



Directorate of Environment & Spatial Planning

Region of Crete

**CPMR INTERMEDITERRANEAN COMMISSION Conference on Management of Water in the Mediterranean
and on Renewable Energies**

COMPLIANCE WITH THE WFD

The Regional River Basin Management Plan of Crete (compiling to EU Directive 2000/60/EC) (April 2015).
The public consultation on the 1st Revision began on June 2016, is in place and the Revision will refer to the time period 2016-2021.

Main issues addressed on the Revision:

1. The overexploitation of water resources and bad qualitative status of groundwater bodies (nitrogen pollution, salination, decrease of level).
2. The intrusion of salt water into coastal aquifers due to overpumping of groundwater bodies.
3. Pollution of surface water bodies: **point sources** linked to olive oil industry, livestock, wastewater from settlements (small villages), quarries and **diffuse sources** related to runoff pollution loads (mainly nutrients from agricultural activity, cattle breeding and urban waste water from settlements not connected with sewerage systems and central wastewater treatment plants. Most rivers are periodic flow streams categorized according to the time-period of continuous flow.
4. Quantitative management of surface water bodies of River basin district of Crete as most rivers are periodic flow streams.
5. Morphological alterations of surface water bodies through the construction of, many small reservoirs to meet irrigation and water supply needs.
6. The protection of wetland ecosystems.
7. The adequacy and good quality of drinking water. The main problems lie in:

Technical, organizational and financial problems; Resource inadequacy; Qualitative groundwater charge, either because of overexploitation and pollution, either due to physical origin.

National Preliminary Assessment of Flood Risk (December 2012):

Identification of the river basins associated coastal areas at risk or flooding, prepared on a Ministry level.

Pricing of water services-Decision under Public Consultation:

Ministry of Environment: under consultation on August 2016 the Joint Ministerial Decision “Approval of general rules on water services (water supply services-water collection and treatment services) pricing. Methods and procedures on the recovery of water services cost in terms of the various uses.”

The financial cost will be estimated by the water services suppliers for the first time by 31-12-2017.

The environmental cost and the cost of resource will be estimated on a single Water body level basis or a group of WB. These costs are determined on the basis of the Complementary measures that are included in

relevant Regional River Basin Management Plan (approved on March 2015). They are estimated and approved by the Decentralised Government and are readjusted on an annually basis.

The invoices of the water suppliers include the financial cost as well as the environmental tax, which corresponds to environmental and resource cost. The environmental tax is collected by the water suppliers and is attributed to the Green Fund.

An IT monitoring procedure on water services will be in place. Also specific monitoring indicators are defined in order to assess the water services effectiveness and efficiency and improve them.

After the third year of implementation of this Decision, the Decentralised government will provide elements to the water services suppliers so that they will be able to program their performance improvement.

Regional Operational Program - Crete OP 2014-20 of the National Strategic Reference Framework (NSRF)

in line with the Europe 2020 targets, Smart Specialization Strategy RIS Crete, Climate Change Adaptation Strategy

Includes:

7 development priorities

2nd development priority: "Sustainable development with environmental upgrade and climate change adaptations" 59.4% of the overall funding

Investments on water sustainable management actions: estimated 18% of the overall funding

It focuses on complementing the wastewater infrastructure in coastal and environmentally sensitive areas, the rational management of the regional water resources, by reducing losses in the networks and ensuring good quality water according to the **Regional River Basin Management Plan of Crete**.

Regional Smart Specialisation Strategy (RIS3 Crete)

The breakdown of the innovation system of the Region of Crete reveals **four sector/ branch complexes** which have become priorities for the Regional Smart Specialisation Strategy for Crete. Among these, the Environmental-Energy complex has been prioritized. This complex is composed of activities linked to the

1. The decrease in CO2 emissions (energy saving, renewable energy applications in terms of sustainable development),
2. The rational use of Crete's natural resources, especially water resources and
3. The tackling of climate change consequences

The Regional Smart Specialisation Strategy seeks to use scientific knowledge, innovation and ICT's to tackle major environmental problems and challenges for Crete and to enhance innovative entrepreneurial activities such as:

- Reducing dependence on conventional energy sources through energy saving in buildings, lighting and infrastructures (wastewater and water management) and the full exploitation of the potential of renewable energy in the context of the particularities of Crete, in terms of sustainability.
- Rational water management including water saving in irrigation and water supply
- Waste management through innovative applications for prevention, processing and reuse of materials

- Enhancement of innovative entrepreneurship which is linked to green technologies (bioclimatic constructions and materials, sensors and measurement systems etc)

The Action Plan's total budget is related to

- the Regional Operational Programme of Crete (ROP) 2014-2020,
- the OPERATIONAL PROGRAMME ENTREPRENEURSHIP, COMPETITIVENESS AND INNOVATION 2014 – 2020,
- the Rural Development Programme (RDP) 2014 – 2020 and
- HORIZON 2020.
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EUROPEAN PROGRAMS

ADAPT2KLIMA “Adaptation to Climate change Impacts on the Mediterranean islands' Agriculture” LIFE

The overall aim of the project is to increase knowledge on the vulnerability of EU Mediterranean agriculture to climate change and to support decision making for adaptation planning.

Involves; Sicilly, Crete and Cyprus

Objectives :

- Estimation of the future climate changes for the three Mediterranean islands and for the selected agricultural areas in particular
- Assessment of the vulnerability of the pilot rural areas to climate change
- Development, implementation and demonstration of a decision support tool (ADAPT2KLIMA tool) for enabling well-informed decision-making for adaptation planning in agriculture
- Development of climate change adaptation strategies for the project implementation areas
- Raising awareness of stakeholders and target groups on issues related to agriculture and climate change

SMART WATERS (Regional Development Fund of Crete-Legal Entity of Private Law, supports the development and the operation of Region of Crete) EEA grants

Design of an intelligent system for sustainable management of water networks: application to Crete

The main objective of the project is the improvement of management of inland water resources, through a smart, decision making environment, which will take into account optimal distribution while saving energy and continuous monitoring of their quality. A direct consequence of the realization of such a holistic management scheme will be to

- ensure water quality,
- sustain water demand in Crete,
- minimize water resources losses,
- reduce operating costs and
- ultimately reduce the corresponding cost of water both for large consumers and for regular end users.