

**Regional Meeting on NAPs
implementation – Lessons
learned and the way forward
Marseille, 17-18 October 2016**



Updated National Action Plans/POM of CROATIA

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Marseille, October 2016



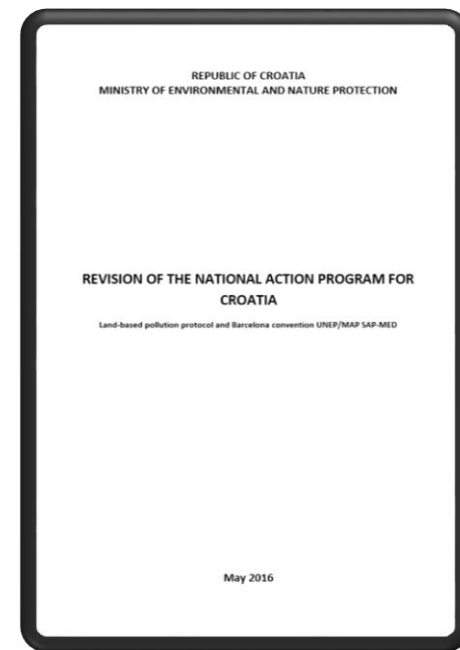
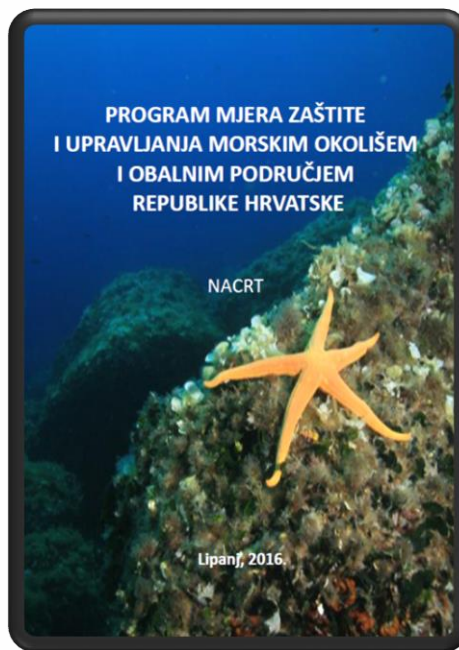
United Nations Environment Programme /
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- Program of measures for protection and management of the marine environment and coastal area
 - Revision of the National action program for Croatia
Land-based pollution Protocol of Barcelona convention UNEP/MAP SAP-MED
 - Marine and Coastal Zone Management Strategy (MCZMS)



Focus of Updated NAPs/POM

- Croatia developed set of measures which combat land-based pollution within the framework of SAP-MED (Croatian NAP 2005.)
- Based on the content of a measure relevant link to Ecological Objectives is given. Some measures are general and they apply to all of three Ecological Objectives. The second column indicates the period of implementation.

Overview of the measures reported in NAP 2005

Measure	Implementation timetable	Link to SAP/ECAP EO target/ RP	Geographical scale	Leading Institution
MW3.1. Collection and treatment of waste waters – city of Split	2005.-2010.	EO5 EO9 EO10	Local/ agglomeration	Agency Eko Kaštelanski zaljev
MW3.2. Collection and treatment of waste waters – city of Rijeka	2005.-2010.	EO5 EO9 EO10	Local/ agglomeration	City of Rijeka
SW14.1. Waste management – City of Split and Split-Dalmatia County	2005.-2010.	EO10 EO9	Local/ agglomeration	Split-Dalmatia County
SW14.2. Waste management – City of Rijeka and Primorsko-goranska County	2005.-2010.	EO10 EO9	Local/ Agglomeration	Primorsko-goranska county
NU3.1. Waste water treatment – MIRNA fish processing, Rovinj	2005.-2010.	EO5 EO9 EO10	Local	MIRNA

Objectives for Updating the NAPs

- implementation of the ecosystem approach in order to achieve Good Environmental Status (GES)
- specific methodological requirements proscribed by the CIS MSFD
- when revising the Croatian NAP for the period 2005-2012 (NAP 2005), beside the UNEP/SAP-MED guidelines Croatia followed the logical framework of the CIS MSFD and related recommendations for implementation and reporting Programmes of measures
- Proposed program of measures is based on previously adopted documents:

☺ Initial Assessment of the State and Pressure on the Marine Environment in the Croatian Part of the Adriatic Sea (MENP 2012),

☺ Characteristics of Good Environmental Status and Environmental Targets for the Marine Environment under Sovereignty of the Republic of Croatia (MENP 2014),

☺ Economic and Social Analysis of the Use and Cost of Degradation of the Marine Environment and Coastal Area (MENP 2015).



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Process followed

Program of measure for the protection and management of marine environment and the coastal area PM:

- Requirements from MSFD
- Requirements from BC ICZM Protocol

☺ May-October 2015 - 6 regional workshops to define priorities, strategic goals (with the support of MedPartnership project)

☺ Unformal web based public consultation (with the support of MedPartnership project)

☺ 2 National Committee meetings on findings and conclusions from public participative process

☺ During 2016 – PM SEA

☺ PM Public consultation process 22 August-23 September 2016

Updating Croatian NAP

- from 2005 adoption of numerous strategic documents and plans in the areas of water management, marine waters management, waste management, environmental management, sustainable development, maritime affairs, fishery, physical planning, transport, tourism etc.
- an overview of the measures addressing land-based pollution of the Mediterranean sea, planned or implemented in the Republic of Croatia:
- Measure adopted within the Strategy of Maritime Development and Integrated Maritime Policy of the Republic of Croatia for period 2014-2020;
- Measures adopted within the Water Areas Management Plans 2016-2021;
- Measures adopted within the Waste Management Plan 2015-2021 (final draft, June 2016),
- Measures identified within the MCZMS (draft, June 2016)

Measures identified within the MCZMS / PoMs

- Existing measures already adopted within other strategic documents
- Measures created within the PoMs of the MCMS (draft, June 2016)



Measure under the Strategy of Maritime Development and Integrated Maritime Policy of the Republic of Croatia for period 2014-2020

Source: Strategy of Maritime Development and Integrated Maritime Policy of the Republic of Croatia for period 2014-2020, Official Gazette 93/14

Measure	Implementation timetable	Link to EcAp EO target/RP / MSFD	Geographical scale	Leading Institution
Improve accessibility and efficiency of the energy efficiency and pollution prevention system in harbours including waste and cargo residues integrated into general protection against pollution and waste management systems	2014-2020	EO5 EO9 EO10	national	Ministry of maritime affairs, transport and infrastructure

Measures adopted within the Water Areas Management Plans 2016-2021

Source: Authors, based on Water Areas Management Plans 2016.-2021. (draft, April 2015)

Measure	Implementation timetable	Link to EcAp EO target/RP/MSFD	Geographical scale	Leading Institution
MW6 Management plan of water area Costs: 70%*15,1 mlrd HRK =10,57 mlrd HRK 5.2.05.14 KTM1; KTM21	2016-2021	EO5 EO9 EO10 RP BOD D5 D9 D10	NATIONAL	LGU; Public water supplier
SW5 Local plans for sewer construction and upgrading 5.2.05.S3 KTM1; KTM21	2016-2021	EO10 EO5 EO9 RP Marine Litter D5 D9 D10	NATIONAL	LGU; Public water supplier
SW1 Sewer and wastewater treatment plan and construction adjustment to the Multi-annual plan of water construction (2014-2023) 5.2.05.S6 KTM1;KTM21	2016-2021	D5 D9 D10	NATIONAL	LGU; Public water supplier

Measures adopted within the Waste Management Plan 2015-2021 (draft June 2016)

Source: Authors, based on Waste Management Plan 2015-2021 (final draft, June 2016)

Code	Measure/activity Link to RP Marine litter	Implementation timetable	Link to EcAp EO target/ MSFD	Geographical scale	Leading institution
WMP 1a	Improvement of municipal waste separate collection system Art 9/1	2015-2021	EO5 EO9 EO10 D5 D8 D9 D10	National	LGU
WMP 1b	Improvement of processing biodegradable waste at the local level Art 9/1	2015-2021	EO5 EO9 EO10 D5 D8 D9 D10	National	LGU
WMP 3	Recovery of identified locations polluted by waste: Recovery of hotspots and development of illegal dump sites database Art 9/9; 10/a	2015-2018	EO5 EO9 EO10 D5 D8 D9 D10	National	LGUs, Ministry for environmental and nature protection; Croatian agency for environment and nature; Fund for environmental protection and energy efficiency

Linkages between EcAp ecological objectives and MSFD descriptors for the LBS Protocol of Barcelona convention

EcAp ecological objectives	MSFD descriptors
EO5 eutrophication	D5 Eutrophication. Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.
EO9 contaminants	D8 Concentrations of <i>contaminants</i> are at levels not giving rise to pollution effects.
	D9 <i>Contaminants</i> in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.
EO10 marine litter	D10 Marine litter. Properties and quantities of marine litter do not cause harm to the coastal and marine environment.

List of EO5 indicators

MSFD descriptors	
Criteria	Indicators
(D5) Human-induced <i>eutrophication</i> is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.	
5.1. Nutrients levels	5.1.1. Nutrients concentration in the water column
	5.1.2. Nutrient ratios (silica, nitrogen and phosphorus), where appropriate
5.2. Direct effects of nutrient enrichment	5.2.1. Chlorophyll concentration in the water column
	5.2.2. Water transparency related to increase in suspended algae, where relevant
	5.2.3. Abundance of opportunistic macroalgae
	5.2.4. Species shift in floristic composition such as diatom to flagellate ratio, benthic to pelagic shifts, as well as bloom events of nuisance/toxic algal blooms (e.g. cyanobacteria) caused by human activities
5.3. Indirect effects of nutrient enrichment	5.3.1. Abundance of perennial seaweeds and seagrasses (e.g. furoids, eelgrass and Neptune grass) adversely impacted by decrease in water transparency
	5.3.2. Dissolved oxygen, i.e. changes due to increased organic matter decomposition and size of the area concerned

List of EO9 indicators

(D8) Concentrations of <i>contaminants</i> are at levels not giving rise to pollution effects.	
8.1. Concentration of contaminants	8.1.1. Concentration of the contaminants mentioned above, measured in the relevant matrix (such as biota, sediment and water) in a way that ensures comparability with the assessments under Directive 2000/60/EC
8.2. Effects of contaminants	8.2.1. Levels of pollution effects on the ecosystem components concerned, having regard to the selected biological processes and taxonomic groups where a cause/effect relationship has been established and needs to be monitored
	8.2.2. Occurrence, origin (where possible), extent of significant acute pollution events (e.g. slicks from oil and oil products) and their impact on biota physically affected by this pollution
(D9) <i>Contaminants</i> in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.	
9.1. Levels, number and frequency of contaminants	9.1.1. Actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels
	9.1.2. Frequency of regulatory levels being exceeded

List of EO10 indicators

(D10) Marine litter. Properties and quantities of marine litter do not cause harm to the coastal and marine environment.	
10.1. Characteristics of litter in the marine and coastal environment	10.1.1. Trends in the amount of litter washed ashore and/or deposited on coastlines, including analysis of its composition, spatial distribution and, where possible, source
	10.1.2. Trends in the amount of litter in the water column (including floating at the surface) and deposited on the seafloor, including analysis of its composition, spatial distribution and, where possible, source
	10.1.3. Trends in the amount, distribution and, where possible, composition of micro-particles (in particular microplastics)
10.2. Impacts of litter on marine life	10.2.1. Trends in the amount and composition of litter ingested by marine animals (e.g. stomach analysis)

Priority Measures - New measures created within the PoMs of the MCZMS

- Strengthening coordination in development of normative, strategic and planning documents of the coastal and marine areas at national and county level
- Strengthening the coordinating role of physical planning
- Adoption of appropriate marine litter legal framework
- Assessment of marine litter degradation effects
- Collection of marine litter by diving actions and trawling
- Protection of prevailing habitat types by reducing anthropogenic eutrophication and pollution
- Establish regular monitoring program in aquaculture areas



Priority Measures

Measure categories	Number of measures	Relevance to EO		
		EO5	EO9	EO10
Legal	15	13	13	11
Policy	29	29	29	26
Technical	26	22	22	24

Project Fiches

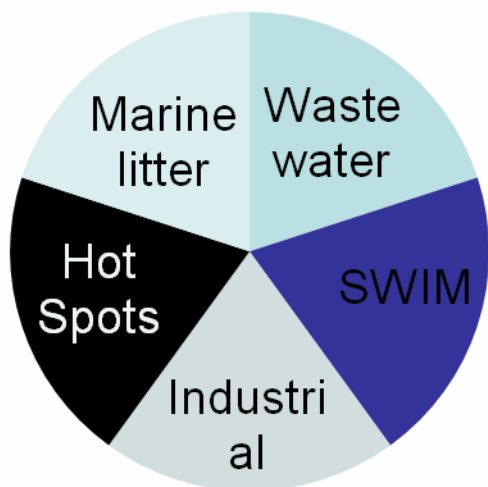
Please list the NAP project fiches and provide information on their main objectives and the relevant Ecological Objectives using the following table:

Title of the project/or the number of projects per EO and or SAP MED sector	Objectives (e.g. rehabilitation of hot spots, improvement/construction of WWTP, solid waste management, reduction of industrial pollution, elimination of stock piles etc.)	Relevant Ecological Objectives		
		EO5	EO9	EO10

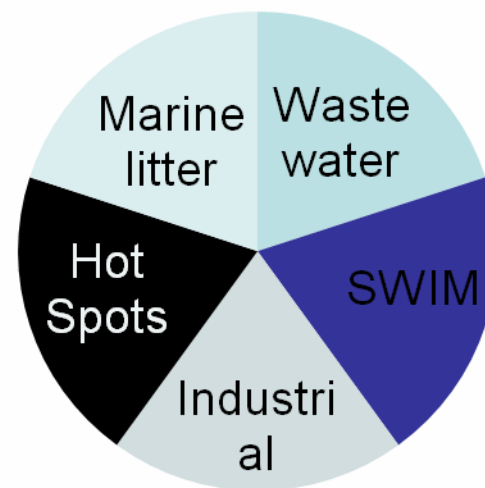
Project Fiche Breakdown

Please provide information about the number and the costs of NAP project fiches per sector, using the following graphs

Number of Projects per Sector



Total Cost of Projects per Sector





Questions and thank you for your attention



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