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**Committee of the Regions**

# **Cross-border cooperation in the Mediterranean Region**

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# Introduction

## Scope and Objectives

The aim of this note is to provide the information necessary to prepare the Euro-Mediterranean Regional and Local Assembly (ARLEM) report on cross border cooperation (CBC) in the Mediterranean region, covering the Union for the Mediterranean (UfM) member countries. This report, divided into five sections, covers:

1. an analysis of the most innovative sectoral policies implemented in the Mediterranean Sea Basin area within the thematic areas identified in the CBC-Mediterranean Sea Basin Programme (CBC-Med) 2014-2020 framework;
2. an in-depth analysis of the most pressing socio-economic issues in selected mid-sized towns and regions of the Euro-Mediterranean region;
3. case studies of recent projects conducted in the areas under investigation;
4. recommendations on possible monitoring tools able to define environmental practices present lessons learned and recommendations for the next programming perspective; and
5. a focus on the most promising projects fostering mitigation and adaptation strategies.

## Methodology

During the first stage of this project, our team gathered background information and created short lists of the policies, projects, and towns to be considered for further analysis, as well as an indicative list of potential interviewees. During our selection process, we considered i) the definition of “innovation” as described in the Innovation Union plan, ii) the goals set forth in the European Neighbourhood and Partnership Instrument (ENPI) (2007-2013) and the European Neighbourhood Instrument (ENI) (2014-2020) CBC-Med Programmes, iii) the political and socio-economic situation in the region, iv) project evaluations conducted by the CBC-Med Joint Managing Authority (JMA), and v) the availability of the required data and documentation.

The desk research was supplemented by interviews conducted with the leaders and participants of the projects shortlisted during the first phase of this project. Overall, the team sent 115 email requests to the institutions and persons involved in 27 projects. However, the response rate was low: we received six completed questionnaires and were able to conduct three interviews. Hence, our final analysis is based predominantly on the information gathered during the desk research stage and the materials received from the CBC-Med JMA. The exception is the case studies, which were prepared primarily based on information obtained during our interviews.



# 1. Presentation and analysis

## 1.1 Using multimedia technologies for cultural management

Cultural and natural heritage sites in the Mediterranean region are using augmented reality (AR) applications to attract tourists and to improve their experience while visiting selected cultural and heritage sites. Among the AR applications used are 3D modelling and virtual reconstructions of archaeological sites, which can be viewed using AR goggles, as well as 2D and 3D projections on cultural and historic buildings and heritage sites, which are combined with sound and lighting effects. Selected sites use interactive, responsive video installations and special mobile applications allow tourists to obtain additional information and virtual elements by pointing mobile phone cameras at a site. Tourists may even take virtual tours without visiting sites in person.

*Implemented under projects: I AM and HELAND, Priority 1-Promotion of socio-economic development and enhancement of territories. Topic 1.2 Sustainable tourism*

Although the technologies used in these projects are not state of the art, the aim of this project was to make use of widely available and relatively inexpensive technologies that could benefit a wide range of audiences, rather than, as one project participant noted, “pursuing innovation for the sake of innovation.” These technologies were used to enhance tourist site management and attract more tourists to the region and, as a result, to create more jobs in the sector. The results of this initiative are difficult to measure in quantitative terms; however, despite the marked decrease in tourism in many of the southern Mediterranean countries due to the volatile political and security situation in the region, the results from the pilot projects conducted under the I AM and HELAND projects were encouraging.

*Key success factors:* i) a widespread interest in mobile applications and AR techniques, particularly among young people; this is especially promising in terms of new jobs and start-up creation; and ii) a high level of motivation among local actors to engage in projects in a bid to attract more tourists.

*Main threats:* i) the unwillingness of some local actors to share their expertise with colleagues, fearing increased competition; ii) maintaining a balance between the technical aspects of the project and its cost-effectiveness and, therefore, sustainability; and ii) the volatile political situation in the region,

which has led to restricted access to certain tourist sites in Palestine and restrictions on large public gatherings in Lebanon, Tunisia, and Egypt.

## 1.2 Using native plants in various sectors of the economy

*Implemented under project: BIO-XPLORE Priority 1. Promotion of socio-economic development and enhancement of territories. Measure 1.1. Support to innovation and research in the process of local development of the Mediterranean Sea Basin countries*

Although the market for multi-component botanicals has been growing globally, with components such as garlic, aloe extract, and ginseng used in the production of dietary supplements, food additives, and cosmeceuticals, the medical plant sector in the Mediterranean region remains largely underdeveloped. A

key objective of this programme was to utilise the bio-diversity of the Mediterranean Sea Basin, to boost local industries and create jobs, and, at the same time, contribute to the protection of its natural resources. In one project, a number of native plants compounds (e.g. in Palestine, 1,500 extracts belonging to 602 species) were collected, studied, and categorised according to their potential usefulness for the agricultural, cosmetic, pharmaceutical, and biotech industries. Scientists used the innovative Screens-to-Nature (STN) technology, which allowed for both the screening of tens of thousands specimen in a relatively short time and the engagement of local experts and groups in the screening process.

Twenty native plant compounds with potential uses in these industries were identified. Among others, the potential uses of these plant compounds include: the use of the family of copper(II) polyamine complexes in chemotherapy; the use of the in-vitro activities of selected Palestinian herbs in the treatment of Alzheimer's disease and diabetes; the anti-inflammatory properties of *Peganum harmala*; the bioactivity of *viscum album* extracts from olive and almond host plants and *Rhus coriaria* berries; and the antibacterial properties of Palestine Oak, Terebinth, Golden Chamomile, and Mediterranean Stinkbush.

The goals of the project were to cultivate plants in their natural habitats and to develop local factories to extract the active materials from these plants. Patents were transferred to local and regional commercial companies in exchange for a percentage of their future income. These funds are used to sustain local centres tasked with continuing the research, dissemination, and training activities of the project after its completion.

*Key success factors:* i) a high level of motivation among project partners and a willingness to cooperate despite political differences (especially between



Palestinian and Israeli partners); and ii) the vast majority of project experts were local; this ensured the sustainability of the programme and local centres after the project ended.

*Main threats:* i) the exclusion of national-level Palestinian and Israeli authorities from the project due to the political situation could negatively affect the sustainability of the project as it limits the prospects of public funding for the centres; ii) the risk of an early take-over of the commercialisation process by foreign commercial companies due to the lack of funding, equipment, and expertise of some (especially Palestinian) partners; and iii) misunderstandings regarding intellectual property rights, the exploitation of scientific results, and the division of royalties between project partners and the Global Institute for BioExploration (GIBEX), which acts as an umbrella organisation in the project.

### 1.3 Developing sustainable energy microsystems

*Implemented under project: DE.DU.ENER.T. Priority 2. Promotion of environmental sustainability at the basin level. Topic 2.3. Solar energy. Thematic objective: B.4.3. Supporting cost-effective and innovative energy rehabilitations relevant to building types and climatic zones, with a focus on public buildings*

The sustainable energy microsystems developed under this project use solar thermal, photovoltaic (PV), and mini wind turbine systems to generate electricity and provide hot water.

Two microsystems were installed under this project: one in Hammam-Lif, Tunisia and the other in Valderice, Italy. The cost to establish these

microsystems is around € 100,000 (excluding personal costs). Maintenance of the microsystems is low-cost; the only major work required regularly is dust removal. As these pilot projects are relatively new, we are not yet able to provide accurate figures regarding energy usage and cost savings. However, Tunisian engineers estimate that the installation at the Tunisian Research and Technology Center of Energy, which is capable of producing approximately 20,000 kWh annually, will provide the building with roughly 33% of its energy needs and reduce its yearly energy spending of € 4,000 by a third. The system is also designed to work equally well on a smaller scale for private houses. Additional energy produced will be stored in hydrogen and traditional batteries integrated into the system, which can either be used later or sold to the national grid—a policy enabled in Tunisia by Law in May 2015, which liberalised the rules regarding both the production and distribution of electricity.

These microsystems are not only cost-effective and contribute to the goal of producing clean, renewable energy, but they also help to secure energy independence on both the private and the national level, and make access to

electricity and hot water easier for populations living in remote areas, where access to electricity grids is not always possible.

*Key success factors:* the introduction of Law No. 12 of 11 May 2015 making the production and redistribution of renewable energy permissible for private companies and individual users.

*Main threats:* the political situation in Tunisia and a lack of adequate funding.

## 1.4 An integrated reward system for recycling

*Implemented under project: GMI Priority 2. Promotion of environmental sustainability at the basin level. Topic 2.2. Waste treatment and recycling*

This policy was designed to work through two channels: i) encouraging young people to recycle bottles and cans using reverse vending machines (RVMs) in return for points that can be later exchanged for material rewards and ii)

educating them on the importance of recycling through a series of workshops, campaigns, and events.

RVMs were installed in selected schools and universities across five Mediterranean countries: Lebanon, Egypt, Italy, Spain, and Tunisia. Students register through an online platform synchronised with the RVMs, where they create personalised profiles, collect points, and redeem rewards (including both material awards, such as headphones and cameras, and vouchers for charity donations). The online platform also provides information on the progress of each participating school or university in the “recycling competition”, as well as information on recycling itself. Despite delays in the delivery and installation of many RVMs due to political instability, the project team reported over 400,000 empty bottles and cans returned during the period from the summer of 2015 to March 2016. It is estimated that 20 tons of used bottles and cans will be collected and recycled through this scheme.

Communication and awareness activities were also delayed. It wasn't until 2016 that the projects were able to organise six awareness campaigns in various schools. Although the exact number of young people involved in this programme has yet to be calculated, it is estimated that the number of participants will reach 10,000.

*Key success factors:* i) the well-defined and enjoyable incentives offered to young people and the use of an attractive way to collect points (via mobile apps and the online platform); and ii) the development of an easy-to-use monitoring tool that allows local actors to implement and monitor recycling projects in schools, universities, and small and medium-sized enterprises (SMEs).

*Main threats:* i) once again, the political situation in the region, which caused major delays and may also negatively affect the future organisation of educational and awareness activities and the timely installation of RVMs in educational institutions; ii) the legislation of some countries; for instance, in France, the selling of canned drinks in schools is forbidden, which effectively excludes French schools from participating; and iii) the constant need to secure sponsors for funding awards.



## 2. A deeper analysis of emerging trends

In this section, we present the initial results of our analysis of selected representative regions in the Euro-Mediterranean region.

### 2.1 Northern Mediterranean

#### Italy and Greece | Case study: Campania and Thessaly

Italy has been struggling with sluggish GDP growth, low productivity, and lost competitiveness over the past decade. A highly rigid labour market (strong protection for employees in larger firms) and high labour taxation (6th highest tax wedge in Organisation for Economic Co-operation and Development (OECD) countries in 2014) negatively affect job creation and the efficient matching of skills. Moreover, the divergence between northern and southern Italy is significant: GDP per capita is 40% lower in southern Italy than in northern Italy. One of the main challenges facing southern Italy is a scarcity of jobs, which manifests itself in relatively high unemployment, particularly among women and youth (25% of women aged 20-64 and 56% of youth aged 15-24 are unemployed).

Greece is struggling with the most severe economic crisis of its modern history, having lost 26% of its GDP since 2007. The divergence between northern and southern Greece is not as stark as in Italy. Nevertheless, there is still a spatial aspect to Greece's economic issues, as the south has a higher proportion of citizens at risk for poverty or social exclusion. In addition, the Greek labour market has worsened due to the recent debt crisis and, as a result, the country has registered the highest unemployment rate among EU Member States for the last three years. Furthermore, the social cost of the crisis caused two increases in child poverty, with a concomitant rise in housing costs (according to the OECD). The structural inefficiency of the Greek economy is perhaps best exemplified by two following facts: weak export performance (12% of GDP) and high long-term unemployment (73.5 % of unemployed people).

#### *In focus: Campania and its capital, Naples*

Campania is a vulnerable region in southern Italy, with high rates of social exclusion and a population at risk of poverty. With a population of almost six million, Campania had a 2013 GDP per capita of roughly \$21,000 (with a rate of nearly \$22,000 for Naples), as compared to the national average of almost \$33,000 (OECD). Furthermore, the rate of people experiencing social exclusion in Campania is nearly 50%, as compared to the national average of 28%.

Campania's unemployment rate stands at 21.7%, as compared to the national average of 12.7% and the EU average of 10.2%, with unemployment rates for women and men at 25.3% and 19.7% respectively (Eurostat). The figures for youth unemployment are even more alarming: 56% of young people in Campania are unemployed (54.1% of young men and 58.8% of young women). Additionally, 60.8% of unemployed people in Italy suffer from long-term unemployment (OECD). The NEET rate (people aged 15-24 not in education, employment, or training) is approximately 30% in this region, as compared to the national rate of 22.1% and the EU rate of 12.5% (Eurostat). Furthermore, the rate of those at risk of poverty in Campania is nearly twice that of the national average (38.1% as compared to 19.4%), confirming Campania's vulnerability.

The socio-economic situation of the region is worsened by a lack of dynamism of the entrepreneurship sector. Indeed, self-employment is seen as difficult to rely on as a source of income, and launching a new business is problematic: Naples, the capital of Campania, was ranked 12th out of 13 cities in the World Bank's "ease of doing business" ranking for Italian cities in 2013. Moreover, the Global Entrepreneurship Monitor classifies Italy as having a long tradition of entrepreneurship, but little innovation "due to the lack of a supportive entrepreneurial ecosystem".

*In focus: Thessaly and its capital Thessaloniki, Greece*

With a population of over 957,000, and providing Greece 8.43% of its workforce, Thessaly had a 2013 GDP per capita of about \$18,500 as compared to the national rate of \$24,000 (OECD). In Thessaloniki, 44% of the working-aged population is employed, as compared with the national rate of around 50% (and the EU rate of 70.1%) (Eurostat). The employment rate in Thessaly is 51%, which is half a percentage point higher than the national average. The female employment rate in Thessaly is 39%, as compared to the national average of 41.1% (Eurostat). The unemployment rate for Thessaly, at 25.4%, has doubled since 2010. Women experience higher unemployment rates (31.9%) than men (20.3%) (Eurostat). The youth unemployment rate in Thessaly, at 60%, is also a troubling issue, with young women being the most affected (at 75.9% as compared to 46.4% for young men).

Regarding long-term youth unemployment, 73% of unemployed people in Greece are experiencing long-term unemployment (OECD). Moreover, 9.15% of national unemployment is found in Thessaloniki (OECD). The rate of early school leavers is lower in Thessaly (5.9%) than that of Greece overall (9%), and both rates are lower than that of the EU (11.2%). Here, we observe a significant gender gap between the 2012 rate of female early school leavers (7.4%) and male early school leavers (16.3%) (Eurostat). The percentage of NEETs in Thessaly is equivalent to the national average and accounts for about 20% of

young people, which is much higher than the EU average of 12.5%. Additionally, nationally, 36% of people are socially excluded or at risk of poverty (Eurostat). Greece is ranked 54th out of the 189 countries listed in the World Bank's "Doing Business" ranking of 2016 in the category "starting a business." Moreover, according to the Global Entrepreneurship Monitor, fear of failure in Greece is one of the highest of the studied countries.

## **2.2 Southern Mediterranean**

### **Mashreq | Jordan and Lebanon | Case study: Tarablus, Lebanon**

Since the outbreak of the Syrian civil war, both countries have been struggling with an influx of Syrian refugees who have drained the already-limited resources of their beleaguered economies, putting a strain on public finances (the World Bank estimates that hosting refugees costs Jordan over \$2.5 billion a year). This influx has also affected the labour market (the official unemployment rate in Jordan stands at 13%, while the unofficial rate has been estimated to be as high as 30%; in Lebanon the two rates are estimated to be roughly the same) and service delivery, as well as adversely affected the environment and security. Most of the refugees in Jordan, and all displaced persons in Lebanon, live outside of the refugee camps, in host communities and informal tented settlements (ITS), and they are not evenly distributed between the various parts of the countries in question. In Jordan, 76% of Syrian refugees live in the northern governorates: in Amman, Irbid, and Mafraq.

Similarly, in Lebanon, 85% reside in the Bekaa, Beirut, and North Lebanon governorates (United Nations High Commissioner for Refugees (UNHCR)). This concentration of refugees in towns and villages that were already suffering from poverty, unemployment (especially among youth and women), poor infrastructure, and the inefficient delivery of municipal services not only objectively lowered the quality of life of host communities (with poverty rates increasing and income inequalities widening), but also created tension between residents and refugees.

*In focus: Tripoli (Tarablus), Lebanon (Governorate: North Lebanon)*

Tripoli is second-largest city in Lebanon and a capital of the North Governorate (see Annex 2). There are 787,709 people living in the entire governorate; Syrian and Palestinian refugees comprise 22% and 7.5% of its population, respectively (UNHCR). The city itself is host to 62,000 registered Syrian refugees, but the actual numbers are probably much higher. Even before the arrival of the refugees, the city suffered from high poverty rates, unemployment, and crime.

Currently, the United Nations calls Tripoli “a deeply deprived city” (Economic and Social Commission for Western Asia (ESCWA), 2014). More than half (57%) of the families in the city suffer from deprivation; in some neighbourhoods, like the notorious Bab al-Tabbaneh, this figure is as high as 80%. One in four families in Tripoli, and one in two in Bab al-Tabbaneh, were labelled “extremely deprived” by the ESCWA. The Bab al-Tabbaneh mostly Sunni neighbourhood is moreover in a constant conflict with the mostly Alawite Jabal Mohsen. Indeed, the situation in the city is, to a large extent, a mirror of what is happening in Syria, and fighting between both neighbourhoods erupts on regular basis.

According to the survey conducted by the United Nations International Children's Emergency Fund (UNICEF) and the Office for the Coordination of Humanitarian Affairs (OCHA), both local host communities and refugees believe the most pressing needs in the governorate are employment and health, although the latter were also very concerned with the issue of winterisation. The main sources of social tensions were identified as a lack of confidence in institutions and social fragmentation. Both the host and incoming populations are also increasingly worried about youth violence (this is true especially for female respondents), which is seen as related to high youth unemployment. The rapid growth of the population has resulted in an overstretch of resources: electricity and solid waste management (highly dysfunctional in the entire country), as well as the increasing costs of education and healthcare (there are only three hospitals in the entire governorate).

Despite the presence of many international agencies, charities, and non-governmental organisations (NGOs), 6% of households reported eating at least one meal less than usual as a way of coping with the deteriorating situation (22% reported having eaten two meals and 5% - one meal preceding the day of the survey; REACH Resource Center). Furthermore, an increasingly difficult housing situation has resulted in a growing number of informal tented refugee settlements.

## **Maghreb | Morocco | Case study: Kentira**

Although Morocco’s economic growth rebounded in 2015 to 4.4% from an average of 3.8% during 2013-2015, the unemployment rate declined to 9.3%, and unemployment rates among young people remained relatively high, exceeding 20%. A lack of job opportunities remains one of the major causes of Moroccan emigration. Indeed, although the number of new arrivals to the EU has been steadily declining following the financial crisis of 2008, Morocco is one of the top three countries of origin in the Arab region when it comes to emigration (with 2,854,502 Moroccans living outside of the country in 2013



(ECSWA)). In fact, Moroccans are also still the single largest group of non-EU nationals who received citizenship in one of the Member States (86,541 in 2013, far ahead of the second-place nationality, emigrants from India, who saw 48,266 in the same year). Altogether, in 2013, there were 1,371,830 Moroccans residing in the EU.

It is not only low-skilled labourers that are leaving the country; it is estimated that 20% of highly skilled Moroccans live abroad. Some of the other issues confronting the country, which are, to a large extent, representative of those troubling the entire Maghreb, are internal migration from rural areas to towns and cities, the tourist sector continuing to suffer from the political situation in the region, and growing radicalisation. An additional challenge is the continuous inflow of migrants from sub-Saharan Africa, who, although mostly treat Morocco as a transit country en route to the EU, are increasingly being sent back from the EU or stopped on their way, and forced either to return to their country of origin or stay in Morocco (tending to choose the latter).

*In focus: Kenitra (Al-Qunayira)*

Kenitra is a mid-sized city on the Northern coast of Morocco, with a population of 430,000 and a port on the Sebou River (currently under reconstruction). Although in 2013, unemployment in the city (10.9%) was higher than the national average (9.2%), it remains relatively low when compared to other countries in the region (see Table Z). Quite interestingly, female unemployment rates in the Kenitra region were lower than that of males (9.1% and 11.5%), although this was a result of the low unemployment rate among rural women (3.8%, the female unemployment rate in urban areas stood at 22.1%). In general, unemployment in Kenitra itself was much higher (16.6%) than in the rural parts of the region (6.9%).

The lack of opportunities for urban youth and the generally unfavourable economic situation in the city has been noticed by the national authorities, with King Mohammed VI launching a new strategic plan for 2015-2020 for the sustainable development of the city and region. The plan includes the creation of a wastewater purification plant and a regional hospital, as well as the establishment of the Atlantic Free Zone on its outskirts. Moreover, a new Peugeot Citroën automotive plant is to be opened in 2019. Nevertheless, it is too soon to talk about the “reverse brain-drain” (FT 2016), and more efforts to create job opportunities and improve housing prospects are needed. Another serious problem in the city is the alarming rise in crime rates, including violent crimes (homicides, murders, and rapes), which increased by 8% between 2014 and 2015.



### 3. Case studies

In this section, we present and analyse four case studies. In order to ensure the most representative selection possible, the following selection criteria were applied: (i) the inclusion of at least one project from the top 10% of the best performing projects and one project from the bottom 10% of the worst performing projects, (ii) the inclusion of at least one project from the CBC-Med Programme and one from the Italy-Tunisia Programme, and (iii) each project should be funded under different thematic objectives. Additional criteria were the availability of necessary data and documentation and the responsiveness of the beneficiaries contacted. In addition, one project funded by an international donor was selected; a USAID project was chosen because it had been repeatedly referred to by interviewed stakeholders as an example of a successful grant-maker. The findings presented below are based on interviews conducted with project leaders and participants of ENPI-funded projects, as well as questionnaires, documentation received from the CBC-Med JMA, and materials found online. The analysis of the USAID project is based solely on the final report and evaluation of the project available online.

#### 3.1 Sustainable development in territorial energy production (DE.DU.ENER.T.) | Italy-Tunisia Programme

**Total cost:** € 733,948.00  
**ENPI contribution:** € 660,528.17  
**Expected duration:** 18 months (12.2013-06.2015)  
**Actual duration (including extensions):** 30 months (12.2013-06.2016)  
**Partnership:** *Lead Partner:* Municipality of Valderice, Italy; *Project Partners:* Research and Technology Center of Energy, Tunisia; The University Consortium of the Province of Trapani, Italy; Regional province of Trapani, Italy.  
**www:** <http://deduenert.eu/>

The objective of this project was to develop sustainable and efficient renewable energy microsystems that could both produce and store energy from various sources (solar thermal, photovoltaic (PV), and mini-wind). The microsystems were to be used in remote areas of both Tunisia in Italy, where (especially in the case of the former) traditional energy grids are not always available. The project team also educated local actors and decision

makers on the importance of renewable energy, and organised workshops for technicians and engineers (50% of whom were women). The development of microsystems is not only environment-friendly, but also positively contributes to building the energy independence of both countries.

*Key takeaways:* i) the national contact point in Tunisia does not serve its purpose and does not provide local partners with the necessary information and assistance; and ii) an expected project duration of 18 months is too short to properly implement a technical project that involves a significant amount of planning and testing, especially given the substantial amount of paperwork required both on the national and EU-level.

### 3.2 Mediterranean network for the promotion of sustainable urban development strategies (USUDS) | CBC-Med

**Total costs:** € 2,863,011.03  
**ENPI contribution:** € 1,783,742.47  
**Expected duration:** 24 months (10.2011-10.2013)  
**Actual duration (including extensions):** 36 months (10.2011-10.2014)  
**Partnership:** *Lead Partner:* Metropolitan Hydraulic Services and Waste Treatment Organisation of the Metropolitan Area of Barcelona acting as Medcities General Secretariat; *Project Partners:* Larnaca Municipality; Cyprus; SAIDA Municipality; Lebanon; Urban Community Al Fayhaa, Lebanon; CIEDES Foundation “Center for Strategic Research and Economic and Social Development in Malaga”, Spain; Sfax City Council, Tunisia; Sousse City Council, Tunisia.  
**www:** <http://www.medcities.org/en/web/usuds>.  
 \*One of 10% worst performing projects, according to the CBC-Med Joint Authority.  
 \*\* Standard projects. Call 1. Priority 1. Promotion of socio-economic development and enhancement of territories. Measure 1.3. Strengthening the national strategies of territorial planning by integrating the different levels, and promotion of balanced and sustainable socio-economic development.

This project aimed at improving the quality of life of the growing urban populations in the cities participating in the project by virtue of developing urban development strategies for Sousse (Tunisia), Larnaca (Cyprus), and Saida (Lebanon). To ensure the sustainability of the project, three knowledge transfer centres (KTCs) responsible for the dissemination of resources on strategic city planning were established: a primary KTC in Malaga, Spain, and its territorial antennas in Al Fayhaa, Lebanon and Sfax, Tunisia. An online database ([www.usuds.org](http://www.usuds.org)) designed as a tool and source of knowledge and good practices for stakeholders involved in city planning was also created. Additionally, two pilot projects (one in Sousse and one in Saida), five technical assistance projects (three in Sousse and two

in Saida), and two additional assessment studies in Larnaca were conducted. The project team organised training sessions, workshops, methodological seminars, and debates for local actors, experts, and all relevant stakeholders engaged in urban development.

*Key takeaways:* i) “The problem of urban development in the Mediterranean is not always a lack of funds but a lack of priorities identified”; ii) funding was also a major issue, especially for the Tunisian and Lebanese partners; problems were caused both by delays in receiving transfers due to administrative issues and a lack of internal financing (the share of the budget not contributed by the EU); iii) the political and security situation in southern Mediterranean countries can seriously delay and impede the implementation of the project, especially in regards to communication and dissemination. It is vital to allow for delays during the planning stage; and iv) on the plus side, the Arab Spring encouraged positive changes and decentralisation in some states, making the attitudes of local authorities towards the changes proposed under the project more favourable.

### 3.3 Mediterranean network for the promotion of sustainable urban development strategies (USUDS) | CBC-Med

**Total cost:** € 3,060,650.00  
**ENPI contribution:** € 2,754,583.00  
**Expected duration:** 36 months (10.2012-10.2015)  
**Actual duration (including extensions):** 36 months (10.2012-10.2015)  
**Partnership:** *Lead Partner:* Municipality of Alghero, Italy; *Project Partners:* American University of Beirut (AUB), Lebanon; Association of Geographic Research and Studies (AREG) of the University of Manouba, Tunisia; Bibliotheca Alexandrina (Library of Alexandria), Egypt; Department of Antiquities of Jordan—I Umm-Qais Antiquities Office, Jordan; Jordan University of Science and Technology (JUST); Koniclab Association—Contemporary Creations & New Technologies, Spain; Ministry of Culture (Government of Catalonia), Spain; Municipality of Al Taybeh, Palestine; Municipality of Jebeil-Byblos, Lebanon; ONTT - Regional Commissariat for Tourism of Nabeul-Hammamet, Tunisia; RIWAQ, Palestine; University of Genoa (UniGE), Italy; i2CAT Foundation - Internet and digital innovation in Catalonia, Spain.  
**www:** <http://www.iam-project.eu/>  
 \*Top 10% best performing projects according to the CBC-Med Joint Authority.  
 \*\*Strategic projects. Priority 1. Promotion of socio-economic development and enhancement of territories. Topic 1.2. Sustainable Tourism.

The main goal of this project was to implement and popularise innovative multimedia technologies in the tourism sector. In each country involved (Italy, Spain, Lebanon, Palestine, Egypt, Jordan, and Tunisia), a pilot project was conducted using a selection of new technologies to demonstrate how AR can enhance the experience of tourists visiting cultural and natural heritage sites. Moreover, the project aimed at raising the awareness of and enhancing

technological transfer among local and regional administrations (LRAs), SMEs,

experts, tourist operators, and other relevant stakeholders. This was achieved by organising workshops, festivals, and exhibitions of multimedia technologies. A call for multimedia contributions, under which anyone interested in video mapping, mobile applications, and audio-visual products could submit their products and present ideas was also announced.

*Key takeaways:* i) Large partnerships are difficult and costly to manage, especially in strategic projects with an unclear division of work between partners; ii) The sub-granting scheme proved to be very beneficial and successful in engaging young people (especially from southern Mediterranean countries) interested in new technologies and/or involved in start-ups; iii) Imposing gender quotas or organising female-only events can be counterproductive, with participants not interested in the topic and/or lacking the expertise to fully engage in workshop activities; and iv) Working with LRAs is beneficial when implementing pilot projects; however, national-level authorities are better partners for capitalisation activities.

### 3.4 Improving water and sanitation services in the Middle East and North Africa (MENA) region (IWSMR) | USAID Middle East Bureau/Technical Services (ME/TS)

**Total cost:** \$ 1,991,240  
**USAID contribution:** 100%  
**Duration:** 10.2013-09.2015  
**Beneficiary:** Chemonics International, Inc.  
**Partnership:** Arab Countries Water Utility Association (ACWUA)  
**www:** [bit.ly/26gAKYx](http://bit.ly/26gAKYx)

The main goal of this project was to improve water and wastewater management and engineer and operator performance in MENA countries by enhancing the capabilities of the Arab Countries Water Utility Association (ACWUA) and developing training and certification programmes in cooperation with the Regional Operator Certification and Training Program (ROCTP). The project built on the results of previous USAID

interventions in Jordan and Egypt. As a result of this project, the ACWUA Strategic Business Plan for 2015-2019 was developed and 244 persons involved in the water sector were trained and certified (25% of whom were women and 38% were young professionals aged 25-35). Moreover, five utility twinning exchanges were launched, and a new unit working on certification processes was established.

*Key takeaways:* i) To ensure the sustainability of the programme, each participating utility should be required to pay membership fees; ii) Local partners (water utilities) have limited capacities (financial, legal, and administrative); iii) A longer project duration might contribute positively to project sustainability and the capitalisation of its results; and iv) A “pre-award”

survey conducted by an independent auditor was very useful for assessing a beneficiary's capacity to receive independent grants; a "post-award" survey was also recommended.

### **3.5 Recommendations and lessons learned**

- A number of interviewees (especially those based in southern Mediterranean countries) underlined a need for a less bureaucratic and strict approach during the application, implementation, and reporting (especially financial) stages. Some southern Mediterranean partners noted USAID as an example of a donor with a more flexible approach. This was mentioned especially by smaller institutions. Some interviewees who participated in other EU-funded schemes mentioned as a good example of more beneficiary-friendly policies the use of the EU's Participant Portal, which was seen as more intuitive, easier, and less burdensome to use than the procedures of the CBC;
- The excessive bureaucracy, according to beneficiaries, forced many, especially smaller, leading partners to devote less attention to internal communication between partners because too much time was spent on paperwork;
- The management costs assumed in project applications were reported by some, especially larger, consortia to be insufficient for an efficient and timely implementation of the project. At the same time, it was feared that assuming higher management costs during the application process would adversely affect the chances of a project of being chosen; it was suggested that clear guidelines on how much could be spent on these issues would be helpful;
- While all interviewees were appreciative of the work conducted by the JMA and the Joint Technical Secretariat (JTS), as well as their "common sense" approach, most stressed that both units were understaffed and "perhaps underfinanced", which caused delays in resolving problems and requests;
- Many interviewees experienced delays in receiving funding, which was especially problematic for smaller institutions that could not proceed with their work. Similarly, the pre-advancing scheme was seen as problematic, again, especially for smaller partners (and especially those based in southern Mediterranean countries). Some interviewees expressed concern that this policy may have effectively excluded some small potential beneficiaries (that, unlike bigger entities, were not in a position to secure loans);

- The unstable political situation in many of the southern Mediterranean countries adversely affected the performance of most of the consortia contacted;
- Language barriers were reported as an issue by all beneficiaries contacted (mostly between English- and French-speaking countries; finding skilled translators to Arabic for more technical projects was also a problem);
- All interviewees underlined that the cooperation between project partners was, despite language problems, very beneficial, especially because they usually do not have a chance to work with institutions from “the other side” of the Mediterranean Sea, and that this cooperation is perhaps the biggest added value of the entire programme – one of the “unexpected” positive outcomes of the projects are new partnerships and collaboration projects formed between participating institutions that continue beyond the project itself.



## 4. Recommendations

For many projects, monitoring tools are an essential part of their programme and are key project deliverables. In this section, we review several monitoring tools from ENPI CBC-Med 2007-2013 programming that were developed and implemented to assess the impact of environmental policies. In some projects, these tools become a direct programme deliverable, while in others, they were created as a supportive instrument or as a positive externality. Following this review, we offer recommendations and lessons learned.

### **Monitoring water quality**

*Sustainability and Tourism in the Mediterranean (S&T MED)*: This consortium developed a monitoring tool to measure the quality of water in Mediterranean Sea Basin. Monitoring buoys were placed at each project site: Mahdia (Tunisia), Sinis (Italy), and Aqaba (Jordan). These buoys are used to provide tourists with information on the current quality of water. The positive effect of these indicators is twofold: tourists can be certain about the quality of the water they use, and, at the same time, are actively engaged in environmental monitoring and protection activities. Beyond information on water cleanliness, their awareness of the local ecosystem has also increased. Moreover, these environmental monitoring systems cooperate with the transnational Observatory on Sustainable Tourism and the worldwide database of Long Term Monitoring Stations, providing an understanding of global trends in environmental changes.

*Adaptation to Climate Change through improved water demand management in irrigated agriculture by introduction of new technologies and best agricultural practices (ACCBAT)*: This consortium developed an irrigation water quality index (IWQI) to use treated wastewater in irrigated agriculture in Jordan, Lebanon, and Tunisia. The IWQI assesses water quality conditions for irrigation, displaying a green (adequate for irrigation), yellow (warning), or red (extreme restrictions) light based on its analysis. If one parameter does not fit the best target, the system suggests a set of conditions in which the water can be used. With this approach, sub-optimal water can be reused and it is not eliminated.

### **Monitoring the quality of separated waste**

*Sustainable Mediterranean Old Towns (SMOT)*: This project developed a system for urban waste management in the Mediterranean Sea Basin by creating waste storage rooms (ecostations) for public use in the “old towns” of participant countries (e.g. Ragusa, Italy). To encourage citizen participation, the project developed an ecoportal where citizens can view daily statistics, such as how many people visit the ecostation, the type and weight of waste delivered,

and the quality of the separated waste. Furthermore, the platform is also a communication tool. Participants can view statistics on their own waste collection, as well as find information and guides on how to improve their own behaviour in this manner.

### **Monitoring air pollution**

*Gouvernance de la qualité de l'air dans les villes méditerranéennes (GOUVAIRNANCE)*: The goal of this project was to reduce urban air pollution in the Mediterranean Sea Basin through the use of air quality measurement tools and integrated territorial diagnostics in four Mediterranean cities: Aqaba (Jordan), Valencia (Spain), Marseille (France), and Tripoli (Lebanon). The project developed a mobile air quality monitoring station (MAQMS) to monitor air quality using physical and chemical parameters. Moreover, display panels were installed in downtown locations to provide the public with regular updates on current air quality measurements.

### **Assessing biodiversity and main human pressures**

*Greater awareness for an ecologically safer Mediterranean (GREAT MED)*: For the improvement of coastal zone management's purpose the consortium developed a specific toolkit for assessing biodiversity at plant species and community levels and their vulnerability to potential risks. The toolkit provided basic information about environmental status, human pressures and potential risks of the coastlines. Apart from the monitoring system, this idea contributes to create a network for monitoring coastal areas in the Mediterranean and to enhance local interventions in a broader scale at basin level.

### **Monitoring shoreline stability**

*Management of port areas in the Mediterranean Sea Basin (MAPMED)*: The aim of this project was to increase the environmental sustainability of coastal tourist areas in Mediterranean Sea Basin countries through the monitoring and reduction of marine pollution in tourist ports. The project developed monitoring tools to assess environmental quality and the bioremediation of contaminated water and sediment. A positive externality of this project was the increased awareness of stakeholders other than Port Authorities concerning the importance of good practices for the environmental sustainability of touristic ports.

### **Monitoring solar applications in public buildings**

*Development and implementation of decentralised solar-energy-related innovative technologies for public buildings in the Mediterranean Basin countries (DIDSOLIT-PB)*: The objective of this project was to promote the integration of small-scale solar energy systems into public buildings or premises

through cross-border public-private partnerships and cooperation among entities from Spain, Greece, Egypt, and Jordan (with special attention to SMEs).

After the installation of solar energy systems, beneficiaries were connected to an online platform to monitor performance, which allowed project coordinators to track energy consumption and the contribution of the renewable energy (instant kW, cumulative kWh, and percent of coverage). Savings in both CO<sub>2</sub> emissions and economic costs were recorded.

## **Recommendations and lessons learned**

Monitoring tools are an essential part of public projects, especially in the environmental sector. These tools allow project leaders to measure the pace and progress of improvement. Having analysed the outputs and the key findings from the final reports of several monitoring tools used in the projects, we can suggest recommendations for future programming.

- **Coherent database of knowledge.** Environmental monitoring is a complex and sophisticated process. Many project teams faced similar problems at various stages of their projects. Hence, it would be beneficial to develop a dedicated database of monitoring tools, where the main findings and observations from each project would be compiled in order to share knowledge and experiences and to reduce or avoid trial and error. In this respect, we suggest the development of an efficient online information platform, and granting each scientist or project leader free access.
- **Simple monitoring strategies.** Well-organised, well-structured, and easily understood processes can be replicable in space and time, which is useful for both scientists and stakeholders. Thus, during the development phase, the importance of simplicity and clarity should not be underestimated.
- **Common indicators.** Respecting differences between countries and the variability of data from one case to another, it would be advantageous to use similar indices in a given area of measurement. Thus, for instance, water quality monitoring tools should use similar indicators across all projects.
- **Communication to the public.** The ideas implemented in many of these projects not only support environmental monitoring, but the results are used for public engagement and educational and awareness-raising activities for both tourists and citizens. Real-time data are of great value. In effect, society can be motivated to bear responsibility for environmental protection actions.
- **Transnational cooperation.** In addition to specific programme goals, many of these projects also initiated or strengthened relationships between partners and countries from both sides of the Mediterranean Sea. The creation of these “bridges” are key deliverables, as the differences among these countries are significant in terms of economic, cultural, and societal issues. It would be highly advantageous to maintain these bridges after a project concludes.

Moreover, we also recommend the key features of the indicators used in monitoring processes: i) Research-based. Users should be certain of the key influences and factors affecting outcomes; ii) Clear and easy to interpret. Indicators should to be easily understood in practice and sufficiently simple in that the measure is obvious for the user; iii) Linked with other indicators. Often a single indicator presents only a part of the phenomenon; hence, indicators are better interpreted alongside other similar indicators; iv) Internationally comparable. Respecting the specific goals of a researcher, indicators should also be consistent with those used internationally; v) Timely and time consistent. The lag between measurement and reporting should be minimised and a comparison over time should be guaranteed.

## 5. A review of promising projects fostering mitigation and adaptation strategies

Adaptation and mitigation strategies are two pillars of sustainable environmental policy. Both actions are necessary to achieve international objectives to reduce greenhouse gas (GHG) emissions and, in effect, hold the increase in the average global temperature to well below 2°C above pre-industrial levels, according to the 21st Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change. While mitigation challenges the causes of climate change, adaptation alleviates the effects of the phenomenon. Clearly, less mitigation means greater climatic change, and, consequently, requires more adaptation. Additionally, these strategies should not be perceived as alternatives, but rather a combined set of actions as part of an overall strategy to reduce GHG emissions.

Projects under ENPI CBC-MED 2007-2013 programming related to environmental affairs provided deliverables in line with both analysed strategies. We have chosen those that performed well (high average score) and address the assumptions of the mitigation or adaptation strategies directly. For presentation purposes, we summarise the most relevant examples in the two tables below.

**Mitigation strategies** aimed at the reduction of the causes of climate change can be grouped into the following activities: switching to low-carbon energy sources and expanding the forests and other “lungs” of the Earth. Moreover, actions refer to energy efficiency and to reduce the drawbacks of waste utilization.

<i>Name of mitigation strategy</i>	<b>Project</b>	<b>Description of action</b>	<b>Countries covered</b>
<i>Ecological restoration aimed at expanding forests to remove greater amounts of carbon dioxide from the atmosphere</i>	ECOPLANTMED	Restoration of soil and plants	Lebanon, Tunisia
<i>Switch to low-carbon energy sources</i>	MEDSOLAR	Using a solar photovoltaic system for energy backup	Lebanon, Palestine
<i>Waste management (integrated waste prevention and</i>	SMOT	Integration of practices, tools, and policies to improve waste management in “old towns” and	Spain, Italy, Tunisia, Jordan, Egypt

<i>reduction programs)</i>	SCOW	medinas Construction of decentralised small-scale composting plants in agriculture holdings	Spain, Italy, France, Malta, Israel, Palestine
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Among the **adaptation strategies**, which cope with the consequences of climate change, two main actions are worth mentioning: managing scarce water resources and adapting building and premises to future climate conditions.

<b><i>Name of adaptation strategy</i></b>	<b>Project</b>	<b>Description of action</b>	<b>Countries covered</b>
<i>Efficient water management</i>	ACCBAT	Water reuse in irrigation	Jordan, Tunisia, Lebanon
	ENSIAP	Use of renewable energy sources (photovoltaic systems) in irrigated agriculture	Jordan, Lebanon
<i>Adapting building and premises to future climate conditions</i>	DIDSOLIT-PB	Use of solar energy systems that may be integrated in public buildings or premises	Greece, Spain, Jordan
	FOSTER in MED	Installation of photovoltaic panels in public buildings	Italy, Lebanon, Jordan, Egypt, Tunisia
	MESP	Sustainable management model of port areas aimed at the reduction of water, air, and noise pollution deriving from port activities	Italy, Jordan, Lebanon, Greece

## 6. Annexes

### 6.1 Socio-economic indicators of the countries analysed

#### Gross domestic product, constant prices

	Unit: Percent change, year over year					
	2009	2010	2011	2012	2013	2014
<b>Greece</b>	-4.3	-5.5	-9.1	-7.3	-3.2	0.7
<b>Italy</b>	-5.5	1.7	0.6	-2.8	-1.7	-0.3
<b>Jordan</b>	5.5	2.3	2.6	2.7	2.8	3.1
<b>Lebanon</b>	10.3	8.0	0.9	2.8	2.5	2.0
<b>Morocco</b>	4.8	3.6	5.0	2.7	4.4	2.9

#### Gross domestic product per capita, current prices

	Unit: USD					
	2009	2010	2011	2012	2013	2014
<b>Greece</b>	29,819.2	26,972.9	25,896.9	22,171.9	21,773.3	21,593.5
<b>Italy</b>	37,130.1	35,969.2	38,379.3	34,918.8	35,703.9	35,239.3
<b>Jordan</b>	3,983.3	4,322.8	4,615.2	4,849.9	5,151.7	5,374.6
<b>Lebanon</b>	8,274.3	8,755.9	9,143.9	9,966.4	10,654.6	11,073.4
<b>Morocco</b>	2,884.7	2,849.9	3,082.3	2,948.9	3,160.6	3,291.3

#### Inflation, average consumer prices

	Unit: Average CPI, according to national statistical offices					
	2009	2010	2011	2012	2013	2014
<b>Greece</b>	112.4	117.7	121.4	122.6	121.6	119.9
<b>Italy</b>	91.1	92.6	95.3	98.4	99.7	99.9
<b>Jordan</b>	95.4	100.0	104.2	108.9	114.1	117.4
<b>Lebanon</b>	93.5	97.2	102.1	108.8	114.0	116.2
<b>Morocco</b>	107.0	108.1	109.1	110.5	112.6	113.1

#### Unemployment rate

	Unit: Percent of total labor force					
	2009	2010	2011	2012	2013	2014
<b>Greece</b>	9.6	12.7	17.9	24.4	27.5	26.5
<b>Italy</b>	7.7	8.3	8.4	10.7	12.1	12.6
<b>Jordan</b>	12.9	12.5	12.9	12.2	12.6	11.9
<b>Lebanon</b>	n/a	n/a	n/a	n/a	n/a	n/a
<b>Morocco</b>	9.1	9.1	8.9	9.0	9.2	9.1

### Current account balance

Unit: Percent of GDP

	2009	2010	2011	2012	2013	2014
<b>Greece</b>	-12.4	-11.4	-10.0	-3.8	-2.0	-2.1
<b>Italy</b>	-1.9	-3.5	-3.1	-0.4	0.9	1.9
<b>Jordan</b>	-5.2	-7.1	-10.3	-15.2	-10.3	-6.6
<b>Lebanon</b>	-11.9	-20.7	-15.1	-24.3	-26.7	-26.9
<b>Morocco</b>	-5.4	-4.1	-8.0	-9.7	-7.6	-5.8

Source: IMF

### Labor force participation rate, female

Unit: % of female population ages 15+ (ILO estimate)

	2009	2010	2011	2012	2013	2014
<b>Greece</b>	43.5	44.1	43.9	44.2	44.2	44.1
<b>Italy</b>	38.0	38.0	38.1	39.4	39.6	39.7
<b>Jordan</b>	15.7	15.6	15.6	15.3	15.6	15.8
<b>Lebanon</b>	21.6	22.0	22.4	22.8	23.3	23.7
<b>Morocco</b>	25.8	25.9	26.1	26.3	26.5	26.7

### Labor force participation rate, male

Unit: % of male population ages 15+ (ILO estimate)

	2009	2010	2011	2012	2013	2014
<b>Greece</b>	64.7	64.4	63.3	62.6	62.5	62.5
<b>Italy</b>	59.8	59.3	58.9	59.4	59.5	59.5
<b>Jordan</b>	68.8	67.9	67.1	66.2	66.6	66.9
<b>Lebanon</b>	70.0	70.0	70.2	70.5	70.9	71.2
<b>Morocco</b>	76.9	75.7	75.8	75.8	75.8	75.9

### Unemployment, youth female

Unit: % of female labor force ages 15-24 (ILO estimate)

	2009	2010	2011	2012	2013	2014
<b>Greece</b>	33.7	40.2	51.4	62.8	63.8	59.5
<b>Italy</b>	28.8	29.4	32.0	37.5	41.0	45.8
<b>Jordan</b>	48.1	49.7	48.8	51.1	55.2	47.6
<b>Lebanon</b>	27.3	27.2	27.1	27.1	25.0	24.7
<b>Morocco</b>	16.3	16.2	17.3	19.1	17.5	19.1



### Unemployment, youth male

Unit: % of male labor force ages 15-24 (ILO estimate)

	2009	2010	2011	2012	2013	2014
<b>Greece</b>	19.3	26.5	38.4	48.1	53.3	49.3
<b>Italy</b>	23.3	26.8	27.1	33.7	38.7	43.0
<b>Jordan</b>	23.7	25.1	27.3	26.4	27.7	24.0
<b>Lebanon</b>	17.9	17.9	17.8	17.8	17.8	18.7
<b>Morocco</b>	18.7	18.3	18.0	18.3	18.7	20.6

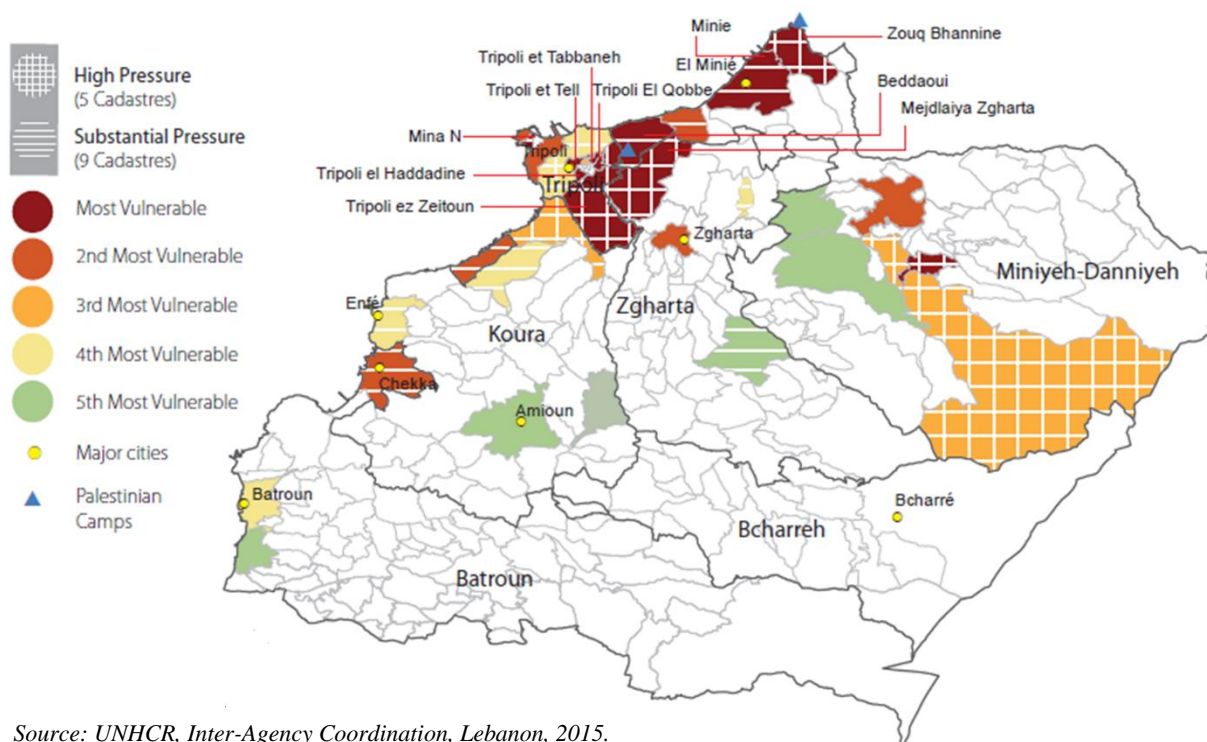
Source: World Bank

### Net migration rate (per 1,000 population)

	2000 - 2005	2005 - 2010	2010 - 2015
<b>Morocco</b>	-4.7	-3.7	-1.9
<b>Jordan</b>	-3.7	15.2	6.5
<b>Lebanon</b>	30.5	8.8	49.1
<b>Greece</b>	2.1	1.4	-2.5
<b>Italy</b>	5.6	3.4	1.8

Source: United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, custom data acquired via website.

## 6.2 Most vulnerable localities in the North Governorate, Lebanon



Source: UNHCR, Inter-Agency Coordination, Lebanon, 2015.



## 7. Bibliography

*Project websites:*

<http://www.keep.eu/>  
<http://deduenert.eu/>  
<http://www.prohuve.eu/fr/>  
<http://www.helandproject.eu/>  
<http://www.iam-project.eu/>  
<http://www.bio-xplore.org/>  
<http://gmiproject.eu/>  
<http://www.didsolit.eu/>  
<http://www.fosterinmed.eu/>  
<http://stmedproject.eu/>  
<http://acbat.eu/>  
<http://www.smotproject.eu/>  
<http://www.gouvairnance.eu>  
<http://www.ecoplantmed.eu/>  
<http://www.mapmed.eu/>  
<http://www.greatmed.eu/>  
<http://www.lactimed.eu/>  
<http://www.fishinmed.eu/>  
<http://www.medsolarproject.com>  
<http://www.biowaste-scow.eu/>  
<http://ensiap.org>  
<http://ecosafimed.eu/>  
<http://www.medolico.com/>  
<http://www.medgeneration.eu/>  
<http://www.fosterinmed.eu/>  
<http://www.agriponic.eu/>  
<http://www.caburera.org/>  
<http://www.mesp.org>  
<http://www.medicities.org/en/web/usuds>

Project reports and evaluations were received from the CBC-Med Joint Managing Authority.

*Other sources:*

- BERC 3<sup>rd</sup> Conference on “Bio-Exploration of Valuable Natural Products Derived from Palestinian Flora: From Biodiversity to Bioindustry 2014” Organised by the Biodiversity & Environmental Research Center (BERC), Til, Nablus, Palestine. Post-conference materials.  
[https://www.researchgate.net/publication/261550515\\_Palestine\\_Bio-Exploration\\_Center\\_Use\\_of\\_the\\_Screen-To-Nature\\_STN\\_technology\\_for\\_exploring\\_biological\\_activities\\_of\\_Palestinian\\_flora](https://www.researchgate.net/publication/261550515_Palestine_Bio-Exploration_Center_Use_of_the_Screen-To-Nature_STN_technology_for_exploring_biological_activities_of_Palestinian_flora).
- ECSWA (United Nations Economic and Social Commission for Western Asia).  
<https://www.unescwa.org/>.
- ESCWA. *Dalīl al-ḥarmān al-ḥaḍariyyi. Al-Manhajiyya wa-ntā’ij al-dirāsa al-madāniyya fī Ṭarāblus – Lubnān. Al-Kitāb al-Awwal. 2014.*
- EUROSTAT. <http://ec.europa.eu/eurostat>.
- GEM. 2015/16 Global report. Global Entrepreneurship Monitor.
- IMF Data. <http://www.imf.org/en/Data>.
- Jordanian Population and Housing Census. 2015. [http://census.dos.gov.jo/wp-content/uploads/sites/2/2016/02/Census\\_results\\_2016.pdf](http://census.dos.gov.jo/wp-content/uploads/sites/2/2016/02/Census_results_2016.pdf).
- Kabalan, Leila. *Urban inequalities and poverty in Lebanon. What can be learned from the social market economy?* Konrad Adenauer Stiftung. AUB Policy Institute. Issam Fares Institute for Public Policy and International Affairs. January 2016.  
[https://www.aub.edu.lb/ifi/publications/Documents/conference\\_reports/20160118\\_urban\\_inequalities\\_cr.pdf](https://www.aub.edu.lb/ifi/publications/Documents/conference_reports/20160118_urban_inequalities_cr.pdf).
- Localiban. Centre de ressources sur le developement local au Liban.  
<http://www.localiban.org/>.
- Mesfioui, Khalid. *Criminalité: Kénitra, la capitale du crime pour le Gharb. Le 360. 28.01.2016* <http://www.le360.ma/fr/societe/criminalite-kenitra-la-capitale-du-crime-pour-le-gharb-62306>.
- OECD Statistics. <http://stats.oecd.org/>.
- OECD. *OECD Economic Surveys: Greece, 2016.* OECD Publishing, Paris, 2016.
- OECD. *OECD Economic Surveys: Italy, 2015.* OECD Publishing, Paris, 2015.
- REACH, FAO. *Food security and livelihoods assessment of Lebanese host communities. Assessment report. June 2015.*  
<http://reliefweb.int/report/lebanon/food-security-and-livelihoods-assessment-lebanese-host-communities-june-2015>.
- REACH, UNICEF, OCHA. *Defining Community Vulnerability in Lebanon – September 2014 - February 2015. Assessment report. 2015.*  
[http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_lbn\\_allprofiles\\_hcv\\_lebanon\\_jul2015.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_lbn_allprofiles_hcv_lebanon_jul2015.pdf).

- Royaume du Maroc. Haut-Commissariat au Plan, Direction de la statistique. *Etude de diagnostics sur la situation de l'emploi au Maroc. Prealable a la formulation de la strategie nationale de l'emploi*. Rapport global. 2014. <http://www.emploi.gov.ma/attachments/article/433/Rapport.pdf>.
- Royaume du Maroc. Haut-Commissariat au Plan, *La Population Immigrante. Dans la region du Gharb-Chrarda-Beni Hssen. D'apres le recensement general de la population et de l'habitat de 2004*. Direction Regionale Gharb-Chrarda-Beni Hssen. 2013. [https://www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&uact=8&ved=0ahUKEwjO45nSrp\\_MAhWHvBQKHbVTAxAQFgg1MAM&url=http%3A%2F%2Fwww.hcp.ma%2Fregion-kenitra%2Fattachment%2F647562%2F&usg=AFQjCNERhNulmmBDI56z-LU7IPHDxuuwMA&sig2=tA6RtQCzFlzWkxPt2T8E0w&bvm=bv.119745492,d.bGg](https://www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&uact=8&ved=0ahUKEwjO45nSrp_MAhWHvBQKHbVTAxAQFgg1MAM&url=http%3A%2F%2Fwww.hcp.ma%2Fregion-kenitra%2Fattachment%2F647562%2F&usg=AFQjCNERhNulmmBDI56z-LU7IPHDxuuwMA&sig2=tA6RtQCzFlzWkxPt2T8E0w&bvm=bv.119745492,d.bGg).
- Royaume du Maroc. Haut-Commissariat au Plan. *Monographie régionale 2014 - Haut Commissariat au Plan. Direction Regionale. Gharb-Chrada-Beni Hssen*. [https://www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjlkMTrwqnMAhXxa5oKHV-mAmQQFggcMAA&url=http%3A%2F%2Fwww.hcp.ma%2Fregion-kenitra%2Fattachment%2F674502%2F&usg=AFQjCNGDIgUNBmFPuP\\_XCF529hRRfy3o\\_A&sig2=mR19N8LaecdVwC\\_MTSfxxQ](https://www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjlkMTrwqnMAhXxa5oKHV-mAmQQFggcMAA&url=http%3A%2F%2Fwww.hcp.ma%2Fregion-kenitra%2Fattachment%2F674502%2F&usg=AFQjCNGDIgUNBmFPuP_XCF529hRRfy3o_A&sig2=mR19N8LaecdVwC_MTSfxxQ).
- Saleh, Heba. *Carmakers drive northern Morocco's manufacturing industry*. Financial Times. 23.03.2016 <http://www.ft.com/intl/cms/s/0/6b825f8e-cb3f-11e5-a8ef-ea66e967dd44.html#axzz46feBNMMr>.
- Stave, Svein Erik; Hillesund, Solveig. *Impact of Syrian refugees on the Jordanian labour market Findings from the governorates of Amman, Irbid and Mafraq*. International Labour Organization Regional Office for the Arab States and Fafo. 2015.
- UNHCR. Lebanon Factsheet. Country-Wide Community Vulnerability Profiles. February 2015. [http://www.reachresourcecentre.info/system/files/resource-documents/reach\\_lbn\\_allprofiles\\_hcv\\_lebanon\\_jul2015.pdf](http://www.reachresourcecentre.info/system/files/resource-documents/reach_lbn_allprofiles_hcv_lebanon_jul2015.pdf).
- UNHCR. Syria Regional Refugee Response. <http://data.unhcr.org/syrianrefugees/regional.php>
- UNPOP Data. <http://esa.un.org/unpd/wpp/>.
- Verme, Paolo; Gigliarano, Chiara; Wieser, Christina; Hedlund, Kerren; Petzoldt, Marc; Santacroce, Marco. *The Welfare of Syrian Refugees: Evidence from Jordan and Lebanon*. Washington, DC: World Bank. 2016. <https://openknowledge.worldbank.org/handle/10986/23228> License: CC BY 3.0 IGO.
- World Bank Database <http://data.worldbank.org/>.