and welder helpers.

Local Business Development

Since the project began, its purchases of goods and services from local suppliers has totaled more than 1.37 trillion FCFA (\$2.5 billion). In large measure, this success has been achieved through local business development outreach and capacity building. For example, the project has helped increase the capacity of dozens of businesses through the Business Excellence Training Program in Chad.

Business Excellence Training Program

This program, pioneered four years ago by the project along with its partners – the Chadian Chamber of Commerce and the International Finance Corporation – has been helping local businesses access new markets, including opportunities with the project. The curriculum includes key business topics such as quality control, marketing, communications and human resources management. The curriculum design was based on a study that included interviews with Chadian businesses to identify areas where they needed help.

Students attend Business Excellence classes (right) held at the University of N'Djamena, where they study from course materials (below) that were jointly developed by the project and the International Finance Corporation arm of the World Bank Group.



Demand for the Business Excellence Training Program has been so strong that it added sessions to serve the increasing number of business students that it attracts. Chadian businesses and even government agencies have recognized the value of this program and filled the courses to capacity.

Business Excellence Training: A Pioneering Capacity Building Program



Ferdinand Ngobounan, Associate Operations Officer, International Finance Corporation (IFC): *“This program is an important pioneer effort which has been a great success, and we are looking to both continuing it within Chad and replicating the model in other countries. The project and IFC both contributed and developed curriculum for the program, and they also share the cost of designing and implementing this program which adds capacity to the private sector and creates better pathways for local businesses to work with the project.”*

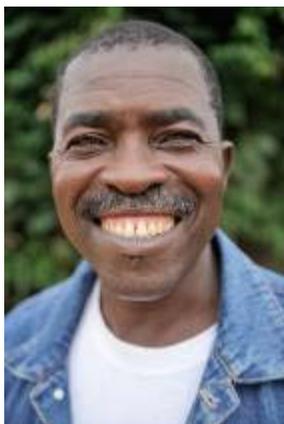
Yakoub Hassan, Accountant, Garantie, Business Excellence student: *“Garantie, the security services company that I work for, asked me to attend this program to help me develop my management skills. The things I will learn here will help me fulfill my role as a liaison between the HR and accounting departments. I feel that this training provides me with access to business expertise and will help me become a better businessman.”*



Oumacharaf Ahya, Assistant to the Director of Waste Management, N'Djamena City Hall, Business Excellence student: *“The city hall Secretary General recommended Business Excellence training for some city employees to develop our skills. I am looking forward to learning new payroll, administrative and management skills. Even though I work for the government, it's important to add business knowledge to improve our practices so that we can better manage the city. The head of my department also completed training here previously, and liked it so much that he is taking additional classes now. I really appreciate these classes, and being proactive with my training now will help me manage the department someday.”*

An Entrepreneur's Business Takes Off: Pipeline Right of Way Monitoring

Just six months after winning a contract to conduct pipeline right of way monitoring, entrepreneur Jean Ntoh has established his new business and hired all the staff he needs to conduct the work. Mr. Ntoh used knowledge gained while working on the pipeline construction to help him win the contract and to found his new business, Ets. Eyenga & Fils. Ntoh's new contract to support the Right Of Way Integrity Program includes hiring villagers for foot patrols (below, left) and monitors locations where the pipeline crosses water ways (below, right). For more information on the Right of Way Integrity Program see the chapters on *Environmental Monitoring & Management* and *Local Employment*.



Jean Ntoh, Founder, Ets. Eyenga & Fils (COTCO Monitoring Services Contractor): *"Since we opened in January, I've been able to double my permanent staff, and we've hired 58 villagers to help monitor the pipeline. My work during the construction phase gave me the right experience to become a contractor with the project, and I continue to learn new things. Now, I have a very unique expertise from my work with the project. I really appreciate being in this business because I can see the positive effects of the money that we are able to pay the villagers. I also make sure to give charity back to the community so that everyone can share in the success."*

Local Business
Spending
Statistics

The project's purchases of goods and services from local suppliers totaled over 113.7 billion FCFA (over \$234 million) for the last 12 months. Total spending since the project began has reached 1.37 trillion FCFA (over \$2.5 billion).

- In Chad, spending over the last four quarters totaled 87.4 billion FCFA (over \$180 million), bringing project spending to date in Chad to an estimated total of almost 886.7 billion FCFA (almost \$1.7 billion).
 - In Cameroon, spending over the last four quarters totaled 26.3 billion FCFA (over \$54 million), bringing project spending to date in Cameroon to an estimated total of more than 488.5 billion FCFA (about \$847 million).
- ◀ Project Spending with Local Businesses (In Billions of FCFA)

	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	12	Project
	2010	2010	2011	2011	Months	to Date
					Total	
Chad	20.7	26.7	23.9	16.1	87.4	886.7
Cameroon	6.2	7.7	7.3	5.1	26.3	488.5
Project Total	26.9	34.4	31.2	21.2	113.7	1,375.2

This table was prepared using the latest available data. Data for previous quarters has been updated to include late reported data.

Health

The peak of the malaria season arrived in the project area at mid-year, but the project had so far recorded zero malaria cases for 2011. The zero malaria rate was an improvement even over the low rates of recent years when the malaria rate has averaged roughly 0.3 cases per 200,000 work hours.

The ABCD System

The rainy season leaves standing water all around the savanna of southern Chad – creating breeding grounds for millions of malaria-spreading mosquitoes. To fight this problem, the project vigorously applies an array of control measures that, among other things, include insecticide, antimalarial medication, mosquito repellent, long sleeves and pants. These measures are part of the internationally accepted malaria control protocol called ABCD.

Awareness: Be *Aware* of the risk, the incubation period and the main symptoms of malaria.

Bite Control: Avoid being *Bitten* by mosquitoes, especially between dusk and dawn when the malaria spreading mosquitoes are most active.

Chemoprophylaxis: Take *Chemoprophylaxis* antimalarial drugs to suppress infection where appropriate.

Diagnosis: Immediately seek *Diagnosis* and treatment if a fever develops after being in a malaria risk area and up to 3 months after departure.

Fighting Malaria

To help in the battle against malaria, the project contracts with a team of scientists who help to customize the application of ABCD at the oilfield area facilities. The team, MosquitoZone, is a leading scientific authority on preventing the spread of diseases spread by insect bites, including malaria.



Jeffrey Corneil, Chief Etymologist, MosquitoZone, Komé Drilling Camp:
“MosquitoZone has been providing malaria awareness, education, mitigation and bite prevention services to the project since 2006. We focus on learning about mosquito behavior, and using what we learn against them. The rainy season is a very important time in the fight against malaria, because the larva of malaria-carrying mosquitoes often breed in standing water. Education and chemoprophylaxis are hugely important to controlling malaria, as is controlling the number of mosquitoes and their ability to bite humans. The project has been very successful with this – the result of a sustained group effort to control malaria.”

Fighting Malaria: Mosquito Traps & Microscopes



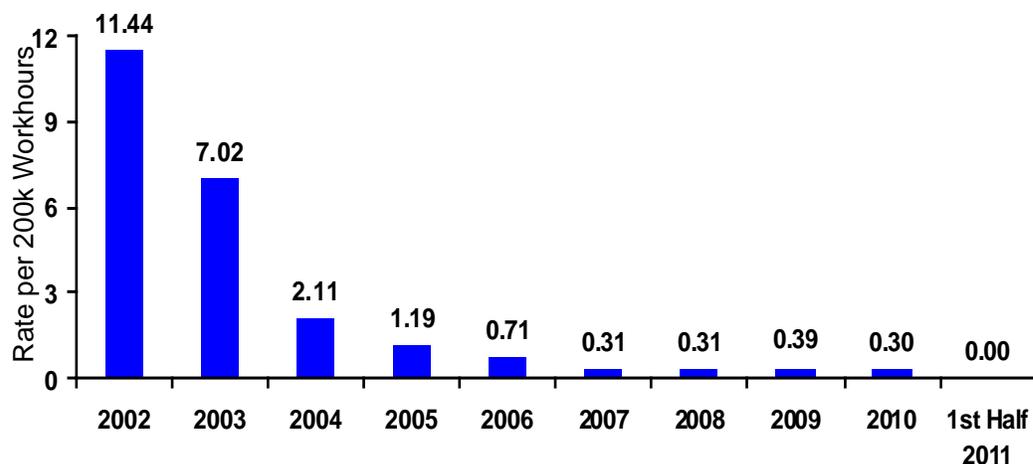
The MosquitoZone scientific team gathers data on the current mosquito situation by setting traps to collect the insects (top left). Back at the laboratory, the technicians sort, clean out the traps, count the mosquitoes (bottom left) and to plot the count of mosquitoes taken at each trap location. Then, the mosquitoes go under the microscope for precise identification (right) and classification for malaria danger. Armed with that daily data, the team can advise the project on where and how often to spray insecticide. The data also helps the project understand how all its other malaria control efforts are working and, thus, where they might need to be strengthened.

Passane Douzane, Supervisor, MosquitoZone, Komé Drilling Camp (right and at the microscope): *“I am responsible for overseeing our technicians, identifying and spraying for mosquito control. I’ve learned a lot about malaria since working on the project with MosquitoZone. I feel that my work helps people fight malaria, not only here on the project, but also when I go home, because I teach my family and village what I know. It is safe to say that my village knows malaria! I will continue to pass along what I know to my community and beyond, to help in the fight against malaria.”*



Worker Health Statistics

◀ Malaria Infection Rate (Non-Immune Personnel)



The malaria infection rate for non-immune project workers has been dramatically reduced over the years of the project's intensive malaria prevention initiative. As the graph shows, the annual rate of cases per 200,000 work hours has been cut from 11.44 in 2002, the last full year of export pipeline construction. The project, so far in 2011, has achieved a zero malaria rate among non-immune personnel.

◀ Consultations at Project Clinics

	3Q2010	4Q2010	1Q2011	2Q2011
Chad	4,935	4,334	4,488	4,396
Cameroon	421	409	860	802
Project Total	5,356	4,743	5,348	5,198

Project health clinics provided over 20,645 free health care consultations to workers in the past year at project facility clinics, a valued job benefit in Chad and Cameroon where health care can be difficult to obtain, especially in rural areas. The bulk of this care involved illnesses or other health conditions unrelated to the workplace.

◀ Project Worker Health Data

	STDs ¹		SSS ² Events (excluding Malaria & STDs)		Hospitalizations/ Observations		Medevacs	
	1Q2011	2Q2011	1Q2011	2Q2011	1Q2011	2Q2011	1Q2011	2Q2011
Chad	55	61	80	89	2	2	0	0
Cameroon	5	0	2	2	4	3	0	0
Project Total	60	61	82	91	6	5	0	0

1. STDs: Sexually Transmitted Diseases. 2. SSS: Sentinel Surveillance System, an epidemiological early warning system. Some examples of diseases tracked by the SSS include tuberculosis, dust exposure, meningitis, skin rashes and flu. The SSS focuses on additional diseases outside the two that have been priority targeted — malaria and sexually transmitted diseases. Trends in disease rates can help alert project health experts to a health problem before it reaches epidemic level.

Community Investment

Three years ago the ExxonMobil Foundation funded the Initiative for Economic Empowerment of Women Entrepreneurs with a \$1.7 million grant. It was aimed at building the skills and thus the incomes of traditional women's cooperative associations in villages throughout the oil producing region. Now, the program has completed its three year commitment and the results are in. The empowerment initiative:

- Increased the individual incomes of 1,600 women in the participating cooperative associations by an average of 75%.
- Trained hundreds of women in basic business practices, good governance, micro-business development and management skills.
- Financed 236 microcredit proposals.



Al-Hassana Idriss Outman-Sheriff, Senior Country Director, Africare-Chad: *"The assistance that the project has provided this program has benefitted the oilfield region, bringing tremendous positive changes and badly needed increases in income. This effort has experienced major achievements and as a unique program that is specifically focused on the economic empowerment of women, is a milestone which should be replicated."*

Poverty & Gender Equity

The empowerment initiative was designed around a study into poverty and gender equity issues around the oilfield region. The study found that cooperative associations were the traditional way for women to come together in small business enterprises to earn money. However, women's efforts were being held back by barriers such as:

- Limited access to credit.
- Lack of opportunities for generating income.
- Poor farming methods which limited households to subsistence farming.

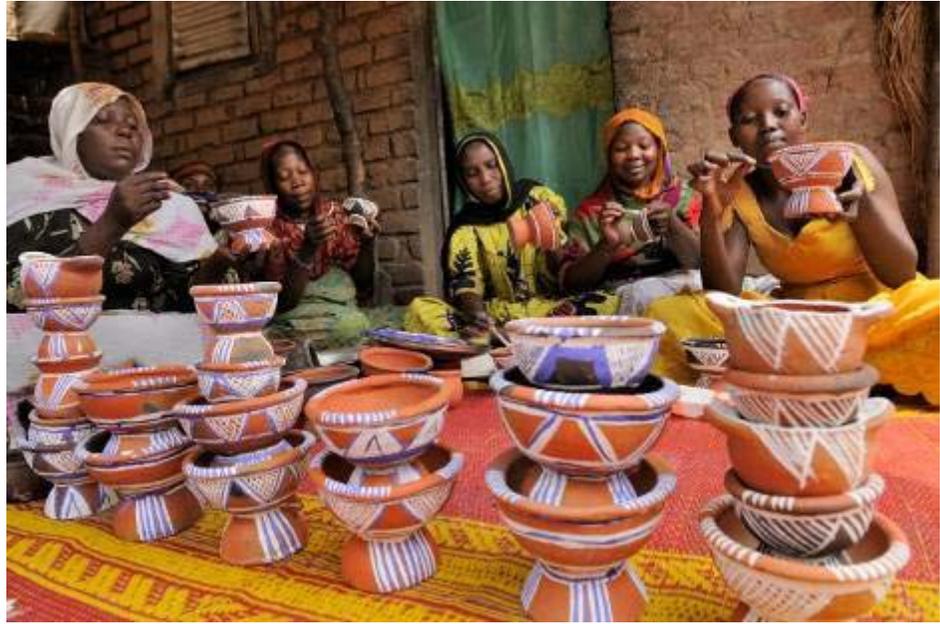
- Bars to ownership of land, livestock and other assets.
- Bars to women participating in decisions by local market committees.
- Lack of business management skills.
- Low literacy rates.

The program addressed each of these issues by building on an existing social tradition in the villages of the area. Nearly every village has at least one women's association cooperative that has been formed as a mutual aid organization. The empowerment initiative focused on these cooperatives by providing them with business training and counseling, funding for raw materials to help cooperatives build inventory and expand their lines of business.

Empowered Women's Cooperatives: A Manufacturing Cooperative in Doba

The 17 women of Groupement Darsalam de Doba badly needed the help provided by the Initiative for Economic Empowerment of Women Entrepreneurs. Many of the members are widows with no support for them and their children aside from their share of what the cooperative brings in. With training, support and financing from the initiative, they diversified and expanded their original business.

Expanding from pottery (top), the women added an iron working foundry (bottom). They also began trading in commodities such as grain.



For the foundry operation, the cooperative hired two male employees who heat scrap metal on open fires and beat it into shovels and hoes and other tools under the direction of the women who then take the tools to market.



Halime Ousman, President, Groupement Darsalam de Doba: *“The Women’s Economic Empowerment Program provided us with financial aid, raw materials, and tools, so that we were able to expand our original business and earn more money. With the money we have earned, we can now trade in grain, peanuts, sorghum, and other goods for more profit. Now we have enough money to send our group’s 70 children to school – which they all love! This program is encouraging because it gives strength to women, who are usually the last to be considered. This is important because women build communities and can make sure the next generation is educated.”*

Empowered Women's Cooperatives: A Bakery in Benganga

The women of Groupement Mouwaromba have operated one of the oilfield area's traditional cooperative associations for many years, trading in nuts and grain. The empowerment initiative helped them create a new bakery business that has significantly increased their earning power. Here, they prepared bread (top left) and baked it in their new oven (top right). The women proudly posed in front of their new bakery building (bottom left)



Boujimta Louise, President, Groupement Mouwaromba: *"The program provided us with equipment to help process our bread, training on baking practices, and raw materials such as flour, oil and construction materials. Now that we can bake bread locally, we can sell our bread to the surrounding villages, and also on special occasions we can sell it as far away as Doba. This allows us to earn more money to buy food to feed our families and send our children to school. It has made a big change, not only in our families, but also in our community."*

Dinguemtoné Clement, Chief, Beyara village (on left): *"Three of the women in our village are in the groupement. I am very happy about the bakery. We now have local bread, and we are very proud that we can serve to visitors. The bread is especially important in October, because this is a very difficult time of the year as it is before the harvest and our food supply runs low. The women's baking and earnings makes a huge difference for our village."*

Ndignangar Emil, Cheif, Benganga I village (on right): *"I support what the women in the village are doing in their groupement. In fact, I try to encourage them to keep working hard at their craft. The groupement's new skills with baking bread have made a positive big change on the village. Now the women have a voice and are able to help support our village even better than before."*



Empowered Women's Cooperatives: A Partnership for Safe Drinking Water

The Initiative for Economic Empowerment of Women Entrepreneurs recently partnered with the African Well Fund, a U.S.-based non-profit, to provide access to potable water to four communities in the oilfield area. Water wells have been drilled at four restaurants operated by women's cooperative associations that have participated in the empowerment program. Those wells now deliver free, clean water to neighborhoods in Komé Atan, Bebédjia, Mbikou and Doba. The owner of one of the restaurants dashed to enjoy the fresh clean water when one of the four wells came in (below).



Hubert Nguelbet, Africare Project Manager for empowerment initiative: *"In 2010, approximately 150 women in oilfield area recognized a unique opportunity to open restaurants. But they didn't have the resources they needed. So the program helped them with resources such as refrigerators, chairs and stoves. The newly opened restaurants were doing well in terms of revenue, but business was inhibited because of limited access to clean water. The women, having been newly empowered, requested additional assistance to address these issues. Together, we worked out a solution for this problem, and we are building four new wells in the area. Now, the women are saving precious time and money, and not only do the wells benefit the restaurants, but also their neighbors, who now have consistent access to clean water at no charge."*

Brigitte Rokoulet Nekian, President of Groupement Mbailassem restaurant, Bebédjia: *"Before opening this restaurant in December of 2010, I used to sell cassava bread in the market. My partners and I knew that we could open a restaurant to sell other food along with our bread, but thinking about starting our business was difficult until we became involved with the Women's Economic Empowerment Program. Now, after only 6 months, my restaurant is doing very well, and I'm looking forward to getting even more training from the program. This well that we are building will help us save money and also help our neighbors. Empowerment of women is important to us, because as widows with no support system, we are now able to save money and even send our children to school."*



Host Country Revenue

Visitors returning to N'Djamena after a year or two away often look around in amazement as they drive around the city. Only a few years ago, the city's roads were mud quagmires during rainy season. Now, the majority of the city's main routes have been paved, improvements funded by the country's revenue from the oil project.

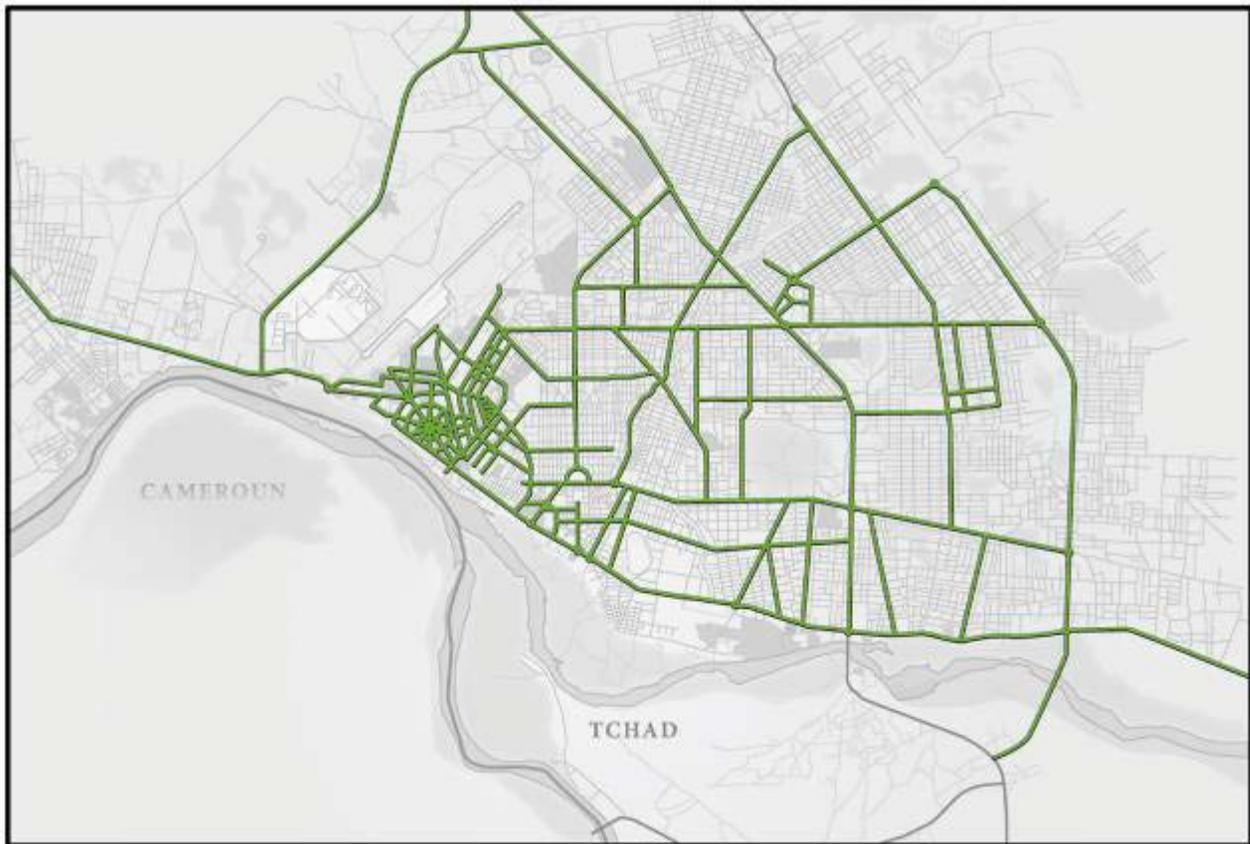
Connecting a
Country

The city paving is only one part of the story because road building has been moving ahead rapidly throughout the country with the hope the paving will lead to major advances for the country's economy and quality of life. The new roads save significant time and cost of transportation, leading to lower prices, larger markets, and a wider variety of available goods and services.



Adoum Younousmi, Chadian Minister of Infrastructure: "Oil revenues are allowing this country to rise up. We are now able to borrow more money to finance infrastructure projects, and we are finally paving roads. Our goal is to pave 6,000 kilometers of roads by 2015, and after just five years, we already have 2185 already done. We expect to complete 3,000km by 2012. Oil revenue is also being implemented all across the country as well – not just in the oilfield area. For example, we have just 100km left on the 800 km road from N'Djamena to Abeche in the north. We are also planning to pave roads to Niger and Sudan so that Chad will have more connections to its neighbors."

Paved Roads: Transforming a City



Road construction in N'Djamena (top, left and right) has been continuous in recent years, funded by Chad's revenue from the project. This map (bottom) shows the paved streets built in the last five years. Now, with the newly paved roads, N'Djamena residents can get around the city for work, business, school and other needs without worrying that their roads will be impassable with mud or flooded by the heavy rains of the wet season.

◀ Chad's Oil Revenue Through the First Half of 2011 (millions of U.S. dollars¹)

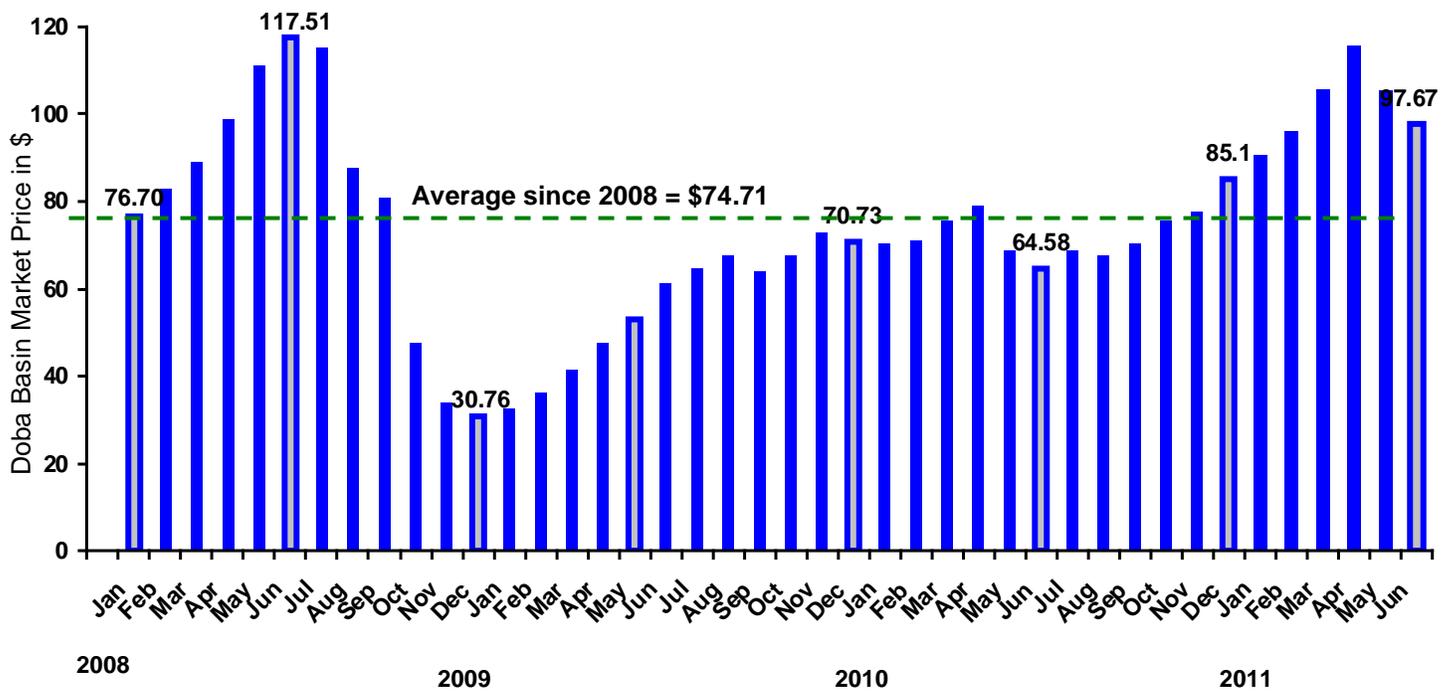
	3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	12 Month Total	Project to Date
Royalties on Crude Oil Sales²	53	83	106	123	365	2,315
Income Related to Pipeline Ownership	5	0	0	0	5	63
Corporate Income Tax³	175	230	377	466	1,248	4,637
Fees, Permits, Duties, Etc.⁴	12	11	17	29	69	414
Project Total	245	324	500	618	1,687	7,429

1. Rounded to nearest whole number. 2. Cash payment royalties paid by all Consortium members. 3. Corporate income tax amount includes payments made by Consortium members and TOTCO. 4. Project to Date has been restated to exclude amounts previously reported for services provided by government-run entities, such as utilities, hospitals, and telecommunication services.

Years before anyone thought possible, Chad has passed the \$7B revenue mark. The project's investments to sustain crude oil production levels, coupled with historically strong prices for oil around the world have combined to produce for Chad a total of more than \$7.4 billion in revenue since the project began.

◀ Doba Basin Crude Oil Market Price (by month in U.S. dollars)

World oil prices in recent years have been higher than expected in the early days of the project, significantly increasing revenue to Chad. Although prices have been volatile, since 2008 the price per barrel has averaged \$74.71, approximately twice the price when oil exports first started in 2004.



Context: How
Chad Earns Its
Revenue

Main Revenue Sources

Chad's oil project revenue includes four main streams of money.

Royalties on Sales of Oil: Chad receives a royalty paid by Consortium members on the gross sales revenue from crude oil after deducting the cost of transporting the oil to market through the export pipeline:

- The royalty on oil from the three original oilfields covered by the 1998 convention is 12.5%. The 1998 convention also includes the Moundouli and Nya satellite fields.
- The royalty on oil from Maikeri and Timbré, oilfields covered by the 2004 convention, is 14.25%.

Corporate Income Tax: In 2006, Consortium members also began paying income tax on net profits from the original three fields.

Income Related to Pipeline Ownership: Chad owns a percentage of both pipeline companies, TOTCO and COTCO, and thus shares in the profits from the fees these two companies charge to deliver Chad's Doba crude oil to market.

Permits, Duties, Taxes: Various other sources also add to Chad's income, including permits, duties, employee taxes, work permits and other fees.

Corporate Income Tax Revenue Stream

The corporate income tax payments that began in 2006 started a major new source of revenue for Chad. This new revenue source commenced several years earlier than expected - a major benefit to the impoverished country. The early start stems mainly from two factors.

- The historically high prices for oil around the world over the last several years increased total revenues to levels higher than estimated during the project's planning phase.
- These higher revenues exceeded operating expenses and depreciation, thus triggering a 60% corporate income tax on the original three fields as provided in the 1988 Convention (and a 50% tax on Maikeri and Timbré).

By law the standard tax rate paid by corporations in Chad is 40%, much less than the 60% currently being paid by the Consortium on oil from the original three oilfields. Thus, the oil project currently has a much higher corporate income tax rate structure than other businesses operating in Chad.

Chad's Future Revenues May Fluctuate Significantly

As noted earlier in this chapter, high worldwide oil prices of the last several years have yielded major benefits for Chad. However, there is no way to forecast with certainty the future volatility of the market or whether future prices will go up or down. In addition to world oil market prices, at least two other factors will have a potential influence on Chad's revenue.

- Calculations of the corporate income tax on the oil sale profits depend on depreciation of capital expenditures for new facilities and improvements over time, as set out in the oil conventions.
- Despite the project's investments in maintaining production, extracting oil from Chad's oilfields has been challenging. Similar to other oilfields around the world, output will eventually decline as the oilfields mature.

For more on the project's investments in maintaining production levels from the oilfields see the chapter on *Production & Construction*. For an illustrated explanation of the technical issues that hinder extraction of Chad's oil and the steps taken by the project to deal with those issues see the section on *Chad's Challenging Geology* in *Project Update Report #24*.

Context: World Bank Group Role in Chad

In September, 2008, the Chadian Government paid off its loans from two of the five institutions that make up the World Bank Group, the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA). In turn, the IBRD and IDA are no longer involved in the export pipeline project. The IBRD/IDA loans had partially funded Chad's equity position in the two pipeline operating companies.

The World Bank Group remains involved in Chad through the International Finance Corporation (IFC). The IFC facilitated hundreds of millions of dollars in commercial financing for the project and directly loaned tens of millions of dollars to the two pipeline companies.

- The contracts for these loans require ongoing compliance with and monitoring of the project's Environmental Management Plan performance.
- The IFC's environmental staff continues its work, including trips to Chad for ongoing collaboration with project staff on the Land Use Mitigation Action Plan.
- The IFC independent monitoring body, the External Compliance Monitoring Group (ECMG), continues its work.

Chad's Revenue Management Plan remains in place even though the IBRD and IDA are no longer involved in the project.

- A loan by the European Investment Bank to Chad includes the Revenue Management Plan requirements. That loan is still in effect.
- Chadian law implementing the Revenue Management Plan continues in force.

◀ Cameroon's Oil Revenue Through the First Half of 2011 (millions of U.S. dollars¹)

	2004	2005	2006	2007	2008	2009	2010	1H2011	Project to Date
Transit Fees	24	27	23	22	20	18	18	6	160
Income Tax	0	2	4	2	2	3	10	9	32
Customs Duties and Other taxes	0	0	0	0	1	10	6	3	20
Income Related to Pipeline Ownership	16	15	14	14	13	7	10	0	89
Project Total	40	44	41	38	36	38	44	18	301

1. Rounded to nearest whole number.

Context:
Cameroon's
Pipeline Revenue

Cameroon obtains its project revenue primarily through transit fees from the export pipeline system that picks up Chad's oil from the Mbéré river where the Chadian portion of the pipeline ends. The Cameroonian portion of the export pipeline system then transports Chad's oil to the Marine Terminal located offshore from the seaside town of Kribi. Although Cameroon has no ownership share of Chad's oil, it does have an ownership share in the pipeline system. (None of Cameroon's own offshore oil wells contribute oil to the export pipeline.) Thus, Cameroon's revenue comes from several income streams.

Transit Fee: When the project agreements were first negotiated, Cameroon negotiated a fixed rate per barrel transit fee in order to have a secure flow of income rather than being at the mercy of sometimes volatile oil prices. The transit fee belongs 100% to Cameroon and is not shared with the other pipeline partners.

Corporate Income Tax: As for any other corporation in Cameroon, the pipeline company COTCO pays income taxes to the government of Cameroon.

Customs Duties and Other Taxes: Whenever the project brings goods into the country it must pay customs duties in addition to a variety of other taxes and permit fees.

Income Related to Pipeline Ownership: As a part owner of the export system pipeline, Cameroon receives a proportional share of the pipeline company profits.