Site Specific Plan
Ngalaba Village
February 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.

As the three original OFDA oilfields were being developed, and results began coming in from the completed wells, it became clear that more wells than initially proposed would be needed in order to develop Chad's oil. This additional drilling, and the infrastructure to collect the oil and to supply electricity to the wells, was consuming more land than originally anticipated. The project's efforts to address this land use situation began in mid-2005, when it declared a Level II Noncompliance Situation (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 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. 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, 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) have been affected by land acquisition for production facilities. For purposes of a Site Specific Report 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 affected by ongoing project land needs than others. These 10 geographical villages are split into 15 administratively recognized ones. Ngalaba, at its request, has been split into three administrative units.

Purpose of the Ngalaba Site Specific Plan
The purpose of the Ngalaba plan is to provide 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 or through providing additional land to those below the viability threshold. 54 of Ngalaba's inhabitants received training, 22 in Off-Farm and 32 in Improved Agriculture.

Elements of the Ngalaba 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.

Ngalaba in the past

At the beginning of the project Ngalaba formed a single administrative unit, with a geographical annex of a few homesteads, referred to as Hollo (or Wollo) set up a few hundred meters from the central village. Recently, Ngalaba center split into 2 administrative units. Since much land acquisition had occurred prior to this split, it is not possible to differentiate the impacts by today's administrative units. Because of this, henceforth "Ngalaba" will refer to Ngalaba 1 and 2 and Hollo altogether.

- Ngalaba's population growth between 1993 and 2007 was 97% (the average growth in most area villages in this period fell somewhere in the 90-100% range)
- Ngalaba had 2118 ha of land, total, before the Project
    - 184 ha bush (estimated from the manual interpretation of a satellite image dated from November 2003)
    - 1886 ha of cultivated and fallow land
    - Settlement area of 48 ha
- Before the Project Ngalaba was in the bottom half of OFDA villages with respect to the hectares of bush available; the Project has used 28 ha of Ngalaba's bush.
- In terms of availability, the OFDA village with the most bush has 12 times what Ngalaba can access.
- Ngalaba was fourth from the top of villages in population density before the project and remains so today
    - Ngalaba had 0.39 people per ha and now has 0.70
- Ngalaba is located far from any water resources that could be used either for fishing or irrigation.

Ngalaba's Current Status

- Ngalaba has 249 households (HH) and 1315 inhabitants
  (38 % of pop. in Ngalaba I, 53 % of pop. in Ngalaba II, 9 % of pop. in Wolo)
- The average number of HH members (HHM) is 5. 28
- 31% of HH are headed by women
  (38 % in Ngalaba I, 27 % in Ngalaba II and 16 % in Wolo)
- Ngalaba's total land area in December 2008 is 1871 ha or 88% of its pre-project area
    - During the Village Survey, the village has declared an area of 69 Ha of Bush (38 % of the original area measured with the satellite image of 2003. The rest is long-term fallow)
    - It has lost 12% of its pre-project arable land
- During construction the total arable land available to Ngalaba had been reduced by 7%.
- Following the 2008 return of newly reclaimed land, Ngalaba has returned to 88% of its pre-project holdings.
- The Project land take has increased the density for 14%, the population increased it for 58% and the settlement expansion for 3%: (0.74 = 1.14*1.58*1.03 * 0.40)
- The overall distribution of households by size is:

Ngalaba HH Size Distribution	
# HHM	# HH
1	26
2	24
3	37
4	30
5	34
6	22
7	24
8	8
9	12
10	12
11	5
12	8
13	3
14	3
15	0
16	1
Total	249

- The very large HH with many members tend to be HH with many dependents such as orphaned nieces and nephews, divorced sisters etc.
- Ngalaba's overall age distribution of HH Heads (HHH) is:

Ngalaba HHH Age Distribution				
Age	# HH	Average HH size	# all vulnerable HH	# female vulnerable HH
19-20	2	4.5	0	0
21-30	73	4.1	8	1
31-40	71	6.7	8	3
41-50	44	7.1	4	4
51-60	34	4.3	1	1
61-70	11	3.0	0	0
71-80	12	2.8	0	0
81-90	2	2.0	0	0
Total	249	5.3	21	9

- People become HHH in their early or mid 20s, unless they have been orphaned as a teen, in which case they must take care of their brothers, sisters and other dependents. Women tend to become HHH later, as they are widowed or divorced.
- Elderly people may continue to live in their separate homestead, often with a grandchild to help around the house, but they are almost always supported by their children and are not, therefore, vulnerable.
- Many of the non-viable HH are young and of small size. They may not have inherited/ been transferred land from the family; they are cultivating what the need while the fallow remains in the overall HH pool. Therefore their non-viable situation is temporary; they are just "waiting to come into their inheritance."

- Many others among young, non- viable HH are large, despite the youth of the HHH; they have become responsible for younger siblings or other dependents.

Description of Project Impact

- Data on compensation at the level of HH and of individuals paint different pictures:
    - 55% of Ngalaba's productive inhabitants (older than 20 years old = 510 individuals) were compensated
    - 83% of Ngalaba's households were compensated
    - 91% of male-headed HH received compensation, in contrast to 61% for female-headed HH – this probably reflects the fact that women have smaller/no land holdings. Nevertheless 30% of the land in Ngalaba is "owned" by women, compared to 14% in Dokaidilti and 18% in Dildo
    - Only 3 HH heads, among the 207 compensated HH, are not cultivators. Most cultivators are therefore also household heads. In about 1 out 3 HH, a non-household head has received compensation.

- Before the Project started, 46% 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 64%, from 162 to 225 individuals.
- Today, looking at Ngalaba's households and using topographic measurements of land holdings rather than individuals' reported dependents and holdings:
    - 21 or 8% of the 249 households in Ngalaba currently fall under 2/3 c per HHM; 2 of them have no land at all
    - 16 of these households were affected by Project land needs i.e. 76% of the vulnerable HH were made non-viable through Project land needs.
    - The remaining 24% are non-viable even without any project intervention.
- The largest area surrendered by a single HH in Ngalaba was 7 c.
- Not one of the top 50 HHs who lost the largest amount of land was made eligible.
- 22% of Ngalaba's landholders have more than 10 c of land
    - The highest loss of land would be the equivalent of 35 sacks of sorghum—had all the land been in cultivation.

Land Holdings of Project-Affected HH with Less Than 2/3 corde per Household Member

Gender	m^2 compensated converted c	Remaining cordes	% original holding compensated	# HouseHold Members	Replacement value of sorghum: # sacks
M (149)	1.300	1.000	57%	5	6 1/2
F (923)	1.791	2.414	43%	4	9
M (131)	0.633	1.175	35%	3	3
M (924)	1.678	3.715	31%	7	8 1/2
M (737)	2.245	5.213	30%	10	11 1/4
F (700)	0.574	1.436	29%	7	2 3/4
M (716)	1.104	4.264	21%	10	5 1/2
M (178)	0.491	1.873	21%	7	2 1/2
M (523)	1.268	5.772	18%	10	6 1/2
M (1061)	0.219	1.156	16%	3	1
M (709)	0.500	2.913	15%	7	2 1/2
M (837)	0.728	4.710	13%	8	3 1/2
M (526)	1.196	7.948	13%	14	9 3/4
F (768)	0.110	2.803	4%	6	1/2
F (475)	0.078	3.397	2%	6	1/2
M (125)	0.004	1.977	0.2%	3	0

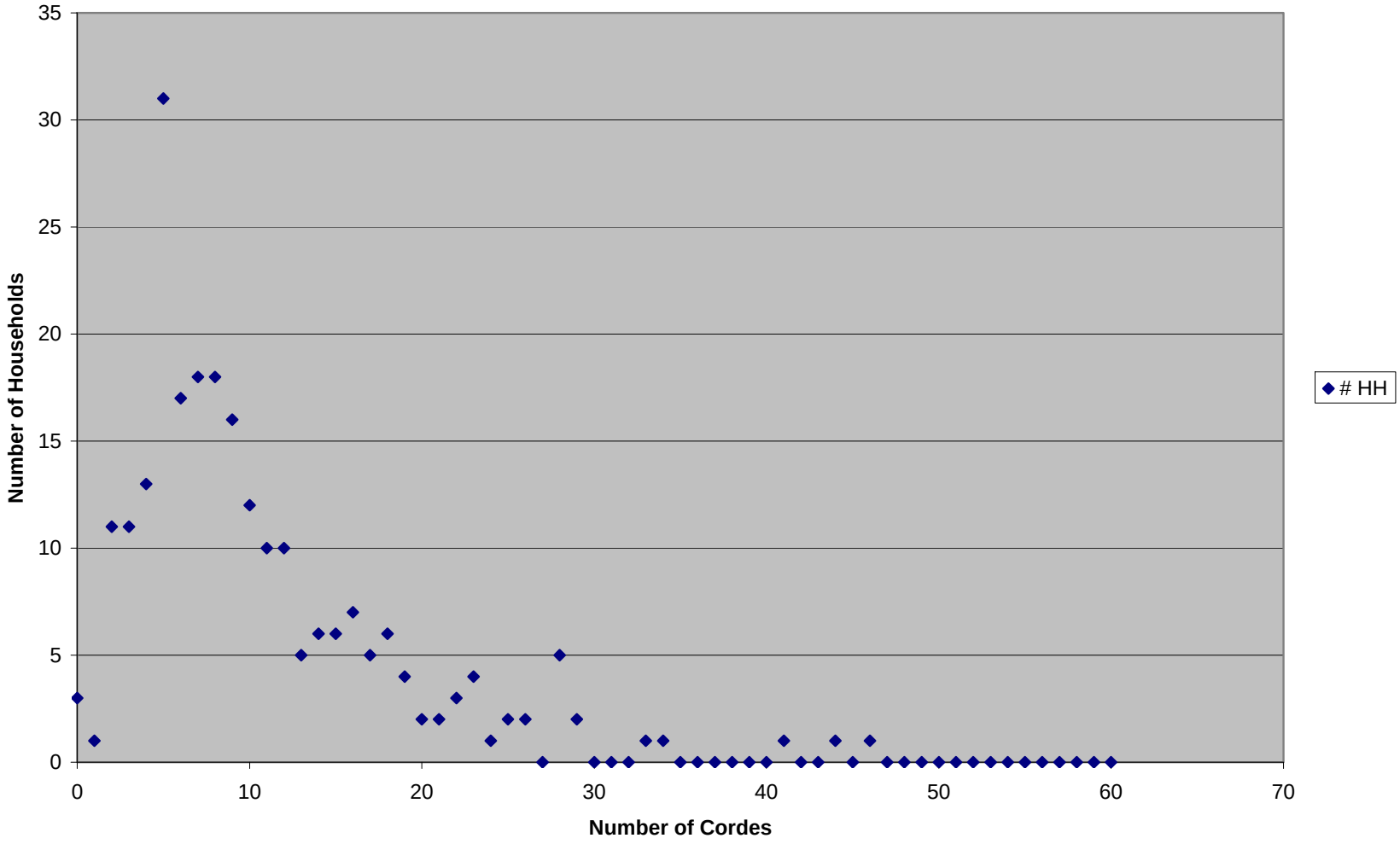
Observations

- Like Dildo and Dokaidilti, Ngalaba's land distribution is skewed – of the 249 HH, 15 HH on the whole with 1 or 3 members, but two with 9 and 10 HHM have no land at all whereas HHs with 45 or more cordes have between 8-10 HHM.
    - The most common distribution of land holdings among middle-sized farmers in Ngalaba in 2008 is the same as found throughout the OFDA in 1995 – 5 cordes.
    - Overall land distribution in Ngalaba is less equitable than was usual for the OFDA as a whole in the past, because 35% of today's Ngalaba HH have more than 10 cordes of land. Dokaidilti and Dildo also have a skewed number of large landholders running about 35%.

Difference in land distribution between OFDA average 1995 and Ngalaba in 2008

Land Distribution among HH				
	OFDA	**Dildo**	**Dokaidilti**	**Ngalaba**
cordes	1995 HH	2008 HH	2007 HH	2008 HH
0	see < 1	1.8%	0.0%	1%
< 1	4.7%	1.1%	1.2%	0%
< 2	10.5%	9.1%	2.4%	4%
< 3	12.1%	8.0%	9.4%	4%
< 4	16.0%	8.4%	8.2%	5%
< 5	14.8%	8.7%	4.7%	7%
< 6	9.3%	7.3%	8.2%	9%
< 7	8.0%	6.9%	4.7%	6%
< 8	5.1%	4.4%	8.2%	4%
< 9	6.8%	3.3%	11.6%	4%
< 10	2.3%	5.5%	5.9%	5%
> 10	8.2%	36.0%	35.3%	41%
The green shading indicates the mode, or the most frequent size of land holding within the village.				

- Today in Ngalaba the most common size land holding (3 to 4 cordes) is the same as what was common in 1995, before the project.
- 41% of Ngalaba land holders have more than 10 cordes of land; they are holding more than was the norm in the OFDA as a whole in 1995.


Land Distribution Among Ngalaba Households
Number of Households
35
30
25
20
15
10
5
0
0
10
20
30
40
50
60
70
Number of Cordes
HH

Ngalaba's Current Needs and Resources

- 2/16 Project-affected non-viable HH have, in fact, returned to viability through their training; they earn 8-10 times as much as they would earn from the land they surrendered
- Except for the 2 Project-affected HH who have been able to return to viability via resettlement options or land return to date, the amount of land needed is 29 ha.
    - 1 eligible HH has elderly father (age 62) with enough land (resettlement factor 1.891) for him to give his non-viable son.
    - 3 HH are from other villages or children of men from other villages; it is not strange, given customary rules of land access, that they have little land
    - 1 female-headed HH is married to another, separate HH; her husband has plenty of land (resettlement factor 4.518), all of which indicates marital tensions and the low probability that the non-viable HH will be able to access land via her husband's family. Although she was born in Ngalaba her father and mother are from other villages, therefore it is unlikely that there is land available through her own family.
- The amount of land needed by the other families untouched by the project to be economically viable is 7 ha
- The total land shortage in Ngalaba is 36 ha
- Ngalaba's arable land = 1773 ha, divided between1142 ha of fields, 538 ha of fallow fields and 63 Ha of bush.
  Ngalaba residents have 1044 ha of fields and 490 ha of fallow.
- 41% of HH are holding more than 10 cordes of land apiece
- Unlike Dokaidilti, a very small % of Ngalaba's land in cultivation or in fallow is farmed by people from outside Ngalaba – only 146 ha or 9%
- 1% (11 inhabitants) of Ngalaba inhabitants have declared farm land outside of Ngalaba, mostly in Ndoheri village which is close enough for Ngalaba farmers to make the daily trip to their fields
- The current ratio of 1044 ha of fields, 490 ha of fallows and 63 Ha of Bush allows 10 years of fallow for each field
- 3 years is the current norm for fallow to recover in the OFDA
- Ngalaba has enough arable land to provide all its inhabitants more than 2/3 c per HHM
- Ngalaba has enough land to maintain a rotation of 4 years of cultivation, 3 years of fallow

Land Data	**Dokaïdilti**	**Dildo**	**Ngalaba**
Cultivated Field or owned fallow by outsiders (% of available land)	127 Ha (22 %)	138 Ha (8 %)	146 Ha (9 %)
Field cultivated by resident (% of available land)	300 Ha (51 %)	699 Ha (42 %)	1044 Ha (58 %)
Fallow owned by resident (% of available land)	147 Ha (25 %)	791 Ha (48 %)	490 Ha (27 %)*
% of Land "Owned" by women	14 %	17 %	32 %

* There is an additional 63 Ha of Bush in Ngalaba

Household Data			
Number of Household	85 HH	275 HH	249 HH
Avg. Household size	6.3 HHm	4.9 HHm	5.3 HHm
Avg. Land per Household	11.3 cordes	11.2 cordes	12.6 cordes
Avg. Resettlement Factor	1.79 cordes/HHm	2.29 cordes/HHm	2.39 cordes/HHm

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

Calculation of Length of Fallow Possible							
	Possible length of fallow given current population and amount of land						
	(Allan and Brush Formula for Carrying Capacity)						
	length of fallow =	((arable area*length cultivation)/(population*area needed per person))-length of cultivation					
		Dokaidilti		**Dildo**		**Ngalaba**	
		Ha	**m^2**	**Ha**	**m^3**	**Ha**	**m^4**
Land	total arable land	447	4470000	1460	14600000	1597	15970000
	area needed per person	0.34	3377.47	6754.6	10131.73	13508.86	16885.99
Agriculture	years duration cultivation	4		4		4	
	years duration fallow	3		3		3	
	years duration cycle	7		7		7	
	current population	537		1348		1315	
	Years length of fallow	**5.86**		**8.83**		**1038**	

Resettlement Program Impact on Ngalaba

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

Project Mitigation Measures

Land Return

- Return of land taken for temporary use by the project raised 1 At Risk HH to a viable status, above 2/3 corde; other non-viable HH will need to access the restored land through Third Party compensation.

Off Farm Training

- 7 of the HH below 2/3 corde received Off-Farm Training:
    - 2 Off-Farm HH makes a good living, earning 8-10 times the value of the annual crop on the land lost
    - 4 HH have never put into practice the training received.
        - One was trained in welding in 2002; his father is from another village so that it is not surprising that he does not have much land

Improved Agriculture Techniques Training

- No one from Ngalaba falling below the threshold for agricultural viability has been trained in counter-season vegetable gardening and/or food transformation
- One eligible farmer's brother took the On-Farm Training instead; the trainee, who did passably well but was not really involved, has a resettlement factor of 1.326 and another brother 2.764.

Physical Resettlement

No one in Ngalaba has chosen to be resettled in another village, despite the frequent reiterations of some NGOs to villagers that the entire village of Ngalaba would be targeted for resettlement.

Conclusions on Resettlement Options

- There has been no physical resettlement nor has any HH indicated interest in resettling itself; the concept of resettlement has been discussed and the village is divided as to whether resettlement would have positive repercussions.
- Off Farm has improved the living standard of a few of Ngalaba's inhabitants affected by Project land needs considerably.
- The same number have not put their training to work, even though they are short of land
- 2 have not been offered resettlement options, but they belong to families with sufficient land for them to access it without difficulty if they wished

Provide For Creating Village Level Livelihood Enhancement Through Economic Development Projects

Ngalaba, 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 will provide Supplemental Compensation for the "temporary" land that was not returned within 1 year.

Ngalaba started the Participatory Rural Appraisal (PRA) process with the Non Governmental Organization (NGO) BELACD-Doba in 2Q 2008. Both administrative units prefer a school classroom. They must, however, agree to collaborate and on where the buildings are to be located; discussions are currently under way.

Recommended Site Specific Actions

21 households in Ngalaba (16 directly affected by the Project) have less than 2/3 c per HHM. The total amount of land needed to improve the 21 households' situation is 36 ha, The current need for land for the 14 affected directly by the Project but whose livelihood has not been restored by resettlement activities or who have not had the offer of a resettlement option is 29 ha.

To provide for restored livelihoods the following Site Specific Plan Actions are recommended:

- Provide supplemental land to households below the threshold of viability that have not replaced their losses through resettlement training or training reinforcement.
    - 28 ha of land in 1 borrow pits have been reclaimed to arable quality (scarified and topsoil spread). In addition,
    - 26 HH have so much land that their "eligibility factor" is above 2.5 versus the needed 0.67 per capita. Ceding land through 3rd party compensation will not put them in difficulty.
- Providing through 3rd party compensation as much supplemental land as needed by each of the 3 On and Off Farm graduates who, despite their training, have failed to regain their pre-Project standard of living, will return them to "same as or better" status.
- The same is true for the 11 HH which have not yet benefited from a resettlement option. Supplemental land will leave them at "same as or better" status. They will be offered resettlement options available in Ngalaba: Improved Agriculture, 3rd party compensated land and/or Resettlement.
- Third Party Compensation can be used to provide newly reclaimed borrow pit land to At Risk Households who were not previous users of the area.
- Third Party Compensation along with rainy season resettlement is unlikely given that most Ngalaba HH cultivate land in areas nearby outside Ngalaba.
- 2 HH with restored viability + 3 HH failed to restore (land) + 11 HH resettlement option = 16 HH non-viable, project-affected HH.
- Reinforce 25 Improved Agriculture Techniques graduates in livestock

- Provide 8 Off Farm graduates with additional specialized and quality equipment, plus any training needed to operate it.
- Physical resettlement of specific HH or of the entire community is not necessary to reverse the situation. There is enough arable land available in Ngalaba (as well as nearby).

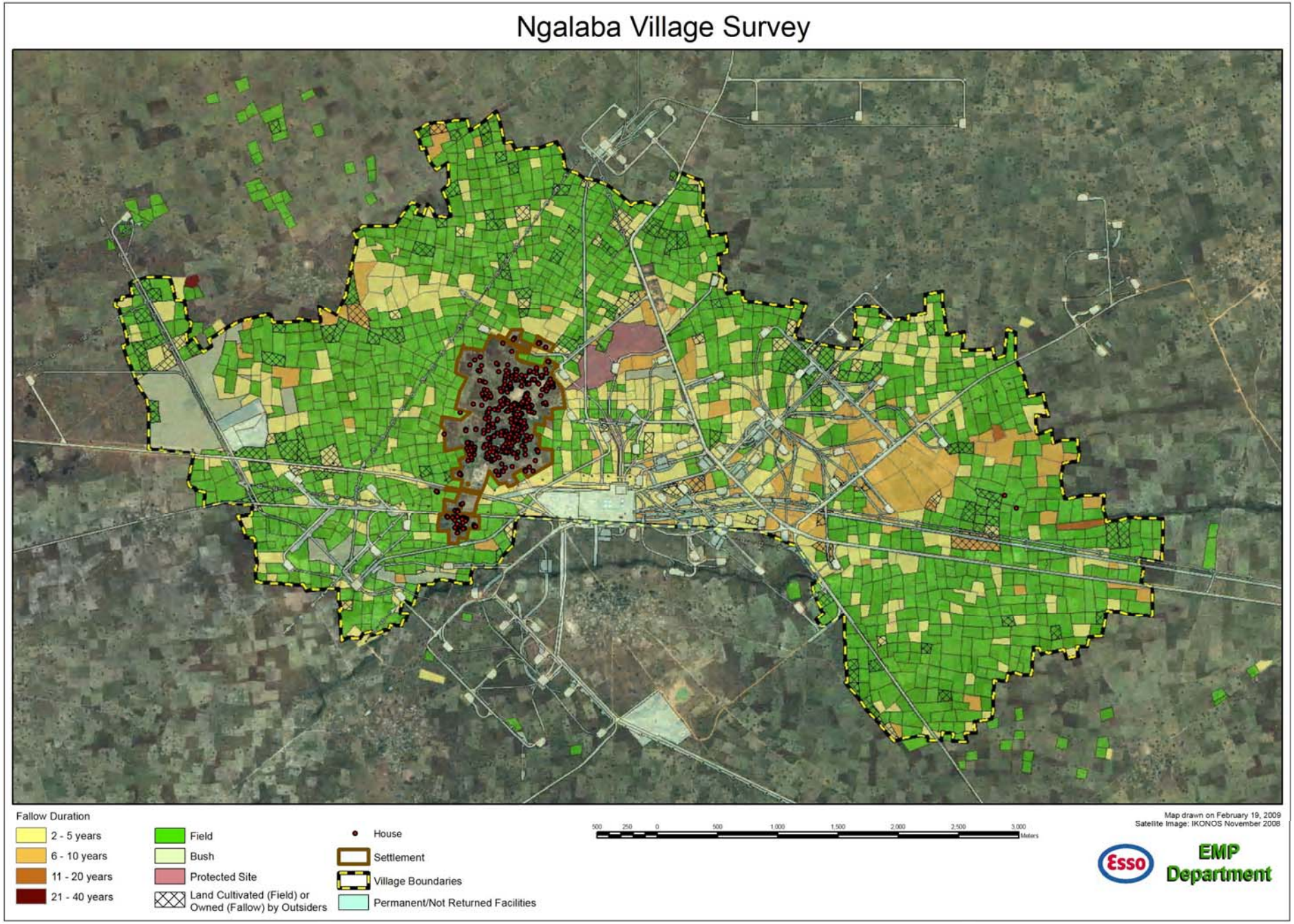
The LUMAP calls for the Site Specific Plan to consider all of the options in the CRCP and its implementing procedures described in the Land Management Manual (LMM). The following table describes each option and its relevance to the At Risk Households in Dildo as per the Chad Resettlement and Compensation Plan (CRCP), LMM procedures and Management of Change (MoC) to the LMM currently in place:

Site Specific Actions for Ngalaba

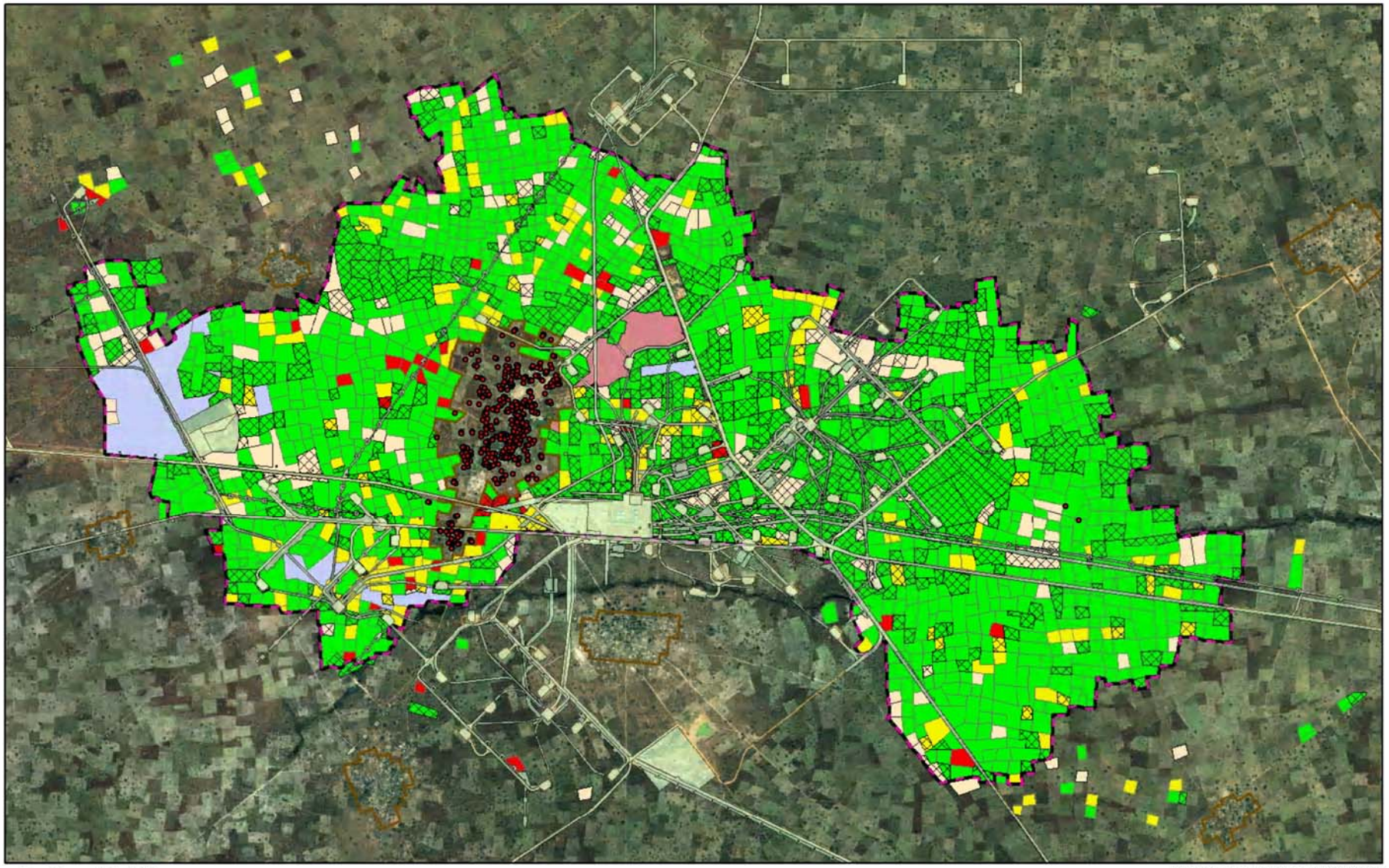
CRCP/LMM Resettlement Option	Description	Desirable Option (Yes/No)	Comments
Physical Relocation Individuals	Physically move at risk household to new location outside of current village	NO	With reclaimed land there is enough land available
Third Party Compensation	Land User with surplus land may donate to at risk household and receive normal land compensation payment	YES	The areas of reclaimed land can be handed over to eligible people through 3rd party compensation.
Off Farm Training	Provide training to earn income in non-agricultural work	YES	6 are currently in or just graduated from training
	Reinforce training to increase income earned to viable level	YES	8 will receive reinforcement training and equipment in 1Q 2009
Improved Agriculture	Provide training to generate more production of subsistence crops and produce cash crops	YES	8 are currently in Improved Agriculture Techniques training
	Reinforce training to generate more production of subsistence/ cash crops	YES	25 trainees will receive reinforcement training and equipment
Rainy Season Resettlement	Provide field clearing, rainy season hut, well, bicycle, and hand cart for use in distant farm field	NO	Ngalaba farmers already farm fields in neighboring Ndoheri, which is within easy distance
Physical Relocation of Village	Physically relocate entire village to new location in cooperation and in concert with government	NO	With reclaimed land there is enough land available
Supplemental Community Compensation	Phase 1: Rapid Participatory Assessment of Needs & Resources	YES	The choice will be validated by general agreement in 1Q 2009
	Phase 2: Oversee implementation; Create management committee	YES	The company to build the infrastructure has been contracted; the NGO is training a management committee

Site Specific Plan Implementation Timeline

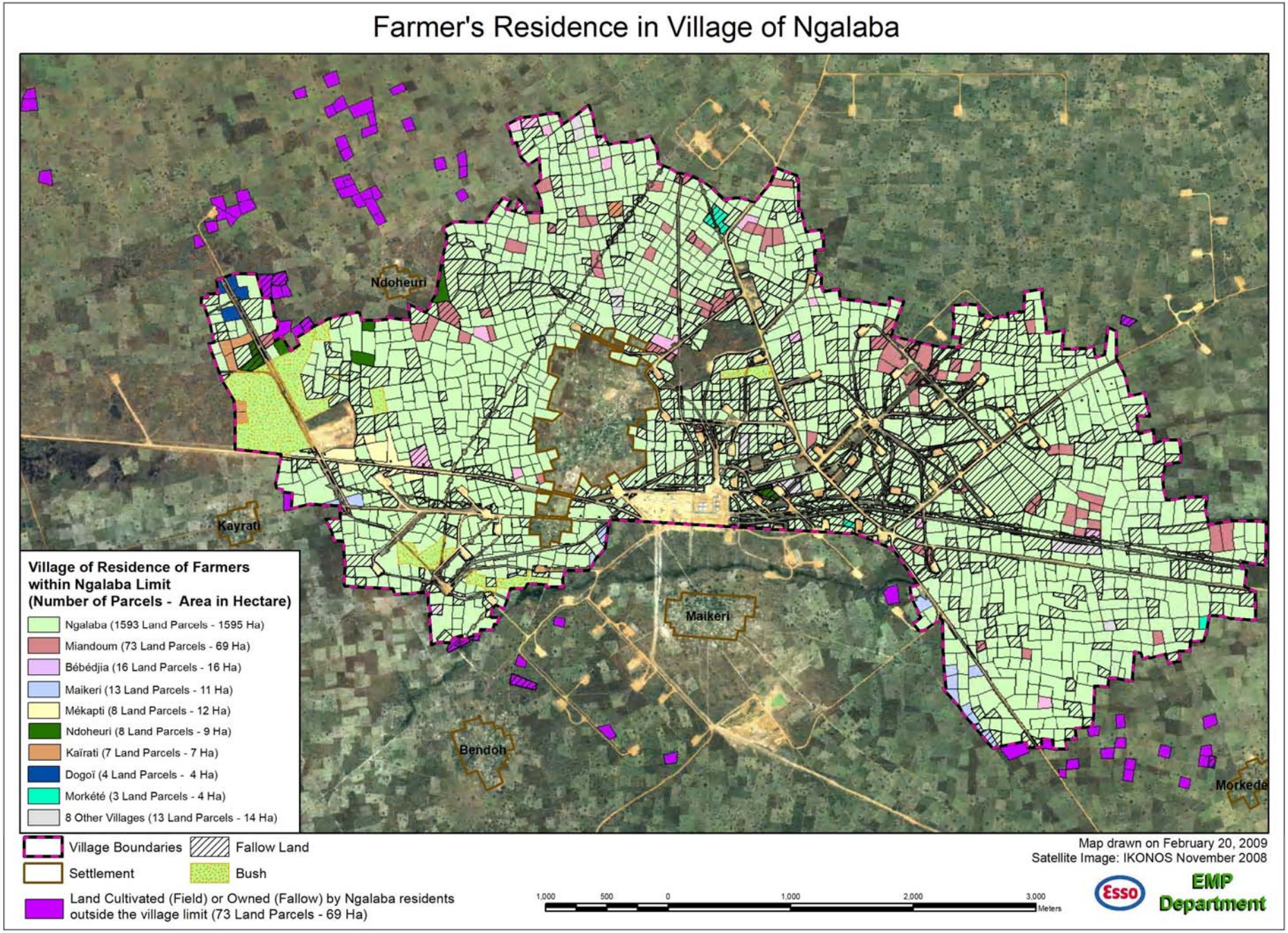
Action (grey indicates completed, blue underway)	Timeline
28 ha borrow pit land reclamation and return	April-May 2008
Land and social surveys completed	June 2008
Performance evaluations of Improved Agriculture and Off Farm graduates	July 2008
Implementation of Improved Agriculture and Off Farm reinforcement measures	2009
EEPCI uses 3rd party compensation to transfer land to At-Risk individuals	1 – 2Q 2009
Ngalaba choice of Supplemental Community Compensation	1Q 2009
Construction of Supplemental Community Compensation	1 – 2Q 2009

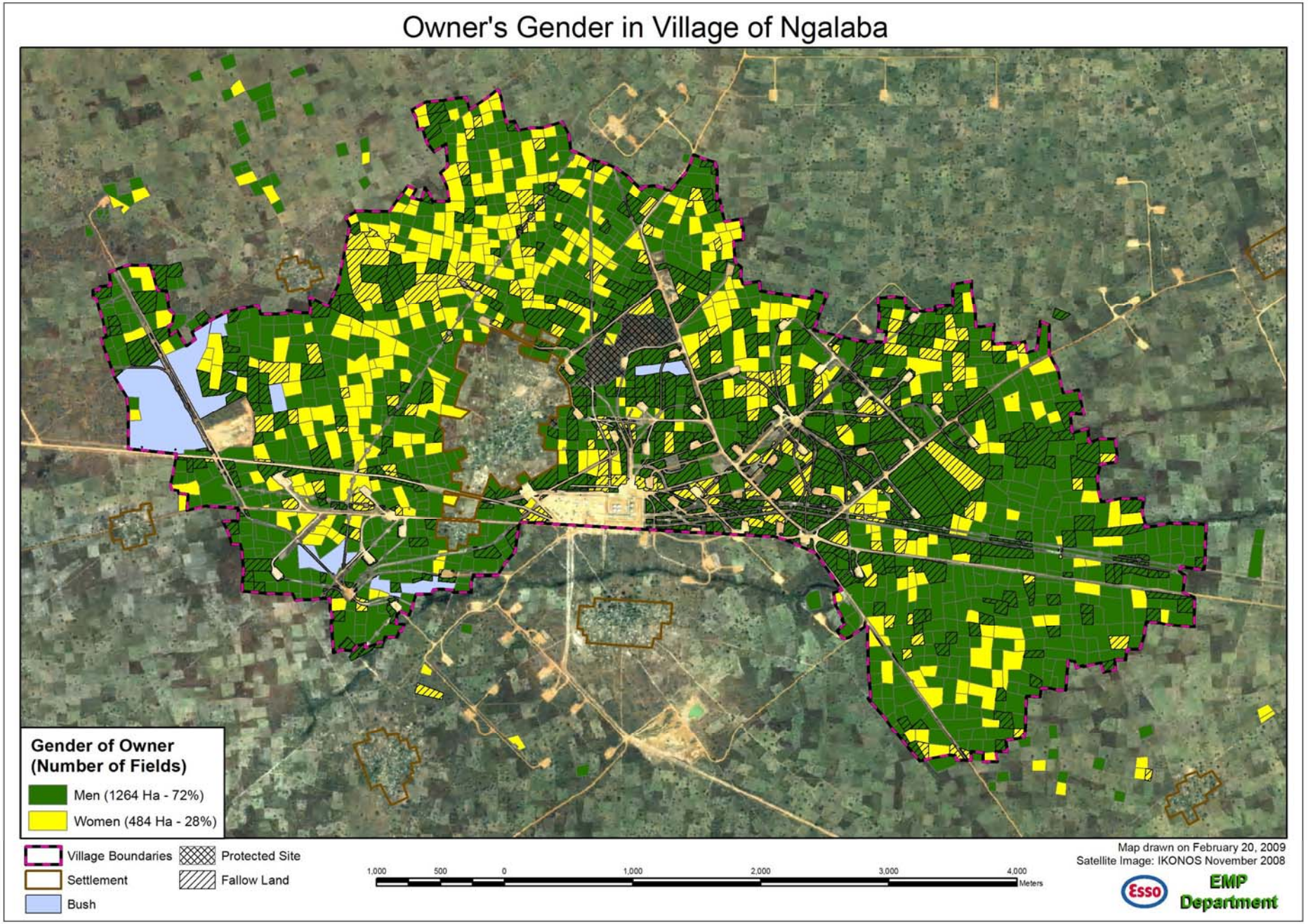

Ngalaba Village Survey
Fallow Duration
2 - 5 years
6 - 10 years
11 - 20 years
21 - 40 years
Field
Bush
Protected Site
Land Cultivated (Field) or Owned (Fallow) by Outsiders
House
Settlement
Village Boundaries
Permanent/Not Returned Facilities
500 250 0 500 1,000 1,500 2,000 2,500 3,000 Meters
Map drawn on February 19, 2009
Satellite Image: IKONOS November 2008
Esso
EMP Department

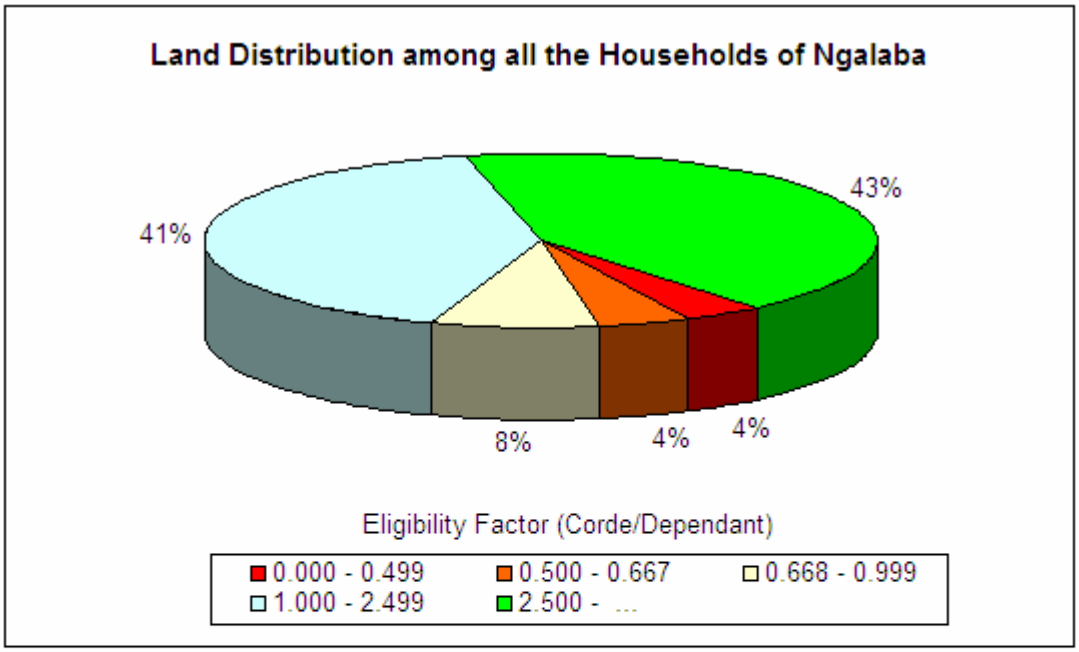
At Risk Households in Ngalaba



Farmer's Residence in Village of Ngalaba

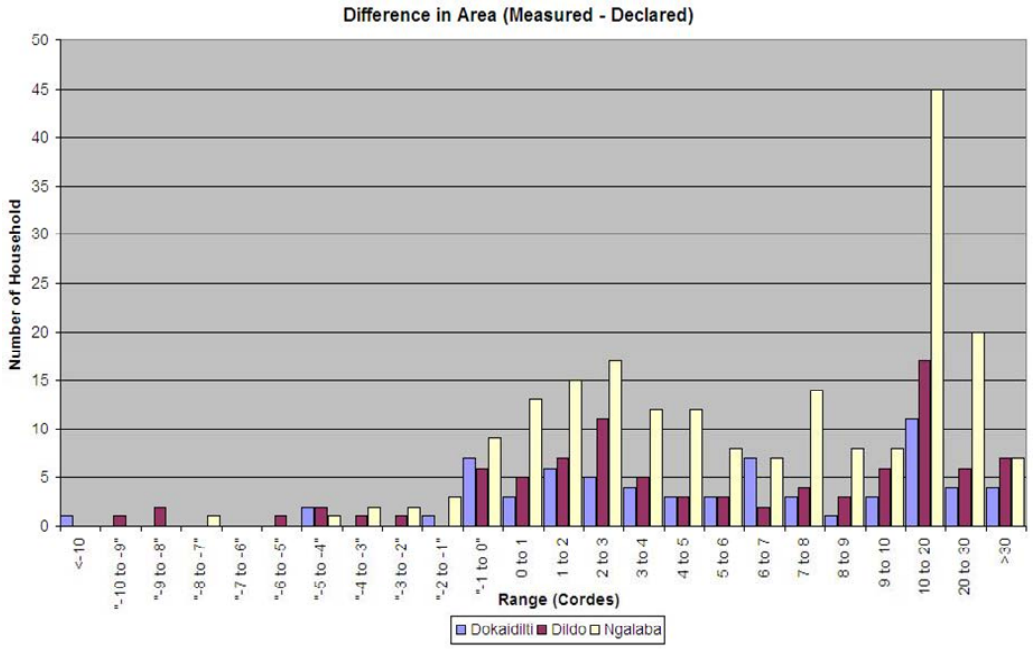



Owner's Gender in Village of Ngalaba
Gender of Owner
(Number of Fields)
Men (1264 Ha - 72%)
Women (484 Ha - 28%)
Village Boundaries
Settlement
Bush
Protected Site
Fallow Land
1,000
500
0
1,000
2,000
3,000
4,000
Meters
Map drawn on February 20, 2009
Satellite Image: IKONOS November 2008
Esso
EMP
Department



	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	10	54	8	48	3.9%	4.1%
0.500 - 0.667	11	75	8	62	3.9%	5.3%
0.668 - 0.999	20	115	15	92	7.2%	7.8%
1.000 - 2.499	102	609	84	546	40.6%	46.5%
2.500 - ...	106	646	92	426	44.4%	36.3%
Total	249	1499	207	1174	100%	100%

Reported Village Land Survey Results – Charts Landholdings



Reported Village Land Survey Results – Charts Household Size