



SESSION 2

OECMs WITHIN THE REGIONAL CONTEXT



European Topic Centre-University of Malaga

davidrr@uma.es

WORKSHOP ON OTHER EFFECTIVE AREA-BASED CONSERVATION MEASURES IN NORTH AFRICA AND EASTERN MEDITERRANEAN. *Tunis, 10 and 11 February 2020*







Overview of progress towards Aichi Target 11 in the region and the potential of OECM to help achieve it.

David Rodríguez-Rodríguez, Antonio Sánchez & Dania Abdul Malak (ETC-UMA)

11/02/2020

Data sources:

The World Database on Protected Areas (WDPA), UNEP-WCMC and IUCN (December 2019) Marine Protected Areas in the Mediterranean (MAPAMED), MedPAN and SPA/RAC (November 2017)

*The maps and figures produced for this workshop do not imply the expression of any opinion whatsoever on behalf of the ETC-UMA concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.



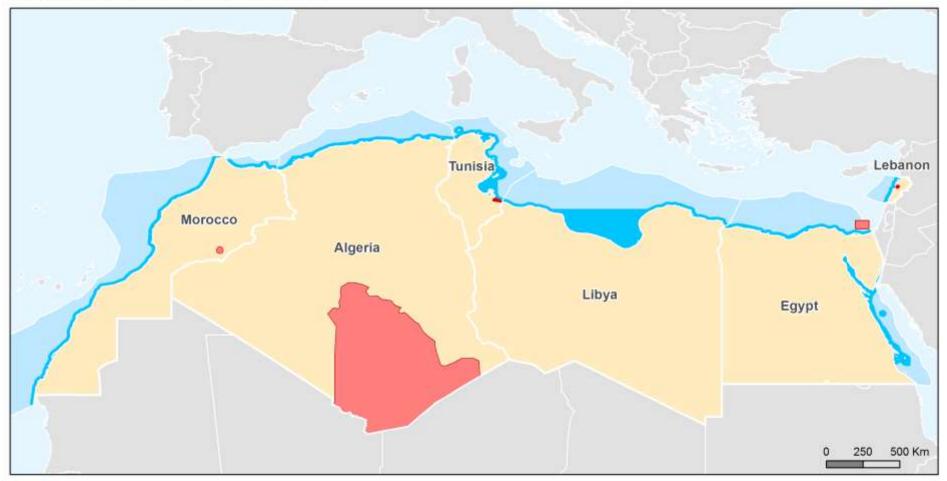
The Aichi Target 11

By 2020, at least **17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas**, especially **areas of particular importance for biodiversity and ecosystem services**, are conserved through **effectively** and equitably **managed**, **ecologically representative** and **well-connected systems** of protected areas and other effective areabased conservation measures, and integrated into the wider landscape and seascape.



The Region

Assessment area and OECM case studies



Countries included in the assessment

Territorial waters (up to 12 nautical miles)

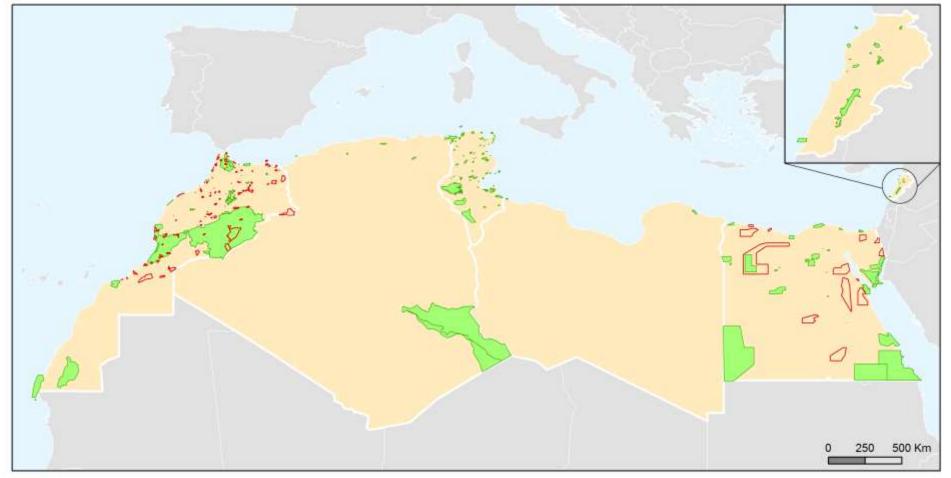
Potential Exclusive Economic Zone (EEZ)

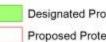
The information presented in this map do not imply the expression of any opinion whatsoever on the part of the sufficers or contributory organisations, editors or publishers concerning the legal status of any country, territory, oily area or of its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries.



1. PA Coverage on Land and at Sea

Protected area coverage and designation status





Designated Protected Area

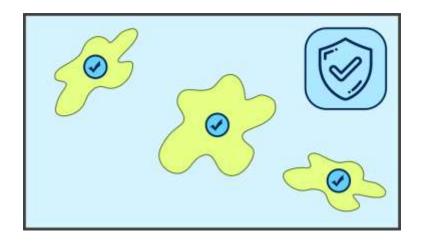
Proposed Protected Area

Permanent Hunting reserves were excluded from Morroco

The information presented in this map do not imply the expression of any opinion whatsoever on the part of the authors or contributory organisations, editors or publishers concerning the legal status of any country, territory, city area or of its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries.



PA coverage



- The area designated as PA is defined in terms of total designated area in km2 and percentage by country area.
- The area was calculated overlaying and joining all designation categories to come up with a single surface of protection.



1.1. PA Coverage on Land

	Designa	ited PAs	All (Des+Prop) PAs		
Country	Area (km2)	%	Area (km2)	%	
Algeria	100,306	4.34	100,306	4.34	
Egypt	128,750	12.88	179,532	17.95	
Lebanon	253	2.47	253	2.47	
Libya	0	0.00	0	0.00	
Morocco	213,104	31.21	213,692	31.30	
Morocco*	129,124	18.91	138,769	20.33	
Tunisia	12,102	7.80	12,102	7.80	

*Excluding Permanent Hunting Sites



1.2. PA Coverage at Sea

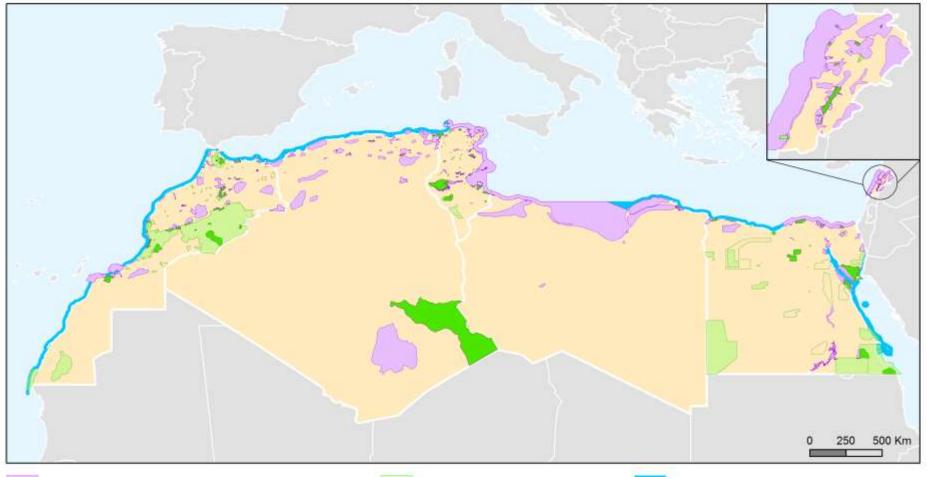
	De	signated MP	As	All (Des+Prop) MPAs				
Country	0-12NM %	EEZ %	Total %	0-12NM %	EEZ %	Total %		
Algeria	0.16	0.00	0.03	0.16	0.00	0.03		
Egypt	17.79	0.00	4.53	18.08	0.00	4.60		
Lebanon	0.87	0.00	0.20	0.87	0.00	0.20		
Libya*	0.28	0.00	0.09	0.28	0.00	0.09		
Morocco	7.20	0.00	0.77	7.53	0.00	0.81		
Tunisia	2.87	0.00	1.01	2.87	0.00	1.01		

*MAPAMED data



2. Important Areas for Biodiversity in PAs

Gap analysis - Key Biodiversity Areas (KBAs) / Ecologically or Biologically Significant Marine Areas (EBSAs)



KBAs and EBSAs not covered by the protected area network

KBAs and EBSAs within the protected area network

Protected area network (designated)

Protected area network (proposed)

Territorial waters (up to 12 nautical miles)

The information presented in this map do not imply the expression of any opinion whatsoever on the part of the authors or contributory organisations, editors or publishers concerning the legal status of any country, territory, oily area or of its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries.

Permanent Hunting reserves were excluded from Morroco



2. Important Areas for Biodiversity in PAs

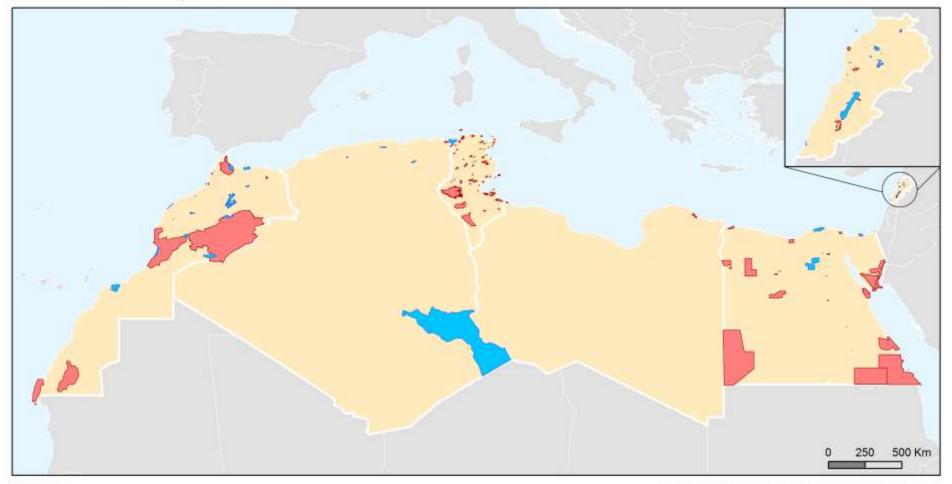
	KBAs	in Terrestria	al Protected /	Areas	KBAs & EBSAs in MPAs (12 nm)					
Country	Designa	ted PAs	All (Des+i	All (Des+Prop) PAs		ed MPAs	All (Des+Pi	rop) MPAs		
	Area (km2)	%	Area (km2)	%	Area (km2)	%	Area (km2)	%		
Algeria	100,218	50.15	100,221	50.15	12	7.16	12	7.16		
Egypt	17,128	46.11	23,367	62.90	1,455	10.45	1,455	10.45		
Lebanon	226	6.58	226	6.58	41	0.86	41	0.86		
Libya	266	0.69	266	0.69	304	0.32	304	0.32		
Morocco	24,341	51.08	24,477	51.36	609	14.29	609	14.29		
Morocco*	13,373	28.06	16,070	33.72						
Tunisia	8,316	63.67	8,316	63.67	973	2.92	973	2.92		

*Excluding Permanent Hunting Sites



3. PA Management on Land and at Sea

Protected areas management



Protected Areas with a management plan

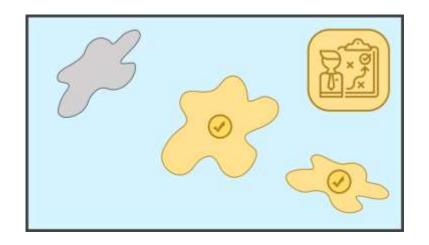
Protected Areas without a management plan

Permanent Hunting reserves were excluded from Morroco

The information presented in this map do not imply the expression of any opinion whatsoever on the part of the suffices or contributory organisations, editors or publishess concerning the legal status of any country, territory, oby area or of its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries.



PA management



• The area and percentage of managed PA is defined according to the existence of a management plan reported to the WDPA.



3.1. PA Management on Land

	Designated I	PAs with MP	All (Des+Prop) PAs with MP			
Country	Area (km2)	%	Area (km2)	%		
Algeria	100,072	99.77	100,072	99.77		
Egypt	4,110	2.29	4,110	2.29		
Lebanon	205	80.97	205	80.97		
Libya	0	0.00	0	0,00		
Morocco	7,433	3.48	24,274	11.36		
Morocco*	7,433	5.55	24,274	18.12		
Tunisia	0	0.00	0	0.00		

*Excluding Permanent Hunting Sites (no MP)



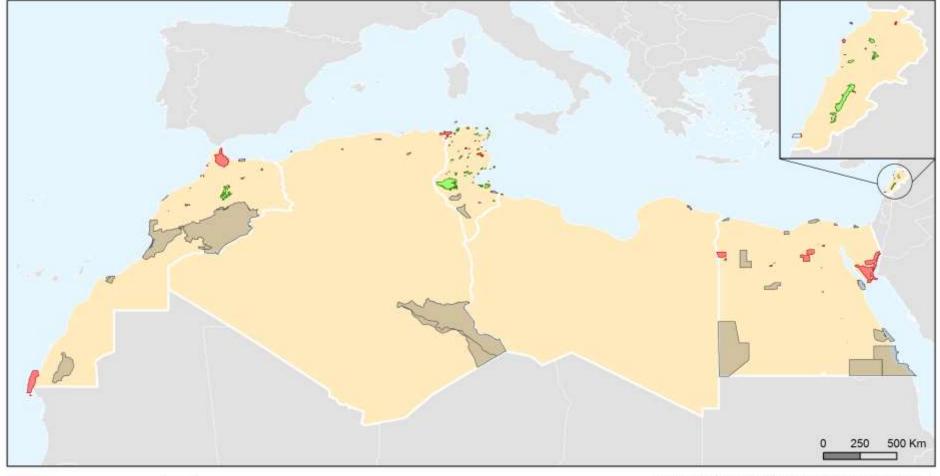
3.2. PA Management at Sea

	Designated N	1PAs with MP	All (Des+Prop) MPAs with MP			
Country	Area (km2)	ea (km2) %		%		
Algeria	15	33.54	15	33.54		
Egypt	149	1.33	149	1.33		
Lebanon	0	0.65	0	0.65		
Libya	0	0.00	0	0.00		
Morocco	431	9.47	669	14.68		
Tunisia	0	0.00	0	0.00		



2.4. PA Connectivity on Land and at Sea

Protected areas connectivity



High connectivity

Low connectivity

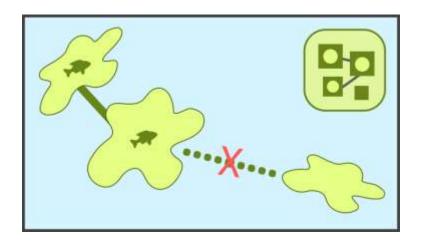
Not connected

Permanent Hunting reserves were excluded from Morroco

The information presented in this map do not imply the expression of any opinion whatsoever on the part of the sufficers or contributory organisations, editors or publishers concerning the legal status of any country, territory, oby area or of its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries.



PA connectivity



 The assessment examined the number of connections less than or equal to 20km between PAs polygons* on land and at sea in the national networks.

> *A continuous area of protected area, regardless of the designation category and the number of overlaps



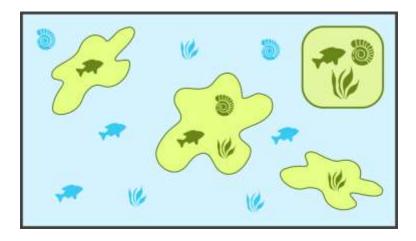
4. PA Connectivity on Land and at Sea

	Designa	ated PAs	All (Des+Prop) PAs			
Country	Connected Connections		Connected	Connections		
	Patches	%	Patches	%		
Algeria	2	25.00	2	25.00		
Egypt	12	26.67	24	53.33		
Lebanon	17	89.47	17	89.47		
Libya	0	0.00	-	-		
Morocco	115	85.82	124	92.54		
Morocco*	12	26.09	32	69.57		
Tunisia	156	90.70	155	90.64		

*Excluding Permanent Hunting Sites



Habitat representativity



- The assessment examined the number and proportion of habitat classes and their coverage within the protected area network for each country.
- Land Use/Land Cover data were used as a proxy of potential land habitats.



5.1. Habitat representativity on Land

Representati vity %		Designated PAs														
Replication (n)	Closed	forest	Open	oen forest Shrubs		ubs	Herbaceous vegetation		Cropland		Bare / sparse vegetation		Permanent water bodies		Herbaceous wetland	
Country	Repr %	n	Repr %	n	Repr %	n	Repr %	n	Repr %	n	Repr %	n	Repr %	n	Repr %	n
Algeria	4.7	34	1.4	91	0.3	22	0.4	29	0.4	38	4.7	2	2.4	4	32.0	11
Egypt	0.6	2	2.7	11	5.2	12	6.4	32	1.0	76	13.5	80	11.9	87	36.1	23
Lebanon	3.1	10	4.3	23	4.3	29	2.3	11	0.4	3	0.3	-	0.5	-	1.6	-
Libya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morocco	54.2	541	31.5	1,496	42.1	2,594	46.7	4,121	10.0	1,257	30.9	1,440	42.6	62	76.0	10
Morocco*	41.4	349	20.2	930	27.1	1,461	33.4	2,749	4.4	704	17.9	945	33.8	48	52.8	6
Tunisia	13.7	22	3.4	64	2.9	36	1.5	50	0.5	23	11.5	32	51.5	4	23.9	15



Overview of progress towards Aichi Target 11 in the region

5.2. Habitat representativity at Sea

Country	Abyssal soft and mixed substrate	Deep-sea hard substrate	soft and mixed	Deep Circalittor al hard substrate	Infralittor	Infralittor al soft and mixed substrate	Thenea muricata	Mediterra nean Bathyl soft and mixed substrate	Mediterra nean	Mediterra nean Coralligen ous	nean	Posidonia habitat
Algeria	-	-	-	0.08	23.77	0.07	0.02	-	0.07	6.55	0.42	-
Egypt	NA	NA	0.95	NA	NA	10.28	NA	-	0.51	NA	0.11	NA
Lebanon	NA	NA	0.03	NA	NA	2.93	0.03	-	3.37	NA	0.01	NA
Libya*	NA	NA	-	NA	90.96	1.31	-	-	0.13	99.89	0.33	-
Morocco	NA	NA	-	-	-	46.01	-	-	6.36	-	4.02	NA
Tunisia	NA	NA	-	-	0.14	NA	-	-	1.27	60.02	1.15	2.97

*MAPAMED data



Summary

(Designated PAs; Sea up to 12nm)

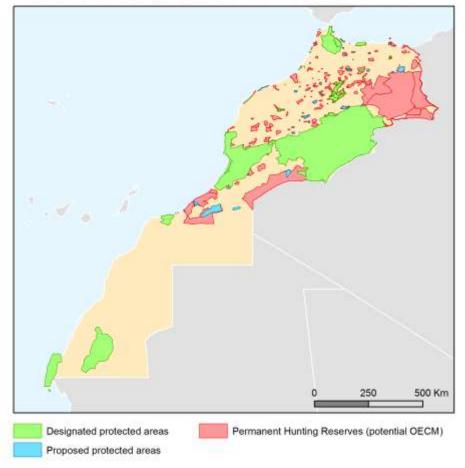
	Aichi Target 11 (%)												
Country	Cove	erage	Inclusiveness of IABs		Manag	gement	Connectivity	Representation (Mean)					
country	Land	Sea	Land	Sea	Land	Sea	Land & Sea	Land	Sea				
Algeria	4,34	0,16	50.15	7.16	99,77	33,54	25,00	5.78	2.58				
Egypt	12,88	17,79	46.11	10.45	2,29	1,33	26,67	9.68	2.37				
Lebanon	2,47	0,87	6.58	0.86	80,97	0,65	89,47	2.09	1.06				
Libya	0,00	0,28	0.69	0.32	0,00	0,00	0,00	0.00	21.40				
Morocco	18,91	7,20	28.06	14.29	5,55	9,47	26,09	28.87	6.26				
Tunisia	7,80	2,87	63.67	2.92	0,00	0,00	90,70	13.61	7.28				



Potential of OECM to help achieve AT11

Case study: Morocco (Terrestrial environment)

Protected areas and potential OECMs in Morocco



The information presented in this map do not imply the expression of any opinion whatsoever on the part of the authors or contributory organisations, editors or publishers concerning the legal status of any country, territory, city area or of its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries.



Potential of OECM to help achieve AT11

Case study: Morocco (Terrestrial environment)

AT11 Criterion	Protection	Designa	Designated PAs		PAs	Progress with OECM	
	category	(Km2; n)	%	(Km2; n)	%		
Coverage	PAs	129,124	18.91	138,769	20.33		
	PAs & OECMs	213,104	31.21	213,692	31.30		
Inclusiveness of IABs	PAs	13,373	28.06	16,070	33.72		
	PAs & OECMs	24,341	51.08	24,477	51.36		
Management	PAs	7,433	5.55	24,274	18.12		
	PAs & OECMs	7,433	3.48	24,274	11.36		
Connectivity	PAs	12	26.09	32	69.57		
	PAs & OECMs	115	85.82	124	92.54		
Representativity	PAs		28.87		32.72		
(Mean)	PAs & OECMs		41.74		42.61		



Thank you for your attention

David Rodríguez-Rodríguez

European Topic Centre of the University of Malaga



For more information

davidrr@uma.es

www.etc.uma.es