



# CHAD/CAMEROON DEVELOPMENT PROJECT

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PROJECT UPDATE NO. 32      MID-YEAR REPORT 2012



# Chad Export Project

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## Project Update No. 32 Mid-Year Report 2012

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

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This Project Update, the thirty-second such report for the Chad Export Project (also referred to as the Chad/Cameroon Development Project), covers the period from January through June 2012. 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](http://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:

- 3<sup>rd</sup> Quarter, 2011 - 456 FCFA
- 4<sup>th</sup> Quarter, 2011 - 487 FCFA
- 1<sup>st</sup> Quarter, 2012 - 499 FCFA
- 2<sup>nd</sup> Quarter, 2012 - 507 FCFA



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## Snapshot Summary

- Spending on production support during the first half of 2012 totaled 145 billion FCFA (\$280 million, including \$185 million in capital investments and \$95 million in day-to-day operations directly related to sustaining production).
  - To date, the project has invested over 1.8 trillion FCFA (\$3.5 billion) in initiatives aimed at maintaining production levels.
  - The Consortium's investment in additional production and water reinjection wells, coupled with other measures to support the daily rate of oil production, has enabled the project so far to deliver over 436 million barrels of oil to market in its first nine years of production.
  - Without the Consortium's investments, production would have fallen to about 27,000 barrels per day – just over one-fourth of the current yield of 105,000 barrels per day – due to the natural decline in base production.
- Negotiations are currently underway to provide two companies who have rights to explore and develop oil reserves in southern Chad the ability to access the Chad/Cameroon project's export pipeline.
- A total of four non-compliance situations were identified during the first half of 2012, three at Level I and one at Level II. This puts the project on track to match the record performance of the last two years.
- In the first half of this year, the project's EMP team made several major organizational changes to ensure the integrity of the pipeline in Cameroon, in response to an increasing amount of development interacting with the pipeline right of way. The changes included mobilizing a dedicated team to support the Lom Pangar Pipeline Modification Project to adapt the pipeline to Cameroon's Lom Pangar Hydropower Project.
- Safety performance in the first half of 2012 exceeded even 2011's record performance, as measured by the key indicator called The Recordable Incident Rate.
- The project added 515 public consultation sessions in the first half of 2012 to the thousands held since the project began production in 2003.

## Snapshot Summary

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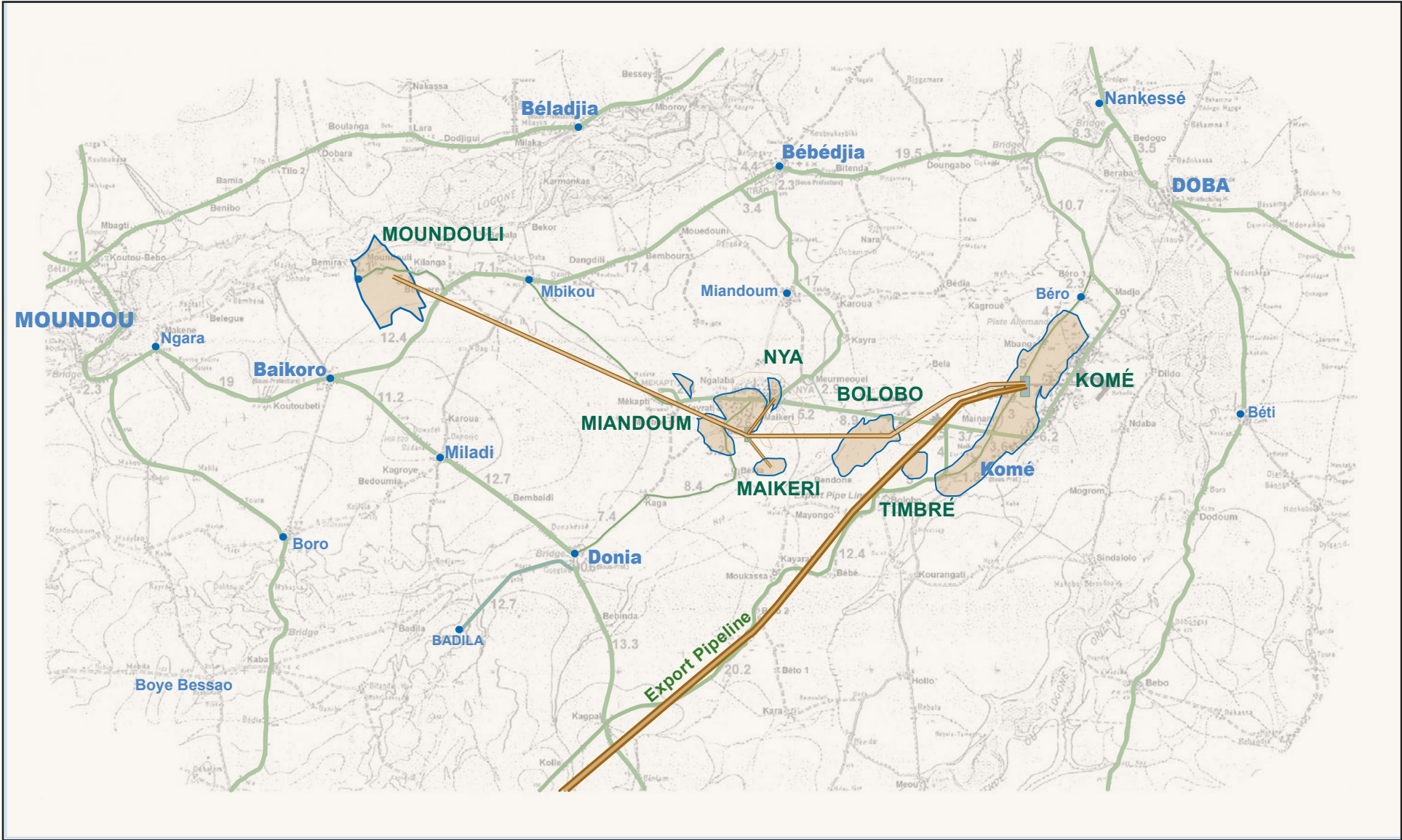
Compensation paid to individuals for land use by the project in the last four quarters totaled over 700 million FCFA (almost \$1.5 million) in cash and in-kind payments. Over 15 billion FCFA (well over \$ 30 million) in individual compensation for land use has been disbursed since the project began.

- The first half of 2012 saw a number of improvements made by the project's socioeconomic team, in the areas of land return, compensation, agriculture improvement training, and land use data management.
  - A major milestone was also reached, as the project now integrates its geographic and socioeconomic data in real time.
  - As this data measures project impacts on residents within the Oilfield Development Area, the socioeconomic team is now better able to quickly respond to the needs of impacted communities and individuals.
- The project's contributions to its host countries' economies in Q1 and Q2 2012 included wages paid to Chadians and Cameroonians of 37 billion FCFA (\$73 million).
  - Almost 6,200 Chadian and Cameroonian nationals had jobs with EEPICI, COTCO, TOTCO and their contractors at the end of Q2 2012, over 88% of the total workforce.
  - Almost 80% of the Chadians and Cameroonians working for the project are employed in the semi-skilled, skilled or supervisory job categories.
- In addition to spending over 47.6 billion FCFA (\$95 million) in Chad and Cameroon over the first half of 2012, the project donated materials for a bridge and mobilized a department to support the pipeline adaptation for the Lom Pangar Hydropower Project, a major Cameroonian initiative to provide enough electricity to unlock the country's economic potential.
- While an ongoing intensive malaria prevention initiative kept staff malaria rates at last year's record-low levels during the first half of 2012, the project continued its broader fight against malaria across Chad and Cameroon by supporting multiple ExxonMobil Foundation-funded campaigns in both countries.
- A successful effort to donate surplus goods to dozens of hospitals, schools, community health centers, orphanages, and women's associations in the oilfield area, efforts by a volunteer organization formed by Esso Exploration & Production Chad, Inc.'s (EEPICI) female employees, and an innovative agriculture training program were highlights of the project's community investments during the first half of 2012.
- A general hospital under construction and recently completed headquarters for the Ministry of Health rise above N'Djamena, a reflection of Chad's continuing investment of its oil revenue in priority sectors.



# Chad/Cameroon Development Project

# Project Overview



# Chad/Cameroon Development Project

# Overview of the Oilfield Area

## Production & Construction

Spending on production support during the first half of 2012 totaled 145 billion FCFA (\$280 million, including \$185 million in capital investments and \$95 million in day-to-day operations directly related to sustaining production). To date, the project has invested over 1.8 trillion FCFA (\$3.5 billion) in initiatives aimed at maintaining production levels. The Consortium's investment in additional production and water reinjection wells, coupled with other measures to support the daily rate of oil production, has enabled the project so far to deliver over 436 million barrels of oil to market in its first nine years of production.

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 2012 daily production rate has so far been sustained at about 105,000 barrels per day, a level roughly 9% below the average level for 2011.



*Recently remobilized rig Toumai-1, one of the project's recent production-sustaining investments.*

### **NEGOTIATIONS UNDERWAY FOR ADDITIONAL OIL DEVELOPERS TO CONNECT TO PROJECT PIPELINE**

Negotiations are currently underway to provide two companies who have rights to explore and develop oil reserves in southern Chad the ability to access the Chad/Cameroon project's export pipeline. The negotiations involve both technical and commercial issues and are taking place between pipeline owners TOTCO and COTCO, the governments of Chad and Cameroon, the local affiliate of China's National Petroleum Company (CNPC), and Griffiths Energy, a Canadian company.

Once finalized, the agreements will allow Chad to unlock more of its oil resources while providing the two companies with access to an existing gateway to international markets. Chad will benefit from additional job creation, local business development opportunities, and both countries will benefit from ongoing revenue streams. The additional volume of crude to be transported will help maintain the economic viability of the pipeline well into the future.

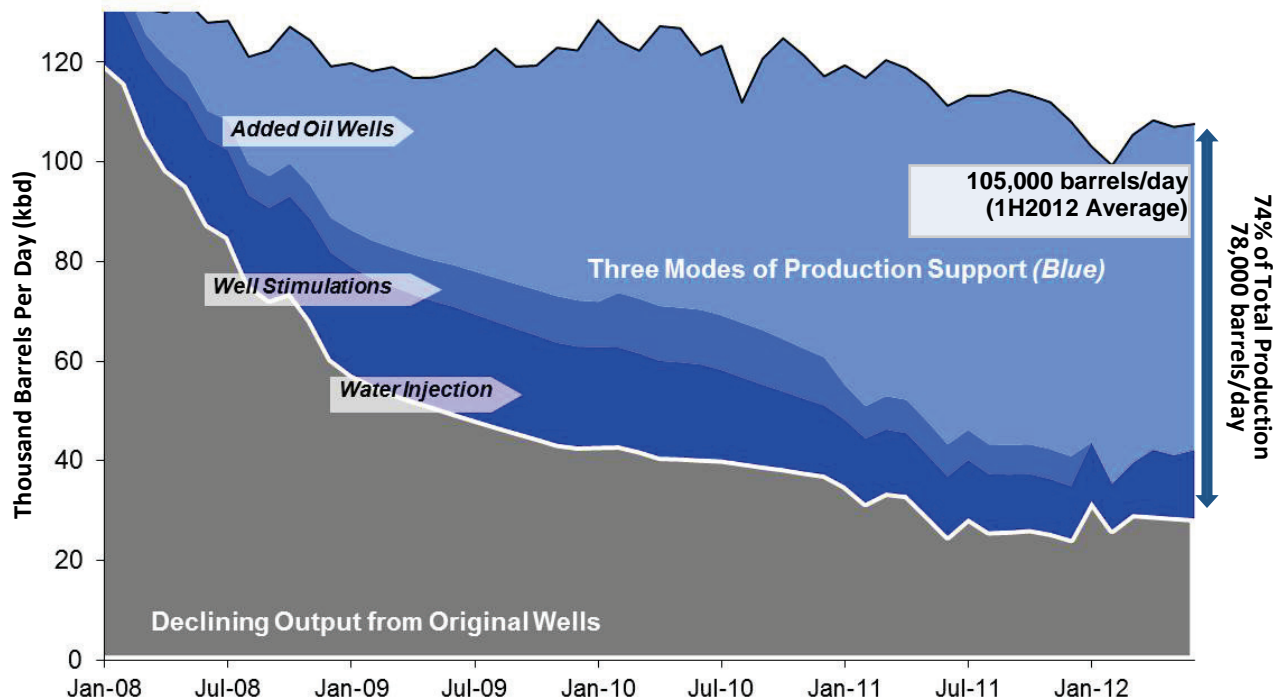
Equally important, the agreements are expected to provide a framework for responsible expansion of oil development in Chad. The Environmental Management Plan adopted by COTCO and TOTCO requires that any new operator wishing to connect to the Chad-Cameroon Pipeline must develop an EMP of its own that adheres to the core principles of the project's EMP – for example, consultation, compensation and environmental protection. Any new pipeline systems which connect to TOTCO and COTCO facilities will also help expand the potential for other operators to tie in in the future.



*Crude from the new shippers will travel through the project's export system, culminating at the Floating Storage and Offloading vessel. From there it will be moved onto tankers for shipment to world markets.*

### RESULTS FROM PRODUCTION SUPPORT INVESTMENTS

At mid-year 2012, project production support investments were contributing about 78,000 barrels per day to the project’s crude oil output. Without the Consortium’s investments, production would have fallen to about 27,000 barrels per day – just over one-fourth of the current yield of 105,000 barrels per day – due to the natural decline in base production, which is occurring faster than initially assumed.



1. While well stimulation activities are ongoing, as of January 1, 2012, recording of well stimulation results has been combined with original well output figures (gray area).

### PRODUCTION STATISTICS FOR LAST FOUR QUARTERS

#### Net Volume of Shipments from Marine Terminal

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	Last 12 Months	Project to Date
Millions of Barrels	10.7	10.0	9.5	9.5	39.7	<b>436.1</b>
Export Tankers	12	12	10	10	44	<b>482</b>

### PRODUCTION INVESTMENT PROGRESS

While the project's total amount of recoverable oil (sometimes called proved oil reserves) remains the same at 900 million barrels, as reported in previous editions, the rate of extracting the oil from each well has been lower than originally expected due to the challenges created by the loose sand and fragmented nature of the oil bearing formations found in the Doba Basin, and consequently additional wells have been required.

The project added 67 new oil wells in the last 12 months, with 31 wells added in the first two quarters of 2012. A total of 643 production wells were on line at mid-year 2012. 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 high pressure water injection program continues and a total of 59 water injection wells were on line at mid-year to support the program. Water makes up about 88% of the fluid extracted from project oil wells and is reinjected deep underground back into the field to maintain pressure and support continued production. The high pressure water injection program addresses the 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.

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 machinery. The project's wellwork team conducted 1,080 renovation and enhancement procedures like the one pictured below on oil wells in the last twelve months, 560 of them in the first half of 2012.





## TOUMAI-1: REMOBILIZATION OF A WELL MAINTENANCE RIG

With hundreds of wells online in the Oilfield Development Area, prompt well maintenance, or wellwork, is a key factor in maximizing daily production in the sandy oil-bearing formations of the Doba Basin. The project recently remobilized an additional maintenance rig, the Toumai-1, to keep oil from the most productive wells flowing at a time when global prices for crude oil are high. The project's investment in Toumai -1 and its staff of 100 workers brings the number of drilling and maintenance rigs to five, all working 24 hours a day to sustain production.



*Above and left, the Toumai-1 rig and its crew are replacing a damaged pump to ensure efficient well operation. To accomplish this, the crew must 'pull' over a mile of pipe out of the ground to access the pump which sits at the bottom of the well. The new or repaired pump is then lowered back into place as the pipe is reinserted into the well, the entire process taking two to three days per well. The project's wellwork team won a national award in 2011 from the ExxonMobil Production Company for their strong pump reliability record.*

### LIGHTNING ARREST: ADDITIONAL INVESTMENTS PROTECT AGAINST OUTAGES

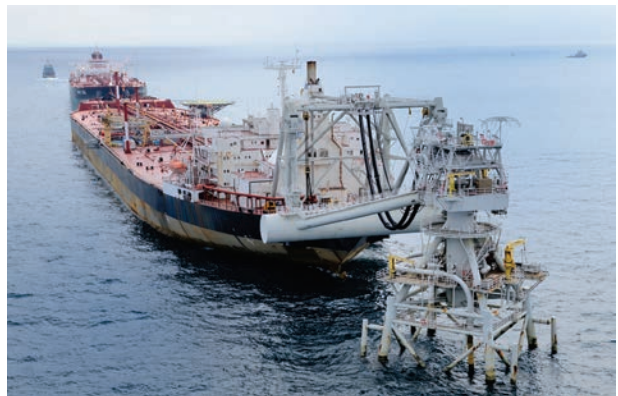
More than 90% of the project's 900 poles which carry electricity distribution wires between the oil drilling operations, have been retrofitted with special lightning arrestors that are designed to prevent damage to the electrical grid during a direct lightning strike. This work, part of the project's efforts to continuously improve its performance and reduce downtime, will help maximize oil production by preventing electricity outages to wells during the rainy season in southern Chad, which has one of the highest occurrences of lightning in the world.



The team has achieved a flawless record of completing over 2600 live wire tie-ins without incident. In addition to installing the lightning arrestors, wildlife diverters were also placed on many poles as well, protecting both local bird species and the electrical grid from a potential short. Completion of this project – which adds an additional layer of protection to the existing anti-lightning measures already installed during construction – was originally estimated to be in December 2012. However, the team finished the entire job just before the rainy season would have halted their progress – six months ahead of schedule and 40% under budget.

## OVERVIEW: PUMP STATION 2

Every barrel of crude oil exported by the project must pass through three pump stations on its way to the Atlantic Ocean off the coast of Cameroon. The pump stations, operated by COTCO and TOTCO, function as a unit to transport Chad's crude 1,070 kilometers along the pipeline to the Floating Storage and Offloading vessel twelve miles off the coast of Kribi (bottom right).



Located in the hills around the Cameroonian locality of Dompta (See map on page 9), Pump Station 2's (top) role is simple but critical: warm the oil to reduce viscosity and then create enough pressure to push the oil over the elevated mountainous terrain of northern Cameroon, often referred to as the "Big W" (bottom left), and then hundreds of miles to Pump Station 3 near Belabo.

## Production

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The departing crude is pressurized by the mainline pumps powered by turbines whose exhaust also warms the crude. A completely self-sufficient facility, Pump Station 2 also contains a small processing facility (top right) that converts a small amount of the same crude being transported through the pipeline into fuels that are stored (bottom left) and power all of the plant operations. All of the pump stations have nearly identical control rooms (top left) which can manage the entire export system.

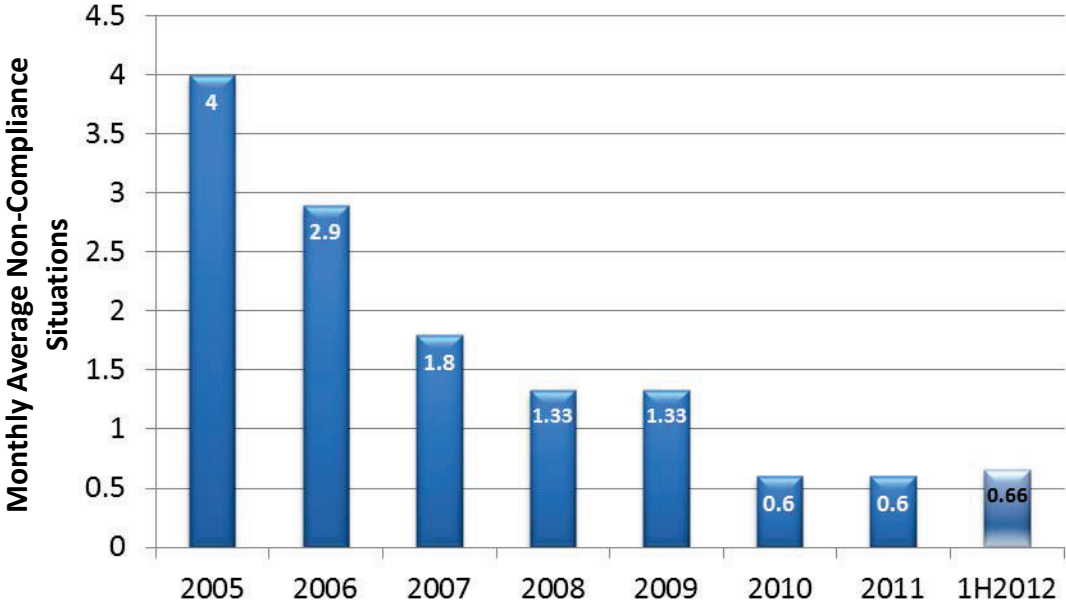


*“The pump stations are very important to the total production operation. Pump Station 2 is particularly important to the operation of the pipeline because of the location of the Big W. I’m proud to be responsible for such a critical part of the export operation. All of us at the pump stations have seamless communications and collaboration, which is critical for smooth operations. We are one team working together to ensure continuous delivery of shipments.” -*  
**Achille Tchappa, Control Room Operator, Pump Station 2**

# Reportable Environmental Management Plan Situations

A total of four non-compliance situations were identified during the first half of 2012, three at Level I and one at Level II. This puts the project on track to match the record performance of the last two years. The Environmental Management Plan sets out the criteria for identifying non-compliance situations. For more on this topic see the end of this chapter.

*Compliance Performance Index*



### LEVEL II NON-COMPLIANCE SITUATION

Earlier this year, a contractor responsible for pipeline right of way maintenance was issued a Level II non-compliance for repeatedly failing to pay its workers in a timely manner. The contractor was ordered to immediately pay the workers; payment was confirmed as having been completed in June and the case was closed out.

## Reportable Environmental Management Plan Situations

### Q3 AND Q4 REPORTABLE SITUATIONS

#### *Total Reportable Situations by Country*

	Q1 2012				Q2 2012			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Chad	0	0	0	<b>0</b>	0	0	0	<b>0</b>
Cameroon	2	0	0	<b>2</b>	1	1	0	<b>2</b>
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>

#### *Non-Compliance Situations by Company*

	Q1 2012				Q2 2012			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
COTCO	1	0	0	<b>1</b>	1	0	0	<b>1</b>
BANTOU	1	0	0	<b>1</b>	0	1	0	<b>1</b>

#### *Non-Compliance Situations by Category*

	Q1 2012				Q2 2012			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Air Quality Monitoring	1	0	0	<b>1</b>	0	0	0	<b>0</b>
Socioeconomics	1	0	0	<b>1</b>	0	1	0	<b>1</b>
Aerial Surveillance	0	0	0	<b>0</b>	1	0	0	<b>1</b>
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>

### CONTEXT: EMP REPORTING

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 protection and spill prevention.

### *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 all spills equal to or greater than 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 EMP team made several major organizational changes to ensure the integrity of the pipeline in Cameroon, in response to an increasing amount of development interacting with the pipeline right of way. The changes included mobilizing a dedicated team to support the Lom Pangar Pipeline Modification Project to adapt the pipeline to Cameroon's Lom Pangar Hydropower Project.

### REINFORCING COTCO'S EMP DEPARTMENT TO MEET NEW CHALLENGES

In response to increased interactions with the pipeline right of way resulting from major government infrastructure initiatives, a rapidly expanding economy, and additional oil shippers accessing the export pipeline, COTCO has:

- Reinforced its EMP department by adding staff with strong regulatory, socioeconomic and field experience, including hiring a new EMP manager. An additional Community Relations Officer (CRO) will help support outreach efforts near the coastal city of Kribi. The CROs will receive supplemental training in a new curriculum developed jointly by the project and a training consultant recommended by the International Finance Corporation.
- Mobilized a dedicated team to support the Lom Pangar pipeline modification. For more information on COTCO's role in helping to make the hydropower project possible, please see the chapter on *Local Business Development*.
- Realigned its EMP team to handle the regulatory and engineering requirements for managing an increasing number of interactions between public and private sector construction and activities and the pipeline right of way.

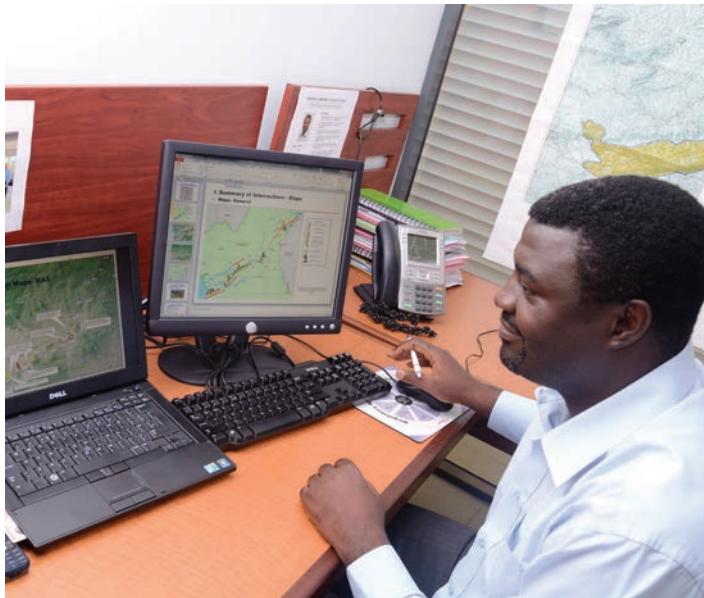


*"In view of these new challenges we are facing, we've now put a dynamic team in place. Everyone is motivated and we are very proud of the work that we are doing. We have excellent support from senior management who are committed to providing EMP with the resources we need to get the job done."* – **Charles Acha, EMP Manager**

### MANAGING THIRD PARTY INTERACTIONS: TAKING A PROACTIVE APPROACH

To strategically track and manage the increasing number of physical interactions between the pipeline right of way and public and private sector projects in Cameroon, COTCO is:

- Collaborating with public and private developers to mitigate potential risks and adopt technical standards.
- Liaising with government agencies to remain informed on current and proposed infrastructure projects.
- Incorporating new database and visualization technology for analyzing interactions.
- Leveraging relationships with communities near the right of way to identify issues.
- Reviewing major Cameroonian media for news about upcoming developments.
- Working with the Cameroon Pipeline Steering and Monitoring Committee (CPSP) to ensure developer compliance with policies designed to protect the integrity of the pipeline.
- Conducting more frequent ground, water and aerial monitoring along the entire right of way.
- Implementing a new education and awareness campaign for residents along the pipeline route.
- Scheduling monthly multi-departmental meetings to develop solutions to interaction issues.



*“When we identify new developments, we make sure they are aware of the interaction and make recommendations on how to continue safely. We also look at their technical plans and monitor the sites regularly to ensure compliance. We’ve had successful and positive working relationships with most of the developers. We must be vigilant to manage these interactions, and we are always looking to learn and improve our capabilities in this area. This is very important unseen work that safeguards our operations and the environment.”*

**– Hilary Chuyeh, Environmental & Regulatory Supervisor**

The new developments in Cameroon are primarily the result of two factors:

- Major infrastructure initiatives by the government, including national railways and highways, the Lom Pangar Hydropower Project, a thermal power generation plant, an offshore gas development project and a proposed new port in Kribi.
- New farming, logging, mining, housing and road construction projects spurred by recent economic growth in Cameroon.



Often third parties are not aware of the potential impacts their activities can have on the pipeline. For example, placing electricity transmission wires along a pipeline right of way could lead to corrosion of the pipe if protective measures are not taken. Something as seemingly simple as a third party placing fencing near the right of way must be done carefully to avoid any potential risks to the pipeline. GIC Elcampo, a 215 hectare commercial farm, is an example of a win-win situation. In this case, the farm owner received extra acres to farm maize at no cost. Because maize is grown and harvested seasonally, COTCO will not have to maintain and cut the vegetation in the area.

*“Because maize doesn’t require much depth for its roots, it is easy to grow this crop along the pipeline without interfering with it. All of our work here is manual, so there is no heavy machinery which might damage the pipeline to worry about either.”* – **Tadjobi Kina Thierry, Farmer, GIC Elcampo**

### A PUBLIC EDUCATION CAMPAIGN HELPS MAINTAIN THE RIGHT OF WAY

A new public information campaign in Cameroon is aimed at engaging villagers as partners in the effort to maintain the integrity of the right of way. Below, consultations in the villages of Jackone and Bemboyo illustrate the campaign, which will reach all 242 villages along the pipeline in Cameroon. During these meetings residents are given information about the right of way in their communities, and project staff also takes the opportunity to educate villagers about local public health challenges. Finally, project staff distributes t-shirts which convey useful information to attendees (below) to help disseminate the messages. For more on the village consultation sessions, please see the chapter on *Consultation & Communication*.



*“Today, we learned that we should not plant trees with deep roots near the pipeline. And if we see the pipe exposed, I will call the Chief who will alert COTCO. We all remember that COTCO helped us with our classroom before, so we are committed to help them with their pipeline. We appreciate visits from COTCO because they always give us good messages and because they come often, we will all remember the messages.” – Kaida Seraphin, Villager, Djackone*

*“I learned that COTCO was having a meeting here, so I came because the information and the shirts are always useful. We learned today to report any unauthorized activity on the pipeline, especially if we see any big trucks using the right of way. It is important for me and for this village to protect this pipeline. COTCO is a good company to have in the area because they provide jobs and are responsible.”*

**– Tidjani Badadi, Villager, Bemboyo**



## WASTE MANAGEMENT STATISTICS

The project utilizes a range of techniques for disposal of non-hazardous waste, as described in the EMP (e.g., incineration, landfill, recycling and third party contractors) as shown in the following table.

### *Non-Hazardous Waste Management (Tons)*

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	12 Month Total
Domestic Garbage Incinerated On Site	828	666	349	754	<b>2,597</b>
Innocuous Solid Waste Buried (landfill)	197	193	605	56	<b>1,051</b>
Recycled to Local Communities	374	531	441	293	<b>1,639</b>
Sent to Approved Third Party Facilities for Re-Use, Recycling or Disposal	1,750	2,036	488	156	<b>4,430</b>
<b>Total</b>	<b>3,149</b>	<b>3,426</b>	<b>1,883</b>	<b>1,259</b>	<b>9,717</b>

At mid-year 2012 the project had just over 800 tons of oily contaminated soil (hazardous waste) in its hazardous waste facility. The project is working with BOCOM, a waste management company, for appropriate processing and disposal of this waste inventory.

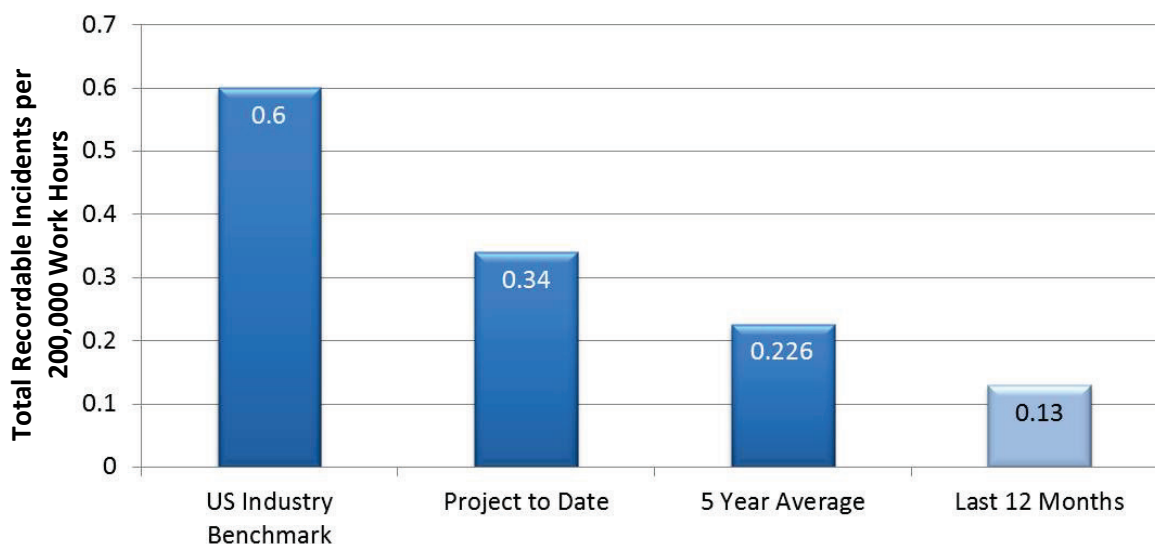


# Safety

While 2011 was a record year for the project's safety performance, as measured by the key indicator called The Recordable Incident Rate, safety performance in the first half of 2012 exceeded even that of 2011. As a result, the project's rolling five-year average Recordable Incident Rate remained stable, at well under half of the U.S. petroleum industry benchmark. As part of a constant effort to improve on safety performance, the project recently developed another layer of analysis designed to improve the quality of incident analysis and prevention efforts.

## ***SAFETY STATISTICS***

### ***Recordable Incident Rate***



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 U. S. petroleum industry as a whole, exceeding the benchmark by a factor of 3.5 in the first half of 2012. The rate measures recordable incidents per 200,000 working hours. The industry benchmark for the U.S. petroleum industry is derived from reports to the American Petroleum Institute by participating companies.

### INNOVATIVE RISK-ASSESSMENT TOOLS IMPROVE SAFETY PERFORMANCE

The project recently added another layer to its safety program, part of an effort to constantly improve its record. In addition to using globally accepted standards for reporting incidents, the new approach defines a framework for measuring the *potential* severity of any incident, reportable or not. This evolution formalizes a process of in-depth analysis which the project has been using for years and allows more attention to be focused on activities likely to result in more serious injuries.



In addition to these new tools, mandatory safety meetings help ingrain a culture of safety into job routines. During weekly departmental safety meetings (above), staff members analyze recent incidents and discuss prevention and mitigation steps.



*“For the project, safety is a top priority. The project has many procedures to ensure everyone’s safety. If you compare the current situation with past, there have been real improvements made. There is a real safety culture here. I practice the safety principles that I learn on the job when off the job as well. So, the culture I’ve learned here actually helps keep me and my family safe.”* - **Kasboui Mbaineloum, Socioeconomic Advisor**, left in beige, discussing safety issues with colleagues at a daily team safety meeting



*“Knowledge itself is not enough, but attitude, hard work, and disciplined behavior are necessary to prevent injury. We have to listen to others to keep everyone safe.”* – **Djimet Moursal, EMP Socioeconomic Surveyor**, in attendance at both of the safety meetings pictured above.



**SAFETY: STAYING VIGILANT WITH SAFETY MEETINGS**

In addition to weekly and daily safety meetings that all project workers attend, smaller teams of employees discuss potential safety issues, procedures and protective equipment before carrying out specific assignments. Below, crew members working on the newly remobilized rig Toumai-1 discuss site-specific safety issues before beginning work that involves heavy lifting and climbing (inset right). Only after these meetings can supervisors approve work to proceed. Adherence to these procedures helped the project win an ExxonMobil Global Safety Award for maintaining a .1 Recordable Incident Rate over 1.7 million hours of work.



*“This project takes safety very seriously with very rigorous requirements, which is a good thing because it is really for our own benefit as employees.” – Dieudonne Mbaibarem, Safety Training Coordinator, Toumai-1*

## Safety

### *On-the-Job Injuries (OSHA Reportables)<sup>1</sup>*

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	12 Month Total	Project to date
Fatalities	0	0	0	0	0	0
Lost Time	0	0	0	0	0	28
Restricted Work	0	1	1	1	3	145
Medical Treatment	1	2	1	3	7	312
First Aid Cases	12	9	12	7	40	2,848
<b>Worker Hours (thousands)</b>	4,036	3,997	3,735	3,862	15,630	283,500
<b>Trend Analysis</b>						
Recordable Incident Rate	<b>0.05</b>	<b>0.14</b>	<b>0.11</b>	<b>0.21</b>	<b>0.13<sup>2</sup></b>	<b>0.34<sup>2</sup></b>
Lost Time Incident Rate	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00<sup>2</sup></b>	<b>0.02<sup>2</sup></b>

1. Safety statistics include EEPCI, TOTCO, COTCO, other affiliates working for the project and their respective contractors. They include incident involving a location, property or activities owned, controlled or supervised by those entities.
2. Average TRIR& LTIR for last 12-months and project to date

### *Traffic Safety Tally*

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	12 Month Total	Project to date
Traffic Accidents <sup>1</sup>	7	4	3	4	18	937

1. 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.

## CONTEXT: STANDARDS FOR SAFETY REPORTING

### *Measuring Safety Performance*

The tabulation and statistical analysis of accident reports plays a crucial role in accident prevention efforts for large industrial projects like the Chad/Cameroon Development Project.

Like many other companies, ExxonMobil has selected the widely recognized U. S. Occupational Safety and Health Administration (OSHA) guidelines as a standard for measuring safety performance worldwide. Thus, statistics from the project can be compared with those from other company locations.

OSHA guidelines are also widely used by many other oil companies and a number of similar industries, thus providing additional benchmarks that can help measure the project's safety performance.

In addition to worldwide application of the stringent OSHA guidelines, Esso also complies with any local requirements for compiling and reporting accidents and accident statistics that may be in force in the countries where it operates. Therefore, the project maintains and analyzes an extensive range of safety statistics, even though the governments of Chad and Cameroon have not yet adopted detailed safety standards similar to those found in industrialized nations.

### *Transparency of Results*

Immediate accident reporting by the project to authorities in Chad and Cameroon is consistent with, and in some cases superior to, transparency practices followed in most industrialized nations.

- All major accidents, including ones that fall outside the OSHA accident reporting guidelines, are immediately reported to local authorities for investigation. Local law enforcement authorities generally are on the scene shortly after a major accident, and the project cooperates fully in all police investigations. Thus, the project's reporting of accidents is much the same as in the U. S. and many other countries, where police, fire or other emergency agencies are called to major accident scenes.
- In addition, the project's OSHA-based safety performance statistics are published in these Project Update reports. As indicated in the Preface, the reports are posted on the Internet ([www.esso Chad.com](http://www.esso Chad.com)) and hundreds of printed copies are distributed to a wide array of stakeholders, including NGOs, the two host countries, as well as the international community.



## Consultation & Communication

The project added 515 public consultation sessions in the first half of 2012 to the thousands held since the project began production in 2003. In general, 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 safety and air quality to land use compensation and maintaining the integrity of the right of way.

A recent effort by the project to engage residents near the pipeline on public health topics and right of way integrity was responsible for an increase in the number of consultations in Cameroon over the first half of this year. The meetings, which will continue throughout the year, also create additional opportunities for residents of all 242 villages near the pipeline to interact with the project.

**Consultation Meeting Tally**

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	12 Month Total
<b>Chad</b>					
<i>Sessions</i>	55	58	20	47	180
<i>Attendees</i>	2,506	2,709	791	4,839	10,845
<b>Cameroon</b>					
<i>Sessions</i>	132	114	195	253	694
<i>Attendees</i>	1,362	2,256	2,576	4,022	10,216

### VILLAGE CONSULTATION: ALLEVIATING CONCERNS ABOUT FLARING

When a perceptible increase in gas flaring levels occurred at Komé 5 over several days in March, some residents of nearby Moudadoin became concerned about possible negative effects. Rumors of reduced air quality and the possibility of an explosion began to circulate through the village.

After determining the flaring levels were within safe operating limits, the project responded by quickly fixing a malfunctioning compressor which was responsible for the problem. It also met with the villagers to address their concerns. The project then scheduled a second consultation session in June (below) with a bio-physician in attendance to address some technical questions that were raised, to discuss air quality and to alleviate any lingering concerns.



*Chadian citizens established Moudadoin near the project's main operations camp, Komé 5 primarily to capitalize on the economic prospect of having thousands of project staff working nearby. Located just outside the main gates, it has a clear view of the project infrastructure, including the flaring tower.*



*"I'm not a specialist, but I thought the flaring might have affected my crop production. This consultation helped me understand that the flaring was not the problem." – **Abderahim Al-Bachar, Gardener, Moudadoin***

## A NEW INFORMATION CAMPAIGN INCREASES OPPORTUNITY FOR COMMUNITY INTERACTION

A new public information campaign conducted along the pipeline right of way in Cameroon provides an additional channel through which villagers can raise any issues or concerns they have about the pipeline. The campaign, targeting the 242 villages near the pipeline in Cameroon, is part of the project's effort to maintain the integrity and security of the right of way in response to increasing development activity in the country. During these meetings villagers receive relevant information about the right of way, along with health messages - about cholera, for example, which is currently a concern in Chad and Cameroon. For more on the role these consultation sessions play in protecting the right of way, please see the chapter on *EMP Monitoring & Management Program*.



*"It's very important that COTCO is coming here to deliver these messages and it's also nice that we can engage with them periodically. Besides the useful information, it allows us to easily raise any issues that we have. For the moment we have not seen cholera, and health messages from these visits will help us continue this. We consider COTCO to be a good partner here."* – **Guirokomi Jérémie, Chief, Jackone Village**





## Compensation

Compensation paid to individuals for land use by the project in the last four quarters totaled over 700 million FCFA (almost \$1.5 million) in cash and in-kind payments. Over 15 billion FCFA (well over \$ 30 million) in individual compensation for land use has been disbursed since the project began. While all major project infrastructure construction has been completed for some time in both Chad and Cameroon, the project still has ongoing compensation commitments that it maintains. The levels of these commitments have been stabilized at levels well below those from 2000 to 2003 when construction was underway for the central oilfield facilities, the initial oilfield development, and the export pipeline system.

*Tally of Individual Compensation (Millions FCFA)*

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	12 Month Total	Project to Date
Chad	112.2	114.0	155.0	326.0	707.2	9,564
Cameroon	1.2	0.1	2.0	2.3	5.6	5,712.3
<b>Project Total</b>	<b>113.4</b>	<b>114.1</b>	<b>157.0</b>	<b>328.3</b>	<b>712.8</b>	<b>15,276</b>

## Compensation

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Although most land acquisition in Cameroon was completed by the time pipeline construction ended in 2003, the project periodically pays compensation to individuals for using additional land required for maintenance or facilities improvements. Below, for example, in 2012, the project needed to borrow land several kilometers away from Tizia Carrefour, a small village near Pump Station 2. Under the process set out in the project's Environmental Management Plan, the individuals receiving compensation approve the final paperwork with a signature (below left). Once the transaction is complete, a photograph serves as a final verification. Photographs have been used to document every land compensation payment made since the beginning of construction in 2000.



## Land Use in the Oilfield Development Area

The first half of 2012 saw a number of improvements made by the project's socioeconomic team, in the areas of land return, compensation, agriculture improvement training, and land use data management. Additionally, a major milestone was reached, as the project now integrates its geographic and socioeconomic data in real time. As this data measures project impacts on residents within the Oilfield Development Area, the socioeconomic team is now better able to quickly respond to the needs of impacted communities and individuals.

### PROJECT EMPLOYS NEW STRATEGY TO FURTHER REDUCE FOOTPRINT

A new strategy to accelerate the return of land associated with underground flow lines in the oilfield area will make dozens of additional hectares available to farmers this year. The strategy, which prioritizes the most highly impacted villages, has been deployed to minimize the project's overall land use footprint and reduce the backlog of unreturned temporary land.



*Above, members of the project's socioeconomic team visit a recently returned flow line land parcel now being used for farming.*

## Land Use in the Oilfield Development Area

The term ‘flow lines’ describes rights of way for overhead electricity lines that provide power in the Oilfield Development Area and for underground pipes that transport liquids between the Central Processing Facility and each oil well. The linear nature of this pipe system tends to break up otherwise useful farmland into smaller fragments. With new construction of wellpads and facilities winding down in several sections of the Oilfield Development Area, much of this land can be returned to the original land users without risk of it becoming needed by the project again.

With several hundred hectares of land associated with flow lines, these areas represent the best opportunity to rapidly reduce the project’s impact on communities and individuals. Construction and/or planting trees will be restricted on returned flow line parcels to preserve the integrity of the subterranean infrastructure. However, the land can be used for crop production, pasture and other low-impact uses. The maps below show an example of how returning land used for flow lines (peach) can create more useable farmland (light green).



*Before returning land associated with flow lines (left), land parcels could often be broken up, making them less useful. After the return of flow lines, land is more contiguous and farmable (right).*



*“After I received this land back in time for this season, I planted sorghum, peanuts, and beans. If the crop does well, there should be enough for myself and my six children plus some to sell. The process of compensation is a good process, and through it I have received money that helped me make a living even without access to some of my land.” – **Mariam Mbaytodjim, Farmer, Beme section, Bero Village***

*“The project needed my land along the flow lines seven different times and compensated me each time. Luckily, I was still able to farm the same land even while the project was using it, but I appreciate again having the land officially back in my possession.” – **Zobel Mbairabe, Farmer, Bero II***



### NEW DESIGN FOR LIVESTOCK BARN: LATEST INNOVATION IN IMPROVED AGRICULTURE PROGRAM

The project has constructed newly designed livestock barns for eligible farmers as part of its Improved Agriculture Program. The program helps farmers whose land has been significantly impacted by the project sustain their livelihoods by providing training, equipment and livestock to increase their productivity. The new barns, given to the 56 participating farmers who chose to receive goats or sheep, offer protection from a variety of threats including rain, sun and snakes, and they keep the livestock from eating other farmers' crops.



*“My older brother used to have goats raised in the traditional way, but all of his goats died. So I chose to receive goats and training on how to raise them properly. The new barn design is better than what we used before because it is not vulnerable to fire, has more ventilation and is easier to clean. The on-farm training taught me helpful techniques which helped me earn revenue to buy necessities for my family.” – Sangdene Juliet, Farmer, Bero III, with her eldest son, 19-year-old Yves.*

### REINFORCEMENT COMPENSATION: AN INDIVIDUALIZED APPROACH

Recent interviews with two hundred farmers who received resettlement compensation determined that the program was successful in helping restore or improve livelihoods in 75% of cases, using factors such as accumulation of wealth based upon buildings and assets and effective implementation of skills learned through the compensation program. However, based upon the feedback, about 25% were found to be in need of further reinforcement training, equipment, and/or livestock.

The project now utilizes an individualized, case-by-case approach to reinforcement compensation, aimed at positioning farmers for long-term success. This new process focuses on farmers' existing strengths, engages them as partners and develops a set of mutual objectives, a support strategy and performance indicators to measure success. A contract outlining the commitments of both parties forms the framework for the reinforcement process. While the improved process and monitoring will require more resources than the traditional compensation approach, it is expected to generate a more successful outcome for most eligible farmers. Below, a project socioeconomic representative discusses the new reinforcement process with several individuals from the village of Dildo.



After discussing the new process with project representatives, farmers from the village of Dildo then sign the reinforcement contracts (left) which outline a set of shared objectives and goals for the project and the individuals.



*“I received valuable on-farm training and was very grateful for the cow, the plough, and a produce cart that I received. The training was helpful, and I was rewarded with three additional cows from my one. I am fighting every day because I want to make this additional support work for me and my six children. I also hope that my oldest son can learn these techniques and use them to help support the family’s needs, like paying for school fees.” - Dande Odette, Komé 5, (above right) pictured in red, on the way to market to sell chickens with her son*

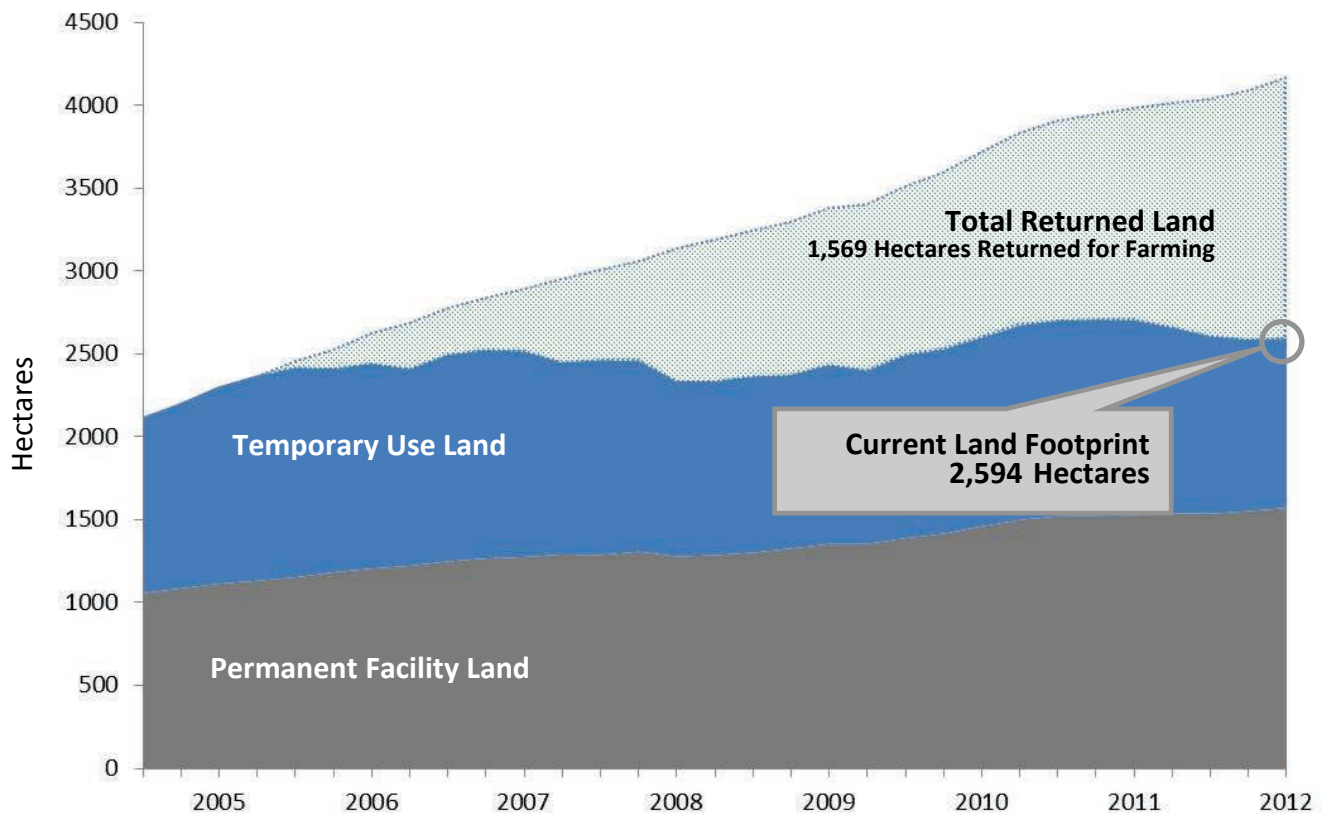


*“I am here today because I received training and equipment before, but my production was still not enough. I hope that this additional equipment will help my production. Even though the original equipment did not work for me, I appreciate the project continuing to help me with my concerns, which is what led to this reinforcement action.” – Nadjwanan Benjamin, Dildo Village*

### 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 seven 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 worked to reclaim and return unneeded land to farmers to keep pace with the new land requirements.

### LAND USE FOOTPRINT IN THE OILFIELD DEVELOPMENT AREA



As the graph above shows, the total project land footprint in the six oilfields of the Oilfield Development Area has been kept to 2,594 hectares. The project's land reclamation and return initiatives have stayed even with the land requirements of the extra drilling by returning over 1,569 hectares of project-use land to farmers since the land reclamation program began.



## CONTEXT: BACKGROUND ON LAND USE & COMPENSATION

### *History of EMP Compensation Programs*

All land users and villages have been compensated according to the Environmental Management Plan that was approved prior to project construction.

Since construction began in 2000, the project has compensated nearly 13,361 individual land users for more than 7,165 hectares of land in 424 villages along the entire length of the project from the oilfields in Komé, Chad, to the terminus of the export pipeline at Kribi, Cameroon.

In the Oilfield Development Area, individual land user compensation has been paid for more than 4,160 hectares of land involving just over 6,870 individuals. The project has thus utilized at one time or another about 4 % of the 100,000 hectares of land in the Oilfield Development Area. When all temporary construction use land has been returned, the percentage of use will be just over 1.5% of the 100,000 hectares.

The project's compliance with the EMP compensation requirements has been documented in these Project Update Reports and by the World Bank's External Compliance Monitoring group and International Advisory Group. (For statistics on the latest compensation for land use, see the section on Compensation.) A set of principles set out in the EMP have guided the compensation effort, including:

- A transparent compensation procedure so that all village residents can see that no other resident is gaining an advantage over others.
- Sensitivity to cultural practices and local legal requirements. Most land is controlled by the village and allocated by the local chief. In Chad and Cameroon, nearly all land is legally owned by the state. So farmers, rather than owning land as is commonly the case in Europe or North America, are entitled only to use the land for crops. The project therefore does not buy land but compensates the farmer for labor and lost crop opportunities, as provided in the EMP.
- The recording of all compensation transactions. Each payment is archived with a photo of the transaction and the recipient's thumb print.
- Avoiding or minimizing resettlement of households through project redesign and by offering two resettlement alternatives: improved agriculture training and off-farm employment training.

### *History of the Land Use Mitigation Action Plan*

As the three original oilfields were being developed, and results began coming in from the completed wells, it became clear that more wells would be necessary to develop the Doba region oil. This additional drilling and the infrastructure needed to produce the oil and to supply electricity to the wells, was consuming more land than originally anticipated.

- The project's efforts to address this land use situation began in mid-2005, when it declared a Level II Noncompliance Situation regarding the pace of reclamation and return to communities of temporary use land as specified in the EMP.
- In early 2006, the project freed the necessary construction resources to begin clearing the land reclamation backlog so that the land could be returned to villages for agricultural use.
- In June, 2006, the authors of the Chad Resettlement and Compensation Plan Evaluation Study, Drs. Robert Barclay and George Koppert, collected field data for an independent study jointly commissioned by the project and the World Bank's International Finance Corporation.
- By the end of 2006, based on the study, the project had developed an initial mitigation action plan and began implementing it.
- The final Land Use Mitigation Action Plan, adopted in April 2007, enhanced the initial plan through collaboration with the Environment and Social Development Department of the International Finance Corporation. For the full text of the finalized Action Plan and associated documents, see the project website at [www.esso Chad.com](http://www.esso Chad.com).
- By early 2008, a team of experts assigned to implement the Land Use Mitigation Action Plan had completed all of the first year work commitments outlined in the plan.
- By the end of 2010, all work had been completed in the nine work categories in the original plan, and the components of the Land Use Mitigation Action Plan were being integrated into the project's day-to-day land acquisition processes.
- In 2011, the project launched a new phase of improvement for its land use mitigation work in the Oilfield Development Area, creating enhanced land use impact assessment tools to respond more quickly to the constantly evolving circumstances of affected individuals and villages.

## Local Employment

The project's contributions to its host countries' economies in Q1 and Q2 2012 included wages paid to Chadians and Cameroonians of 37 billion FCFA (\$73 million). Almost 6,200 Chadian and Cameroonian nationals had jobs with EEPIC, COTCO, TOTCO and their contractors at the end of Q2 2012, over 88% of the total workforce. Almost 80% of the Chadians and Cameroonians working for the project are employed in the semi-skilled, skilled or supervisory job categories.

### EXXONMOBIL & CHEVRON SPONSOR CHAD'S FIRST MASTER'S DEGREE PROGRAM IN ENGINEERING

The third session of the Mechanical and Electrical Engineering master's degree program at the University Institute of Science and Technology of Abeche (IUSTA) in Chad kicked off in June, made possible by funding from project operator ExxonMobil and co-venture Chevron. In addition to paying for education supplies, professors and boarding for each two-year, 25-student class, the companies cover tuition for five of the most promising incoming candidates and offer them an internship at the project's facilities in Komé upon graduation.



*"A program like this is incredibly important because we have been able to train a new generation of academic leaders in these fields. It's more important than ever for Chad to have young students who can keep up with today's rapidly changing technology. I want to thank Esso and Chevron for their support of this program, which has been important for Chad's science and technical capacity building efforts."* – **Issa Youssouf, External Relations Director, University Institute of Science and Technology of Abeche**

## Local Employment

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In 2005, the University Institute of Science and Technology of Abeche was unable to start a master's degree program in electrical and mechanical engineering due to the prohibitive cost. When ExxonMobil and Chevron learned of the need, they committed approximately \$300,000 to each class of students, helping to build up Chad's education capacity. As a result of this partnership, this master's degree program now exists.

Following ExxonMobil and Chevron's example, other international and Chadian companies have joined to sponsor the other 20 students participating in the program. While some of these students will work in Chad's growing industrial sector, others will become professors and teachers. Five years after the program was started, some former students are now about to earn their Ph.D.'s.



*“When I was in my last year of university, I was planning on going to work to save enough money to come back to school to get an advanced degree. This usually takes many years. Now, thanks to this program, this has saved me a lot of time. I want to thank God, and also the sponsors for making this possible for me. In 10 years, I hope to earn my Ph.D. and be teaching. My friends and I are looking forward to being a part of the new African future of technology and pride.” – Mahamat Said Ali, Age 29, Electrical Engineering Student (above right)*



*“After only one month of university, classes are very good, but the work level is intense. Usually, I attend eight hours of classes, before spending four more hours working at home. When I heard about this program, I knew that it was a good opportunity to further my studies. If not for this program, I would have had to stop and then save money to try to study somewhere outside of Chad, because there is no master's program in these fields here. This is a good initiative which creates opportunities for young Chadians. In the future, I hope to work for one of the sponsors and continue my studies.” – Djekornum Elias, Age 29, Mechanical Engineering Student*

**EMPLOYEE PROFILE: THIERRY NJIP**

Thierry Njip, recently promoted to Maintenance Area 3 Field Superintendent, is an example of the project’s commitment to find and invest in Cameroonian and Chadian workers. A driven individual with a passion for learning, Thierry was hired as a Technical Trainee by COTCO in 2001, two years after receiving his bachelor’s degree in Industrial Engineering and Maintenance.

Thierry, along with 22 other candidates, was hired from a pool of over 800 applicants, to be a pipeline operator – two years before construction was even complete. The training consisted of one year of paid study at a university in northern Cameroon, followed by one year of on-the-job instruction in the United States. After successfully completing this program, Thierry worked as a pump station operator trainee, mentored by an expat. More than 10 years later, 18 members of that first class still work for COTCO, most, like Thierry, in senior roles.



*“The training we received at COTCO was very important for our success here. Those two years I spent as a trainee were some of the best years of my life – learning, working, and gathering on-the-job experience. Our class was like a family – we all learned and lived together and supported each other. The company has taken good care of us, teaching us, giving us vision and monitoring our progress. I believe this project has already delivered a lot to Cameroon – for example, in public health efforts like fighting malaria, and community outreach efforts, and creating local jobs. Outreach is very important for the company, because it considers the local population to be very important stakeholders. It’s clear to me that when you benchmark COTCO against other foreign companies doing business in Cameroon, the company’s philosophy of honesty, fairness and ethics stands out.” – Thierry Njip, MA3 Field Superintendent*

### LOCAL EMPLOYMENT STATISTICS

#### WAGES

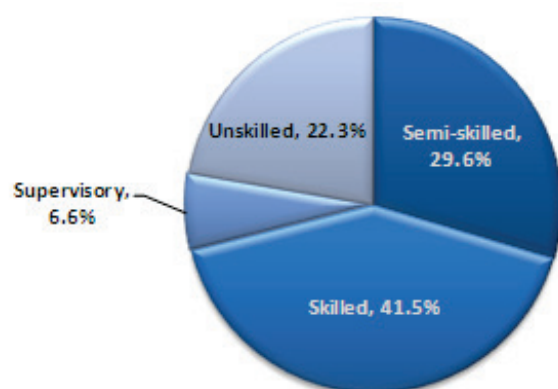
- Wage payments to Chadian workers for the first quarter of 2012 totaled an estimated 15.5 billion FCFA (\$31 million). For the second quarter, wages were estimated at 14.9 billion FCFA (almost \$29 million).
- Wage payments to Cameroonian workers for the first quarter of 2012 totaled an estimated 3.0 billion FCFA (\$6 million). For the second quarter, wages were estimated at 3.1 billion FCFA (\$6 million).

#### Total Project Workforce Quarter by Quarter<sup>1</sup> (in Full Time Equivalents<sup>2</sup>)

	Q3 2011	Q4 2011	Q1 2012	Q2 2012
<b>Chad</b>				
<i>Nationals</i>	5,365	5,443	5,254	5,065
<i>Expatriates</i>	884	839	810	781
Total Chad	6,249	6,282	6,064	5,846
<b>Cameroon</b>				
<i>Nationals</i>	1,079	1,036	1,090	1,144
<i>Expatriates</i>	69	66	69	73
Total Cameroon	1,148	1,103	1,160	1,218
<b>Project Total</b>	<b>7,396</b>	<b>7,385</b>	<b>7,224</b>	<b>7,064</b>

1. Estimates of wages and project workforce have been based on the latest available information and may be adjusted in future reports.
2. Also called FTEs. For more on reporting employment statistics using FTEs, see the context section at the end of this chapter.

### NATIONAL WORKERS EMPLOYMENT SKILL LEVELS



Over two thirds of the Chadians and Cameroonians working for the project held skilled or semi-skilled positions through the end of 2011. A large percentage of supervisory positions are now held by Chadians and Cameroonians. 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.

### **CONTEXT: REPORTING LOCAL EMPLOYMENT**

The Project Update Report now reports statistics on local employment on the basis of Full Time Equivalents or FTEs. Reporting by FTEs makes it possible to account for the wide diversity of work shifts and rotations of the project's work force, as well as the seasonal variations in the types of jobs available with the project.

- Many of the project's workers are on rotator schedules, for example working in tandem with another "back to back" worker. Rotators typically work 28 days on and 28 days off or some similar pattern, but when on duty they work seven days a week, 12 hours per day.
- Other workers have day-to-day jobs where they work Monday through Friday shifts for shorter days but are on duty for most of the year with no rotation breaks.
- Another category of workers, often hired from villages near project facilities, have temporary contracts and work only a few weeks at a time in order to complete special projects such as maintenance of the pipeline right of way.

Converting all these employee work patterns into standard Full Time Equivalents based on actual hours work yields a consistent and more accurate picture of the project's local employment.





## Local Business Development

In addition to spending over 47.6 billion FCFA (\$95 million) in Chad and Cameroon over the first half of 2012, the project donated materials for a bridge and mobilized a department to support the pipeline adaptation for the Lom Pangar Hydropower Project, a major Cameroonian initiative to provide enough electricity to unlock the country's economic potential.

### THE LOM PANGAR HYDROPOWER PROJECT: SUPPORTING CAMEROON'S ECONOMIC FUTURE

COTCO, the project's pipeline operator in Cameroon, has mobilized a team dedicated to supporting the pipeline adaptation to the Lom Pangar Hydropower Project, a strategic priority for the country's economic future. The Lom Pangar Hydropower Project involves the construction of a hydroelectric dam at the confluence of the Lom and Pangar rivers in central Cameroon. The dam will create a 590 square kilometer reservoir in an area traversed by the oil pipeline. The COTCO group will manage pipeline modifications and land restoration needed to accommodate the dam which is slated for completion in 2014.

Parts of two sections of the project's pipeline – each just over 13km – will become submerged by the new reservoir and will need to be adapted for underwater conditions. All of the necessary engineering, procurement, environmental, construction and restoration work has been pre-financed by the Cameroonian government, with good-faith negotiations planned for the future to determine specific cost distribution between parties.

The dam, adjacent to the country's protected Deng Deng National Park, is expected to multiply Cameroon's electric generation capacity five-to-ten-fold over the next 20 years and support the country's burgeoning industrial growth. Additionally, a new power plant will be constructed to provide electricity for eastern Cameroon.



*"We are looking forward to supporting Cameroon's continuing economic development. With such a large project, it's important for everyone to be in synch. We provide advice when COTCO's expertise can help the other stakeholders. In Deng Deng, there is a lot of biodiversity, and the area is an important corridor for gorillas to move across the continent. Our goal for the pipeline modification is to leave the area in almost the same condition as when we began this project. If we protect this corridor, then we can protect this important species."* – **Bernadette Kwedi, Lom Pangar Interface Coordinator**

### THE LOM PANGAR PIPELINE MODIFICATION PROJECT: PRELIMINARY SURVEY WORK UNDERWAY

In the most remote, difficult-to-access section of the right of way, the project has begun the first phase of survey work necessary to modify the pipeline. The results will provide planners with the precise location and depth of the existing pipe before a second survey is conducted to determine where the new pipeline will be laid alongside the original.

The work is being conducted in a restricted access area adjacent to the protected Deng Deng National Park. As such, the COTCO team, which includes a Safety, Health & Environment advisor, medic, survey team and 15 support staff, works to leave no trace of their presence after they finish. The surveyors work in three-man teams (top left) and periodically relay their GPS data via satellite to colleagues in their home office (bottom left). Members of the project's environmental team routinely make the long round-trip trek (top right) to observe the survey progress.



*“Our job is to make sure everything is positioned in the right place. This work on the pipeline however, is particularly challenging – being in the middle of nature with rivers and animals to deal with – but when we are finished and the job is done right, it is very satisfying.” – Augustín Atoma, Lead Surveyor (bottom right, top left)*

### **DONATING A BRIDGE TO SUPPORT THE LOM PANGAR HYDROPOWER PROJECT**

COTCO has donated a bridge to help reduce the cost of constructing the Cameroonian government’s Lom Pangar Hydropower Project by over one billion CFA. The bridge had served as a temporary crossing of the Lom River during pipeline construction between 2000 and 2003; it was dismantled and stored on a COTCO site once the pipeline was completed.



The bridge will allow access to both sides of the river during the construction of the Lom Pangar dam. When the project is complete, the bridge will once again be dismantled to prevent unauthorized access to Deng Deng, one of Cameroon’s protected National Parks.

### LOCAL BUSINESS SPENDING STATISTICS

The project's purchases of goods and services from local suppliers totaled 97.7 billion FCFA (\$200 million) over the last twelve months.

- In Chad, spending over the last four quarters totaled 74.7 billion FCFA (almost \$149 million), bringing project spending to date in Chad to an estimated total of 961.4 billion FCFA (almost \$1.9 billion).
- In Cameroon, spending over the last four quarters totaled 23 billion FCFA (over \$47 million), bringing project spending to date in Cameroon to an estimated total of 524 billion FCFA (about \$1 billion).

Since the project began, its purchases of goods and services from local suppliers has totaled almost 1.5 trillion FCFA (\$3.0 billion), part of a continued commitment to support local businesses and follow the guidelines set forth by the EMP.

#### *Project Spending with Local Businesses<sup>1</sup> (In Billions of FCFA)*

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	12 Month Total	Project to Date
Chad	18.2	20.2	18.3	18.0	74.7	961.4
Cameroon	5.5	6.2	6.0	5.3	23.0	523.8
<b>Project Total</b>	<b>23.7</b>	<b>26.4</b>	<b>24.3</b>	<b>23.3</b>	<b>97.7</b>	<b>1,485.2</b>

1. Prepared using the latest available data. Data for previous quarters has been updated to include late reported data.

## Health

The project continued its fight against malaria by supporting multiple ExxonMobil Foundation-funded campaigns in both countries. The campaigns addressed this serious health issue using a number of approaches including increasing public awareness, updating national standards and treatment guidelines, training health providers and educating workers.

### ***STOP PALU: ENLISTING CHAD'S POPULAR MUSICIANS TO FIGHT MALARIA***

A widely publicized concert in N'Djamena and a national anti-malaria anthem featuring popular musicians are two of the creative new tools featured in a campaign against malaria in Chad supported by the project. Entitled *Stop Palu* (Stop Malaria) the campaign also utilizes radio, television and text messages. The concept is simple: broadcast brief, powerful messages once daily through a variety of communications channels to educate Chadians about the dangers of malaria and to inspire them to take action to fight the disease. The campaign is funded by the ExxonMobil Foundation and is being implemented by the international NGO, Malaria No More.



In conjunction with awareness campaigns like *Stop Palu*, advancements in prevention and proper treatment have helped reduce malaria deaths in Africa by more than one-third since 2000, according to Malaria No More.



*“We got involved in this because we thought we could use our reputation, presence and popularity to help this health and community initiative. Giving back to the community is really important to me. We’ll be happy if we can help reduce malaria, or even better - if malaria could be completely eradicated here.”* – **Sultan, Musician**

*“Malaria is a huge health issue here in Chad, and there is a lack of information on this deadly disease. What Malaria No More is doing with this initiative through us is one of the best ways to deliver messages to the community, and we hope we can be successful. I’m really proud to be involved because this is a big task and responsibility – being asked to deliver these messages to the community.”*

– **Djabar, Musician**



*“As artists, we often talk about problems in our community – and this includes health issues like malaria. So when Malaria No More reached out to us, it made sense to be involved. We’d like to continue this because malaria is still all over the country.”* – **Dais'son, Musician**

## FIGHTING MALARIA: IMPROVING DIAGNOSIS AND TREATMENT FOR WOMEN AND CHILDREN

Supported by the project and funded by ExxonMobil Foundation, International NGO Jhpiego is working at the national, regional and local levels with health workers and volunteers to more effectively diagnose and treat malaria in Chad. As part of this campaign, Jhpiego:

- Revised national guidelines to improve malaria diagnosis and treatment, especially in pregnant women and children under five years of age, a core target demographic of the non-profit.
- Surveys health providers, regional and community leadership to determine areas of opportunity for improving anti-malaria efforts in areas near the Oilfield Development Area.
- Trained 21 doctors, midwives and nurses in the Logone Oriental region who train other local and regional health providers in the area. The trainers will continue to monitor and mentor the health providers for the duration the program. The training focuses on accurate diagnosis, treatment, record keeping and reporting for providers, and education for patients.
- Collaborates with other ExxonMobil Foundation partners, like Malaria no More on various malaria initiatives.



*“By helping to update Chad’s documentation and procedures, we can have a positive impact on our target population of pregnant women and young children, who are among the most vulnerable to malaria. The training that we do leads to more accurate diagnoses and increased public confidence in their health providers.”* – **Dr. Kodjo Morgah, Lead Country Director, Jhpiego**

*I believe the training program will be effective, and I am looking forward to seeing improvements when we compare this year’s data with last year. We have been providing anti-malaria drugs for some time, but still had a significant problem with malaria. Malaria is the primary cause of death according to the Ministry of Health. This training program will take our fight against malaria to the next level, and we’ll hope to expand the program to the districts that are not yet covered.”* – **Dr. Abinon Djélamdé, Regional Coordinator/Delegate, Chad Ministry of Health**



### FIGHTING MALARIA IN CAMEROON'S WORKPLACES AND COMMUNITIES

A one-year, \$200,000 grant from ExxonMobil Foundation will help the Business Coalition against Malaria, Tuberculosis and HIV/AIDS in Cameroon (CCA/SIDA) to continue its important work fighting malaria in Cameroon. The grant, which will fund CCA/SIDA's work through June of 2013, was recently awarded to the organization, which has nearly completed all of its primary objectives set out under an initial \$250,000 grant from the foundation last year.

The Business Coalition against Malaria, Tuberculosis and HIV/AIDS in Cameroon is part of the ExxonMobil Malaria Initiative, a global effort to combat the deadly disease throughout Sub-Saharan Africa. The organization provides malaria prevention and control resources to small and medium-sized companies that do business with COTCO. These resources, normally only available to larger companies, are targeted at both workplaces and the residential communities that feed them.

To date, CCA/SIDA has:

- Successfully engaged 96% of the 7,000 workers at target companies
- Trained 93% of the proposed number of peer educators and community volunteers
- Distributed over 6000 mosquito bed nets through company and community-based channels, well over the 5000 originally planned

In a session (below) held at ChocoCam, the country's only chocolate company, some of ChocoCam's over 300 employees are educated by their peers about prevention and treatment of malaria. Thousands of employees attended similar peer education sessions across Douala.



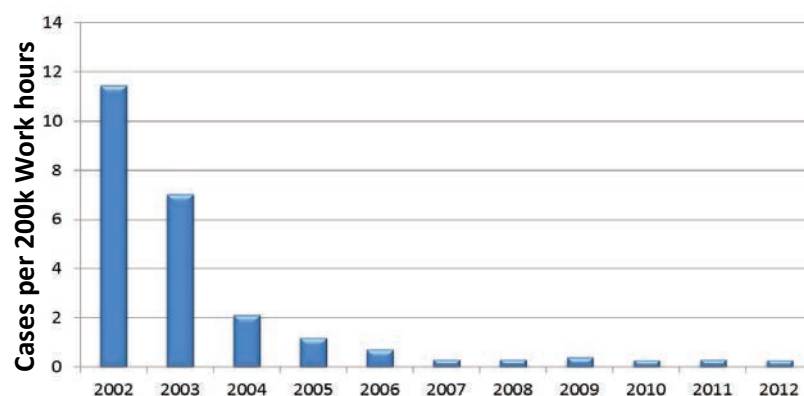
*"The impact of malaria on our business is high. In addition to the toll it takes on families, workers are home sick, and this impacts our profitability. I want to say thank you to the ExxonMobil Foundation and to our peer educators for playing such an important role in our company." – Gilbert Odzo, HR Manager, ChocoCam (not pictured)*





*“Malaria is a big cause of absenteeism at ChocoCam, but with education and malaria nets, the workers and their families can be better protected. It’s important that people from around the world are focusing on such a big problem. We know how effective our efforts are because we have seen decreases in malaria on the company’s monthly health reports.”* – **Ngock Pius, President, ChocoCam Health Club**, one of 15 peer educators at ChocoCam

### **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 has been cut sharply from 11.44 in 2002, the last full year of export pipeline construction. The project achieved a rate of 0.30 cases per 200,000 work hours in the first half of 2012.

## CONSULTATIONS AT PROJECT CLINICS

Project health clinics provided over 19,000 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.

### *Consultations at Project Clinics*

	Q3 2011	Q4 2011	Q1 2012	Q2 2012
<b>Chad</b>	5,008	3,265	4,658	3,526
<b>Cameroon</b>	862	778	668	725
<b>Project Total</b>	<b>5,870</b>	<b>4,043</b>	<b>5,326</b>	<b>4,251</b>

### *Project Worker Health Data*

	STDs <sup>1</sup>		SSS <sup>2</sup> Events (excluding Malaria & STDs)		Hospitalizations/ Observations <sup>3</sup>		Medevacs	
	Q1 2012	Q2 2012	Q1 2012	Q2 2012	Q1 2012	Q2 2012	Q1 2012	Q2 2012
<b>Chad</b>	67	42	106	91	7	6	2	1
<b>Cameroon</b>	6	8	0	0	0	0	1	0
<b>Project Total</b>	<b>73</b>	<b>50</b>	<b>106</b>	<b>91</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>1</b>

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. 3. Chad hospitalization data is from Komé 5 and Komé Base clinics only. N'Djamena clinic data not included.

## Community Investment

### THE WOMEN OF ESSO CHAD: FEMALE LEADERSHIP AND EMPOWERMENT

A volunteer organization formed by Esso Exploration & Production Chad, Inc.'s (EEPCI) female employees, achieved a five-fold increase in annual revenue available for charitable giving since its inception in 2007.

The Association des Femmes d' Esso Tchad, which focuses on underprivileged women and children, has grown its membership to 48 – almost all of the women currently working at the company. Among this year's accomplishments, the Association has donated toys to sick children, provided student scholarships, made contributions to a local orphanage and hospital, and provided training and equipment for handicapped women.

While the group was initially funded by individual donations from EEPCI's Chadian and expatriate employees, the project recently committed to match 100% of employee contributions in recognition of the increasing impact of the organization.



*“As women in Chad, we are privileged to have good jobs and we have opportunities that so many women don't have. To be able to help some of those in less fortunate circumstances with some tools to help them survive and succeed is truly an honor. We make this effort to give a child a smile or to give a young girl hope.”* – **Norine Mougongaye, Treasury Dept, EEPCI & President, Association des Femmes d' Esso Tchad** (center, in light blue headdress)

## THE WOMEN OF ESSO CHAD: SUPPORTING HOSPITALIZED CHILDREN

Members of the Association des Femmes d' Ezzo Tchad visited N'Djamena's Mother and Child Hospital in June to personally deliver toys to children suffering from serious medical conditions including HIV, malaria, cancer, appendicitis and physical injuries from accidents. The Mother and Child Hospital was recently completed, thanks to project-generated oil revenues, which also fund most of the hospital's ongoing operating costs.



*"I wish all my patients could receive these toys. Actions like this are really helpful for a sick child's strength and spirit. It's wonderful to see them smile as they play with their new toys. They don't smile often because they are often suffering and in pain. Most of their parents don't have enough money to buy toys for their children – in fact, many can't even afford medicine for them. As the chief nurse, a mother and a grandmother, when I see others show such kindness to children, I can only be grateful."* – **Maga Koumatou, Chief Nurse, Mother and Child Hospital, N'Djamena**

## THE WOMEN OF ESSO CHAD: EASING ACCESS TO POTABLE WATER

Haranguidi, a large village on the outskirts of the capital that makes its living farming maize, millet and other vegetables, now enjoys increased access to potable water, thanks to a donation from the Association des Femmes d' Ezzo Tchad.



*“The women and children – who draw most of the water for the village – are very happy. Our village is large, with over one thousand people, so we have a lot of water needs. This deep well is the best one we have, and many of the people use this one. I want to thank the women from Ezzo Chad for putting this well here as it is so helpful for the village. Our villagers are very happy. – Hassan Abakar Djibrine, Chief, Haranguidi Village*

## The Women of Ezzo Chad: Sponsoring Promising Female Students

Twenty-nine girls received scholarships and school supplies from the Association des Femmes d' Ezzo Tchad this year. One of them, 21-year old Grace Gaourang, is a promising, hearing-impaired student who would not otherwise have been able to afford the tuition for Siège de l'Association Nationale des Déficients Auditifs au Tchad, a secondary school for sight-and-hearing-impaired students in N'Djamena. Now she is focusing on her studies and is looking forward to a career in information technology.



*“I received books for French, math and physics and a scholarship for the last two years. I’m really grateful for the support from the Ezzo women’s association. In the future, I want to work in information technology, and this support will help bring me closer to fulfilling my dream.” – Grace Gaourang, Student, 21*

### THE WOMEN OF ESSO CHAD: EMPOWERING WOMEN WITH PHYSICAL DISABILITIES

When a Cooperative Sewing Association for Handicapped Women in N’Djamena encountered financial trouble, the Association des Femmes d’ Ezzo Tchad stepped in to help. Providing sewing machines, clothing materials and business and accounting training, the Association des Femmes d’Ezzo Tchad has given the sewing association - a traditional way for Chadian women to come together in small business enterprises to earn money - a second chance at success.



*“As women, and as the handicapped, we must support each other, both morally and financially. Forming this association is part of our daily fight to make our lives better. As a young group we had some difficulties at first and came into financial trouble. Then the women from Ezzo Chad gave us training on how to manage our cash book and budget. Now our business is doing much better, and after sewing and selling the stock we received, we are trying to determine how to invest the proceeds we made from the donated material.” – Menodji Meugre Eunice, President of the Cooperative Sewing Association for Handicapped Women (right)*

## DONATING SURPLUS GOODS: LARGE DONATION CAMPAIGN IS A SUCCESS

In keeping with its commitment to support residents in and around the Oilfield Development Area, the project distributed 36 shipping containers of surplus goods to 30 hospitals, 38 schools, 45 community health centers, 2 orphanages, a handicapped center and 85 traditional women’s associations. Collaborating with well-known and respected NGOs to ensure accountability and transparency, the donations targeted specific community needs while striving to reach all parts of the Oilfield Development Area.



Above, a sleeping infant receives care on one of the recovery beds that this health center in the Gaki neighborhood of Doba received. The health center was funded by the government’s dedication of 5% of the oil revenues for the benefit of communities in and around the Oilfield Development Area. The center makes daily use of its water tank, maternity, treatment and recovery beds, just one of many institutions that have received surplus materials from the project. For more information about the 5% revenues, see the chapter on *Host Country Revenue*.



*“The materials that we received from the project have helped our health center quite a bit. Before, we had a structure but only one bed for sick patients and only one delivery bed. This is important because if patients know that we can treat them more adequately and comfortably, more patients will come to see us when they are sick, which is good for public health.” –*  
**Maoundoe Philemon, Senior Nurse, Health Center of Doba**

## Community Investment

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Along with other items, surplus plastic fencing secured a space for the Women’s Platform, a representative organization of the 34 women’s associations in Doba. These traditional women’s groups get together for gatherings (below) and business activities. The associations will also use the new space for women to share ideas and for development, business and literacy training for members, many of whom are widows with no other support system.



*“These materials have helped us have a secure area to come together and work. In the future we hope to build this place into a permanent home for the Women’s Platform. As women these associations allow us to combine our strength to support our families. Alone we can’t do much, but together we are strong.” – Christine Tassoum, Vice President, Women’s Platform, at left, far right*



*“It’s not the first time that the project has donated goods to this community, but this one had the most impact. This is because the distribution system was designed to ensure the direct benefit of the community and the goods went to the areas that needed them the most. We are happy that the items were able to benefit the people of Doba, which the project is already helping socioeconomically.” – Mahamatzene Alhadj Yaya, Governor of Doba*

*“This is the biggest donation that I have been involved with as Base Manager here in Doba. We have received much positive feedback about how this donation was handled and we haven’t seen any of the goods being resold in the markets – the clearest sign that the goods went directly to the places that needed them the most. I’ve had a lot of experience with community donations, and without reservation, this project was a big success!” – Guéguera Aguénadé Zongré, Base Manager, World Vision*





## COMMUNITY OUTREACH: INSTALLING NEW WELLS ACROSS CAMEROON

New water wells have been installed in the Kribi communities of Bongachele and Moloko, part of COTCO's new program to increase access to potable water in Cameroon by building dozens of wells in key areas across Cameroon. This voluntary effort supplements the infrastructure developments required by the EMP and the project's compensation programs.



*"We used to go to the other villages and have to cut their grass in exchange for drinking water, which would only be available to us at certain hours. But to think that COTCO has just come into the community and dug this well without being obligated to – I can't even express how good this feels. Many of us already knew that it is a company that does what it says, but this is a great example of a company understanding a community's needs and putting actions before words."* – **Ekoka Perin Bell, Community Advocate, Bongachele**

*"Here in Mokolo, only the wealthy can afford to be connected to the Kribi municipal water supply. Those who do not have enough money must get their water from hand wells. Now, this deeper well will provide clean drinking water and reduce the rates of water-borne disease in Mokolo. It was appreciated that the project was responsive to our needs, and I intend to write COTCO an official letter to let them know that we are happy about this well."* – **Gaston Boschud Edjecka, Chief, Mokolo Neighborhood**, holding a bottle of the first water from the new well.



### COTCO SCHOOL COMPETITION: TOP STUDENT WINNERS REWARDED

Last June, COTCO organized a school competition and awarded almost 400 winners from 16 schools with vouchers for textbooks and school supplies for the upcoming school year. Students, teachers, parents, and local and regional authorities from the Belabo school district in Cameroon attended the ceremony which was held at the Sous Prefecture of Belabo to honor and reward the students' excellent scholarship. Project representatives personally awarded the competition winners with the gift bags containing school supplies and vouchers (bottom left).



*“COTCO provided books, equipment and materials, which have been helpful for both the students and the teachers alike. It’s important for private companies like COTCO to help support our schools like this.” – Pial Pascal, Principal, Government Bilingual Secondary School*

### **SUPPORTING THE BAKOLA/BAGYELI: HEALTH PROGRAM HELPS REDUCE MORTALITY RATES**

Volunteer community health workers, midwife training, education, and provision of critical medicines are all components of the Indigenous Peoples Program, a project-funded effort to support the Bakola/Bagyeli people (sometimes called Pygmies) who live in western Cameroon in a forested area traversed by the pipeline. By focusing on the exceptionally high occurrences of life-threatening medical conditions like tuberculosis and hernias, as well as addressing women and children’s health issues, the program which is managed by the NGO, RAPID, has helped cut mortality rates in half since it was started several years ago, as reported by traditional Bakola/Bagyeli midwives and observed by RAPID’s field staff.

RAPID receives its funding from the Foundation for Environment and Development in Cameroon (FEDEC), which was formed by the project in 2000. (For more information on FEDEC, see the Background section at the end of the chapter.)



With little or no transportation available to reach the nearest health center, the residents of Ndtoua, (seen above with project staff and members of FEDEC’s team), have little access to modern medicine and health care. Community health volunteers, often furnished with bicycles by RAPID, play an important role in delivering medications to villages and ensuring that they are being used properly by patients. To help lower local infant mortality rates, midwives have received training on hygiene and how to deliver and care for babies.



*“There are many problems that Bakola/Bagyeli people face now resulting from their traditional lifestyle as hunters and foragers. The work I do with RAPID has empowered and informed the Bakola/Bagyeli communities. They are now using more effective medicines than their traditional treatments and overall mortality has decreased. As my grandmother is a Pygmy, it is my pleasure to be working to help my brothers.”* – **Francis Ndi, Implementation Coordinator, RAPID**

*“RAPID has elected me health relay, and I am proud to help take care of my brothers and sisters. I help advise on how to use the drugs that are prescribed to people within these four encampments.”* – **Fouga Louis, Community Health Volunteer, Ndtoua**



*“During the training, I was given medical supplies, equipment and training on hygiene. There are many pregnant women now, so I expect to be busy soon! I’m very happy because I am helping begin a new generation here.”* – **Silpen Jeanne, Midwife, Ndtoua**

## SUPPORTING THE BAKOLA/BAGYELI: AGRICULTURE TRAINING PROGRAM

Increased farming and industrial growth have driven bush animals far from the traditional hunting and foraging grounds of the Bakola/Bagyeli people in western Cameroon.

Because the Bakola/Bagyeli traditionally live a nomadic lifestyle, they do not commonly have land rights. To address this issue, the NGO, RAPID (which receives its funding from FEDEC) is using a gradual, step-by-step process by talking to local and regional leadership to gradually acquire land for the Bakola/Bagyeli to farm. Long term goals for the program, which provides training, equipment and monitoring, are to strengthen the food supply and to help the Bakola/Bagyeli become self-sufficient in a changing country. The agricultural training program has nearly doubled the number of Bakola/Bagyeli farmers from 85 to 152 in the last five years.



*"I have actually been farming for a long time, but now everybody in our encampment farms. Since RAPID has been working with us, I've noticed that our community has been moving forward in farming.*

*There is a new spirit about farming, and I believe it will last. The farming helps us feed our families, and any surplus we have can buy medicine so we can be healthy."* – **Nzie Nzie Calvin, Chief, Bandevouri Encampment**

*"The Bakola/Bagyeli participating in this program are happy to be learning and have made many improvements. Now they know how to sow certain types of seeds correctly. We also monitor their progress, and I create a report every month about progress on all of our programs."* – **Christopher Mavevi, Activities Coordinator, RAPID**



### BACKGROUND: THE PROJECT'S SUPPORT OF FEDEC

The Foundation for Environment and Development in Cameroon (Fondation pour l'Environnement et le Développement au Cameroun), also known as FEDEC, was created in 2000 with \$3.5 million from the project. Since its inception, FEDEC has provided financial support for the creation and protection of two national parks, and an Indigenous Peoples Program designed to benefit the Bakola/Bagyeli people (sometimes referred to as Pygmies). FEDEC supports these efforts through grant contracts with NGOs including:

- Wildlife Conservation Society (WCS) for biodiversity in Mbam Djerem National Park.
- World Wildlife Fund for biodiversity in Campo-Ma'an National Park.
- RAPID, an NGO dedicated to improving the lives of the Bakola/Bagyeli people who live in the forest area between Kribi and Lolodorf.



Initial project funding, along with anticipated contributions from private parties and organizations was expected to support FEDEC's work for at least 30 years. However, contributions were difficult to secure, and the worldwide economic crisis and exchange rate for the U.S. dollar, significantly reduced earnings. These circumstances endangered the long term viability of FEDEC.

The project responded by committing an additional \$1.5 million to continue FEDEC's activities through 2013, bringing the project's total support to \$5 million. In collaboration with the International Finance Corporation, the project is helping to fund a long term sustainability study of FEDEC, the results of which are expected in August 2012.



*"FEDEC is the first model of its kind in Cameroon – a privately funded, independent organization, with the ability to be an effective tool for environmental mitigation, monitoring and verification. FEDEC acts like a bank for projects to place their socioeconomic and environment mitigation offset investments in. It is a good model and we have to congratulate COTCO for that. I hope other companies in Cameroon will utilize a similar model for their environmental and social mitigation efforts – and in the future we will hope to help project developers maximize the impact of their mitigation efforts, as we are doing with COTCO."* – **Dr. Achoundong, Member, Board of Directors, FEDEC**

## Host Country Revenue

A general hospital under construction and recently completed headquarters for the Ministry of Health rise above N'Djamena, a reflection of Chad's continuing investment of its oil revenue in priority sectors.

### CHAD'S OIL REVENUE: A GROWING HEALTH SECTOR IN N'DJAMENA

A construction crew of 100 is working hard to complete by mid-2013 the government's latest investment in the healthcare sector, the 14,000 square meter l'Hopital Moderne. Revenue generated by the project's oil operations is funding most of the 31 billion FCFA budget for this state-of-the-art, 180 patient-bed general hospital that will provide high-quality care to hundreds of patients in N'Djamena.



*To better direct the country's emergent healthcare capacity, the Ministry of Health recently moved out of its cramped offices in an existing hospital in N'Djamena into a new headquarters (left) with dozens of new offices funded largely with revenues generated by the project.*

### CHAD'S OIL REVENUE: IMPROVING OVERSIGHT AND TRANSPARENCY

Recently passed legislation in Chad has increased the regulatory authority of the Collège de Contrôle et de Surveillance des Ressources Pétrolières (Petroleum Revenue Oversight and Control Committee), the monitoring agency which oversees the government's use of oil revenues. While the Collège's new, modern office building in N'Djamena (below) will provide staff with a more efficient space, most important are the organizational changes. The Collège now has more staff, improved transparency and efficiency mechanisms, and an increased field and communications capacity, all of which will improve its effectiveness.



The Collège, carefully structured to ensure transparency, impartiality and accountability, is comprised of representatives from the Supreme Court, National Assembly, Central Bank, Civil Society and religious groups – each of whom serve two-year rotating terms.



*“These buildings are like a mirror that clearly reflects how our oil revenue is being spent efficiently and transparently – invested in infrastructure that serves its country responsibly. The new building for the Collège will help us do our job more effectively with the necessary space, resources and support staff for the first time since the institution was created over nine years ago. The changes we’ve recently seen at the Collège – to clarify our specific roles and codify it into law – is a demonstration of Chad’s commitment to responsible and transparent oversight of our precious resource – oil revenue.”* – **Mahamat Ramadane Dagache, Public Procurement Specialist, Collège de Contrôle et de Surveillance des Ressources Pétrolières**



## CHAD'S OIL REVENUE: INVESTING IN A HOSPITAL AND SCHOOLS WITHIN THE OILFIELD AREA

A regional hospital is about to open. A university is under construction. A teacher training college just opened its doors. All this is happening in Doba, funded by 5% of the project's oil revenues specifically earmarked for priority sectors in the oil producing regions. While allocated by local leadership, as with all other oil revenue investments, it must be approved and overseen by the Collège de Contrôle et de Surveillance des Ressources Pétrolières.



A new hospital in Doba is set to open (top, bottom left), while across the street a new university is being built (bottom right).



*“The 5% of oil revenue is a unique opportunity that not every region has access to. This is intended to cover the social needs of the community, and we are able to oversee this ourselves to meet our region’s most pressing needs. For example, the new hospital that we built adds another level of healthcare capability to our existing 92 health centers. We’ve also built 600 boreholes so all of our villages have access to clean drinking water, and we have reserved 600M FCFA for microcredit programs.” – Hon. Mahamatzene Alhadj Yaya, Governor of Doba*

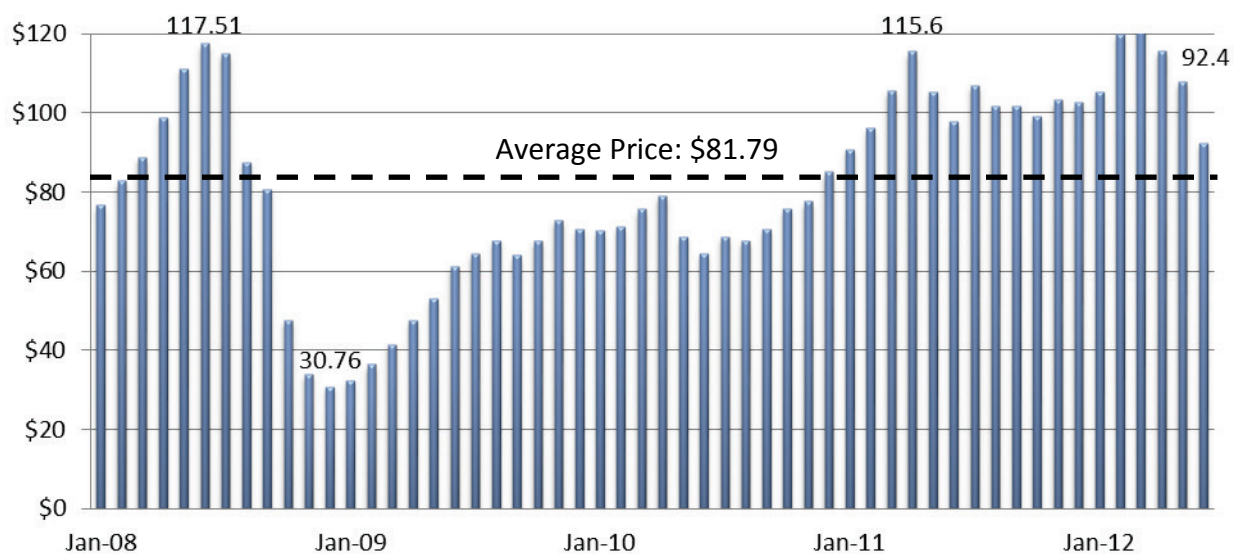
## Host Country Revenue

### Chad's Oil Revenue through First Half of 2012 (millions of U.S. dollars<sup>1</sup>)

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	12 Month Total	Project to Date
Royalties on Crude Oil Sales <sup>2</sup>	155	115	108	49	157	<b>2,747</b>
Income Related to Pipeline Ownership	6	0	0	0	0	<b>69</b>
Corporate Income Tax <sup>3</sup>	377	322	340	381	721	<b>6,058</b>
Fees, Permits, Duties, Etc. <sup>4</sup>	10	16	18	12	30	<b>470</b>
<b>Project Total</b>	<b>548</b>	<b>453</b>	<b>466</b>	<b>442</b>	<b>908</b>	<b>9,343</b>

1. Rounded to nearest whole number. 2. Historically, this reflects cash payment royalties paid by all Consortium members. However, the Government of Chad informed Esso of their willingness to take Royalty in Kind on December 22, 2009. Royalty in cash ceased as of May 1, 2012 and the Government of Chad's first lifting took place on July 11, 2012. As a result, effective May 1, 2012 Government of Chad revenue is no longer reflected in 'Royalties on Crude Oil Sales'. 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.

### Doba Basin Crude Oil Market Price (by month in U.S. dollars per barrel)



World oil prices in recent years have been higher than initially 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 \$81.79, roughly double the price when oil exports first started in 2004.

## CONTEXT: HOW CHAD EARNS ITS REVENUE

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

1. **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%.

The Government of Chad informed Esso of their willingness to take Royalty in Kind on December 22, 2009. As a result, royalty in cash ceased as of May 1, 2012 and the Government of Chad's first lifting took place on July 11, 2012.

2. **Corporate Income Tax:** In 2006, Consortium members also began paying income tax on net profits from the original three fields. These payments 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 major 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.
  - The higher Brent crude price is triggering a 60% corporate income tax on the original three fields as provided in the 1988 Convention (and a 55% tax on Maikeri and Timbré and 50% tax on Nya and Moundouli).

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.

3. **Income Related to Pipeline Ownership:** Chad owns a percentage of both pipeline companies, TOTCO and COTCO, and thus shares in the profits from fees these two companies charge to deliver Chad's Doba crude oil to market.
4. **Permits, Duties & Taxes:** Various other sources also add to Chad's income, including permits, duties, employee taxes, work permits and other fees.

### **CONTEXT: 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. For more information about these efforts, please see the chapter on the *Land Use Management Action Plan*.
- The IFC independent monitoring body, the External Compliance Monitoring Group (ECMG), continues its work.

## CAMEROON'S PIPELINE REVENUE

Cameroon obtains its project revenue primarily through transit fees from the export pipeline system that intakes Chad's oil at 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 four income streams.

1. **Transit Fee:** When the project agreements were first negotiated, Cameroon negotiated a fixed rate per barrel transit fee in order to have a secured 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.
2. **Corporate Income Tax:** As for any other corporation in Cameroon, the pipeline company COTCO pays income taxes to the government of Cameroon.
3. **Custom 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.
4. **Income Related to Pipeline Ownership:** As a part owner of the export system pipeline, Cameroon receives a proportional share of the pipeline company profits.

### *Cameroon's Oil Revenue Through First Half of 2012 (millions of U.S. dollars<sup>1</sup>)*

	2004	2005	2006	2007	2008	2009	2010	2011	1 <sup>st</sup> Half 2012	Project to Date
Transit Fees	24	27	23	22	20	18	18	17	5	<b>176</b>
Income Tax	0	2	4	2	2	3	10	9	10	<b>42</b>
Customs Duties and Other taxes	0	0	0	0	1	10	6	7	2	<b>27</b>
Income Related to Pipeline Ownership	16	15	14	14	13	7	10	9	0	<b>99</b>
<b>Project Total</b>	<b>40</b>	<b>44</b>	<b>41</b>	<b>38</b>	<b>36</b>	<b>38</b>	<b>44</b>	<b>42</b>	<b>17</b>	<b>343</b>

1. Rounded to nearest whole number