IOC UNESCO / Leader Task 4.1

Contact
Francesca Santoro, Julian Barbiere
E-mail: f.santoro@unesco.org,
j.barbiere@unesco.org
Phone: +33 1 45683952

How to cite this factsheet:

PEGASO Consortium. 2013. Conservation condition of coastal and marine focal habitats and species in protected areas. Methodological factsheet in support of comparable measurements and integrated assessment in coastal zones. 7 p. *in* Santoro, F., Lescrauwaet, A.K., Giraud, J.P., Lafitte, A., Pirlet, H., Verleye, T., and Breton, F. (eds.). PEGASO Core Set of Indicators for Integrated Coastal Zone Management. PEGASO Project FP7. www.pegasoproject.eu

INDICATORS FOR INTEGRATED COASTAL ZONE MANAGEMENT (ICZM) : *Methodological Factsheets in support of comparable measurements and an integrated assessment in coastal zones*

The **ICZM Protocol for the Mediterranean Sea** (the 'ICZM Protocol'), signed in Madrid on 21 January 2008 and ratified on 24 March 2011, represents a milestone for the implementation of ICZM in the Region and can serve as a blueprint for the implementation of ICZM in other Regional Seas. The **PEGASO project** builds on existing capacities and develops common approaches to support integrated policies for the Mediterranean and Black Sea Basins in ways that are consistent with the ICZM Protocol.

The PEGASO project has developed **a core set of indicators** that are instrumental in measuring the implementation of ICZM policies and programmes. The core set of ICZM indicators addresses the specific requirement of Article 27 of the Protocol to *'define coastal management indicators*' and '*establish and maintain up-to-date **assessments of the use and management of coastal zones***'. In doing so, the PEGASO project has widely built on previous and existing indicator sets developed by different institutions and projects, and which are duly acknowledged (see *'Methodological paper for the selection and application of PEGASO ICZM indicators'* for further reading and background material)

The present Methodological Factsheet is part of a set of 15 factsheets that are made available to end-users. This set of factsheets is conceived to support a harmonized approach to calculate ICZM indicators at different spatial scales in the Mediterranean and Black Sea regions.

Pegaso Project
People for Ecosystem based Governance
in Assessing Sustainable development of
Ocean and coast

Funded by the European Union
under FP7 – ENV.2009.2.2.1.4
Integrated Coastal Zone Management

Specific Programme FP7
Collaborative Projects
Large scale integrating Project

Grant agreement nº: 244170

Name of the Indicator

Conservation condition of coastal and marine focal habitats and species in protected areas.

Objective of the indicator

With the **Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol)** (1995), each Contracting Party shall take the necessary measures to (a) protect, preserve and manage in a sustainable and environmentally sound way areas of particular natural or cultural value, notably by the establishment of specially protected areas and (b) protect, preserve and manage threatened or endangered species of flora and fauna. Likewise, all Contracting Parties to the **Black Sea Biodiversity and Landscape Conservation Protocol (BSBLC Protocol)** (2002) shall take all necessary measures to (a) protect, preserve, improve and manage in a sustainable and environmentally sound way, areas of particular biological or landscape value through the establishment of protected areas according to the procedure in Annex 1; (b) ensure that species occurring in the area to which this Protocol applies are maintained at favourable conservation status and its habitats close to undisturbed reference conditions; (c) ensure that species of economic importance, especially living marine resources, are used sustainably; (d) restore and rehabilitate damaged areas of previously high biodiversity and landscape value and (e) restore and maintain in good condition the landscapes of high nature, historical, cultural and aesthetic value.

In order to follow up progress towards the objectives stated above, particularly those referring to species and habitats of particular conservation interest, this indicator attempts to assess the conservation status of its biodiversity, coastal habitats and species listed under these international agreements. Although considerable progress has been made towards the establishment of protected areas in the Mediterranean and Black Sea basins based on scientific findings and criteria (UNEP-MAP-RAC/SPA 2010, Oral 2012) and homogenization of criteria for their assessment in different regions (e.g. Black Sea State of the Environment Report), an overall evaluation to assess the conservation status of species and habitats from the coastal areas of both basins under these agreements is not available yet.

Therefore we will rely on the common evaluation method for the condition of species and habitats within the Mediterranean and Black Sea coastal areas following the EU approach (in compliance with the requirements of the Habitats Directive). The Habitats Directive aims to achieve the Favourable Conservation Status (FCS) of the habitat types listed in Annex I and the species in Annex II, IV and V of this directive.

EU member states must report (according to Art. 17) every six years on the Conservation Status (CS) of these species and habitats of European importance [(1)]. and establish the main objective criteria to determine if a species or habitat is in 'favourable', 'unfavourable-inadequate' or 'unfavourable-bad' conservation status [(2,3)]. This assessment should be developed within the spatial scale that limit coastal areas.

http://circa.europa.eu/Public/irc/env/monnat/library?l=/habitats_reporting/reporting_2007-2012/reporting_guidelines/guidelines-finalpdf/_EN_1.0_&a=d

"Focal habitat" is any habitat whose continuous monitoring is advisable due to legal mandate (National and International mandate as EU Directives) or scientific advice on the grounds of their degree of threat, limited distribution, or importance in providing ecosystem services. The "Conservation status of a focal habitat" is assessed following Article 1 of the Habitats Directive description as the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in.

The outcome of the assessment of the conservation status of each focal habitat is presented in one of four categories: 'favourable', 'unfavourable inadequate', 'unfavourable bad' or 'unknown'. The conservation status of a focal habitat will be taken as 'favourable' when:

- its natural range and areas it covers within that range are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable.

The conservation status of a focal habitat will be taken as 'unfavourable inadequate' in situations when a change on policy or policy is required but the danger of extinction is no so high. "Unfavourable bad" is recognized when habitats are on serious danger of become extinct.

Policy context	
ICZM Policy Objective	Preserve the wealth of natural capital in coastal zone
ICZM Protocol Article	Article 8: *Protection and sustainable use of the coastal zone*
UNEP-MAP Ecological Objective	Objective 1: *Biological diversity is maintained or enhanced. The quality and occurrence of coastal and marine habitats and the distribution and abundance of coastal and marine species are in line with prevailing physiographic, hydrographical, geographic and climatic conditions.*
INSPIRE ANNEX I-III Data Theme (34)	Bio-geographical regions (Annex III – 17) Habitats and biotopes (Annex III – 18) Species distribution (Annex III – 19)

CALCULATION OF THE INDICATOR

Spatial consideration	
Coverage	Resolution
The Mediterranean and Black Seas (marine waters) including their coastal zones (art. 3.1 ICZM Protocol) or Following Art. 2 of the SPA/BD Protocol and art. 3 of the BSBLC Protocol	All Specially Protected Areas and focal habitats within (or with more than 15% of their surface within) this spatial coverage

Temporal consideration	
Period	Resolution (time interval or unit)
FCS: 2007 (reporting period 2001 – 2006), 2013 (reporting period 2007 – 2012), …	Every 6 years At least every 6 years (depending on structural changes/new insights)

Parameter(s)	
(i)	Number of habitat types and species by conservation status category (favourable' FV, 'unfavourable inadequate' U1, 'unfavourable bad' U2 or 'unknown' U3) for the Mediterranean and Black Coastal Seas
(ii)	% of the habitat types and species within each category of the Conservation Status (CS) as a proportion of the total number of habitat types and species within the SPA/BD protocol and Habitats Directive Protocol

Calculation method		
	Steps	Products
	Color codes explanation:ORANGE: Habitats Directive, assessment 'conservation status' at biogeographical level -> important for regional assessment	
1	Identify all Specially Protected Areas under international agreements (SPA/BD protocol, Habitats Directive, …) within (or with more than 15% of their surface within) the study area (see spatial consideration)	List of all Specially Protected Areas under international agreements (SPA/BD protocol, Habitats Directive, …) within (or with more than 15% of their surface within) the study area (see spatial consideration)
2	Collect, at biogeographical level or marine region, all data on the Conservation Status (CS) of the habitat types and species of Community interest (Annex I of the Habitats Directive) and particularly those appearing in Annexes II and III to the SPA Protocol present within the coastal zones	Conservation Status (CS) at biogeographical or marine region level of the habitat types and species present within the coastal zones of the Mediterranean and Black Seas

3	Determine the total number of habitat types and species of the Mediterranean and Black coastal Seas, for which the CS has been determined	Total number of habitat types and species present of the coastal Mediterranean and Black Seas, for which the CS has been determined
4	Determine how many habitat types and species of the Mediterranean and Black coastal Seas belong to each class (FV, U1, U2) of the CS	Number of habitat types and species of the Mediterranean and Black Seas per class of the Conservation Status
5	Divide the product of step 7 by the product of step 6	% of the habitat types and species of the Mediterranean and Black Seas per class of the Conservation Status as a proportion of the total number of habitat types and species within the SAC's of the Mediterranean and Black Seas for which the CS has been determined (ii) Note: all calculation output should be visualized as much as possible at the level of

Current monitoring	Data sources
Habitats Directive: all Member States are required to monitor habitat types and species considered to be of Community interest	Art. 17 Reporting (Favourable Conservation Status): European Environment Information and Observation Network (EIONET) – European Topic Centre on Biological Diversity; European Environment Agency

Assessment context	
Use of the indicator in previous assessments/initiatives	DEDUCE SAIL
DPSIR framework	State - Impact
Link to anthropogenic pressure	
Sustainability target or threshold	SPA/BD protocol: The Parties shall manage species of flora and fauna with the aim of maintaining them in a favourable state of conservation BSBLC Protocol: The Contracting Parties shall manage species of flora and fauna with the aim of maintaining them at favourable conservation status Habitats Directive: Maintain or restore, at Favourable Conservation Status, all natural habitats and species of wild fauna and flora of Community interest (Annex I, II, IV and V)
Link with other assessment tools	'Conservation Status' is a concept first developed in the context of Red Books or Red lists or threatened or endangered species, either at global, regional or national scale and in this context is understood as an assessment of the relative risk of extinction of a habitat type or species. The categories currently used by IUCN for their Red Lists are described in detail by the IUCN on their website. So, while Red Lists assess the distance from extinction, the three conservation status categories under the Article 17 report of the Habitats Directive aim at assessing the distance from a defined favourable situation. However, while both Article 17 and Red Listing aim to assess conservation status of species and habitat types they use related but different criteria and consequently there will not always be a one to one relationship between an IUCN category and an Article 17 category although it would be expected a species considered 'Critically endangered' by the IUCN would normally be assessed as 'Unfavourable-Bad' for Article 17. The EU Water Directive Framework and Marine Strategy Framework Directives use the terms 'Good Ecological Status' and 'Good Environmental Status' which relate to 'Favourable Conservation Status' although the definitions are different and assess different aspects of biodiversity (see Cochrane et al. 2010 for further information).

	Clearly in many instances the same data will be used for reporting under two or more directives and Member States are encouraged to develop links between work for reporting under all three directives. Work is also ongoing at EU-level to ensure synergies in definition of the various concepts.
Example of integrated assessment	Added value can be created by adding a link with inventories and databases of national and sub-regional species lists and Natural Parks network.

Scope for future improvements

An homogeneus evaluation criteria to assess the conservation condition of species and habitats from the coastal areas of both basins under these agreements is not available yet.

Regarding the current used assessments for the Habitats Directive: The DC is part of the Standard Data Forms or SDF's which Member States should establish at least every six years for reporting to Europe. With these SDF's insight is also obtained into the relative importance of the SAC's for different protected habitat types and species. However, there is a qualitative difference between the criteria for DC and criteria used for art 17 reporting of the Conservation Status (CS). The DC is mainly about the legal / planning protection regime, while the CS is an effective ecological assessment of the concerning species and habitats. Moreover, the evaluation of the CS at biogeographical level is based on more stringent criteria than the assessment of DC at protected area level. A comparison of the DC of the habitat types and species of the Habitats Directive at protected area level, to their CS at biogeographical or marine regions level can thus draw different pictures about the status of habitat types and species of European interest in the Mediterranean and Black Seas. This is mainly due to the fact that the former takes into account the prospects for the functioning of the habitat types (potentials taking into account unfavourable factors and all realistic conservation measures) and restoration possibilities.

Indicator references (i.e. UNEP, EEA, …)

EEA: Species of European interest, Habitats of European interest

References:

Cochrane, S.K.J., Connor, D.W., Nilsson, P., Mitchell, I., Reker, J., Franco, J., Valavanis, V., Moncheva, S., Ekebom, J., Nygaard, K., Serrão Santos, R., Naberhaus, I., Packeiser, T., van de Bund, W. and Cardoso, A.C. (2010). Marine Strategy Framework Directive. Task Group 1 report: Biological diversity. Joint report of the European Commission's Joint Research Centre, Ispra, Italy and the International Council for the Exploration of the Sea, Copenhagen, Denmark. 120pp.
http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/13642/1/tg1%20reportpubsy17fin19nov.pdf

Remarks:

(1) Following regions are of importance for the Mediterranean and Black Sea Countries:

Biogeographical Regions (reporting on terrestrial habitat types and species)	Marine Regions (reporting on non-coastal marine habitat types and species)
Mediterranean (MED)	Mediterranean (MMED)
Black Sea (BLS)	Black Sea (MBLS)

See http://bd.eionet.europa.eu/activities/Natura_2000/chapter1 and European Commission (2011) Assessment and reporting under Article 17 of the Habitats Directive – Explanatory Notes & Guidelines for the period 2007-2012.

[2] General evaluation matrix (per region within a Member State) for assessing Conservation Status of a species. Source: European Commission (2011) Assessment and reporting under Article 17 of the Habitats Directive – Explanatory Notes & Guidelines for the period 2007-2012.

European Commission (2011) Assessment and reporting under Article 17 of the Habitats Directive – Reporting formats for the period 2007-2012. (Annex C)

Parameter	**Conservation Status (CS)**			
	Favourable ('green')	**Unfavourable - Inadequate ('amber')**	**Unfavourable - Bad ('red')**	***Unknown (insufficient information to make an assessment)***
Range	Stable (loss and expansion in balance) or increasing AND not smaller than the 'favourable reference range'	Any other combination	Large decline: Equivalent to a loss of more than 1% per year within period specified by MS OR more than 10% below favourable reference range	*No or insufficient reliable information available*
Population	Population(s) above 'favourable reference population' AND reproduction, mortality and age structure not deviating from normal (if data available)	Any other combination	Large decline: Equivalent to a loss of more than 1% per year (indicative value MS may deviate from if duly justified) within period specified by MS AND below 'favourable reference population' OR More than 25% below favourable reference population OR Reproduction, mortality and age structure strongly deviating from normal (if data available)	*No or insufficient reliable information available*
Habitat for the species	Area of habitat is sufficiently large (and stable or increasing) AND habitat quality is suitable for the long term survival of the species	Any other combination	Area of habitat is clearly not sufficiently large to ensure the long term survival of the species OR Habitat quality is bad, clearly not allowing long term survival of the species	*No or insufficient reliable information available*
Future prospects (as regards to population, range and habitat availability)	Main pressures and threats to the species not significant; species will remain viable on the long-term	Any other combination	Severe influence of pressures and threats to the species; very bad prospects for its future, long-term viability at risk.	*No or insufficient reliable information available*
Overall assessment of CS	All 'green' OR three 'green' and one 'unknown'	One or more 'amber' but no 'red'	One or more 'red'	Two or more 'unknown' combined with green or all "unknown"

[3] General evaluation matrix (per region within a Member State) for assessing Conservation Status of a habitat type. Source: European Commission (2011) Assessment and reporting under Article 17 of the Habitats Directive – Explanatory Notes & Guidelines for the period 2007-2012.

European Commission (2011) Assessment and reporting under Article 17 of the Habitats Directive – Reporting formats for the period 2007-2012. (Annex E)

Parameter	**Conservation Status**			
	Favourable ('green')	**Unfavourable – Inadequate ('amber')**	**Unfavourable - Bad ('red')**	***Unknown (insufficient information to make an assessment)***
Range	Stable (loss and expansion in balance) or increasing AND not smaller than the 'favourable reference range'	Any other combination	Large decrease: Equivalent to a loss of more than 1% per year within period specified by MS OR More than 10% below 'favourable reference range'	*No or insufficient reliable information available*
Area covered by habitat type within range	Stable (loss and expansion in balance) or increasing AND not smaller than the 'favourable reference area' AND without significant changes in distribution pattern within range (if data available)	Any other combination	Large decrease in surface area: Equivalent to a loss of more than 1% per year (indicative value MS may deviate from if duly justified) within period specified by MS OR With major losses in distribution pattern within range OR More than 10% below 'favourable reference area'	*No or insufficient reliable information available*
Specific structures and functions	Structures and functions (including typical species) in good condition and no significant deteriorations / pressures.	Any other combination	More than 25% of the area is unfavourable as regards its specific structures and functions (including typical species)4	*No or insufficient reliable information available*
Future prospects (as regards range, area covered and specific structures and functions)	The habitats prospects for its future are excellent / good, no significant impact from threats expected; long- term viability assured.	Any other combination	The habitats prospects are bad, severe impact from threats expected; long-term viability not assured.	*No or insufficient reliable information available*
Overall assessment of CS	All 'green' OR three 'green' and one 'unknown'	One or more 'amber' but no 'red'	One or more 'red'	Two or more 'unknown' combined with green or all "unknown'