

**APPENDIX-4**  
***Socio-economic·Environmental***  
***Inventory***



# INVENTORY CONCERNED ON SOCIAL AND ENVIRONMENTAL ASPECTS

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	10	Douar	Tizi Oussef
C.R.	11	Ouirgane	Cercle
			1
			Asni

### Location

Latitude	N31	7	18	Longitude	W7	58	33	Altitude	1,800	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	72	86
Population	444	537

### Working Member per household

	household
Agriculture	2.00
Non-agri.	1.00
Total	3.00

### Access (km)

	(km)
Pist	13.0
Path	3.5
Total	16.5

### House Conditions

House size/household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
16	310	100%	0%	75%	25%

### Annual Budget per Household

Agri.	45,384	56.6%
Livestock	5,635	7.0%
Forestry	69	0.1%
Others	29,050	36.2%
Total	80,138	100.0%
Expend. 28,800		
Saving 51,338		

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	59.1%	46.2%	77.8%			
Koranic	40.9%	53.8%	22.2%			
Fundamental	31.8%	38.5%	22.2%	60.0%	100.0%	33.3%

### Land holding and Cultivated land (ha/household)

Total Land (ha)	Cultivated Crops (ha/household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	
2.63	0.33	0.11	0.00	0.00	0.13	0.00	1.85	2.42
Sold Ratio (%)	0.0	0.0	0.0	0.0	90.0	0.0	100.0	
Irrigation (%)	50.0	100.0	0.0	0.0	100.0	0.0	66.7	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Denkey	Horse	Others	Total
1.50	12.50	0.00	7.75	0.25	0.00	0.00	22.00

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	100%	75%	0%
Satisfaction	0%	100%	0%		0%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	20	Douar	
C.R.	11	Ouirgane	Cercle
		1	
		Asni	

### Location

Latitude	N31	8'	43"	Longitude	W7	58'	47"	Altitude	1,740 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	44	52
Population	180	218

### Working Member per household

Agriculture	2.00	household
Non-agri.	0.83	household
Total	2.83	household

### Access (km)

Pist	13.0	(km)
Path	1.5	(km)
Total	14.5	(km)

### House Conditions

House size/household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	219	100%	0%	100%	0%

### Annual Budget per Household

Agri.	55,151	78.5%
Livestock	11,100	15.8%
Forestry	0	0.0%
Others	4,000	5.7%
Total	70,251	100.0%
Expend.	15,123	
Saving	55,127	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	58.1%	40.0%	90.9%			
Koranic	41.9%	60.0%	9.1%			
Fundamental	19.4%	25.0%	9.1%	66.7%	100.0%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.21	1.00	0.47	0.00	0.00	0.75	0.00	2.07	4.28
Sold Ratio (%)	0.0	0.0	0.0	0.0	89.7	0.0	98.8	
Irrigation (%)	6.7	100.0	0.0	0.0	100.0	0.0	80.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.33	4.33	24.67	26.83	0.83	0.00	0.00	59.00

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	83%	17%	0%	100%	0%	0%
Satisfaction	0%	80%	100%		67%	0%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	30	Douar	Tassa Ouirgane
C.R.	11	Ouirgane	Cercle
			1
			Asni

Location							
Latitude	N31	10'	66	Longitude	W8	1'	50
							Altitude
							1,190 (m)

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	1.71	household	Fist	6.0	(km)
Households	55	65	Non-agri.	0.43	household	Path	0.0	(km)
Population	375	454	Total	2.14	household	Total	6.0	(km)

House Conditions						Annual Budget per Household		
House size-household		Structure of House		Number of houses		Agri.	33,010	73.9%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	4,826	10.8%
6	153	100%	0%	100%	0%	Forestry	0	0.0%
						Others	6,857	15.3%
						Total	44,693	100.0%
						Expend.	16,014	
						Saving	28,679	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	68.1%	55.6%	75.9%			
Koranic	31.9%	44.4%	24.1%			
Fundamental	31.9%	44.4%	24.1%	45.5%	100.0%	40.0%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive,Alm.	Apples,	Total
3.42	0.00	0.00	0.00	0.05	0.14	0.37	1.26	1.82
Sold Ratio (%)	0.0	0.0	0.0	81.7	88.0	88.6	100.0	
Irrigation (%)	0.0	100.0	0.0	100.0	100.0	20.0	33.3	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.14	2.57	2.86	16.14	0.57	0.00	0.00	23.29

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	29%	86%	0%	0%	100%	43%	0%
Satisfaction	50%	100%	0%		57%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>		Opinion of Leader on Irrigation water for Hydropower Generation.	
Awareness of over deforestation causing soil erosion =	yes	100%	yes
	no	0%	no

Forest Condition		Possible Alternative Energy of Firewood		Damages by Natural Disasters	
Over-culting	no	Energy	yes	no	Disasters
Degree	none	Gas	100%	0%	Floods
		Electricity	0%	100%	Landslide
Over-grazing	no				yes
Degree	none				100%
					0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	40	Douar	
C.R.	12	Ingdjal	Cerefe
		1	
		Asni	

### Location

Latitude	N31	4	37	Longitude	W8	2	50	Altitude	1,750 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	27	32
Population	130	157

### Working Member per household

Agriculture	2.50	household
Non-agri.	0.17	household
Total	2.67	household

### Access (km)

Pist	15.0	(km)
Path	0.5	(km)
Total	15.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	177	100%	0%	83%	17%

### Annual Budget per Household

Agri.	56,414	77.1%
Livestock	15,753	21.5%
Forestry	0	0.0%
Others	1,000	1.4%
Total	73,168	100.0%
Expend.	22,513	
Saving	50,654	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	85.2%	76.5%	100.0%			
Koranic	14.8%	23.5%	0.0%			
Fundamental	7.4%	11.8%	0.0%	66.7%	66.7%	#DIV/0!

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	
1.92	1.25	0.71	0.00	0.08	0.08	0.35	2.22	4.69
Sold Ratio (%)	0.0	0.0	0.0	77.2	100.0	83.3	100.0	
Irrigation (%)	80.0	100.0	0.0	100.0	100.0	33.3	50.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.83	16.17	43.33	32.00	0.83	0.00	0.00	95.17

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	83%	33%	0%
Satisfaction	0%	83%	0%		60%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Over-grazing	no
Degree	none

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	100%

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	60	Douar	Alla Oumzri
C.R.	13	Talat N'Yacoub	Cercle 1 Asni

#### Location

Latitude	N30	58	49	Longitude	W8	9	39	Altitude	1,440 (m)
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#### Households and Population

	Yr 1996	Yr 2010
Households	40	48
Population	280	339

#### Working Member per household

Agriculture	2.00	household
Non-agri.	0.33	household
Total	2.33	household

#### Access (km)

Pist	1.5	(km)
Path	2.0	(km)
Total	3.5	(km)

#### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	167	100%	0%	100%	0%

#### Annual Budget per Household

Agri.	7,882	44.9%
Livestock	7,223	41.2%
Forestry	0	0.0%
Others	2,433	13.9%
Total	17,539	100.0%
Expend.	11,825	
Saving	5,714	

#### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	58.5%	33.3%	85.0%			
Keranic	41.5%	66.7%	15.0%			
Fundamental	34.1%	52.4%	15.0%	83.3%	100.0%	50.0%

#### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
1.68	1.00	0.08	0.00	0.00	0.68	0.64	0.20	2.01
Sold Ratio (%)	0.0	0.0	0.0	0.0	100.0	98.0	95.4	
Irrigation (%)	60.0	100.0	0.0	100.0	100.0	50.0	66.7	

#### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.83	1.67	8.33	7.67	1.00	0.00	0.00	20.50

#### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	17%	83%	0%	0%	17%	83%	0%
Satisfaction	100%	100%	0%		100%	100%	0%
Quality	good				good		
Shertage	yes				yes		
Frequency (yr)	1/1				1/1		

#### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.

yes	0%
no	100%

#### Forest Condition

Over-cutting	no
Degree	none

#### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

#### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	70	Douar	
C.R.	14	Ijoukak	Cercle 1 Asni

### Location

Latitude	N31	1'	19	Longitude	W8	5'	33	Altitude	1,650 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	66	78
Population	500	605

### Working Member per household

	household
Agriculture	3.50
Non-agri.	0.63
Total	4.13

### Access (km)

	(km)
Pist	0.0
Path	6.0
Total	6.0

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
10	218	100%	0%	88%	13%

### Annual Budget per Household

Agri.	9,440	40.6%
Livestock	13,298	57.2%
Forestry	0	0.0%
Others	495	2.1%
Total	23,233	100.0%
Expend.	20,625	
Saving	2,608	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
Nene	75.7%	60.0%	96.7%			
Koranic	24.3%	40.0%	3.3%			
Fundamental	14.3%	22.5%	3.3%	30.8%	50.0%	14.3%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.19	1.38	0.29	0.00	0.00	0.00	1.26	0.16	3.08
Sold Ratio (%)	0.0	0.0	0.0	0.0	0.0	96.0	98.6	
Irrigation (%)	50.0	60.0	0.0	0.0	0.0	62.5	66.7	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.13	18.13	40.63	9.38	0.63	0.00	0.00	70.88

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	25%	100%	0%
Satisfaction	0%	85%	0%		50%	75%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none



### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	80	Douar	Aghella
C.R.	15	Ighil	Cercle 1 Asni

#### Location

Latitude	N31	0'	15	Longitude	W8	22'	51	Altitude	2,050 (m)
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#### Households and Population

	Yr 1996	Yr 2010
Households	64	76
Population	394	477

#### Working Member per household

Agriculture	2.25	household
Non-agri.	0.13	household
Total	2.38	household

#### Access (km)

Pist	10.0	(km)
Path	15.5	(km)
Total	25.5	(km)

#### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
8	169	100%	0%	100%	0%

#### Annual Budget per Household

Agri.	11,620	38.4%
Livestock	17,047	56.4%
Forestry	0	0.0%
Others	1,563	5.2%
Total	30,230	100.0%
Expend	13,200	
Saving	17,030	

#### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	66.0%	56.5%	75.0%			
Keranic	34.0%	43.5%	25.0%			
Fundamental	21.3%	17.4%	25.0%	57.1%	40.0%	66.7%

#### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
0.97	0.78	0.13	0.00	0.03	0.22	0.10	0.39	1.65
Sold Ratio (%)	0.0	0.0	0.0	75.4	84.3	96.6	100.0	
Irrigation (%)	90.0	100.0	0.0	100.0	100.0	100.0	100.0	

#### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.50	49.50	31.25	6.50	0.88	0.00	0.00	89.63

#### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	63%	38%	0%	0%	100%	0%	0%
Satisfaction	100%	100%	0%		100%	0%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

#### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

#### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	#DIV.0!
no	#DIV.0!

#### Forest Condition

Over-cutting	no
Degree	none

#### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

#### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	90	Douar	
C.R.	16	Aghbar	Cercle
		1	Asni

### Location

Latitude	N30	55	55	Longitude	W8	23	54	Altitude	1,700	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	68	81
Population	389	471

### Working Member per household

Agriculture	1.75	/household
Non-agri.	0.38	/household
Total	2.13	/household

### Access (km)

Pist	16.5	(km)
Path	4.0	(km)
Total	20.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
8	141	100%	0%	100%	0%

### Annual Budget per Household

Agri.	8,691	40.4%
Livestock	8,485	39.5%
Forestry	0	0.0%
Others	4,313	20.1%
Total	21,489	100.0%
Expend.	17,025	
Saving	4,464	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	77.5%	71.4%	91.7%			
Koranic	22.5%	28.6%	8.3%			
Fundamental	17.5%	21.4%	8.3%	50.0%	50.0%	50.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
0.88	0.66	0.47	0.00	0.03	0.13	0.39	0.21	1.88
Sold Ratio (%)	0.0	0.0	0.0	77.2	88.0	100.0	99.4	
Irrigation (%)	100.0	100.0	0.0	100.0	100.0	100.0	100.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.50	8.75	18.13	37.50	0.88	0.00	0.00	66.75

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	25%	86%	0%
Satisfaction	0%	100%	0%		50%	86%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	100	Douar	Ansakrou
C.R.	17	Asni	Cercle
			1
			Asni

Location							
Latitude	N31	10'	25	Longitude	W7	54	8
Altitude	1,850 (m)						

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	2.00	household	Pist	10.0	(km)
Households	55	65	Non-agri.	0.83	household	Path	3.5	(km)
Population	420	508	Total	2.83	household	Total	13.5	(km)

House Conditions						Annual Budget per Household		
House size-household		Structure of House		Number of houses		Agri.	49,027	77.1%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	12,947	20.4%
12	358	100%	0%	100%	0%	Forestry	900	1.4%
						Others	700	1.1%
						Total	63,574	100.0%
						Expend.	23,217	
						Saving	40,357	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	68.4%	52.0%	100.0%			
Koranic	31.6%	48.0%	0.0%			
Fundamental	15.8%	24.0%	0.0%	33.3%	60.0%	0.0%

Land holding and Cultivated land (ha household)								
Total	Cultivated Crops (ha household)							
Land (ha)	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
4.04	1.79	0.58	0.00	0.42	0.50	0.10	1.81	5.20
Sold Ratio (%)	0.0	0.0	0.0	80.0	75.2	93.3	98.4	
Irrigation (%)	50.0	100.0	0.0	100.0	100.0	50.0	51.5	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.83	29.17	40.00	31.67	0.83	0.00	0.00	103.50

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	100%	50%	0%
Satisfaction	0%	100%	0%		67%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>		Opinion of Leader on Irrigation water for Hydropower Generation.	
Awareness of over deforestation causing soil erosion =		yes	100%
		no	0%

Forest Condition		Possible Alternative Energy of Firewood		Damages by Natural Disasters		
Over-cutting	no	Energy	yes	no	Disasters	yes
Degree	none	Gas	100%	0%	Floods	100%
		Electricity	0%	100%	Landslide	0%
Over-grazing	no					
Degree	none					

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	110	Doutar	
C.R.	17	Asni	Arg
		Cerele	1
		Asni	

#### Location

Latitude	N31	11'	17	Longitude	W7	55'	19	Altitude	1,580	(m)
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#### Households and Population

	Yr 1996	Yr 2010
Households	75	89
Population	1,020	1,234

#### Working Member per household

Agriculture	2.56	household
Non-agri.	0.11	household
Total	2.67	household

#### Access (km)

Pist	10.0	(km)
Path	0.5	(km)
Total	10.5	(km)

#### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	138	100%	0%	100%	0%

#### Annual Budget per Household

Agri.	30,189	31.7%
Livestock	5,353	14.5%
Forestry	0	0.0%
Others	1,400	3.8%
Total	36,942	100.0%
Expend	14,400	
Saving	22,542	

#### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	77.6%	59.3%	100.0%			
Keranic	22.4%	40.7%	0.0%			
Fundamental	14.3%	25.9%	0.0%	41.7%	83.3%	0.0%

#### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)						
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples, Total
2.67	0.61	0.22	0.00	0.00	0.56	0.10	1.10
Sold Ratio (%)	0.0	0.0	0.0	0.0	87.5	100.0	98.7
Irrigation (%)	71.4	75.0	0.0	0.0	100.0	0.0	50.7

#### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.56	0.11	8.22	10.22	0.89	0.00	0.00	21.00

#### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	33%	100%	0%	0%	100%	78%	0%
Satisfaction	100%	78%	0%		56%	57%	0%
Quality	good				good		
Shortage	no				no		
Frequency (yr)	1/0				1/20		

#### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

#### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	100%
no	0%

#### Forest Condition

Over-cutting	no
Degree	none

#### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	100%	0%

Over-grazing	yes
Degree	fair

#### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	120	Deuar	Timorhoubrine
C.R.	17	Asni	Cercle 1 Asni

Location									
Latitude	N31	9	30	Longitude	W7	51	15	Altitude	2,000 (m)

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	2.50	household	Pist	10.0	(km)
Households	30	36	Non-agri.	0.75	household	Path	3.5	(km)
Population	250	302	Total	3.25	household	Total	13.5	(km)

House Conditions						Annual Budget per Household		
House size/household		Structure of House		Number of houses		Agri.	11,091	48.1%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	9,445	41.0%
9	375	100%	0%	100%	0%	Forestry	0	0.0%

Education Ratio							Annual Budget per Household		
Education Level	Villagers over 7 years old			Children (7-12 years old)			Total	23,036	100.0%
	Total	Male	Female	Total	Male	Female	Expend.	18,170	
None	82.8%	76.9%	87.5%				Saving	4,866	
Koranic	17.2%	23.1%	12.5%						
Fundamental	10.3%	7.7%	12.5%	16.7%	0.0%	20.0%			

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
1.06	0.50	0.19	0.00	0.06	0.13	0.14	0.40	1.41
Sold Ratio (%)	0.0	0.0	0.0	77.2	94.0	100.0	96.3	
Irrigation (%)	100.0	100.0	0.0	100.0	100.0	100.0	66.7	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.50	0.00	28.75	11.50	1.25	0.00	0.00	43.00

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	25%	75%	0%	0%	100%	25%	0%
Satisfaction	100%	100%	0%		50%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>			Opinion of Leader on Irrigation water for Hydropower Generation.			
Awareness of over deforestation causing soil erosion =			yes	100%	yes	100%
			no	0%	no	0%

Forest Condition	
Over-cutting	no
Degree	none
Over-grazing	no
Degree	none

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters	
Disasters	yes
Floods	100%
Landslide	0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	131	Douar	El Bour
C.R.	17	Asni	Cercle 1 Asni

### Location

Latitude	N31	12	28	Longitude	W7	56	26	Altitude	1,400	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	65	77
Population	510	617

### Working Member per household

	household
Agriculture	1.50
Non-agri.	1.13
Total	2.63

### Access (km)

	(km)
Pist	3.0
Path	0.0
Total	3.0

### House Conditions

House size	household	Structure of House		Number of houses	
		Tradition	Modern	Single	Plural
Rooms	(m <sup>2</sup> )				
6	149	100%	0%	75%	25%

### Annual Budget per Household

Agri.	14,531	52.4%
Livestock	4,120	14.8%
Forestry	0	0.0%
Others	9,100	32.8%
Total	27,751	100.0%
Expend	14,625	
Saving	13,126	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	73.5%	58.6%	95.0%			
Koranic	26.5%	41.4%	5.0%			
Fundamental	20.4%	31.0%	5.0%	40.0%	50.0%	20.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm	Apples,	Total
1.20	0.56	0.00	0.00	0.11	0.17	0.05	0.43	1.32
Sold Ratio (%)	0.0	0.0	0.0	77.2	94.0	89.4	98.8	
Irrigation (%)	33.3	100.0	0.0	66.7	100.0	66.7	66.7	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.63	0.00	4.25	9.38	0.58	0.00	0.00	16.13

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	63%	100%	0%	0%	88%	0%	0%
Satisfaction	60%	35%	0%		86%	0%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	100%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	132	Douar	Iniskar
C.R.	17	Asni	Cerele
			Asni

Location							
Latitude	N31	12	37	Longitude	W7	56	20
				Altitude	1,380	(m)	

Households and Population			Working Member per household			Access (km)	
	Yr 1996	Yr 2010	Agriculture	1.60	household	Dist	3.0 (km)
Households	40	48	Non-agri.	0.80	household	Path	1.0 (km)
Population	280	339	Total	2.40	household	Total	4.0 (km)

House Conditions					Annual Budget per Household			
House size-household		Structure of House		Number of houses		Agri	40,559	80.3%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	5,121	10.1%
7	159	100%	0%	100%	0%	Forestry	0	0.0%
						Others	4,800	9.5%
						Total	50,479	100.0%

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	77.8%	66.7%	88.9%			
Koranic	22.2%	33.3%	11.1%			
Fundamental	19.4%	27.8%	11.1%	50.0%	50.0%	50.0%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples.	Total
1.75	1.80	0.00	0.00	0.07	0.12	0.20	1.54	3.73
Sold Ratio (%)	5.0	0.0	0.0	77.2	94.0	75.3	100.0	
Irrigation (%)	0.0	0.0	0.0	100.0	100.0	50.0	50.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.60	0.00	0.00	16.00	0.80	0.20	0.00	18.60

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	40%	100%	0%	0%	100%	20%	0%
Satisfaction	100%	60%	0%		40%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Opinion of Leader

on Irrigation water  
for Hydropower Generation.

yes	100%
no	0%

Forest Condition

Over-cutting	no
Degree	none

Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	150	Douar	Ikiss
C.R.	17	Asni	Cercle
			1
			Asni

### Location

Latitude	N31	10'	5	Longitude	W7	53'	28	Altitude	1,850 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	65	77
Population	500	605

### Working Member per household

Agriculture	1.63	household
Non-agri	0.75	household
Total	2.38	household

### Access (km)

Pist	10.0	(km)
Path	5.0	(km)
Total	15.0	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
5	120	100%	0%	100%	0%

### Annual Budget per Household

Agri.	9,582	47.0%
Livestock	4,365	21.4%
Forestry	0	0.0%
Others	6,438	31.6%
Total	20,385	100.0%
Expend.	12,128	
Saving	8,257	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	95.3%	90.9%	100.0%			
Keranic	4.7%	9.1%	0.0%			
Fundamental	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alni.	Apples,	Total
0.57	0.23	0.15	0.13	0.00	0.09	0.13	0.33	1.06
Sold Ratio (%)	0.0	0.0	0.0	0.0	94.0	68.2	87.7	
Irrigation (%)	80.0	100.0	100.0	100.0	100.0	50.0	60.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.13	0.25	7.13	15.50	0.75	0.00	0.00	24.75

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	88%	63%	0%
Satisfaction	0%	100%	0%		71%	100%	0%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none



### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	170	Douar	Tacheddirt
C.R.	17	Asni	Cercle
			1
			Asni

Location

Latitude	N31	9	30	Longitude	W7	50	48	Altitude	2,180 (m)
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Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	1.25	household	Pist	10.0	(km)
Households	60	71	Non-agri.	0.50	household	Path	2.0	(km)
Population	360	436	Total	1.75	household	Total	12.0	(km)

House Conditions						Annual Budget per Household			
House size-household		Structure of House		Number of houses		Agri.	12,051	46.1%	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural	Livestock	9,975	38.1%	
7	175	100%	0%	100%	0%	Forestry	0	0.0%	
						Others	4,125	15.8%	
						Total	26,151	100.0%	
						Expend.	13,650		
						Saving	12,501		

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	74.1%	57.1%	92.3%			
Keranic	25.9%	42.9%	7.7%			
Fundamental	18.5%	28.6%	7.7%	80.0%	100.0%	50.0%

Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm	Apples,	Total
1.00	0.50	0.28	0.00	0.03	0.28	0.00	0.29	1.38
Sold Ratio (%)	0.0	0.0	0.0	77.2	92.0	0.0	87.5	
Irrigation (%)	83.3	100.0	0.0	100.0	100.0	0.0	80.0	

Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.88	17.75	14.38	25.38	0.88	0.00	0.00	60.25

Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	100%	38%	0%
Satisfaction	0%	100%	0%		75%	67%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

Forest Condition

Over-cutting	no
Degree	none
Over-grazing	no
Degree	none

Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Opinion of Leader on Irrigation water for Hydropower Generation.

yes	100%
no	0%

Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	180	Deuar	Sgeur
C.R.	21	Ourika	Cercle
			2
			Tahansout

### Location

Latitude	N31	20'	39	Longitude	W7	43'	32	Altitude	1,200	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	45	53
Population	360	436

### Working Member per household

Agriculture	1.89	household
Non-agri.	1.44	household
Total	3.33	household

### Access (km)

Pist	0.0	(km)
Path	5.0	(km)
Total	5.0	(km)

### House Conditions

House size:household	Structure of House		Number of houses		
Rooms	(n2)	Tradition	Modern	Single	Plural
6	150	100%	0%	89%	11%

### Annual Budget per Household

Agri.	12,705	49.6%
Livestock	5,753	22.5%
Forestry	0	0.0%
Others	7,156	27.9%
Total	25,614	100.0%
Expend.	13,529	
Saving	12,085	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	62.2%	44.0%	85.0%			
Koranic	37.8%	56.0%	15.0%			
Fundamental	26.7%	36.0%	15.0%	50.0%	50.0%	50.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Aln.	Apples	Total
2.50	1.17	0.00	0.00	0.06	0.58	0.18	0.23	2.22
Sold Ratio (%)	2.9	0.0	0.0	77.2	94.0	73.8	99.1	
Irrigation (%)	21.4	100.0	0.0	100.0	100.0	66.7	50.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.67	3.56	9.56	8.44	1.00	0.11	0.00	24.33

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	11%	89%	0%	0%	56%	56%	0%
Satisfaction	0%	100%	0%		40%	60%	0%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	190	Douar	Amagdeur
C.R.	21	Ounika	Cercle 2 Tahanaout

### Location

Latitude	N31	20	58	Longitude	W7	43	9	Altitude	1,150	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	22	26
Population	150	181

### Working Member per household

Agriculture	1.17	household
Non-agri.	0.67	household
Total	1.83	household

### Access (km)

Pist	0.0	(km)
Path	6.0	(km)
Total	6.0	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	195	100%	0%	100%	0%

### Annual Budget per Household

Agri.	5,249	34.1%
Livestock	6,563	42.6%
Forestry	0	0.0%
Others	3,600	23.4%
Total	15,412	100.0%
Expend.	9,740	
Saving	5,672	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	59.4%	38.9%	85.7%			
Koranic	40.6%	61.1%	14.3%			
Fundamental	31.3%	50.0%	7.1%	75.0%	100.0%	33.3%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	
1.49	1.06	0.03	0.00	0.37	0.13	0.06	0.00	1.65
Sold Ratio (%)	0.0	0.0	0.0	85.3	60.5	75.5	0.0	
Irrigation (%)	0.0	0.0	0.0	66.7	100.0	75.0	100.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Herse	Others	Total
1.17	2.00	10.33	7.83	0.67	0.00	0.00	22.00

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	50%	67%	0%
Satisfaction	0%	100%	0%		67%	100%	0%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	200	Douar	Tamaterte
C.R.	22	Settifadma	Cercle 2 Tahanaout

### Location

Latitude	N31	12'	5	Longitude	W7	42'	43	Altitude	1,800 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	40	48
Population	240	290

### Working Member per household

Agriculture	0.63	household
Non-agri.	0.50	household
Total	1.13	household

### Access (km)

Dist	0.0	(km)
Path	2.5	(km)
Total	2.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	104	100%	0%	100%	0%

### Annual Budget per Household

Agri.	3,275	19.5%
Livestock	6,518	38.9%
Forestry	0	0.0%
Others	6,975	41.6%
Total	16,768	100.0%
Expend.	11,691	
Saving	5,077	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	90.0%	86.7%	93.3%			
Keranic	10.0%	13.3%	6.7%			
Fundamental	3.3%	6.7%	0.0%	0.0%	0.0%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
0.15	0.08	0.01	0.00	0.08	0.11	0.00	0.07	0.34
Sold Ratio (%)	0.0	0.0	0.0	86.2	92.0	0.0	83.3	
Irrigation (%)	100.0	100.0	0.0	50.0	83.3	0.0	33.3	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.25	2.00	14.25	8.63	0.38	0.00	0.00	26.50

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	25%	50%	0%
Satisfaction	0%	100%	0%		0%	75%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

Over-grazing	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	210	Douar	Anfli
C.R.	22	SettifaJma	Cercle 2 Tahanaout

#### Location

Latitude	N31	12	14	Longitude	W7	44	30	Altitude	1,750 (m)
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#### Households and Population

	Yr 1996	Yr 2010
Households	63	75
Population	378	457

#### Working Member per household

Agriculture	1.50	household
Non-agri.	0.25	household
Total	1.75	household

#### Access (km)

Pist	0.0	(km)
Path	8.0	(km)
Total	8.0	(km)

#### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	118	100%	0%	100%	0%

#### Annual Budget per Household

Agri.	5,706	33.3%
Livestock	8,728	50.9%
Forestry	0	0.0%
Others	2,700	15.8%
Total	17,133	100.0%
Expend.	12,091	
Saving	5,042	

#### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	90.0%	82.6%	100.0%			
Keranic	10.0%	17.4%	0.0%			
Fundamental	2.5%	4.3%	0.0%	0.0%	0.0%	0.0%

#### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
0.47	0.13	0.06	0.00	0.09	0.34	0.00	0.10	0.72
Sold Ratio (%)	0.0	0.0	0.0	86.2	73.7	0.0	80.8	
Irrigation (%)	75.0	100.0	0.0	100.0	100.0	0.0	57.1	

#### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.38	1.50	27.00	25.75	0.75	0.00	0.00	56.38

#### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	25%	88%	0%	0%	100%	13%	0%
Satisfaction	100%	100%	0%		63%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

#### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.

yes	100%
no	0%

#### Forest Condition

Over-cutting	no
Degree	none

#### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

#### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	220	Deuar	Fimichi
C.R.	22	Settifadma	Cercle
			2 Tahanaout

### Location

Latitude	N31	11'	56	Longitude	W7	46'	22	Altitude	2,000	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	60	71
Population	370	448

### Working Member per household

Agriculture	1.71	household
Non-agri	0.86	household
Total	2.57	household

### Access (km)

Pist	0.0	(km)
Path	11.0	(km)
Total	11.0	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	129	100%	0%	71%	29%

### Annual Budget per Household

Agri.	6,286	31.2%
Livestock	6,023	29.9%
Forestry	0	0.0%
Others	7,857	39.6%
Total	20,166	100.0%
Expend.	10,200	
Saving	9,966	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	84.0%	75.0%	95.5%			
Koranic	16.0%	25.0%	4.5%			
Fundamental	14.0%	21.4%	4.5%	41.7%	55.6%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
0.73	0.32	0.21	0.11	0.09	0.29	0.11	0.06	1.19
Sold Ratio (%)	0.0	0.0	0.0	81.3	94.0	100.0	100.0	
Irrigation (%)	71.4	100.0	100.0	100.0	100.0	100.0	100.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.57	10.29	4.00	12.14	0.71	0.00	0.00	28.71

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	29%	100%	0%	0%	57%	57%	0%
Satisfaction	100%	100%	0%		75%	75%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

Over-grazing	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	100%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	230	Douar	Agoums
C.R.	23	Oukaimeden	Cercle 2 Tahanaout

### Location

Latitude	N31	11'	48"	Longitude	W7	48'	5"	Altitude	2,300 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	105	125
Population	630	762

### Working Member per household

Agriculture	1.67	household
Non-agri.	0.67	household
Total	2.33	household

### Access (km)

Pist	0.0	(km)
Path	14.0	(km)
Total	14.0	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
5	288	92%	8%	100%	0%

### Annual Budget per Household

Agri.	2,150	20.9%
Livestock	7,430	72.2%
Forestry	0	0.0%
Others	708	6.9%
Total	10,288	100.0%
Expend.	7,329	
Saving	2,959	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	77.6%	60.5%	100.0%			
Koranic	22.4%	39.5%	0.0%			
Fundamental	4.5%	7.9%	0.0%	7.1%	14.3%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
0.40	0.22	0.16	0.06	0.08	0.12	0.00	0.01	0.65
Sold Ratio (%)	0.0	0.0	0.0	76.7	95.5	0.0	75.0	
Irrigation (%)	74.5	76.4	100.0	100.0	100.0	100.0	50.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.58	8.50	8.33	11.33	0.83	0.00	0.00	30.58

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	8%	92%	8%	0%	17%	75%	0%
Satisfaction	0%	100%	100%		100%	67%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	240	Douar	Oulad Mansour
C.R.	24	Tamestoft	Cercle 2 Tahanaout

### Location

Latitude	N31° 29' 8"	Longitude	W8° 0' 42"	Altitude	630 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	70	83
Population	500	605

### Working Member per household

	household
Agriculture	2.75
Non-agri.	0.75
Total	3.50

### Access (km)

	(km)
Pist	4.5
Path	0.0
Total	4.5

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	338	100%	0%	100%	0%

### Annual Budget per Household

Agri.	8,616	39.3%
Livestock	6,908	31.5%
Forestry	0	0.0%
Others	6,375	29.1%
Total	21,898	100.0%
Expend	11,061	
Saving	10,837	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	63.3%	46.7%	89.5%			
Koranic	36.7%	53.3%	10.5%			
Fundamental	30.6%	43.3%	10.5%	57.1%	40.0%	100.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
7.06	6.88	0.00	0.00	0.00	0.00	0.00	0.00	6.88
Sold Ratio (%)	26.1	0.0	0.0	0.0	0.0	0.0	0.0	
Irrigation (%)	12.5	100.0	0.0	0.0	100.0	0.0	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.13	14.25	1.63	0.88	2.25	0.00	0.00	21.13

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	33%	13%	63%	0%	0%	13%	0%
Satisfaction	0%	100%	60%		0%	0%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none



### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	251	Douar	
C.R.	24	Tamesloht	
		Cercle	2
		Tahanaout	

#### Location

Latitude	N31	23'	41"	Longitude	W8	5'	9"	Altitude	700 (m)
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#### Households and Population

	Yr 1996	Yr 2010
Households	100	119
Population	600	726

#### Working Member per household

Agriculture	2.00	household
Non-agri.	1.45	household
Total	3.45	household

#### Access (km)

Pist	2.5	(km)
Path	0.0	(km)
Total	2.5	(km)

#### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	215	100%	0%	100%	0%

#### Annual Budget per Household

Agri	6,822	39.0%
Livestock	3,582	20.5%
Forestry	0	0.0%
Others	7,091	40.5%
Total	17,495	100.0%
Expend.	11,235	
Saving	6,260	

#### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	67.9%	62.1%	74.1%			
Koranic	32.1%	37.9%	25.9%			
Fundamental	21.4%	17.2%	25.9%	62.5%	66.7%	60.0%

#### Land holding and Cultivated land (ha household)

Total	Cultivated Crops (ha household)							
Land (ha)	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
4.98	4.34	0.00	0.00	0.00	0.00	0.16	0.00	4.51
Sold Ratio (%)	21.5	0.0	0.0	0.0	0.0	68.2	0.0	
Irrigation (%)	0.0	0.0	0.0	0.0	0.0	40.0	0.0	

#### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
0.45	7.82	2.73	3.09	0.73	0.09	0.00	14.91

#### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	91%	18%	0%	0%	91%	0%
Satisfaction	0%	100%	100%		0%	90%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

#### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

#### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	#DIV.0!
no	#DIV.0!

#### Forest Condition

Over-cutting	no
Degree	none

#### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

#### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	252	Douar	Oumnas
C.R.	24	Tamesloht	Cercle
			2 Tahanaout

### Location

Latitude	N31	25	16	Longitude	W8	4	33	Altitude	700 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	150	178
Population	800	968

### Working Member per household

Agriculture	1.53	household
Non-agri.	1.06	household
Total	2.59	household

### Access (km)

Pist	0.5	(km)
Path	0.0	(km)
Total	0.5	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	226	94%	6%	88%	12%

### Annual Budget per Household

Agri.	5,009	19.9%
Livestock	5,900	23.4%
Forestry	0	0.0%
Others	14,275	56.7%
Total	25,184	100.0%
Expend.	16,191	
Saving	8,992	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	48.0%	24.6%	79.1%			
Keranic	52.0%	75.4%	20.9%			
Fundamental	42.0%	59.6%	18.6%	72.2%	83.3%	50.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)						
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples, Total
7.15	7.47	0.00	0.00	0.00	0.01	0.60	0.00 8.08
Sold Ratio (%)	11.0	0.0	0.0	0.0	88.0	58.9	0.0
Irrigation (%)	3.0	0.0	0.0	0.0	100.0	30.0	0.0

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.00	12.65	2.65	31.65	0.71	0.12	0.00	48.76

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	71%	71%	0%	0%	41%	6%
Satisfaction	0%	67%	83%		0%	71%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	0%
no	100%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	#DIV:0!
no	#DIV:0!

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	261	Douar	Awin Mazouz
C.R.	24	Tamesloht	Cercle 2 Tahantout

Location							
Latitude	N31	32	44	Longitude	W8	6	28
Altitude	500 (m)						

### Households and Population

	Yr 1996	Yr 2010
Households	66	78
Population	400	484

### Working Member per household

Agriculture	1.13	household
Non-agri.	1.63	household
Total	2.75	household

### Access (km)

Pist	1.0	(km)
Path	0.0	(km)
Total	1.0	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
6	338	100%	0%	100%	0%

### Annual Budget per Household

Agri.	2,132	8.3%
Livestock	4,353	17.0%
Forestry	0	0.0%
Others	19,062	74.6%
Total	25,547	100.0%
Expend.	15,993	
Saving	9,554	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	47.2%	37.9%	58.3%			
Keranic	52.8%	62.1%	41.7%			
Fundamental	45.3%	51.7%	37.5%	66.7%	80.0%	50.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
2.24	1.72	0.00	0.00	0.09	0.00	0.26	0.00	2.07
Sold Ratio (%)	0.0	0.0	0.0	86.2	0.0	56.1	0.0	
Irrigation (%)	0.0	0.0	0.0	100.0	0.0	100.0	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.75	1.38	0.75	3.13	1.13	0.00	0.00	8.13

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	25%	38%	75%	0%	25%	25%	38%
Satisfaction	0%	100%	100%		50%	100%	100%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	#DIV.0!
no	#DIV.0!

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	262	Douar	Bouchiha Bon Omar
C.R.	24	Tamesloht	Cercle
			2 Tahanaout

### Location

Latitude	N31	32	44	Longitude	W8	6	28	Altitude	500 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	66	78
Population	400	484

### Working Member per household

Agriculture	1.13	household
Non-agri.	1.63	household
Total	2.75	household

### Access (km)

Pist	1.0	(km)
Path	0.0	(km)
Total	1.0	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
6	338	100%	0%	100%	0%

### Annual Budget per Household

Agri.	2,132	8.3%
Livestock	4,353	17.0%
Forestry	0	0.0%
Others	19,062	74.6%
Total	25,547	100.0%
Expend	15,993	
Saving	9,554	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	47.2%	37.9%	58.3%			
Koranic	52.8%	62.1%	41.7%			
Fundamental	45.3%	51.7%	37.5%	66.7%	80.0%	50.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.24	1.72	0.00	0.00	0.09	0.00	0.26	0.00	2.07
Sold Ratio (%)	0.0	0.0	0.0	86.2	0.0	56.1	0.0	
Irrigation (%)	0.0	0.0	0.0	100.0	0.0	100.0	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.75	1.38	0.75	3.13	1.13	0.00	0.00	8.13

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	25%	38%	75%	0%	25%	25%	38%
Satisfaction	0%	100%	100%		50%	100%	100%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	#DIV/0!
no	#DIV/0!

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	270	Douar	Del Ff Ain
C.R.	24	Tamesloft	Cercle 2 Tahanaout

Location									
Latitude	N31	28'	53	Longitude	W8	4'	30	Altitude	580 (m)

Households and Population		
	Yr 1996	Yr 2010
Households	110	131
Population	600	726

Working Member per household		
Agriculture	3.00	household
Non-agri.	0.83	household
Total	3.83	household

Access (km)		
Pist	0.5	(km)
Path	0.0	(km)
Total	0.5	(km)

House Conditions					
House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Flural
5	325	92%	8%	83%	17%

Annual Budget per Household		
Agri.	21,627	63.3%
Livestock	5,523	16.2%
Forestry	0	0.0%
Others	7,033	20.6%
Total	34,184	100.0%
Expend.	12,950	
Saving	21,234	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12years old)		
	Total	Male	Female	Total	Male	Female
None	42.5%	34.0%	54.5%			
Keranic	57.5%	66.0%	45.5%			
Fundamental	42.5%	46.8%	36.4%	66.7%	50.0%	80.0%

Land holding and Cultivated land (ha.household)								
Total Land (ha)	Cultivated Crops (ha.household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive,Alm.	Apples,	Total
6.79	5.63	0.00	0.67	1.00	0.33	2.50	0.00	10.13
Sold Ratio (%)	15.9	0.0	0.0	71.1	88.0	80.0	0.0	
Irrigation (%)	30.0	0.0	100.0	100.0	100.0	100.0	0.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
0.83	17.08	0.00	7.08	0.75	0.00	0.00	25.75

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	58%	58%	0%	25%	17%	50%
Satisfaction	0%	86%	100%		67%	50%	83%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

<Environmental Conditions informed by Village Leader>		
Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.	
yes	0%
no	100%

Forest Condition	
Over-cutting	no
Degree	none
Over-grazing	yes
Degree	fair

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

Damages by Natural Disasters	
Disasters	yes
Floods	0%
Landslide	0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	300	Douar	Bel Abbas
C.R.	25	Tahanaout	Cerle 2 Tahanaout

### Location

Latitude	N31	27	21	Longitude	W7	55	9	Altitude	660	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	140	166
Population	900	1,089

### Working Member per household

Agriculture	3.88	household
Non-agri.	1.13	household
Total	5.00	household

### Access (km)

Pist	5.5	(km)
Path	0.0	(km)
Total	5.5	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	272	100%	0%	75%	25%

### Annual Budget per Household

Agri.	9,952	34.9%
Livestock	13,367	46.9%
Forestry	0	0.0%
Others	5,175	18.2%
Total	28,494	100.0%
Expend.	11,328	
Saving	17,166	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	55.7%	36.5%	80.7%			
Koranic	44.3%	63.5%	19.3%			
Fundamental	40.5%	58.1%	17.5%	73.1%	87.5%	50.0%

### Land holding and Cultivated land (ha-household)

Total Land (ha)	Cultivated Crops (ha-household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.86	2.78	0.06	0.00	0.25	0.34	0.28	0.00	3.72
Sold Ratio (%)	8.5	0.0	0.0	96.7	98.0	80.1	0.0	
Irrigation (%)	11.1	0.0	0.0	66.7	40.0	37.6	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
3.00	17.38	3.13	10.63	1.50	0.06	0.00	35.69

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	0%	100%	0%	88%	0%	63%
Satisfaction	0%	0%	100%		36%	0%	90%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	#DIV.0!
no	#DIV.0!

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	320	Douar	Derb Chem's
C.R.	25	Tahanaout	Cercle 2 Tahanaout

### Location

Latitude	N31	21'	48"	Longitude	W7	57'	41"	Altitude	900 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	60	71
Population	369	446

### Working Member per household

	household
Agriculture	3.14
Non-agri.	1.71
Total	4.86

### Access (km)

	(km)
Pist	0.0
Path	0.0
Total	0.0

### House Conditions

House size:household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
8	237	100%	0%	100%	0%

### Annual Budget per Household

Agri.	2,712	12.8%
Livestock	7,282	34.3%
Forestry	0	0.0%
Others	11,214	52.9%
Total	21,208	100.0%
Expend.	12,000	
Saving	9,208	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	45.6%	34.3%	63.6%			
Koranic	54.4%	65.7%	36.4%			
Fundamental	45.6%	51.4%	36.4%	87.5%	75.0%	100.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.71	2.43	0.07	0.00	0.07	0.00	0.37	0.00	2.94
Sold Ratio (%)	13.2	0.0	0.0	100.0	0.0	75.0	0.0	
Irrigation (%)	0.0	100.0	0.0	100.0	0.0	33.5	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.29	16.43	2.29	10.29	1.43	0.14	0.60	31.86

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	29%	0%	100%	0%	86%	14%	43%
Satisfaction	0%	0%	86%		50%	100%	67%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/7		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	330	Douar	
C.R.		25	Tahanaout
		Sour Fedrara	
		Tahanaout	Cercle
		2	Tahanaout

### Location

Latitude	N31	21'	2	Longitude	W7	53'	21	Altitude	940 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	110	131
Population	677	819

### Working Member per household

Agriculture	1.92	household
Non-agri.	1.46	household
Total	3.38	household

### Access (km)

Pist	1.5	(km)
Path	0.0	(km)
Total	1.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
6	347	100%	0%	92%	8%

### Annual Budget per Household

Agi.	25,331	41.9%
Livestock	6,781	11.2%
Forestry	0	0.0%
Others	28,338	46.9%
Total	60,450	100.0%
Expend.	17,455	
Saving	42,995	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	55.6%	40.4%	76.3%			
Koranic	44.4%	59.6%	23.7%			
Fundamental	24.4%	26.9%	21.1%	64.3%	66.7%	60.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
7.62	7.93	0.00	0.00	0.00	0.00	1.28	0.62	9.83
Sold Ratio (%)	17.3	0.0	0.0	0.0	0.0	91.0	99.0	
Irrigation (%)	1.2	0.0	0.0	0.0	0.0	50.0	100.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.62	12.08	1.31	19.00	1.46	0.00	0.00	35.46

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	8%	100%	0%	0%	8%	23%
Satisfaction	0%	100%	92%		0%	100%	100%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none



### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	340	Douar	1 Hat Tadrara
C.R.	25	Tahanaout	Cercle 2 Tahanaout

Location									
Latitude	N31	20'	31	Longitude	W7	54'	7	Altitude	970 (m)

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	1.67	household	Pist	0.0	(km)
Households	80	95	Non-agri.	1.33	household	Path	0.0	(km)
Population	490	593	Total	3.00	household	Total	0.0	(km)

House Conditions						Annual Budget per Household		
House size household		Structure of House		Number of houses		Agri.	14,304	30.6%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	9,789	20.9%
8	456	89%	11%	78%	22%	Forestry	0	0.0%
						Others	22,711	48.5%
						Total	46,804	100.0%
						Expend.	20,184	
						Saving	26,619	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	66.1%	50.0%	80.6%			
Koranic	33.9%	50.0%	19.4%			
Fundamental	28.8%	39.3%	19.4%	72.7%	66.7%	75.0%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
8.19	7.33	0.00	0.00	0.10	0.31	1.35	0.00	9.08
Sold Ratio (%)	26.5	0.0	0.0	88.6	94.0	69.4	0.0	
Irrigation (%)	1.9	0.0	0.0	50.0	50.0	39.7	0.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
4.11	15.67	1.89	17.56	1.67	0.33	0.00	41.22

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	78%	44%	0%	11%	56%	44%
Satisfaction	0%	100%	100%		0%	40%	75%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>		
Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

Opinion of Leader on irrigation water for Hydropower Generation.	
yes	100%
no	0%

Forest Condition	
Over-cutting	no
Degree	none

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters	
Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	350	Douar	Imin Tala
C.R.	31	Arrougal	Cercle 3 Amizmiz

### Location

Latitude	N31	7	52	Longitude	W8	16	8	Altitude	1,480 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	70	83
Population	460	557

### Working Member per household

Agriculture	2.25	household
Non-agri.	1.17	household
Total	3.42	household

### Access (km)

Pist	12.5	(km)
Path	0.0	(km)
Total	12.5	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
6	224	100%	0%	92%	8%

### Annual Budget per Household

Agri.	12,807	49.0%
Livestock	6,494	24.8%
Forestry	0	0.0%
Others	6,835	26.2%
Total	26,136	100.0%
Expend.	13,259	
Saving	12,877	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	80.0%	68.4%	91.9%			
Koranic	20.0%	31.6%	8.1%			
Fundamental	13.3%	21.1%	5.4%	40.0%	66.7%	18.2%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha/household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
1.91	1.03	0.33	0.00	0.03	0.44	0.01	0.32	2.17
Sold Ratio (%)	0.0	0.0	0.0	63.1	95.3	100.0	98.9	
Irrigation (%)	63.3	85.7	0.0	50.0	90.9	50.0	48.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.50	2.67	0.33	14.25	1.00	0.00	0.00	19.75

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	8%	100%	0%
Satisfaction	0%	100%	0%		100%	100%	0%
Quality	good				good		
Shortage	no				no		
Frequency (yr)	1/0				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	360	Douar	Adresse
C.R.	31	Anougal	Cercle 3 Amizimz

Location									
Latitude	N31	7	42	Longitude	W8	16	3	Altitude	1,460 (m)

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	1.25	household	Dist	12.5	(km)
Households	50	59	Non-agri.	0.88	household	Path	0.5	(km)
Population	300	363	Total	2.13	household	Total	13.0	(km)

House Conditions					Annual Budget per Household			
House size-household		Structure of House		Number of houses		Agri.	10,415	53.0%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	5,408	27.5%
5	200	100%	0%	88%	13%	Forestry	0	0.0%
						Others	3,838	19.5%
						Total	19,660	100.0%
						Expend.	10,474	
						Saving	9,186	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	70.7%	64.7%	75.0%			
Koranic	29.3%	35.3%	25.0%			
Fundamental	14.6%	11.8%	16.7%	60.0%	66.7%	57.1%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.53	1.53	0.50	0.00	0.09	0.47	0.34	0.17	3.11
Sold Ratio (%)	0.0	0.0	0.0	80.8	94.1	96.0	99.3	
Irrigation (%)	68.8	75.0	0.0	100.0	87.5	40.0	50.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.00	0.88	0.50	9.13	0.75	0.00	0.00	13.25

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	38%	63%	13%	0%	50%	75%	0%
Satisfaction	67%	100%	100%		50%	67%	0%
Quality	poor				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>		
Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

Opinion of Leader on Irrigation water for Hydropower Generation	
yes	100%
no	0%

Forest Condition	
Over-cutting	no
Degree	none

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters	
Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No	370	Douar	Ain Ghad
C.R.	31	Anougal	Cercle 3 Amizmiz

### Location

Latitude	N31	8'	18'	Longitude	W8	15'	59'	Altitude	1,450 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	43	51
Population	206	249

### Working Member per household

Agriculture	2.33	household
Non-agri	0.00	household
Total	2.33	household

### Access (km)

Pist	11.5	(km)
Path	0.0	(km)
Total	11.5	(km)

### House Conditions

House size/household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
8	168	100%	0%	67%	33%

### Annual Budget per Household

Agri.	29,238	69.7%
Livestock	12,717	30.3%
Forestry	0	0.0%
Others	0	0.0%
Total	41,955	100.0%
Expend.	17,343	
Saving	24,612	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	58.8%	38.9%	81.2%			
Koranic	41.2%	61.1%	18.8%			
Fundamental	35.3%	50.0%	18.8%	87.5%	100.0%	66.7%

### Land holding and Cultivated land (ha/household)

Total Land (ha)	Cultivated Crops (ha/household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.08	1.03	0.73	0.00	0.00	0.67	0.26	1.01	3.69
Sold Ratio (%)	0.0	0.0	0.0	0.0	91.7	96.6	90.9	
Irrigation (%)	91.7	100.0	0.0	0.0	100.0	100.0	66.7	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.83	3.17	0.00	7.17	0.83	0.00	0.00	14.00

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	83%	17%	0%	0%	100%	0%
Satisfaction	0%	100%	100%		0%	67%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	380	Douar	Inzaine
C.R.	31	Anougal	Cercle 3 Amizmiz

Location									
Latitude	N31	8'	2	Longitude	W8	15'	42	Altitude	1,420 (m)

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	2.89	household	Pist	10.0	(km)
Households	70	83	Non-agri.	1.22	household	Path	0.0	(km)
Population	420	508	Total	4.11	household	Total	10.0	(km)

House Conditions				Annual Budget per Household				
House size-household		Structure of House		Number of houses		Agri.	36,066	67.6%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	11,656	21.9%
7	177	89%	11%	78%	22%	Forestry	0	0.0%

Education Ratio							Total		100.0%	
Education Level	Villagers over 7 years old			Children (7-12 years old)			Expend.	20,735		
	Total	Male	Female	Total	Male	Female	Saving	32,587		
None	70.5%	46.4%	90.9%							
Koranic	29.5%	53.6%	9.1%							
Fundamental	9.8%	14.3%	6.1%	25.0%	50.0%	20.0%				

Land holding and Cultivated land (ha household)								
Total	Cultivated Crops (ha household)							
Land (ha)	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.81	2.25	0.44	0.00	0.02	1.21	0.26	1.03	5.20
Sold Ratio (%)	8.3	8.3	0.0	81.7	92.3	79.4	96.5	
Irrigation (%)	67.9	100.0	0.0	100.0	100.0	100.0	83.3	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
3.11	6.56	13.00	13.44	0.89	0.00	0.00	37.00

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	44%	67%	33%	0%	100%	67%	0%
Satisfaction	100%	100%	100%		100%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

<Environmental Conditions informed by Village Leader>		
Awareness of ever deforestation causing soil erosion =	yes	100%
	no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.	
yes	100%
no	0%

Forest Condition	
Over-cutting	yes
Degree	none

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

Damages by Natural Disasters	
Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	390	Douar	
C.R.	31	Anougal	
		Cercle	3
		Amizmiz	

### Location

Latitude	N31	9'	0"	Longitude	W8	15'	51"	Altitude	1,350 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	86	102
Population	450	544

### Working Member per household

Agriculture	2.58	household
Non-agri.	0.58	household
Total	3.17	household

### Access (km)

Pist	14.0	(km)
Path	0.0	(km)
Total	14.0	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
5	143	92%	8%	92%	8%

### Annual Budget per Household

Agri.	9,093	43.2%
Livestock	5,896	28.0%
Forestry	0	0.0%
Others	6,042	28.7%
Total	21,030	100.0%
Expend.	10,784	
Saving	10,246	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	79.7%	60.6%	97.2%			
Keranic	20.3%	39.4%	2.8%			
Fundamental	7.2%	12.1%	2.8%	11.1%	12.5%	10.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	
2.44	1.61	0.29	0.00	0.68	0.63	0.00	0.08	2.69
Sold Ratio (%)	0.0	14.3	0.0	100.0	98.2	0.0	95.1	
Irrigation (%)	45.5	100.0	0.0	100.0	100.0	0.0	57.1	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.33	5.17	13.25	15.00	0.75	0.00	0.00	35.50

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	58%	42%	0%	0%	75%	25%
Satisfaction	0%	100%	60%		0%	100%	67%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	none

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	400	Douar	Dou Anamer
C.R.	31	Anougal	Cercle 3 Amiziz

Location							
Latitude	N31	8	41	Longitude	W8	15	28
Altitude	1,320 (m)						

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	3.25	household	Pist	8.5	(km)
Households	35	42	Non-agri.	0.75	household	Path	0.0	(km)
Population	220	266	Total	4.00	household	Total	8.5	(km)

House Conditions						Annual Budget per Household		
House size household		Structure of House		Number of houses		Agri	17,348	53.0%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	12,663	38.7%
7	167	100%	0%	75%	25%	Forestry	0	0.0%
						Others	2,750	8.4%
						Total	32,760	100.0%
						Expend.	12,000	
						Saving	20,760	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	83.9%	70.6%	100.0%			
Koranic	16.1%	29.4%	0.0%			
Fundamental	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
1.53	1.38	0.09	0.00	0.19	0.50	0.15	0.45	2.76
Sold Ratio (%)	0.0	0.0	0.0	93.1	100.0	97.8	98.9	
Irrigation (%)	100.0	100.0	0.0	0.0	100.0	0.0	25.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Denkey	Horse	Others	Total
2.25	3.25	25.50	10.00	1.25	0.00	0.00	42.25

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	100%	25%	0%	0%	50%	75%	6%
Satisfaction	100%	100%	0%		100%	100%	0%
Quality	poor				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>			Opinion of Leader on Irrigation water for Hydropower Generation.		
Awareness of over deforestation causing soil erosion =			yes	100%	
			no	0%	

Forest Condition		Possible Alternative Energy of Firewood		Damages by Natural Disasters		
Over-cutting	no	Energy	yes	no	Disasters	yes
Degree	none	Gas	100%	0%	Floods	100%
Over-grazing	yes	Electricity	0%	100%	Landslide	100%
Degree	none					

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	410	Douar	Igoundem
C.R.	31	Anougal	Cercle
			3
			Amizmiz

### Location

Latitude	N31	9'	32"	Longitude	W8	15'	15"	Altitude	1,350 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	13	15
Population	100	121

### Working Member per household

Agriculture	4.00	household
Non-agri.	0.33	household
Total	4.33	household

### Access (km)

Pist	7.0	(km)
Path	0.0	(km)
Total	7.0	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	198	100%	0%	33%	67%

### Annual Budget per Household

Agri.	39,213	61.5%
Livestock	19,595	30.7%
Forestry	0	0.0%
Others	5,000	7.8%
Total	63,808	100.0%
Expend.	20,932	
Saving	42,876	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	60.0%	33.3%	81.8%			
Koranic	40.0%	66.7%	18.2%			
Fundamental	25.0%	33.3%	18.2%	71.4%	100.0%	50.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
7.33	3.17	0.53	0.00	0.33	1.17	0.42	1.01	6.62
Sold Ratio (%)	0.0	0.0	0.0	100.0	100.0	100.0	98.5	
Irrigation (%)	55.6	100.0	0.0	100.0	100.0	33.3	33.3	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
4.67	0.00	40.00	36.67	1.00	0.00	0.00	82.33

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	67%	67%	33%	0%	33%	100%	0%
Satisfaction	0%	100%	100%		100%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none



### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	420	Douar	Toug Ikheif
C.R.	31	Aneugal	Cercle
		3	
		Amizniz	

Location							
Latitude	N31	9'	57	Longitude	W8	15'	28
		Altitude		1,200 (m)			

Households and Population			Working Member per household			Access (km)	
	Yr 1996	Yr 2010	Agriculture	4.20	household	Pist	4.5 (km)
Households	40	48	Non-agri.	0.40	household	Path	2.5 (km)
Population	250	302	Total	4.60	household	Total	7.0 (km)

House Conditions						Annual Budget per Household		
House size, household		Structure of House		Number of houses		Agri	25,308	65.7%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	10,512	27.3%
7	145	100%	0%	100%	0%	Forestry	0	0.0%
						Others	2,700	7.0%
						Total	38,520	100.0%

Education Ratio								
Education Level	Villagers over 7 years old			Children (7-12 years old)				
	Total	Male	Female	Total	Male	Female		
None	77.8%	66.7%	100.0%					
Koranic	22.2%	33.3%	0.0%					
Fundamental	2.8%	4.2%	0.0%	12.5%	20.0%	0.0%		
						Expend.	15,960	
						Saving	22,560	

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
4.20	2.70	0.68	0.00	0.40	1.00	0.40	0.41	5.59
Sold Ratio (%)	5.3	0.0	0.0	100.0	100.0	81.1	99.4	
Irrigation (%)	53.3	100.0	0.0	100.0	100.0	50.0	40.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.00	0.00	38.00	0.20	0.80	0.00	0.00	41.00

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	80%	60%	0%	0%	100%	60%	0%
Satisfaction	75%	100%	0%		100%	67%	0%
Quality	poor				poor		
Shortage	yes				yes		
Frequency (yr)	1/1				1/4		

<Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

Opinion of Leader on Irrigation water for Hydropower Generation

yes	0%
no	100%

Forest Condition

Over-culting	no
Degree	none
Over-grazing	no
Degree	none

Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	430	Douar	Ait Ou/kri
C.R.	31	Anougal	Cercle
			3
			Amizmiz

### Location

Latitude	N31	11	14	Longitude	W8	14	56	Altitude	1,100 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	40	48
Population	250	302

### Working Member per household

	household
Agriculture	1.80
Non-agri.	1.40
Total	3.20

### Access (km)

Pist	3.0 (km)
Path	0.0 (km)
Total	3.0 (km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
5	110	80%	20%	100%	0%

### Annual Budget per Household

Agri.	2,273	10.9%
Livestock	7,160	34.5%
Forestry	1,200	5.8%
Others	10,140	48.8%
Total	20,773	100.0%
Expend.	9,660	
Saving	11,113	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	96.6%	92.5%	100.0%			
Koranic	3.4%	7.1%	0.0%			
Fundamental	3.4%	7.1%	0.0%	25.0%	100.0%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
4.61	4.20	0.00	0.00	0.12	0.15	0.05	0.00	4.52
Sold Ratio (%)	0.0	0.0	0.0	88.6	92.0	68.2	0.0	
Irrigation (%)	25.0	100.0	0.0	100.0	100.0	100.0	100.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.40	2.00	30.00	10.00	0.80	0.00	0.00	44.20

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	60%	66%	0%	40%	0%	0%
Satisfaction	0%	100%	67%		0%	0%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/4		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

### Opinion of Leader on Irrigation water for Hydropower Generation

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	440	Douar	Ait Hmad
C.R.	31	Anougal	Cercle
		3	
		Amizmiz	

### Location

Latitude	N31	10	25	Longitude	W8	14	45	Altitude	1,400	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	50	59
Population	300	363

### Working Member per household

	1.50	household
Agriculture	1.50	household
Non-agri.	1.83	household
Total	3.33	household

### Access (km)

	5.5	(km)
Pist	5.5	(km)
Path	0.0	(km)
Total	5.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
5	108	100%	0%	100%	0%

### Annual Budget per Household

Agri.	3,146	15.8%
Livestock	7,789	39.1%
Forestry	0	0.0%
Others	9,000	45.1%
Total	19,934	100.0%
Expend	8,800	
Saving	11,134	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12) years old		
	Total	Male	Female	Total	Male	Female
None	86.8%	77.3%	100.0%			
Koranic	13.2%	22.7%	0.0%			
Fundamental	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	
2.50	2.25	0.00	0.00	0.00	0.25	0.02	0.00	2.52
Sold Ratio (%)	0.0	0.0	0.0	0.0	83.0	68.2	0.0	
Irrigation (%)	8.0	0.0	0.0	0.0	100.0	100.0	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.67	7.50	0.00	2.50	1.00	0.00	0.00	12.67

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	0%	100%	0%
Satisfaction	0%	100%	0%		0%	50%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No	450	Deuar	Tizgui
C.R.	31	Anougal	Cerele
		3	Amizmit

### Location

Latitude	N31	10'	47"	Longitude	W8	15'	11"	Altitude	1,180 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	60	71
Population	250	302

### Working Member per household

Agriculture	2.14	household
Non-agi.	0.86	household
Total	3.00	household

### Access (km)

Pist	4.5	(km)
Path	0.0	(km)
Total	4.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
4	143	100%	0%	100%	0%

### Annual Budget per Household

Agri.	7,151	35.6%
Livestock	6,789	33.8%
Forestry	0	0.0%
Others	6,143	30.6%
Total	20,082	100.0%
Expend.	11,883	
Saving	8,199	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	86.0%	83.3%	89.5%			
Koranic	14.0%	16.7%	10.5%			
Fundamental	14.0%	16.7%	10.5%	71.4%	66.7%	100.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm	Apples	
2.32	1.07	0.32	0.00	0.47	0.31	0.06	0.06	2.29
Sold Ratio (%)	0.0	0.0	0.0	67.9	72.1	92.1	88.9	
Irrigation (%)	16.7	100.0	0.0	75.0	83.3	66.7	66.7	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.00	4.00	4.29	12.43	0.57	0.00	0.00	23.29

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	100%	0%	0%	0%	100%	0%	0%
Satisfaction	86%	0%	0%		86%	0%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	yes
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	460	Douar	Adardour
C.R.	31	Anougal	Cercle
		3	
		Amizmiz	

Location							
Latitude	N31	4'	31	Longitude	W8	16'	50
				Altitude	1,800 (m)		

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	3.00	household	Fist	20.0	(km)
Households	160	190	Non-agri.	0.79	household	Path	0.5	(km)
Population	700	847	Total	3.79	household	Total	20.5	(km)

House Conditions					Annual Budget per Household			
House size: household		Structure of House		Number of houses		Agri.	22,444	58.1%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	10,717	27.7%
10	165	89%	11%	95%	5%	Forestry	0	0.0%
						Others	5,489	14.2%
						Total	38,651	100.0%
						Expend.	16,955	
						Saving	21,696	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	73.0%	62.6%	88.5%			
Koranic	27.0%	37.4%	11.5%			
Fundamental	13.2%	15.4%	9.8%	37.2%	38.5%	35.3%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
2.49	1.42	0.50	0.00	0.06	0.74	0.01	0.65	3.38
Sold Ratio (%)	0.0	0.0	0.0	91.5	95.1	93.3	99.9	
Irrigation (%)	81.8	100.0	0.0	100.0	100.0	100.0	60.5	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.84	19.11	15.79	10.53	1.00	0.00	0.00	48.26

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	32%	84%	0%	0%	74%	63%	5%
Satisfaction	100%	94%	0%		86%	83%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Forest Condition

Over-cutting	no
Degree	none

Over-grazing	no
Degree	none

Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Opinion of Leader

on Irrigation water

for Hydropower Generation.

yes	100%
no	0%

Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	100%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	470	Deour	Lemdinat
C.R.	32	Argeour	Cerele 3 Amizmiz

### Location

Latitude	N31	6	34	Longitude	W8	22	17	Altitude	1,840 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	160	190
Population	985	1,192

### Working Member per household

Agriculture	2.60	household
Non-agri.	1.10	household
Total	3.70	household

### Access (km)

Pist	0.0	(km)
Path	0.0	(km)
Total	0.0	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
7	225	100%	0%	75%	25%

### Annual Budget per Household

Agri.	60,880	68.7%
Livestock	8,785	9.9%
Forestry	0	0.0%
Others	18,897	21.3%
Total	88,562	100.0%
Expend.	17,210	
Saving	71,352	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	70.4%	47.4%	97.0%			
Koranic	29.6%	52.6%	3.0%			
Fundamental	17.6%	32.9%	0.0%	25.8%	53.3%	0.0%

### Land holding and Cultivated Land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm	Apples	Total
6.91	4.69	1.06	0.00	0.03	0.95	0.16	2.12	9.00
Sold Ratio (%)	7.5	0.0	0.0	100.0	94.3	98.7	100.0	
Irrigation (%)	25.4	84.6	0.0	100.0	93.3	12.5	37.5	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.90	15.65	3.25	3.75	1.25	0.00	0.00	25.80

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	100%	25%	0%
Satisfaction	0%	100%	0%		55%	100%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	100%
no	0%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Over-grazing	yes
Degree	severe

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	480	Douar	Tnirt
C.R.	32	Argour	Cercle 3 Amizmiz

Location							
Latitude	N31	6'	31	Longitude	W8	19'	13
Altitude	1,750 (m)						

Households and Population			Working Member per household			Access (km)	
	Yr 1996	Yr 2010	Agriculture	1.96	household	Pist	0.0 (km)
Households	230	273	Non-agri	1.04	household	Path	4.0 (km)
Population	1,416	1,713	Total	3.00	household	Total	4.0 (km)

House Conditions						Annual Budget per Household		
House size household		Structure of House		Number of houses		Agri.	27,274	63.4%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	9,697	22.5%
8	207	89%	11%	78%	22%	Forestry	267	0.6%
						Others	5,802	13.5%
						Total	43,039	100.0%
						Expend.	16,582	
						Saving	26,457	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	60.9%	33.3%	86.7%			
Keranic	39.1%	66.7%	13.3%			
Fundamental	33.5%	55.1%	13.3%	55.3%	87.5%	31.8%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
8.71	6.50	0.63	0.02	0.14	0.76	0.09	0.84	8.98
Sold Ratio (%)	0.0	5.8	0.0	59.8	76.4	96.6	95.0	
Irrigation (%)	43.2	80.8	100.0	80.0	93.3	28.6	17.5	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Herse	Others	Total
1.19	10.85	29.07	8.67	0.96	0.04	0.00	50.78

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	30%	78%	4%	0%	37%	78%	0%
Satisfaction	75%	95%	100%		60%	81%	0%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

<Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

Opinion of Leader on Irrigation water for Hydropower Generation

yes	0%
no	100%

Forest Condition

Over-cutting	no
Degree	none

Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	490	Douar	Anemmi
C.R.	32	Azgour	Cercle
		3 Amizmiz	

### Location

Latitude	N31	7'	15'	Longitude	W8	19'	5'	Altitude	1,700 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	90	107
Population	540	653

### Working Member per household

	2.00	household
Agriculture	0.91	household
Non-agri.	2.91	household
Total		

### Access (km)

	0.0	(km)
Pist	2.5	(km)
Path	2.5	(km)
Total		

### House Conditions

House size:household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
6	166	100%	0%	100%	0%

### Annual Budget per Household

Agri.	36,848	72.1%
Livestock	10,323	20.2%
Forestry	636	1.2%
Others	3,327	6.5%
Total	51,135	100.0%
Expend.	15,436	
Saving	35,699	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	50.8%	23.5%	80.6%			
Keranic	49.2%	76.5%	19.4%			
Fundamental	41.5%	67.6%	12.9%	62.5%	100.0%	25.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
2.91	2.05	0.68	0.00	0.00	0.68	0.04	1.29	4.74
Sold Ratio (%)	0.0	0.0	0.0	0.0	92.7	93.3	99.3	
Irrigation (%)	50.0	82.6	0.0	0.0	80.0	0.0	27.3	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.36	7.45	23.27	8.64	1.09	0.00	0.00	41.82

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	36%	100%	0%
Satisfaction	0%	91%	0%		0%	91%	0%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	yes
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	yes
Degree	severe



## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	500	Douar	Ansroun
C.R.	32	Azgar	Cercle 3 Amizmiz

Location			
Latitude	N31	6'	45
Longitude	WS	21'	46
Altitude	1,780 (m)		

Households and Population		Working Member per household		Access (km)	
	Yr 1996	Yr 2010	Agriculture	2.63	household
Households	160	190	Non-agri.	0.37	household
Population	985	1,192	Total	3.00	household
Pist	0.0 (km)				
Path	3.5 (km)				
Total	3.5 (km)				

House Conditions				Annual Budget per Household				
House size/household	Structure of House		Number of houses		Agri.	34,598	72.2%	
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	10,726	22.4%
9	177	100%	0%	84%	16%	Forestry	0	0.0%
						Others	2,621	5.5%
						Total	47,945	100.0%
						Expend.	15,382	
						Saving	32,563	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	70.9%	56.9%	85.5%			
Koranic	29.1%	43.1%	14.5%			
Fundamental	20.6%	27.8%	13.0%	73.5%	88.9%	56.3%

Land holding and Cultivated land (ha household)								
Total	Cultivated Crops (ha household)							
Land (ha)	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
5.75	4.39	0.43	0.00	0.00	0.83	0.45	1.14	7.25
Sold Ratio (%)	0.0	0.0	0.0	76.7	82.0	91.6	97.7	
Irrigation (%)	15.6	74.0	0.0	100.0	83.3	0.0	60.8	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.53	26.16	17.42	4.74	1.16	0.00	0.00	51.00

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	95%	42%	0%
Satisfaction	0%	100%	0%		56%	75%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.

yes	0%
no	100%

Forest Condition

Over-cutting	yes
Degree	fair

Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	510	Douar	Tafat Ait Ibla
C.R.	32	Azgour	Cercle
		3	Amizmitz

### Location

Latitude	N31	6'	0"	Longitude	W8	20'	59"	Altitude	1,760 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	70	83
Population	210	254

### Working Member per household

Agriculture	2.20	household
Non-agri.	0.70	household
Total	2.90	household

### Access (km)

Pist	0.0	(km)
Path	0.0	(km)
Total	0.0	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	156	90%	10%	90%	10%

### Annual Budget per Household

Agri.	51,219	63.7%
Livestock	26,299	32.7%
Forestry	0	0.0%
Others	2,850	3.5%
Total	80,368	100.0%
Expend.	24,860	
Saving	55,508	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	52.5%	17.9%	81.8%			
Koranic	47.5%	82.1%	18.2%			
Fundamental	32.8%	50.0%	18.2%	58.3%	100.0%	37.5%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive,Alm.	Apples,	
6.95	5.09	0.13	0.00	0.00	1.15	0.00	1.81	8.17
Sold Ratio (%)	0.0	0.0	0.0	0.0	90.0	93.3	89.4	
Irrigation (%)	32.1	50.0	0.0	0.0	75.0	100.0	20.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.90	41.00	6.50	25.40	1.30	0.00	0.00	76.10

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	50%	50%	10%	0%	100%	20%	10%
Satisfaction	0%	100%	0%		20%	50%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	520	Deuar	Toulkine
C.R.	32	Azgour	Cercle
		3	
		Amizmiz	

Location										
Latitude	N31	9'	52	Longitude	W8	19'	52	Altitude	1,710	(m)

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	1.86	household	Pist	0.0	(km)
Households	190	226	Non-agri.	0.68	household	Path	0.0	(km)
Population	1,400	1,694	Total	2.55	household	Total	0.0	(km)

House Conditions						Annual Budget per Household		
House size: household		Structure of House		Number of houses		Agri.	8,127	34.2%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	11,360	47.8%
6	212	95%	5%	86%	14%	Forestry	0	0.0%
						Others	4,255	17.9%
						Total	23,742	100.0%
						Expend.	10,970	
						Saving	12,772	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	70.6%	40.4%	98.4%			
Koranic	29.4%	59.6%	1.6%			
Fundamental	24.4%	49.1%	1.6%	55.6%	69.2%	20.0%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
6.28	6.48	0.00	0.00	0.00	0.41	0.02	0.12	7.03
Sold Ratio (%)	7.9	0.0	0.0	0.0	84.2	66.9	85.1	
Irrigation (%)	0.0	0.0	0.0	0.0	76.9	33.3	3.3	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.64	23.23	7.95	18.05	1.14	0.05	0.00	52.05

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	9%	50%	86%	0%	23%	64%	23%
Satisfaction	50%	100%	79%		20%	43%	40%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

<Environmental Conditions informed by Village Leader>		
Awareness of over deforestation causing soil erosion =	yes	100%
	no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.	
yes	0%
no	100%

Forest Condition	
Over-cutting	no
Degree	none
Over-grazing	yes
Degree	fair

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

Damages by Natural Disasters	
Disasters	yes
Floods	100%
Landslide	0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	530	Douar	Adghouss
C.R.	32	Azgour	Cerle 3 Amizmiz

### Location

Latitude	N31	11	12	Longitude	W8	19	18	Altitude	1,770 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	50	59
Population	200	242

### Working Member per household

Agriculture	1.50	household
Non-agri.	0.83	household
Total	2.33	household

### Access (km)

Pist	2.0	(km)
Path	3.5	(km)
Total	5.5	(km)

### House Conditions

House size-household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	127	67%	33%	100%	0%

### Annual Budget per Household

Agri.	8,091	38.2%
Livestock	10,020	47.3%
Forestry	0	0.0%
Others	3,067	14.5%
Total	21,178	100.0%
Expend.	9,629	
Saving	11,549	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	92.0%	85.7%	100.0%			
Koranis	8.0%	14.3%	0.0%			
Fundamental	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive,Aln.	Apples,	
4.29	4.50	0.00	0.00	0.00	0.58	0.09	0.03	5.20
Sold Ratio (%)	3.3	0.0	0.0	0.0	92.7	100.0	95.0	
Irrigation (%)	0.0	0.0	0.0	0.0	83.3	83.3	0.0	

### Number heads of Livestock per household

Catle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.67	23.33	46.67	9.00	1.17	0.00	0.00	81.83

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	0%	100%	0%
Satisfaction	0%	100%	0%		0%	83%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	540	Douar	Douzrou
C.R.	32	Azgor	Cercle
		3	
		Amizmiz	

Location							
Latitude	N31	9'	45	Longitude	W8	23	12
				Altitude	1,820 (m)		

### Households and Population

	Yr 1996	Yr 2010
Households	220	261
Population	1,500	1,815

### Working Member per household

Agriculture	2.36	household
Non-agri.	1.04	household
Total	3.40	household

### Access (km)

Pist	2.5	(km)
Path	1.5	(km)
Total	4.0	(km)

### House Conditions

House size/household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
6	191	96%	4%	96%	4%

### Annual Budget per Household

Agri	6,742	28.8%
Livestock	10,267	43.8%
Forestry	0	0.0%
Others	6,440	27.5%
Total	23,449	100.0%
Expend.		
	12,902	
Saving		
	10,546	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	85.3%	70.9%	100.0%			
Koranic	14.7%	29.1%	0.0%			
Fundamental	7.6%	15.1%	0.0%	32.3%	66.7%	0.0%

### Land holding and Cultivated land (ha. household)

Total Land (ha)	Cultivated Crops (ha. household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm	Apples,	Total
7.93	6.19	0.08	0.00	0.05	0.25	0.40	0.04	7.02
Sold Ratio (%)	2.1	66.7	0.0	84.8	78.8	90.9	89.1	
Irrigation (%)	1.6	100.0	0.0	100.0	87.5	12.0	50.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.04	25.60	13.80	11.80	1.44	0.08	0.12	54.88

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	0%	96%	4%
Satisfaction	0%	100%	0%		0%	71%	0%
Quality	good				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1			
No.	550	Douar			
CR	32	Azgour		Cercle	3
		Ait Outmane			
		Annimiz			

### Location

Latitude	N31	9	23	Longitude	W8	23	40	Altitude	1,450 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	150	178
Population	600	726

### Working Member per household

Agriculture	1.72	household
Non-agri.	0.94	household
Total	2.67	household

### Access (km)

Pist	2.5	(km)
Path	0.0	(km)
Total	2.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
7	187	94%	6%	94%	6%

### Annual Budget per Household

Agri	9,783	39.3%
Livestock	8,129	32.6%
Forestry	0	0.0%
Others	7,006	28.1%
Total	24,918	100.0%
Expend.	17,365	
Saving	7,552	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	80.0%	73.3%	86.7%			
Koranic	20.0%	26.7%	13.3%			
Fundamental	15.8%	20.0%	11.7%	66.7%	78.6%	53.8%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
7.26	6.19	0.25	0.07	0.06	0.21	0.62	0.12	7.52
Sold Ratio (%)	7.4	16.3	70.0	93.1	66.9	94.3	96.7	
Irrigation (%)	19.6	87.5	0.0	50.0	91.7	21.4	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.33	13.39	4.00	19.17	1.56	0.00	1.28	41.72

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	6%	100%	0%
Satisfaction	0%	100%	0%		100%	67%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	yes
Degree	fair

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	0%

Over-grazing	no
Degree	none

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	560	Deuar	
C.R.	32	Argour	
		Cercle	3
		Amizmiz	

Location							
Latitude	N31	11'	9	Longitude	W8	23'	54
						Altitude	1,610 (m)

Households and Population			Working Member per household			Access (km)	
	Yr 1996	Yr 2010	Agriculture	3.25	household	Pist	2.5 (km)
Households	50	59	Non-agri.	2.00	household	Path	4.5 (km)
Population	140	169	Total	5.25	household	Total	7.0 (km)

House Conditions						Annual Budget per Household		
House size household		Structure of House		Number of houses		Agri.	3,429	26.4%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	8,120	62.5%
6	138	75%	25%	100%	0%	Forestry	0	0.0%
						Others	1,450	11.2%
						Total	12,999	100.0%
						Expend	21,000	
						Saving	-8,001	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	77.1%	60.0%	100.0%			
Koranic	22.9%	40.0%	0.0%			
Fundamental	14.3%	25.0%	0.0%	14.3%	25.0%	0.0%

Land holding and Cultivated land (ha household)								
Total	Cultivated Crops (ha household)							
Land (ha)	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples.	Total
2.38	3.15	0.00	0.04	0.00	0.00	0.75	0.00	3.94
Sold Ratio (%)	0.0	0.0	50.0	0.0	0.0	94.1	0.0	
Irrigation (%)	8.3	0.0	0.0	0.0	100.0	0.0	100.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.25	27.50	10.00	15.00	1.25	0.00	0.00	55.00

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	50%	0%	0%	75%	0%
Satisfaction	0%	75%	50%		0%	67%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/10		

<Environmental Conditions informed by Village Leader>		Opinion of Leader on Irrigation water for Hydropower Generation.	
Awareness of over deforestation causing soil erosion =	yes	100%	yes
	no	0%	no

Forest Condition	
Over-cutting	no
Degree	none
Over-grazing	yes
Degree	none

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

Damages by Natural Disasters	
Disasters	yes
Floods	100%
Landslide	0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	570	Douar	Tifit
C.R.	32	Argour	Cerele
			3
			Amizmiz

### Location

Latitude	N31	10'	43	Longitude	W8	24'	28	Altitude	1,580	(m)
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### Households and Population

	Yr 1996	Yr 2010
Households	90	107
Population	150	181

### Working Member per household

	household
Agriculture	2.91
Non-agri.	1.09
Total	4.00

### Access (km)

	(km)
Pist	2.5
Path	3.5
Total	6.0

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
6	175	100%	0%	73%	27%

### Annual Budget per Household

Agri.	6,079	31.1%
Livestock	7,851	40.2%
Forestry	0	0.0%
Others	5,620	28.7%
Total	19,550	100.0%
Expend.	11,047	
Saving	8,503	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	84.2%	75.7%	92.3%			
Koranic	15.8%	24.3%	7.7%			
Fundamental	6.6%	5.4%	7.7%	30.8%	33.3%	28.6%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							Total
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	
3.52	3.30	0.00	0.02	0.00	0.00	1.16	0.01	4.48
Sold Ratio (%)	0.0	0.0	34.0	0.0	0.0	83.5	100.0	
Irrigation (%)	4.4	0.0	0.0	0.0	0.0	9.4	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.00	12.00	28.18	15.18	0.82	0.09	0.73	58.00

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	73%	45%	0%	0%	73%	18%
Satisfaction	0%	100%	60%		0%	75%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	100%	0%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	no
Degree	none



## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	580	Douar	Anfricoune
C.R.	32	Azgour	Cerete
			3
			Anizmiz

Location							
Latitude	N31	11	25	Longitude	W8	22	17
				Altitude	1,720	(m)	

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	1.43	household	Pist	2.5	(km)
Households	60	71	Non-agri.	0.86	household	Path	7.0	(km)
Population	120	145	Total	2.29	household	Total	9.5	(km)

House Conditions						Annual Budget per Household		
House size household		Structure of House		Number of houses		Agri.	3,626	25.8%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	8,096	57.5%
4	157	100%	0%	100%	0%	Forestry	0	0.0%
						Others	2,349	16.7%
						Total	14,070	100.0%
						Expend.	10,349	
						Saving	3,722	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	88.4%	80.8%	100.0%			
Koranic	11.6%	19.2%	0.0%			
Fundamental	2.3%	3.8%	0.0%	0.0%	0.0%	0.0%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
2.75	2.36	0.00	0.00	0.00	0.25	0.00	0.00	2.61
Sold Ratio (%)	3.6	0.0	0.0	0.0	81.5	0.0	0.0	
Irrigation (%)	12.1	0.0	0.0	0.0	100.0	0.0	0.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
1.71	14.29	18.43	6.14	1.43	0.00	0.57	42.57

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	0%	0%	0%	71%	0%
Satisfaction	0%	100%	0%		0%	80%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

<Environmental Conditions informed by Village Leader>		Opinion of Leader on Irrigation water for Hydropower Generation.		
Awareness of over deforestation causing soil erosion =	yes	100%	yes	0%
	no	0%	no	100%

Forest Condition	
Over-cutting	no
Degree	none
Over-grazing	no
Degree	none

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters	
Disasters	yes
Floods	0%
Landslide	0%

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	590	Douar	Ait Smil
C.R.	33	Dar Jamaa	Cercle
			3
			Antizimz

### Location

Latitude	N31	14	5	Longitude	W8	21	3	Altitude	1,040 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	150	178
Population	1,400	1,694

### Working Member per household

Agriculture	2.86	household
Non-agri.	1.29	household
Total	4.14	household

### Access (km)

Pist	1.0	(km)
Path	1.5	(km)
Total	2.5	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural
6	142	86%	14%	81%	19%

### Annual Budget per Household

Agri.	5,029	24.6%
Livestock	9,939	48.6%
Forestry	0	0.0%
Others	5,499	26.9%
Total	20,467	100.0%
Expend	10,234	
Saving	10,233	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	57.4%	30.8%	92.0%			
Koranic	42.6%	69.2%	8.0%			
Fundamental	30.4%	49.2%	6.0%	50.0%	62.5%	33.3%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
3.43	3.69	0.14	0.00	0.00	0.00	0.60	0.01	4.44
Sold Ratio (%)	18.0	0.0	0.0	0.0	0.0	65.6	95.5	
Irrigation (%)	2.5	0.0	0.0	0.0	0.0	7.7	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.19	2.19	0.00	16.19	1.48	0.00	0.95	23.00

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	71%	62%	0%	0%	19%	0%
Satisfaction	0%	73%	69%		0%	75%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	600	Douar	Tifratine
C.R	33	Dar Jamaa	Cerele 3 Amizmiz

Location									
Latitude	N31	17	14	Longitude	W8	20	46	Altitude	810(m)

Households and Population			Working Member per household			Access (km)	
	Yr 1996	Yr 2010	Agriculture	2.67	household	Pist	3.6(km)
Households	80	95	Non-agri	0.67	household	Path	0.0(km)
Population	600	726	Total	3.33	household	Total	3.6(km)

House Conditions						Annual Budget per Household		
House size-household		Structure of House		Number of houses		Agri	2,831	12.8%
Rooms	(m2)	Tradition	Modern	Single	Plural	Livestock	15,520	69.2%
4	258	92%	8%	83%	17%	Forestry	0	0.0%
						Others	4,042	18.0%
						Total	22,443	100.0%
						Expend.	12,571	
						Saving	9,872	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	78.4%	68.4%	88.9%			
Koranic	21.6%	31.6%	11.1%			
Fundamental	18.9%	26.3%	11.1%	30.0%	60.0%	0.0%

Land holding and Cultivated land (ha household)								
Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
4.33	3.96	0.00	0.00	0.08	0.00	0.08	0.00	4.12
Sold Ratio (%)	8.3	0.0	0.0	33.0	0.0	68.2	0.0	
Irrigation (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.33	7.50	2.58	12.08	1.67	0.08	0.50	26.75

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	33%	33%	67%	0%	8%	17%	17%
Satisfaction	100%	100%	88%		100%	50%	50%
Quality	poor				good		
Shortage	no				yes		
Frequency (yr)	1/1				1/20		

<Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Opinion of Leader on Irrigation water for Hydropower Generation

yes	#DIV/0!
no	#DIV/0!

Forest Condition

Over-cutting	no
Degree	none

Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	610	Deouar	
C.R.	33	Dar Jamaa	Aguenze
		Cercle	3
			Amizmiz

### Location

Latitude	N31	17	14	Longitude	W8	22	3	Altitude	820 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	20	24
Population	200	242

### Working Member per household

Agriculture	4.63	household
Non-agri.	1.25	household
Total	5.88	household

### Access (km)

Pist	3.7	(km)
Path	0.0	(km)
Total	3.7	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
8	165	100%	0%	85%	13%

### Annual Budget per Household

Agri.	4,168	15.0%
Livestock	16,915	61.0%
Forestry	0	0.0%
Others	6,650	24.0%
Total	27,732	100.0%
Expend.	15,473	
Saving	12,260	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	87.3%	79.5%	100.0%			
Koranic	12.7%	20.5%	0.0%			
Fundamental	7.9%	12.8%	0.0%	12.5%	25.0%	0.0%

### Land holding and Cultivated land (ha household)

Total	Cultivated Crops (ha household)							
Land (ha)	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples	Total
6.72	6.09	0.00	0.00	0.00	0.00	0.11	0.00	6.20
Sold Ratio (%)	12.5	0.0	0.0	0.0	0.0	59.1	0.0	
Irrigation (%)	6.3	0.0	0.0	0.0	0.0	33.3	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.13	35.75	12.38	18.88	2.25	0.25	2.50	74.13

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	25%	50%	75%	100%	13%	13%	0%
Satisfaction	100%	100%	83%		100%	100%	0%
Quality	poor				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation.

yes	0%
no	100%

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	none

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	620	Dourr	Ilit Baragha
C.R.	33	Dar Jamaa	Cercle 3 Amizimz

Location							
Latitude	N31	15'	57	Longitude	W8	20'	57
Altitude	850 (m)						

Households and Population			Working Member per household			Access (km)		
	Yr 1996	Yr 2010	Agriculture	2.20	household	Pist	1.7	(km)
Households	35	42	Non-agri.	0.60	household	Path	0.3	(km)
Population	250	302	Total	2.80	household	Total	2.0	(km)

House Conditions				Annual Budget per Household				
House size household		Structure of House		Number of houses		Agri.	7,675	20.9%
Rooms	(m <sup>2</sup> )	Tradition	Modern	Single	Plural	Livestock	28,095	76.4%
4	166	80%	20%	100%	0%	Forestry	0	0.0%
						Others	1,000	2.7%
						Total	36,770	100.0%
						Expend	22,600	
						Saving	14,170	

Education Ratio						
Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	75.0%	46.2%	100.0%			
Koranic	25.0%	53.8%	0.0%			
Fundamental	25.0%	53.8%	0.0%	14.3%	100.0%	0.0%

Land holding and Cultivated land (ha.household)								
Total	Cultivated Crops (ha.household)							
Land (ha)	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
5.40	5.30	0.00	0.00	0.00	0.00	0.47	0.00	5.77
Sold Ratio (%)	19.8	0.0	0.0	0.0	0.0	55.5	0.0	
Irrigation (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Number heads of Livestock per household							
Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
4.20	13.40	0.80	20.60	1.40	0.00	0.00	40.40

Water Sources, Satisfaction, Water Quality, and Water Shortage							
Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	20%	40%	40%	0%	0%	0%	0%
Satisfaction	100%	100%	100%		0%	0%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/4		

<Environmental Conditions informed by Village Leader>		
Awareness of over deforestation causing soil erosion =	yes	0%
	no	100%

Opinion of Leader on Irrigation water for Hydropower Generation.	
yes	0%
no	100%

Forest Condition	
Over-cutting	no
Degree	none

Possible Alternative Energy of Firewood		
Energy	yes	no
Gas	0%	100%
Electricity	100%	0%

Damages by Natural Disasters	
Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	severe

## Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	630	Douar	Agadir Baragha
C.R.	33	Dar Jamaa	Cercle
			3
			Amizmiz

### Location

Latitude	N31	14'	11	Longitude	W8	20'	28	Altitude	1,070 (m)
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### Households and Population

	Yr 1996	Yr 2010
Households	40	48
Population	300	363

### Working Member per household

Agriculture	3.25	household
Non-agri.	1.13	household
Total	4.38	household

### Access (km)

Pist	2.0	(km)
Path	0.0	(km)
Total	2.0	(km)

### House Conditions

House size household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
6	153	88%	13%	100%	0%

### Annual Budget per Household

Agri.	6,681	27.1%
Livestock	10,955	44.4%
Forestry	0	0.0%
Others	7,038	28.5%
Total	24,673	100.0%
Expend.	13,913	
Saving	10,761	

### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	71.7%	45.5%	95.8%			
Keranic	28.3%	54.5%	4.2%			
Fundamental	21.7%	45.5%	0.0%	14.3%	50.0%	0.0%

### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
4.41	4.13	0.00	0.00	0.00	0.00	1.18	0.00	5.30
Sold Ratio (%)	3.0	0.0	0.0	0.0	88.0	68.3	0.0	
Irrigation (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.63	6.25	0.00	17.50	1.38	0.13	0.00	27.88

### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	63%	50%	0%	0%	25%	0%
Satisfaction	0%	80%	75%		0%	100%	0%
Quality	good				good		
Shortage	no				no		
Frequency (yr)	1/0				1/20		

### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

### Opinion of Leader

on Irrigation water for Hydropower Generation

yes	#DIV:0!
no	#DIV:0!

### Forest Condition

Over-cutting	no
Degree	none

### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

### Damages by Natural Disasters

Disasters	yes
Floods	0%
Landslide	0%

Over-grazing	yes
Degree	fair

### Inventory concerned on Social and Environmental Aspects

Number of Selected Villages		1	
No.	650	Douar	Adar Baragha
C R	33	Dar Janaa	Cercle 3 Amizmiz

#### Location

Latitude	N31	13'	1	Longitude	W8	20'	22	Altitude	1,070 (m)
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#### Households and Population

	Yr 1996	Yr 2010
Households	11	13
Population	60	73

#### Working Member per household

Agriculture	2.50	household
Non-agri.	0.00	household
Total	2.50	household

#### Access (km)

Pist	2.5	(km)
Path	1.5	(km)
Total	4.0	(km)

#### House Conditions

House size: household		Structure of House		Number of houses	
Rooms	(m2)	Tradition	Modern	Single	Plural
5	131	100%	0%	100%	0%

#### Annual Budget per Household

Agri.	8,618	36.9%
Livestock	14,744	63.1%
Forestry	0	0.0%
Others	0	0.0%
Total	23,362	100.0%
Expend.	14,483	
Saving	8,879	

#### Education Ratio

Education Level	Villagers over 7 years old			Children (7-12 years old)		
	Total	Male	Female	Total	Male	Female
None	87.0%	66.7%	100.0%			
Koranic	13.0%	33.3%	0.0%			
Fundamental	13.0%	33.3%	0.0%	28.6%	100.0%	0.0%

#### Land holding and Cultivated land (ha household)

Total Land (ha)	Cultivated Crops (ha household)							
	W. Cereal	S. Cereal	Legumes	Vegetable	Potatoes	Olive, Alm.	Apples,	Total
4.00	6.38	0.00	0.00	0.03	0.03	0.81	0.15	7.40
Sold Ratio (%)	3.7	0.0	0.0	100.0	100.0	73.9	95.5	
Irrigation (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

#### Number heads of Livestock per household

Cattle	Sheep	Goat	Poultry	Mule Donkey	Horse	Others	Total
2.00	14.75	17.50	12.25	1.00	0.00	0.00	47.50

#### Water Sources, Satisfaction, Water Quality, and Water Shortage

Hydrological Conditions	Drinking Water				Irrigation Water		
	River	Spring	Well	Tank	River	Spring	Well
Water Source	0%	100%	75%	0%	0%	50%	0%
Satisfaction	0%	100%	100%		0%	50%	0%
Quality	good				good		
Shortage	yes				yes		
Frequency (yr)	1/1				1/1		

#### <Environmental Conditions informed by Village Leader>

Awareness of over deforestation causing soil erosion =

yes	100%
no	0%

Opinion of Leader on Irrigation water for Hydropower Generation.

yes	0%
no	100%

#### Forest Condition

Over-cutting	yes
Degree	fair

#### Possible Alternative Energy of Firewood

Energy	yes	no
Gas	100%	0%
Electricity	0%	100%

#### Damages by Natural Disasters

Disasters	yes
Floods	100%
Landslide	100%

Over-grazing	yes
Degree	fair