Esso Exploration & Production Chad Inc.

Village Impact Quarterly Report

Land Use Mitigation Action Plan

Third Quarter 2008

Prepared by the EMP Department

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List of Acronyms & terms used in this report

Hh	Household.
CdM	Household Chief (Chef de Ménage)
HhM	Household Member. Include the CdM and all it dependents, regardless their age.
LT	Land Take.
Eligible	Generic term to designate an individual that may be eligible to the EMP Resettlement Program.
Potential Eligible	Individual that may be eligible to the EMP Resettlement Program. Analysis must be completed.
True Eligible	Individual eligible to the EMP Resettlement Program.
EMP-IS	EMP Information System: manages Land Acquisition, Socioeconomic and Land return data.
Land Survey	Formally called Cadastre survey. Refer to the measurement of every field, fallow & house of households.
Project Footprint	Total area occupied by the project at a given time (e.g. Compensated but not returned land)

Executive Summary

The Quarterly Report Village Report provides information to Esso Exploration & Production Chad Inc (EEPCI) management and the International Finance Corporation (IFC) on the progress made in calculating, analyzing and reducing the EEPCI Oil Project (Project) land use impact on villages and households.

Tracking and analysis of the land use impact is the purpose of Village Impact Classification and the "Watch List". The classification follows the movement of a village from one category to another in order to judge the effectiveness of Land Use Mitigation Action Plan (LUMAP) mitigation measures or signal when the effect of ongoing project land take requires the Project to review the situation and adjust plans as per the Environmental Management Plan (EMP) principles.

The village impact classification (high, approaching high, medium and low) is also used to:

- Improve the targeting of EMP mitigation activities in the OFDA
- Determine and/or validate eligibility (actual versus estimated) for Supplemental Community Compensation
- Alert EMP Team on the need for Site Specific Plans and Land Survey needs

Third Quarter 2008 (3Q08) Village Impact Assessments status:

- 6 high impact villages
- 3 approaching high impact villages
- 3 moderate impact villages
- 12 low impact villages

Kome oil field in fill drilling land take drove Begada into the high impact category.

LUMAP maintains a "Watch List" (approaching high impact) that tracks village land take and return. As of September 2008, three (3) of the moderate impact villages are approaching the high impact category because of continuing land acquisition and number of people eligible:

- Bela
- Maikeri
- Mouarom

As per EEPCI EMP Department discussions with the International Finance Corporation, the Village Report is now produced on a quarterly basis. This report presents activities and accomplishments completed from beginning of July through end of September 2008.

The main improvement in the last quarter is the number of Village Land Use Survey Teams in the field. Currently, five (5) teams are conducting Village Surveys (Begada I and II, Mouarom, Danmadja, Mbanga) plus one team that surveys everyone that has been compensated in Bero. We expect to have a more accurate picture of the actual land use in the most impacted village in the OFDA by end of 3Q09.

Village classification

1.1. Summary

The Village classification is calculated using land use (area covered by temporary and permanent take) and socioeconomic criteria (less than 2/3 Corde (c) per Hh Member (HhM) before project and currently). Each criterion classifies a village using impact assessment criteria and categorizing into one of four categories: High, Approaching High, and Moderate & Low. **The final categorization** of a village is done **according to its worst placement** by any one of the three impact criteria: land use; number of HH non-viable before Project; HH made non-viable by Project. The next table show the September 2008 Classification, in decreasing order of severity of impact.

Table 1 : Village Classification September 2008

Categories	Village
High	• Ngalaba • Béro • Danmadja • Mbanga • Madjo • Bégada
Approaching High (Watch List)	• Béla • Mouarom • Maikeri
Moderate	• Madana Nadpeur • Maïnani • Missimadji
Low	• Dokaildilti • Dildo • Kaïrati • Bendo • Ndoheuri • Komé • Miandoum • Naïkam • Merméouel • Morkété • Koutou Nya • Maïmbaye

1.2. Land Use Criteria

This section covers the project land use part of the classification. The criterion is the **% of Permanent + Temporary Not Returned** area of the village (the 2 rightmost columns in Table 2). The thresholds for the different category are shown in annex 6.1. Villages are sorted by the % of this criterion, from the highest to the lowest value. The activities for 3Q08 in land acquisition (↑) or land return (↓) are shown in Hectares.

The permanent area section in table 2 shows the situation of the village once all the temporary land has been returned. This is the final categorization until well shut-down and then reclamation and finally decommissioning begin. Permanent land that is no longer needed by the project is identified, reclaimed and returned.

Note that some villages can pass from High to Moderate or Moderate to Low by returning the temporary land. This is, of course, a major purpose of the LUMAP, the other being to identify at-risk households.

Table 2: Land Use by Village in OFDA.

Village	**Total Village Area (ha)**	Permanent		Temporary Not returned		**Permanent + Temporary Not Returned**	
		Now	3Q08	Now	3Q08	**Now**	**3Q08**
Dokaïdilti	812.4	12.7%		3.2%	(↓ 5.2 ha)	**15.9%**	**(↓ 5.2 ha)**
Ngalaba	1879.4	6.5%		6.3%	(↓ 11.3 ha)	**12.8%**	**(↓ 11.0 ha)**
Bégada	2478.6	5.6%	(↑ 15.2 ha)	7.1%	(↑ 23.7 ha)	**12.7%**	**(↑ 38.9 ha)**
Béro	4239.7	6.5%	(↑ 0.6 ha)	5.9%	(↓ 12.9 ha)	**12.3%**	**(↓ 12.3 ha)**
Danmadja	449.4	3.7%		7.2%	(↑ 3.2 ha)	**10.9%**	**(↑ 3.2 ha)**
Mouarom	1585.4	5.0%	(↑ 8.7 ha)	5.6%	(↑ 10.3 ha)	**10.6%**	**(↑ 19.0 ha)**
Béla	2315.1	4.4%	(↑ 0.8 ha)	5.2%	(↑ 5.1 ha)	**9.6%**	**(↑ 5.9 ha)**
Dildo	1961.3	8.5%	(↑ 0.3 ha)	0.5%		**9.0%**	**(↑ 0.3 ha)**
Maïkéri *	1208.1	3.2%	(↓ 5.6 ha)	4.9%	(↓ 2.7 ha)	**8.1%**	**(↓ 8.3 ha)**
Mbanga	3050.4	2.3%	(↓ 1.2 ha)	4.6%	(↑ 0.4 ha)	**6.9%**	**(↓ 0.8 ha)**
Madanan N.	323.1	1.3%		4.0%		**5.2%**	
Madjo**	1921.3	2.7%		2.5%	(↓ 0.1 ha)	**5.2%**	**(↓ 0.1 ha)**
Maïnani	1696.2	3.0%	(↑ 3.1 ha)	1.8%	(↑ 3.0 ha)	**4.8%**	**(↑ 6.1 ha)**
Missimadji	840.6	0.7%		1.8%	(↑ 6.7 ha)	**2.5%**	**(↑ 6.7 ha)**
Kaïrati	179.9	2.2%		0.0%	(↓ 0.3 ha)	**2.2%**	**(↓ 0.3 ha)**
Ndoheuri	830.2	1.0%		1.1%	(↓ 0.1 ha)	**2.1%**	**(↓ 0.1 ha)**
Merméouel	1121.2	0.6%		1.2%		**1.8%**	
Bendo	809.0	1.0%	(↓ 8.7 ha)	0.6%	(↓ 4.1 ha)	**1.6%**	**(↓ 12.8 ha)**
Miandoum	4133	1.0%		0.6%	(↓ 7.0 ha)	**1.6%**	**(↓ 7.0 ha)**

Komé	2569.3	1.0%		0.5%		**1.5%**	
Naïkam	1773	0.7%		0.6%	(↓ 1.6 ha)	**1.3%**	**(↓ 1.6 ha)**
Morkété	524.2	0.5%		0.4%		**0.9%**	
Koutou Nya	1819.6	0.4%		0.3%		**0.7%**	

The numbers are put in charts for the 4 villages in the orange category on the next 3 charts. It shows the evolution of land acquisition combined to land return over time. The threshold for the orange category is shown with an orange line.

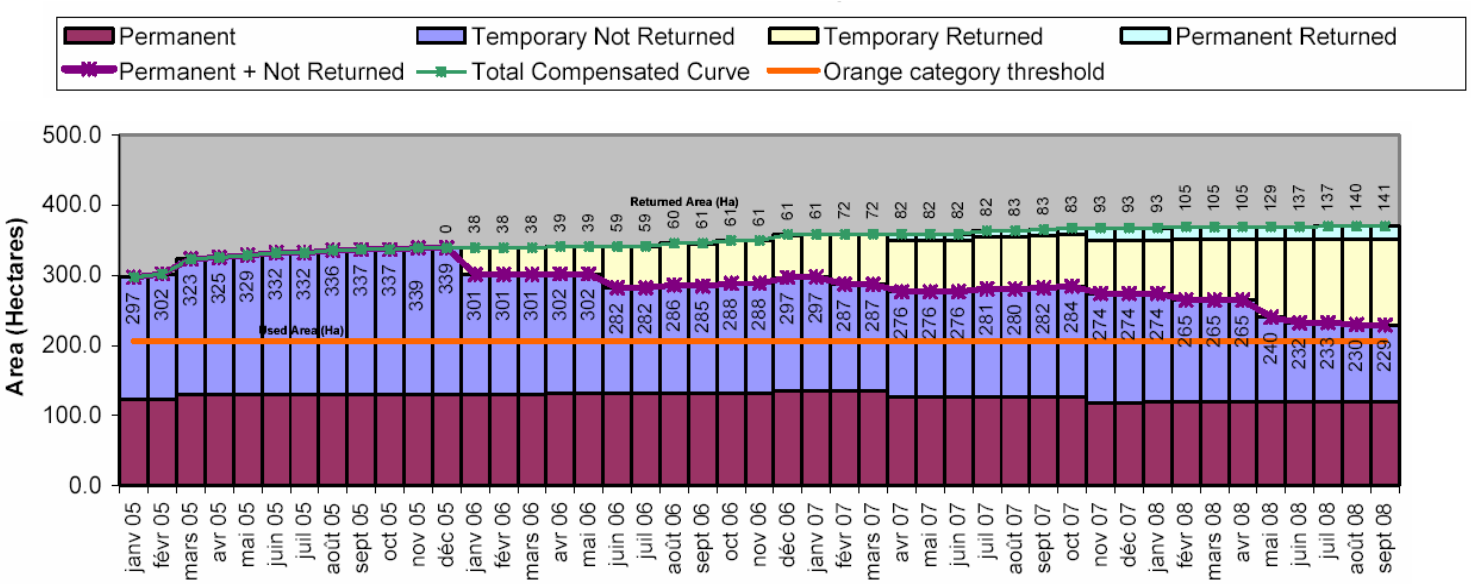


Chart 1: Land Acquired and Returned in Ngalaba

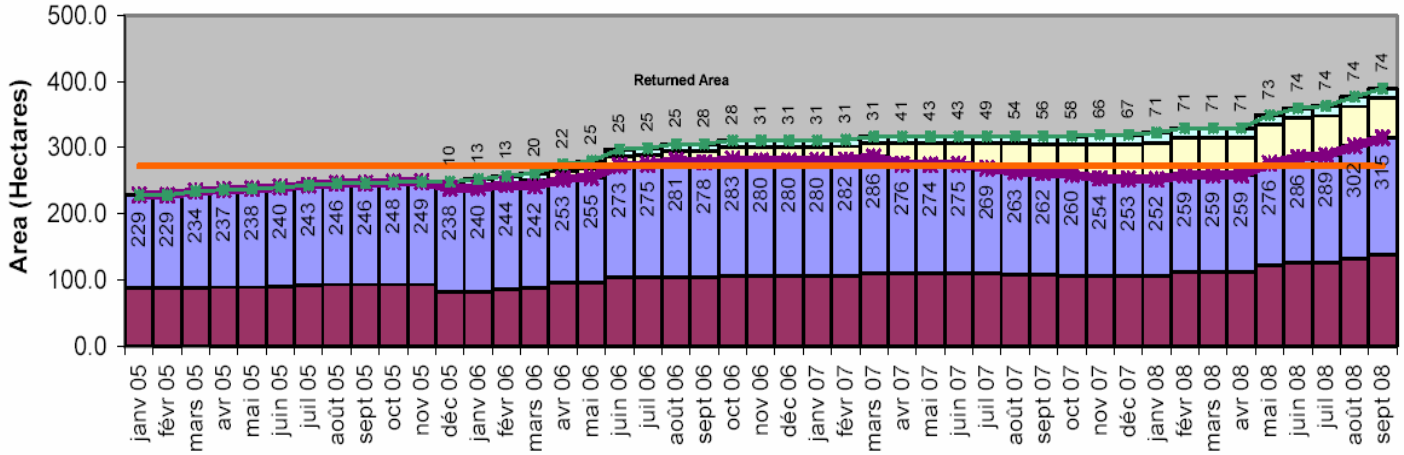


Chart 2: Land Acquired and Returned in Begada

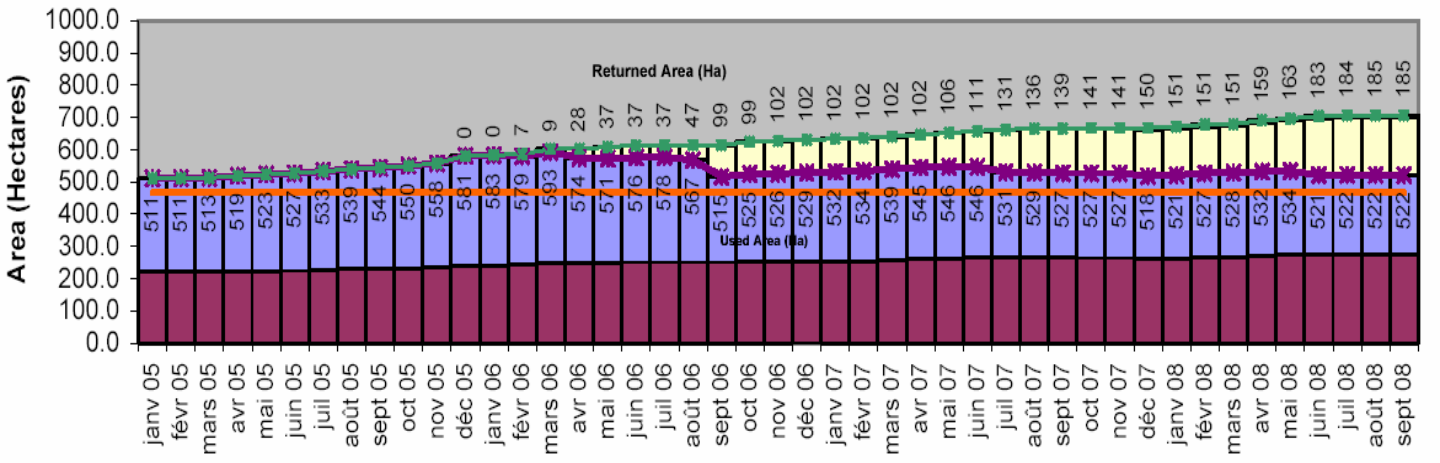


Chart 3: Land Acquired and Returned in Bero

1.3. Socioeconomic Criteria

The two socioeconomic criteria are related to the number of Project-impacted households falling below the resettlement factor of 2/3 cord per household member (HHm) (See the annex for more details on the Eligible After Project and Eligible by Project criteria.). The next table presents the present score of all the villages by each of these two socioeconomic criteria.

Table 3 : Socioeconomic criterion values for April 2008.

Eligible After Project	Value Now	Since Last Month	Eligible by Project	Value Now	Since Last Month
Madjo	76 %	↑ 4 %	Danmadja	28 %	↑ 2 %
Mbanga	71 %		Madjo	20 %	↑ 1 %
Danmadja	54 %	↑ 2 %	Mbanga	19 %	↑ 1 %
Béro	44 %	↑ 3 %	Béro	17 %	
Bégada	34 %	↑ 2 %	Bégada	17 %	↑ 1 %
Béla	28 %	↑ 1 %	Mouarom	13 %	↑ 1 %
Mouarom	24 %		Béla	12 %	
Missimadji	22 %	↑ 5 %	**Dokaidilti ***	**11 %**	
Madana N.	15 %	↓ 2 %	Maïnani	10 %	
Bendo	14 %	↓ 1 %	Missimadji	9 %	↑ 1 %
Maïnani	14 %		**Ngalaba**	**8 %**	
Dokaïdilti *	11 %		**Dildo**	**5 %**	
NDoheuri	8 %		NDoheuri	2 %	
Ngalaba *	**8 %**		Morkété	2 %	
Dildo *	5 %		Madanan Nad.	2 %	↑ 2 %
Miandoum	5 %		Miandoum	1 %	
Komé	4 %		Kaïrati	1 %	
Merméouel	4 %		Merméouel	1 %	
Morkété	4 %		Komé	1 %	
Kaïrati	2 %		Naïkam	1 %	
Naïkam	1 %		Bendo	0 %	

(*) Dokaïdilti, Dildo and Ngalaba Land Survey are completed. See explanation below.

Readers must keep in mind that for most villages, scores (Value Now) are computed on declarative data given at compensation time by individuals affected by project's land take. These data are used when no direct measure are available and, as a result, the scores may vary significantly from a month to month. However, when a village is entirely surveyed through the Village Land Survey methodology, compute score are then accurate, due to the fact that they are computed on direct measure (GPS survey and in-depth socio-economic survey).

As detailed later in section 3.3, the Village Land Surveys of both Dildo and Ngalaba were completed in the second quarter. We now know from measures and surveys that "Eligible after project" for Dildo, Ngalaba and Dokaidilti are respectively 5%, 8% and 11%. The number made "Eligible by

project" who were **not** eligible before can't be accurately determined on the basis of village surveys as there is no survey of before project holdings, only people's declarative data. However, the number of currently "eligible" households which have **not** surrendered land to the project shows the minimum number of households that were non-viable" even before project activities. To calculate the number of people made eligible by the project using survey data, one must assume the worst case: that all eligible people who have been compensated are eligible due to the project.

When mitigation actions have been completed, in coming months, the value of **eligible people compensated by the project** should fall to 0.

2. Land Acquisition Monitoring

The following is a list of all compensated facilities (called by EMP "Compensation Subjects") in July/August/September. For each subject a Land Take occurred.

Table 4: Summary of all compensated Subjects in July / August / September

Village	Land take (ha)		Nbr Individual
	Permanent	Temporary	
Ngalaba	0.35	0	1
Mouarom	7.45	9.33	36
Missimadji	0	6.67	15
Béro	0.33	2.61	29
Dildo	0.25	0.00	3
Bégada	12.57	17.38	139
Moundouli	1.05	1.37	3
Maïnani	1.41	1.90	14
Danmadja	0	0	34
Bolobo	0	0	1
Madjo	0	0	1
Mbanga	0	0	1
Total	**23.41**	**39.26**	**274**

Note that the "Nbr Individual" column refers to the residency village, which can be a different village of the compensated land; an individual from a village can be compensated for land he/she owns in another village. That is the case, as an example, for the 34 villagers from Danmadja who have been compensated for land located in Mouarom. Note also that the total individuals compensated do not match the sum of the "Nbr Individual" column. Some individuals have been compensated more that once and have declared to live in different village.

3. Socioeconomic monitoring

3.1. Village Land Survey

The Village survey technique developed and used since May 2007 has proven since the first result – Dokaidilti – that it is an efficient way to get the accurate picture of a village's household situation. Encouraged by the ECMG's positive comments, we decided in last June to convert the Fast Track team to a Village survey team as well as hire new teams for a total of 4 teams working on a 2 weeks rotation schedule. At the same time, a second Impact team was formed to survey households currently being affected by project land take outside villages targeted by surveys. By doing so, we could align 6 teams to work in 6 different villages at the same time (6 teams on and 6 teams off at anytime. Each team is composed of a social surveyor and a Land surveyor).

June and July was a training period for all these 12 teams. All of them went to Mainani, Koutou Nya and Madana Nadpeur to acquire and develop necessary survey skills before undertaking a whole village by their own. The next table summarizes the HH surveyed during training.

Table 5 : Household surveyed during new teams' training.

Village	HH Survey completed		Nbr Individual Compensated	Theoretical % completed
	Before training	In training		
Mainani	**7**	**22**	**137**	36 / 137 (26%)
Madana Nadpeur	**9**	**6**	**44**	15 / 44 (31 %)
Koutou Nya	**1**	**9**	**42**	10 / 42 (24%)

By the end of the third quarter, all Mainani surveys were captured. 2 HH has been identified as Red flag (see Annex 6.3. Three other HH were identified in previous months). Survey of Madana Nadpeur and Koutou Nya are being integrated to the EMP Information system. Results will be presented in the next quarterly report.

After the training, full Village surveys started around mid July in Begada II, Mbanga, Danmadja and Mouarom. At the same time, Madjo and Bero were surveyed following the Impact method (Survey only compensated HH rather than the entire village). Due to the rainy season, the low-lying

geography of Madjo coupled to the proximity of the Pendé River made access very difficult; surveys were suspended for the remainder of the rainy season and the team was sent to Begada I to start the village survey. The next table presents the summary of socio survey activities for 3Q08. These numbers come from weekly reports produced by each surveyor team.

Table 6 : Total number of HH Survey by village.

Village	Survey completed		Total HH expected	Theoretical % completed
	3rd Quarter	Total		
Dokaïdilti	-	85	Completed	100%
Dildo	-	275	Completed	100%
Ngalaba	-	251	Completed	100%
Begada I	8	8	185	4%
Begada II	60	60	135	45%
Bero *	37	37	357	10%
Danmadja	54	54	135	40%
Madjo *	18	18	150	12%
Mbanga	47	47	420	10%
Mouaroum	59	59	75	80%
Total	265	769	2068	37%

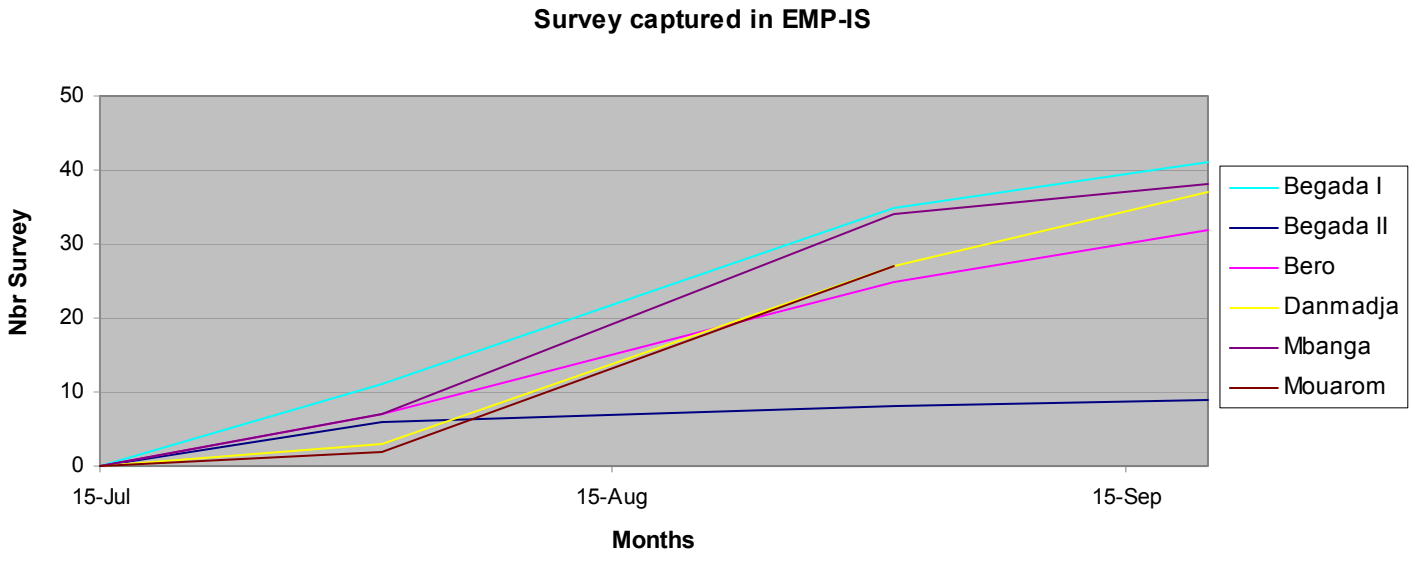
- Village surveyed with the "Impact Survey Method"

In addition to the four (4) LUMAP and two (2) Impact Teams, the resettlement contractor management company, JMN, also has a team. Recently JMN hired a back to back social investigator and EEPCI hired two (2) land surveyors to work with the JMN social investigators. These teams will also rotate and survey the graduates of the Off Farm Training (OFT) and Improved Agriculture Training (IAT) programs.

The last set of new hire social investigators are in training at this time. Once trained, two of our leader social investigators will step out as a team of Coordinators (replacing themselves with the trained new hires). This step is designed to expedite the data collection process as well as quality control and quality assurance.

3.2. Socio economic survey integrated into the EMP Information System

To increase production of useful data even more, a Data Entry Clerk position has been created and two persons were hired at the end of August to occupy this position on a two weeks rotation system. Both clerks received a training of a full week and get a constant support for two more weeks. They started the capture task with a backlog of more than 200 surveys and were able to almost clear it less than one month.



	Nbr Survey	Begada I	Begada II	Bero	Danmadja	Mbanga	Mouarom
July	36	11	6	7	3	7	2
August	120	24	2	18	24	27	25
September	30	6	1	7	10	4	2
Total	186	41	9	32	37	38	29

Figure 1 : Graphical and tabular views of survey progression according to captured survey in the EMP Information System.

Capturing surveys as they are produced has multiple advantages. It first allows us to evaluate production with a unique and systematic approach. This consistent evaluation through time should quickly identify bottleneck (survey slow-down for whatsoever reasons). It also allow us to process and clean up GPS data as well as the socio-economic survey week after week, rather than waiting at the end of a village survey before the clean up operation. The sooner the existing data are integrated and crosschecked, the faster it becomes to integrated new data.

Finally, production of reports like this one is simplified. Managers as well as surveyors can easily track the progression of the work. At the time this report was produced, the remaining backlog was less than 20 surveyed to capture. The graph above gives a good example of the production. In the next quarter, we expect to have better production, given that all team will be more experienced and the rainy season will be behind us.

3.3. Completed Villages

By the end of the 2Q08 and the beginning of 3Q08, village surveys of Dildo and Ngalaba were completed. Statistics were computed and households severely impacted identified. The next three tables present first a summary view that allows comparison between the three villages – Dokaidilti, Dildo and Ngalaba – following the project land take, the land use made by the villagers and the demographic size of each villages.

Table 7 : Project Land Take Impact Summary for Completed Village Land Survey.

	Dokaidilti	Dildo	Ngalaba
Village Area	686 Ha	1887 Ha	2152 Ha
Settlement area (% village)	22 Ha (3%)	39 Ha (2%)	97 Ha (4%)
Project Perm. Land Take + Temp. No Returned (% village)	74 Ha (11%)	184 ha (10%)	251 Ha (12%)
Available Land (% village)	590 Ha (86%)	1664 ha (88%)	1804 Ha (84%)

Table 8 : Village Land use summary for Completed Village Land Survey.

	Dokaidilti	Dildo	Ngalaba
Cultivated (Field) or Owned (Fallow) by Outsiders (% of available land)	132 Ha (22 %)	136 Ha (8 %)	145 Ha (8 %)
Cultivated Field Farmed by Resident (% of available land)	316 Ha (54 %)	681 Ha (41 %)	1089 Ha (60%)
Fallow Owned by Resident (% of available land)	155 Ha (26 %)	811 Ha (49 %)	556 Ha* (31 %)
Ratio Fallow/Field	0.5	1.2	0.5

* 81 Ha of bush included in fallow

Table 9 : Social summary for Completed Village Land Survey.

	Dokaidilti	Dildo	Ngalaba
Nbr Individuals Surveyed	537 (245 men, 292 Women)	1348 (659 men, 689 Women)	1344 (678 men, 666 Women)
Avg Age	18 year	19 year	18 year
Nbr Individuals with national ID Card	Total: 50 Men: 50 Women: 0 (9 % of the population)	Total: 88 Men: 88 Women: 0 (7 % of the population)	Total: 91 Men: 90 Women: 1 (7% of the population)
Nbr HH	85	275	251
Avg. HH size	6.3 HhM	4.0 HhM	5.4 HhM
Avg. Land per HH	11.3 cordes	11.2 cordes	12.5 cordes
Avg. Resettlement Factor	1.79 Corde/HhM	2.30 cordes/HHm	2.33 cordes/HhM
% Area "Owned" by women	14 %	17 %	28%

Although Ngalaba lost an additional 75 Ha in absolute Land Take to the project, each community lost about the same % of its total land to the project: 10-11%. Even with this additional Land Take, the average land per capita for the whole village is 2.33 corde/HhM, which is 3 times higher than the resettlement threshold of 2/3 corde/HhM.

Dildo is quite similar with an average factor of 2.30 corde/HhM. (The average factor is computed by summing the fields area owned by all HH, divided by the total population).

Dildo and Ngalaba's average per capita land holdings are about 30% more per person than for Dokaidiliti inhabitants.

Note that the area presented in table 7 is the village area, which is different from the sum of the land area owned by the HHs of a village (Some HH have land in adjacent villages and some land in Ngalaba is owned by individuals residing in other villages.).

Ngalaba's fallow/field ratio of 0.55, close to Dokaidilti's ratio, is an indication that villagers use all available land in an intensive way and that their fallow rotation system is near its breaking point. Thanks to the datasets generated by the Village Survey, we will be able to evaluate the impact of any future facility and undertake appropriate action not only for any HH that may be severely impacted but village-level mitigation measures before Site Specific Action Plans become necessary.

All these observations and measures collected in Ngalaba, Dokaidilti and Dildo indicate that the situation is not as dramatic as suspected in the Barclay-Koppert report Villages with little fallow and nonviable HHs were in a similar position prior to the Project land take. There are indeed HHs severely impacted by the Project, however, there does not appear to be a systematic degradation of the livelihood level caused by Project land take.

The next table presents the summary of compensated HH severely impacted. In both Dildo and Ngalaba about half the households (47% & 69%) have almost twice as much if not more land than needed for the traditional fallow rotation system.

Table 10 : Compensated Household surveyed in Dildo and Ngalaba Land surveys.

Resettlement Factor Range	Dildo				Ngalaba			
	Nbr HH	Nbr Individual	% HH	% Individual	Nbr HH	Nbr Individual	% HH	% Individual
0.000 - 0.499	5	33	4.9	5.52	6	35	2.91	2.94
0.500 - 0.667	6	34	5.88	5.69	10	77	4.85	6.46
0.668 - 0.999	16	119	15.69	19.9	10	59	4.85	4.95
1.000 - 1.499	22	129	21.57	21.57	30	198	14.56	16.61
1.500 - ...	53	283	51.96	47.32	150	823	72.82	69.04
Total	102	598	100	100	206	1192	100	100

The previous table is a useful source of information. HH falling in the green row are the ones the most likely to have enough land to donate land to At Risk HHs for compensation via the 3rd Party Compensation Process. HH on the next row, pale green, are the ones without enough land to give. The yellow row indicates HH that may slip in under the 2/3 corde/HhM threshold if they are affected by new Land Take. The orange line indicate individual relatively below and close to the threshold. A small land gain (through 3rd Party Compensation) may solve their At Risk situation. Finally, the red row indicates the most severely impacted HH. They may require more than a simple and unique resettlement option to restore their livelihood level.

In terms of livelihood restoration, three (3) households in Dildo and two (2) in Ngalaba have received OFT and IAT in between 2004-2006. These HH are targeted for OFT and IAT reinforcement support. Appropriate resettlement options are being or will be addressed to the remaining 8 HH in Dildo and 14 HH in Ngalaba. What these village-wide surveys show, because they cover all the land and people in the village, plus land the villagers farm in other areas (and concomitantly, village land farmed by people coming in from the outside) is the number of people and households that demonstrably fall below the agricultural viability threshold. In both villages, this number is much lower than "Eligible after Project" based on affected people's declarative information. 5% of Dildo HH are in fact below the threshold, versus 16% based on declarative data, while Ngalaba has 8% versus 32% declarative. Annex 6.3 lists the 27 severely impacted HH in Dildo and Ngalaba

As presented in this section, our dataset toolbox becomes richer as a village survey is concluded. We not only have a better picture of the situation at the village and HH level, but we can also evaluate precisely the impact of any new land acquisition at the household level. To restore the livelihood level of the severely impacted household, resettlement options can by applied, as well as Land Return.

4. Land Return Monitoring in OFDA[1]

4.1. Compensated and Returned Land by Land Use Type

This section presents the compensated and returned areas. The compensated land is divided in four Land Use Types:

1) Permanent with Public Access
2) Permanent with No Public Access

} Permanent Land Use

3) Temporary Returned Without Restriction
4) Temporary Returned With Restriction

} Temporary Land Use

Figure 4.1 presents the contribution of each Land Use Type in the total Compensated Land. The land returned is also noted but does not appear in the chart.

	Total areas in Hectares		*3Q08*	
Land Use Type	***Compensated***	***Returned***	***Compensated***	***Returned***
1) Permanent With Public Access	586.2	33.2	9.5	10.5
2) Permanent With No Public Access	828.5	90.7	20.2	5.7
Sub Total Permanent	**1414.7**	**123.9**	**29.7**	**16.2**
3) Temporary Returned Without Restriction	415.4	273.1	19.4	8.0
4) Temporary Returned With Restriction	1466.7	425.2	50.2	56.4
Sub Total Temporary	**1882.1**	**698.3**	**69.6**	**64.4**
TOTAL (Permanent + Temporary)	***3296.8***	***822.2***	***99.3***	***80.6***

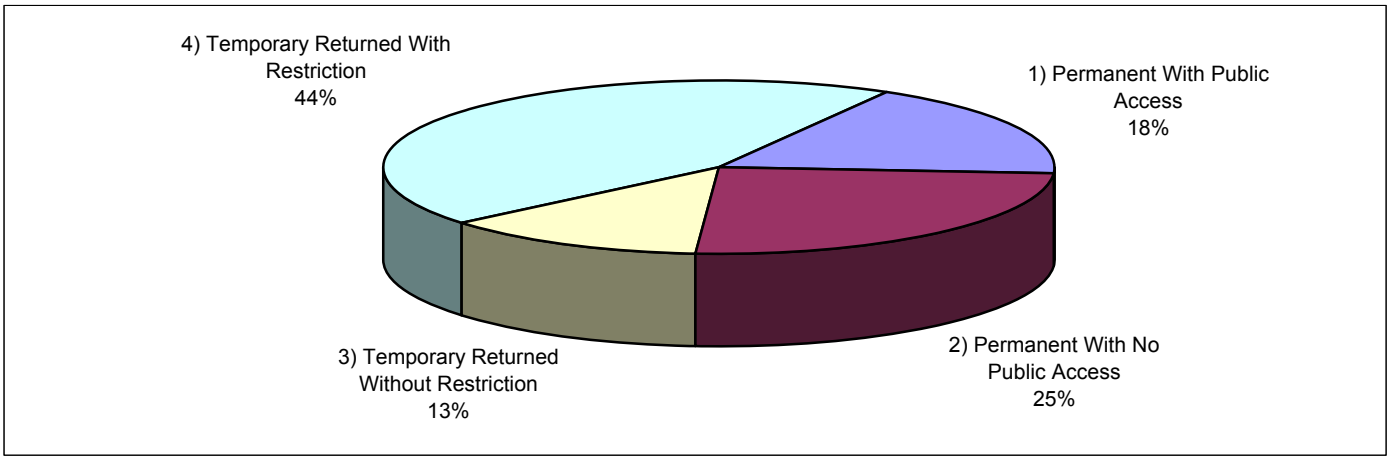


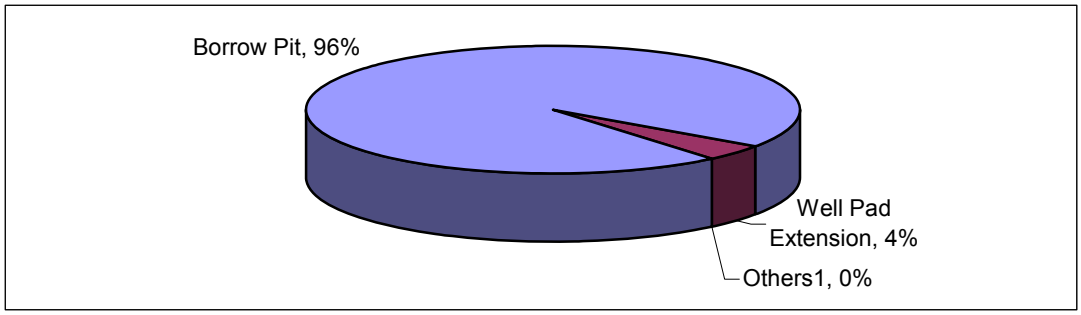
Figure 4.1: Total Compensated and Returned Land in OFDA

[1] OFDA Area includes the oil concessions of Miandoum, Bolobo and Komé

4.2. Compensated and Returned Land by Facility Type

It is interesting to look in more detail at each of these categories, and see the different facility types that compose them. The tables and charts on the next pages show the contribution of the different facility type that exist in the four land use types, as well as their land acquired and returned status

Facility Type	Compensated	Returned	% Returned
Borrow Pit	397.8	268.4	67.5%
Well Pad Extension	17.3	4.6	26.6%
Others[1]	0.3	0.0	0.0%
TOTAL	415.4	273.0	65.7%



1. Water Line Access & Soil Boring

Figure 4.2: Land Use Type 3) Temporary Returned Without Restriction (Areas in hectares)

Current borrow pit reclamation work is returning arable land to the villagers regardless of the arable quality of these land areas prior to laterite mining by the Project.

The other facilities' uses are as follows:

Facility Type	Compensated	Returned	% Returned
Main Road	78.5	0.0	0.0%
Access Road	507.7	33.2	6.5%
Total	586.2	33.2	5.7%

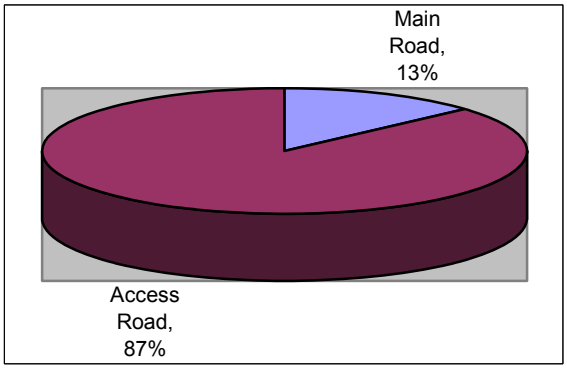
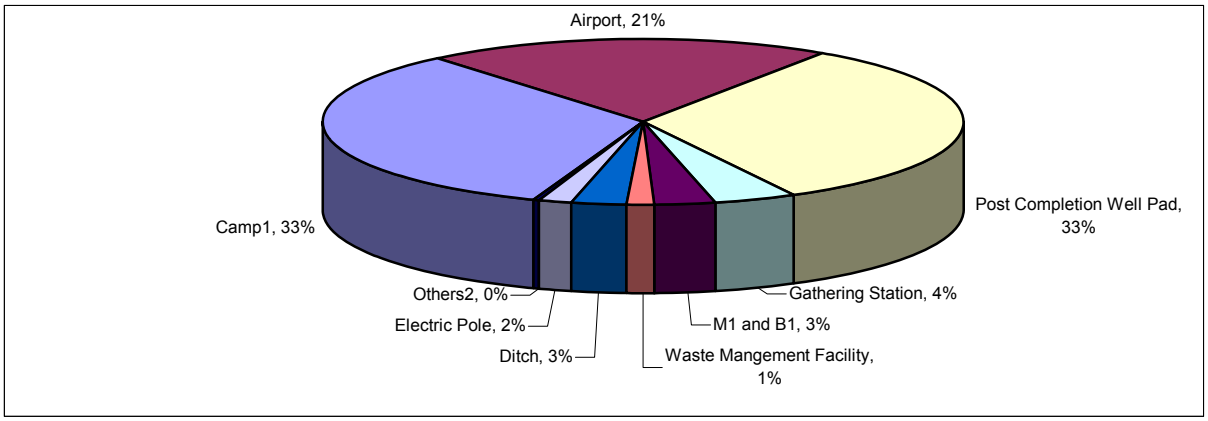


Figure 4.3: Land Use Type 1) Permanent with Public Access (Areas in hectares)

Although the area taken by roads is not small, the main road now serves as the second economic artery behind the national highway for moving local production from the OFDA region, the Prefectures to the south of the OFDA, and bordering portions of the Central African Republic. The access roads are convenient for the many bicycles, hand carts; oxcarts and motorcycles inhabitants have acquired with their compensation money and are frequently used by farmers going to their fields, which branch off on the footpaths only when they get near their destination.

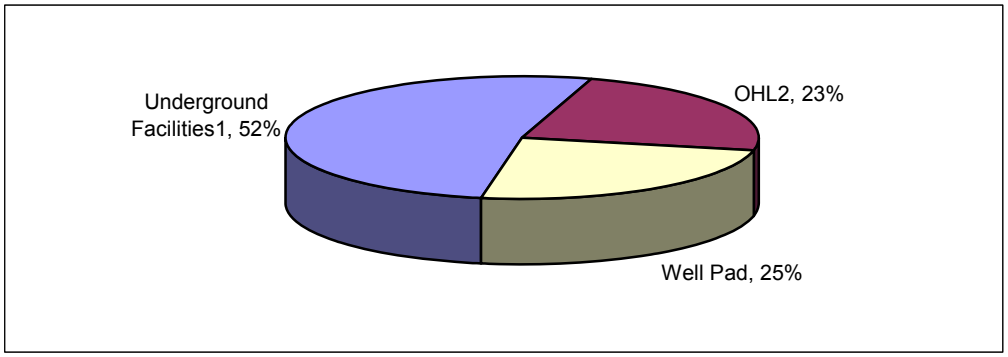
Facility Type	Compensated	Returned	% Returned
Camp[1]	272.0	0.0	0.0%
Airport	169.0	69.0	40.8%
Post Completion Well Pad	266.0	12.6	4.7%
Gathering Station	33.6	4.6	13.7%
M1 and B1	24.8	4.5	18.3%
Waste Mangement Facility	12.2	0.0	0.0%
Ditch	22.5	0.0	0.0%
Electric Pole	13.3	0.0	0.0%
Others[2]	2.9	0.0	0.0%
Total	816.3	90.7	11.1%



1. Kome Base, Kome 5, Lagoon, Leach Field
2. Piezometers, Service Area, Water Well

Figure 4.4: Land Use Type 2) Permanent with No Public Access (Areas in hectares)

Facility Type	Compensated	Returned	% Returned
Underground Facilities[1]	759.14	80.1	10.6%
OHL[2]	343.2	70.2	20.5%
Well Pad	358.3	284.9	79.5%
TOTAL	1460.7	435.2	29.8%



1. Flowline, Gathering Line, Water Injection Line, Trunkline, Pipeline, Underground cable
2. 33 Kv, 66 Kv, 132 Kv

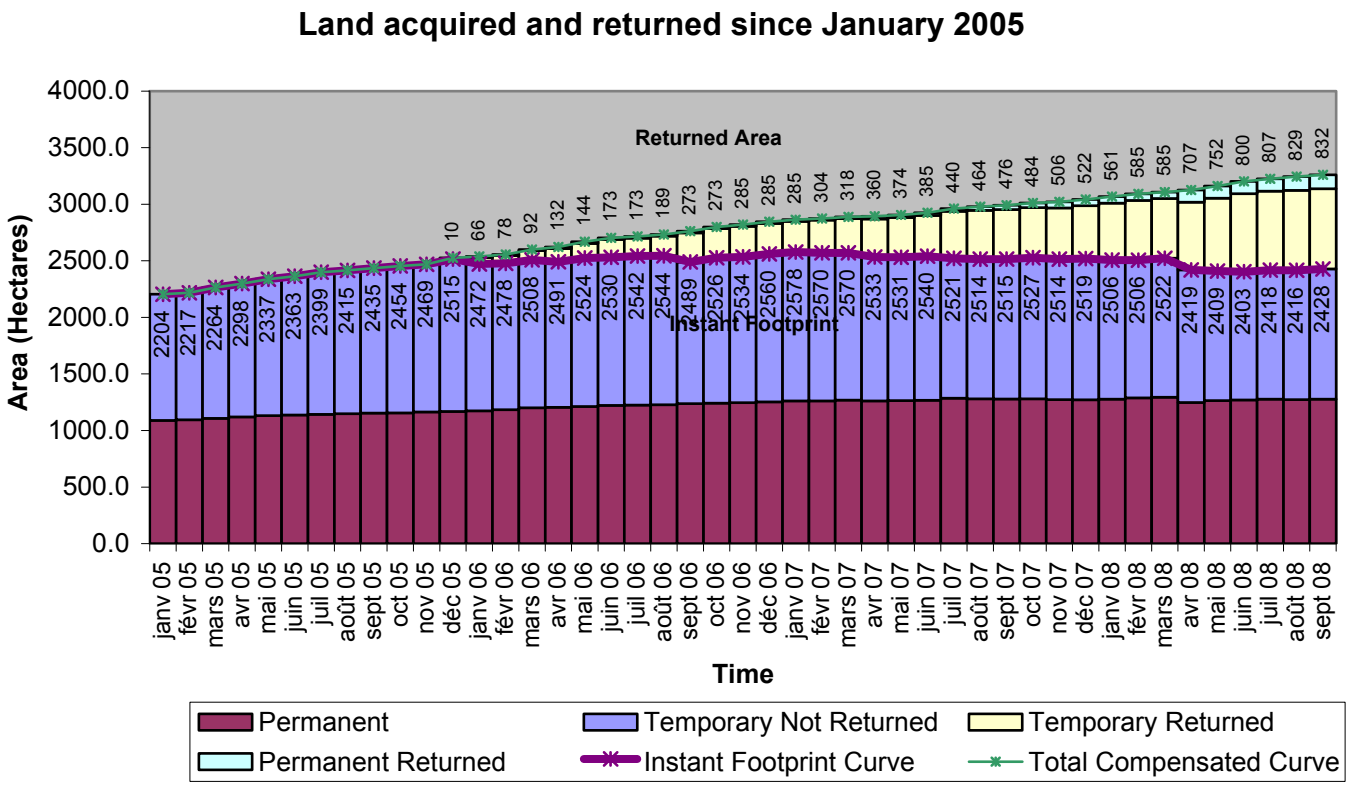
Figure 4.5: Land Use Type 4) Temporary Returned With Restriction (Areas in hectares)

The export pipeline right of way in the OFDA is 47.2 ha (30 m * 15.8 km). However, only 7.5 m on each side of the center line is returned with restriction. Therefore, half of the total right of way (23.6 ha) has been returned without restriction. The restrictions on using land covering underground facilities are not onerous. No planting of trees, digging of holes, or construction of buildings, all of which might damage the lines or prevent easy access when needed. Otherwise any cultivation is allowed. Acquisition of a special work-over rig for well maintenance has further reduced the well pad area from the 1 Ha. used for drilling . The areas under the 66Kv and 33Kv and other electrical lines present more of a challenge. The greatest problem is accessing the power poles for repairs – frequent enough in this lightning-prone area. How access is achieved is constrained by hazards related to safety: the growth of high grasses or normal crops during the rainy season impedes visibility for repair crews and security patrols, who risk colliding with people, cars, animals, bicycles, etc. making their way along the obscured footpaths. The risk is increased at night. Secondly, crops or grasses will be burned off intentionally or by bush fires at the end of the agricultural season, depositing carbon on the lines and increasing the probability of short circuits. EEPCI plans to resolve this seeming dilemma by planting the OHL ROW in low growing forage crops that will be used during the rainy season by children gathering fodder for their tied-up domestic animals and by the animals themselves once the rains have stopped.

4.3. Project Footprint

This section presents the evolution of the project footprint since January 2005. The purple curve shows the footprint (compensated and not returned yet) and the green curve shows the total compensated land, the labels above the green curve are the total returned area. The area between the curves is the amount of land returned. In 3Q08 the amount of land taken for temporary construction needs and still not returned is stable and will decline when return of temporary use land increases in the dry season 2008/2009.

As you can see, the Project footprint has not grown since December 2005 (>2.5 years).



5. Summary

This report covers Land Use Mitigation Action Plan progress in 3Q08. As of the end of 2007 the LUMAP had developed tools for measuring project impact at the village level. These tools are being used in 2008 to monitor ongoing land acquisition and to understand the impact of previous land use.

At the beginning of 2007 the tool being used depended on information given by individuals being compensated for land and was, therefore, subject to bias. How honest was the individual being in declaring his land holdings and number of dependents? Did s/he see some advantage in misreporting or not? With this initial tool 5/61 villages in the OFDA seemed in 2006 to have been highly affected by project land needs (Barclay/Koppert Report). By the end of 1Q2007 EMP had developed a tool using GPS land measurements; this system showed only 4 highly impacted villages. Since the tool needed further fine-tuning the number of high villages was kept at 5. In 3Q2007 the tool was refined with the addition of social measurements of the number of individuals/Hh potentially At-Risk in a village, i.e. holding less than the 2/3c per HhM needed to be viable if dependent on agriculture alone. With these additional measures the total number of highly impacted villages rose to 7. Through September 2008 this number is reduced to 6 given the land reclamation and returns at Dildo and in fill drilling land take at Begada. As we go forward using the Land Surveys, we will have the information to validate the village impact severity for the currently categorized high impact villages and the approaching high and medium impact villages on our watch list.

6. Annex

6.1. Land Use Criteria

Criteria 1: Land use & footprint

Two criteria are presented for the village Land Use impact. Both of them represent the percentage of village area used by the project within each village. The boundaries of the village are not officials and are computed based on a global survey of village limit. The thresholds represent "natural breaks" or large numerical gaps in between villages.

A. Permanent Land Use Percentage

Criteria used to indicate the final situation of the villages once the temporary land will be completely returned.

$$\frac{\sum \text{Permanent Not Returned}}{\sum \text{Village Area}}$$

Sub Threshold	
	Between
High	≥ 5%
Approaching High	4% - 4.9%
Moderate	2% - 3.9%
Low	0% - 1.9%

B. Current Village Footprint

Used for final classification and gives a view of the project land use considering the temporarily, but not yet returned, compensated land. The final percentage is computed by adding the not returned land temporarily and permanently used by the project

$$\frac{\sum \text{Permanent Not Returned} + \text{Temporary Not Returned}}{\sum \text{Village Area}}$$

Sub Threshold	
	Between
High	≥11%
Approaching High	7% - 10.9%
Moderate	3% - 6.9%
Low	0% - 2.9%

6.2. Socioeconomic Criteria

Criteria 1: % Eligible after Project

Description: Percentage at the village level of the number of individuals below the resettlement factor of 2/3, regardless of their situation before any project impact.

Rule:

$$\frac{\sum \text{(All HhM of All eligible Hh after land take, regardless their previous situation)}}{\text{Village Population}}$$

Threshold:

Threshold Criteria 2		
	Min	Max
High	50.1%	100%
Approaching High	30.1%	50%
Moderate	20.1%	30%
Low	0%	20%

Criteria 2: % Eligible by Project

Description: Percentage at the village level of the number of individual that were not eligible before any project impact (the resettlement factor > 2/3) and became Eligible after project impact (the resettlement factor < 2/3).

Rule:

$$\frac{\sum \text{(All HhM of All Hh those are not eligible } \textbf{before} \text{ land take \& are eligible } \textbf{after} \text{ Land take)}}{\text{Village Population}}$$

Threshold:

Threshold Criteria 3		
High	20.1%	100.00%
Approaching High	15.1%	20.00%
Moderate	9.1%	15.00%
Low	0%	9%

6.3. List of Severely impacted Household in Dildo, Ngalaba and Mainani

Village	Quarter	Household	CdM	ID	Age	Nbr Comp	Area Comp	Training	On F.	Off F.	Last Survey	Survey	Nbr Field	Area Now	HhM	Fct Now	For LR	Fct LR
Dildo	Dildo	HH000197	Mme.	ID030048	39	2	0.358				2007-11-03	ES003163	0	0	5	0	0.348	0.07
Dildo	Dildo	HH000239	M.	ID020144	34	3	3.395				2007-12-16	ES003210	2	4.36	7	0.623	0.435	0.685
Dildo	Dildo	HH000242	M.	ID033717	24	1	0.565				2007-12-27	ES003213	1	3.185	5	0.637	0.044	0.646
Dildo	Dildo	HH000515	M.	ID021425	29	4	1.649	1		2004	2008-05-28	ES003925	2	4.27	8	0.534	0.09	0.545
Dildo	Dildo	HH000580	M.	ID021745	27	1	1.873				2008-03-23	ES003592	1	1.572	4	0.393	0	0.393
Dildo	Bayande	HH000615	M.	ID029953	28	1	0.109				2008-02-20	ES003629	2	4.606	10	0.461	0.082	0.469
Dildo	Bayande	HH000634	Mme.	ID036168	44	3	1.929	1		2006	2008-02-17	ES003648	4	4.047	7	0.578	0.478	0.646
Dildo	Bayande	HH000640	M.	ID020146	39	4	5.197				2008-01-23	ES003654	2	1.04	10	0.104	6.624	0.766
Dildo	Bayande	HH000674	M.	ID000029	50	1	7.78				2008-03-02	ES003688	1	2.25	4	0.563	0	0.563
Dildo	Bayande	HH000731	M.	ID022581	40	2	0.096				2008-01-27	ES003745	1	1.477	4	0.369	0	0.369
Dildo	Dildo	HH000846	Mme.	ID022590	33	2	0.246	1		2006	2008-01-14	ES003867	1	1.575	3	0.525	0.214	0.596
Ngalaba	Ngalaba	HH000125	M.	ID032743	26	1	0.004				9/29/2007	ES003077	1	1.977	3	0.659	0	0.659
Ngalaba	Ngalaba	HH000131	M.	ID020240	28	3	0.633				9/29/2007	ES003083	1	1.175	3	0.392	0.046	0.407
Ngalaba	Ngalaba	HH000149	M.	ID021002	29	3	1.3				10/31/2007	ES003114	1	1.259	5	0.252	0.712	0.394
Ngalaba	Ngalaba	HH000178	M.	ID023626	38	3	0.375				11/23/2007	ES003144	2	3.62	7	0.517	0.952	0.653
Ngalaba	Ngalaba	HH000179	Mme.	ID020974	34	6	1.111				11/23/2007	ES003145	2	4.368	7	0.624	0.543	0.702
Ngalaba	Ngalaba	HH000475	Mme.	ID029275	44	1	0.078				11/24/2007	ES003466	2	3.762	6	0.627	0.311	0.679
Ngalaba	Ngalaba	HH000523	M.	ID021504	32	3	1.268	1		2004	12/16/2007	ES004005	4	6.116	10	0.612	0.344	0.646
Ngalaba	Ngalaba	HH000526	M.	ID020231	32	6	1.196	1		2004	12/9/2007	ES004002	4	7.948	14	0.568	0.089	0.574
Ngalaba	Ngalaba	HH000700	Mme.	ID021096	40	3	0.574				1/11/2008	ES003714	3	2.404	7	0.343	0.467	0.41
Ngalaba	Ngalaba	HH000709	M.	ID028655	21	4	0.5				12/11/2007	ES003723	1	2.913	7	0.416	0.408	0.474
Ngalaba	Ngalaba	HH000716	M.	ID013639	33	6	1.104				12/14/2007	ES003730	2	4.917	10	0.492	0.809	0.573
Ngalaba	Ngalaba	HH000724	Mme.	ID029270	50	1	0.81				12/16/2007	ES003738	3	3.322	5	0.664	0.46	0.756
Ngalaba	Ngalaba	HH000737	M.	ID021396	23	5	1.778				12/15/2007	ES003751	4	5.428	10	0.543	0.214	0.564
Ngalaba	Ngalaba	HH000837	M.	ID023896	31	3	0.728				3/11/2008	ES003858	3	4.716	8	0.59	0.381	0.637
Ngalaba	Ngalaba	HH000924	M.	ID021206	22	7	1.678				5/9/2008	ES003950	1	3.715	7	0.531	0.418	0.59
Ngalaba	Ngalaba	HH001061	M.	ID023895	23	1	0.219				6/6/2008	ES004088	1	1.156	3	0.385	0	0.385
Maïnani	Maïnani	HH000297	M.	ID021802	38	4	0.525				2007-12-18	ES003278	3	4.523	14	0.323	0.237	0.34
Maïnani	Maïnani	HH000300	M.	ID021323	37	3	1.951				2007-12-18	ES003281	4	5.489	18	0.305	0.621	0.339
Maïnani	Maïnani	HH000305	M.	ID022252	37	3	1.315				2007-12-18	ES003287	3	3.153	8	0.394	0.321	0.434
Maïnani	Maïnani	HH000994	M.	ID022253	60	2	0.776				2008-06-21	ES004034	3	2.619	7	0.374	0	0.374

Maïnani	Maïnani	HH001000	M.	ID021800	26	18	5.409	1	2007	2008-06-13	ES004040	4	5.123	8	0.64	0	0.64