

Site Specific Plan Bela 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.

Compensation in the Oil Field Development Area (OFDA) has been paid for nearly 3,500 Ha of land involving about 4,000 individual land users. The Project has utilized 3.5% 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 1.5% 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 (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 each Site Specific Plan is to develop, for a defined area, measures that mitigate the precise problems its population is encountering, using the resources that are available to the restricted vicinity and maximizing the knowledge and capabilities of its inhabitants.

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 initially slow return of temporary use land plus the increase in compensated land has 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 (SSP) for each highly impacted village in the OFDA develops mitigation measures by clearly defining the village's situation. It looks at:

- Existing natural resources in this localized area of the OFDA.
- Identification and assessment of complementary economic resources that are available.
- Villagers use of farmlands and bush.
- Current land needs of villagers.
- Specific measures to re-establish the viability of the village.
- List of closely tailored mitigation measures designed to return the village to viability.

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, 7 have been categorized as most affected by ongoing Project land needs than others. To date Bela has not been among these villages but had risen to 9.6% of its land acquired by the Project. As it was approaching the 11% of village land threshold that would make it severely affected it was put on the "Watch list" of villages to monitor. By the 1Q 2009, land return had dropped it down to 8.1%. The village remains on the Watch List for any change in status.

Purpose of the Bela Site Specific Plan

The purpose of the Bela 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 household (HH) 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 cataloging 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 Bela 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 7 most affected and 3 Watch List 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.

Bela's Land and Population, Past and Present

Bela, as a geographic village has two parts, Bela 1, the larger settlement and Bela 2, a slightly smaller settlement set up initially as a farm hamlet. The history of the various "Belas" needs to be understood so that confusion over the settlements being referred to in past histories/documents is understood.

Bela in the early 1990s was a single village (what is now Bela 1). When Esso Exploration and Development Company left its base in Sarh (Moyen Chari) in 1994 to establish itself at Kome Base, Logone Oriental, many of the skilled Chadian workers moved with their families and sought land just opposite the new base for habitations. They acquired this from the villagers that "owned" the land, Bela. Hence this settlement linked to the base was referred to as Bela 2 and, informally, as Kome Satan. At this time there was already the nucleus of a nameless (other than 'Bela') farm settlement growing to the NE of Bela or Bela 1.

In the early 2000s Kome Satan, which had grown as the main commercial settlement serving the construction workers on the oil export Project, tidied up its image to become Kome Atan. Atan is still the main commercial center in the area behind the towns of Bebedjia and Doba.

During this time frame, the farm settlement grew and by 2006 was recognized as an official village, Bela 2.

Bela's population growth between 1993 and 2007 was 189% (the dates for which information for most other villages are available for comparison). Its true growth is difficult to follow as different figures have been given in the various censuses reported by the village chiefs over the years. Using the population counted in the village survey in 2009 the growth since 1993's national census count is 154%.

Village	1993	1998	2000-1	Jul 2002	Dec 2007	Village Survey 2009		
	Nat Census	Project	Village Chiefs	Project	Village Chiefs	HH	Pop *	Total @
Bela (1)	330	na	569/378	na	565	79	474	837
Bela (2) hamlet	na	na	122/12	na	389	65	374	
Bela (2) ([S]Atan)	na	94 HH	328 140 HH	1717 180 HH	5449	na	na	na

* 21 May 2009 (update integrated)

@ 19 May 2009

- Bela has 2200 ha of land, total:
 - Population density within the limits = 2.38 ha per person.
 - 35 ha occupied by habitations (settlement area).
 - 1993 ha arable land inside the village limits.
 - 73 ha of additional land farmed by Belans outside of the village boundaries.
 - Population density on available arable land inside and outside village = 1.99 ha per person.
 - 1666 ha of cultivated and fallow land, total, is available:
 - Excluding 389 ha inside village boundaries "owned" by non-residents.
 - Including residents' 73 ha "owned" in areas outside village.
- Prior to the Project, Bela was third from the top among Project-affected OFDA villages with respect to the largest number of hectares of fallow/bush available, behind two other Kome Canton villages (Kome Ndolebe and Naikam).
- In terms of availability of fallow/bush and arable land that Bela's neighboring villages have:
 - Danmadja, its immediate neighbour to the west, is strained for land; it has currently only 0.68 ha per person.
 - Kome Atan to the south has no bush and all its farm land has been acquired by request, rental or purchase from the surrounding villages.
 - 11% of Bela's land is farmed by people from Atan. Farmers from other villages cultivate minimal amounts of Bela land.
 - Kome Ndolebe, both Bela and Atan's neighbour also to the south, is well set with ca.1254 ha of arable land (manual interpretation of 2006 satellite photos).
 - Mouarom, lying to the southwest has 1180 ha of arable land.

- Begada to the east has 1768 ha of arable land within its boundaries = 2.32 ha per capita.
- Bela's neighbor to the SE, Mainani has 656 of long-term fallow (manual interpretation of 2006 satellite photos).
- Kagroye to the north east has an unanalyzed amount of arable land¹, but it is currently a pole of attraction for settlers from other villages to its east such as Bero and Djeune, from which individual families come to seek land. Farmers from villages to the north, on the other side of the Nya River have also set up hamlets on Kagroye land.
- Some Belans, as the map of villages cultivating Bela's land shows, also have fields in Kagroye.
- Bela is bounded on the north by the floodplain of the Nya River but none of the inhabitants exploits it for rice, unlike its neighbour, Danmadja.
- During construction the total arable land available to Bela had been reduced by 3%. Following the 2009 return of newly reclaimed land, Bela has returned to 92% of its total pre-Project holdings.
- The Project land take has increased the density by 9% from the beginning of the Project to today; the population increased it by 47% and the settlement expansion by 0.5%: $(0.42 = 1.09 * 1.47 * 1.005 * 0.26)$.
- Bela had 0.15 people per ha at the census of 1993, 0.26 people/ha pre-Project and now has 0.42:

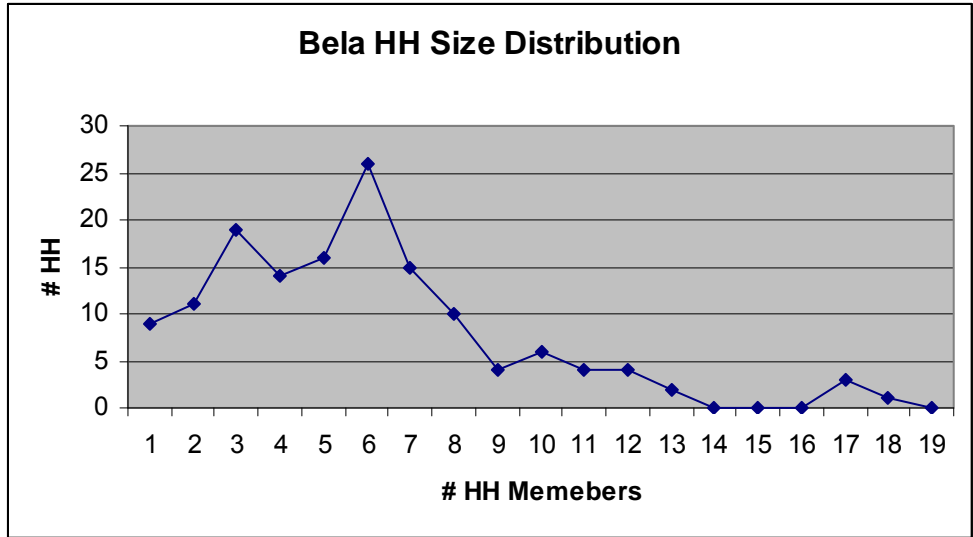
	Bela		
	Year 1993	Year 2000	2009
Population	330	569	837
Village Area	2200	2200	2028
Density (people/Ha)	0.152	0.262	0.420
Density increase (Land Take factor)	8.6%	8.6%	
Density increase (Population factor)	153.6%	47.1%	
Density increase (Settlement)	0.5%	0.5%	

Bela's Current Demographics

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

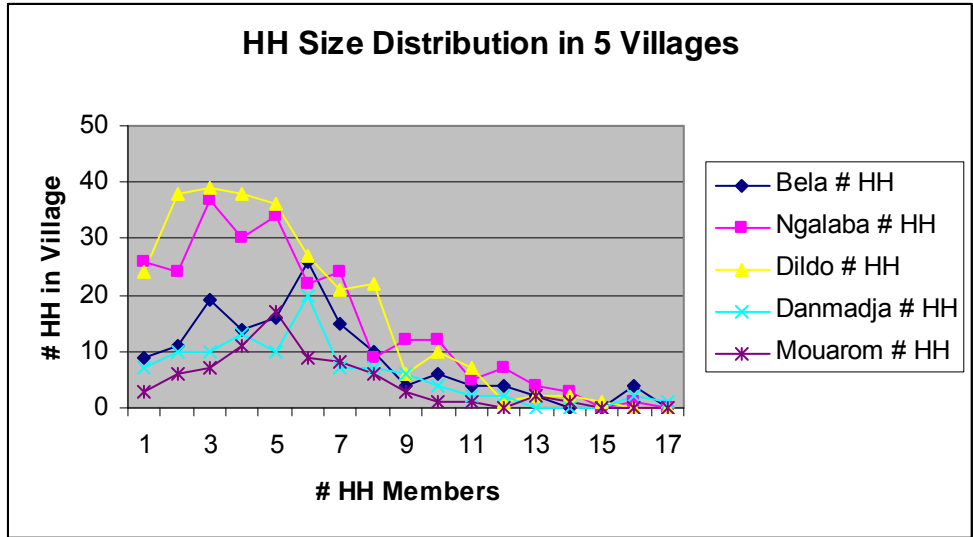
- Bela has 144 households (HH) and 837 inhabitants. The average number of HHM is 5.9.
- 12% of HH are headed by women.
- In Bela the most frequent HH size (mode) is 6 HHM:

¹ It lies far from any of the oil fields.

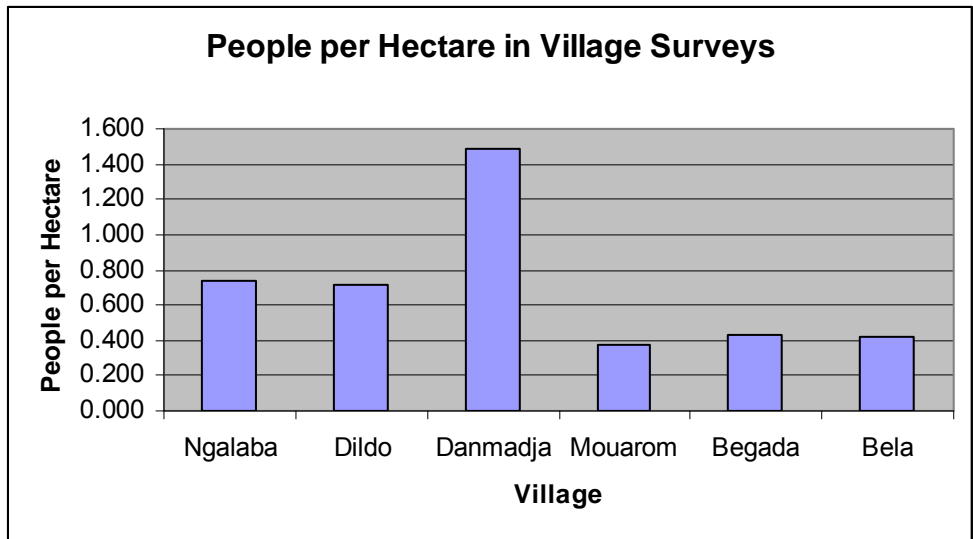


- The overall distribution of Bela's households by size, in comparison with other surveyed villages, is:

# HHM	Bela # HH	Ngalaba # HH	Dildo # HH	Danmadja # HH	Mouarom # HH
1	9	26	24	7	3
2	11	24	38	10	6
3	19	37	39	10	7
4	14	30	38	13	11
5	16	34	36	10	17
6	26	22	27	20	9
7	15	24	21	7	8
8	10	9	22	7	6
9	4	12	6	6	3
10	6	12	10	4	1
11	4	5	7	2	1
12	4	7	1	2	0
13	2	4	2	0	2
14	0	3	2	0	1
15	0	0	1	0	0
16-19	4	1	0	2	0
21	0	0	0	1	0

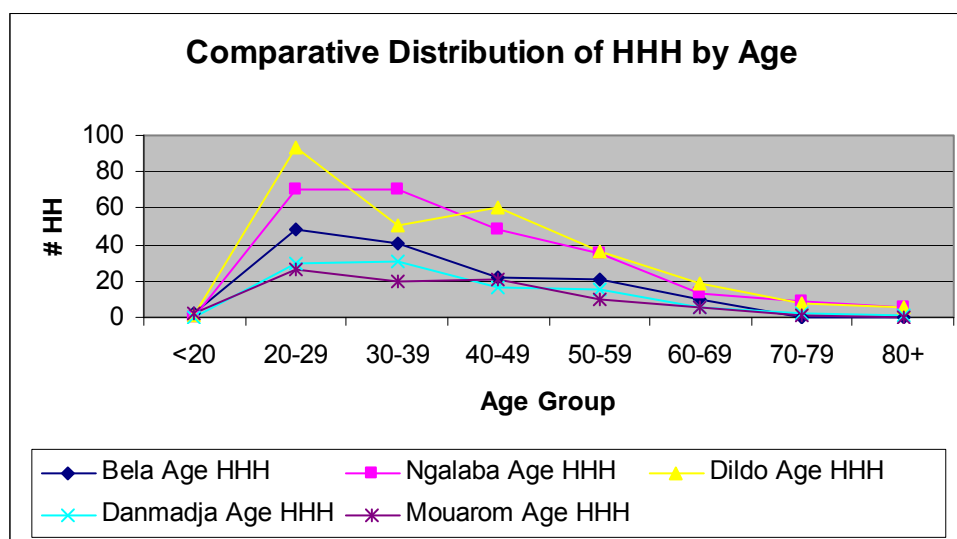


- Bela’s HH Size distribution most closely follows the curve of Danmadja village – though Bela has more HH with only 3 members. The similarity in distribution of HH sizes does not fit with the differences in population density among these villages. In terms of people per hectare Bela resembles low density Mouarom and Begada, rather than Danmadja. Reasons for this should be a matter for consideration, especially since there is no difference in population density between Bela 1 and 2 to account for it.

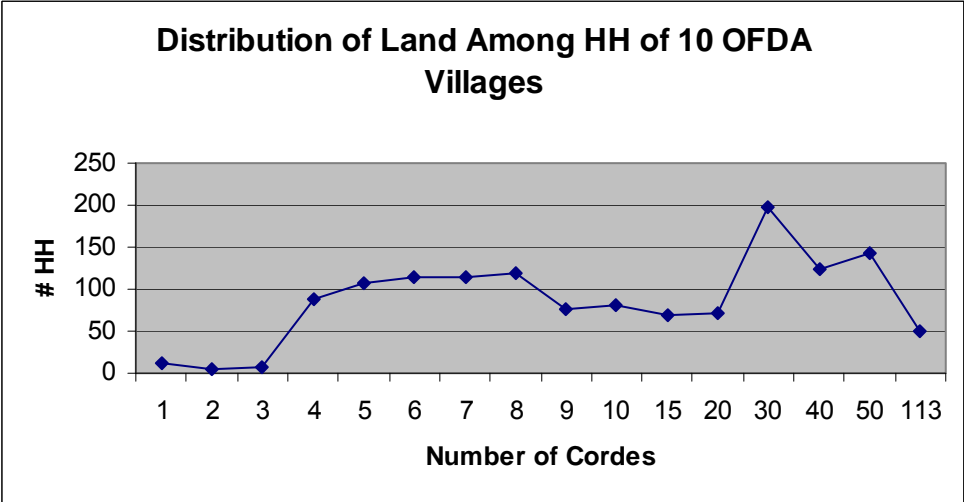
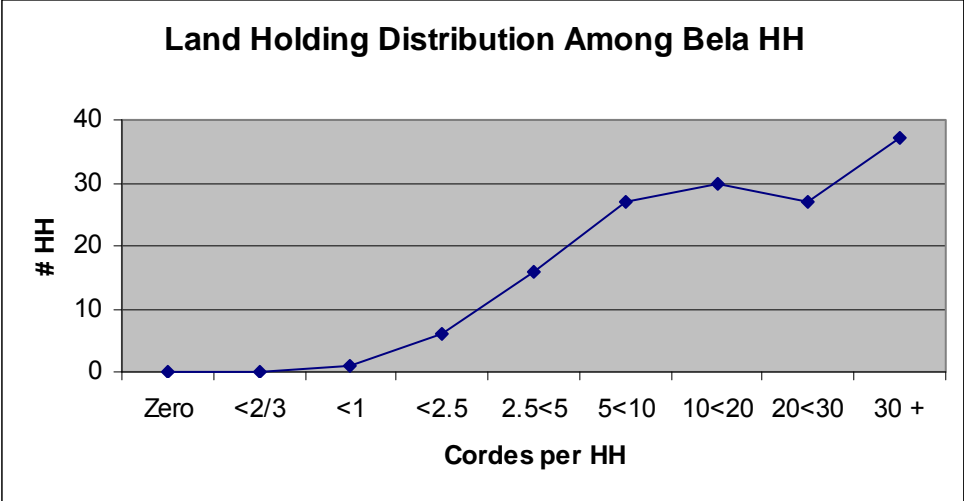


- Bela’s overall distribution of HH heads by age is also closest in distribution to Danmadja:

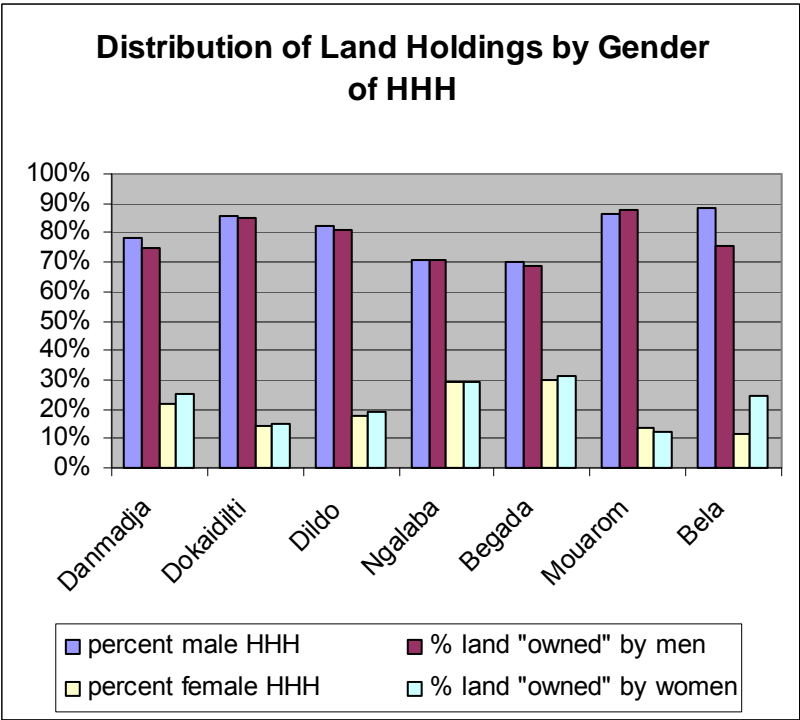
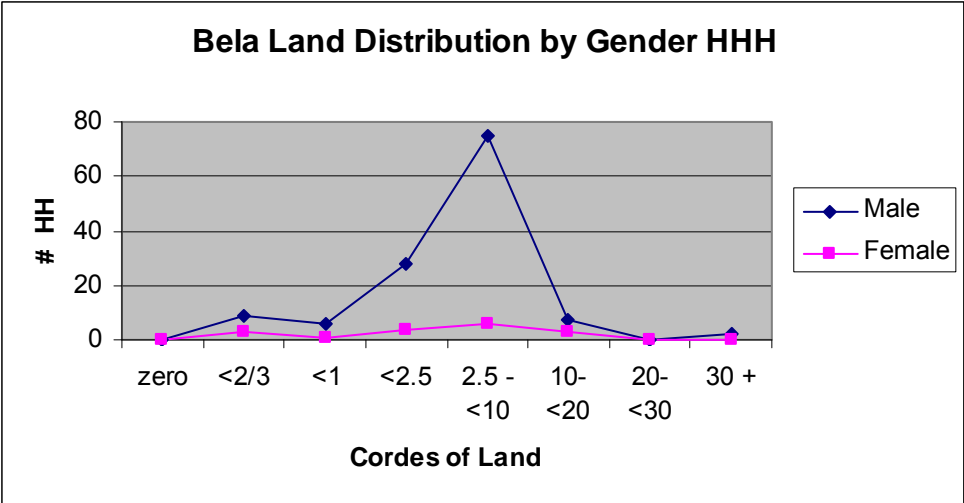
Bela Distribution of HH by Age, Compared					
Age HHH	Bela Age HHH	Ngalaba Age HHH	Dildo Age HHH	Danmadja Age HHH	Mouarom Age HHH
<20	2	0	1	0	2
20-29	48	70	93	30	26
30-39	41	70	51	31	20
40-49	22	48	60	16	21
50-59	21	35	36	15	10
60-69	10	13	19	6	5
70-79	0	9	8	2	1
80+	0	5	6	1	0



- Land distribution puts most Bela HH into the “wealthy” category of land holding.
- The largest HH land holding is 125 cordes.
- However the number of large land holders in Bela, is slightly smaller than in other villages, only 26% and not in the mid-30s% like most, or like Begada’s 69%:



- As is the case in other villages, both men and women can/do have large land holdings.
- In fact, female HHH in Bela outstrip their sisters elsewhere in the amount of land they have available, as the graph comparing HH land holdings by gender shows:

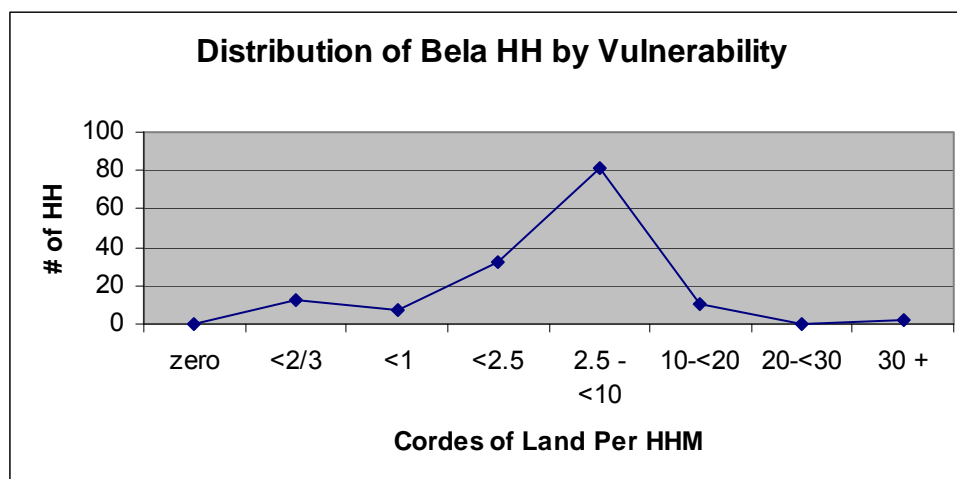


- In most villages, except for Mouarom, female HHH have slightly more land than male HHH; in Ngalaba each sex holds land in proportion to the number of HH.
- Bela has 12 At-Risk HH below 2/3 corde per HHH; an additional 7 HH are in a Marginal landholding situation.

Bela Distribution At Risk HHH by Age				
Age	# HH	# all At Risk HH	# female At Risk HH	Average At Risk HH size
<20	2	0	0	0
20-29	48	6	1	7.5
30-39	41	4	1	5.25
40-49	22	0	0	0
50-59	21	1	0	3
60-69	10	0	0	0
70-79	0	0	0	0
80 +	0	0	0	0

- In Bela 2 of the 3 At Risk female HHH are younger than is usual in other villages; none of these 3 women has turned over land to the Project.

HH viability factor	Male HHH	Female HHH	Total Male+Female
	127	17	
zero	0	0	0
<2/3	9	3	12
<1	6	1	7
<2.5	28	4	32
2.5 -<10	75	6	81
10-<20	7	3	10
20-<30	0	0	0
30 +	2	0	2

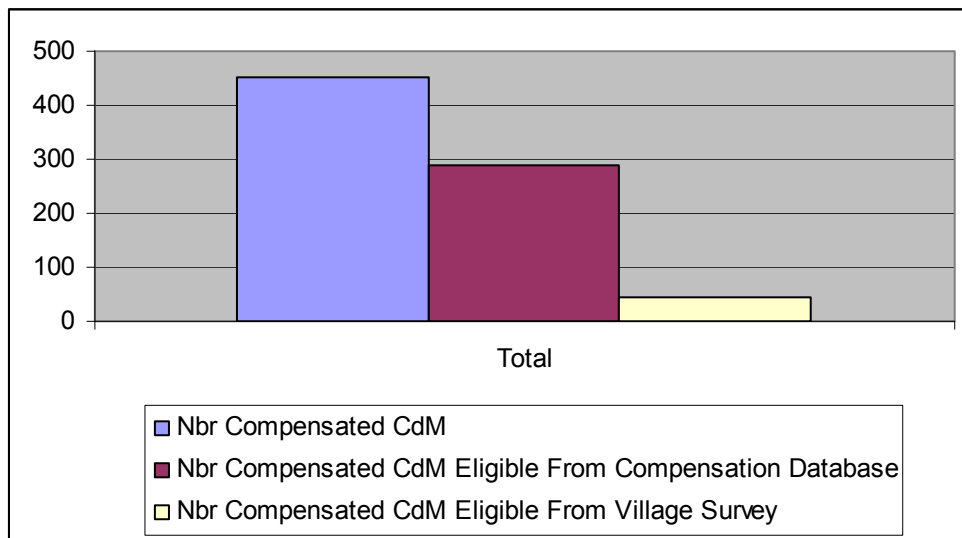


Description of Project Impact

The Project's Compensation Database, using declarative information on number of household members (HHM) and amount of land information:

- Prior to the Project acquiring land, 98 people or 11% of the population appeared to be agriculturally At Risk (less than 2/3 corde of land per HHM).
- By 2007 the Compensation Database indicated that 206 individuals (24.6%) were now At Risk.
- While the number of compensated individuals recorded in the Compensation Database is correct, the declarative database information tends to overestimate the number of HHM and underestimate the amount of land available to the family, hence many more people appear to be At Risk than precise measurements of HHM and landholdings show:

Compensation versus Village Survey Results



- Bela is traversed by the principle Overhead High voltage Electrical Line (OHL), with a Right of Way of 15 meters (35m around pylons); the space under the electrical line has not yet been returned.
- The export pipeline forms Bela's eastern boundary; the spine road through the oilfields defines parts of its southern limits, but these southern areas are cultivated by people from Kome Atan.
- Located in this southern area are also a few well pads.
- Bolobo Borrow Pits 7, 13 and 14 are within Bela's village boundary. The Project reclaimed BBP 13 and parts of BBP 7. Bela farmers farmed the returned land the first agricultural season post reclamation and return.
- And, of course, Bela is host to the original Kome Base, which has occupied the same area since 1994, time enough for the traditional land/population adjustment measures to work.

- Even with Project land acquisition, Bela, as a village, is not At Risk. There is still plenty of land and the average viability factor per capita is quite high.

Status of Average Bela HH

Pre-Project		With Project	
Av Land/HH	av fct/HHM	Av Land/HH	av fct/HHM
24.2 cordes	4.2 c./HHM	22.8 corde	3.9 c./HHM

- The village survey completed in January 2009 showed that 12 HH within Bela are At Risk. This constitutes 8% of Bela’s HH:
 - For 7 HH of the 12 their At Risk status is independent of the Project. They have never affected by Project land acquisition. They include:
 - 3 female HHH never affected by the Project, who, with their dependents, makes a total of 12 people with minimal land
 - 4 male HHH plus their families make 15 more people with insufficient land even though they have surrendered nothing to the Project.
- On the other hand 5 of the At Risk HHH have been compensated by the Project. All are men who, with their families total 45 people.
- 3 of these 5 HH, or 2% of Bela families, were put into an At Risk position by Project land acquisition. 2/5 were already At Risk before the Project. Of the 3:
 - 2 had been in a marginal landholding position before the Project (<1 corde/HHM)
 - Another 1 compensated HH, made nonviable by the Project, and had been in the comfortable category of between 1-2.5 cordes/HHM.
- The total number of people in At Risk HH = 72, or 8.6% of the entire population.
- There are now 7 marginal HH, all of them marginal even before the Project, and only one of whom has surrendered any land to the Project:

# HH at Vulnerability Factor Per Capita				
HH viability factor	Male HHH		Female HHH	
	127		17	
	before	now	before	now
zero	0	0	0	0
<2/3	6	9	3	3
<1	8	6	1	1
<2.5	27	28	3	4
2.5 -<10	75	75	7	6
10-<20	9	7	3	3
20-<30	0	0	0	0
30 +	2	2	0	0

- 32 HH are fine in terms of land holdings/resettlement factor: 1-2.5 cordes/HHM.
- 93 HH have ample land holdings of 2.5 or more cordes/HHM.
- The 5 HH made At Risk because of Project land acquisition theoretically lost 175 sacks of sorghum from the area surrendered (if all the land were in cultivation at the same time):

Sex	Cordes Lost	% original holding compensated	# Household Members	Resettlement Factor	Replacement value in CFA	Replacement Sacks Required
Male	2.301	77	7	0.097	130 492	25.3
Male	4.976	49	13	0.393	282 193	54.7
Male	0.400	10	7	0.522	22 684	4.4
Male	4.631	59	6	0.528	262 628	50.9
Male	3.673	33	12	0.610	208 299	40.4

- As a rule of thumb 1 person requires 1.8 sacks/year
- The largest area of land surrendered by any HH in Bela was 15 cordes from the village chief, who still has a viability factor of 6.611 cordes per HHM.
- Not one of the wealthy land holding HH in Bela was made At Risk by Project land acquisition; unfortunately 1 comfortably off HH and 2 marginal HH were made At Risk:

Changes in Land Holding Status

Land Take Changes Per Capita Viability of Compensated HH: # HH

Change in status	Ngalaba	Dokaidilti	Dildo	Mouarom	Danmadja	Begada	Bela
% Village HH Compensated	84%	87%	37%	87%	43%	27%	53%
nonviable to zero	0	0	1	2	1	2	0
marginal to zero	0	0	0	0	0	0	0
marginal to nonviable	5	2	4	0	4	2	2
OK to nonviable	0	1	1	1	1	3	1
wealthy to nonviable	0	0	1	0	0	0	0
ok to marginal	5	8	8	3	15	6	0
wealthy to marginal	0	0	0	0	0	0	0
wealthy to ok	23	1	3	6	7	14	3
Total social impact of Project	33	12	18	12	28	27	6
negative social impact (At Risk)	5	3	7	3	6	7	3
detrimental social impact (Marginal)	5	8	8	3	15	6	0

- The modal land holdings in Bela 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 Bela and other OFDA Villages in 2008

cordes	OFDA	Dildo	Dokaidil ti	Ngalab a	Danama dja	Mouaro m	Bela	
	1995 HH	2008 HH	2007 HH	2008 HH	2008 HH	2008 HH	#	%
0	see < 1	1.8%	0.0%	0.8%	0.0%	1.2%	0	0%
< 1	4.7%	0.7%	1.2%	0.4%	1.0%	1.2%	1	0.7%
< 2	10.5%	8.8%	2.4%	4.4%	5.9%	1.2%	3	2.1%
< 3	12.1%	8.0%	7.1%	4.4%	9.9%	1.2%	8	5.6%
< 4	16.0%	8.4%	7.1%	5.2%	8.9%	4.7%	8	5.6%
< 5	14.8%	8.8%	5.9%	8.0%	11.9%	4.7%	3	2.1%
< 6	9.3%	7.3%	8.2%	9.6%	7.9%	2.4%	7	4.9%
< 7	8.0%	6.9%	3.5%	6.8%	5.0%	4.7%	1	0.7%
< 8	5.1%	4.4%	9.4%	4.4%	9.9%	5.9%	5	3.5%
< 9	6.8%	3.3%	10.6%	4.8%	2.0%	4.7%	9	6.3%
< 10	2.3%	5.5%	5.9%	6.0%	4.0%	7.1%	5	3.5%
> 10	8.2%	36.1%	38.8%	45.2%	33.7%	61.2%	94	65.3%

- Although there are fewer large land holders in Bela than elsewhere, there is still adequate land in Bela for the average HH to leave its land in fallow for 23 years:

Land Data	Dokaidilti	Dildo	Ngalaba	Danamadja	Begada	Mouarom	Bela
Cultivated Field or owned fallow by outsiders (% of available land)	121 Ha (21 %)	141 Ha (9 %)	141 Ha (8 %)	17 Ha (4 %)	272 (9%)	531 (45%)	389 (20%)
Field cultivated by resident (% of available land)	302 Ha (52 %)	668 Ha (40 %)	1043 Ha (59 %)	241 Ha (63 %)	1190 (40%)	291 (25%)	755 (39%)
Fallow owned by resident (% of available land)	149 Ha (26 %)	792 Ha (48 %)	553 Ha (31 %)	124 Ha (32 %)	1497 (50%)	342 (29%)	838 (42%)
% of Cultivated Field or owned fallow by women	15 %	17 %	29 %	22 %	30 %	14 %	12 %

Household Data	Dokaidilti	Dildo	Ngalaba	Danamadja	Begada	Mouarom	Bela
Number of Households	85 HH	275 HH	249 HH	101 HH	259 HH	85 HH	144 HH
Average HH Size	6.3 HHM	4.9 HHM	5.3 HHM	5.7 HHM	5.0 HHM	5.3 HHM	5.9 HHM
Average Land per HH	11.3 cordes	11.2 cordes	12.6 cordes	10.3 cordes	20.7 cordes	19.6 cordes	22.8 cordes
Average Resettlement Factor	1.80 cordes/HHM	2.29 cordes/HHM	2.39 cordes/HHM	1.8 cordes/HHM	4.17 cordes/HHM	3.69 cordes/HHM	3.88 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)

Number of Years Fallow Possible Given Current Land and Population								
Village	Measure	Bela	Bela	Dildo	Ngalaba	Begada	Danmadja	Dokaidilti
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
Years Fallow Village Only								
		23.4	27.2	10.6	11.8	23.4	3.4	8.9
Years Fallow Village + Outside								
		24.4	33.0	11.5	12.5	23.9	6.0	9.8
Formula : Allan & Brush $\text{LengthFallow} = ((\text{ArableLand} * \text{LengthCultivation} / \text{Population}) - \text{NecessaryAreaPerPerson} * \text{LengthCultivation}) / \text{NecessaryAreaPerPerson}$								

Resettlement Program Impact on Bela

The information in this section has been developed from surveys and monitoring results of Improved Agriculture and Off-Farm training plus the Social questionnaires of the Village 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.

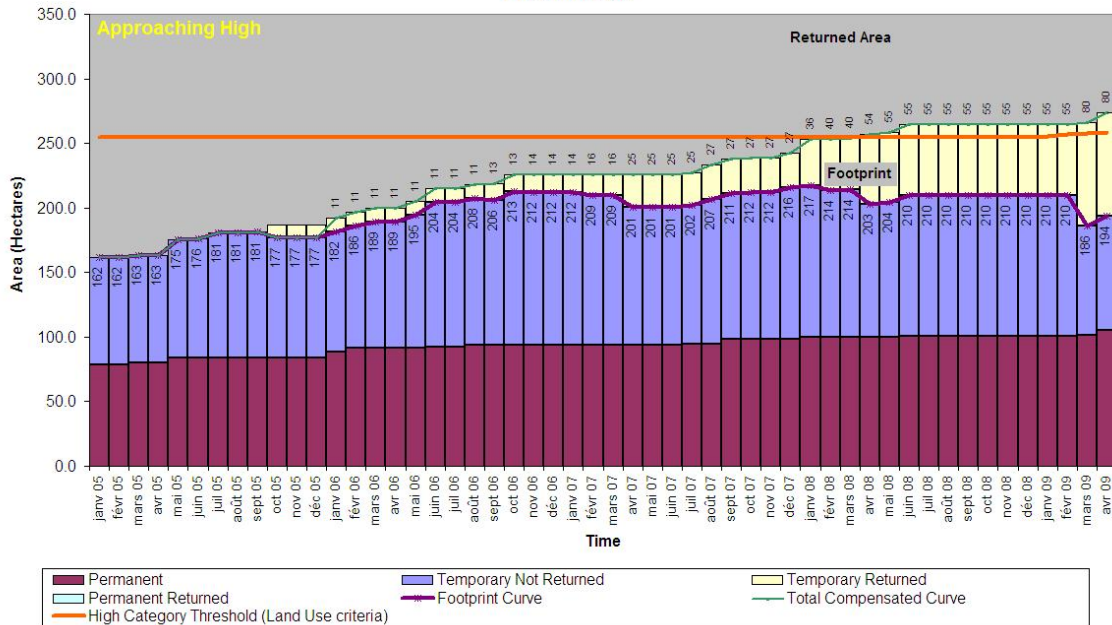
Resettlement Options

- Up through the completion of the village survey 16 people in Bela had been trained:
 - 11 in Improved Agriculture, 3 long enough ago to have a track record.
 - The rest started training in 2008.
 - 4 had received Off Farm training in 2006 or 2007; one trained in 2002 is now deceased.
 - The Off Farm graduates for whom evaluations are available have improved their living standards:
 - 1 woman earns 30,000 CFA per month by her craft
 - Another earns between 7,250-12,000 per month
 - Both women are married to husbands with plenty of land
 - Improved Agriculture:
 - One man was a very good student in rainfed and animal husbandry; he also does petty commerce to add income.
 - 1 is a hard worker and is now being reinforced in his other income-earning activity, fishing.
 - The last is missing an evaluation.
- Only one of the Project-affected At Risk HH in Bela has not been offered a resettlement option.

Land Return

- Out of Bela's 2200 ha, the Project has used 284 ha. temporary and permanent.
 - 172 ha are permanent use.
 - Out of the 122 ha of temporary land the Project has already reclaimed and returned 79.5 ha.

Land acquired and returned since January 2005
in Bela Village



Physical Resettlement

No one in Bela has chosen to be resettled in another village or on distant fallow land.

Supplemental Community Compensation

Bela, 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.

Bela started the Participatory Rural Appraisal (PRA) process with the Non Governmental Organization (NGO) BELACD-Doba in 2Q 2008. In a General Assembly on 15 April 2009 the village chose a school classroom, which will be built as the construction schedule and rainy season will allow.

Bela's Current Needs and Resources

- Bela's total land area is 2200 ha
- Bela's arable land = 1993 ha
- The amount of land needed by those compensated families at risk to become economically viable is 11 ha
- The amount of land needed by the other At Risk families untouched by the Project to be economically viable is 4 ha
- The total land shortage for needy HH in Bela is 15 ha:

% Land Holders and Their holdings

zero	0	0%
<2/3	12	8%
<1	7	5%
<2.5	32	22%
2.5 -<10	81	56%
10-<20	10	7%
20-<30	0	0%
30 +	2	1%

- Since none of the At Risk HH will be handed back their own land (all was permanent land take), those At Risk individuals currently in training will be monitored and the one person still without an option can choose training or land. For those that fail there are a number of large land holders who could act as 3rd parties to cede land.
- Like Dokaidilti, a big % of Bela's land in cultivation or in fallow is farmed by people from outside Bela, especially Kome Atan – 20% of Bela's land is used by outsiders. Insofar as at least 11% of these are from Kome Atan and are paying annual rent, or have purchased a piece of land, this provides income to the HH that hands over the field.
- At present Bela has enough land within its boundaries to leave a field in fallow for 23 years.
- 3-4 years is the current norm for fallow to recover in the OFDA
- Bela has enough arable land to provide all its inhabitants more than 2/3 c per HHM.
- Bela 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). At the village level there is sufficient land for all the HH in the village and ample length of fallow. Any problems can therefore be resolved using current village resources.

Land return has already provided 65 ha of reclaimed land, with another 15 ha of borrow pit in process, and farmers are currently planting it for the 2009 rainy season. Only the OHL remains out of use while an appropriate agricultural use that still meets safety needs is being sought.

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

- Monitoring of skills acquired in training
- Completion of skills reinforcement training
- Discussion and choice of resettlement option with At Risk HH without option

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

Site Specific Actions for Bela

CRCP/LMM Resettlement Option	Description	Desirable Option (Yes/No)	Comments
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	Yes	Reinforce 1 graduate in preferred livelihood (fishing)
Rainy Season Resettlement	Provide field clearing, rainy season hut, well, bicycle, and hand cart for use in distant farm field	No	Fallow land within easy reach of 2 Bela settlements
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

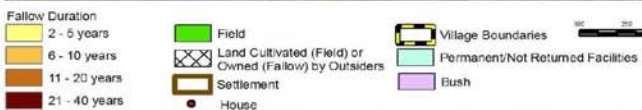
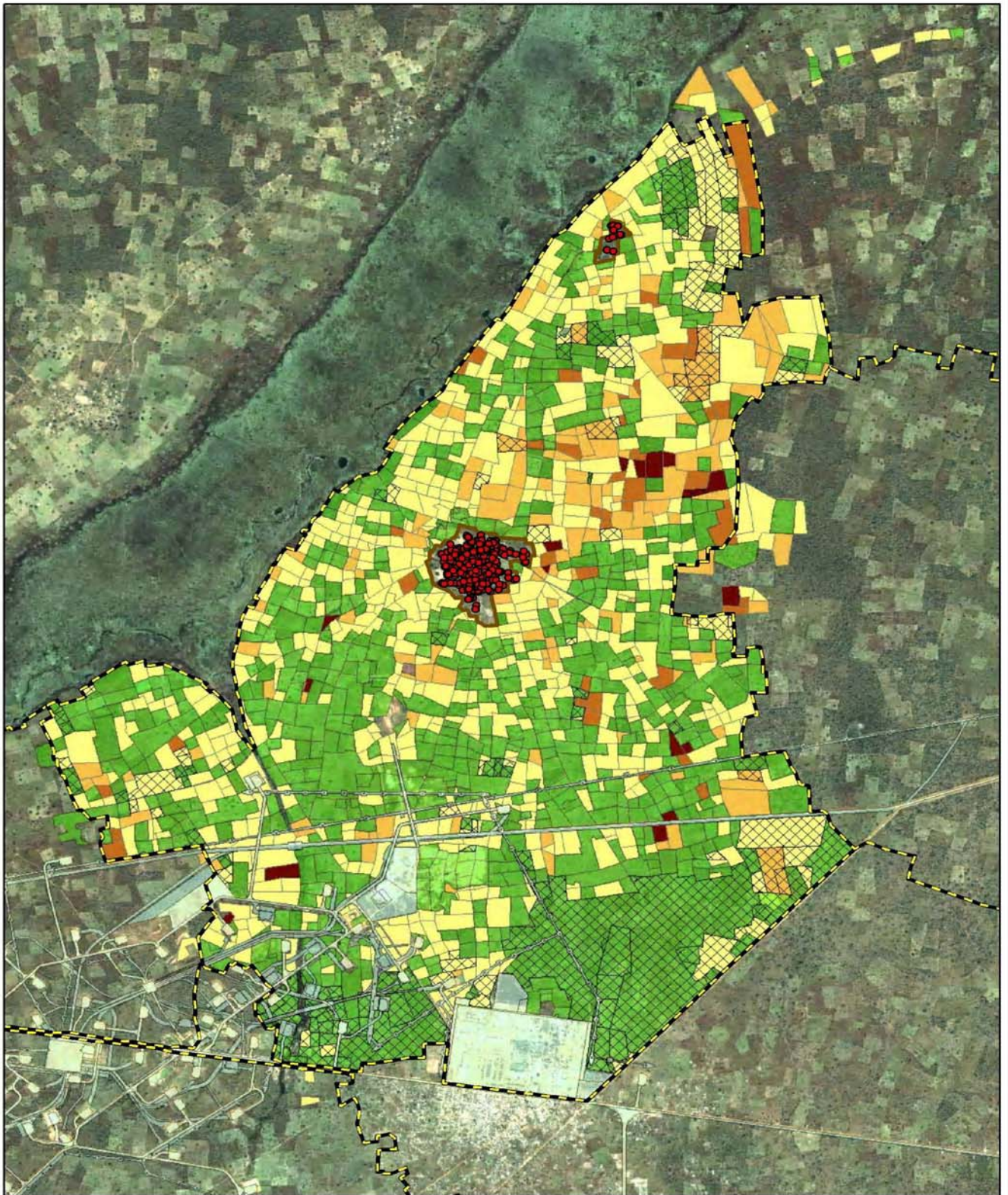
Site Specific Plan Implementation Timeline

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

Action (grey indicates completed, blue underway)	<u>Timeline</u>
Land and social surveys completed	April 2009
Performance evaluations of Improved Agriculture and Off Farm graduates	July 2008
Bela choice of Supplemental Community Compensation	May 2009
Construction Bela Supplemental Community Compensation	4Q 2009 to 1H10
EEPCI uses 3 rd 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 then annually to new resettlement eligibles

MAPS AND DIAGRAMS

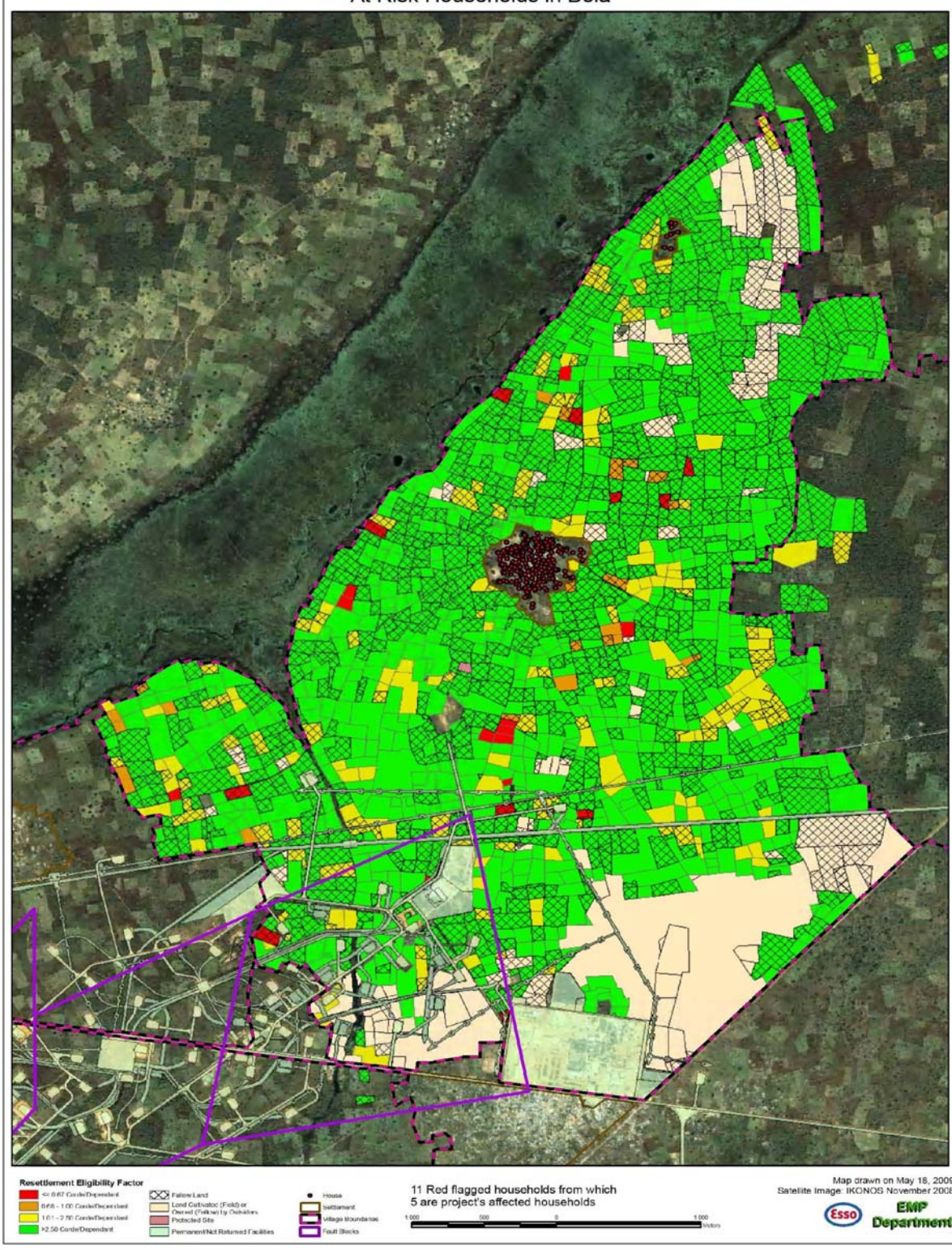
Bela Village Survey



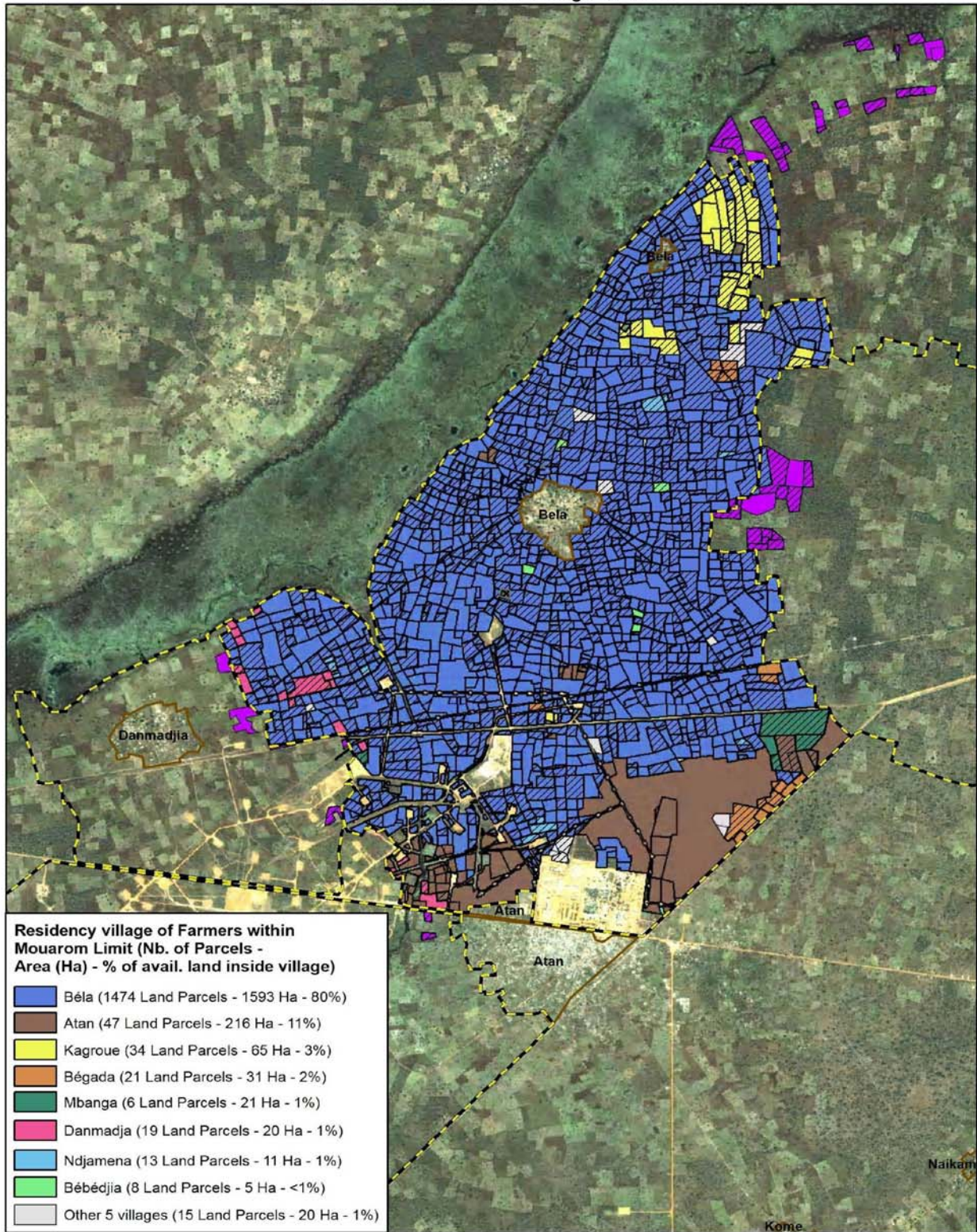
Map drawn on April 30, 2009
 Satellite Image: IKONOS November 2008



At Risk Households in Bela



Farmer's Residence in Village of Bela



Residency village of Farmers within Mouarom Limit (Nb. of Parcels - Area (Ha) - % of avail. land inside village)

	Béla (1474 Land Parcels - 1593 Ha - 80%)
	Atan (47 Land Parcels - 216 Ha - 11%)
	Kagroue (34 Land Parcels - 65 Ha - 3%)
	Bégada (21 Land Parcels - 31 Ha - 2%)
	Mbanga (6 Land Parcels - 21 Ha - 1%)
	Danmadja (19 Land Parcels - 20 Ha - 1%)
	Ndjamena (13 Land Parcels - 11 Ha - 1%)
	Bébédjia (8 Land Parcels - 5 Ha - <1%)
	Other 5 villages (15 Land Parcels - 20 Ha - 1%)

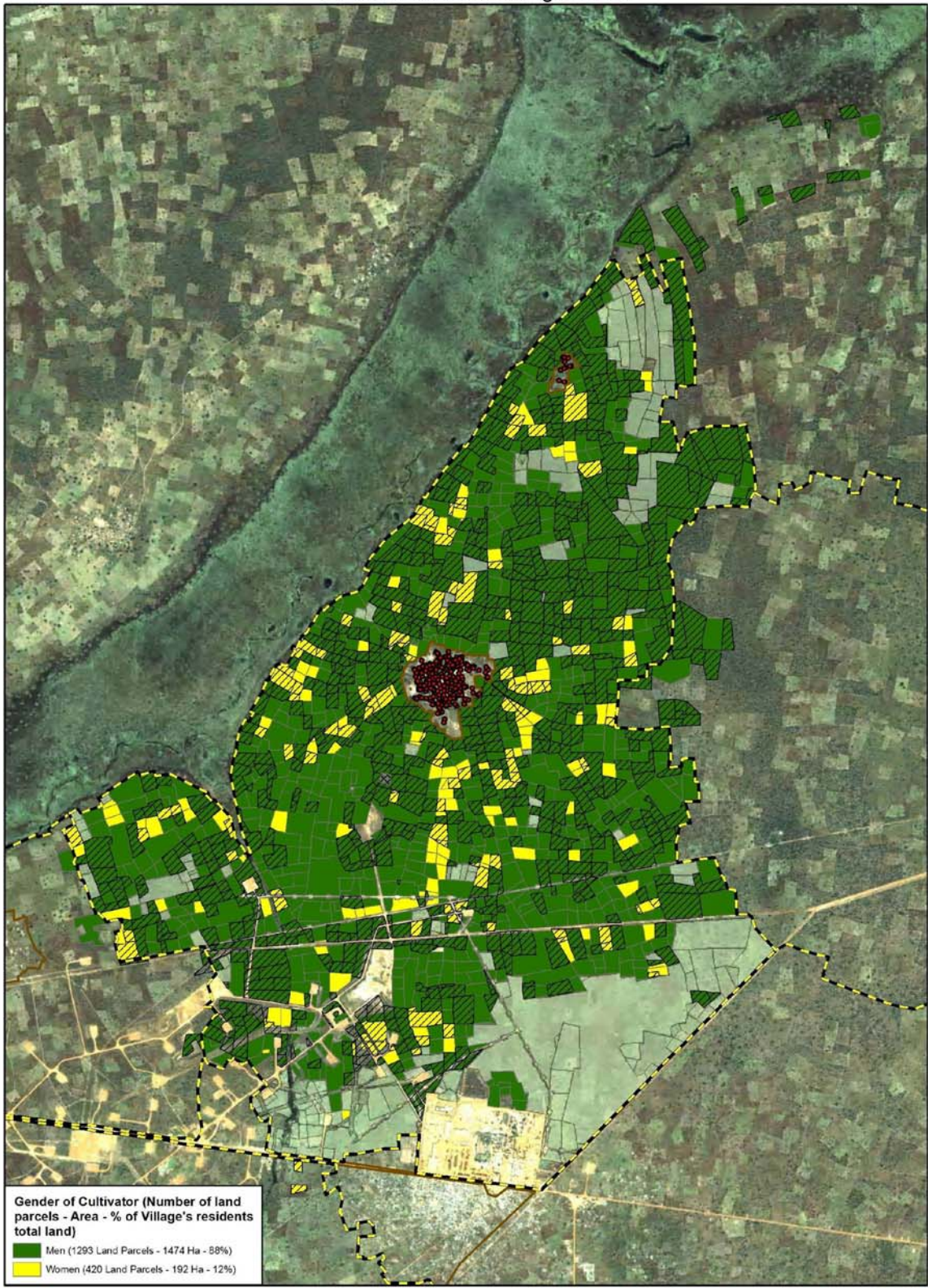
- Village Boundaries
- Settlement
- Fallow Land
- Protected Site
- Land Cultivated (Field) or Owned (Fallow) by Bela residents outside the village limit (49 Land Parcels - 73 Ha - 4% of village's resident total land)



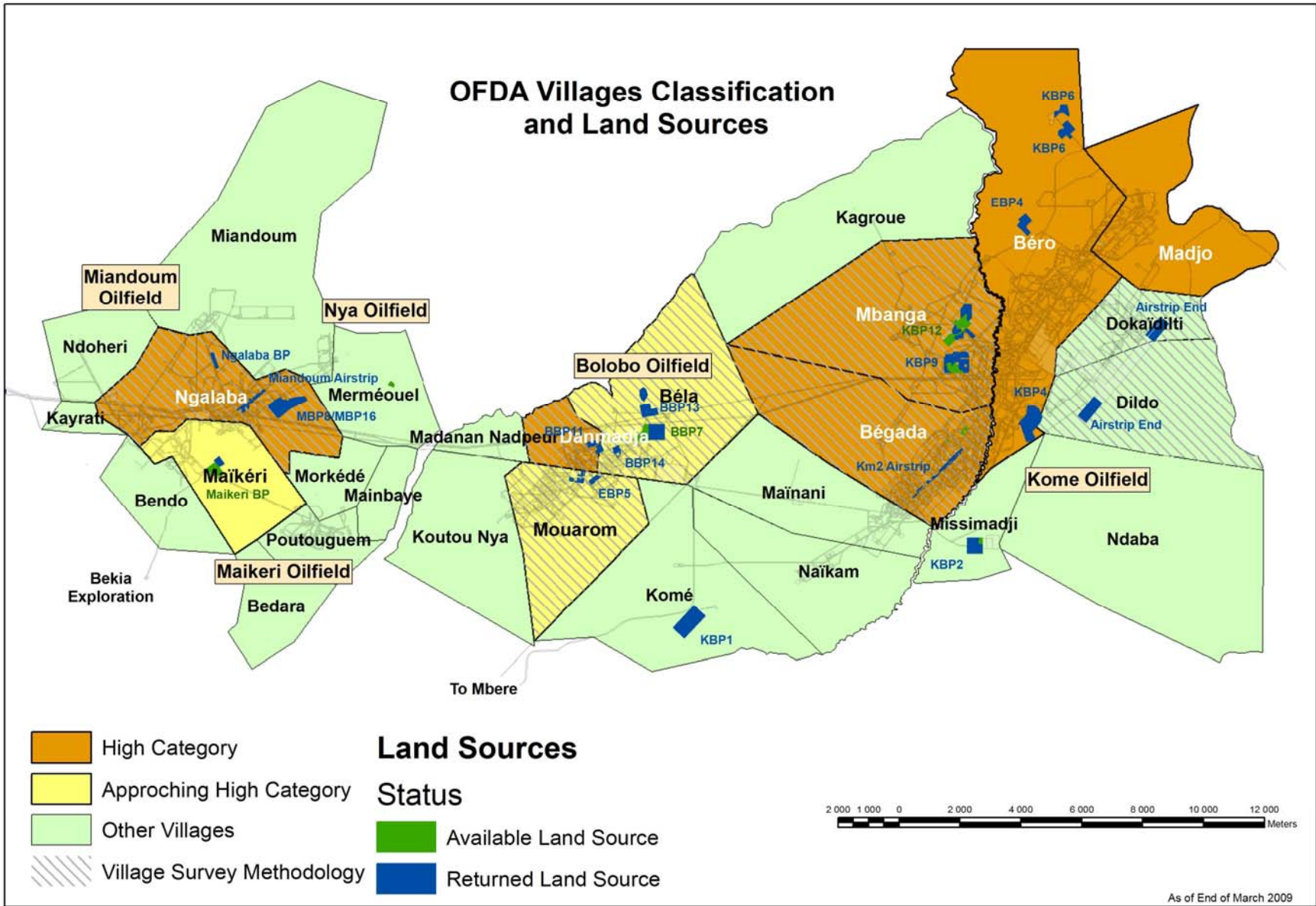
Map drawn on May 19, 2009
Satellite Image: IKONOS November 2008



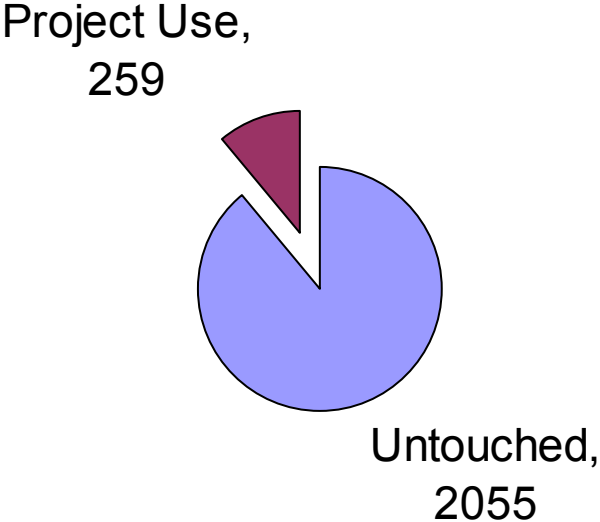
Owner's Gender in Village of Bela



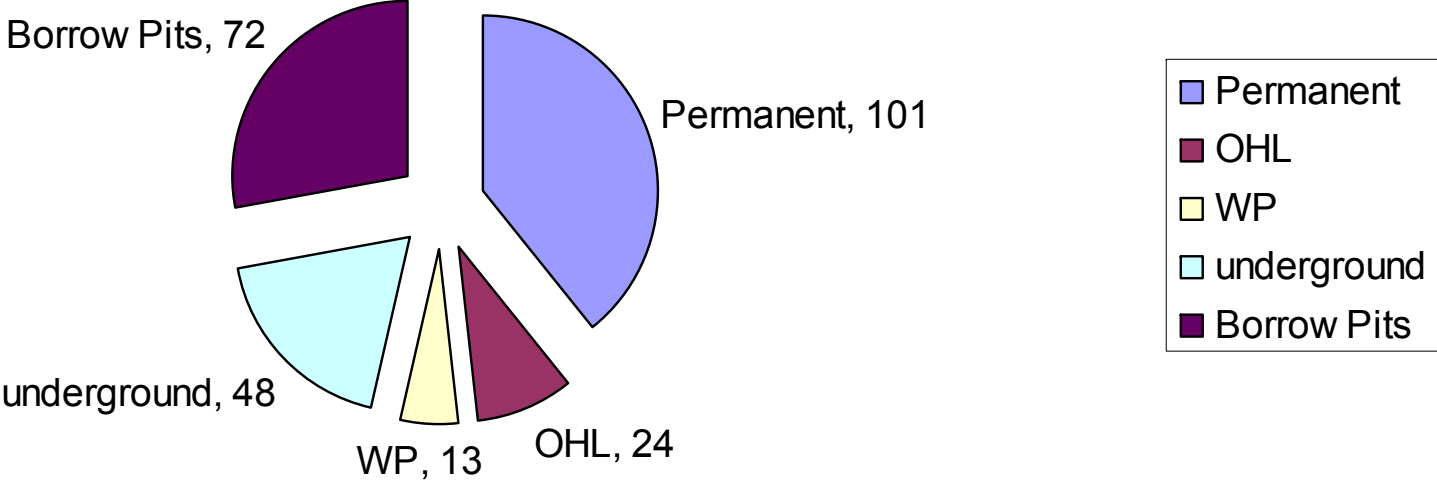
OFDA Villages Classification and Land Sources



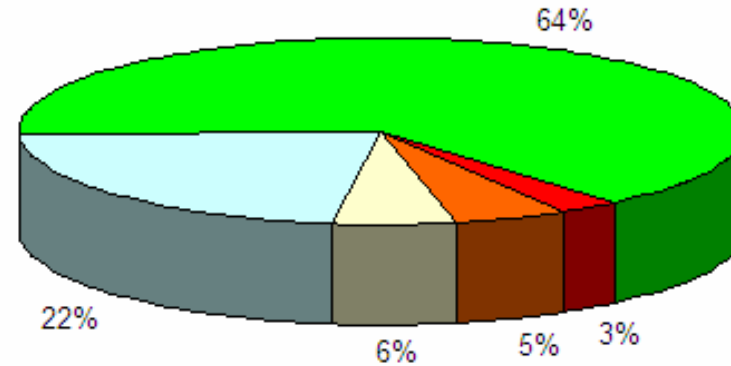
Project Use of Bela Land



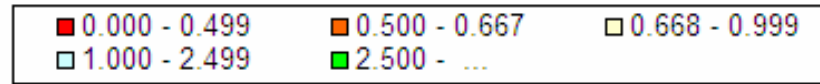
Project Temporary and Permanent Land Use



Land Distribution among all the Households of Bela



Eligibility Factor (Corde/Dependant)



	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	4	27	2	20	2.4%	3.8%
0.500 - 0.667	7	42	3	25	3.7%	4.7%
0.668 - 0.999	8	38	1	3	1.2%	0.6%
1.000 - 2.499	32	209	16	114	19.5%	21.4%
2.500 - ...	93	532	60	370	73.2%	69.6%
Total	144	848	82	532	100%	100%