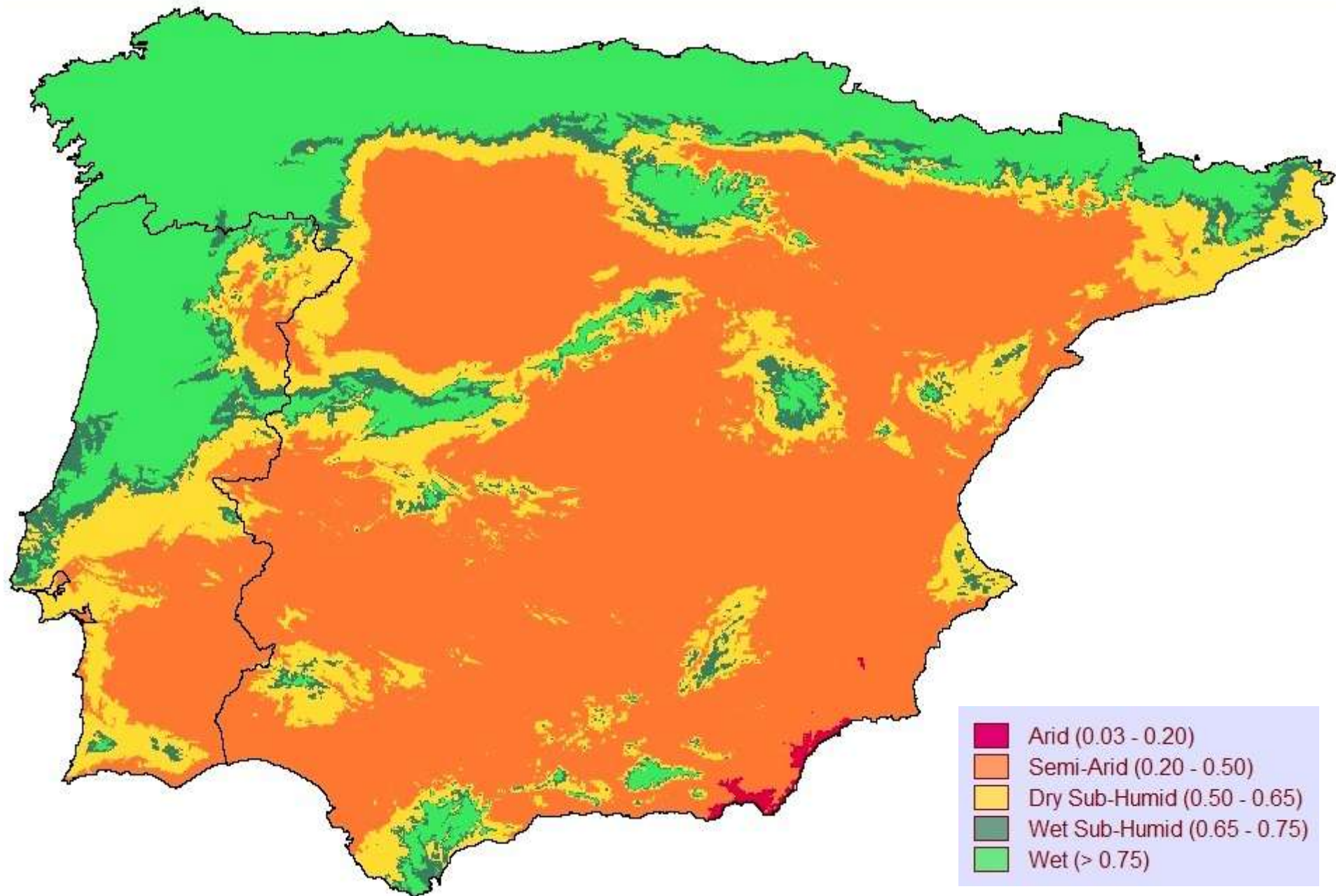


CNCCD

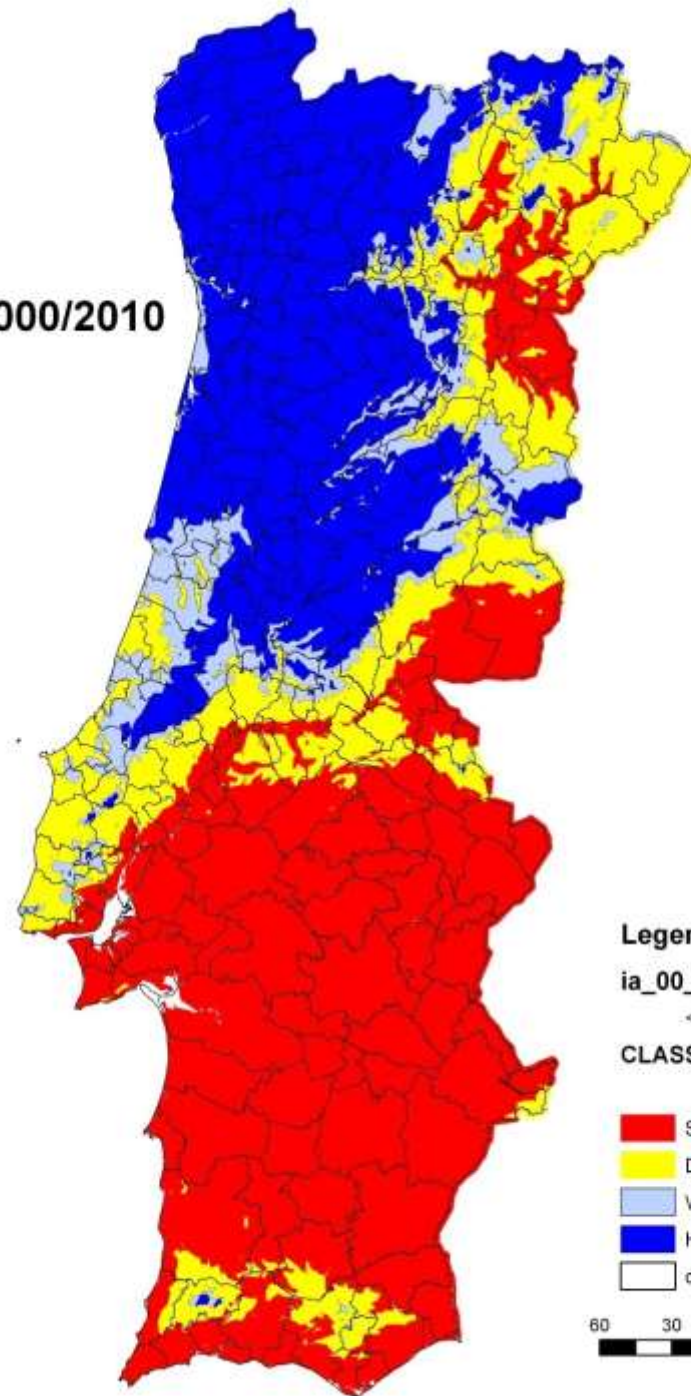
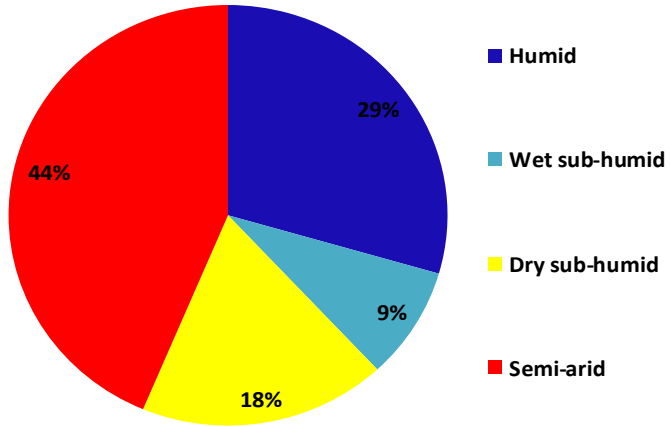
Reunião de 28 Fevereiro 2012

V – Encerramento Projeto DesertWatch Extensão (2009 / 2012)

Mean FAO-UNEP Aridity Index 1980-2010



IA 2000/2010



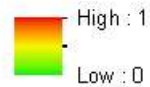
Desertification susceptibility index

national scale

2000



Legenda



2009



Legenda



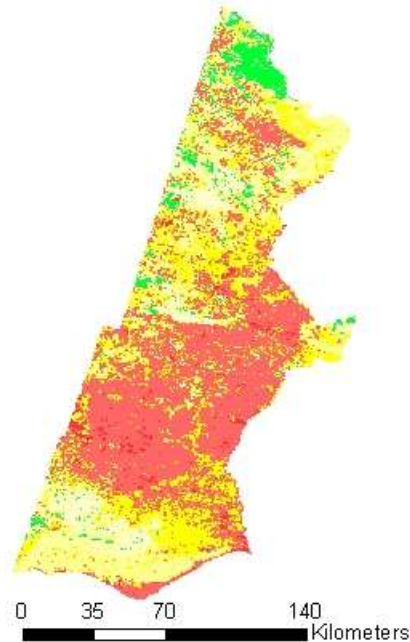
- ⇒ Drought is spatially more homogenous over time
- ⇒ Urban pressure is increasing
- ⇒ Changes in agricultural practices

Portugal

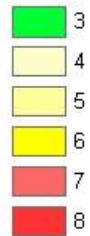
Desertification susceptibility index

national scale

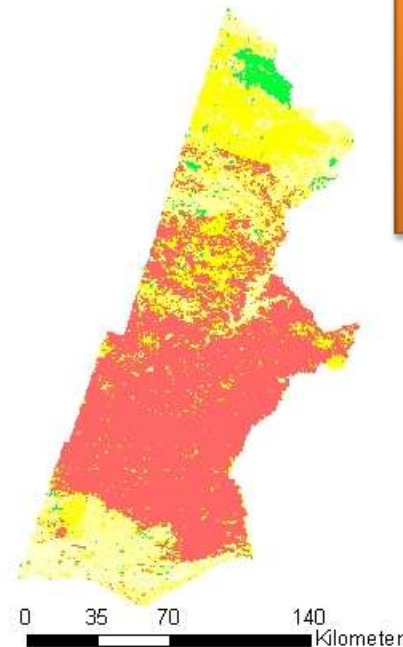
2000



Legenda



2009



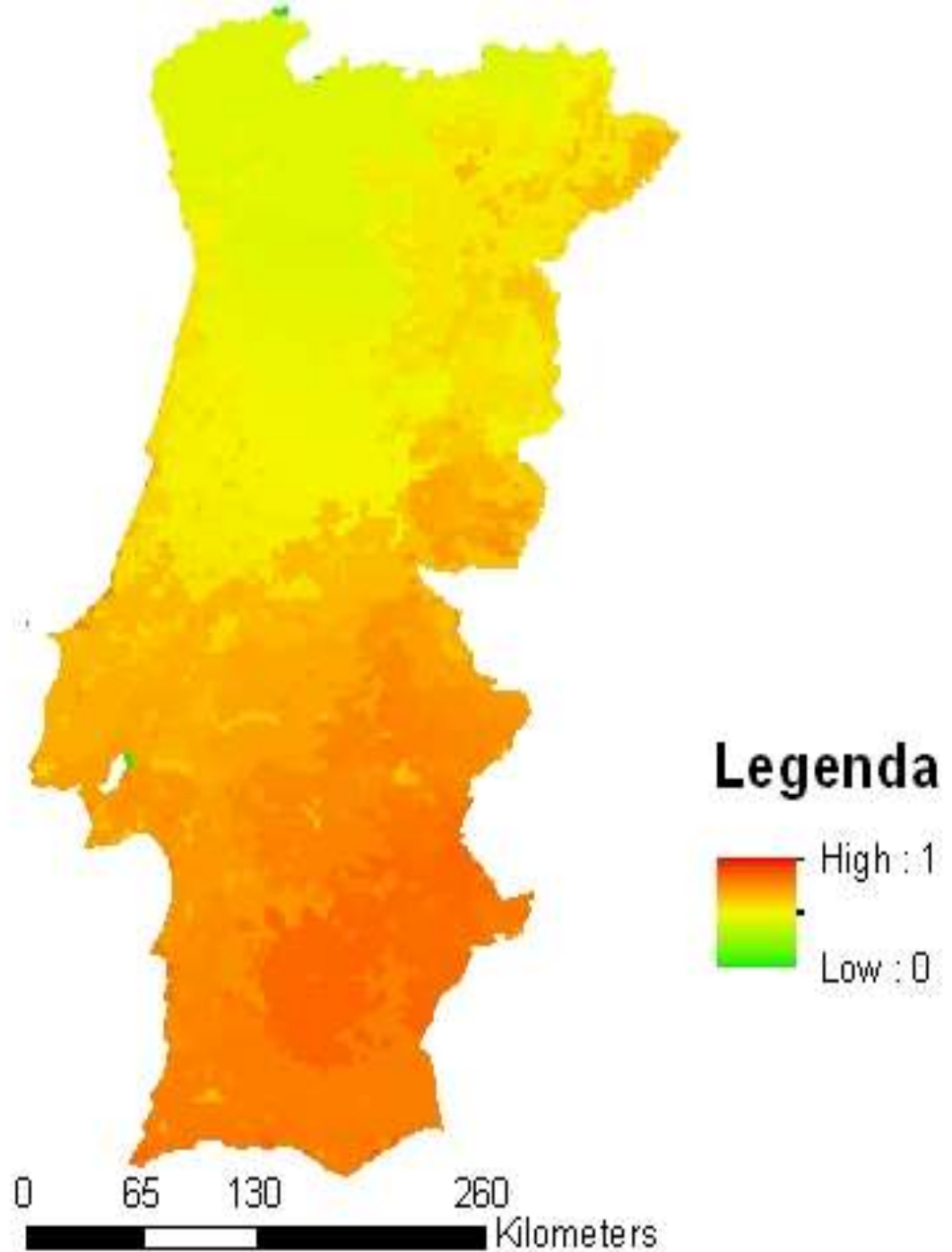
Legenda



- ⇒ Drought is spatially more homogenous over time
- ⇒ Urban pressure is increasing
- ⇒ Changes in agricultural practices

Portugal

Desertification
susceptibility index
regional scale (2005)

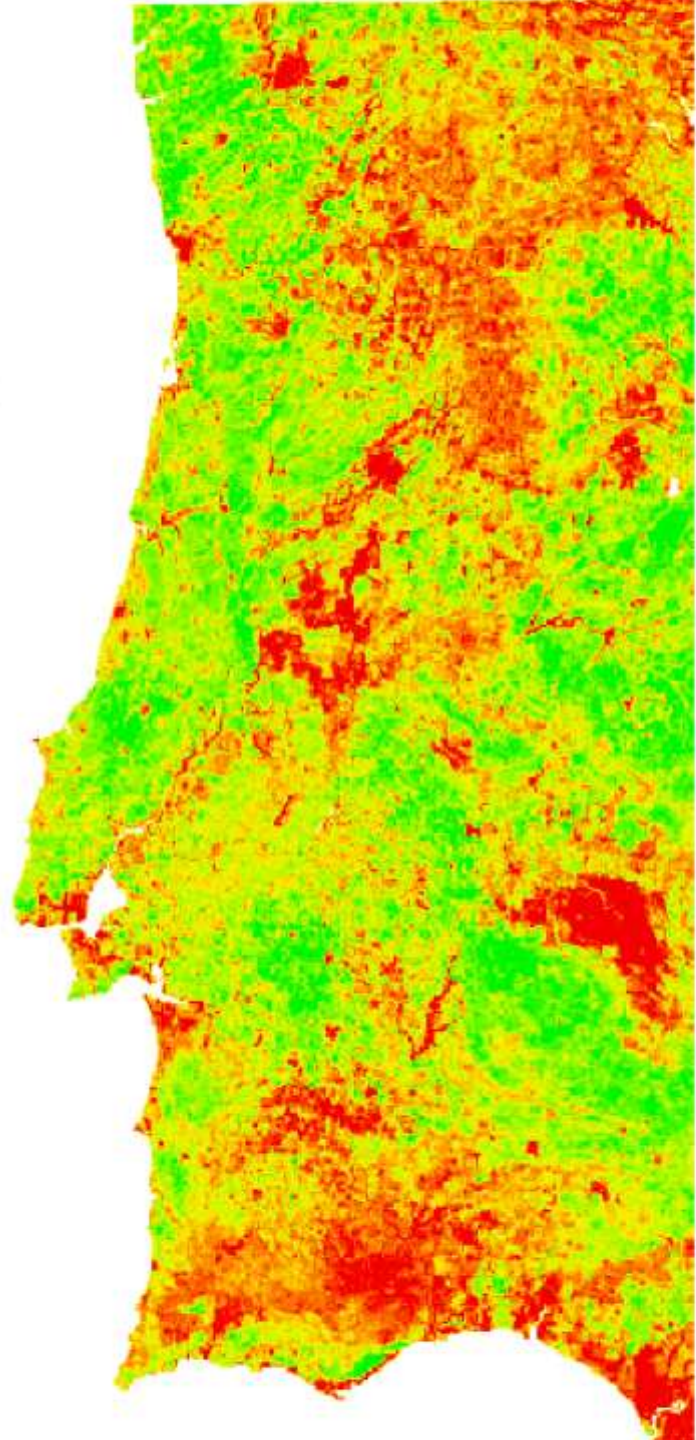


Portugal

Legend

Idiport

Value

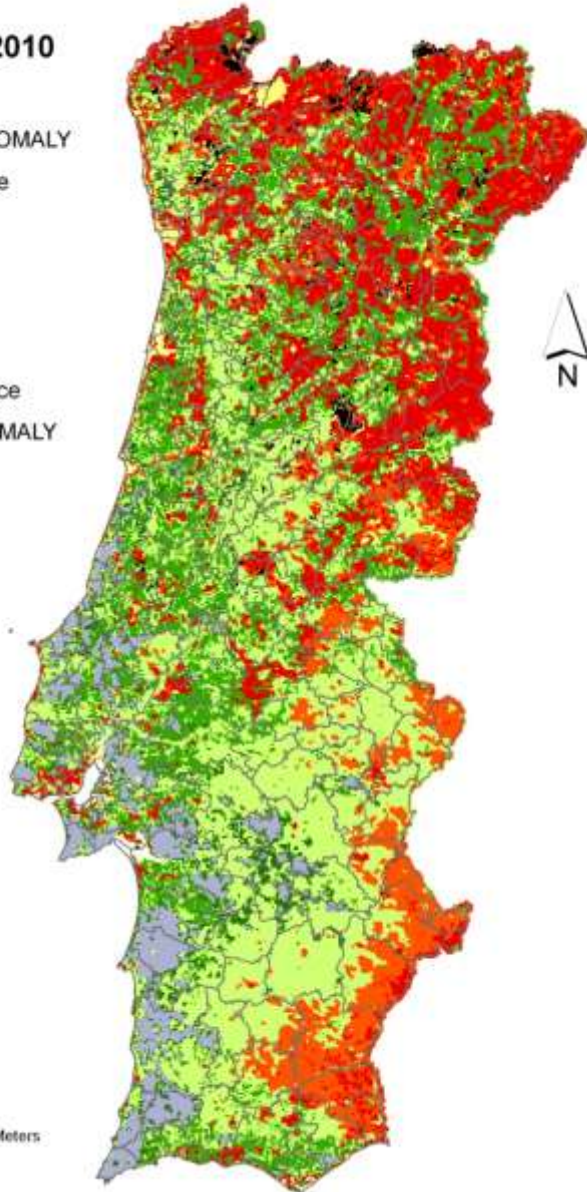


Iberian Peninsula: Land Cover Status 2000-2010



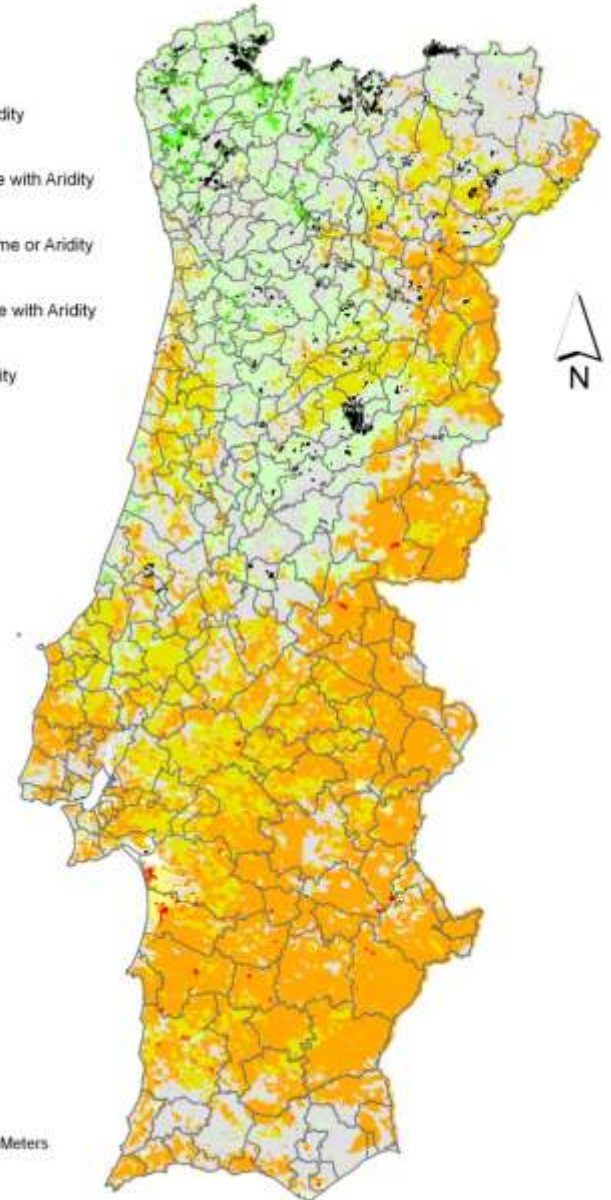
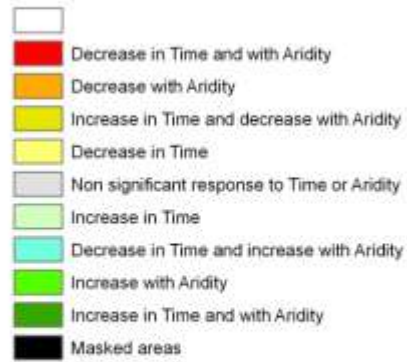
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- UNDERP A IMPROVING
- UNDERP A STATIC
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- BASELINE P FLUCTUATING
- BASELINE P IMPROVING
- BASELINE P STATIC
- VERY DEG DEGRADING
- VERY DEG FLUCTUATING
- VERY DEG IMPROVING
- VERY DEG STATIC
- DEG DEGRADING
- DEG FLUCTUATING
- DEG IMPROVING
- DEG STATIC
- PRODUCTIVE DEGRADING
- PRODUCTIVE FLUCTUATING
- PRODUCTIVE IMPROVING
- PRODUCTIVE STATIC
- MATURE DEGRADING
- MATURE FLUCTUATING
- MATURE IMPROVING
- MATURE STATIC
- REFERENCE P DEGRADING
- REFERENCE P FLUCTUATING
- REFERENCE P IMPROVING
- REFERENCE P STATIC
- OVERP A DEGRADING
- OVERP A FLUCTUATING
- OVERP A IMPROVING
- OVERP A STATIC

Assessment 2000 2010



0 28,000 56,000 112,000 Meters

Land trends 2000 2010



0 28,000 56,000 112,000 Meters

**Land Assessment
2000/2010
G. del Barrio et al. 2011**

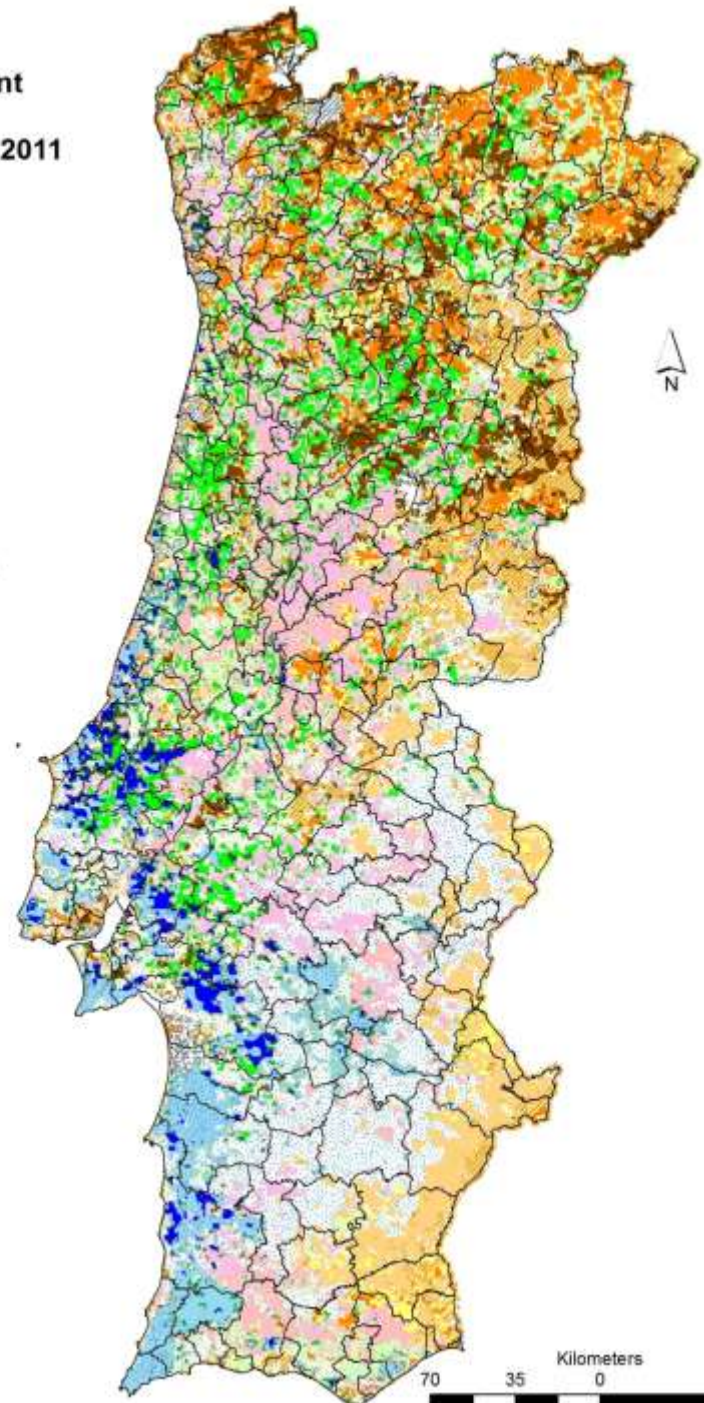
Legend

landcond2010

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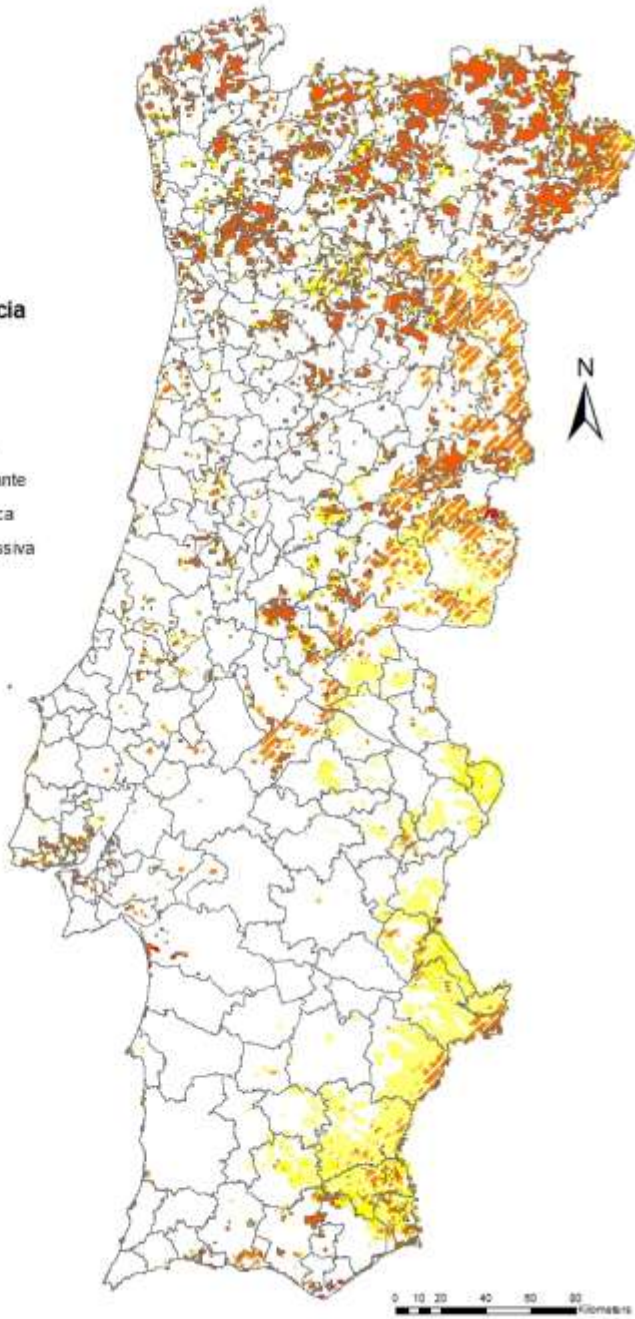
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- OVERP A FLUCTUATING
- OVERP A DEGRADING
- REFERENCE P IMPROVING
- REFERENCE P STATIC
- REFERENCE P FLUCTUATING
- REFERENCE P DEGRADING
- MATURE IMPROVING
- MATURE STATIC
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- MATURE DEGRADING
- PRODUCTIVE IMPROVING
- PRODUCTIVE STATIC
- PRODUCTIVE FLUCTUATING
- PRODUCTIVE DEGRADING
- BASELINE P IMPROVING
- BASELINE P STATIC
- BASELINE P FLUCTUATING
- BASELINE P DEGRADING
- DEG IMPROVING
- DEG STATIC
- DEG FLUCTUATING
- DEG DEGRADING
- VERY DEG IMPROVING
- VERY DEG STATIC
- VERY DEG FLUCTUATING
- VERY DEG DEGRADING
- UNDERP A IMPROVING
- UNDERP A STATIC
- UNDERP A FLUCTUATING
- UNDERP A DEGRADING
- NON ASSIGNED



LDI Condição / Tendência



LDI Hight Hot Spots

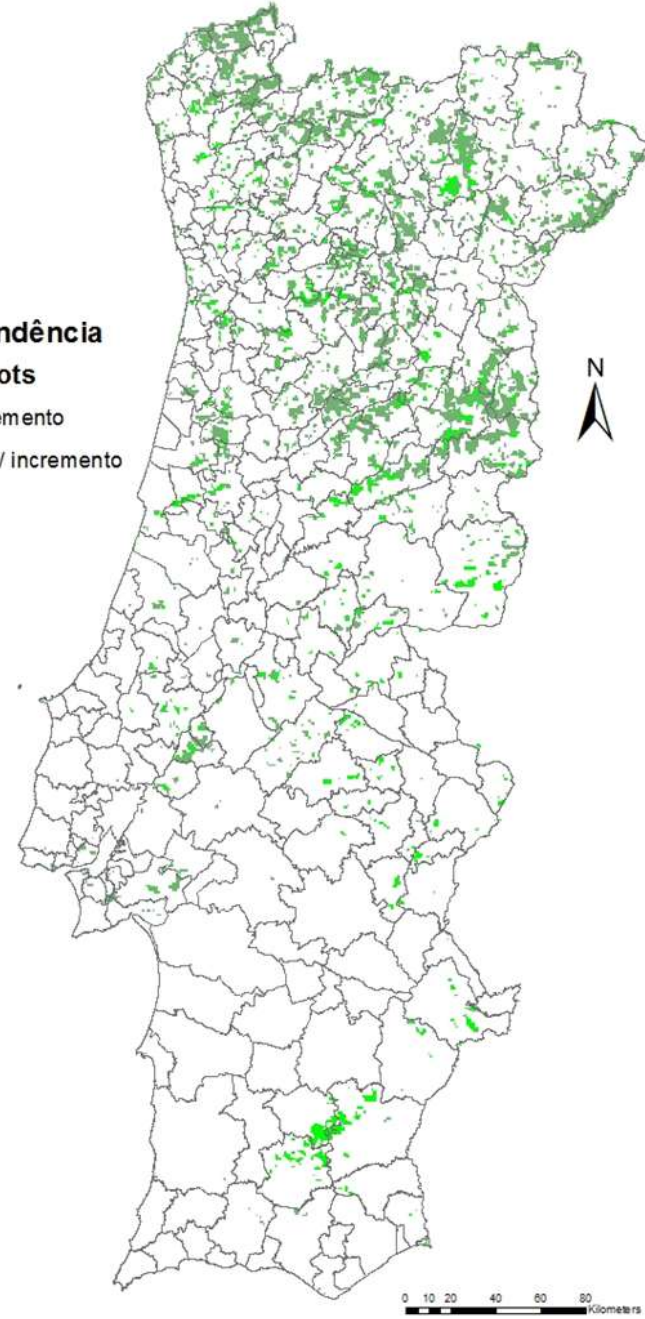
-  Degradada / flutuante
-  Degradada / estática
-  Degradada / regressiva
-  Muito degradada / flutuante
-  Muito degradada / estática
-  Muito degradada / regressiva
-  Base / regressiva



LDI Condição / Tendência

LDI Hight Green Spots

-  Degradada / incremento
-  Muito degradada / incremento







LDI PT 2000 / 2010 Interpretação

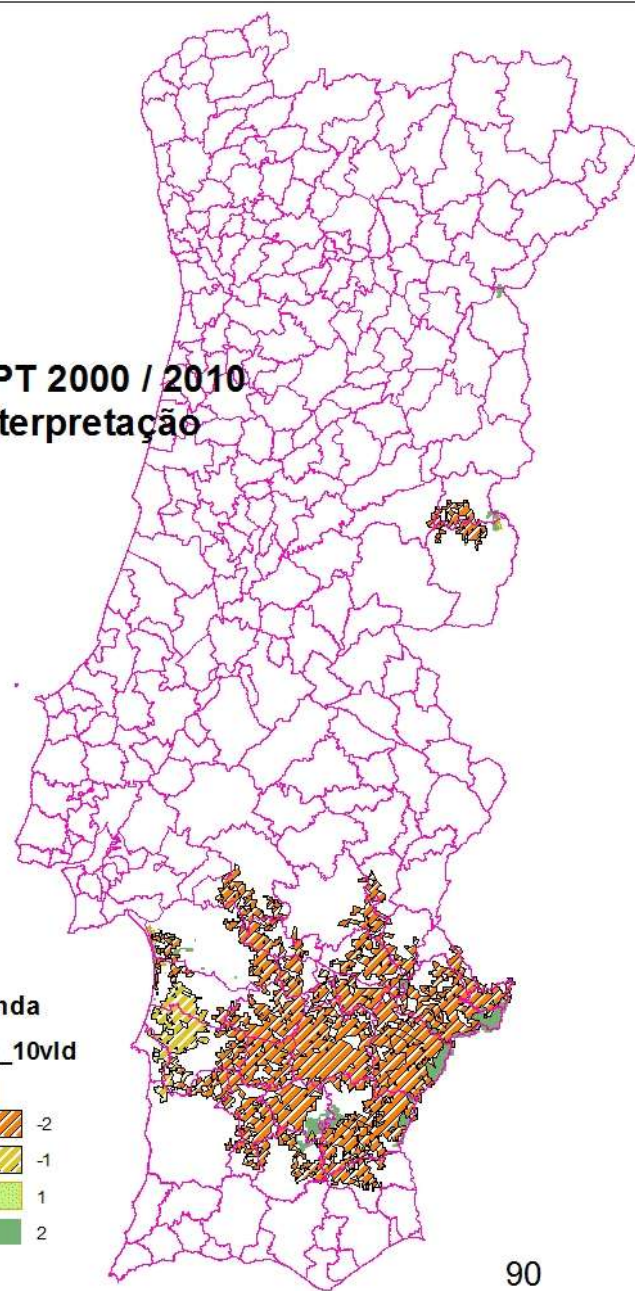


Legenda


LDI00_10vld

Clsint

-  -2
-  -1
-  1
-  2



90

 Kilometers

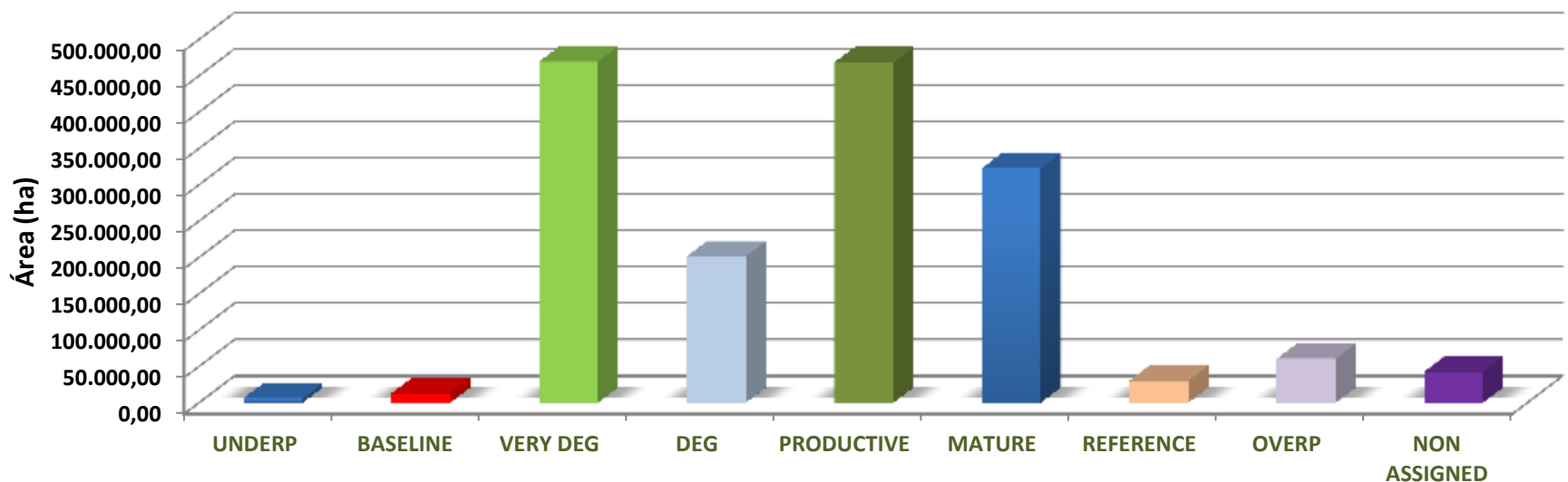


LDI CONDICION 2000-10 / Forest cover 2005

Espécie	BASELINE	VERY DEG	DEGRATED	PRODUCTIVE	MATURE	REFERENCE	Total
Sb	0,00%	0,41%	0,33%	3,48%	1,41%	0,63%	7,51%
Az	0,00%	0,16%	0,71%	1,80%	0,16%	0,17%	3,18%
Qx	0,00%	0,63%	0,13%	0,31%	0,52%	0,00%	1,66%
Ct	0,00%	0,18%	0,02%	0,03%	0,10%	0,00%	0,34%
Ec	0,01%	0,68%	0,29%	3,53%	2,20%	0,58%	8,65%
Ac	0,00%	0,01%	0,00%	0,02%	0,01%	0,01%	0,06%
Fx	0,00%	0,23%	0,07%	0,34%	0,30%	0,03%	1,05%
Pb	0,02%	1,50%	0,37%	3,24%	2,81%	0,36%	9,03%
Pm	0,00%	0,06%	0,10%	0,28%	0,33%	0,11%	1,15%
Rx	0,00%	0,07%	0,01%	0,05%	0,07%	0,01%	0,23%
Outras lenhosas	0,00%	0,06%	0,04%	0,10%	0,09%	0,01%	0,34%
Ww	0,00%	0,37%	0,47%	0,73%	0,27%	0,08%	2,05%
Total Geral	0,04%	4,36%	2,56%	13,91%	8,27%	1,99%	35,24%

LDI Condicion & BURNED AREAS 2000 / 2010

LDI - ESTADO	Área (ha)	Área ardida(ha)	% da área ardida por classe	% da área ardida / total
UNDERP	57.617,85	6.222,73	10,80	0,39
BASELINE	34.402,26	12.650,80	36,77	0,78
VERY DEG	1.766.200,45	469.334,85	26,57	29,09
DEG	1.024.831,46	201.328,53	19,65	12,48
PRODUCTIVE	3.161.683,11	468.455,16	14,82	29,03
MATURE	1.780.574,01	322.448,11	18,11	19,98
REFERENCE	354.422,71	30.181,80	8,52	1,87
OVERP	563.296,90	60.404,41	10,72	3,74
Em branco	55.022,88	144,80	0,26	0,01
NON ASSIGNED	110.836,42	42.493,32	38,34	2,63
Total Geral	8.908.888,05	1.613.664,51	18,11	100,00

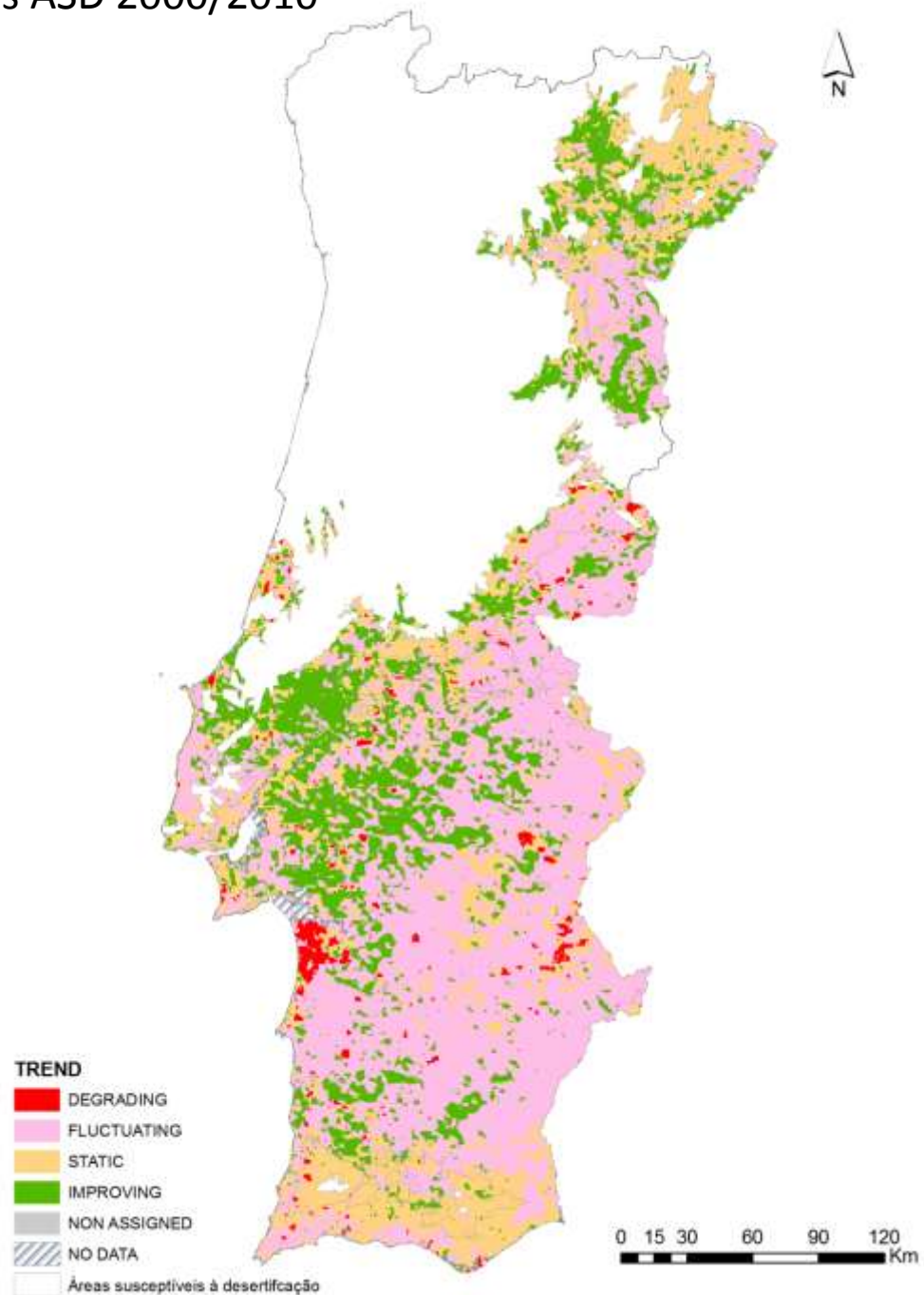
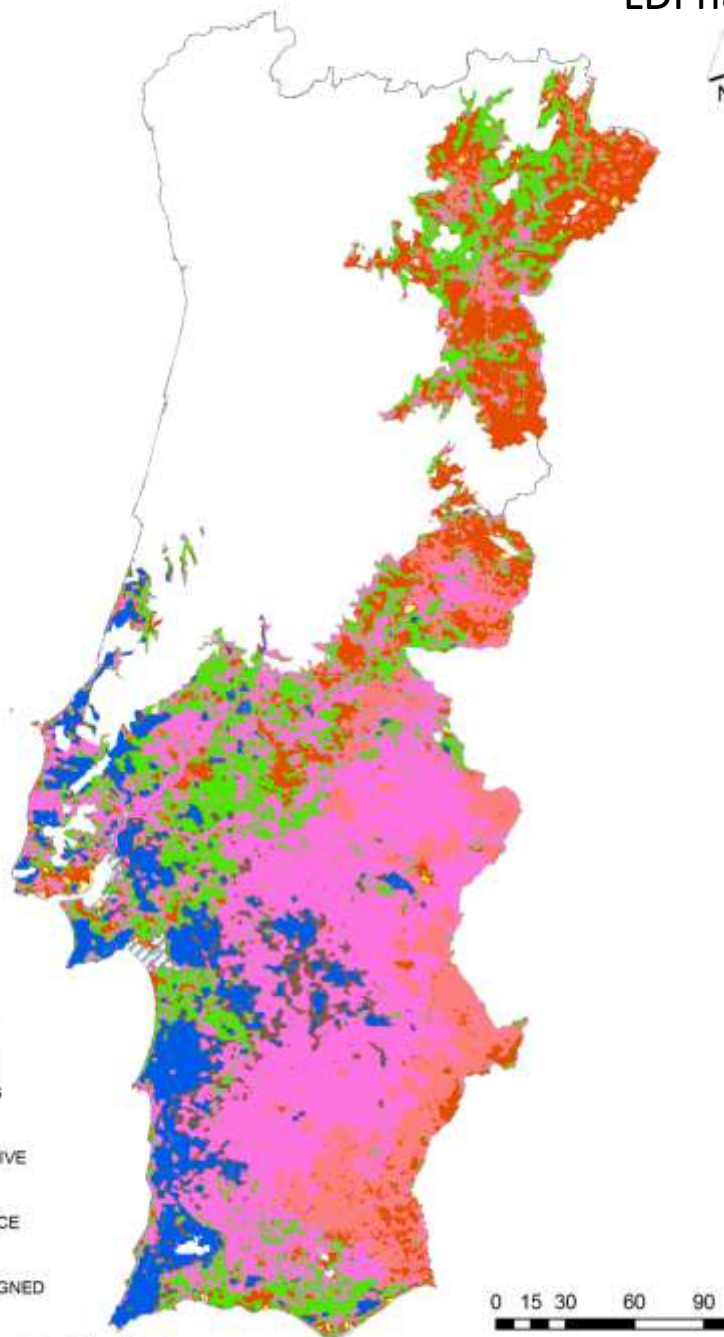


LDI TRENDS & YEARS OF FIRE 2000 / 2010

TENDÊNCIA	1	2	3	4	5	Área Ardida (ha)	% área ardida / classe	% área ardida total
DEGRADING	15.537,47	671,61	14,63	0,00	0,00	16.223,71	12,94	1,20
FLUCTUATING	270.295,46	18.876,30	3.767,21	498,03	93,22	293.530,22	9,34	21,75
IMPROVING	301.159,99	59.498,64	12.419,67	2.664,51	328,95	376.071,76	13,39	27,86
STATIC	582.525,39	67.586,67	11.371,64	2.269,78	278,36	664.031,84	24,90	49,19
TOTAL	1.169.518,31	146.633,22	27.573,15	5.432,32	700,53	1.349.857,5	15,44	100

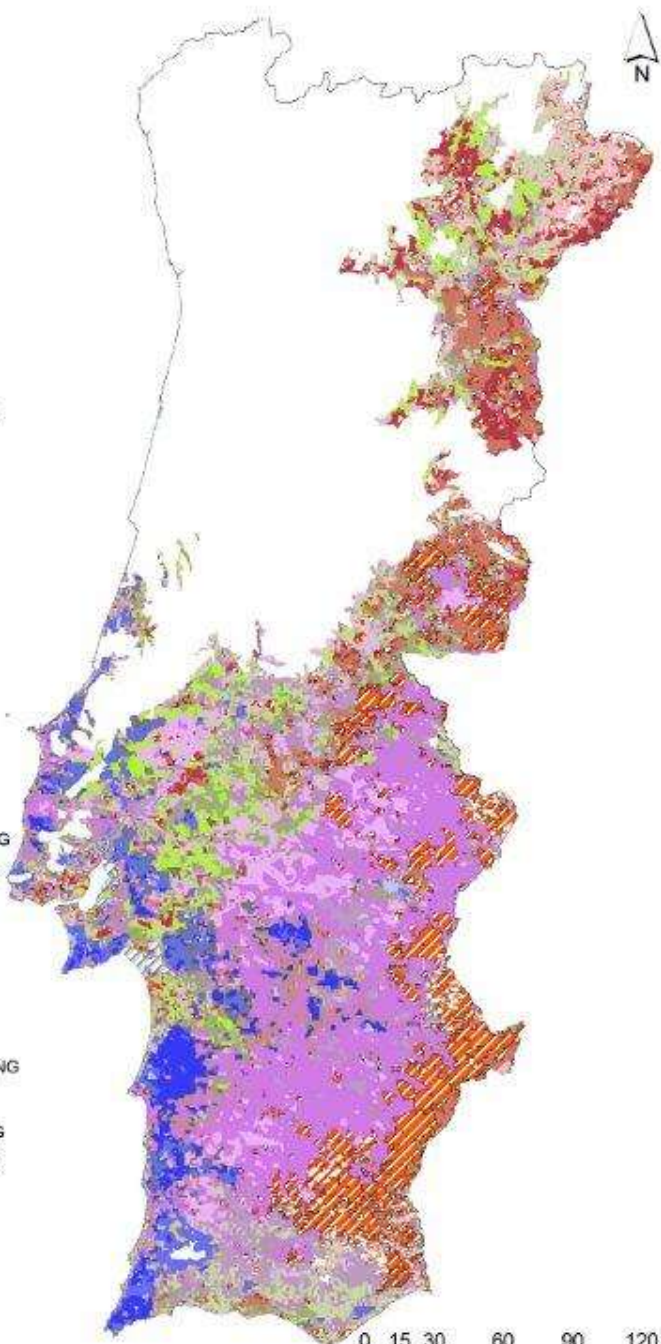
LDI - TENDÊNCIA	% da área ardida por classe reincidência					% área ardida / classe - reincidência
	1	2	3	4	5	
DEGRADING	12,39	0,54	0,01	0,00	0,00	0,55
FLUCTUATING	8,60	0,60	0,12	0,02	0,00	0,74
IMPROVING	10,73	2,12	0,44	0,09	0,01	2,67
STATIC	21,84	2,53	0,43	0,09	0,01	3,06
TOTAL	13,38	1,68	0,32	0,06	0,01	2,06

LDI nas ASD 2000/2010



LDI STATUS/ TREND

-  UNDERP A DEGRADING
-  UNDERP A IMPROVING
-  UNDERP A FLUCTUATING
-  UNDERP A STATIC
-  BASELINE P FLUCTUATING
-  BASELINE P STATIC
-  BASELINE P DEGRADING
-  BASELINE P IMPROVING
-  VERY DEG FLUCTUATING
-  VERY DEG DEGRADING
-  VERY DEG IMPROVING
-  VERY DEG STATIC
-  DEG FLUCTUATING
-  DEG STATIC
-  DEG DEGRADING
-  DEG IMPROVING
-  PRODUCTIVE STATIC
-  PRODUCTIVE FLUCTUATING
-  PRODUCTIVE DEGRADING
-  PRODUCTIVE IMPROVING
-  MATURE DEGRADING
-  MATURE STATIC
-  MATURE IMPROVING
-  MATURE FLUCTUATING
-  REFERENCE P FLUCTUATING
-  REFERENCE P STATIC
-  REFERENCE P DEGRADING
-  REFERENCE P IMPROVING
-  OVERP A STATIC
-  OVERP A DEGRADING
-  OVERP A FLUCTUATING
-  OVERP A IMPROVING
-  NON ASSIGNED
-  NO DATA



0 15 30 60 90 120 Km

desertificação & LDI

STATUS	AREA (ha)	(%)
UNDERP	13.956,40	0,25%
BASELINE	5.173,47	0,09%
VERY DEG	826.079,86	14,82%
DEG	766.708,48	13,75%
PRODUCTIVE	2.171.881,76	38,95%
MATURE	944.768,97	16,94%
REFERENCE	272.227,66	4,88%
OVERP	511.777,40	9,18%
NON ASSIGNED	16.034,72	0,29%
(em branco)	47.071,20	0,84%
Total Geral	5.575.679,92	100,00%

Trend	Area (ha)	(%)
DEGRADING	103.013,31	1,85%
FLUCTUATING	2.877.691,77	51,61%
STATIC	1.304.854,16	23,40%
IMPROVING	1.227.014,76	22,01%
NON ASSIGNED	16.034,72	0,29%
(em branco)	47.071,20	0,84%
Total Geral	5.575.679,92	100,00%

Desertification affectEd areas em portugal continental (2000 / 2010)

Areas (há)	Degrading	Fluctuating	Static	Improving	Total
Underp	1.575,37	3.874,32	6.014,36	2.492,35	13.956,40
%	0,03	0,07	0,11	0,04	0,25
Baseline	156,76	3.074,89	1.035,94	905,91	5.173,50
%	0,00	0,06	0,02	0,02	0,10
Very degraded	9.400,01	412.188,84	202.518,91	201.972,10	826.079,86
	0,02	7,39	3,63	3,62	14,66
Degraded	10.267,03	545.318,99	120.669,82	90.452,64	766.708,48
	0,18	9,78	2,16	1,62	13,74
Productive	18.186,60	1.261.350,23	410.269,43	482.075,50	2.171.881,76
%	0,33	22,62	7,36	8,65	38,96
Mature	30.923,30	307.928,52	338.133,25	267.783,90	944.768,97
%	0,55	5,52	6,06	4,80	16,93
Reference	7.953,75	142.595,20	58.694,55	62.984,16	272.227,66
%	0,14	2,56	1,05	1,13	4,88
Overpassed	24.550,49	201.360,81	167.517,90	118.348,20	511.777,40
%	0,44	3,61	3,00	2,12	9,17
Non assigned					16.034,72
%					0,29
Em branco					47.071,20
%					0,84
Total	103.015,00	2.877.743,41	1.304.877,55	1.227.036,76	5.512.672,72
%	1,69	51,61	23,39	22,00	99,82

1.592.788,34
28,40

Land COVER NFI 2005 and DLDD areas 2000 / 2010

c. 25 ha/ Plot

Land Cover	NFI Plots Total PT Cont	% Total	NFI Plots Affected Areas	% Total Affected Areas	% Total U Territory
Forest	125.542	35,23	75.966	34,09	60,51
Schrubs	81.781	22,95	40.451	18,15	49,46
Agriculture	125.969	35,35	93.411	41,92	74,15
Wetlands	6.399	1,80	4.903	2,20	76,62
Other uses	16.613	4,66	8.090	3,63	48,70
TOTAL	356.304	100,00	222.821	100,00	62,54

FOREST COVER / DLDD AFFECTED areas 2000 / 2010

Land Cover	Plots Total PC	%	Plots Afected areas	%	% Total U Terrutury
Qs	26.748	21,31	26.572	34,98	93,34
Qi	11.332	9,03	11.261	14,82	99,37
Qx	5.902	4,70	1.924	2,53	32,60
Cs	1.196	0,95	479	0,63	40,05
Ec	30.833	24,56	14.313	18,84	46,42
Ac	197	0,16	37	0,05	18,78
Fx	3.737	2,98	1.621	2,13	43,38
Pb	32.177	25,63	7.986	10,51	24,82
Pm	4.094	3,26	4.005	5,27	97,83
Rx	804	0,64	323	0,43	40,17
Ww	7.311	5,82	6.581	8,66	90,02
Other forest	1.211	0,96	864	1,14	71,35
TOTAL	125.542	100,00	75.966	100,00	60,51

Portuguese exercise on proposed refinement indicators for UNCCD

EO	Strategy Core Indicator	Recommended set of impact indicators	Proposed refinement indicators to test	Portuguese application
1 - To improve the living conditions of affected populations	S1/2/3 - Improving conditions of population affected by processes of DLDD	I – Water availability per capita in affected areas (n&g)	1 - Water stress (g/n)	4
			2 – Pressure on water resources (g/n)	4
			3 – Water availability (n/l)	5
			4 – Water availability and use (n/l)	5
			5 - % of Rural Population with access to (safe) drinking water (n/l)	4
			6 – Access to improved drinking water based on change in water quality (n/l)	4
		II – Change in land use (n) (also 2 S4)	7 – Land-use system (LUS) and sustainable land management (SLM) (n/l)	5
			8 – Land-use system (LUS) and changes in land use (g/n/l/p)	5
		III – Proportion of the population in affected areas living above the poverty line (n&g) (also 3)	9 - Rural poverty rate (g/n/l)	4
		IV – Childhood malnutrition and/or food consumption / calorie intake per capita in affected areas (n)	10 - % chronically undernourished children < age of 5 in rural areas (n/l)	2
			11 – Maternal mortality ratio (or rate) (MMR) (n/l)	4
V – The HDI as defined by UNDP (g)	? GLADIS (Soil Health Status)	2		

X – Applied under the DesertWatch process; 5 – Applied without limitations; 4 – Applied with some restrictions; 3 – Possible application with limitations; 2 – Difficulties for application; 1 – Not applied or big difficulties for application

PORTUGUESE EXERCISE ON PROPOSED REFINEMENT INDICATORS FOR UNCCD

EO	Strategy Core Indicator	Recommended set of impact indicators	Proposed refinement indicators to test	Portuguese application	
2 – To improve the conditions of ecosystems	S4 -Reduction in total area affected by DLDD	VI - Level of land degradation (including salinization, water and wind erosion, etc.) (n)	12 – Level of land degradation (/ecosystem services provision capacity (g/n/l))	5	
			13 – Level of land degradation (n/l/p)	5	
			16 – Trends in seasonal precipitation	5	
	S5 – Increases in net primary productivity in affected areas	VII – Plant and animal biodiversity (n) (also 3)		14 – Crop and livestock diversity (agro-biodiversity) (gn)	3
				15 – Trends in abundance and distribution of selected species (g/n/l/p)	5
				? Soil biodiversity	1
		VIII – The Aridity Index (n)		16 – Trends in seasonal precipitation (n/l)	5
				17 - Aridity trends and rainfall variability (n/l)	5
				? SPI (Drought standard Index)	5
				18 - Land cover (g/n/l/p)	5
IX – Land cover status (n&g)		19 – Land productivity (g/n/l/p)	4		
3 - To generate global benefits through effective implementation of the UNCCD	S6 – Increases in carbon stocks	X – Carbon stocks above and below ground (n)	20a – Above ground organic carbon stocks (g/n/l/p)	5	
			20b – Below ground organic carbon stocks (g/n/l/p)	5	
	S7 – Areas under sustainable management	XI – Land under SLM (n&g)	21 – LUS & SLM practices (g/n/l/p) (development of 7)	5	
			22 – Land under SLM (n/l/p)	4	

X – Applied under the DesertWatch process; 5 – Applied without limitations; 4 – Applied with some restrictions; 3 – Possible application with limitations; 2 – Difficulties for application; 1 – Not applied or big difficulties for application