



2012 MED Report

# Toward Green Growth in Mediterranean Countries

Implementing Policies to Enhance the Productivity of Natural Assets



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Overview

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Implementing Policies to Enhance  
the Productivity of Natural Assets



# Foreword

Job creation and natural resources management are two of the most daunting challenges faced by Mediterranean countries. Since the Arab Spring began in February 2011, those issues have been compounded by swelling demand for greater social equity and relief from grinding poverty.

Green growth offers a way to achieve sustainable development by enhancing the productivity of natural assets while preventing the negative social consequences of environmental degradation. In other words, stopping environmental degradation can improve social welfare while helping to create employment opportunities. In so doing, green growth can generate co-benefits. This is true everywhere on the planet, but particularly so in the Mediterranean, where natural assets such as water and coastal areas have long been under intense pressure. Without prompt action, that pressure will grow, as climate change amplifies water scarcity and erodes biodiversity.

As a facilitator of dialogue between local and international stakeholders, the Center for Mediterranean Integration is well placed to contribute to a shift to green growth in the region by promoting studies that reveal where co-benefits have already been obtained and how best practices in promoting green growth can be replicated or adapted in neighbouring countries.

The *2012 MED Report: Toward Green Growth in Mediterranean Countries* is the product of a cooperative and consultative process in which national policy makers, partners, experts, and local private stakeholders were invited to share their experiences and expectations concerning the issues facing the region. The need to discuss those issues in a published report was confirmed by public and private decision makers in regional and local consultations. Tackling the multidimensional challenge of growth in the context of a vulnerable natural environment requires cooperation, coordination, and a comprehensive set of measures.

The objective of this report is to share sustainable economic options with decision makers and to present evidence from recent experiences in Mediterranean countries that green growth presents an outstanding opportunity to create good jobs and promote social cohesion. Starting with a few specific sectors, the *2012 MED Report* offers some promising pathways to sustainable economic growth in the region. The goal of the report team is to open the debate and issue a call for action on environmental problems. We have real opportunities to shape our future, but we must chart a different course from the one we have followed so far, and we must do it now.

*Mats Karlsson, Director  
Center for Mediterranean Integration*

# Acknowledgments

The *2012 MED Report*, a publication of the Center for Mediterranean Integration (CMI), was produced by a consortium led by the World Bank in partnership with the Agence Française de Développement (AFD), the European Investment Bank (EIB), Plan Bleu (UNEP/MAP regional activity center), and the Forum Euro-Méditerranéen des Instituts de Sciences Economiques (FEMISE). In an effort to gather material for the report, the consortium organized a series of national and regional consultations to identify relevant case studies and stakeholder experiences with environmental and growth issues in the southern and eastern countries of the Mediterranean. The team benefited greatly from a wide range of comments and advice from about 300 policy makers, private individuals, and academics who participated in the consultations and joined an e-community created for the consultation process. Because it takes stock of local experiences, the report is rooted in Mediterranean good practices.

The preparation of the report was coordinated by a team led by Gilles Pipien, senior environment specialist (World Bank), with Jean-Pascal Bassino, senior economist (World Bank consultant), and Frédéric Blanc, senior economist (FEMISE). The process took place under the overall leadership of Mats Karlsson, director of CMI, Junaid Ahmad, sector director (WB/MNSSD), and Luis Constantino and Hoonae Kim, sector managers (WB/MNSSD). Contributions were received from Hala Abou-Ali, Slimane Bedrani, Julien Hanoteau (FEMISE consultants), and Kostas Tsakas (FEMISE); Sara Fernandez, Hugues Ravenel, Nathalie Rousset, and Didier Sauzade (Plan Bleu); Hynd Bouhia, Marion Doyis, Charlotte de Fontaubert, Yusuf Kocoglu, Thomas Lagoarde-Segot, Anil Markandya, and Jean-Louis Weber (World Bank consultants). The team is equally appreciative of the comments received from the following World Bank peer reviewers: Dan Biller, Milan Brahmhatt, Hocine Chahal, Marianne Fay, Caroline Freund, Glenn-Marie Lange, and Michael Toman. The report was edited by Steven Kennedy (World Bank consultant).

The *2012 MED Report* team would like to acknowledge the valuable comments and inputs received from steering committee members and experts consulted at various stages of the process: Nathalie Abu-Ata (World Bank), Kulsum Ahmed (World Bank), Christian Averous (Plan Bleu), Peter Carter (EIB), Nathalie Girouard (OECD), Stéphane Hallegatte (World Bank), Kirk Hamilton (World Bank), Alexander Kremer (World Bank), Thierry Latreille (AFD), Myriam Linster (OECD), Sergio Margulis (World Bank), Daniel Ottolenghi (EIB), Valérie Reboud and Dominique Rojat (AFD), Armin Riess (EIB), Jocelyne Vauquelin (AFD), and Xavier Vincent (World Bank).

The team wishes to highlight the specific contribution of members of a civil society working group that provided recommendations: Helmy Abouleish (Egypt), Nadia Abu Yahia Lawton (Jordan), Christian Averous (France), Siham Ayouch (Morocco), Slimane Bedrani (Algeria), Alaa Ezz (Egypt), Iacovos Gkanoulis (Greece), Wafik Grais (Egypt), Jelena Knezevic (Montenegro), Rida Lamrini (Morocco), Beti Minkin (Turkey), Rafik Missaoui (Tunisia), Roby Nathanson (Israel), Aldo Ravazzi Douvan (Italy), Mohammed Salem (West Bank), and Sibel Sezer Eralp (Turkey).

## *About the partners*

Created in 2009, CMI is a World Bank-administered platform for multipartner programs designed to encourage forward thinking for the Mediterranean region. CMI strives to act as an honest broker among stakeholders in the region, contributing to a constructive dialogue in which knowledge, experience, and solutions related to common problems are identified and discussed. The *2012 MED Report* is an outcome of CMI's Environment and Water cluster. The report benefited from information received from World Bank experts and consultants involved in the Environment and Water cluster and other CMI programs. The team wishes specifically to acknowledge colleagues at CMI for their constant support and assistance, particularly Soumia Driouch, and Salomé Dufour.

The Agence Française de Développement (AFD) is France's development-assistance agency. Its missions are to reduce poverty and inequality, promote sustainable economic growth, and protect global public goods that benefit all humanity. The mission of protecting global public goods encompasses the fight against climate change and pandemics, the preservation of biodiversity, the promotion of social and environmental responsibility, and the provision of aid to countries weakened by strife, war, or natural disaster.

The European Investment Bank (EIB) is the European Union's financing institution. Its shareholders are the 27 member states of the Union, which provide its capital. The EIB's role is to provide long-term finance in support of investment projects. Outside the EU, the EIB is active in more than 150 countries, including the Mediterranean partner countries, working to implement the financial pillar of the EU's external cooperation and development policies (private sector development, infrastructure development, security of energy supply, and environmental sustainability).

Plan Bleu, a French nongovernmental organization, is a partner in regional environmental cooperation under the framework of the United Nations Environment Programme's Mediterranean Action Plan (UNEP/MAP). Plan Bleu produces information and knowledge to alert decision makers and other stakeholders of environmental risks and sustainable development issues in the Mediterranean, and to shape future scenarios to guide decision making.

FEMISE is a Euro-Mediterranean network operating since 1997 and formally established in 2005. Network members include more than 90 research centres in economics, representing the 37 partners of the Barcelona Declaration. FEMISE is jointly coordinated by the Institut de la Méditerranée (France), and the Economic Research Forum (Egypt). Its aim is to produce and disseminate research-based recommendations on economic and social issues in the Mediterranean.





# Objectives, Messages and Chapter Summaries

*The environment-economy nexus is key to meeting the challenges facing Mediterranean countries. By mainstreaming the environment in economic policies and promoting a green growth agenda at the national and regional levels, countries can foster economic growth, job creation, social equity, and sustainable management of natural resources. But moving toward green growth requires a comprehensive set of policies and close partnerships between public and private stakeholders.*

Policies designed to improve and protect the environment (“green policies”) can generate widely shared social and economic gains (“co-benefits”), especially when combined with complementary actions that tackle other fundamental structural problems in the economy. Economic performance can be improved and social welfare boosted by incorporating environmental considerations into sectoral and cross-sectoral planning. Inevitably, however, any such process will create winners and losers. An equitable green growth agenda is one that emphasizes policies that bring benefits far in excess of their costs.

That is the message of the *2012 MED Report*, the product of (i) a consultative process involving experts and stakeholders from countries on the eastern, southern, and northern rims of the Mediterranean, and (ii) an extensive literature review.

## Objectives

The report’s aim is to examine success stories from the Mediterranean countries that highlight the social returns to be obtained by mainstreaming the environment in the development agenda in the region and to review trade-offs, with a view to identifying policies that yield the highest net benefit. The report also intends to advance the ongoing debate among policy makers on potential green growth policies and investments, and on the policy mix that offers the greatest chance of maximizing the benefits of green policies. The *2012 MED Report* includes an assessment of national strengths and priorities in environmental action.

In cooperation with beneficiary countries in the southern and eastern Mediterranean and key partners, CMI has implemented a comprehensive new framework program—the Environment and Water Program—of which the *2012 MED Report* is a component. The Environment and Water Program deals with issues related to natural resources, land degradation, solid and hazardous waste, and climate change. Its overall goal is to offer a common vision for mainstreaming environmental issues in the economic development agendas of Mediterranean countries.<sup>1</sup>

## Key messages and recommendations

### ■ *The case for adopting a green growth agenda*

**1. In Southern and Eastern Mediterranean Countries (SEMCs), demand is growing for a new paradigm of growth and development (Galal 2011). Green growth provides an opportunity simultaneously to foster economic growth, job creation, and social equity.** A policy agenda based on green growth could contribute to achieving development objectives in SEMCs by raising the productivity of natural assets and other production factors and reducing the negative effects of environmental degradation, which disproportionately affect the poorest households and most vulnerable segments of the region’s population. Well-designed green policies have the potential to generate immediate co-benefits. In addition to long-term and direct gains from better environmental management, net job creation and productivity gains can be expected when implementing green policies. This is especially true if environmental policies are combined with complementary actions that tackle fundamental structural problems in the economy.

**2. Green growth policies aim at making growth processes more resource-efficient, cleaner, and more resilient—without necessarily slowing them (World Bank 2012).** Environmental degradation reduces the quality of life in the region but also hampers economic efficiency, job creation, and growth prospects. By contrast, green growth policies aim to promote economic development, social equity, and inclusiveness—without compromising the environment (Hallegatte et al. 2011). Green growth policies can be designed to maximize short-term gains so as to compensate as much as possible for the upfront costs associated with the transition. In other words, they can be designed to manage inevitable trade-offs. They can also raise resilience in the face of external shocks and can be made compatible with other important national policy objectives.

<sup>1</sup> The Center for Mediterranean Integration (CMI) in Marseille, was created in 2009 by the governments of Egypt, France, Jordan, Lebanon, Morocco, and Tunisia, together with the European Investment Bank (EIB) and the World Bank. The aim of CMI is to support sustainable development through access to knowledge. A key objective of the Center is to explore green policies capable of maximizing both economic and environmental returns through multiple programs, including this *2012 MED Report*.

**3. Aligning environmental and economic policies is urgent, both to maintain the resilience of some of the most productive ecosystems in the region and to reverse the effects of current environmental degradation.** The implications of unsustainable development are particularly severe in the Mediterranean region, where natural conditions (in particular a chronic water shortage) have a negative impact on welfare and economic activity. The region's unique but threatened ecosystem underpins the livelihoods of millions of people, not only through fisheries, agriculture, and forests, but also by attracting more international tourists than any other world region. Environmental degradation threatens key sectors such as tourism, upon which many countries of the region depend (Croitoru and Sarraf 2010; Larsen 2010). The tourism sector provides a good example of the economy-environment nexus. The sector is an essential component of the economies of the SEMCs, with receipts accounting for most of the region's \$22 billion surplus in trade in services, thus making up for half of the overall trade deficit of the same set of countries (FEMISE 2007). But some of the most valuable natural assets of the Mediterranean region face a risk of irreversible degradation that could affect present and future economic prosperity and the welfare of local populations. In particular, pristine coastal areas that could support high-value-added and labour-intensive tourism activities are threatened by uncontrolled development.

## 🌿 Issues and opportunities

**4. Decision makers can face hard choices and trade-offs between economic and environmental goals, but opportunities to reap co-benefits are also available.** Sound environmental policies can help solve economic problems such as urban congestion, health conditions related to air and water pollution, and low agricultural productivity. But environmental policies also imply trade-offs, especially over time. Some of these trade-offs cannot be offset by co-benefits and will therefore require tough choices from policy makers. The *2012 MED Report* identifies several types of opportunities. Presently, natural resources such as water and energy are used inefficiently, imposing both economic and environmental costs. By using resources more efficiently it is possible to generate simultaneous environmental, economic, and employment benefits. Achieving greater efficiency entails overcoming significant institutional and political-economy obstacles, but some benefits are quickly achievable, as attested by the success stories presented in the report.

**5. Co-benefits can be substantial. Managing natural assets presents important opportunities to protect the environment, create jobs, and lower operating costs.** For example, installing energy-efficient shells on new buildings (including insulated roofs, walls, and windows) by 2030 has the potential to reduce energy costs and CO<sub>2</sub> emissions—but also to create an estimated 1.3 million jobs in building, construction, and maintenance in the SEMCs (Plan Bleu 2011). Reducing leakage from the water supply network to prevent overextraction from aquifers is also among the most effective management measures that emerge from case studies (Plan Bleu 2010). Improving access to water in urban areas that presently

have the lowest access (less than 50 litres per capita per day) can result in sizable environmental and health benefits; in the case of Jordan the overall benefit/cost ratio is 2:1 (WHO/UNEP 2008). Lastly, policies to improve waste management and control air and water pollution can generate positive outcomes with minimum effort.

**6. In urban planning and in the management of coastal zones, significant trade-offs and distributional effects can be addressed.** Urban sprawl encroaches on fertile land that is already in short supply and on coastal areas that have a high potential for sustainable tourism. But even here co-benefits can be obtained by introducing incentives that influence the behaviour of private agents in desired directions. For example, it is possible to tax increased land values when granting development rights—as, for example, in the Amman Master Plan. Such a tax provides incentives to reduce environmental degradation, while generating financial resources for the greening of Amman and the conservation of heritage areas (Beauregard and Marpillero-Colomina 2011). Agglomeration effects in major urban areas are valuable as engines of economic growth and job creation (World Bank 2009a). Policies to promote concentration can prevent and mitigate negative environmental effects of urbanization while preserving welfare and growth objectives.

**7. Despite the likelihood of upfront and localized job losses, green growth policies have the potential to produce a net gain in jobs, while also preserving many existing jobs.** The net impact of green policies on jobs depends on the balance between job creation and job destruction. Policies can be designed to maximize the former and minimize the latter—for example, by implementing a sound institutional framework for job creation. Evidence in developed countries suggests that well-designed environmental regulation and taxes do not necessarily have a negative impact on competitiveness and jobs, but may in fact have a positive impact when well articulated with other policies. Empirical results show ambiguous effects of green growth strategies on jobs, meaning sometimes there are gains but there could be challenges especially in the short run. These gains are clearly highlighted in two recent reports produced in the region, one by the Arab Forum for Environment and Development (AFED 2011) and the other by the Economic and Social Council of the Kingdom of Morocco (CESRM 2012). Under optimistic scenarios, some recent studies suggest that the net job gains could reach 10 per cent of the total jobs needed in SEMCs to accommodate demographic trends (FEMISE 2011, UNEP 2011). However, converting potential jobs into real jobs would require that green policies be combined with complementary actions to tackle structural labour market issues.

## 🌿 Making the shift to a green economy and to green growth

**8. The experiences of countries that have tackled environmental challenges should be shared so as to better address the common environmental challenges faced by Mediterranean countries.** Relying on various existing indicators, national strengths and priorities can be identified, ranging from pesticide regulation to marine protection, on both the

southern and northern shores of the Mediterranean. A more accurate assessment can be based on indicators devised especially for the purpose (OECD 2011, 2012). Because the entire region shares certain priorities, in particular, on air pollution and water management, positive experiences can be replicated and worst practices avoided. Of particular note for both public authorities and private actors are the potentially long-lasting consequences of environmentally harmful subsidies and mismanagement of coastal zones in the northern Mediterranean that are affecting tourism and fisheries.

**9. Because any green growth agenda will produce winners and losers, compensation mechanisms are needed to ease disruption in negatively affected sectors and facilitate social acceptance of the shift to green policies.** Entrenched rent-seeking behaviours are largely to blame for environmental degradation. But the people of the SEMCs have clearly demonstrated their willingness to modify the status quo. The depth of popular support offers an opportunity to shift to green growth, provided ways can be found to minimize the opposition of potential losers, and ideally induce them to envision long-term gains and support green policies.

**10. Some initial steps toward green growth do not require new financial resources.** Phasing out perverse incentives—such as fuel subsidies that are environmentally harmful, economically costly, and socially regressive—is not an easy task. But if such reforms are implemented, substantial public funds would be freed up, which is good news for governments facing budget constraints. Through complementary policies such as cash transfers, such a change can be made without hurting the poor. Oil subsidy reforms in Indonesia and Iran are among the best examples of this process (IMF 2011a). More generally, environmental taxes, market mechanisms, norms and standards, and regulations are tools that do not require upfront finance.

**11. Regional cooperation and partnerships between the public and private sectors can help mobilise the additional funding needed to implement a comprehensive green growth agenda.** Experiences recorded in the case studies summarised in the 2012 MED Report indicate that some projects are likely to attract support from multilateral or bilateral donors; others, such as renewable energy generation, are candidates for local or foreign private investors. Additional funding for large-scale municipal solid waste management and for initiatives in energy efficiency and renewable energy may be expected through innovative finance mechanisms. Private agents can contribute to the effort—and benefit from it—by improving the efficiency of their use of natural resources.

## **9** Policies and incentives to achieve green growth objectives

**12. A mix of mutually reinforcing policies will be needed to accelerate the shift to green growth**—among them price-based mechanisms, regulations, targeted taxation, innovation and industrial policies, investments, product and process standards, ecolabelling, and communication campaigns. Nonmarket approaches can reinforce the effectiveness of

market-based policies and compensate for the market failures and behavioural biases that sometimes prevent prices from affecting consumer behaviour.

**13. Prices, in particular, are critical to increase efficiency.** Green growth policies normally rely on pricing to internalize the positive and negative externalities of natural resource use. Putting a price on natural assets (notably water) is a way of enhancing their productivity and avoiding their wasteful use. Similarly, assigning a value to negative external effects—notably of fossil fuel consumption—can facilitate a change in the behaviour of private agents. Proper pricing takes into account the social cost of an activity on the environment, on health, and on social equity. The first steps in the process of getting prices right are the gradual reduction of harmful subsidies and the conversion of ambiguous subsidies into well-targeted cash transfers.

**14. A variety of economic incentives are needed to nudge producers and consumers into alignment with the green growth agenda.**

- Fiscal incentives for investments in more fuel efficient equipment would reduce air pollution and carbon emissions, while also reducing imports of fossil fuels and preserving nonrenewable resources for export (IMF 2011a). Such incentives could be funded by reallocating a fraction of existing energy subsidies in sustainable and politically feasible ways. Intense awareness campaigns can ensure public support, especially with regard to energy and water subsidies.<sup>2</sup>
- Introducing market instruments for the allocation of water resources would improve economic efficiency by providing a larger share of this scarce resource to producers able to increase its productivity. Such instruments should be accompanied by complementary actions to ensure that they do not hurt the poor or place too great a burden on a few economic sectors. Such coordinated action requires institutional capacity as well as political will, since those who once had free access to a resource would have to pay for it.
- Energy and water satellite accounts, as part of national accounting frameworks (including the World Bank WAVES program), would provide useful information to policy makers to track progress and to identify priorities for action.
- Vigorously enforced regulations built on the polluter-pays principle could generate finance for green growth actions designed to provide tangible results in the short and medium term. Transitional support and other complementary measures need to be considered to avoid imposing a negative shock on the economic system.
- Private initiatives to include environmental practices in assessments of publicly traded companies—such as the Egyptian stock exchange's Economic and Social Governance Index and the Istanbul stock exchange's Sustainability Index Project—can foster a sense of social and environmental responsibility among producers and investors.

2. As proposed during the consultation process by the delegation from the Egyptian Ministry of Finance.

- Ecolabelling is among the best known of an emerging class of incentives that help consumers express their concern for the environment through informed buying decisions. By combining ecolabelling and soft loans to consumers, Tunisia has successfully nudged consumers toward energy efficiency (GEF 2007).

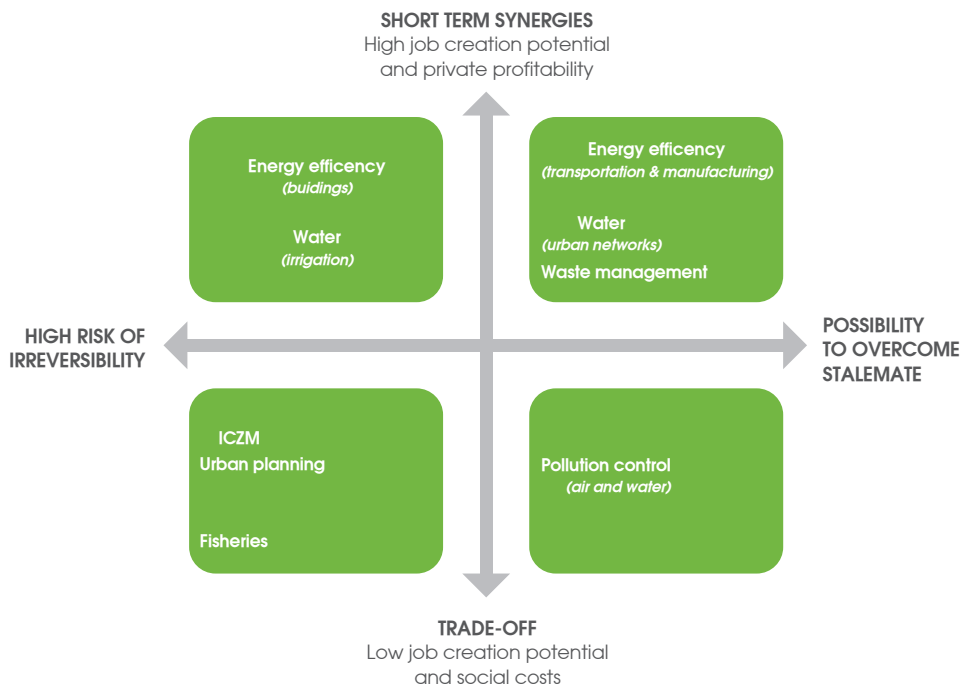
### Identifying priorities for action

**15. Looming threats to public health and the risk of irreversible changes in the environment are an immediate priority for public authorities, whose actions will have greater impact if taken in the context of a larger agenda.** Better control of water pollution and solid waste is needed to improve and protect public health. A combination of regulatory and market-based instruments is needed to reduce the risk that the suboptimal management of fish stocks, agricultural soils, and coastal zones will become irreversible owing to a loss of resilience (Steward 2004). National priorities depend on local conditions, and development priorities are different across SEMCs. The report can help identify strengths and priorities using available indicators of environmental action, at both the regional and national levels. It can help to tailor national green agendas that suit national priorities, development conditions, and local social and economic factors.

### 16. Mediterranean countries can take advantage of their common features to identify mutually beneficial priorities.

Country environmental analyses undertaken by the World Bank (2004a, 2005, 2010a, 2011d) provide information for Egypt, Jordan, Lebanon, and Tunisia that indicates the presence of similar priorities and constraints amid the diversity of national environmental conditions. Green growth sectoral policy objectives can be classified as shown in figure A, in which the y-axis represents the extent of potential synergy in the development of new economic activities and jobs (net job creation), and the x-axis represents the risk of irreversibility or “lock-in” entailed by today’s decisions on the left end of the continuum, and the possibility of overcoming social and political stalemates, often traceable to inertia, on the right.<sup>3</sup> In its use of the inertia concept, this approach is consistent with that developed in chapter 7 of the World Bank’s report, *Inclusive Green Growth: The Pathway to Sustainable Development* (2012). Energy efficiency in buildings is deemed to present a high risk of irreversibility because buildings, once erected, are replaced slowly. Moving to the right on the continuum, inefficiencies in energy use for transportation and manufacturing that have high economic, social, and Environmental costs (and that thus offer high synergies) can be addressed more easily because it is easier to upgrade or replace equipment and to introduce energy-saving innovations than it is to upgrade or replace a building (or a natural habitat or species, once destroyed).

◆ **Figure A Tentative typology of green growth sectoral policy objectives in Mediterranean countries: job creation and risk of irreversibility**



3. Among the social and economic choices that may be considered irreversible (or locked in) are those affecting biodiversity (extinction is forever), climate (CO<sub>2</sub> and methane molecules have a long residence time in the atmosphere), infrastructure and settlements (roads and buildings are long-lived assets; the development of cities is driven by transport infrastructure, and their form is quasi-irreversible), and technological solutions (innovation and R&D investments have a tendency to focus on existing, proven technologies). Inertia is a related concept, connoting the persistence of behavioral, technical, and institutional components of socioeconomic systems—among them consumption habits, the longevity of infrastructure and other aspects of the build environment, financing models, and government institutions. Specific policies focusing on sectors with high inertia are required, in addition to economy-wide policies (Lecocq et al. 1998; Jaccard and Rivers 2007; Vogt-Schilb and Hallegatte 2011).



In most Mediterranean countries, policies designed to improve energy and water efficiency are conducive to net job creation. ICZM, urban planning, and sustainable management of fisheries have a limited potential to create jobs but are among the most urgent actions owing to the high risk of irreversible environmental damage. Sound urban planning can result in net job creation because it makes cities more productive and attractive but opportunity costs of investing in urban infrastructures cannot be overlooked and are at the heart of existing trade-offs. Policies designed to improve air and water pollution control and waste management are unlikely to create large numbers of jobs but nevertheless can generate sizable welfare gains with positive effects on labour productivity.

The green growth policies of the highest priority are those that present the greatest risk of irreversibility (that is, the greatest urgency) and that offer the most immediate synergies in terms of job creation and profitability. These two criteria intersect in the upper-left quadrant of the figure.

## Recommendations

- Promote energy and water efficiency as top priorities.
- Get prices right for water, energy, and land by making sure they reflect social costs and other externalities of resource use.
- Reduce regressive subsidies to enhance the social acceptance of a green agenda, and combine with complementary measures to cancel the negative impact on the poor.
- Tackle market failures through institutional innovation, regulation, ecolabelling, and innovation and industrial policy.
- Nudge producers and consumers toward behaviours that reduce air and water pollution and improve waste management.
- Set medium-term objectives for urban planning, coastal zone management, and fisheries.
- Cooperate at the regional level for exchange of best practices and know-how. This kind of cooperation should include capacity building for implementing economic environmental accounts, especially at the macro level.
- Exploit innovative financial sources such as carbon facilities for new investment. Also, green economy credit lines could be created, targeting in particular local SMEs.<sup>4</sup>
- Engage the private sector to assume greater environmental responsibility and leverage private finance.

CMI, in cooperation with the Office de Coopération Économique pour la Méditerranée et l'Orient (OCEMO), Plan Bleu, the Forum Euro-Méditerranéen des Instituts de Sciences Économiques (FEMISE), and other partners, supported a working group of experts from civil society organizations in the North and South that

worked in parallel with the *2012 MED Report* to develop recommendations to implement a green economy in the Mediterranean. Their recommendations (Working Group on Green Economy 2012) converge with those presented in chapter 6 hereof.

## Call for action

**17. Launching national green growth strategies in each country** will enable the coherent implementation of public policies tailored to each local setting. These strategies will require strong national leadership and will be more likely to produce results if they are developed jointly by all major stakeholders in the society. A prerequisite of successful strategies is diagnostic work to identify the issues, challenges, and opportunities on the basis of which priorities have been selected. Close monitoring should be provided both to verify implementation and to make it possible to publicize results and adjust the course of implementation if necessary. Implementation depends strongly on key skills and competencies that will have to be developed—for example, by setting up programs to train practitioners in key occupations. Innovation—technological and social—will be indispensable. The involvement of large firms and the financial sector will encourage and support risk-taking and innovation by small and medium-sized enterprises. Pilot projects, developed and implemented with concerned citizens, as well as model initiatives in public services, can sow seeds that grow gradually but steadily. Successful implementation will have to be measured at the local level. The task will be to pair increased competitiveness of sub-national entities with progress toward an efficient green economy.

**18. At the regional level, it is time to move beyond the very fruitful sharing of experiences to place green growth on the Mediterranean agenda.** The regional level is the right one for making concerted efforts within a framework of integration favourable to the development of the entire Mediterranean region. If the green economy can also be an efficient economy, then the major policies of the Mediterranean region should develop in that direction. Green growth policies should be part of the G8's Deauville process, supported by the Union for the Mediterranean, and on the agenda at meetings between finance ministers. Pertinent knowledge is available in the region, within the universities and specialised institutions and organizations.<sup>5</sup> One orientation could be to create a Mediterranean green growth platform, or, as a first step, to forge a Mediterranean link with the green growth knowledge platform launched recently by the World Bank, in partnership with OECD and UNEP. Existing mechanisms for deliberation such as the Mediterranean Commission for Sustainable Development and the Mediterranean Strategy for Sustainable Development could be redeployed or strengthened to contribute to the green growth process. Financial institutions are accustomed to coordination—they could collaborate to create green investment funds.

Placing green growth on the Mediterranean agenda is urgent; it is feasible; and it is necessary for the advancement of the people of the region.

4. As proposed by the delegation of the Egyptian Ministry of Finance during a consultation on the report.

5. Relevant knowledge is abundantly represented within FEMISE, the Economic Research Forum in Cairo, the United Nations Environment Programme's Mediterranean Action Plan Regional Activity Center (UNEP/MAP/REC), the Arab Forum for Environment and Development, and other organizations.

## Chapter summaries



### Introduction: The case for a green growth agenda in Mediterranean countries

*Green growth and the Mediterranean socioeconomic context.* In 2011 demand increased in the Southern and Eastern Mediterranean Countries (SEMCs) for a policy shift toward a new social paradigm fostering economic growth, job creation, and social equity (FEMISE 2011a). A green growth agenda could contribute to achieving those objectives by raising efficiency and productivity while reducing negative environmental externalities that disproportionately affect the poorest households and most vulnerable segments of the population.

*The environment-economy nexus.* The environment-economy nexus is at the heart of the challenges facing all the countries of the Mediterranean rim. The current level of environmental degradation is unsustainable and inefficient, hampering economic activity, job creation, and growth, and lowering welfare, notably through threats to public health. Green growth policies can make growth processes more resource-efficient, clean, and resilient without necessarily slowing them, thereby helping to achieve the objectives of job creation and social equity (World Bank 2012).

*The risks of loss of resilience and irreversibility.* Mainstreaming the environment into economic policies must be done without delay to avoid locking the economy into unsustainable patterns and causing irreversible environmental damage. Immediate action is needed to maintain the resilience of productive ecosystems that provide essential economic services. While sustainable development is important for all regions of the world, the implications of delay in addressing environmental threats are particularly severe in the Mediterranean region, where natural conditions (in particular a chronic water shortage) already negatively affect economic activity and welfare.

*Balancing winners and losers.* Although environmental degradation exacts a social cost that often exceeds cumulative private gains, economic actors that reap private gains from environmental damage are reluctant to accept an end to the status quo. Greater recognition of the true value of environmental assets is therefore needed to ensure that those assets are optimally—and sustainably—used. Various institutional arrangements and policy tools are available to address distributional issues, ensure social equity, and compensate property owners who stand to lose from measures taken to protect environmental assets for the public good.

### Chapter 1. Short-term opportunities for co-benefits

Case studies of energy efficiency, pollution control, and solid waste management indicate that combined economic and environmental gains (synergies or “co-benefits”) are within reach in the short term. These gains exist because the current use of natural resources is highly inefficient, resulting in unnecessary economic costs and unnecessary environmental degradation. Potential improvements are as follows.

*Enhancing energy efficiency.* Greater energy efficiency has positive implications for all sectors. With the rapid pace of urbanization in the SEMCs, energy efficiency in buildings could also deliver long-term savings on energy expenditures and environmental benefits. It is also a large potential source of new jobs. For example, installing energy-efficient shells for new buildings by 2030 would create an estimated 1.3 million jobs (Plan Bleu 2011). A large share of the inputs would be imported, but jobs in installation and maintenance are mainly local.

*Improving public health through water and air pollution control.* Rapid, ongoing urbanization exacerbates the effects of water and air pollution on human health. Water pollution is particularly worrisome in the Mediterranean countries, causing chronic shortages and intermittent deliveries of water for households, industries, and farms. Air-pollution-related health conditions in the SEMCs are traceable largely to transportation and industrial emissions—as in the developed countries. Lessening air and water pollution is unlikely to result in massive job creation, but it would raise labour productivity and protect public health, thereby reducing spending on health care and increasing demand for other goods and services that contribute to individual and social welfare.

*Upgrading solid waste management.* Owing to rapid population growth, industrialization, and urbanization, a 50 per cent increase in waste generation is expected over the next 15 years in the SEMCs (Sherif 2010). Much of that waste will contain recoverable resources. To handle the anticipated increase, municipalities will have to find ways to upgrade their waste management practices. Different strategies are being explored in the SEMCs to improve recovery rates and generate new revenues, particularly through the Clean Development Mechanism (CDM) and by charging fees. In the meantime, composting has the potential to generate additional value added (SWEEP-Net 2010).

### Chapter 2. Maximizing the productivity of natural assets while dealing with trade-offs

Decision makers face hard choices and trade-offs in the management of freshwater resources, coastal areas, urban development, and fish stocks. Nevertheless, it does appear possible to improve the productivity of natural assets while ensuring sustainable development.

*Sustainable management of water resources.* Agricultural producers throughout the region suffer from water shortages, and in some areas water stress also affects households, tourism, and manufacturing. Improving water efficiency in agriculture, which consumes more water than any other sector, can increase output and value-added (and, therefore, food security) while also freeing up water for other higher-productivity sectors. Technologies to improve efficiency, such as drip irrigation and fuels made from agricultural by-products, are readily available and do not cost much. Expanding their use would benefit producers and consumers by cutting costs and raising the international competitiveness of local companies, with concomitant effects on economic growth and employment.

*Integrated Coastal Zone Management (ICZM).* Rapid urbanization in the SEMCs is both a driver and a consequence of economic development (World Bank 2009). But it also concentrates people in narrow and increasingly overcrowded coastal zones, causing urban sprawl to encroach on fertile land that is already in short supply in many countries. The current pace of urbanization and coastal zone degradation means that delaying action is costly and likely to result in irreversible change. Upgrading the management of coastal zones through ICZM—a method for ensuring that coastal resources are used in a sustainable manner—would help to maximize ecosystem services and revenues from sustainable tourism. Finding a balance between environmental protection and economic and social development—without depriving societies of the economic benefits that urbanization delivers through agglomeration effects—requires that costs and benefits be quantified. Quantification makes it possible to evaluate individual projects targeted for either protection or development.

*Toward sustainable urbanization.* The current demographic pressures in the SEMCs, coupled with environmental degradation, call for a review of traditional approaches to urban development so that territorial development plans do not remain disconnected from sound environmental policies and growth-generating programs. In addition to population growth, rural exodus and unemployment are exacerbating the challenges faced by urban areas. Successful experiences with environmentally sensitive city planning from around the world suggest that the objectives of inclusive, sustainable, and resource-efficient urban growth can be achieved in the SEMCs.

*Cooperating to make fisheries sustainable.* Decades of mismanagement of coastal zones and fish stocks on the northern shore of the Mediterranean provide lessons for decision makers on the southern shore, offering them an opportunity to consider a more sustainable path. Overfishing in the southern and eastern Mediterranean is less severe than in the northern Mediterranean, but some stocks are already at risk, making immediate action a necessity to avoid irreversible environmental and economic losses. Preserving threatened environmental assets helps preserve ecosystems, and thus the jobs and incomes of lower-income households. Downsizing of the fleet should be carried out with a view to protecting small-scale fisheries and dependent coastal communities. To that end, two differentiated management regimes could be envisaged, one designed for large-scale fleets (where capacity adjustment and economic efficiency are the core) and the other targeted at small-scale fleets in coastal communities (with a focus on social objectives).

## Chapter 3. Environmental action and job creation

Over the next two decades, 30 to 40 million new jobs will have to be created to maintain the current rate of employment in the SEMCs. Much more would be needed to bring these economies to full employment. Taking steps to reduce environmental degradation and enhance the benefits of natural assets has the potential, at the country level, to create more new jobs than it destroys.

*A tense demographic context and a low rate of job creation.* The Mediterranean countries need millions of new jobs—now and in the years to come. In the SEMCs, around 30 per cent of the population is under the age of 15. Over the next two decades more than 80 per cent of the new labour force in the Euro-Mediterranean region will be located on the southern shore. Without massive job creation, social stability is in peril.

*Mechanisms of the green impact on economic activities and jobs.* Green growth creates jobs—but it also destroys them. For example, gains in renewable energy may parallel losses in petrochemicals. Ensuring that more jobs are created than destroyed requires measures to accelerate growth and to reduce the cost of labour relative to environmental assets [by raising the value of the latter], as well as robust policies to improve the skills of the workforce. Low-productivity jobs can help reduce unemployment, but high-productivity jobs promote economic growth over the long term. National policies can provide incentives inducing a gradual shift toward the balance of skilled and unskilled jobs that best suits each country.

*Jobs and greening: Neither myth nor automatic dividend.* The cost of environmental degradation in the SEMCs is estimated at 3–6 per cent of their average gross domestic product (GDP) each year (Croitoru and Sarraf 2010; Larsen 2010; EU 2011). Avoiding these losses through policies aimed at reducing negative environmental effects would stimulate economic activities. Although addressing environment degradation is not a silver bullet when it comes to reducing unemployment, a positive impact can be expected if policies are well designed. The Arab Forum for Environment and Development (AFED) advocates that efficient combinations of public policies, innovative approaches, business models, green investment opportunities have the potential to produce sizable gains in terms of job creation and economic benefits (AFED 2011).

*Tentative estimates of gross and net job creation.* According to preliminary results released by the Economic and Social Council of the Kingdom of Morocco (CESRM 2012), Morocco has the potential to create about 100,000 new jobs before 2030 in four sectors affected by green policies: renewable energies; energy efficiency; sewerage and liquid waste management; and urban solid waste management. A recent macro-level study of Mediterranean countries (FEMISE 2011b) suggests that likely net job gains from green growth could be on the order of 10 per cent of the total job creation required by the region in the next 10 years. While a green growth path is recommended, its efficacy depends on every policy step taken along the way. A prerequisite for realizing the potential job creation of green growth is to accompany green policies with complementary actions designed to tackle structural problems in the labour market.



## Chapter 4. “Doing green”: Assessing environmental progress and identifying strengths and priorities in environmental action

A key element in the design of effective green policies is to improve the monitoring of environmental action. Collecting a multitude of progress indicators and constructing “green national accounts” can better inform decision makers responsible for setting national and local priorities.

*Action-oriented environmental indicators for Mediterranean countries.* Monitoring the state of environmental assets, the impact of economic activities, and the effectiveness of responses aimed at preventing or addressing environmental degradation is essential for identifying priorities for action. Such data inform policy makers about areas for progress and reasonable targets, while enabling the community to identify good practices. Environmental progress can be assessed at the national and sub-national level using a framework devised by the OECD (2011) that relies on indicators of productivity of environmental resources, the natural asset base, the environmental quality of life, economic opportunities, and policy responses.

*Using multi-criteria analysis to identify strengths and priorities.* The assessment of environmental performance can be based on a multi-criteria method that sorts each country using a series of indicators. *The 2012 MED Report* documents existing policy-related indicators of environmental performance, focusing on a data set covering most Mediterranean countries. The Environmental Performance Index database (EPI 2010) attempts to sort—among 25 individual indicators—those related to natural endowments and environmental status and those related to public policy and environmental action. Although sizable differences related to environmental protection can be observed across countries, similar weaknesses are apparent across the Mediterranean region, particularly with respect to air pollution and water management.

*Assessing sub-national diversity in environmental progress.* Considering the wide range of within-country spatial diversity in socioeconomic and natural conditions in the region, indicators of environmental status and action have to be collected and monitored at the sub-national level. Several indicators that are particularly relevant in the Mediterranean context display great within-country variation, in addition to international variation. Identifying areas that offer high social returns requires taking into account natural constraints and socioeconomic conditions that hamper or facilitate the implementation of environment-related economic policies.

*“Green national accounts” for Mediterranean countries.* Green national accounting is an excellent way to inform policy makers and other stakeholders about the level of the nation’s environmental effort and the effectiveness of its actions. Considering the level of water stress already experienced in most areas, constructing so-called water satellite accounts using a consistent national framework is among the most useful steps to be considered. Because improving energy efficiency has been identified as a policy option that promises mutually reinforcing economic and environmental gains, energy satellite accounts are also important.

## Chapter 5. Tools for environmental action and the implementation of a green growth agenda

The critical step in shifting to green (or greener) growth is to implement effective tools of environmental action—in particular fiscal reform, market-based instruments, and incentives for environmental responsibility. The success stories and best practices of Mediterranean countries can be replicated or adapted to fit various socioeconomic and environmental settings.

*Promoting social equity and economic growth through environmental fiscal reforms.* Some of the financial resources required to implement a green growth agenda can be mobilized by real-locating public expenditures and introducing environmental fiscal reforms. In particular, phasing out fuel subsidies, while not necessarily an easy target, introduces the right incentives for producers and consumers and offers the tantalizing promise of economic growth and job creation through energy efficiency. Recent experiences in Indonesia, Iran, and Jordan indicate that phasing out fuel subsidies can be made socially acceptable through a gradual process with a clear road map and a comprehensive package of compensating measures for lower-income households (IMF 2011a).

*Promoting tradable rights and payments for ecosystem services.* Market-based instruments—such as individual or collective transferable quota systems for fisheries, or payment for ecosystems services in water catchment areas—have been recently introduced on both the northern and southern shores of the Mediterranean. Experiences in northern Morocco and other areas indicate a potential for the diffusion of such innovations. Similarly, ICZM that combines regulatory instruments and tradable building rights has been tested in some tourist areas of the Mediterranean. The results point to promising solutions in situations where potential losers from reforms can be expected to block progress unless their concerns are taken into account.

*Environmental and social responsibility.* The role of the private sector in enhancing the economic benefits of environmental assets could be stimulated by public incentives, both regulatory and fiscal. In the meantime, environmental responsibility on the part of producers and investors should be encouraged. Promising policy initiatives are being tried in emerging countries in the Mediterranean and elsewhere. The time is ripe to launch sustainable stock market indices, national and regional, with methodological input from the region’s first movers, Egypt and Turkey, and from other regions of the world.

*Changing consumer and producer behaviour: Promoting ecolabels and certification.* Environmental regulation is not without cost to consumers and producers. But the perception among private agents of a trade-off between environmental regulations and profits may be reduced by policies that produce social and macroeconomic benefits. The increasing popularity of product-oriented environmental policy in the Mediterranean and elsewhere is based on a perception that the abatement of pollution from industrial and other large sources is now within reach. Ecolabelling and product certification can be effective

instruments that encourage sustainable consumption by providing consumers with information about the environmental impact of particular products and services. Companies are rewarded through public recognition, further encouraging proactive environmental management.

## **Chapter 6. Conclusions and call for action**

Shifting to green growth requires implementing a policy mix that includes many different components, including price- and market-based mechanisms, but also norms and regulations, innovation and industrial policies, and investments. Chapter 6 briefly explores some of those components, identifying several opportunities to test the promise of green growth.

Finally, some guidelines for national green growth strategies are presented. At the regional level, if the green economy can also be an efficient economy, then the major policies of the Mediterranean region should develop in that direction: It is urgent, possible, and necessary.

## About the *2012 MED Report*

While countries increasingly see sound environmental practices as critical to long-term growth, policy implications for transitioning to a green growth agenda are less clear. The *2012 MED Report "Towards Green Growth in the Mediterranean Countries"* gathers evidence on the environmental, social and economic performance of natural assets and key sectors from several countries bordering the Mediterranean. It reveals environmental and economic gains or "co-benefits" in some sectors, trade-offs and hard-choices in others. The authors also provide estimates of gross and net job creation for the Mediterranean countries over the next ten years given a shift to green growth policies. The report offers a range of policy tools that can help facilitate the move towards green growth and related job creation focusing on fiscal reforms, market-based instruments, greater environmental responsibility, eco-labeling and certification. The report makes actionable recommendations at the national level jointly within the context of broad economic reforms and presents a case for regional cooperation between governments and international institutions to preserve threatened natural assets. Based on a review of case studies and best practices, the findings will be useful to policy makers, academia, civil society actors and donors alike who wish to promote a green growth agenda, encourage green national accounting and monitor environmental actions.

# Toward Green Growth in Mediterranean Countries

## Implementing Policies to Enhance the Productivity of Natural Assets

*"Green growth means to sustain a decent, healthy and productive life for us and for our children; we live on a land borrowed from the future generations. Making the human rights greener is the main objective we should strive for, but jobs is our main concern, with the 2012 MED Report we have some thoughts to deal with both of these issues."*

H.E. the Palestinian Minister of Environment Dr. Yousef Abu-Safieh

*"As a corroboration of the CMI 2012 MED Report, Morocco is strongly committed in the transition to green growth, in particular in the sectors enlightened by the report such as energy, sanitation or waste management. The programs implemented could lead to the creation of thousands of jobs."*

H.E. the Moroccan Minister of Economy and Finance, Mr. Nizar Baraka

*"The protection of the environment and of natural resources is a necessity, if we want to give future generations a better life. The value of this report is that it shows that this task is not only necessary and possible but that it produces economic benefits and creates jobs. I believe that this is an inspiring message, especially for the young generation in the Southern Mediterranean."*

Mr. Gerd Leopold, former Executive Director of Greenpeace International

### CMI

The Center for Mediterranean Integration is a multi-partner Cooperative Arrangement to facilitate access to advanced knowledge and best practices while generating support among public and independent institutions to increase cooperation, enhance sustainable development and integrate policies in the Mediterranean Region. CMI programs strive to provide solid inputs for evidence-based policy choices and, in so doing, help to improve governments strategies and actions, increase the level of innovative activities and investments in the Region, and stimulate cooperation between countries around the Mediterranean.

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