

## **Site Specific Plan Mouarom/Bemou Village May 2009**

### **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.

Of this total, the Oil Field Development Area (OFDA) includes about one-sixth of the villages (61 out of 375). Compensation in the OFDA has been paid for nearly 2,900 Ha of land involving about 4,000 individual land users. To date the Project has utilized 3% of the 100,000 Ha of land in the OFDA. When all of the temporary construction use land has been returned the percentage of use will be just over 1% of the 100,000. However, despite their individual and community compensation payments, 7 out of those 61 villages have been categorized as significantly affected by Project land needs.

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 (IAG).

A set of principles set out in the EMP have guided the land acquisition and 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, 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 land take redesign and by offering two resettlement alternatives - Improved Agriculture Training and Off-Farm Employment 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 an in-house Land Management Manual, which

serves as a Desk Guide to implementation. This guide is periodically updated to include improvements and modifications (last modification in September 2008).

### **Evolution of the OFDA Land Use Situation**

As the three original OFDA oilfields 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's 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, the Project had developed an initial mitigation action plan and had begun implementing it. 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 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 appreciably 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, according to the 2008 administrative categorization, there are 47 official villages which have been affected by land acquisition for production facilities. There are 32 official villages if the geographic rather than administrative units are counted. There are 61 villages if all of the unofficial quarters are included. For the purposes of this Site Specific Plan 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, 10 have been categorized as more significantly affected by ongoing Project land needs than others. To date Mouarom has not been among these villages but, with infill drilling, it is approaching the 11% of village land threshold that would make it severely affected. By 3Q 2008 it was at 10.6% of its land area but in 4Q 2008 land return had dropped it to 10.3%. The village remains on the Watch List for any change in status.

### **Purpose of the Mouarom Site Specific Plan**

The purpose of the Mouarom Site Specific Plan is to provide the village as a whole and the affected people in the village with sufficient livelihood to offset their losses to the Project. This can be done by increasing revenues from Off-Farm training or Improved Agriculture, through providing additional land to the village, particularly to those below the viability threshold, or other means that can be identified through a precise identification of 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 heavily affected village.

### **Elements of the Mouarom 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 and 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.
- List of actions selected in priority order:
  - Quantify resources needed to reverse Project impact.
  - Identify 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***

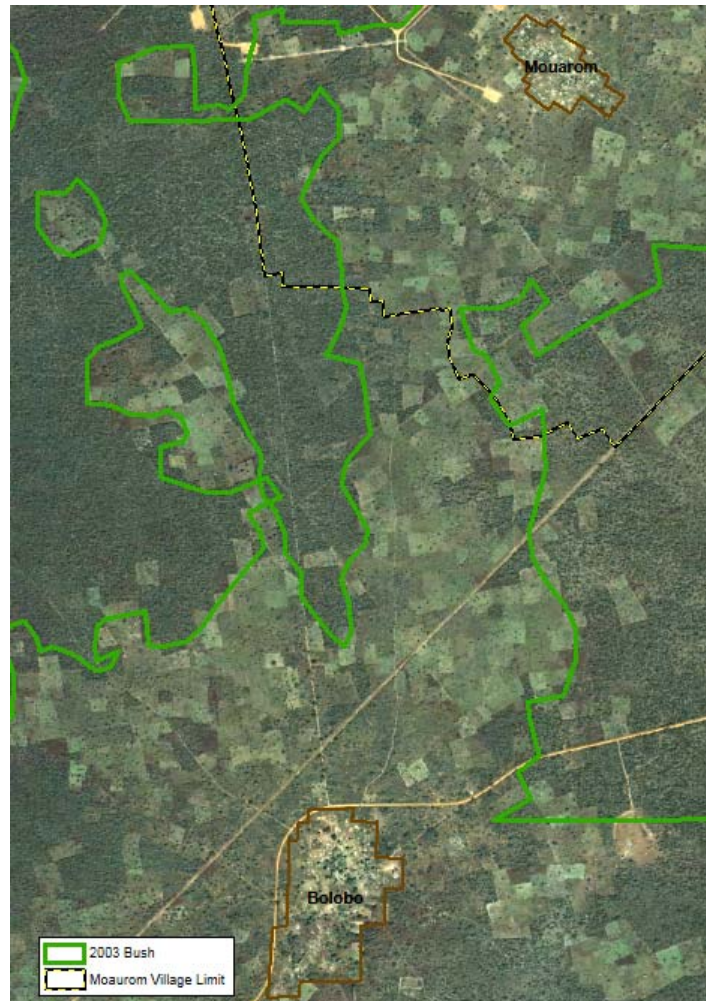
- The population of the 10 Highly Affected villages in the OFDA doubled between 1993 and 2006.
- The average population growth was 124% and the modal increase in population ranged from 90-96% in these villages.
- Compared with natural population growth the Project's impact on land (bush, fallow, settlement, 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.

### **Mouarom's Land and Population, Past and Present**

Mouarom, as the population now commonly refers to it, or Bemou as it appears on the official village list, had its origins as a farm hamlet named Bemou (be=settlement; mou= wild grass). At the beginning of Project land acquisition Mouarom was simply a quartier, or separate settlement created by inhabitants of Kome Ndolebe, the canton capital, who moved to the borders of the village territory in search of more easily accessible farm land. By 2004 it had become a separate, administratively recognized village, with a population of 250 compared to Kome center's 873.

- Mouarom's population growth between 1993 and 2007 was 89%, from 240 inhabitants to 453. The average growth in most area villages in this period fell somewhere in the 90-100% range. But between the village chief's count of 2007 and the Village Land Survey finished in early 2009, the population had dropped to 447, or by 1.3%, easily accountable because of mortality.
- Mouarom had 1352 ha of land, total, before the Project:
  - 420 ha of bush (estimated from the manual interpretation of a satellite image dated from November 2003).
  - 915 ha of cultivated and fallow land.
  - Settlement area of 17 ha.
- Before the Project Mouarom lay in the middle of the 20 Project-affected OFDA villages with respect to the hectares of bush available.

- In terms of availability of bush, Mouarom's neighboring villages have:
  - Koutou Nya to the west = 962.1 ha.
  - Kome Atan to the east has no bush and all its farm land has been acquired by request, rental or purchase from the surrounding villages.
  - The following Nov 2008 satellite photo of Mouarom and its neighbour to the south, Bolobo, shows that both villages have broad areas of bush:



- Mouarom's total land area in December 2008 is 1198 ha or 89% of its pre-Project area:
  - During the Village Survey, village has declared an area of 0 ha of Bush. (Bush that was estimated on the 2003 satellite image is long-term fallow).
  - It has lost 13% of its pre-Project arable land.
- On the south, Mouarom is bordered by the village of Bolobo, which has given rise to a number of quartiers or farm hamlets just like Mouarom.

Much of the southern area of Mouarom's defined available area (146 Ha - 12%) is cultivated by people from Bolobo, just as much of the area to its east (129 Ha - 11%) is cultivated by people from the spontaneous settlement of Kome Atan. Kome Atan was a small settlement of people working at Kome Base, the initial Project base. During construction it grew rapidly, being described as a "shantytown". But today it has about 7000 people and is a thriving, self-supporting town which continues to expand – into areas which are, in principle, part of Mouarom. Mouarom was founded because arable land was available, and still is. 22% of Mouarom's land is farmed by people from the surrounding villages of Danmadja, Bolobo, Kome Atan, etc.

- On the northern edge, Mouarom is constrained by the fixed facility of Bolobo Gathering Station and the spine road which links different parts of the oilfield together. The road has not, however, created an impediment to Danamadjites crossing it to farm Mouarom land.
- To the west, Mouarom is bounded by Koutou Nya, which lies on the opposite side of a dirt road leading to the Catholic Mission center. This road also sets part of Mouarom's boundary.
- During construction the total arable land available to Mouarom had been reduced by 3%. Following the 2009 return of newly reclaimed land, Mouarom has returned to 89% of its pre-Project holdings.
- The Project land take has increased the density by 13%, the population increased it by 86% and the settlement expansion by 0.5%:  $(0.38 = 1.13 \times 1.86 \times 1.005 \times 0.18)$ :

	Mouarom		
	Year 1993	Year 2000	After project
<b>Population</b>	240	254	447
<b>Village Area</b>	1352	1352	1198
<b>Density (people/Ha)</b>	0.180	0.190	0.380
<b>Density increase (Land Take factor)</b>	13.0%	13.0%	
<b>Density increase (Population factor)</b>	86.3%	76.0%	
<b>Density increase (Settlement)</b>	0.5%	0.5%	

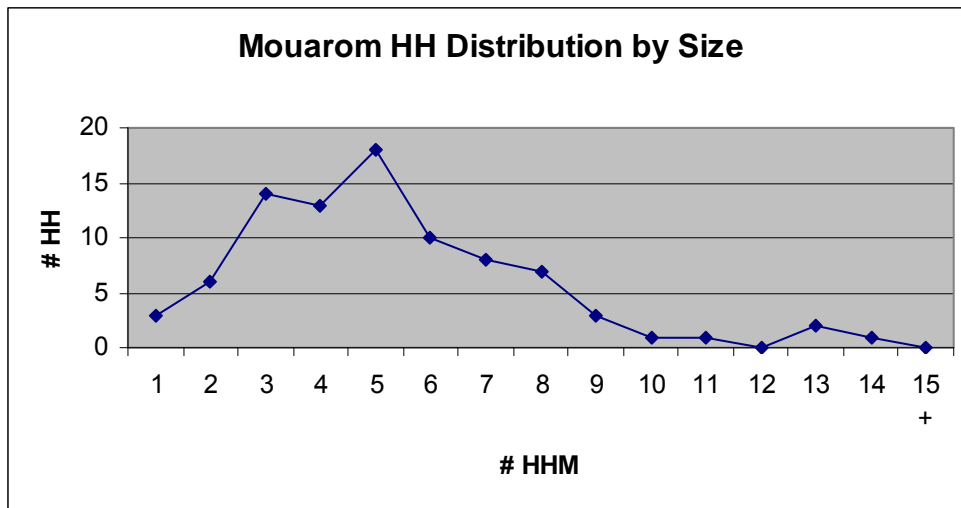
- Mouarom had 0.18 people per ha at the census of 1993, 0.19 people/ha pre-Project and now has 0.38.
- Mouarom is the least densely populated village in the OFDA, with 0.38 ha of land per person.

### Mouarom's Current Demographics

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

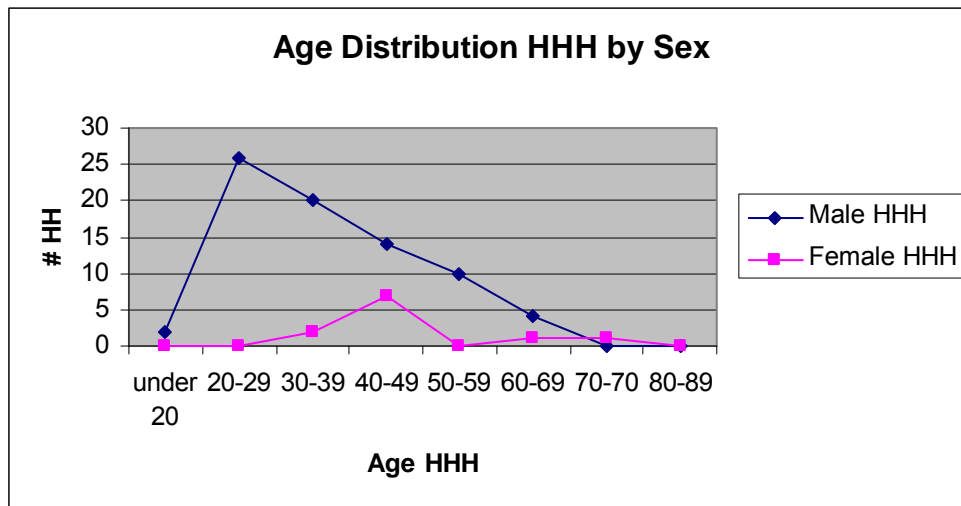
- Mouarom has 85 households (HH) and 447 inhabitants.
- The average number of HHM is 5.3.
- 14% of HH are headed by women.
- The overall distribution of Mouarom's households by size, in comparison with other surveyed villages, is:

Mouarom HH Distribution by Size, Compared				
# HHM	Mouarom # HH	Ngalaba # HH	Dildo # HH	Danmadja # HH
1	3	20	24	7
2	6	20	39	10
3	13	37	39	10
4	13	26	38	12
5	18	36	36	11
6	10	22	27	19
7	8	28	21	8
8	7	9	22	7
9	3	10	6	6
10	1	13	10	4
11	1	4	7	2
12	0	7	1	2
13	2	2	2	0
14	1	2	2	0
15	0	1	1	0
16-19	0	1	0	2
21	0	0	0	1



- Mouarom’s HH lie mainly between 3-6 members, with few small HH. The very large HHs found at Ngalaba and Danmadja do not occur here.
- The most predominant HH size is 5 HHM.
- Mouarom’s overall age distribution of HH heads is:

Mouarom Distribution of HH by Age, Compared				
Age HHH	Mouarom Age HHH	Ngalaba Age HHH	Dildo Age HHH	Danmadja Age HHH
<20	2	2	1	0
20-30	26	72	94	31
31-40	22	71	51	31
41-50	21	44	60	16
51-60	10	35	36	15
61-70	5	12	19	6
71-80	1	12	8	2
81-90	0	2	6	1



- As is typical of most surveyed villages, the numbers of female HHH rises as women mature and become independent of their husbands – through separation, divorce, and widowhood.
- Most male HHH are in their twenties:

<b>Mouarom Distribution At Risk HHH by Age</b>				
Age	# HH	Average At Risk HH size	# all At Risk HH	# female At Risk HH
<20	2	0	0	0
20-29	26	2;4	1	0
30-39	22	9	1	0
40-49	21	1;4;7	3	1
50-59	10	8	1	0
60-69	5	0	0	0
70-79	1	0	0	0
80 +	0	0	0	0

- More of Mouarom's At Risk HH do not show the large size characteristic of most At Risk HH in the other surveyed villages, where families with many HHM (7-10, 14 +) have very little land.
- There is only 1 At Risk female HHH, and as is typical of female HHH, she is in her forties.

#### **Description of Project Impact**

- Most of the land occupied by Project well pads lies northwest of the village area. The Bolobo Gathering Station, directly north of the village and next to the spine road, is a permanent, fixed facility that will not move for the lifetime of the Project.
- Mouarom's proximity to Project infrastructure is close, though not as close as Ngalaba's. All the other OFDA villages (other than those that have developed because of Project activities) like fairly distant from any construction.
- Mouarom, however, still has extensive bush areas in its southern territory (see photo above).
- As a village, Project land acquisition has not left Mouarom in an At Risk state. There is still plenty of land and the average viability factor per HH is quite high.

#### **Status of Average Mouarom HH**

Pre-Project		With Project	
Av Land/HH	av fct/HH	Av Land/HH	av fct/HH
19.285	3.773	17.694	3.466

- On the other hand, Project land acquisition did make 1 HH At Risk.
- There are 6 other compensated HH currently that were already At Risk before Project construction.

- In total, there are only 7 Households considered as At Risk upon completion of the village survey in January 2009; this means 8% of the HH are At Risk, only one made so by the Project:
  - 1 female HHH never affected by the Project, age 44, no dependants, has no land.
  - 6 compensated HHH, all men, are At Risk.
  - 2 of them, one age 43 with 4 HHM, had practically no land before the Project
  - Another age 35 with 9 HHM, lost almost 6 cordes, which is an unusually large land take; but even before Project intervention his HH was already At Risk.
- Another 3 compensated HH, made Marginal by the Project (holding between 2/3 c. to just less than 1 c / HM), and had been in the comfortable category of between 1-2.5 cordes/HHM.
- No non-compensated HH are in a Marginal position.
- Of the 6 At Risk HH that have been compensated, only one has received a resettlement option (Improved Agriculture training in 2008).
- This leaves 5 HH At Risk that were identified as such because of the village survey; they will be offered resettlement options in 2009.
- 26 Mouarom HH are fine in terms of land holdings/resettlement factor: 1-2.5 cordes/HHM.
- 39 HH had ample land holdings of 2.5 or more cordes/HHM.
- 52% of Mouarom's productive inhabitants (older than 20 years old = 189 individuals) were compensated.
- 85% of Mouarom's households were compensated.
- 86% of male HHH received compensation, in contrast to 14% of female-headed HH.
- Before the Project started, 11% of the individuals (according to the compensation database i.e. data of people's **reported** landholdings) were already below the Project's metric for viable farming (2/3 corde of land per Household Member or c per HHM).
- According to the same database, Project land take increased the number of eligible individuals to 21%.
- From the village survey, 6 HH were already At Risk before the Project (= 7% of HH) and the Project made 1 HH At Risk (=8% of HH).
- The following table shows how many sacks of sorghum were theoretically lost from the area surrendered and the CFA value that any income-earning resettlement option must generate:

Sex	Cordes Lost	% original holding compensated	# Household Members	Resettlement Factor	Replacement value in CFA	Replacement value of sorghum: # sacks
Male	0.063	100	4	0.000	3 573	0.7
Male	0.238	25	2	0.357	13 497	2.6
Male	1.218	36	7	0.310	69 074	13.4
Male	2.156	53	4	0.487	122 269	23.7
Male	2.264	61	8	0.183	128 394	24.9
Male	5.888	100	9	0.000	333 914	64.8

- As a rule of thumb 1 person requires 1.8 sacks/year.
- The largest area of land surrendered by any HH was 11 cordes.
- Land holdings in Mouarom are even more skewed towards very large land holders versus a few people with very little land.
- Not one of the top 74 land holding HH out of the 85 in Mouarom was made At Risk by Project land acquisition.
- The modal land holdings in Mouarom lie between 8-9.99 cordes, versus the 3-4 cordes found in other surveyed villages.

**Difference in land distribution by HH between OFDA average 1995 and Mouarom and other OFDA Villages in 2008**

	<b>OFDA</b>	<b>Dildo</b>	<b>Dokaidilti</b>	<b>Ngalaba</b>	<b>Danamadja</b>	<b>Mouarom</b>	<b>Mouarom</b>
cordes	1995 HH	2008 HH	2007 HH	2008 HH	2008 HH	#	%
0	see < 1	1.8%	0.0%	1%	1%	3	3%
< 1	4.7%	1.1%	1.2%	0%	1%	1	1%
< 2	10.5%	9.1%	2.4%	4%	5%	3	3%
< 3	12.1%	8.0%	9.4%	4%	12%	2	2%
< 4	16.0%	8.4%	8.2%	5%	15%	2	2%
< 5	14.8%	8.7%	4.7%	7%	9%	3	3%
< 6	9.3%	7.3%	8.2%	9%	8%	4	5%
< 7	8.0%	6.9%	4.7%	6%	0%	3	3%
< 8	5.1%	4.4%	8.2%	4%	9%	3	3%
< 9	6.8%	3.3%	11.6%	4%	4%	6	7%
< 10	2.3%	5.5%	5.9%	5%	2%	4	5%
> 10	8.2%	36.0%	35.3%	41%	35%	53	61%

- 61% of the top landholding households have more than 10 c of land. To break this down in a different way:
  - 5% of Mouarom's HH have less than 1 corde (including the 3 without any land).
  - 34% of HH are between 1-9.99 cordes:
    - Of the 34% only 9% have fewer than 5 cordes.
  - 32% have between 10-19.99 cordes.
- In other words, Mouarom is a village of land-rich farmers who moved there to farm.

<b>Land Data</b>	<b>Dokaidilti</b>	<b>Dildo</b>	<b>Ngalaba</b>	<b>Danamadja</b>	<b>Mouarom</b>
Cultivated Field or owned fallow by outsiders (% of available land)	121 Ha (21 %)	141 Ha (9 %)	141 Ha (8 %)	17 Ha (4 %)	531 Ha (45 %)
Field cultivated by resident (% of available land)	302 Ha (52 %)	668 Ha (40 %)	1043 Ha (59 %)	241 Ha (63 %)	291 Ha (25 %)
Fallow owned by resident (% of available land)	149 Ha (26 %)	792 Ha (48 %)	553 Ha (31 %)	124 Ha (32 %)	342 Ha (29 %)
% of Cultivated Field or owned fallow by women	15 %	17 %	29 %	22 %	14 %

<b>Household Data</b>	<b>Dokaidilti</b>	<b>Dildo</b>	<b>Ngalaba</b>	<b>Danamadja</b>	<b>Mouarom</b>
Number of Households	85 HH	275 HH	249 HH	101 HH	85 HH
Average HH Size	6.3 HHM	4.9 HHM	5.3 HHM	5.7 HHM	5.3 HHM
Average Land per HH	11.3 cordes	11.2 cordes	12.6 cordes	10.3 cordes	19.6 cordes
Average Resettlement Factor	1.80 cordes/HHM	2.29 cordes/HHM	2.39 cordes/HHM	1.8 cordes/HHM	3.69 cordes/HHM

People that are dependants of the household but reside outside the village are counted in this population (3 in Dokaidilti and 3 in Dildo).

<b>Number of Years Fallow Possible Given Current Land and Population</b>								
<b>Village</b>	<b>Measure</b>	<b>Bela</b>	<b>Mouarom</b>	<b>Dildo</b>	<b>Ngalaba</b>	<b>Begada</b>	<b>Danmadja</b>	<b>Dokaidilti</b>
Arable Land INSIDE	ha	1950	1175	1656	1768	2963	385	583
Arable Land OUTSIDE	ha	73	217	101	69	60	122	39
Total Arable Land	ha	2023	1392	1757	1837	3023	507	622
Arable Land INSIDE	m2	19500000	11750000	16560000	17680000	29630000	3580000	5830000
Arable Land OUTSIDE	m2	730000	2170000	1010000	690000	600000	1220000	390000
Total Arable Land	m2	20230000	13920000	17570000	18370000	30230000	4800000	6220000
Population	Per capita	846	447	1346	1324	1285	570	534
Length Cultivation	years	4	4	4	4	4	4	4
Necessary Area Per Person	m2	3362	3362	3362	3362	3362	3362	3362
<b>Years Fallow Village Only</b>								
		<b>23.4</b>	<b>27.2</b>	<b>10.6</b>	<b>11.8</b>	<b>23.4</b>	<b>3.4</b>	<b>8.9</b>
<b>Years Fallow Village + Outside</b>								
		<b>24.4</b>	<b>33.0</b>	<b>11.5</b>	<b>12.5</b>	<b>23.9</b>	<b>6.0</b>	<b>9.8</b>
Formula : Allan & Brush $\text{LengthFallow} = ((\text{ArableLand} * \text{LengthCultivation} / \text{Population}) - \text{NecessaryAreaPerPerson} * \text{LengthCultivation}) / \text{NecessaryAreaPerPerson}$								

### **Resettlement Program Impact on Mouarom**

The information in this section has been developed from surveys and monitoring results of Improved Agriculture and Off-Farm training plus the Social/Land Survey. For HH for which no Improved Agriculture or Off-Farm survey information is available, the Social/Land Survey provide the only, though detailed, basis for judging impact.

The Resettlement Program did not provide Mouarom with earlier Community Compensation; this is because at that time Mouarom was still a farm hamlet belonging to Kome Ndolebe village. They will now, as an independent village, receive as Supplemental Compensation a community school building which should improve the village as a whole. Given that the village as a whole has plenty of land there has not been and will not be a need for physical resettlement.

In Mouarom there are, however several HH (5) that are in agricultural difficulty compounded by Project land take and they have not, unfortunately, been identified as At Risk until the time of the Village Land Use Survey. They will be offered a resettlement option in 2009. One At Risk HH did receive Improved Agriculture training in 2008. Once the 5 HH have made a resettlement choice and that choice has proven effective, Mouarom will certainly be in a low impact situation.

### ***Resettlement Options***

- Up through the completion of the village survey 8 people had been trained, 3 in Improved Agriculture (in 2005). 5 had received Off Farm training in 2006 or 2007:
  - The 2006 graduates of Off Farm have improved their living standards (2007 no track record) – one by 45% more income than production value of land lost, the other by much, much more (lost only 840 m<sup>2</sup> but earns 26 000 CFA/month).
  - Improved Agriculture: one young man left Mouarom and moved to another sub-prefecture; one was an excellent student and covers her primary needs with agriculture; the third, a widow living in her husband's village has problems with her husband's family taking her earnings but she has Marginal landholdings.
- None of the At Risk HH had been offered a resettlement option.

### ***Land Return***

- With projected return of land taken for temporary use by the Project, only 1 At Risk HH will move to a Marginal status, above 2/3 corde. This HH will be offered a resettlement option.
- Other At Risk HH will need some other solution to their land shortage – training or access to land through Third Party compensation.

### ***Physical Resettlement***

No one in Mouarom has chosen to be resettled in another village

### ***Supplemental Community Compensation***

Mouarom, like the other impacted villages in the OFDA, is being included in a Supplemental Community Compensation program. According to the principles of compensation, Individual compensation for land covered the lost crop plus the cost of putting another field in cultivation for a replacement crop in the next year. Community compensation was given for permanent land take or for temporary land taken for more than one year. In highly affected villages the time for return of temporary land has been protracted and there has been more stress on community land resources. LUMAP is providing Supplemental Compensation for the “temporary” land that was not returned within 1 year.

Mouarom started the Participatory Rural Appraisal (PRA) process with the Non Governmental Organization (NGO) BELACD-Doba in 2Q 2008. In a General Assembly on 12 May 2009 the village chose a school classroom, which will be built as the construction schedule and rainy season will allow.

### **Mouarom’s Current Needs and Resources**

- The amount of land needed by those compensated families at risk to become economically viable is 2.1 ha.
- There are no other At Risk families that are untouched by the Project.
- Mouarom’s arable land = 1175 ha; since the inhabitants have moved from elsewhere they also have 217 of farmland in other villages.
- 61% of HH are holding more than 10 cordes of land apiece and 53% have more than 2.5 cordes per HHM.
- Like Dokaidilti, a large percentage of Mouarom’s land in cultivation or in fallow is farmed by people from outside Mouarom – 22% of Mouarom’s land.
- At present Mouarom has enough land within its boundaries to leave a field in fallow for 27 years; if the land Mouarom’s inhabitants still farm outside their village is included, fallow could last up to 33 years.
- 3-4 years is the current norm for fallow to recover in the OFDA.
- Mouarom has enough arable land to provide all its inhabitants more than 2/3 c per HHM.
- Mouarom has enough land to maintain the desired rotation of 4 years of cultivation, 3 years of fallow.

### **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). As a whole the village of Mouarom is one of the best placed villages in the OFDA for available land.

For the individual HH which are currently At Risk specific interventions will be used:

- 6 Project-affected HH are At Risk; they will be offered resettlement options in 2009, participate in Basic Business, Literacy and Arithmetic Training in 1Q 2010 and then implement their option – either Improved Agriculture training or resettlement on distant farm land (of which there is plenty) or in another village.
- If these options do not succeed during the 2 year's of monitoring, then the HH will be offered land through 3<sup>rd</sup> party compensation.
- 1 unaffected HH is At Risk - she can participate in BBS and, if the other At Risk HH choose Improved Agriculture Training, she can also benefit from the training.

The following table describes each option and its relevance to the At Risk Households in Mouarom as per the CRCP, LMM procedures and Management of Change to the LMM currently in place:

### Site Specific Actions for Mouarom

<b>CRCP/LMM Resettlement Option</b>	<b>Description</b>	<b>Desirable Option (Yes/No)</b>	<b>Comments</b>
Physical Relocation Individuals	Physically move at risk household to new location outside of current village	No	Not necessary; sufficient land available
Third Party Compensation	Land User with surplus land may donate to at risk household and receive normal land compensation payment	Yes	If chosen as resettlement option or if other options fail
Off Farm Training	Provide training to earn income in non-agricultural work	No	The OFDA market demand for artisans is saturated
	Reinforce training to increase income earned to viable level	No	Not necessary as graduates are doing well
Improved Agriculture	Provide training to generate more production of subsistence crops and produce cash crops	Yes	Good option in village with ample rainfed land
	Reinforce training to generate more production of subsistence/ cash crops	No	Not necessary as graduates are doing well
Rainy Season Resettlement	Provide field clearing, rainy season hut, well, bicycle, and hand cart for use in distant farm field	Yes	Good option in village with ample rainfed land
Physical Relocation of Village	Physically relocate entire village to new location in cooperation and in concert with government	No	Not necessary; sufficient land available
Supplemental Community Compensation	Phase 1: Rapid Participatory Assessment of Needs & Resources	Yes	Chose 1 school classroom
	Phase 2: Oversee implementation; Create management committee	Yes	Reinforce Parent-Teacher Association

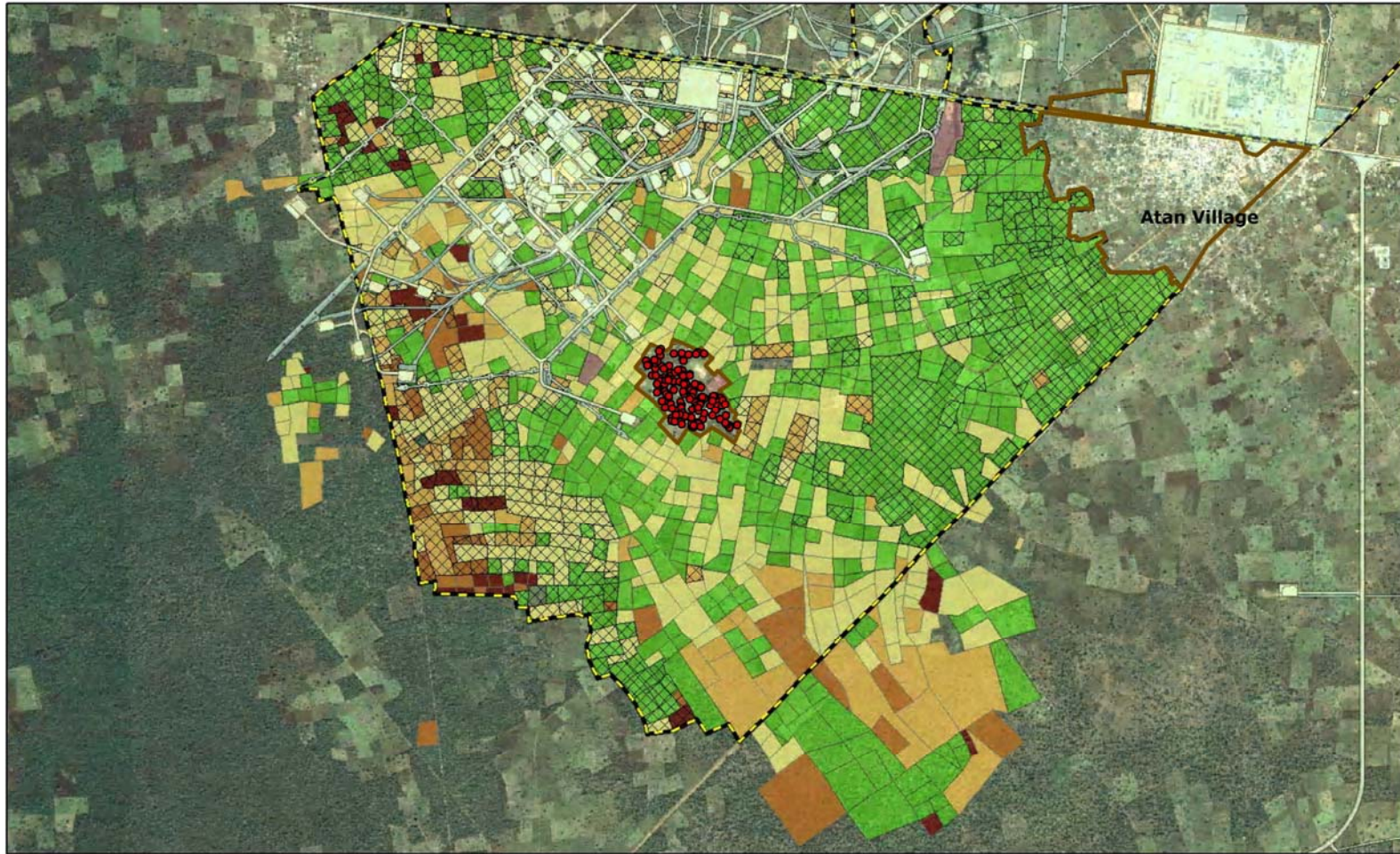
### Site Specific Plan Implementation Timeline

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

<b>Action (grey indicates completed, blue underway)</b>	<b><u>Timeline</u></b>
Land and social surveys completed	Jan 2009
Performance evaluations of Improved Agriculture and Off Farm graduates	July 2008
Mouarom choice of Supplemental Community Compensation	2Q 2009
Construction Mouarom Supplemental Community Compensation	4Q 2009 - 1H2010
EEPCI uses 3 <sup>rd</sup> party compensation to transfer land to At Risk individuals choosing this options	4Q 2009
EEPCI offers Basic Business, Literacy and Arithmetic Training and Improved Agriculture Training	1 – 4Q 2009

## MAPS AND DIAGRAMS

# Mouarom Village Survey

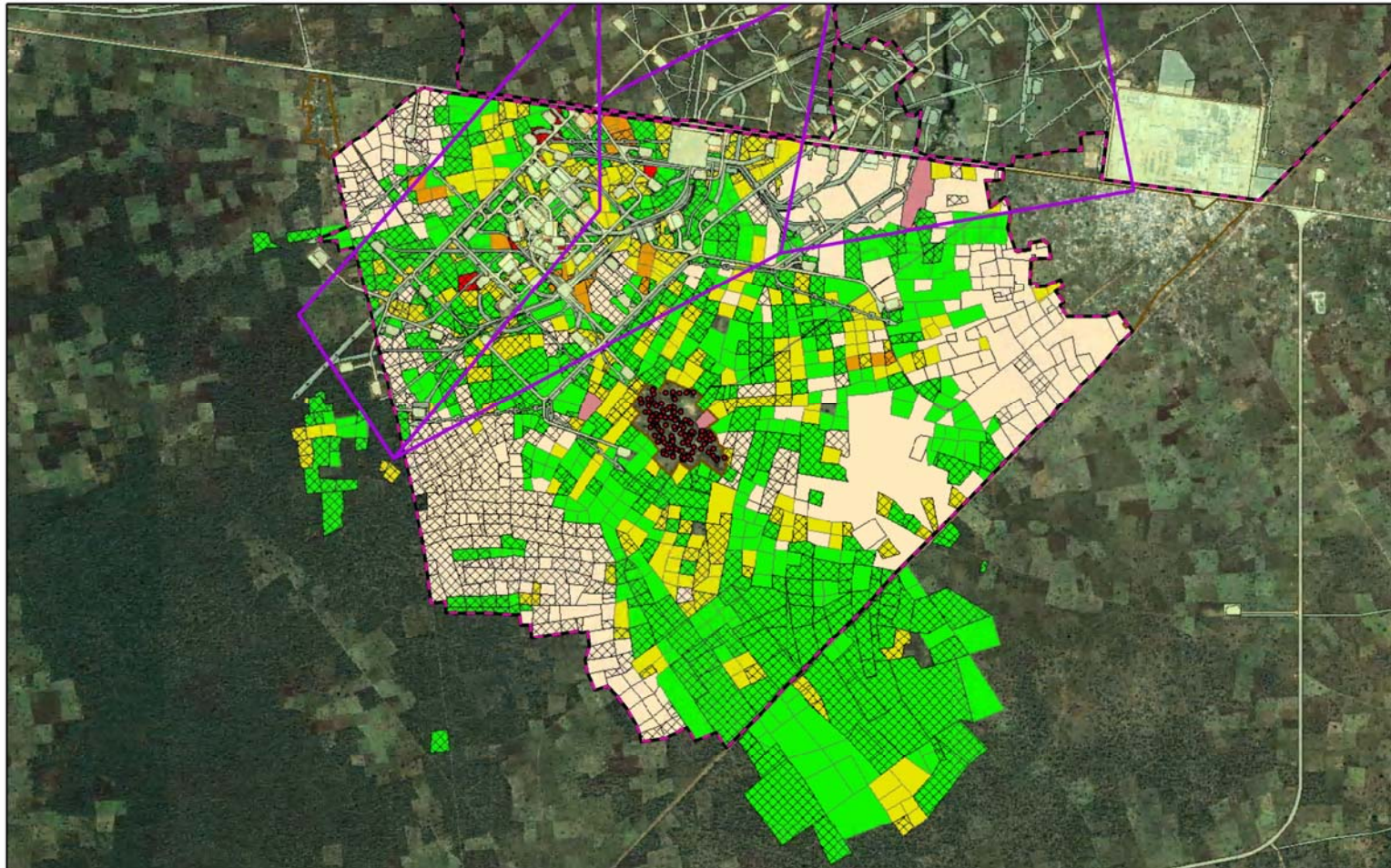


<b>Fallow Duration</b>	<b>Field</b>	<b>Village Boundaries</b>
2 - 5 years		
6 - 10 years		
11 - 20 years		<b>Permanent/Not Returned Facilities</b>
21 - 40 years		
		<b>Settlement</b>
		<b>House</b>



Map drawn on April 30, 2009  
Satellite Image: IKONOS November 2008

## At Risk Households in Mouarom



### Resettlement Eligibility Factor

- |   |   |  |
|---|---|--|
| <span style="color: red;">■</span> ≤ 0.67 Corde/Dependant         | Fallow Land   | <span style="color: black;">●</span> House                               |
| <span style="color: orange;">■</span> 0.68 - 1.00 Corde/Dependant | <span style="background-color: #f0e68c; border: 1px solid black;">□</span> Land Cultivated (Field) or Owned (Fallow) by Outsiders | <span style="border: 1px solid black; padding: 2px;">□</span> Settlement |
| <span style="color: yellow;">■</span> 1.01 - 2.50 Corde/Dependant | <span style="background-color: #d2b48c; border: 1px solid black;">□</span> Protected Site   | <span style="border: 2px solid purple;">□</span> Village Boundaries      |
| <span style="color: green;">■</span> >2.50 Corde/Dependant        | <span style="background-color: #90ee90; border: 1px solid black;">□</span> Permanent/Not Returned Facilities                      | <span style="border: 2px dashed purple;">□</span> Fault Blocks           |

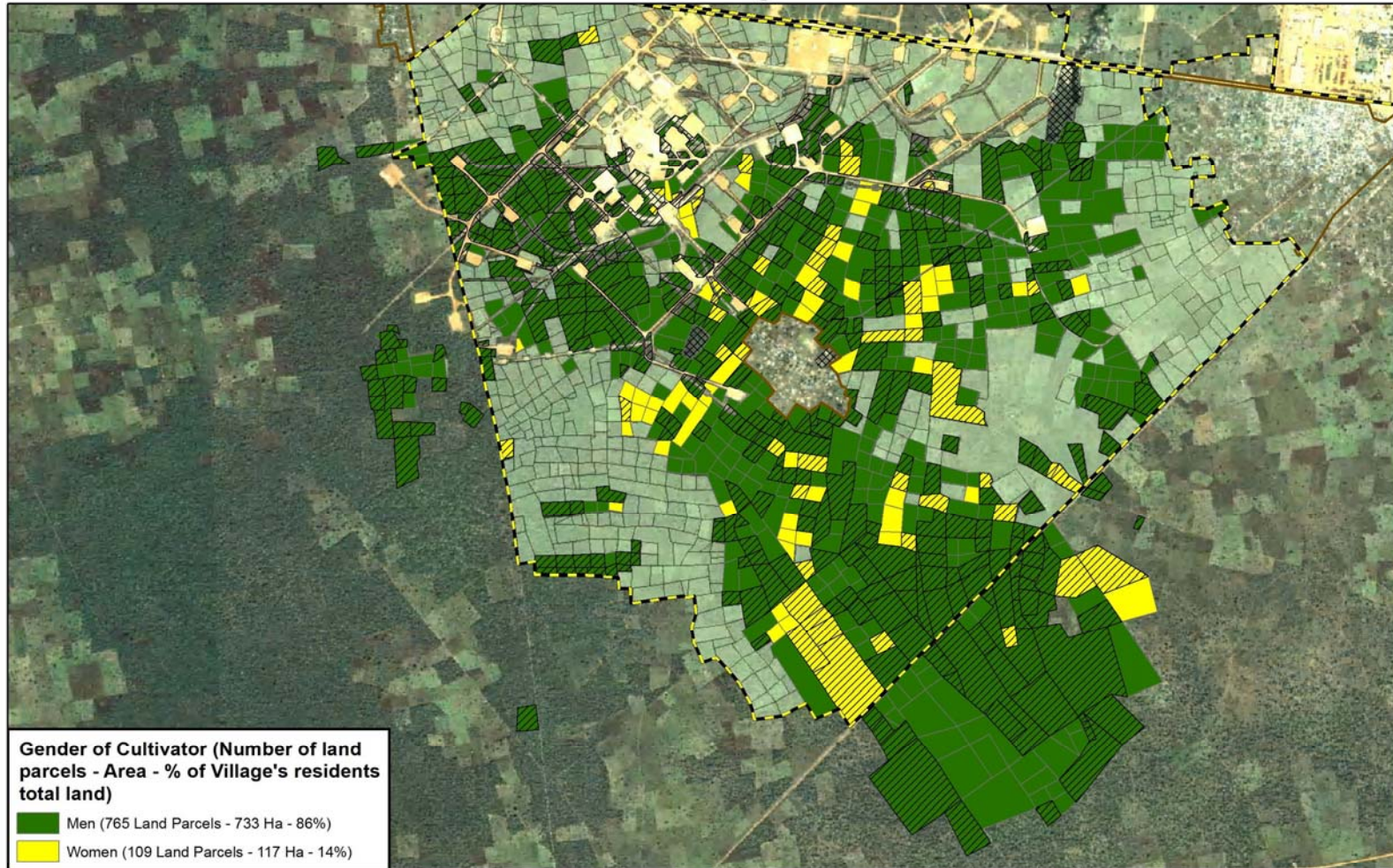
3 Red flagged households from which  
2 are project's affected households



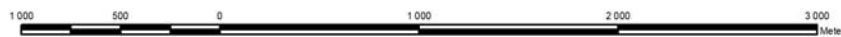
Map drawn on April 30, 2009  
Satellite Image: IKONOS November 2008



## Owner's Gender in Village of Mouarom



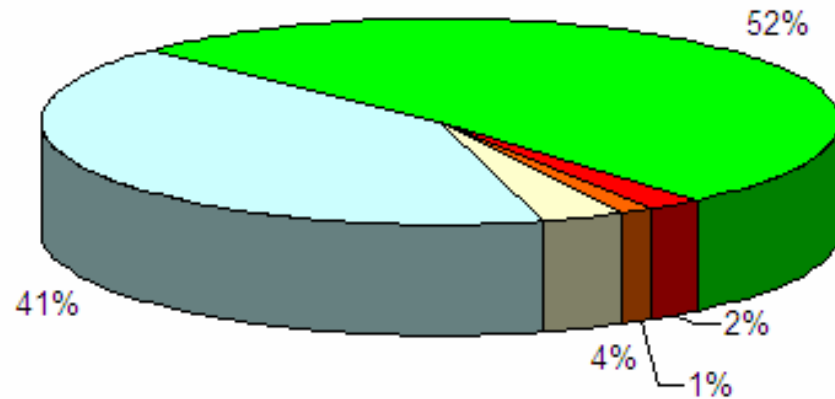
  Village Boundaries  
  Settlement  
  Fallow Land  
  Outsiders



Map drawn on April 30, 2009  
Satellite Image: IKONOS November 2008



### Land Distribution among all the Households of Mouarom



Eligibility Factor (Corde/Dependant)

0.000 - 0.499	0.500 - 0.667	0.668 - 0.999
1.000 - 2.499	2.500 - ...	

	Total HH		Compensated HH			
	Nbr HH	Nbr. Individual Within HH	Nbr. Of Comp. HH	Nbr. Individual Within Comp HH	% HH	% Individual Within Comp HH
0.000 - 0.499	2	3	1	2	1.4%	0.5%
0.500 - 0.667	1	4	1	4	1.4%	1.0%
0.668 - 0.999	3	16	3	16	4.2%	4.0%
1.000 - 2.499	35	189	29	167	40.3%	41.8%
2.500 - ...	44	237	38	211	52.6%	52.7%
Total	85	449	72	400	100%	100%