ENPI CBCMED
CROSS-BORDER COOPERATION IN THE MEDITERRANEAN

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ANNEX H

THEMATIC ANNEXES TO THE TORS

FIRST CALL FOR STRATEGIC PROJECTS

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1. Agro-food

1.1 Context analysis and needs

Food systems continue to play a key role and to occupy an essential place in the societies and economies of the Mediterranean. Agriculture, livestock and fisheries are sectors which could help reduce the differences between EUMC and MPC, contribute to the Mediterranean basin's economic and territorial development.

Food systems are therefore strategic, and a whole series of questions are thus arising their future in the Mediterranean countries, which are becoming increasingly dependent on the changes in the global agro-food system, and on the ways and means of strengthening Euro-Mediterranean co-operation through "agro-food policy".

In its turn, food scene is a stakeholder's complex made of a set of economic activities, financial institutions, public and private bodies, etc. in a given geographic zone and participating in the creation of flows of goods and services geared to satisfying food needs.

The assessment reveals a series of needs in the region:

- Need for a sustainable approach towards agriculture and economic diversification in the less-privileged and rural zones.
- Need for a recognised role of the Regions and Local Authorities to establish mutual agreements of cooperation and development of strategic partnerships for Policy analysis, institutional development and capacity building.
- Demand for enhancement of territorial development and planning by Regions and Local Authorities taking stock of the existing European programs and exploring the possibility of establishing institutional cross-border cooperation on rural territorial schemes along the lines of the LEADER and INTERREG European Initiatives.
- Increased dependence of agriculture on the ways and means of strengthening Euro-Mediterranean co-operation through "agro-food policy" and on the changes in the global agro-food system.
- Need for enhanced production of staple foods (cereals, dairy products and meat) to improve self-sufficiency by taking the following actions: R&D, training, popularization; conservation and management of natural resources (biodiversity, land, water); structuring and organizing of food chain; agriculture and rural policies (territorial-based approach, SMEs/Agro-food Industries (AFI) development, innovative investment and incentives, prices and markets stabilization, cooperation), and encouraging Domestic and Foreign Direct Investments toward AFI and competitiveness poles.
- Demand to promote socio-economic development and territorial enhancement in the Mediterranean in view to reach sustainable and harmonious cooperation based on common challenges and benefits urging Government and Local Authorities to opt for "Localized Agrofood Systems Approach - SYAL" and "Cluster-Based Economic Approach - CBEA"
- Demand for sustainable rural development to preserve agriculture in less-favoured areas, improve the product quality (Mediterranean food labelling, designation of origins, geographical indications, etc.), promote organic farming and of new market niches (processing and promotion to maximise profits on typical Mediterranean products, food safety and consumer protection), using traditional methods with modern standards of food safety.

SYAL and CBEA schemes bring about new ways of thinking about economic development, competition, and innovation in the Mediterranean. Coordinated strategies and actions aim at improving processes of planning territorial development and management at various levels (urban, rural, regional and the whole basin) and associating both public and private actors. This kind of planning should lead to a reduction in

gaps – among territories and within them – in terms of sustainable economic development, Mediterranean food security, infrastructures and social services offered to the population.

Moreover, specific customs, cuisines and food consumption habits that have evolved over the centuries in this region are now considered by experts to be very healthy. Due to the rapid development of consumer behaviour, the globalisation of markets and economic and demographic parameters are together bringing about profound changes in food consumption patterns in Mediterranean countries. Significant changes in food consumption pattern are leading to a convergence of the Mediterranean area with the dominant model in the world characterized by rapid progression of lipids and proteins and finally by a strong increase of the energy ration. This evolution is accompanied by an increased occurrence of foodborne diseases (obesity, cardiovascular disease, diabetes, and certain cancers). It is better to act on the Food Consumption Model (FCM) to be closer to the optimal diet that prevailed still half a century ago in the Mediterranean and which has now largely disappeared with the generalization of the Western model.

1.2 SWOT analysis

STRENGHTS	**WEAKNESSES**
Territorial cooperation favours innovative reforms and dynamics Agro-food business enhances territorial dynamics and food systems for industrial and organizational cooperation Progress in the Euro-Med FTA implementation and in its extension to agricultural goods and to services Existence of abundant works on SYAL and organic scenario Strategic value of the Mediterranean diet	Strong differentials in terms of territorial development and decentralization Weak collective mobilisations and actions. Weak solidarity among different actors Health problems; changes in consumption patterns Production system focuses only on the industrial approach (firms – clusters – SME-SMI), not taking the territorial approach in consideration Weak distribution, logistics and transports, technical support to human resources Needs for supply chain agreements and added value to basic producers and territorial development Mediterranean diet is not taken as a strategic issue and a goal for cooperation Individual enterprises' strategies, collective strategies for cooperation and territorial approach don't set up a strategic scenario for an economy of proximity, food security and sustainable rural development
OPPORTUNITIES	**THREATS**
Good environment to encourage local and foreign investments toward industries based on agricultural resources and transfer of technology Expertises and exchanges in local entrepreneurship Micro and Small Medium enterprises and industries able to frame networks Mediterranean Diet gained UNESCO Heritage status The health benefits of the Mediterranean cuisine become more acknowledged Progress made in agro-ecology and sustainable agriculture Regional and local instances take the lead for initiatives towards sustainable economic development Mediterranean countries may opt for regionalization, fostering a Euro- Mediterranean agro-food policy, a close partnership and cross-border cooperation with the European Union to ensure a lasting stability of the food supply	Difficult adjustment to globalisation in many traditional economic sectors Risk of negative impact on environment and social dimensions when implementing the FTA Climate change, environment deterioration (desertification, loss of biodiversity and agro-biodiversity, drought, floods, fires, coastal vulnerability) and pollution of the Mediterranean Sea Mediterranean countries may opt for the way of globalization, assuming the multinational market will provide food in sufficient quantities and at low prices

1.3 Relevant Projects

PROGRAMME	PROJECT/S	STATUS
Investinmed	**Mag-Trace -** Food safety and traceability in the Maghreb. The MagTrace initiative seeks to develop national competences in Tunisia, Morocco and Algeria leading to the adoption by Maghreb producers of a generalised traceability system for agricultural products http://www.invest-in-med.eu/en/agenda/fiche-initiative-mag-trace-food-safety-and-traceability-in-the-maghreb-340.html	**ONGOING**
MED Programme	**AGRO-ENVIRONMED** Techno-Environmental Platform for the Agro-food Sector in the Mediterranean. It aims to encourage eco-innovation in companies belonging to the Mediterranean Agro-food Sector, particularly SMEs, by the creation of a platform which promotes the transfer of technologies and best environmental management practices. http://www.agroenvironmed.eu/	**ONGOING**
	NOVAGRIMED - Innovations agricoles en territoires The aim of the NOVAGRIMED project is to help the Regions to define and implement this type of innovative, coordinated and collective policy which, based on the identity of Mediterranean agriculture, initiates the emergence of new economic dynamics in the agricultural sector and ensures that Mediterranean agriculture adheres to the goal of sustainable territorial development. http://www.novagrimed.eu/	**ONGOING**
IEE Programme (Intelligent Energy Europe)	**PROBIO** - Actions for the exploitation of the agricultural bio-masses. Pre-feasibility studies for the identification of the regional energy districts and for cluster projects. The project focused on encouraging the integration between production and consumption in the biodiesel supply chain in European countries in general and in the five participant areas in particular: provinces of Burgos , Ávila and Huelva (Spain) and regions of Pomurje (Slovenia) and Abruzzo (Italy). http://www.probio-project.com/	**CLOSED**
INTERREG III B CADSES Neighbourhood Programme	**SIMOCA:** Setting up and implementation of sustainable and multifunctional rural development model based on organic and competitive agriculture. It defined a new strategy for sustainable and multifunctional rural development based on the growth of organic farming. http://www.simoca.org/programmi/home.php?id=51&idarea=6	**CLOSED**
LIFE programme	**CENTOLIMED:** Identification and conservation of the high nature value of ancient olive groves in the Mediterranean region. Joint exploitation of rural areas of the Mediterranean through the harmonization of rules and development of complementary trade of local products. http://www.lifecentolimed.iamb.it/	**ONGOING**
Leader PLUS **EU Structural funds**	**LEADERMED:** It contributed to the current studies on the identification, conservation, enhancement and management of high nature value farmlands as a habitat. Moreover the project outcomes (Guidelines, Socio-Economic Enhancement plan) also have been taken as a reference for the identification of solutions aimed to halt social desertification processes (as the abandonment of internal rural areas) in economically unfavorable farmlands, which is a priority for the economic policies in rural sector. **http://www.leadermed.org/index.php?option=com_frontpage&Itemid=1&lang=en**	**CLOSED**
FP7 : Seventh Framework Programme	**AGFORISE:** The project will increase the competitiveness of European regions in Agrofood industry and bring significant added-value to the European Agrofood community through a common dialogue platform and a joint action plan among the Agrofood clusters. **http://cordis.europa.eu/fetch?CALLER=FP7_PROJ_EN&ACTION=D&DOC=1&CAT=PROJ&QUERY=012da96e893f:adbc:6582bafe&RCN=91090**	**ONGOING**
IFAD: The International Fund for Agricultural Development	**Agricultural Resource Management Project - Phase II** Community-based participatory approach is at the core of this project, which builds on a first phase, the Agricultural Resource Management Project in the Governorates of Karak and Tafila, closed in 2003. The second phase of the project directly benefits 75 per cent of the total rural population of the southern highlands, one of Jordan's poorest regions, by improving food and water security and income levels. Poverty in the area affects mainly farmers and landless people, particularly women. **http://operations.ifad.org/web/ifad/operations/country/project/tags/jordan/1295/project%20overview**	**ONGOING**

2. Sustainable Tourism

2.1 Context analysis and needs

According to UNEP, "sustainable tourism" is a process in which the tourism sector and its development are governed in order to ensure: (i) the optimal use of environmental resources that constitute a key element in tourism development; (ii) the respect of the socio-cultural authenticity of host communities, the conservation of the built and living cultural heritage and of traditional values; (iii) the adoption of viable, long-term economic operations, providing socio-economic benefits that are fairly distributed across all stakeholders, and contributing to poverty alleviation[1].

International tourism is a fast growing industry: forecasts by the World Tourism Organization (WTO) predict that by 2020 the number of international arrivals will be the double of the current level. Two more general characteristics of the tourism industry are also worth mentioning. Competitiveness in tourism is often crucially based on natural and cultural heritage. Countries with large endowments of such factors have an opportunity to develop their tourism sector even when other growth-factors are lacking or inadequate in quantity or quality. Besides, large part of the tourism industry is based on face-to-face, personal services - that is, services that are “non-tradables” and that for this reason are not subject to the increasing risk of “offshoring” of key activities, unlike what happens in other service sectors.

In addition to this, it is important to underline that tourism development can also be a lever for fast aggregate growth at the country level. Recent studies show that national economies characterized by the presence of a large tourism sector have performed well compared to other countries, from 1980 onwards, in terms of aggregate growth. This evidence shows that an increase of 8% in the tourism component of a country’s overall export base generates an increase of 0.5% in this country’s average annual growth rate.

These general characteristics of tourism development are highly relevant for the Mediterranean area for two reasons:

- First, because large differences exist in cross-country per-capita income levels. At the current pace of economic growth across the Mediterranean, closing the economic divide is a very long-term goal. A careful, internationally coordinated governance of the opportunity attached to tourism-led development may help achieve major results in a shorter time span.
- Second, because the region is characterized by very favourable conditions for tourism development. The climate, the quality of the environment and of the cultural heritage are all factors that make the Mediterranean a worldwide attraction. For instance, a significant share of the UNESCO World Heritage sites are located in the Mediterranean, and today the area attracts around 30% both of international tourist arrivals and of international tourism receipts.

In this regional setting, tourism is therefore a key opportunity to achieve large and increasing benefits for the whole area and, at the same time, to obtain a faster reduction of the current economic divide. To maximize the benefits that tourism development can generate in the region, however, a number of weaknesses must be addressed and a number of risks must be avoided. Tourism flows tend to concentrate in time and in space. A large share of the tourists who visit the Mediterranean are interested in the coastal zones. As sun-sand-sea tourism is so important in the Mediterranean in general, and in the southern shore in particular, a strong market incentive does exist to meet this demand by concentrating accommodation facilities in space, as well as by limiting the availability of the tourism services to the period of time in which the sun-and-sea experience is viable.

Problems associated with this double concentration pattern are:

[1] UNEP-WTO, *Making Tourism more Sustainable. A Guide for Policy Makers*, 2005.

- Leakages. A tourism industry highly concentrated in space and time is often based on large scale accommodation facilities, the ownership of which may be external to the area where the tourism attractors (natural and/or cultural) are located. In particular, facilities created to meet the sea-and-sun tourism flows may generate substantial leakages: profits by external owners may be reinvested elsewhere; goods sold in the existing accommodations may be imported rather than produced locally; specialized personnel may be external to the area. It has been estimated that between 55% and 75% of tourism spending leaks back to the richer countries from which the bulk of international visitors are from.
- Sustainability. Marine and coastal environments are at risk from developments that may determine an over-use of the non reproducible natural resources and may have a negative, sometimes irreversible impact on the quality of surroundings amenity and natural habitats. Similar risks can be listed for historical sites, for the very same reasons: traditional values, culture, commodities of host communities can be irreversibly displaced by the continuous interaction with large flows of international tourists mainly interested in a sea-and-sun type of experience. To avoid risks of over-exploitation, good governance models -- aimed at setting standards and at overcoming coordination failures at both the public and the private levels -- must be carefully designed and implemented.

All in all, benefits from tourism development are likely to be high relative to those generated by other sectoral specializations. Local cost involved by tourism development however may also be high, especially in terms of use, availability and sustainability of local resources. While costs should be minimized by adopting adequate strategies, it is also crucial to assure that a large share of the benefits will accrue to the local community.

If benefits from tourism are not locally perceived and sufficiently widespread, collective choices in favour of sustainable development paths may be more difficult to succeed due to limited popular support. The above analysis suggests that, in the Mediterranean Sea Basin, careful governance of the spontaneous tendency of international tourism to concentrate in time and space is needed to obtain a sustainable form of tourism development.

2.2 SWOT analysis

STRENGHTS	WEAKNESSES
Tourism is a fast growing sector. Its role in the global economy will increase overtime. The Mediterranean is well endowed with natural and man-made amenities and is one of the leading destination in the global market. The Mediterranean as a whole attracts around 30% of international arrivals and of tourism receipts. Part of the tourism supply is based on personal services, and is therefore protected by the threat of "offshoring". High quality amenities such as many of those present in the Mediterranean are "luxury goods", in the sense that their weight in consumption tends to increase overtime with income. Institutional and economic preconditions for tourism-led development are less severe than for other high-growth sectors.	Coordination across existing legislation and national plans for tourism development is absent or insufficient. Coordination across countries is also lacking in promoting the Mediterranean as a destination in the global marketplace. A significant part of the revenues from tourism does not benefit the economy of the host country or region. Benefits do not reach a large share of the population. Skills in the local population are often lacking. Local products often not included in the tourism supply chain. Increased prices of tourism-linked commodities make part of the resident population poorer. Free market tends to concentrate tourism flows in a few areas in a few periods. Governance and legislation required to obtain sustainable exploitation of amenities is often lacking. Institutional capability for the assessment of the environmental impact of new tourism facilities is lacking in some countries and is not harmonized.

OPPORTUNITIES	THREATS
A successful tourism sector is an opportunity for SMEs, the products of which can be directly tested against consumers of large, rich and distant markets. Tourists' increasing interest for cultural differences may facilitate the inclusion of local products in the tourism supply-chain. Tourism development increases the economic opportunity of acquiring skills. The need to retain the economic benefits from tourism creates an incentive to develop cross-country cooperation in the provision of vocational training and education to meet the increasing demand for. Tourism can significantly contribute to poverty reduction. Tourists' growing interest for cultural differences may help convince residents that some activities, traditions and amenities have a market value and that deserve careful management. Awareness that competitiveness depends on the quality of the attractors may help improve the area's institutional capability at all levels to promote sustainable paths of tourism development.	Tourism development can put unsustainable pressure on natural resources and on local cultural traditions. Competition in the absence of adequate transnational coordination can lead to excessive overall exploitation of fragile amenities in the whole Mediterranean. Success in tourism may lead to an increase in the prices of many goods and factors, with a negative impact on other exporting sectors. Success in tourism may stimulate flows of internal migration to the detriment of inland rural areas. Inequality across regions and people can increase in the absence of carefully designed policy to spread economic benefits. Since tourism demand can be very elastic to small changes, excessive specialization in tourism may expose a territory to a highly unstable source of income.

2.3 Relevant Projects

PROGRAMME	PROJECT	STATUS
Interreg III B Archimed	**MedTourNet: Mediterranean Tourism Network** It supported sustainable tourism development through the exploitation of existing tourism resources, and the expansion of the tourism market. http://www.medtournet.eu/medtour/articles/article.jsp?categoryid=1&context=103&globalid=8907&articleid=2568	**CLOSED**
	ARCHICHARTER- The European Charter for Sustainable Tourism in protected areas of Archimed regions integrated with EMAS, Agenda 21 and Ecolabel. It promotes the improvement of Parks environment through the implementation of the European Charter for Sustainable Tourism (Charter) in parks of the ARCHIMED area, where tourism is a significant economic activity but can be a threat. http://www.parcodelleserre.it/archicharter/archicharter_sito.html	**CLOSED**
CIUDAD PROGRAMME	**Liaisons for Growth.** The idea behind this project is to work with local networks to develop models for sustainable tourism, especially in smaller more marginalized regions in Jordan and Armenia. http://www.ciudadprogramme.eu/grant_profile.php?lang=1&sector_id=16&grant_id=15	**ONGOING**
Euromed heritage	**MARE NOSTRUM**. It intends to contribute to the promotion and awareness-raising of the heritage value of historic port cities of the Mediterranean Sea, scattered along the Phoenician maritime routes. http://www.euromedheritage.net/intern.cfm?menuID=12&submenuID=13&idproject=46	**ONGOING**
	Foundations for a strong future. The aim of this project is to support cultural heritage as one aspect of "public wealth" that should be collectively celebrated and protected, by promoting a message of ownership at the local level through multilingual educational resources for schools, multimedia activities with youth and children, public events for the broader public, and	**CLOSED**

	capacity building of cultural heritage NGOs and museums to engage young people through developmentally-appropriate tools. http://www.euromedheritage.net/intern.cfm?menuID=12&submenuID=13&idproject=45	
Cross Border Cooperation Programme Italy / France "Maritime"	**TOURISM PORTS ENVIRONNEMENT** Concerted and sustainable economic development of ports tourism through the definition of the minimum quality of port reception facilities for accessibility, availability, diversity and compliance with environmental standards http://www.maritimeit-fr.net/cms/index.php?option=com_shared_private_space&task=showfile&fileid=842	
Med Programme	**SusTEn Mechanism-** (Sustainable Tourism Entrepreneurship Mechanism): Approaching Territorial Sustainability through Developing Tourism and Culture based Entrepreneurship The main goal is to design and set up a framework providing a systematic approach of rational planning, and also the implementation of strategies, policies and measures for effective management of natural and cultural resources at the local/regional level, based upon the development of sustainable entrepreneurship in the Tourism and its "neighbouring" sectors. http://www.programmemed.eu/en/projects/project-database/results/view/single.html?no_cache=1&idProject=24&cHash=0b276a2b69a706bcd5d38660df2f2cea	**ONGOING**
Invest in Med	**MovieMed** The initiative aims at promoting the Mediterranean cinematographic sector and identifying new development opportunities. The consortium will undertake a general study on the added value of the region for the cinema industry and will organise workshops and BtoB meetings between professionals of the audiovisual sector. Based on a strong economic and cultural partnership, this initiative highlights the tourist and economic advantages generated by an attractive marketing of the Euro-Mediterranean territory**.** http://www.invest-in-med.eu/en/agenda/fiche-initiative-moviemed-272.html?phpMyAdmin=ad298081751a9322878feb44f511aa7b	**ONGOING**
	ETINET ETINET intends to contribute to the tourist investment promotion towards the Med countries, to establish regional partnerships and to generate commercial transactions in two key sectors with high added value: cultural tourism and nautical tourism. Two studies will measure the evolution of these sectors, followed by BtoBs. A workshop will facilitate the dissemination of innovative information relating to the sectors. This initiative will be associated with major international tourist events such as Meditour, the FITC or TopCruise. http://www.invest-in-med.eu/en/agenda/fiche-initiative-euromediterranean-tourist-investment-network-etinet-298.html	**ONGOING**

3. Integrated Coastal Zone Management

3.1 Context analysis and needs

The Mediterranean coastal zone includes a variety of important ecosystems and valued social and cultural settings, yet it is also an important location for a variety of economic activities. The attractiveness of the Mediterranean coastal zones has resulted in an ever-increasing pressure on this valuable resource, which has serious implications for the environment and its sustainable use, and calls for an integrated, strategic approach to planning and management.

Integrated Coastal Zone Management (ICZM) is defined as a continuous and dynamic process for the sustainable management and use of coastal zones. It takes into account the fragility of coastal ecosystems and landscapes, the diversity and interaction of activities and uses, the maritime orientation of certain activities and uses and the impact of these on both the marine and land areas.

All countries participating to the ENPI CBC Mediterranean Sea Basin Programme have undertaken some measures to protect their coastal zones from development pressures. They have either adopted, or are in the process of preparing, a framework law for the coastal zone or some other type of coastal regulation, or they have included some aspects of the coastal zone in other (sectoral) regulations. In addition, there are a number of national ICZM strategies developed or under preparation. However, measures to achieve sustainable coastal development are still inadequate.

In terms of institutional coastal management, several countries have created specialised coastal agencies or some kind of coastal centre. The competencies and roles of these institutions vary from the making of coastal zone inventories, through to the preparation and implementation of legal documents and the creation of protected areas. However, all these institutions are either weak administrative units or lack the adequate horizontal and vertical co-ordination with other concerned institutions, which is a prerequisite for sustainable management of coastal areas.

In January 2008, 14 Contracting Parties to the Barcelona Convention (i.e. 13 Mediterranean States and the EU) signed a regional legal document on ICZM: the Protocol on Integrated Coastal Zone Management in the Mediterranean, whose entry into force requires at least 6 ratifications. Having been ratified by six contracting parties, the Protocol entered into force the 24th of March 2011. The ICZM Protocol aims at establishing a coastal zone management that is environmentally sustainable, socially responsible and adaptive to Mediterranean cultural realities. The challenge now lies in timely and effective legitimisation of a new form of management that can be applied in the complex and vulnerable Mediterranean coastal territories. Introducing this new legal instrument is a challenging, yet promising step toward strengthening ICZM.

Several surveys of ICZM initiatives carried out in the Mediterranean region over the past 30 years, including the most recent ones, have raised some issues that can be considered as common to a majority of ICZM efforts regardless of the geopolitical context in which they operate. These issues are:

- ICZM initiatives have a predominantly nature preservation component and are mostly initiated by actors from the environmental sector. The participation of other relevant sectors needs to be enhanced;
- the integration of the land and marine parts of the coastal zone is still weak;
- mostly local, ICZM initiatives are rarely integrated into national strategies, resulting in a gap or disconnection between local and national levels;
- stakeholder participation is declared as a key component of each and every ICZM initiative regardless of its scale and scope, but still needs to be further enhanced;
- there is still a significant gap between stakeholder participation and decision-making as decision-makers are not sufficiently involved in the ICZM process.

Filling in the above gaps would help ICZM to outgrow its predominant status as a localised project and qualify as a strategic approach. To this end, it is recommended to comply with the provisions of the Protocol on Integrated Coastal Zone Management in the Mediterranean, which gives clear indications on what are the priorities for ICZM in the future.

Potential projects should consist of activities, or combinations of activities, that lead to a step change in implementing ICZM. These include:

- sharing of best practice and the joint preparation of strategic ICZM documents to be adopted by relevant local/national authorities;
- joint development of activities (including the sharing of best practice) which would strengthen institutional and normative frameworks aimed at strengthening vertical (among various administrative scales), horizontal (among various sectors) and territorial (land-sea) integration and cooperation within and between Mediterranean Sea Basin countries;
- creation of networks of coastal actors among relevant sectors in the Mediterranean countries which would encourage and enable the widening of the ICZM approach to all sectors involved in activities that have an impact on coastal zones.

3.2 SWOT analysis

STRENGHTS	**WEAKNESSES**
ICZM is recognised as a vector leading to sustainable coastal development ICZM is considered as a component of the EU Maritime Policy ICZM provides a good framework for cross-border cooperation concerning contiguous coastal environments that cannot be divided by administrative boundaries Many initiatives have been carried out in the region showing the usefulness of the ICZM approach (there are success stories that serve as inspiration and examples to replicate) Existence of centres of expertise that provide technical assistance to countries in implementing ICZM	ICZM is currently implemented essentially on an isolated project basis In most Mediterranean countries, the statutory framework for the management of coastal zones is made of fragmented legislation regulating public maritime domain, land development and planning, protection of sensitive areas, sectoral activities, etc., often with overlapping competences and responsibilities Weak enforcement mechanisms are among the crucial inhibiting factors for ICZM to become a strategic choice There are only few examples of ICZM strategies and institutional arrangements for ICZM Technical and managerial capacities for ICZM are insufficient Many ICZM initiatives operate at the level of studies, research or project designs with low follow-up There is a lack of regional (cross-border) development plans Standardised, easy-to-use and publicly available data are missing Monitoring system is weak
OPPORTUNITIES	**THREATS**
The favourable environment created by the new EU and MAP strategic and legal documents can help countries to create their own comprehensive frameworks for ICZM, always taking into account the particularities of their development stage, institutional context and environmental/development issues Funds provided by international donors for ICZM are increasing, and the vision behind is very often much more strategic than before Entry into force of the ICZM Protocol	ICZM continues to be presented in a very technocratic, sophisticated and, sometimes, incomprehensible way, diminishing its chance of ownership by relevant actors at all levels Lack of political will to engage substantial human and financial resources necessary for ICZM implementation Coastal actors continue to react only to specific coastal problems, without understanding the usefulness of the preventive approach that could be secured by creating a more strategic environment The global economic and financial crisis draws the attention away from coastal problems. Economic sustainability surpasses the importance of securing the sustainability of coastal resources Proliferation of ICZM initiatives can easily lead to duplication of efforts

3.3 Relevant Projects

PROGRAMME	PROJECT/S	STATUS
SMAP III Regional Project	**Promoting Awareness and Enabling Policy Framework for Environment and Development Integration in the Mediterranean with Focus on Integrated Coastal Zone Management** It contributes to the improvement of the enabling environment in beneficiary countries by strengthening the partnership between the EU/SMAP, MAP and the World Bank in order to ensure the proper allocation of resources and sustainable implementation of the SMAP III. http://www.pap-thecoastcentre.org/about.php?blob_id=64&lang=en	**CLOSED**
FP7 Collaborative Projects - Large scale integrating project	**PEGASO** The main objective of PEGASO is to build on existing capacities and develop common novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean and Black Sea Basins in ways that are consistent with and relevant to the implementation of the ICZM Protocol for the Mediterranean. http://www.pegasoproject.eu/	**ONGOING**
Med Programme	**COASTANCE** regional COmmon Action STrategy Against Coastal Erosion and climate change effects for a sustainable coastal planning in the Mediterranean basin. http://www.coastance.eu/	**ONGOING**
	SECUR MED PLUS SECUR MED PLUS is the new project focused on maritime safety and environmental protection that the Liguria Region wants to launch in the new European programme MED . The project promotes common strategic actions aimed at strengthening safety of the maritime cluster in the Mediterranean. http://www.securmedplus.eu/	**ONGOING**
The Global Environment Facility (GEF) UNDP UNEP WB	**STRATEGIC PARTNERSHIP FOR THE MEDITERRANEAN SEA LARGE MARINE ECOSYSTEM** The Strategic Partnership will provide financial resources and technical knowledge readily available to countries that embrace the goal of improving the environmental conditions of the Mediterranean Sea through a combination of capital investments, economic instruments, policy and regulatory frameworks and public participation. It will also develop a strategic regional approach to investments for greater benefit to the basin countries. In addition, a framework will be designed to replicate and transfer investment experiences throughout the region. http://www.unepmap.org/index.php?module=content2&catid=001024	**ONGOING**
INTERREG IIIB NP CADSES	**PlanCoast** It aimed to develop the tools and capacities for an effective integrated planning in coastal zones and maritime areas in the Baltic, Adriatic and Black Sea regions. http://www.plancoast.eu/	**CLOSED**

4. Water management

4.1 Context analysis and needs

Water is a key factor for growth and poverty reduction and a key resource in almost all areas of production (agricultural, industrial, energy). However, water is a scarce resource that is the subject of growing demands and competition. It is expected that water consumption will increase globally over the next 30 years to meet the needs of development. Among all the sectors that use water, agriculture is the main consumer with a demand that varies from 70 to 90% of the total water demand. Food needs in the future will require more effective water management and other sources to support the increased water demand and more specifically in the agricultural sector.

The management of water resources needs to incorporate the principles of Sustainable Development in order to deal with the increasing pressure on freshwater resources. This pressure arises mainly from the following factors: (1) increased demographic growth during the 20th century: population has tripled while water withdrawals have increased by a factor of about 7; (2) current water use, despite some progress, is far from being satisfactory: losses and leakage of transport, weak efficiency in irrigation and waste; (3) the effects of industry and agriculture have resulted in major pollution problems in many regions of the world; (4) poor governance as result of fragmented and uncoordinated management, top-down institutions and increased competition for the finite resource.

In view of demographic growth, climate change, and economic and social trends, water demand in the Mediterranean region is set to increase quite significantly, and the risk of water shortage can no longer be discarded. The present situation is already quite tense, and it calls for a more sparing, sustainable and equitable water management in order to address the major challenges with which Mediterranean countries will be faced: to sustainably manage the limited water resources, and to inspire water-saving behaviour among the users.

The Mediterranean region has only 3% of World water resources but it gathers about 7% of World population. The “water stress” situation, i.e. that of countries with less than 1000 m3/inhab./year of renewable resources, counts 180 million inhabitants now and is likely to reach 250 million inhabitants by 2025. The water “scarcity” situation, i.e. that with less than 500 m3/inhab./year, is likely to pass, over the same period, from 60 to 80 million inhabitants.

Water demand has doubled up since 1950, to reach in 2007 280 km3/year for the riparian countries as a whole. Agriculture, which remains the chief water consumer, accounts for 82% of the volumes abstracted in the Southern and Eastern rims of the basin. The conveyance losses, leakages and wastage during transport and use of water, in particular in the irrigation sector, are estimated for the whole Mediterranean region at about 40% of total water demand. An increasing portion of the demand is met via a non sustainable water production estimated at 16 km3/year, which for 66% originate from abstraction of fossil water and for 34% from overexploitation of renewable resources.

On the one hand, according to recent Blue Plan projections, water demand is likely to further increase by 50 km3/year into 2025 to reach 330 km3/year; the major portion of this increase would be due to the Southern and Eastern Mediterranean countries. Agriculture is set to remain the major user, in terms of volume, of water resources to meet irrigation needs, especially on the Southern and Eastern rims of the basin. According to FAO, irrigated areas are likely to increase by 38% in the South and by 58% in the East to reach 9 and 8 million ha, respectively, by 2030. The demand by the communities is also set to steadily increase in order to meet the drinking water needs of an increasingly urban population.

On the other hand, the Blue Plan has sought to evaluate the extent of water losses and “improper use” of water in each sector, as well as to estimate, based on a set of ambitious-but achievable-scenarios, the

recoverable losses as per sector and sub-region of the Mediterranean basin. The possible saving potential has been estimated at about a quarter of current and future (2025) water demand.

Given that the expected effects of water saving measures appear insufficient and only reduce their dependence to "unsustainable withdrawals", some Mediterranean countries have engaged in the development of non conventional resources such as the use of treated wastewater, the use of recycled agricultural drainage and water, the desalination of seawater or brackish water. The reuse of treated wastewater has numerous benefits, as for quantity (reduction of water withdrawals, in particular for agricultural use), quality (collection and treatment of effluent prior to reuse and improve the quality of natural waters constituting the receptacle of wastewater) and economics. It can also facilitate access to sanitation (linking water and environment) and make an important contribution to the adaptation strategies of agricultural policies.

Regional cooperation focuses on multi-country, multi-sectoral programmes, cooperative actions, exchange of experience and best practices, and trust and capacity building designed to build a strong foundation for a water sustainable development. Twinning between water companies, and the increased number of professional networks and consultations (basin agencies and irrigation associations) illustrate a promising cooperation that should enable progress in sustainable water management.

The Euro-Mediterranean partnership is also a special arena for cooperation in the water sector. The 2008 Summit of the Union for the Mediterranean promoted environmental sustainability; within this framework, water represents an essential resource to protect and manage. In that context, the Euro-Mediterranean Ministerial Conference on Water (Dead Sea, Jordan, 22 December 2008) agreed to prepare a shared and long-term Strategy for Water in the Mediterranean (SWM) and approved guidelines for its elaboration. The long-term SWM's objectives are to conserve water quality and to balance quantity of used and available water to achieve regional sustainable economic growth, social prosperity, access to water for all and environmental protection and rehabilitation.

4.2 SWOT analysis

STRENGHTS	WEAKNESSES
National Governments have implemented procedures such as strategies, partnerships, increasing capacity, monitoring and evaluation procedures (indicators), quantified definition of aims etc. Some progress, mainly in the north Mediterranean countries, concerning local authorities' responsibilities, the strengthening of local communities, greater financial autonomy, exchange of experiences, more accurate evaluation of user demand, and strengthening the ability to negotiate. Water professionals start to take action to clearly set out their objectives and responsibilities. Industry has a greater awareness of the financial benefits of gains caused by an improvement in production processes, setting up reference systems, standards and regulations, monitoring systems, economic incentives and sanctions etc. The users (Farmers, Domestic) are more open through creation of professional associations, strengthening capabilities, technical support, training, education, information and awareness campaigns. NGOs (environmental, consumer etc). are larger and have room for improving capabilities, capitalising on successful experience.	Weak water governance: many Mediterranean countries still suffer from lack of planning capabilities, effective operational strategies, fragmentation of responsibilities between authorities, weak policy implementation and law enforcement. Non-sustainable water management: national strategies continue to grant priority to increasing the water supply, and this, based on the construction of large-scale water structures (over 1200 major dams in the Mediterranean catchment area alone), the development of inter-regional and international transfer structures, the exploitation of non renewable aquifers, or the reuse of wastewater resources without taking into consideration the social, health and environmental issues. Development of the water sector has always been obstructed by lack of funding, despite the priority given to it by the government, including relatively large allocations of funds in the state budget. Mechanisms for cost recovery have been implemented in different countries of the region, but not with the pace needs. The establishment of these mechanisms, although the merits of cost recovery have always been understood by the various departments concerned, has often been delayed for social reasons. The lack or patchiness of water data and the lack of shared databases hamper knowledge about water resources and stand in the way of sustainable management

Regional cooperation focuses on multi-country, multi-sectoral programmes, initiatives of collaborative actions, exchange of experience and best practices, and trust and capacity building designed to built a strong foundation for a water sustainable development	
OPPORTUNITIES	**THREATS**
If the states honour the commitments they made in Monterrey in 2002 to increase their development aid by 25 per cent by 2025, this could create new resources for Official Development Assistance, the effectiveness of which could be reinforced by better targeting of integrated water management. Official Development Assistance would be more effective if it was seen as a 'catalyst' for reinforcing sustainable water-management policies in the south and east Mediterranean countries, and if it was used more as start-up capital for private funding than for funding infrastructures. International cooperation is being reoriented more and more clearly towards the objective of integrated water management and access for everyone to adequate drinking water and sanitation services	According to the evolutions of temperature and rainfall described by the climate models, the Mediterranean regions, which already experience a significant water stress, exacerbated by a succession of drought years, will end up being particularly exposed to a reduction of their water resources. In certain countries, this is likely to result in situations of acute crisis. In the Southern and Eastern Mediterranean countries, in view of demographic growth and of the immediate impacts of changes in the water cycle, it is estimated that, by 2050, about 290 million people would end up in a water scarcity situation. Official Development Assistance in the water sector in the Mediterranean region is in decline and remains largely influenced by geo-political considerations. Moreover it continues to be absorbed mainly by the building of large infrastructures.

4.3 Relevant projects

PROGRAMME	PROJECT/S	STATUS
NIF **Neighbourhood Investment Facility**	**Egypt: Improved Water and Wastewater Services Programme (IWSP)** The project aims at improving water and wastewater services in four Governorates in the Nile Delta with a population of 16,3 million. It will improve the infrastructure of the wastewater collection system and treatment as well as the water supply networks. http://ec.europa.eu/europeaid/where/neighbourhood/regional-cooperation/irc/investment_projects_south_en.htm	**ONGOING**
FP7 Seventh Framework Programme	**Capacity Building for Direct Water Reuse in the Mediterranean Area (CB-WR-MED)** The objective of this project is to reinforce the R&D capacities of CERTE and its regional and international impact with the ultimate goal that R&D activities lead to a fruitful cooperation with the UE for sustainable water management in accordance with the national and European strategies. http://cordis.europa.eu/fetch?CALLER=FP7_PROJ_EN&ACTION=D&DOC=1&CAT=PROJ&RCN=96711	**ONGOING**
ENPI CIUDAD	**WADI - Urban Water Management**. The project will help Lebanese and Palestinian partner municipalities train their staff on-the-job to develop surface water management and flood control plans (in Jericho) and decentralized wastewater treatment (in the Lebanese Chouf municipalities). It will also help implement selected pilot projects and work with NGOs to educate local communities about safe practices. http://www.ciudadprogramme.eu/grant_profile.php?lang=1&sector_id=3&grant_id=6	**ONGOING**
MEDA WATER PROGRAMME	**MEDROPLAN** The main objective of MEDROPLAN was to develop guidelines for drought preparedness plans and to set up a network for drought preparedness actions in Mediterranean countries. The target countries are Cyprus, Morocco and Tunisia.http://www.medawater-rmsu.org/Projects/MEDROPLAN.htm	**CLOSED**
	EMWISE Euro-Mediterranean Information System on the know-how in the Water sector. EMWISE seeks to facilitate access to existing information on know-how in the water sector. It promotes sharing useful information from different institutions and stimulates the development of co-operation programmes at the regional and national levels. http://www.emwis.net/	**ONGOING**
Sustainable Water Integrated Management	**EUWI MED INITIATIVE** Support to the European Union Water Initiative Mediterranean Component The EUWI is based on a **participative multi-stakeholder approach**. Various strategic	**ONGOING**

EuropeAid (SWIM)	partnerships in specific regions draw together government, civil society, private sector and other stakeholders. http://www.euwi.net/wg/mediterranean	
MED Programme	**WATERinCORE.** The project aims at the design, application and dissemination of a methodological frame for the integration of Local Agenda 21 principles in Water Resources Management in Mediterranean River Basins. It is focusing on the identification of the water management practices and policies as well as of the actual state of Local Agenda application in the participants regions. http://www.waterincore.eu/	**ONGOING**
	MEDIWAT. Sustainable management of environmental issues related to water stress in Mediterranean islands. identifying and developing innovative and integrated tools (technical, operational and administrative) for managing environmental issues related to water shortage and quality worsening problems afflicting Med islands. http://www.svimed.eu/index.php?option=com_content&view=article&id=103&catid=5&lang=	**ONGOING**
INVESTINMED	**MED WATER** the Med Water initiative offers a compelling alliance between Catalonia, Italy, Israel and Morocco, pursuing to enhance sustainable cooperation within this sector, while improving the performance of EU and MEDA Water Management and Treatment sector. http://www.invest-in-med.eu/en/agenda/fiche-initiative-med-water-29.html?phpMyAdmin=ad298081751a9322878feb44f511aa7b	**ONGOING**
	EnviroFoodTec- Smart food processing and water waste treatment in dry Med regions. The initiative aims at developing regional synergies between Mediterranean and EU SMEs in the specific sector of technologies for food processing and water waste treatment between business support organisations of the two rims through the share of common practices. The processing of food from raw materials requires large volumes of water. In countries which suffer water shortage and drought it is essential to apply environmental sustainable food processing technologies that foresee water re-use. http://www.invest-in-med.eu/en/agenda/fiche-initiative-envirofoodtec-213.html	
LIFE PROGRAMME	**IWRM** Integrated Water Resources Management works with the MWRI (Ministry of Water Resources and Irrigation, Egypt) to provide technical assistance, training, commodities, and small grants to support decentralization of water management. The aim is to increase water use efficiency and productivity. This is achieved by working with the MWRI to expand decentralization efforts through the establishment of Integrated Water Management Districts (IWMDs), and formation of Branch Canal Water Users' Associations (BCWUAs) http://www.iwrmeg.org/	**ONGOING**
Cross Border Cooperation Programme Italy / France "Maritime"	**RES – MAR** RESEAU POUR L'ENVIRONNEMENT DANS L'ESPACE MARITIME The Strategic Project RES - MAR is designed to improve systems for monitoring, prevention risk management of environmental issues and emergencies, mitigation of pollution relating to soil and water areas. http://www.maritimeit-fr.net/cms/index.php?option=com_shared_private_space&task=showfile&fileid=842	**ONGOING**
FP6 Sixth framework programme	**Nostrum-Dss (Decision Support System)** Network on Governance, Science and Technology for sustainable Water Resource Management in the Mediterranean This Co-ordination Action aims to contribute to the achievement of improved governance and planning in the field of sustainable water management, by establishing a network between the science, policy, and civil society spheres, by fostering active involvement of the relevant stakeholders, and through the development and dissemination of Best Practices Guidelines for the design and implementation of Dss tools for IWRM (**Integrated Water Resources Management**)in the Mediterranean Area http://www.feem-web.it/nostrum/	**CLOSED**

5. Waste treatment and recycling

5.1 Context analysis and needs

Since the mid-Seventies the European Community has adopted legislation and policy initiatives in order to minimise the waste production and to ensure that waste can be reused and recycled as a valuable secondary raw material. Moreover waste strategy and legislation has been considered vital to avoid distortions in the EU single market. Mediterranean Partner Countries are also aiming to the compliance with the waste management principles, sharing common values within the partnership. Various programmes, mainly at national level, focus on the importance of a significant cut in the amount of waste generated, through new waste prevention initiatives, better use of resources, and encouraging a shift to more sustainable consumption patterns.

The approach to waste management as well as the common shared values of the European Union and the Mediterranean Partner Countries are based on three principles:

Waste prevention. This is a key factor in any waste management strategy. If we can reduce the amount of waste generated in the first place and reduce its hazardousness by reducing the presence of dangerous substances in products, then disposing of it will automatically become simpler. Waste prevention is closely linked with improving manufacturing methods and influencing consumers to demand greener products and less packaging.

Recycling and reuse: If waste cannot be prevented, as many of the materials as possible should be recovered, preferably by recycling. The European Commission has defined several specific 'waste streams' for priority attention, the aim being to reduce their overall environmental impact. This includes packaging waste, end-of-life vehicles, batteries, electrical and electronic waste. EU directives now require Member States to introduce legislation on waste collection, reuse, recycling and disposal of these waste streams. Several EU countries are already managing to recycle over 50% of packaging waste. Despite the fact that the Mediterranean Partner Countries are not committed to this target, recycling and reuse are essential to ensure the Countries' sustainable development.

Improving final disposal and monitoring: Where possible, waste that cannot be recycled or reused should be safely incinerated, with landfill only used as a last resort. Both these methods need close monitoring because of their potential for causing severe environmental damage. Therefore when reuse or recycling is not technically or economically feasible, it is important that the participating countries, avoid illegal dumping of waste, ensuring, when possible, incineration with energy recovery (and controlled strict emission level parameters) and finally the safe disposal according to strict guidelines for landfill management. As an example the environmentally sound waste management bans certain types of waste, such as used tyres, and sets targets for reducing quantities of biodegradable rubbish.

The EU Mediterranean countries and the Mediterranean Partner Countries face a variety of problems related to the waste management and in particular to the waste treatment and recycling. In some regions of the EU Mediterranean countries, during the last 15 years, the target of reusing and recycling has reached the significant level of at least 35 % of the total amount of waste, thus reducing considerably the waste to be incinerated and/or landfilled. However the recycling level (over 50 %) defined by the most recent legislation are far to be reached. Mediterranean Partner Countries have recently implemented national and local programmes and projects to reach significant target in reuse, treatment and recycling.

Nevertheless, at a global Mediterranean Sea Basin level, achieved results are still insufficient. The assessment reveals the need of setting up a system aiming to an effective implementation of the environmental policy in the Mediterranean area with particular attention to the waste sector, in order to ensure the most appropriate waste management system, which include treatment and recycling. The success of the strategy is highly dependent on the effective implementation of the following components, which shall be developed in order to:

- ensure the full implementation of the waste management policies at Euro Mediterranean regional level with particular attention to the system of collection for ship generated waste as defined in MARPOL 73/78 – Annex I to V, integrated with municipal and industrial, inert, hazardous and non-hazardous waste, ensuring adequate quantity destined to recycling and treatment;
- strengthen strategic capacity, planning, self assessment and control functions of the public institutions, NGOs, private operators, SMEs involving the citizens in waste management, treatment and recycling planning;
- improve efficiency and effectiveness of human resources through the development and implementation of training programmes and courses for the stakeholders involved, as well as through the implementation of best practices to be developed in pilot projects for the transfer of experiences on management and municipal waste recycling and integrated planning in the framework of the management of natural resources, thus avoiding the wasteful use of land and sea;
- commit the stakeholders through (a) the definition and approval of programmes and plans, (b) the establishment of appropriate monitoring system to ensure the achievement of the objectives.

Moreover, cross-border cooperation in the Mediterranean basin on waste management has to be reinforced especially between urban, peripheral areas and islands. The unique social, economic and environmental characteristics of the countries in the Mediterranean area and their differences between major urban areas, peripheral areas and islands limit the range of possible options for the sound management of waste. Some areas experience diseconomies of scale which limit their competitiveness in the international markets given that these have to incur larger costs to treat their smaller quantities of waste. Major urban areas, peripheral areas and islands should therefore work together to overcome their major obstacle of remoteness and identify common solutions for feasible waste treatment options. Further, the small quantities involved are not economically feasible to process and consume within the small market available within the respective remote areas. These problems reduce the interest of the SMEs in investing in the waste sector. Therefore it is important that the small quantities are all put together to create the required amount to have these recyclables processed within the same countries and also creating a larger market for SMEs products.

Finally, to be efficient, waste management needs to be up-scaled from a local project-based endeavour to a more strategic cross-border one. To reach this objective, a dual-way approach can be suggested: from one side, the implementation of projects leading to strategies and, from the other, undertaking projects that will help implement regional (Mediterranean) and national policies including and exploiting, when possible, regional synergies and improvements. This is necessary to guarantee the integration of the waste management; mostly local, these initiatives are rarely integrated into national strategies, and there is a sort of gap between local and national levels as well as an insufficient interaction among countries.

5.2 SWOT analysis

STRENGHTS	WEAKNESSES
Authorities at central level are committed to support the implementation of the principles of the EU *acquis* When it comes to individual knowledge concerning national laws and regulations, civil servants are usually well trained. The Central and local authorities are committed in implementing the regulatory framework related to EU *acquis* and priorities. Commitment of the Central Authorities is demonstrated by the fact that various EU financed programmes concerning the environmental sector are currently under implementation	Waste management (including treatment and recycling) is currently implemented essentially on a national basis Insufficient infrastructure, equipment, personnel on the field to carry out adequate waste management practices. Competencies and roles of these institutions vary from country to country with different level of efficiency; lack of coordination and participation among different stakeholders and body in charge of control. Difficulties that are likely to be met on 'consensus building' while establishing a preventive approach for waste operators. There is a lack of regional (cross-border) development plans. Standardised, easy-to-use and publicly available data are missing.

Existing waste management practices aimed to reuse and recycling are present at local level, demonstrating the need for waste recycling and treatment. These practices present in the culture can be easily replicated and form the basis for the environmentally sound waste management	Illegal uncontrolled waste dumping. Monitoring and enforcement system is weak.
OPPORTUNITIES	**THREATS**
The favourable environment created by the new EU and MAP strategic and legal documents can help countries to create their own comprehensive frameworks for waste management, always taking into account the particularities of their development stage, institutional context and environmental/development issues. Institutional framework is committed in order to: • clarify procedures, improve transparency, ensure coordination among Institutions • easy implement the Guidelines developed with a consensus-based, approach • broaden the basis of cooperation among different stakeholders in order to guarantee a preventive approach • define standards and procedures for waste management, recycling and treatment Appropriately motivated and qualified staff selected for fine tuning training Social and economic partners motivated to actively participate in the strategic projects	Stakeholders other than the institutional are not effectively participating in the process, thus not ensuring the success in implementing the preventive approach Inappropriate local patterns and behaviours concerning waste management are difficult to be eradicated

5.3 Relevant Projects

PROGRAME	PROJECT/S	STATUS
LIFE	**Integrated industrial solid waste management in Egypt** The project aimed to develop an integrated industrial solid waste management system in an industrial city in Egypt http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=1682	**CLOSED**
Med-Pact	**GUIFORMED** The scope of this project is to prepare the Guidelines for a common, workable formation plan for Managers, Technical Personnel and Operators of coastal wastewater treatment and discharge systems of small and medium size, Municipalities in the Mediterranean Area, aimed at the diffusion of updated operational, control and monitoring techniques for the prevention of marine pollution from domestic and industrial land-based sources. http://www.med-pact.eu/Subpage.aspx?pageid=211&PID=190&FPID=154	**ONGOING**
HORIZON2020 **MeHSIP-PPIF**	**MeHSIP-PPIF** supports the implementation of the first component of Horizon 2020 - "Pollution Reduction" - through identifying and preparing a number of investment projects to secure financial support from EIB and other funding sources. Several projects ongoing. http://www.mehsip-ppif.eu/REP_LISTALL.cfm?id=2	**ONGOING**
MED Programme	**Low Cost Zero Waste Municipality** The project aims to develop an integrated Zero-waste management system for Municipalities that is based on the principles of re-use, recycling and reduce of waste that ends up in landfills and dumps. http://www.med-zerowaste.eu/	**ONGOING**

ENPI CIUDAD	**Green Cities** Strengthening the Capacity of Local Authorities for Ecological Modernization – (develop the capacity of local authorities to: prevent or reduce waste; recycle and reuse; improve disposal by training local authorities and helping them to apply this knowledge in concrete pilot projects) http://www.designcoordinators.com/ciudad_pro/grant_profile.php?lang=1&sector_id=2&grant_id=4	**ONGOING**
	GODEM The project is aimed at settle a network for the exchange of information and experiences between European local/regional authorities and institutions of the southern Mediterranean on the sustainable management of waste treatment. http://www.designcoordinators.com/ciudad_pro/grant_profile.php?lang=1&sector_id=2&grant_id=7)	**ONGOING**

6. Solar energy

6.1 Context analysis and needs

Mediterranean countries have contrasting characteristics in terms of demographic trends and economic growth, accounting for significant energy demand differences between them, and between the two shores of the Basin. In terms of energy consumption, EU Mediterranean countries account for over 70% of the total Mediterranean energy demand. The Mediterranean Partner countries are facing a rapid demographic growth leading to a growing demand for energy services, despite relatively low income and significant socioeconomic development needs. Indeed, their energy demand is estimated to double until 2020. In EU Mediterranean countries, mainly characterized by economies in transition from industry towards services, the demand growth is estimated to be around 30%.

The total Mediterranean primary energy demand has increased from 395 Mtoe in 1970 to around 1000 Mtoe today, representing on average 2.8% growth per year. Even if at a slower pace, it is expected to continue growing in the following years[2]. The share of the demand coming from Mediterranean Partner countries in the global Mediterranean demand has been steadily increasing and this trend is expected to continue, being largely responsible for the overall growth in demand. Nevertheless, per capita demand in Mediterranean Partner countries is still about only one-third of that of the EU Mediterranean countries.

The increase in energy demand has a significant impact on the energy import dependency of the region. Overall total energy dependency in Mediterranean region reached 42% in 2005, and it has been increasing, mainly in the Southern shore. In what concerns the environmental impact of energy consumption, EU Mediterranean countries are currently responsible for the bulk of CO_2 emissions. Nevertheless, this is a condition that tends to be inverted in the future in a business-as-usual scenario; Mediterranean Partner countries are expected to reach about 50% of the overall emissions in 2030. This scenario calls for an increased use of renewable energies. Among the different renewable energy technologies, solar-related technologies have a special relevance in the Mediterranean region, which is characterized by excellent solar conditions, being considered as one of the best locations in the world for solar technologies.

Moreover, issues such as sustainable development and climate change have been gaining greater relevance in the past decades. These concerns can be seen as a driving force for new developments about renewable energy and energy efficiency. Indeed, most governments within the Mediterranean region have recently made strong political commitments to renewable energy and, specifically, to solar energy.

However, the cooperation between EU Mediterranean countries and Mediterranean Partner countries is still insufficient in what concerns knowledge and technology transfer related to solar energy. Despite the several programs created to support cooperation among Mediterranean countries, the existing networks are not enough to support the transfer of know-how and technology, necessary to prompt a quick development of solar energy. In this context, the Mediterranean Solar Plan is a dedicated plan to promote the development of renewable energies (mostly solar-related technologies) and reinforce power grid interconnection, along with the set-up of energy efficiency measures and technology transfer.

Therefore, in the field of solar energy there are a number of issues that have not yet been sufficiently addressed at regional level and where there is room for a concerted and strategic intervention within the Mediterranean region. They include the following areas:

- While the Mediterranean region includes some of the top EU geographical areas in renewable energy R&D, there is still a lack of knowledge on the potential and status of development of solar energy related technologies, and their presence in the different markets is quite unbalanced across the region; some countries have highlighted the need for a better understanding of the potential of solar

[2] OME, *Mediterranean Energy Perspectives*, December 2008.

energy technologies and projected evolution trends, as regards e.g. what could be the best technological alternatives for different sets of resources, particularly of competing solar technologies (PV, CSP, CPV) and technological specifications (storage, balancing of energy output, tracking, etc.);

- There is a well identified need for a better technology assessment, in terms of technologies mapping and projected evolution trends, and for more active and dynamic technology transfer networks in this field across the region, addressing in particular the technological divide;
- There is a lack of dedicated financing instruments in Mediterranean Partner Countries and a generalised decline of the existing financing instruments in the EU, which calls for innovative funding mechanisms and new approaches to market stimulation;
- In many countries there is a wrong public perception regarding the benefits of solar energy investments and the scale of the necessary investments, while the social and economic roles of renewable energies are often not sufficiently acknowledged by the public.

Strategic projects should focus on these issues, building on a clear understanding of the resources available for solar energy in Mediterranean region and the associated technologies and projected evolution trends, and aiming at the uptake of solar energy in the region, in line with the principles stated in the Mediterranean Solar Plan of the Union for Mediterranean, the European Neighbourhood Policy and the Euro-Mediterranean energy cooperation.

6.2 SWOT analysis

STRENGHTS	**WEAKNESSES**
Excellent solar conditions Land-availability in MPCs Strong political commitments to solar energy, with the Mediterranean Solar Plan (MPCs) Ambitious targets for solar energy defined in NREAPs (EU countries) Top EU geographical areas in renewable energy R&D in the Mediterranean region Social and economic role of renewable energy	Lack of competitiveness of solar technologies Market distortions in MPCs (caused by subsidies) Unsupportive institutional framework (MPCs) Lack of dedicated financing instruments (MPCs) Decline of the existing financing instruments (EU) Lack of EU-MPCs knowledge and technology transfer networks Insufficient infrastructure to support renewable electricity generation Insufficient electricity interconnections between MPCs and between these and the EU
OPPORTUNITIES	**THREATS**
Growing environmental concerns Increase in energy demand and growth of import dependence levels Mandatory targets regarding RE share (EU) “20 20 by 2020” Strategy Success of EU policies for solar energy, opportunity of replication A solid basis of cooperation amongst Mediterranean countries, with a growing political emphasis EU regulation allowing cooperation with non-EU countries for RES projects Regions performing well in terms of attracting new investments could behave as “locomotives” for neighbouring regions Potential social and economic role of solar energy Necessity of increasing solar energy market uptake, in order to become competitive New interconnections within the Mediterranean region, to close the Mediterranean ring Gradual liberalization of electric systems (MPCs)	Discrepancy between political commitments and strategic plans Different positions concerning RE (by MPCs) according to the fossil fuel resources available Shrinking of public budgets (EU) Limited experience with the technology in the MPCs Inadequate public perception regarding the benefits of solar energy investments Difficulties on administrative and licensing processes

6.3 Relevant projects

PROGRAMME	PROJECT/S	STATUS
NIF **Neighbourhood Investment Facility**	**Tunisia: Feasibility Study for a Concentrated Solar Power Plant** (CSP).The study has to determine the feasibility of a Concentrated Solar Power Plant (CSP) plant which would contribute to global climate protection by producing environmentally sound electrical energy and avoiding the generation of CO2 with a reasonable economic effort. http://ec.europa.eu/europeaid/where/neighbourhood/regional-cooperation/irc/investment_projects_south_en.htm	**ONGOING**
	Egypt: Combined Renewable Energy Masterplan. The study aims at developing a Renewable Energy Framework (REF) for wind and solar power generation in Egypt serving as the basis for future investments contributing to the goal of global climate change protection. The Master Plan will also include a Feasibility Study for a Concentrated Power Plant (CSP). http://ec.europa.eu/europeaid/where/neighbourhood/regional-cooperation/irc/investment_projects_south_en.htm	**ONGOING**
FP7 **Seventh Framework Programme**	**Combined solar power and desalination plants: techno-economic potential in Mediterranean partner countries (MED-CSD)** It develops hybrid solar/fossil thermal power plants with combined sea water desalination based on concentrating solar power technology (CSP) that can offer a unique, cost efficient solution to the growing energy and water demand. http://www.med-csd-ec.eu/eng/	**ONGOING**
	(E2PHEST2US) Enhanced energy production of heat and electricity by a combined solar thermionic-thermoelectric unit system. This project aims to design and realize innovative and scalable components for solar concentrating systems that generate both electricity and heat and work efficiently at high temperatures (800-1000°C). The proposed concept includes the design, realization and testing of several new component technologies. A high-temperature receiver will be developed to provide the heat input to the converter unit. http://cordis.europa.eu/fetch?CALLER=FP7_PROJ_EN&ACTION=D&DOC=1&CAT=PROJ&RCN=93225	**ONGOING**
	DIstributed CHP GEneration from small size concentrated Solar Power (DiGeSPo) The DiGeSPo project aims to research and build a modular 1-3 kWe, 3-9 kWth micro Combined Heat and Power (m-CHP) system based on innovative Concentrated Solar Power (CSP) and Stirling engine technology. http://www.digespo.eu/default.aspx	**ONGOING**
FP6 **Sixth Framework Programme**	**VSOLHYCARB** Hydrogen from Solar Thermal Energy: High Temperature Solar Chemical Reactor for Co-production of hydrogen and carbon black from natural gas cracking. The SOLHYCARB project addresses the development of a nonconventional route for potentially cost-effective hydrogen production and carbon nanomaterial synthesis by concentrated solar energy. The novel process thermally decomposes natural gas (NG) in a high temperature solar chemical reactor. Two products are obtained: a H_2-rich gas and a high-value nano-material, Carbon Black (CB). http://www.promes.cnrs.fr/index.php?page=solhycarb	**ONGOING**
MED Programme	**ENERMED** - Mediterranean Renewable Energies Enermed aims to coordinate and improve the regional policies of renewable energies. The project intends to pursue this objective through: the creation of a long lasting framework of regional cooperation (EGTCtype) in the field of renewable energies, the convergence of the regional systems in support of decisions, the creation of a database on renewable energies in the Mediterranean including the good practices in matter of regional strategies to support the development of the renewable energies. http://www.programmemed.eu/en/projects/project-database/results/view/single.html?no_cache=1&idProject=87&cHash=cbd7c32cdccc6068ba189de80da36322)	**ONGOING**
	ENERSCAPES - Territory, landscape and renewable energies	**ONGOING**

	This project wants to investigate and evaluate the impacts that a non-regulated diffusion of renewable energy sources could cause on Mediterranean territories and landscapes. By connecting energy and territorial planning, partners will identify suitable strategies for considering ecological, landscape and heritage aspects while setting up renewable energy sources promotion policies. http://www.programmemed.eu/en/projects/project-database/results/view/single.html?no_cache=1&idProject=85&cHash=99873792b2b69b15e9ed30009987b121)	
INVESTINMED	**Sun for Med- Sustainability** - Sustaining a solid Euro-Mediterranean partnership committed to the development and spread of Renewable Energies is paramount to address regional common challenges such as environmental sustainability and energy security. This initiative, under the leadership of COPCA and with partners from Palestine, Israel, Egypt, Czech Republic, France and Italy, intends to contribute to this aim by unleashing Mediterranean business potential and enhancing sustainable regional cooperation with ongoing initiatives in the solar heating and photovoltaic sectors. http://www.invest-in-med.eu/en/agenda/fiche-initiative-unleashing-the-solar-sector-in-the-mediterranean-sun-for-med-sustainability-438.html	**CLOSED**
	Med Energy - Med Energy is promoting and supporting enterprises in the sector of alternative and renewable energy which intend to invest in Tunisia or Egypt. Through exchanges of know-how, technologies and scientific cooperation it is dedicated to the development of industrial partnerships and the creation of stable cooperation agreements. http://www.medenergy.org	**ONGOING**