Site Specific Plan
Maïkeri Village
March 2011

Context of the Land Use Situation

Since construction began in 2000, the Chad Cameroon Oil Export Project (the Project) has compensated nearly 12,900 individual land users for almost 7,100 Hectares (Ha) of land in 375 villages along the entire length of the Project from Kome, Chad to Kribi, Cameroon.

Compensation in the Oil Field Development Area (OFDA) has been paid for nearly 3,800 Ha of land involving about 4,400 individual land users. The Project has utilized 3% of the 100,000 ha of land in the OFDA. When all of the land taken for construction and not needed for permanent facilities has been returned the percentage still in use by the Project will be just over 1% of the total OFDA area.

All land users and villages have been compensated according to the Environmental Management Plan (EMP) that was approved prior to Project construction. The Project's compliance with the EMP compensation requirements has been documented in the Project Update reports and by the World Bank's External Compliance Monitoring Group (ECMG) and the International Advisory Group (through 2009).

A set of principles set out in the EMP have guided the land acquisition and compensation effort, including:

- A transparent compensation procedure with, at minimum, 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, nearly all land is 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.
- Recording all compensation transactions. Each payment is archived with a photo of the transaction and the recipient's thumb print.
- Avoiding resettlement of households through project redesign and by offering two resettlement alternatives - Improved Agriculture Training and Off-Farm Skills Training.

These principles have been developed into a set of guidelines and procedures that govern how compensation, resettlement, and other mitigations are applied. These guidelines are contained in the in-house Land Management Manual (LMM), which serves as a Desk Guide to implementation. This guide is periodically updated to include improvements and modifications (last revision in February 2011).

Evolution of the OFDA Land Use Situation

As the three original Oil Field Development Area (OFDA) fields were being developed, and results began coming in from the completed wells, it became clear that more rather than fewer of the projected wells would be needed in order to develop Chad Doba Basin oil. This continued drilling, and the infrastructure to collect the oil and to supply electricity to the wells, was consuming more land than originally anticipated on the basis of the low-end estimate. The project's efforts to address this land use situation began in mid-2005, when it declared a Level II Noncompliance Situation (NCS) regarding the pace of returning to communities temporary use land that had been reclaimed in accordance with the Environmental Management Plan (EMP).

By the end of 2006, with the help and input from the World Bank Group (WBG), the project had developed initial mitigation actions and had begun implementing them. An action plan was agreed in 2007, which included among other actions the development of Site Specific Plans to address particular problems facing certain villages that had surrendered substantial areas to project use and for which land return was lagging.

Purpose of a Site Specific Plan

The purpose of a Site Specific Plan (SSP) for each of these villages is to develop measures that mitigate the precise problems the village's population is encountering within their own village area. First, the study must determine the problems specific to that village. Then the mitigations proposed must be feasible, using the resources that are available to the restricted vicinity and maximizing the knowledge and capabilities of its inhabitants. The plan consolidates all applicable livelihood restoration tactics into a strategy that will lead to livelihood restoration in this heavily affected village.

Although the absolute foot print of the Project (Permanent Land Take and Temporary Land Take Not Returned) has not grown to any significant extent since December 2005, the slow return of temporary use land plus the increase in compensated land has highly impacted certain villages located in the OFDA. These impacts include:

- Reduced pool of land available for agricultural use
- Access to bush resources
- Depletion of bush resources
- Shortened fallow availability
- The Land Use Mitigation Action Plan (LUMAP) Site Specific Plan for each highly impacted village in the OFDA develops mitigation measures by clearly defining the village's situation.

Focus of a Site Specific Plan

Within the OFDA, land acquisition for production facilities has affected 47 official villages according to 2008 administrative categorization -- 32 if the geographic rather than administrative units are counted – 61 if all the unofficial quartiers are included For purposes of a SSP, it is the **geographic unit** that will be considered since the aim is to remediate impacts on the geographical area of the village and its inhabitants.

Out of the 32 geographical villages in the OFDA, 12 were categorized as more affected by ongoing project land needs than others.

Since a village is classed by its worst indicator, Maikeri village is in the Approaching High category and on the Watch List for any change in status.

Purpose of the Maïkeri Site Specific Plan

The purpose of the Maikeri SSP is to provide the village as a whole with sufficient livelihood to offset its land losses to the Project. The SSP additionally evaluates the land-holding situation of all the households (HH) in the village to judge whether the village as a whole is at risk and, if so, what actions would be efficacious. The plan also looks at the more affected people in the village to appraise their situation and take remedial action if needed. For at-risk HHs this can be done by increasing revenues from Off-Farm Training or Improved Agriculture Training (more productive use of residual land), through providing intra-village land sharing incentives (Third Party Compensation), or other means that can be employed through a precise identification of the individual HHs' and the village's condition. The mitigations proposed must be feasible, using the resources that are available to the restricted vicinity and maximizing the knowledge and capabilities of its inhabitants. The plan consolidates all applicable livelihood restoration tactics into a strategy that will lead to livelihood restoration in this impacted village.

Elements of the Maïkeri Site Specific Plan

- Land use status of the community prior to the Project
  - Nature and quantity of resources available before the Project
- Resources currently available
  - The inhabitants already have the knowledge and habits to exploit these resources
- Socioeconomic survey data and analysis to obtain current status of the village:
  - Community inhabitants
  - Which village and individual resources have been impacted by the Project
  - Households in difficulty
- Ways in which the village has been unable to deal with Project impact
  - Define the livelihood difficulties found at the specific site
  - Identification of impacts unforeseen in the EMP Chad Resettlement and Compensation Plan (CRCP)
  - Will new additional measures be needed to reverse Project impact?
- Review of possible actions for Site Specific Plans providing for village level livelihood enhancement
- Actions so that all Project-affected agriculturally non-viable HHs have maintained or improved their livelihood
- List of actions selected in priority order
  - Quantify resources needed to reverse Project impact
  - Identify units/entities responsible for execution

- Implementation plan for each listed action, with time-bound actions and dedicated budgets

Land Use Status Prior to the Project
The OFDA

- The population of the 10 most affected villages in the OFDA doubled between 1993 and 2006.
- The average population growth was 124% and the modal increase in population ranged from 90-96% in these villages
- Compared with natural population growth the Project's impact on land (bush, fallow, settlement, fields) was very limited.
- Project land take caused only a 4% increase in population density per ha compared to the increase caused by natural population growth.

In the OFDA the population growth reduced the amount of bush available to people by one half between 1993 and 2006. Only 8% of the decrease in bush area can be attributed to Project land take.

Maïkeri's Land and Population, Past and Present.
Maikeri is in the Miandoum oilfield and also in the Maikeri oilfield. It is bordered on the north by Ngalaba village, on the south by Poutouguem and Bedara villages, on the west by Bendoh village, and on the east by Morkete village.

- Maïkeri has the second lowest amount of bush/fallow of the 12 most impacted villages in the OFDA surveyed using the Village Land Use Survey technique.
- Maïkeri's population growth between 1993 and 2000 went from 312 to 450. The number of residents counted in 2010 Village Survey is 720.
- The numbers in the three bullets below are based on a manual interpretation of a satellite image dating from November 2003. At that time, the approximate village limit of Maïkeri gave an area of 1208 ha, categorized as follows:
    - 163 ha of bush
    - 1022 ha of cultivated and fallow land
    - Settlement area of 23 ha
- By topographic measurement of Maïkeri's land, its total available land area in June 2010 is 1092 ha or 87% of its pre-project area (1250 ha):
    - During the Village Survey, the village declared 0 ha of Bush. (Bush that was estimated on the 2003 satellite image is, according to the farmers claiming the land, long-term fallow).
    - The history of land take and land return plus the impact of In Fill drilling is as follows:
        - In 1Q 2010 Maïkeri had lost 8.4% of its pre-project arable land.
        - In 3Q 2010 – pre-project arable land lost to the project increased to 8.8% .
        - In 4Q 2010 – pre-project arable land lost to the project increased to 9.1%.

- 17% of Maïkeri's land is farmed by people from the surrounding villages.
- The Project land take has increased the population density by 10.0% from the beginning of the project to today, the population increase accounts for 10.9% and the settlement expansion for 1.9%.
- Maïkeri had 0.26 people per ha at the census of 1993, 0.37 people/ha pre-project and now has 0.66 people/ha.

- Maïkeri's population density is slightly below the average for surveyed villages in the OFDA:

Village	1993 pop density/ha	2000 pop density/ha	2007 pop density/ha	Village Survey Data
Bégada	0.18	0.29	0.38	0.43
Béla	0.15	0.27	0.47	0.42
Béro	0.25	0.92	0.40	0.77
Danmadjia	0.43	0.84	1.72	1.48
Dildo	0.39	0.70	0.79	0.81
Dokaïdilti	0.29	0.52	1.41	0.92
Madjo	0.16	0.53	0.24	0.43
Mbanga	0.18	0.44	0.54	0.53
Mouarom	0.18	0.19	0.38	0.38
Ngalaba	0.39	0.64	0.88	0.75
Poutouguem	-	0.35	0.50	0.63
Maïkeri	0.25	0.37	0.53	0.66
Average	0.28	0.55	0.74	0.74

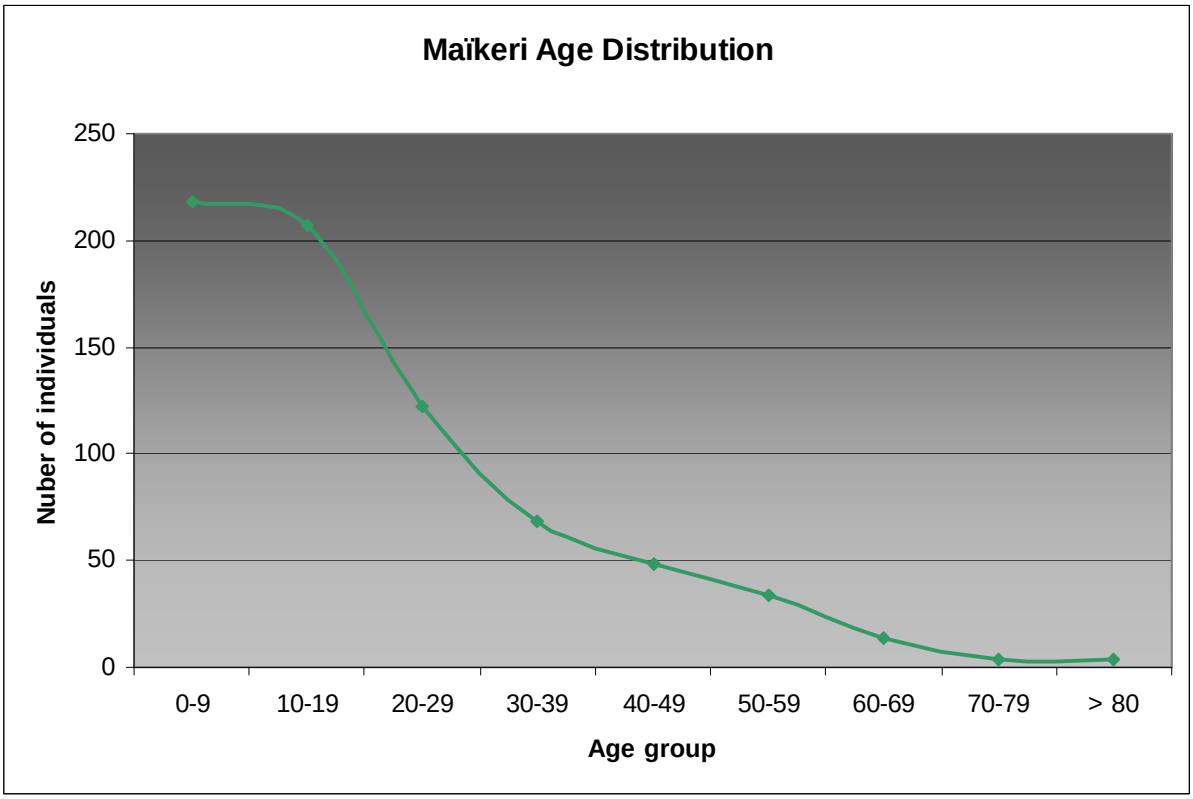
Maikeri's population has grown by 60% since 2003. The population growth has had more effect on the population density per hectare of land than the land take by the Project.

Maïkeri's Current Demographics

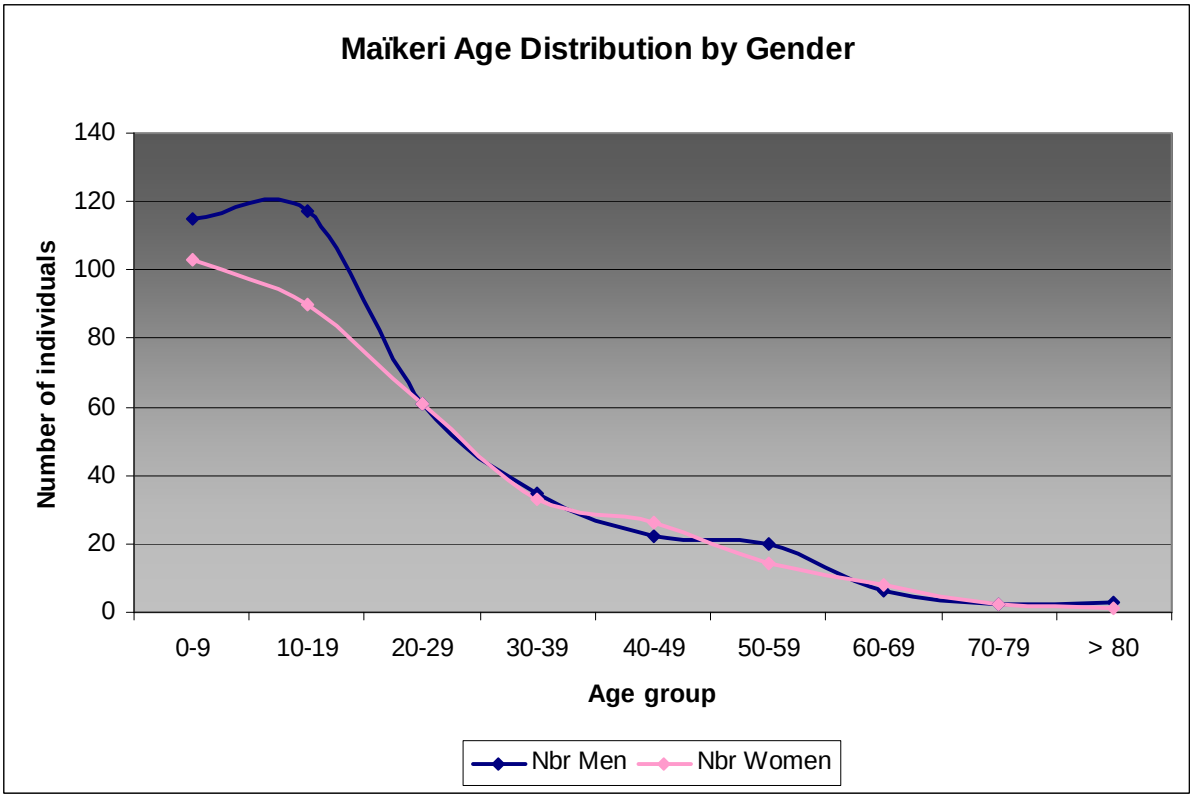
Today, looking at Maïkeri's households and using topographic measurements of land holdings rather than individuals' reported dependents and holdings:

- Maïkeri has 140 HH and 720 inhabitants.
- 18% of HH are headed by women.
- Maïkeri's population is very young; 30% of the population is under 10 years of age.
- 78% of the population is under 30 years of age:

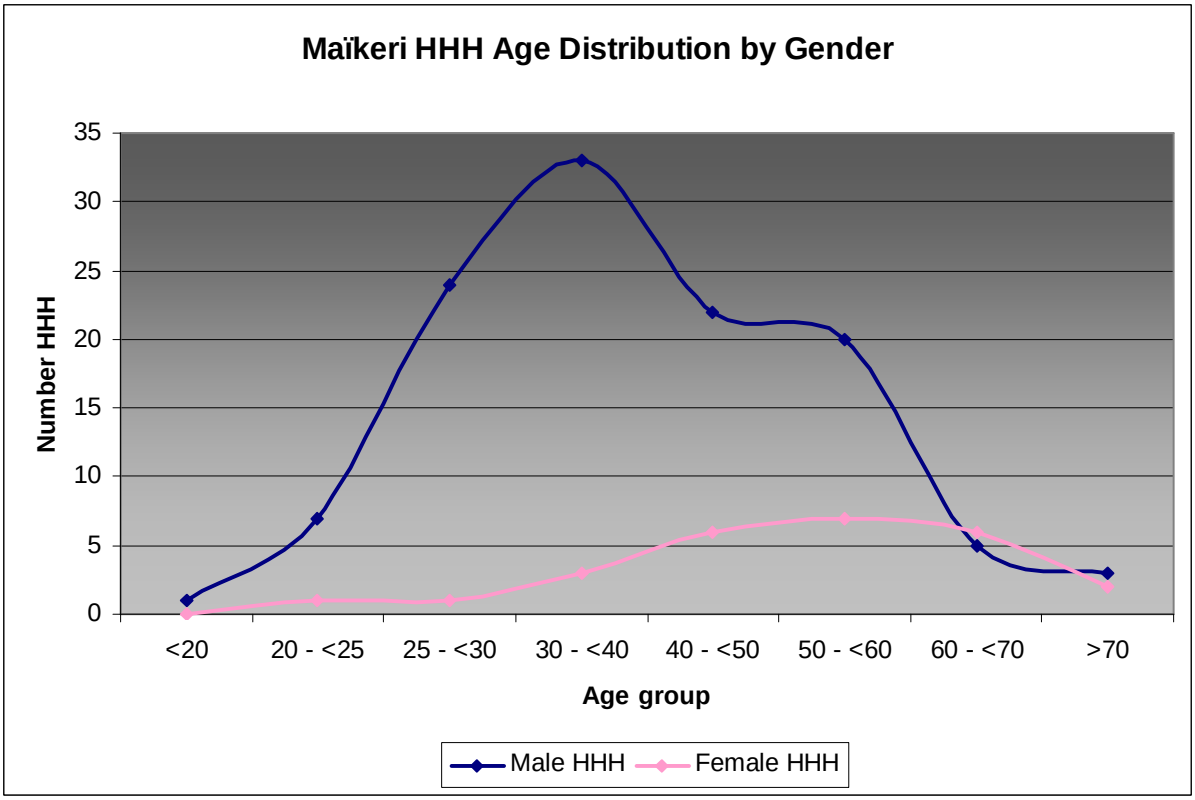
Age	Number individuals	% of pop
0-9	218	30.3%
10-19	207	28.7%
20-29	122	16.9%
30-39	68	9.5%
40-49	48	6.7%
50-59	34	4.7%
60-69	14	1.9%
70-79	4	0.6%
> 80	4	0.6%
N/A	1	0.1%



- Only 38% of the population is of the age considered mature enough to head a household. Another 3% is at the age where, although they may be an independent HH, they depend on their children for most of their subsistence.



Like Poutouguem village, Maikeri's male to female proportion evens out at around 25 years of age. The gender proportions track each other as their ages increase.



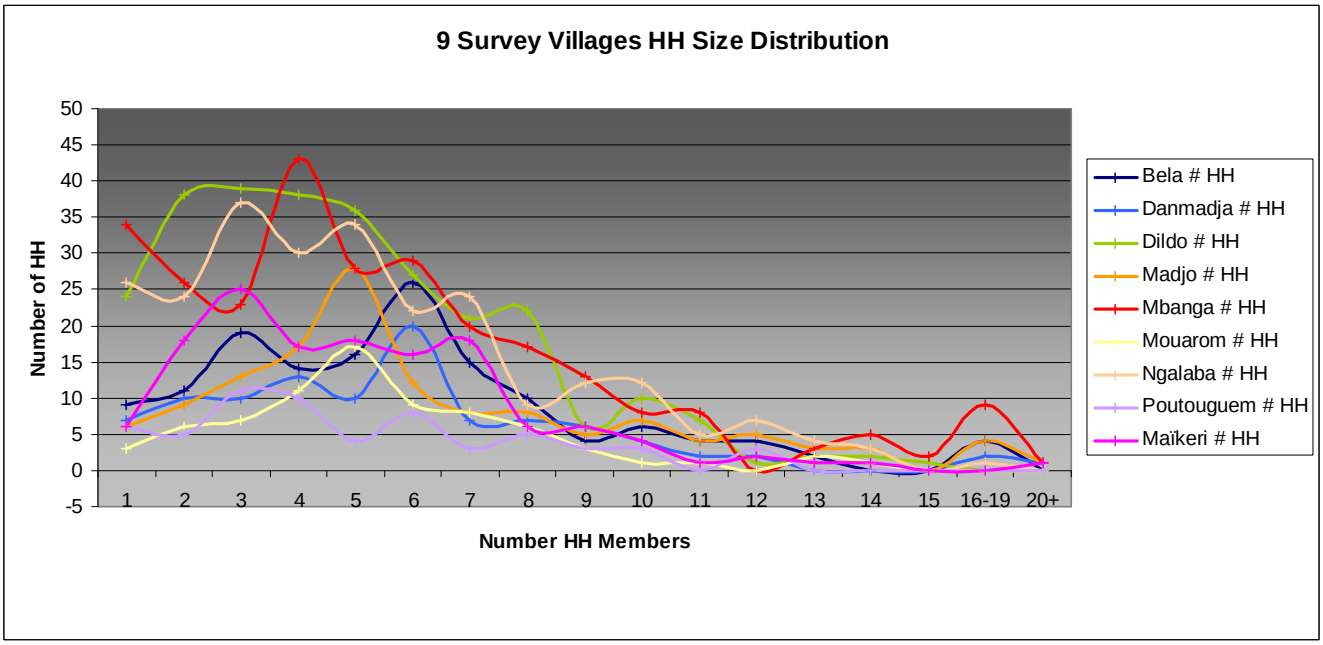
- Hence the number of female Head of Household (HHH) (widows, separations) increases with age.

- Although there is a low number of Female HHH (FHHH) in Maïkeri, 25% of the land in Maïkeri is cultivated or owned by women.

HH Size

- While the average HH size in the area is about 5.6, in Maïkeri average is 5.2.
- The **mode** of HH composition at Maïkeri is 3 Household Members (HHM).
- The overall distribution of Maïkeri's households by size, in comparison with other surveyed villages, is:

# HHM	Bela	Bero	Danmadja	Dildo	Madjo	Mbanga	Mouarom	Ngalaba	Poutouguem	Maïkeri
1	9	21	7	24	6	34	3	26	6	6
2	11	45	10	38	9	26	6	24	5	18
3	19	59	10	39	13	23	7	37	11	25
4	14	81	13	38	17	43	11	30	10	17
5	16	88	10	36	28	28	17	34	4	18
6	26	72	20	27	12	29	9	22	8	16
7	15	61	7	21	8	20	8	24	3	18
8	10	37	7	22	8	17	6	9	5	6
9	4	42	6	6	5	13	3	12	3	6
10	6	23	4	10	7	8	1	12	3	4
11	4	27	2	7	4	8	1	5	0	1
12	4	16	2	1	5	0	0	7	3	2
13	2	16	0	2	3	3	2	4	0	1
14	0	8	0	2	3	5	1	3	0	1
15	0	3	0	1	0	2	0	0	0	0
16-19	4	11	2	0	4	9	0	1	0	0
20+	0	1	1	0	1	1	0	0	0	1



The HH size distribution is similar to that found in Bela and Danmadjia villages.

Vulnerability or Non-Viable Agricultural HHs

Age

- The age of the HHH plays a role in the HH's vulnerability; HHH at certain ages are more likely to have insufficient land for their HHM. But it must be remembered that the **HH land holding of 2/3 corde per HHM covers both land in cultivation and in fallow. A HH may have under 2/3 corde per HHM but put most of that land in cultivation so that it currently has plenty to eat, while the fallow that will be needed in a few years lies in the family land pool, held by an older relative.**

Age HHH	# All HHH	# Vulnerable HHH	# Male Vulnerable HHH	# Female Vulnerable HHH
less than 20	1	0	0	0
20 - 29	33	2	1	1
30 - 39	36	3	3	0
40 - 49	28	2	1	1
50 - 59	27	5	5	0
60 - 69	11	1	0	1
More than 70	5	0	0	0

Size

- The average HH size of all Maïkeri's vulnerable HHs is 6.9 like large HH found among vulnerable families in most other villages.
- The total number of individuals in the vulnerable HH = 90, of which 82 belong to Project-affected HH.

Age HHH	Avg HH Size	Avg At-Risk HH Size
20 <	3.0	-
21 - 30	4.1	2.0
31 - 40	5.9	6.7
41 - 50	6.5	8.0
51 - 60	6.0	9.8
61 - 70	2.6	1.0
> 71	1.3	-

Land Holdings

- Looking at the number of individuals within HHs shows the percent of the entire population, not just of HHs, that finds itself at a particular economic level:
  - 12% of Maïkeri's population lacks sufficient agricultural land, though there may be other HH sources of revenue.
  - Another 10% live on the margin of sufficient agricultural land
  - The remaining 78% of the population find themselves in good circumstances:

Range of Land Holdings per Dep.	Number of HHs	Number of Individuals	% HH	% Individual
0.001 - 0.667	13	90	10	12
0.668 - 0.999	10	70	7	10
1.000 - 2.499	55	300	39	42
2.500 - ...	62	263	44	36
Total	140	723	100	100

Description of Project Impact

The 2003 satellite imagery indicates that there was intense land use throughout Maikeri's land area. The Project facilities impact land primarily near the settlement area along its northern and western perimeters.

Given the intensive cultivation of land in Maikeri, additional interviews with the village chief and farmers were completed to help understand the driving forces behind the data. These interviews indicated:

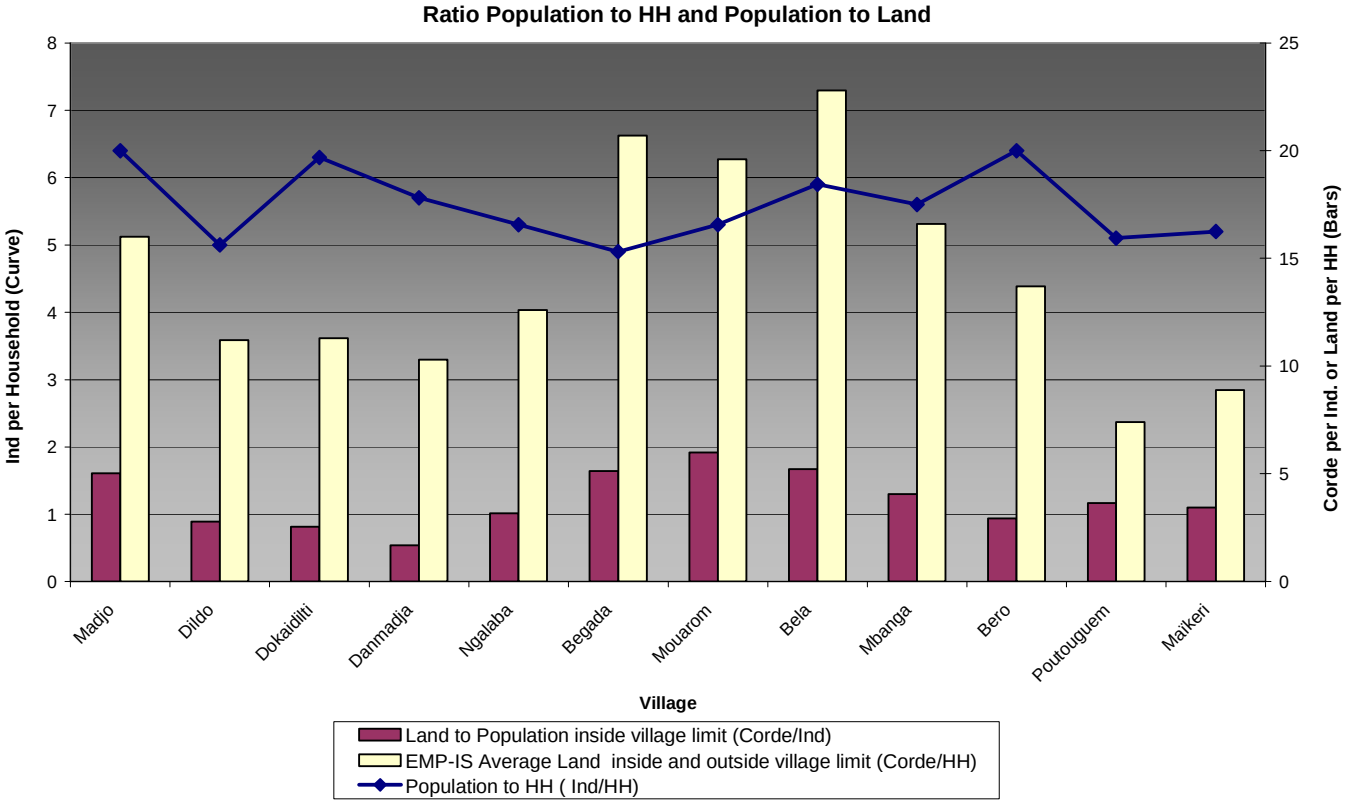
- There was a perception at Maikeri and Ngalaba villages (encouraged by some NGOs) that one or both villages would be relocated due to oil Project land use needs.
- The village leadership subsequently encouraged farmers to prepare land for cultivation in order to increase the land value for any potential land use compensation, e.g. land in preparation or in cultivation is compensable versus long term fallow or bush that is not compensable.
- There was also a perception that most of the adult males in the two villages would be employed by the Project.
- By 2003, it became clear to the villages that: the villages would not be relocated, very few of the adult males would be full time employed by the Project, and that the Project would not use all of the village lands for their facilities.
- The above land clearing along with significant increases in village population since 1993 resulted in the inordinate amount of land under cultivation in Maikeri and the relatively small amount of fallow lands, e.g. the traditional village land allocation process provides land to the increasing population.

As a village, Maikeri is not in a vulnerable state. There is still plenty of land and the average viability factor per capita is quite high:

Status of Average Maïkeri HH

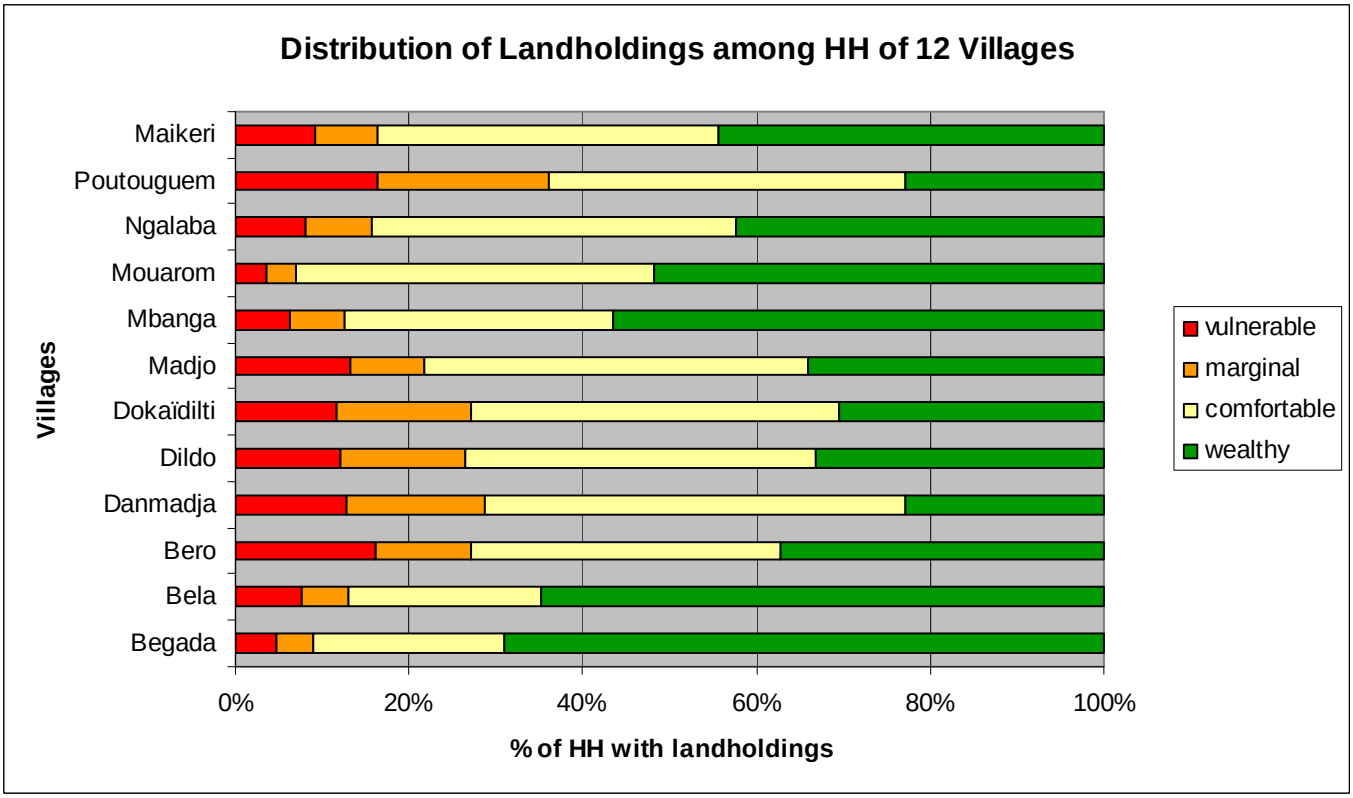
Pre-project		June 2010	
Avg Land/HH	Avg fct/HH	Avg Land/HH	Avg fct/HH
13.2 c.	1.8	11.9 c.	2.3

- Maïkeri's ratio of the number of HHs to village population is similar to other villages.



The graph below depicts the proportions of each village population falling into the different land holding categories:

- Maikeri's land holding categories mirrors its neighbor Ngalaba.
- Maikeri's wealthy land user profile is similar to the proportions found in: Ngalaba, Mouarom, and Mbanga.



- The proportion of Comfortable land users is similar to that found in: Poutouguem, Ngalaba, Mouarom, Mbanga, Madjo, Dokaidilti, Dildo, Danmadjia, and Bero.
- Like Bela, Begada, Ngalaba, Mbanga, and Mouarom very few households are in the Vulnerable or Marginal categories.

Skewed Land Holdings in 11 Villages vs Maïkeri

Agricultural Sustainability	Vulnerable	Marginal	Comfortable	Wealthy
Resettlement factor	0 - 0.67	0.68 - 0.99	1.00 - 2.49	2.5 +
% HH in villages at factor	10	10	37	43
% HH Maïkeri at factor	9	7	40	44

- **Considered as Households**, upon completion of the village survey in June 2010
  - 13 HHs are below the agricultural viability level of 2/3 corde per HHM; 3 FHHH and 10 Male HHH (MHHH)
  - The total number of individuals in these HHs is 90
  - 2 of the 13 HH were never affected by Project land take
  - 9 of the compensated nonviable are MHHH and 2 are FHHH totaling 11 HH

    - The total number of individuals in these Project-affected Non Viable HH is 82.
- Considering Non-Viable HH that have never surrendered land to the Project:
    - 1 FHHH never affected by the Project, she is 46 years old and her HH contains 4 individuals.
    - 1 MHHH never affected by the Project, he is 32 years old and his HH contains 4 individuals.
    - The total number of individuals in the non-viable but never compensated HHs is 8.
- Considering project-affected non-viable HH:
    - There are 3 FHHH with 7 dependants. One is 28 years old, another is 46 years old and the older is 67 years old.
    - Of the 10 MHHH:
        - 1 is young (23 years old) and has 2 HHM.
        - 4 are in their 30s (31 to 40) having an average of 8 HHM
        - 5 are in their early 50s (51 to 56) having an average of 9.8 HHM
- Considering the 10 Marginal HHs in Maïkeri, the total number of individuals is 70.
- 7 of the 10 Marginal HHs provided land to the Project
- There are 55 comfortable landholding HH encompassing 300 HHM.
- 62 wealthy ones with 263 HHM.

Land Distribution among HH (green = mode)						
	OFDA	Dokaidilti	Dildo	Ngalaba	Danmadja	Mouarom
cordes	1995 HH	2007 HH	2008 HH	2008 HH	2008 HH	2008 HH
0	see < 1	0.00%	1.80%	1%	0.00%	1.20%
< 1	4.70%	1.20%	1.10%	0%	1.00%	1.20%
< 2	10.50%	2.40%	9.10%	4%	5.90%	1.20%
< 3	12.10%	9.40%	8.00%	4%	9.90%	1.20%
< 4	16.00%	8.20%	8.40%	5%	8.90%	4.70%
< 5	14.80%	4.70%	8.70%	7%	11.90%	4.70%
< 6	9.30%	8.20%	7.30%	9%	7.90%	2.40%
< 7	8.00%	4.70%	6.90%	6%	5.00%	4.70%
< 8	5.10%	8.20%	4.40%	4%	9.90%	5.90%
< 9	6.80%	11.60%	3.30%	4%	2.00%	4.70%
< 10	2.30%	5.90%	5.50%	5%	4.00%	7.10%
> 10	8.20%	36.00%	35.30.%	41%	33.70%	61.20%

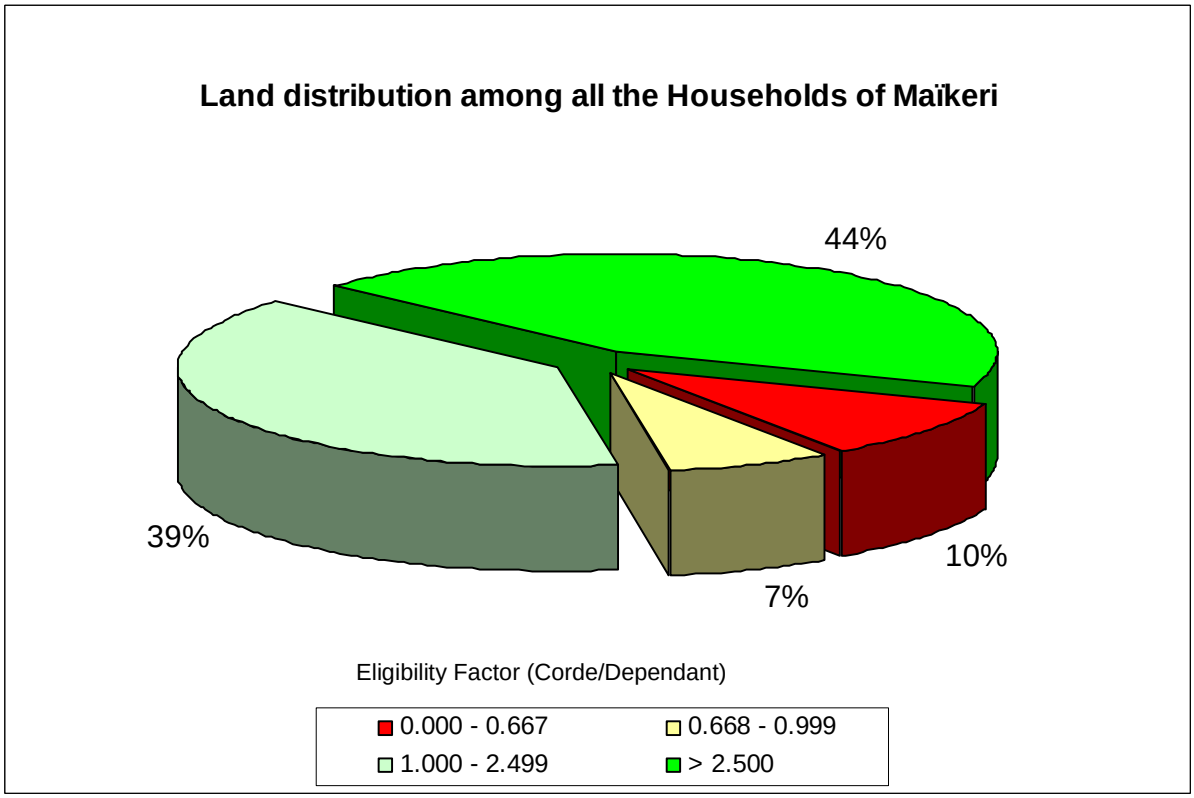
Land Distribution among HH (green = mode) Maïkeri								
	OFDA	Begada	Bela	Mbanga	Madjo	Bero	Poutouguem	Maïkeri
cordes	1995 HH	2009 HH	2009 HH	2009 HH	2009 HH	2009 HH	2010 HH	2010 HH
0	see < 1	1%	0%	0%	2%	7%	0%	7.9%
< 1	4.70%	1%	0.70%	0.40%	21%	1%	0%	0.0%
< 2	10.50%	3%	2.10%	4.10%	32%	6%	5%	2.9%
< 3	12.10%	3%	5.60%	3.00%	14%	5%	13%	2.9%
< 4	16.00%	3%	5.60%	8.20%	12%	5%	10%	3.6%
< 5	14.80%	2%	2.10%	4.80%	7%	6%	25%	7.1%
< 6	9.30%	3%	4.90%	3.30%	1%	4%	5%	4.3%
< 7	8.00%	4%	0.70%	4.10%	2%	4%	8%	5.7%
< 8	5.10%	3%	3.50%	3.00%	5%	5%	5%	6.4%
< 9	6.80%	4%	6.30%	3.70%	1%	4%	7%	4.3%
< 10	2.30%	5%	3.50%	4.50%	2%	4%	2%	7.1%
> 10	8.20%	69%	65.30%	61.10%	2%	49%	22%	47.8%

The 1995 HH data used is “declared” rather than topographical measurements of the number of cordes per HH.

- The modal land holdings in Maïkeri is more than 10 cordes, like Bero
- 24 of the top landholding households have more than 20 cordes of land for the entire HH (**not** per HHM)
- The landholdings per HHM are as follows:

All Maïkeri HH Land Categories

HH viability factor	Total # current HH	% HH in land category
<2/3	13	10%
<1	10	7%
<2.5	55	39%
2.5 +	62	44%


Land distribution among all the Households of Maïkeri
44%
39%
10%
7%
Eligibility Factor (Corde/Dependant)
0.000 - 0.667
0.668 - 0.999
1.000 - 2.499
> 2.500

Land Available to Villages

	Dokaidilti	Dildo	Ngalaba	Danmadjia	Mouarom	Begada	Bela	Mbanga	Madjo	Bero	Poutouguem	Maïkeri
Village Area in Hectares	686	1887	2118	480	1352	3321	2200	3068	2148	5786	562	1250
Settlement area in Hectares (% village)	24 (3%)	46 (2%)	97 (5%)	34 (7%)	23 (2%)	56 (2%)	35 (2%)	62 (2%)	27 (1%)	145 (2.5%)	28 (5%)	46 (4%)
Project Perm. Land Take + Temp. No Returned in Hectares (% village)	79 (12%)	185 (10%)	253 (12%)	61 (13%)	149 (11%)	288 (7%)	172 (8%)	189 (6%)	135 (6%)	617 (10.5%)	51 (9%)	112 (9%)
Available Land inside the village limit in Hectares (% village)	583 (85%)	1656 (88%)	1768 (83%)	385 (80%)	1180 (87%)	2977 (90%)	1993 (91%)	2817 (92%)	1986 (92%) incl 483 of Flooded Area	5024 (87%)	483 (86%)	1092 (87%)
Available Land Density inside the village limit (Hectares/Person)	1.09	1.23	1.34	0.68	2.64	2.32	2.38	1.88	2.34 1.77 excl Flooded Area	1.3	1.6	1.5
Cultivated (Field) or Owned (Fallow) outside the village in Hectares (% of total land of the residents)	40 (8%)	106 (6%)	69 (4%)	122 (23%)	217 (26%)	76 (3%)	73 (4%)	70 (3%)	114 (10%)	614 (11%)	7 (3%)	28 (3%)
Total Cultivated (Field) or Owned (Fallow) of the residents in Hectares (% of total land of the residents)	490	1561	1601	487	850	2763	1666	2270	1110	5499	238	1001
Available Land Density inside and outside the village limit (Hectares/Person)	0.92	1.16	1.21	0.85	1.90	2.15	1.99	1.51	1.88 1.31 excl. Flooded Area	1.42	0.78	1.39

Use of Available Land per Village

	Dokaidilti	Dildo	Ngalaba	Danmadjia	Mouarom	Begada	Bela	Mbanga	Madjo	Bero	Poutouguem	Maïkeri
Cultivated (Field) or Owned (Fallow) by non-residents inside the village limit in Hectares (% of available land inside village limit)	121 (21%)	141 (9%)	141 (8%)	17 (4%)	531 (45%)	272 (9%)	389 (20%)	577 (20%)	504 (25%)	553 (11%)	249 (52%)	188 (17%)
Cultivated Field Farmed by Resident inside the village limit in hectares (% of available land)	302 (52%)	668 (40%)	1043 (59%)	241 (63%)	291 (25%)	1190 (40%)	755 (39%)	1122 (40%)	443 (22%)	2004 (40%)	152 (31.5)	634 (58%)
Fallow Owned by Resident inside the village limit in hectares (% of available land)	149 (26%)	792 (48%)	553* (31%)	124 (32 %)	342 (29%)	1497 (50%)	838 (42%)	1078 (38%)	553 (28%)	2414 (48%)	79 (16.5)	345 (31.5%)
Ratio Fallow/Field	0.49	1.19	0.53	0.51	1.18	1.26	1.11	0.96	1.25	1.20	0.52	0.54

* 63 Ha of bush included in fallow

Demography of Villages

	Dokaidilti	Dildo	Ngalaba	Danmadjia	Mouarom	Begada	Bela	Mbanga	Madjo	Bero	Poutouguem	Maïkeri
Nbr of Residents	534	1346	1324	570	447	1285	837	1501	848	3867	306	720
Men	243	657	668	284	216	608	434	718	418	1923	155	382
Women	291	689	656	286	231	677	403	783	430	1944	151	338
Avg Age in Years	19	20	20	19	19	19	18	18	17	18	18.7	19.8
Nbr HH	85	275	250	101	85	259	144	269	133	611	61	140
Avg. HH size	6.3	4.9	5.3	5.7	5.3	5.0	5.9	5.6	6.4	6.4	5.1	5.2
Avg. cordes Land per HH inside and outside village	11.3	11.2	12.6	10.3	19.6	20.7	22.8	16.6	16.0	13.7	7.4	11.9
Avg. Resettlement Factor based on all land inside and outside village (corde/HhM)	1.80	2.29	2.39	1.8	3.69	4.17	3.88	2.95	2.5	2.16	1.46	2.3
% Area cultivated or owned by women out of total area “owned” by village residents inside and outside village	15%	17%	29%	22%	14%	30%	12%	22%	28 %	18.5%	19%	25%

Project Impact on Maïkeri

Compensation

Compensation affected the village as follows:

- 52% of Maïkeri's productive inhabitants (older than 20 years old = 294 individuals) were compensated
- 110 (79%) of Maïkeri's households were compensated
- 68% of the individuals compensated were men, in contrast to 32% of the women who received compensation:

Age	Nbr Individual	Nbr Men	Nbr Women	Nbr Compensated Individual	Nbr Compensated Men	Nbr Compensated Women
0-9	218	115	103	0	0	0
10-19	207	117	90	7	5	2
20-29	122	61	61	41	33	8
30-39	68	35	33	40	29	11
40-49	48	22	26	30	18	12
50-59	34	20	14	29	18	11
60-69	14	6	8	10	5	5
70-79	4	2	2	3	1	2
> 80	4	3	1	0	0	0
N/A	1	1	0	0	0	0
Total	720	382	338	160	109	51

Surrendering land to the Project is not the only cause of Non-Viability, as the following table shows. Some of the people compensated for land were already Non-Viable before the Project began. Whether or not the Project made any compensated HH Non-Viable, if a household is compensated and is found to be under 2/3 corde per HHM, the compensated person is eligible for a resettlement option:

All Maïkeri HH at Resettlement Factor

HH viability factor	Total # current HH	Male HHH		Female HHH	
		115		25	
		before	now	before	now
zero	11	1	8	1	3
<2/3	2	7	2	1	0
2/3< and <1	10	8	10	0	0
1< and <2.5	55	48	47	8	8
2.5 +	62	51	48	15	14

As noted above in discussing Declared versus Measured Data, the latter is far more accurate in identifying vulnerable HHs and is used in the following table:

All Compensated HHs in Maïkeri

Resettlement Factor	Nbr HH	Nbr Individuals	% All HH	% of Population
0.000 - 0.667	11	82	10%	13%
0.668 - 0.999	4	44	3.5%	7%
1.000 - 2.499	43	256	39%	41%
2.500 - ...	52	240	47.5%	39%
Total	110	622	100%	100%

- Among the 11 Non-Viable HHs affected by the Project only 3 were correctly identified as Non-Viable on the basis of their declarative data and offered a resettlement option.
- The 8 HH determined through the Village Land survey will be eligible for the resettlement benefits program.

Change in social status

Social Impact 1998 through 2009 in Maïkeri

Social Situation	#	%
All HH	140	100%
All Compensated HH	110	79%
Compensated HH Situation remains the same	124	89%
Landholding Situation Changed	16	11%
No land	9	6%
Non-Viable with some land	0	0%
HH dropped to Marginal	3	2%
Wealthy HH reduced to Comfortable	4	3%

- Of the 11 nonviable HH in Maïkeri, 9 of them were made non-viable by Project land acquisition; the 2 others were already nonviable before the Project.
- 3 HH fell from being comfortable landholders to marginal ones.
- Out of the 55 comfortable HHs in Maïkeri today, 4 used to be wealthy landholders.
- The total social impact of the Project on changes in HH situation is 16HH/140HH, or 11%.

Resettlement Program Impact on Maïkeri

13 people graduated from resettlement training programs, 9 in Improved Agriculture Training and 4 in Off Farm Training.

6 graduates in Improved Agriculture received reinforcement training and additional grant equipment to strengthen their earning capacity and ensure livelihood restoration in 2009.

The 4 graduates in Off Farm Training were trained in:

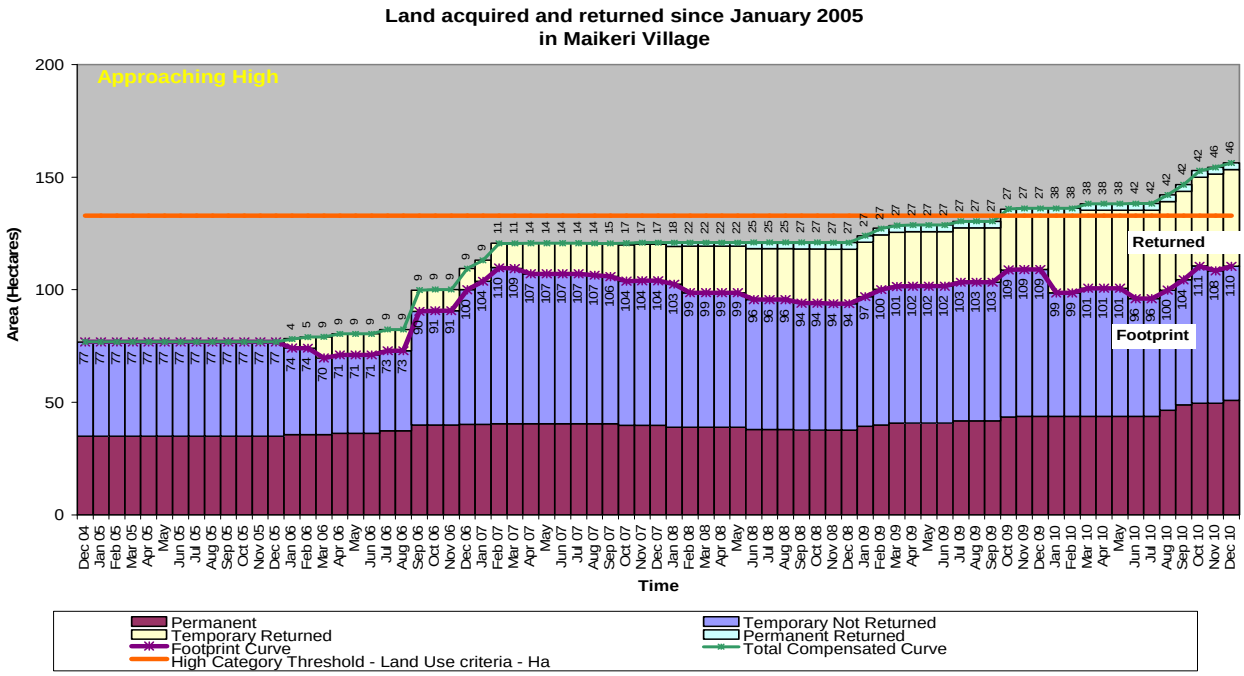
- 1 in masonry (2004 graduate)
- 2 woodworking-carpentry (both received reinforcement training and additional grant equipment in furniture making in 2009)
- 1 in tailoring (making clothes, etc.) (2005 graduate)

Land Return

No HH Became Viable Through Project Land Return

- Most of the land acquired in Maïkeri was for road access (33ha), electric lines (16ha) and subterranean installations (35ha). The area needed for electric lines and subterranean installations is useable land – land which can be returned to agricultural use with only mild restrictions – and well pads (17 ha) of which about half can be returned for farming.
- Land return to nonviable HH will not move any of them above the viability factor.

Land acquired and returned since January 2005 in Maïkeri village



- The land use footprint for Maikeri has not appreciably changed since February 2007 when the Maikeri Oil Field (satellite oil field) was developed. Since that time a sizable amount of land was returned.
- The land return was sufficient to handle the additional land take in 2010 when the crest of the Miandoum Main West oil bearing structure was further developed.
- Maikeri lies in the Miandoum Main West Structure. Over the past two years, nine (9) wells were drilled to complete the well patterns to produce the west structure. At present two (2) wells are planned to be drilled in 2011. Beyond 2011, few, if any wells within the Maikeri village limits are planned through 2013.

Physical Resettlement

To date, no one in Maikeri has chosen to be resettled in another village because of lack of land, preferring resettlement training options to physical resettlement options.

Supplemental Community Compensation

Maikeri will enter into the Supplemental Community Compensation process in 1Q2011. Maikeri's first time Community Compensation was provided early in the Project construction phase.

Maikeri had received a water well through a grant from an NGO. The NGO encouraged Maikeri to request EEPCI to provide a solar powered water pump and a water tower as their Community Compensation project. EEPCI complied with the request.

Unfortunately, soon after construction, commissioning and turn over to the village; the solar panels were stolen.

During the World Bank Group's External Compliance Monitoring Group (ECMG) assessment in November 2010, the Maikeri village leadership along with a consortium of NGOs called the CPPL presented a case for action for community compensation projects at Maikeri. The case for action included:

- Water wells
- School
- New road from the Project road to the village

Given the physical location of Maikeri between the Miandoum and Maikeri oilfields and the current categorization of Maikeri as Approaching High, EEPCI will provide Maikeri a Supplemental Community Compensation budget similar to first time Community Compensation budget for high to moderately impacted villages in the satellite oil fields.

The Community Compensation catalog for Maikeri and its neighbor Poutouguem will have eight (8) options to select from as they proceed through the MARP Process (Participatory Rural Appraisal) to match up their prioritized needs to the options available. The options are:

Option	**Description**
1	Three Classroom School Building with Furniture for each classroom
2	One Classroom School Building with Furniture **PLUS** Water Well **PLUS** Flour Mill
3	Community Granary Building **PLUS** two (2) Water Wells **PLUS** Flour Mill
4	Community Granary Building **PLUS** Water Well **PLUS** Karite Seed Mill (Shea butter extraction)
5	Five (5) Water Wells
6	Three (3) Water Wells **PLUS** Karite Seed Mill (butter extraction)
7	Three (3) Water Wells **PLUS** Flour Mill
8	One Classroom School Building with Furniture **PLUS** Water Well **PLUS** Karite Seed Mill (shea butter extraction)

Maikeri will start the process with the Participatory Rural Appraisal process in the 1Q2011. The village will have 2 calendar years to make their selection of project option.

Maïkeri's Current Needs and Resources

- The amount of land needed by those compensated families at risk to become economically viable is 24.8 ha.
- The amount of land needed by the other non-viable families untouched by the project to be economically viable is 2.7 ha.
- The total land shortage for needy HH in Maïkeri is 27.5 ha.

- Maïkeri's arable land = 1092 ha; they also have 28 ha of farmland in other villages.
- 48% of HH are holding more than 10 cordes of land apiece and 44% have more than 2.5 cordes per HHM.
- 4 non-viable HH that have graduated resettlement training programs and 3 of them have gone through the first round of livelihood restoration monitoring.
- 206 students on Maikeri's school in 4 pole/straw constructed school rooms.
- 1 At Risk households are entering into resettlement in 2011 promotion.
- 210 students attend school in Maikeri. The three (3) school buildings are of pole framework, straw mat walls, and thatch roof construction. The furniture is essentially pole benches. The Maikeri village leadership and the CPPL delegation expressed the need for a school building during the November 2010 ECMG Assessment.
- The Maikeri village leadership and the CPPL delegation reviewed the need for safe drinking water wells during the November 2010 ECMG Assessment.
- The Maikeri village leadership and the CPPL delegation reviewed the need for a better road to the village from the Project road during the November 2010 ECMG Assessment.

Recommended Site Specific Actions

The LUMAP calls for the Site Specific Plan to consider all of the options in the CRCP and its implementing procedures described in the Land Management Manual (LMM).

For the individual HH which are currently non-viable, specific interventions will be used:

- 8 project-affected HH are non-viable; they will be offered resettlement options in the class of 2012. First they will participate in Literacy, Numeracy and Business Skills training in 1Q 2012 and then implement their option.
- If these options do not succeed during the 2 year's of monitoring, then the HH will be offered physical resettlement options or if qualified reinforcement training and grant equipment/livestock.

The following table describes each option and its relevance to the At Risk Households in Maikeri as per the CRCP, LMM procedures:

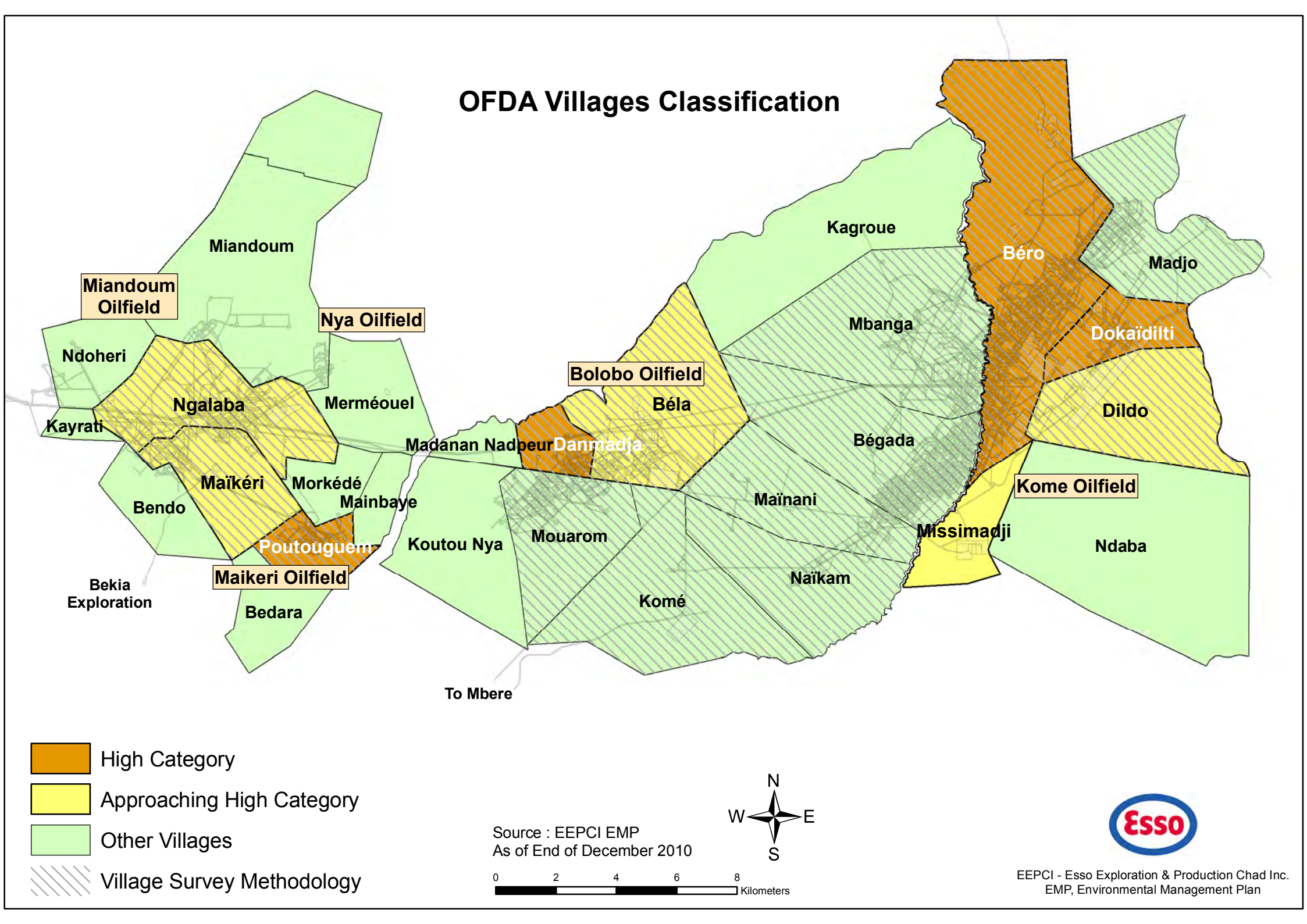
Site Specific Actions for Maïkeri

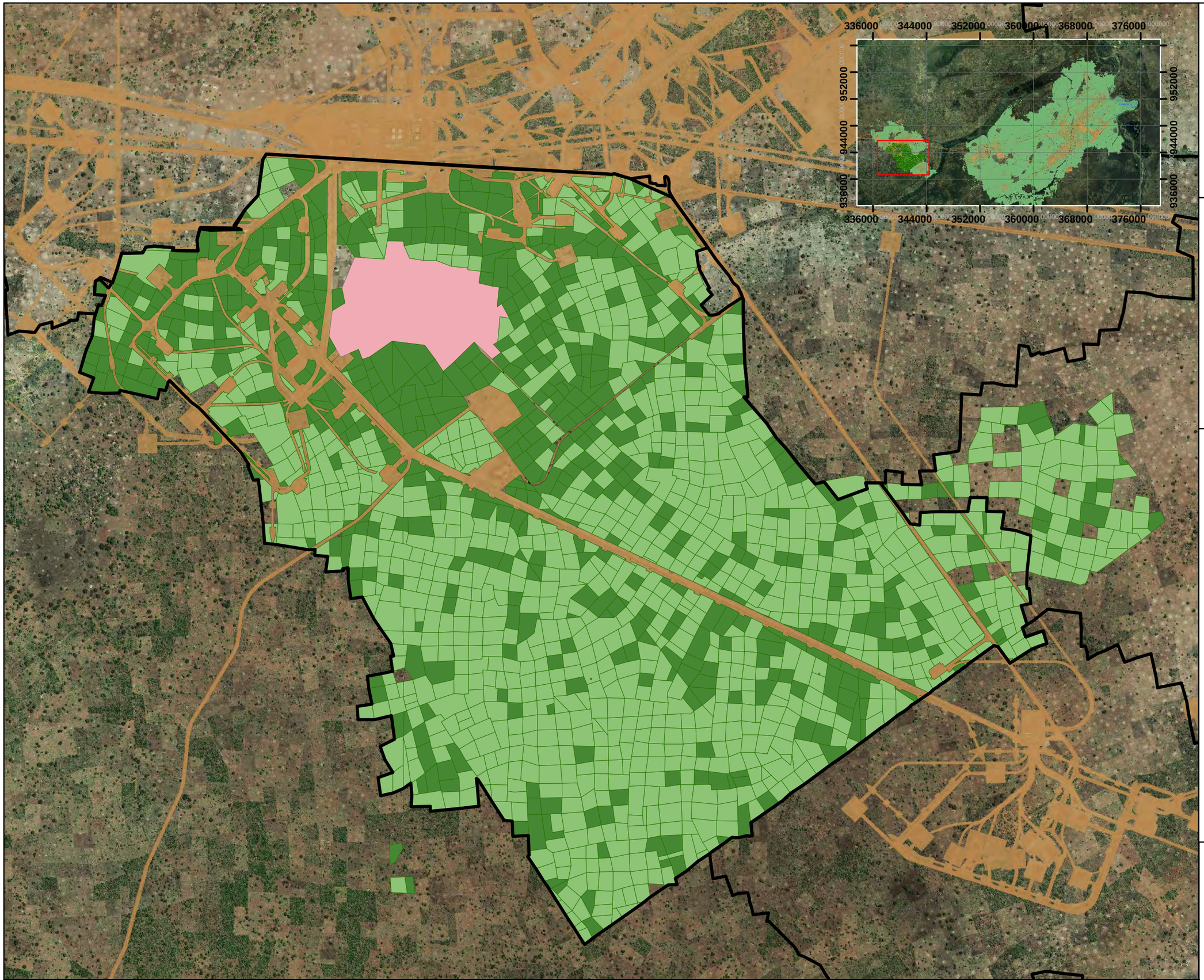
CRCP/LMM Resettlement Option	Description	Desirable Option (Yes/No)	Comments
Land Reclamation & Return	Reclaim land and return to community & former users; free land targeted to vulnerable HH	Yes	Small parcels of well pads constitute the major land returned in Maikeri. Well pad reduction land return will be the only land returned for the foreseeable future.
Physical Relocation Individuals	Physically move at risk household to new location outside of current village	Yes	Possible however, no one in Maikeri has chosen physical resettlement options.
Third Party Compensation	Land User with surplus land may donate to at risk household and receive normal land compensation payment	Yes	This is possible however no one in the OFDA has used this option to date.
Rainy Season Resettlement	Provide field clearing, rainy season hut, well, bicycle, and hand cart for use in distant farm field	Yes	Possible depending on Third Party Compensation occurring.
Off Farm Training	Provide training to earn income in non-agricultural work	No	The rural demand for non-agricultural skills is saturated.
Improved Agriculture	Provide training to generate more production of subsistence crops and produce cash crops	Yes	Most widely used resettlement option in the OFDA.
Physical Relocation of Village	Physically relocate entire village to new location in cooperation and in concert with government	No	The traditional mechanisms for voluntary and gradual resettlement are working well in the OFDA.
First time Community Compensation and Supplemental Community Compensation	Phase 1: Rural Participatory Assessment of Needs & Resources	Yes	Starts 1Q2011.
	Phase 2: Oversee implementation; Create management committee	Yes	Could begin as early as 4Q2011.

Site Specific Plan Implementation Timeline

Green = Completed; Blue = Underway; White = To implement

Action	Timeline
EEPCI provides Reinforcement Training and equipment to qualified resettlement training program graduates.	June 2009
Land and social surveys completed	June 2010
EEPCI offers Basic Business Skills and Improved Agriculture Training to first time resettlement eligible farmers.	June 2011
Participatory Rural Assessment process	June 2011
Maïkeri choice of Supplemental Community Compensation	June 2011 – March 2013
Construction Maïkeri Supplemental Community Compensation Projects	June 2011 – December 2013


OFDA Villages Classification
Miandoum
Miandoum Oilfield
Nya Oilfield
Ndoheri
Ngalaba
Merméouel
Kayrati
Maïkéri
Morkédé
Mainbaye
Bendo
Poutouguem
Maikeri Oilfield
Bekia Exploration
Bedara
Madanan Nadpeur
Danmadja
Bolobo Oilfield
Béla
Kagroue
Béro
Madjo
Mbanga
Dokaïdilti
Dildo
Bégada
Maïnani
Kome Oilfield
Missimadji
Ndaba
Koutou Nya
Mouarom
Naïkam
Komé
To Mbere
High Category
Approaching High Category
Other Villages
Village Survey Methodology
Source : EEPCI EMP
As of End of December 2010
N
W
E
S
0
2
4
6
8
Kilometers
EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan



Maikeri Survey

N
W
E
S

0 0.5 1 Kilometers

Source : GEOEYE 2009, EEPCI EMP and Construction Survey Department

Legend

Farmland

- Field
- Fallow

Non-tillable land

- Flooded zone
- Settlement and protected area
- Facility

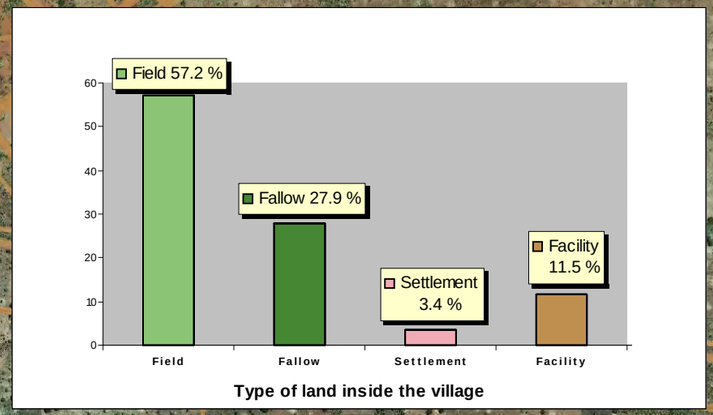
- Fault Block
- Village limit

Esso
ExxonMobil

EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan

Date : 2010-10-05	Author : EMP-IS	Map : Maikeri_Survey.mxd

Maikeri
Land cover
& Land Use



N
W E
S

0 0.5 1 Kilometers

Source : GEOEYE 2009, EEPCI EMP and Construction Survey Department

Legend

Farmland

- Field
- Fallow

Non-tillable land

- Flooded zone
- Settlement and protected area
- Facility

- Fault Block
- Village limit

Esso
ExxonMobil

EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan

Date : 2010-10-05	Author : EMP-IS	Map : Maikeri_LandUseLandCover.mxd

Maikeri survey and arable land

N
W E
S

0 0.5 1
Kilometers

Source : GEOEYE 2009, EEPCI EMP and Construction Survey Department

Legend

Fallow Duration

- 2 years
- 3 - 5 years
- 6 - 10 years
- 11 years +

- Field
- Village limit
- Land cultivated (field) or owned (fallow) by outsiders

- Permanent and not returned facilities
- Flooded zone
- Settlement and protected area

Esso

ExxonMobil

EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan

Date : 2010-10-05	Author : EMP- IS Team	Map : Maikeri_ArableLand.mxd

Owner's Gender in Maikeri

N
W E
S

0 0.5 1 Kilometers

Source : GEOEYE 2009, EEPCI EMP and Construction Survey Department

Legend

Gender of cultivator

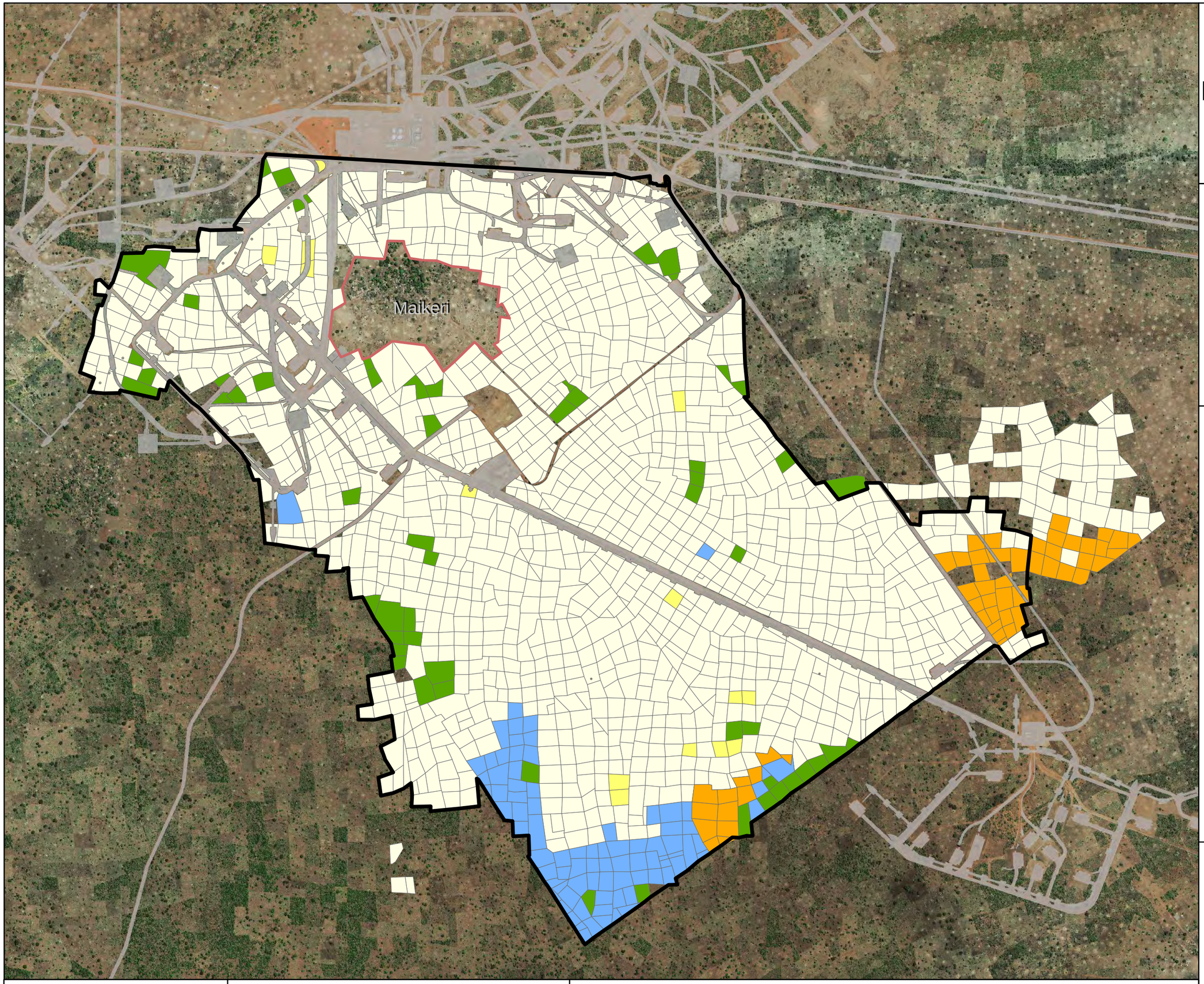
- Man (1064 ha - 91%)
- Woman (101 ha - 9%)
- Land cultivated or owned by outsiders
- Flooded zone
- Permanent and not returned facilities
- Settlement and protected area
- Village limit

Esso

EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan

Date : 2010-10-05	Author : EMP-IS	Map : Maikeri_OwnerGender.mxd

Farmer's Residence in Maikeri



N
W E
S

0 0.5 1 Kilometers

Source : GEOEYE 2009, EEPCI EMP and Construction Survey Department

Legend

Residency village of farmers

- Maikeri (1005 ha - 84.3% 28 ha outside the village)
- Békia (64 ha - 5.4%)
- Morkété (51 ha - 4.3%)
- Bébédjia (9 ha - 0.8%)
- Other villages (63 ha - 5.3%)

- Settlement
- Village limit
- Flooded zone
- Permanent and not returned facilities

Esso ExxonMobil

EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan

Date : 2010-10-05	Author : EMP-IS	Map : Maikeri_FarmerResidence.mxd

At Risk Households in Maikeri

N
W E
S

0 0.5 1 Kilometers

Source : GEOEYE 2009, EEPCI EMP and Construction Survey Department

Legend

Ressettlement eligibility factor (corde/dependant)

- < = 0.67
- 0.68 - 1.00
- 1.01 - 2.50
- > 2.50

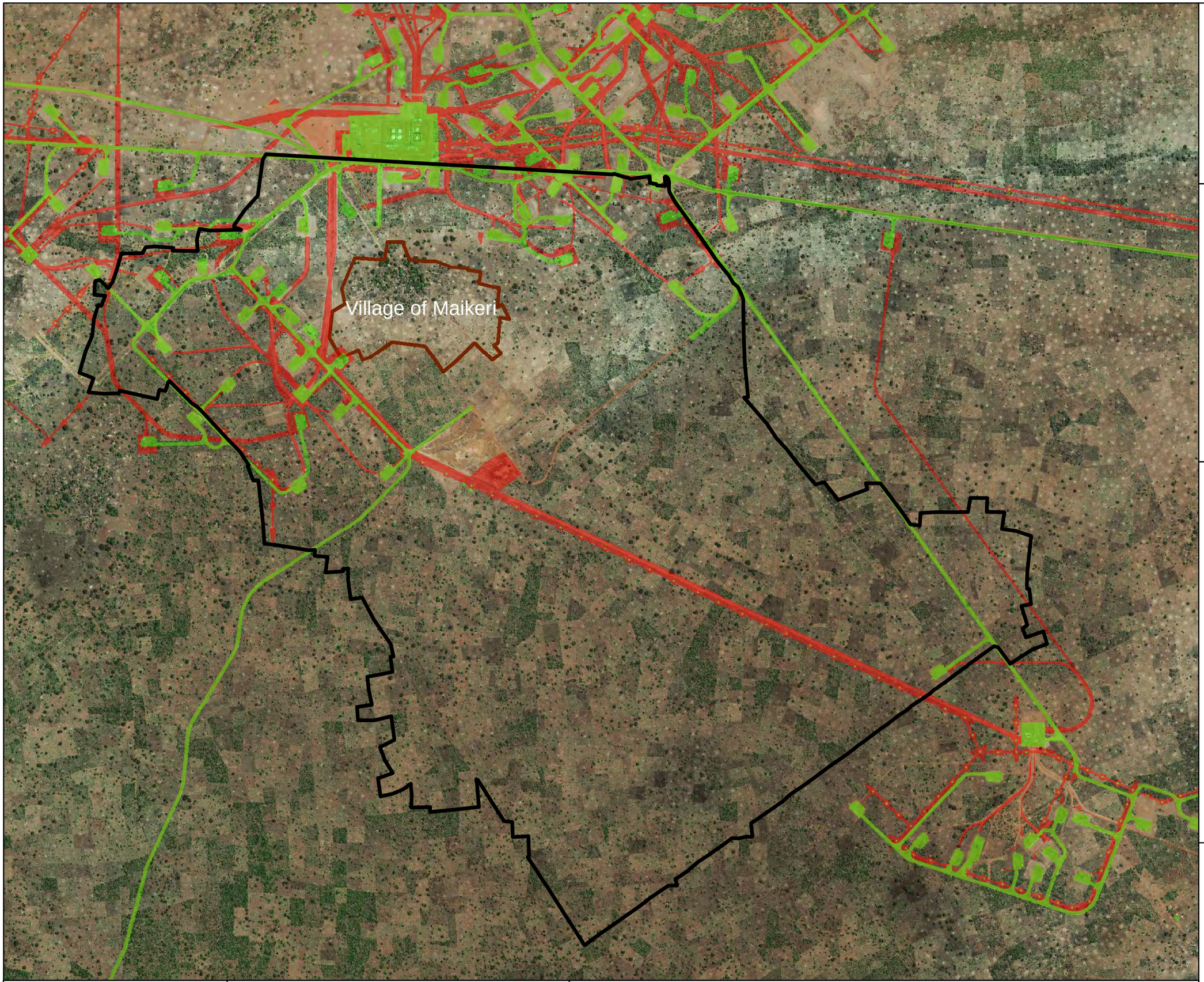
- Land cultivated or owned by outsiders
- Flooded zone
- Settlement and protected area
- Permanent and not returned facilities
- VillageLimit

Esso ExxonMobil

EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan

Date : 2010-10-05	Author : EMP- IS Team	Map : Maikeri_AtRisk_Households.mxd

Maikeri facilities



N
W E
S

0 0.5 1 Kilometers

Source : GEOEYE 2009, EEPCI EMP and Construction Survey Department

Legend

Facilities

- Permanentes facilities
- Temporary facilities

Limits

- Village limit
- Settlement

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EEPCI - Esso Exploration & Production Chad Inc.
EMP, Environmental Management Plan

Date : 2010-10-05	Author : EMP-IS	Map : Maikeri_Facilities.mxd