

Land Use in the Oilfield Development Area

A program to create new rice farm land for oilfield area farmers moved ahead to its first plantings in the first half of 2010, in time for the rainy season. The land initiative is one in a series of additional steps the project has been taking, now that all nine of the original work action areas of the 2007 Land Use Mitigation Action Plan are nearly completed.

Creating New Rice Land



Farmers in ten oilfield area villages are working together (top) on two large demonstration fields of rice, testing varieties (inset) to find the one that grows best in the oilfield area. The initiative will create new rice farm land, a new stock of land available to farmers whose land has been used by the oil development project. The fields are located in low areas near rivers that flood annually during the rainy season so the farmers can apply their traditional growing techniques, enhanced by advice from agricultural experts.

Creating New Rice Land: A Team Collaboration

The rice farm land program being funded by the project also includes as partners the Africa Rice Center (formerly the West Africa Rice Development Association); CETREN, a local NGO; and Chadian government agricultural experts from Office National de Développement Rural.

Dr. Allayam Rayamta, CETREN, local Chadian NGO advising farmers: *“At our two demonstration sites the village farmers are testing 14 varieties of rice, comparing their traditional rice with different crosses of Asian and African rice. We cannot impose the variety on them so the choice of what to grow will be theirs and they have taken ownership of the project. In addition to crop yield and resistance to disease, they must like the taste. This demonstration serves several villages in this area so everyone can see the results.”*



Nadlem Allahondoum, agricultural expert from Chadian government, Chief of the ONDR sector of Doba: *“This is the first test of these varieties in Chad. This test will help us in Chad because we will have a test that will tell us about rice that can grow in areas like this one where there is not much water. That’s important, because if it all works, of course more people will have food. And they will have money because rice is a cash crop. So far, I’m happy to say, things are going well.”*



Emanuel Djikolmbaye, Chief of Madana village: *“This has been a good initiative by Esso, bringing this project to our villages. We have been trained with new farming techniques. For example, before we did not always remove the weeds from our rice fields. We are also trying new varieties of rice that may yield more rice from our harvests. Of course we will also taste the new varieties of rice to see which ones we like. Madana, Danmadjia, Bela, Koutounya, four villages work this test farm. This is the first time so many villages have worked together in one field.”*



Igelin Mbaïrabé, rice farmer from Madjo village: *“The work here is going well. At the beginning it was hard but now it feels good to see all this rice growing. We are all looking forward to the harvest when we can see how it all comes out, which variety will be the best for us.”*



Women Growing Rice Seeds: A New Business in Madjo



The rice farm new land program will need seeds for the new fields of rice. No major seed industry exists in Chad and nearly all seeds must be imported from neighboring countries. That's why the project has helped these women from Madjo village (top) start a seed business. An old project work site has been reclaimed with topsoil and two wells have been drilled to drain water into the rice paddy to assure a crop even in years when the rains fail.

Rosalie Dadmal (bottom right), leader of Groupement Yelkone, a word that means save the seed: *"Here we produce seeds of the new rice for the profit of our group of women and for the village. This production of seeds will help us because we can sell them for money. We will use the money for buy and trade, to buy products and resell them. The advantage of growing our own seed, a better seed, is that we will have more rice production for us and others in our area."*

Improving Land Fertility



At an old borrow pit site, the project has provided the village of Bero with seeds (inset) for a fertilizing bean plant called mucuna (top), sometimes known as velvet bean or cowitch. The soil improvement technique being funded by the project has been embraced by the village farmers (bottom right) even though it is new to the area. If successful, the new technique could mean significant improvements in soil conditioning, especially helpful in reclaiming project work sites.



Manassé Assidongar, Chef de Groupement: *"The job is good here. At the right season we will harvest the seed. We hope the seed we grow will help everyone in Bero village. At this reclaimed borrow pit we have our land back and that is good. We are a little concerned about the low lying areas and their productivity for growing. But we feel good about the step Esso has taken."*



Isaac Nedjam Mbaïornom, Chef de Ferme de Deli: *"The mucuna plants will fertilize the soil to help improve the soil in the reclaimed borrow pit. It does more as well. Not at this seed project but future projects will grow food for livestock. The seeds are also used for medicine. The plants prevent erosion of the soil. In two years we will know for certain if the test works here in Bero with plants normally grown in other areas. If so, there will be seed to do similar soil improvement projects in many more areas of Chad."*

An Independent Check on EMP Performance

Another step taken by the project beyond the original nine action areas has been an environmental and social assessment of the project's current drilling program conducted by an independent consulting firm. The study was funded by the project and managed jointly by the project and the environmental staff of the World Bank Group's International Finance Corporation.



The assessment concluded: *“Existing mitigation measures are being implemented in accordance with the requirements of the existing Environmental Management Plan (EMP), the Chad Resettlement and Compensation Plan (CRCP) and the Land Use Mitigation Action Plan (LUMAP).”*

- Focused Environmental and Social Assessment - Incremental Impacts of the Infill Drilling Program for the Komé and Bolobo Oil Fields, Chad
Study conducted by ENVIRON, London, UK

The study conducted an analysis of the new rice lands program and recommended the project proceed with that effort to convert riverside lowland and swamp areas to rice fields. The study also offered additional recommendations to enhance the effectiveness of the project's work to mitigate impacts of its land use in the oilfield area, including:

- Development of additional key performance indicators to be used in evaluating the status of those affected by the project and to track livelihood maintenance and restoration progress.
- Techniques for closer collaboration between the project's various socioeconomic teams.
- Methods for sharing information among the teams to improve consistency of information and reduce the total number of times the project contacts land holders.

Business Literacy in the Villages: Quadruple Attendance

The project welcomes all residents of a village to attend its popular business literacy classes — not only those who are eligible — and this year the courses were very popular. There were 72 people eligible for the course but four times that number took advantage of the offer, a total of 300 people. The courses teach basic skills in math, bookkeeping, marketing and inventory management. They were originally designed to serve those eligible for resettlement under EMP guidelines.



The business literacy classes take place right in the village, often under a shade tree as in Mbanga (top right) where all who want to attend are provided workbooks and a seat. Dildo village residents posed for a class picture after completing their business literacy course (bottom left).

Business Literacy in the Villages: Results

Micheline Rabeye, Dildo village: *“Before, I did not have the alphabet or numbers and I did not know how to save money. Now I can read, write, manage my business. These skills I use every day. I have saved money and I bought pigs, goats, sacks of grain, a bicycle and a mobile phone for my son. We also learned how to work as a team and we have formed a women’s savings association.”*



Philemon Boudjingar, Mbanga village: *“Mainly, I have a farm and my small store helps provide cash to even out the year between harvests. The money has made it possible to build a herd of six goats and I have four huts in my compound. I built this up over time and now the business literacy class has made my store strong and more professional. It has helped me increase my profit from the store by one-third so far this year.”*



Jacqueline Danoum, Dildo village: *“I have nine in my family. My business has really improved. For example, I saved for a bicycle that makes it easier to go buy dried fish for my market days. My daughter has even been able to go to school. We have been able to afford new clothing and to get help when we get sick.”*



Action Plan Status

The Land Use Mitigation Action Plan created in 2007 organized all of the activity relating to the project’s work to maintain farm livelihoods into nine categories. Nearly all of that original work has now been implemented as the project adds additional initiatives to enhance livelihood restoration in the oilfield area.

Action Area 1

Identification & Assessment: *Complete and Being Expanded*

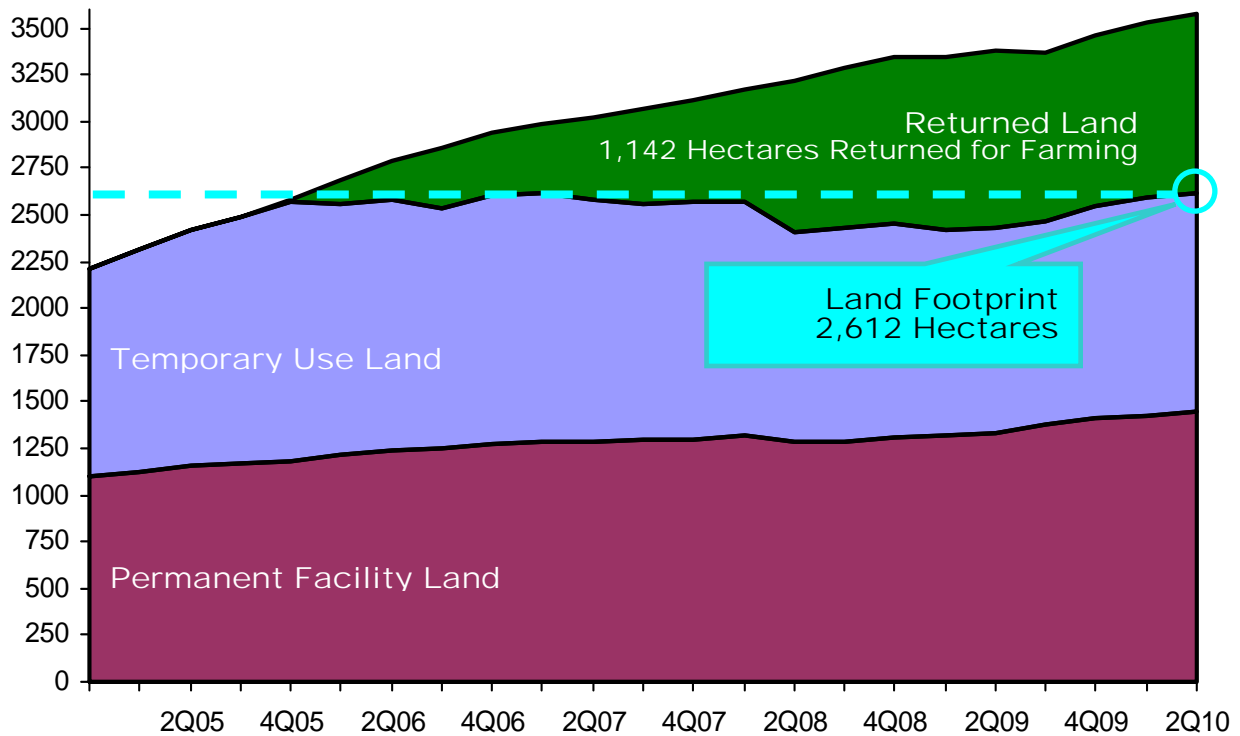
House-to-house socioeconomic surveys of the most affected villages and households have been used to build a detailed census database of land use and land users, the foundation of mitigation planning. Nearly 3,000 households were surveyed in the original three oilfields area. The surveys will be extended to five additional village areas in order to clarify land use impact over a wider area.

Action Area 2

Land Use Impact Reduction: *Ongoing*

In order to minimize the project’s use of land, construction teams and engineers have been working to reduce or reclaim land once required by the project so the land can be used for farming. The teams employ an array of methods, including well pad size reduction, merging well pads, deviated drilling, well stimulations and block-by-block well development.

◀ Managing the Project’s Total Land Footprint



The project land footprint at mid-year was just over 2,600 hectares. Thus, the project footprint has been held at roughly the same level since 2005, even though dozens of oil wells and associated infrastructure have been added in that time. The project’s land reclamation and return initiatives have kept pace with the land requirements of the extra drilling by returning over 1,140 hectares of project-use land to farmers since the land reclamation program began.

Action Area 3

Resettlement: *Nearly Complete*

The Action Plan sets an overarching goal of livelihood restoration for households and communities most affected by the project’s land needs. Action Area 3 on the plan calls for the creation and implementation of site specific plans to accomplish this goal, building on the existing Environmental Management Plan compensation and resettlement principles. Site specific plans have been developed for each of the ten Oilfield Development Area villages and implementation is either underway or completed in each case.

Action Areas 4 & 5

Off Farm & Improved Agriculture Technique Training: *Ongoing*

These two training options offer alternatives to physical resettlement of households and their farms. Although the farmers were compensated for the land needed by the project, their farms have been reduced in size. The programs are designed to help them sustain their farm livelihoods over the long term. Action areas 4 and 5 of the plan provide for improvements in implementation of these two components of the EMP resettlement compensation program.

Reinforcement training has been offered to households that have not been completely successful after their initial training. As shown in the following table, follow up assessments indicate that 133 of the 150 land holders that took the reinforcement training have restored their livelihoods, an 89% success rate as of mid-2010.

Type of Training	Number of Participants	Livelihood Restored
Vegetable Gardening	31	28
Crafts/ Local Products	14	13
Animal Husbandry	75	65
Agroforestry	12	11
Fishing	5	5
Rice Cultivation	5	5
Rain Fed Crop Management	8	6
Total	150	133
Success Rate		89%

Using the red-flag system from the house-to-house census, the project has identified households that need extra help beyond the compensation they received when oilfield development first required some of their land. The reinforcement has been working, achieving an 89% success rate among those who participated in the training in 2010, following on an 88% success rate from the training offered in 2009.

Action Area 6

Individual Compensation: *Complete*

The Action Plan calls for an update to the project Land Management Manual, which is an implementing document for compensation set out in the Environmental Management Plan. The Land Management Manual was updated in 2008.

Action Area 7

Community Compensation: *Nearly Complete*

Community compensation provides mitigation for project impacts at the village level in the form of development projects to be chosen by the village, such as school improvements, water wells and income generating development projects.

In all of the villages, a comprehensive consultation process has been developed to help the communities choose their projects. The participatory rural assessment technique employs NGO facilitators to guide the process through as many as ten village meetings.

◀ Progress on Community & Supplemental Compensation Projects

A total of 35 communities are receiving community compensation or supplemental community compensation. Some communities chose two smaller projects rather than one big project. Thus, a total of 67 projects have been chosen.

Type of Project	Complete	In Progress
Community Granary	4	0
Community Hall	9	0
Corn Farming	1	0
Flour Mills	6	2
Schools: Three Room	3	0
Schools: One Room	7	0
Schools: Houses for Directors	7	4
Schools: Replacement furniture	6	2
Water Wells	14	2
Total	57	10

Action Area 8

Consultation and Communication: *Ongoing*

Public consultation has been fundamental to implementation of the Land Use Mitigation Action Plan. As described above, a new collaborative consultation process has been effective in helping communities select their community compensation development projects. This Project Update Report is the ninth edition with detailed information on the project's land use mitigation work since the initial identification of the land issue. The reports are posted on the www.essochad.com website. They are also widely distributed in print to stakeholders and NGOs. Land Use Mitigation Action Plan detailed reports on livelihood restoration for households and villages (as described in Action Area 9) have also been posted on the project website.

Action Area 9

Monitoring & Organization: *Ongoing*

To help track progress of the Action Plan implementation, several monitoring tools have been created.

- Quarterly reports on the status of villages to the environmental staff of the International Finance Corporation.
- Annual reports on the status of individual households to the International Finance Corporation environmental staff.
- Site specific mitigation plans for each of the most affected villages.
- The previously described household-to-household surveys and other mapping and socioeconomic monitoring tools. These surveys:
 - Monitor the progress in livelihood restoration and maintenance for households which have opted for off farm training or improved agriculture training.

- Identify each individual household affected by new land needs in the land user database and analyze the potential impact of reduced land for farming.
- Aid in the design of the village-by-village site specific mitigation plans for livelihood restoration and maintenance.

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 12,900 individual land users for more than 7,000 hectares of land in 375 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 3,800 hectares of land involving just over 4,400 individuals. The project has thus utilized at one time or another about 3% 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% 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 External Compliance Monitoring group and the 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 with a minimum of four information and consultation steps so that all village residents can see that no other resident is gaining an advantage.
- 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 in Europe or North America, have only the use of the land for crops. The project therefore does not buy land but compensates for farmer 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.
- Avoidance of 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 collect 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, 2006) collected field data for an independent study jointly commissioned by the project and the 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.
- 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. Ongoing work to restore livelihoods has been organized around the same nine action areas of work categories in the original plan.