



### Building Sustainable Agriculture for Food Security in the Euro-Mediterranean Area: Challenges and Policy Options

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### 11. Sustainable Mediterranean Agriculture for Food Security? Challenges for the Euro-Mediterranean Relationship

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#### INTRODUCTION

Southern and Eastern Mediterranean countries (SEMCs) face daunting challenges in the field of agriculture and rural development because of a nexus of problems concerning rural poverty, import dependency, deterioration of natural resources, worrisome demographic trends, etc. The problems to be solved have been well identified and a broad consensus on their nature and magnitude has emerged in recent years. Yet, recent empirical evidence, while confirming this general diagnosis and showing that significant public policy efforts have led to major improvements in recent decades, suggests that a greater sense of urgency than generally perceived is warranted. Current public policies and recent trends are simply not sustainable, because of escalating costs to public budgets, growing scarcity of water, continued deterioration of soils and biodiversity and demographic projections.

Such a diagnosis calls for a deep reassessment of domestic public policies in SEMCs but also of the aid policies of external partners, notably that of the European Union, which is the main public aid provider in the region and which itself stands to be directly affected on many fronts by how these issues will be handled in its immediate neighbourhood. Analysing the implications for the Euro-Med relationship of these sustainable development issues in Southern and Eastern Mediterranean countries is the main purpose of this paper.

First, a brief but comprehensive summary of the situation and trends in SEMCs will be presented. The rest of the paper will then be devoted to the implications of this serious situation in the SEMCs for the whole Euro-Mediterranean relationship. We first suggest that too much attention has been given in the past to trade liberalization, from the hope in Barcelona in 1994 to create a fully free trade Euro-Med area by 2010 to the current goal of negotiating bilateral "deep and comprehensive free trade agreements" with as many SEMCs as possible. We will argue that the 2010 goal of a free trade area was utopian, and that the focus on trade liberalization has been distractive both within individual SEMCs and in the construction of the Euro-Med relationship, particularly for agriculture and rural development.

#### 11.1 CURRENT DOMESTIC POLICIES AND RECENT TRENDS ARE NOT SUSTAINABLE

A statement from the meeting of the CIHEAM Ministers of Agriculture held in Malta in September 2012 (CIHEAM 2012:50) summarizes in five lines all the ingredients of the historical challenges faced today in the field of agriculture and rural development by Southern and Eastern Mediterranean countries (SEMCs)<sup>1</sup>: "Current food consumption and production patterns are not sustainable in the Mediterranean basin due to biodiversity loss, degradation of natural resources, pesticide contamination, climate change, high energy and water consumption, dietary patterns and eating habits changes, and high dependency on imports, as well as poverty and vulnerability of many rural and urban Mediterranean communities, and particularly the erosion of the Mediterranean diet". It represents a broad consensus view among government circles in these very diverse countries, and that view is supported by numerous academic publications (see for instance Bessaoud and Montaigne 2009, and Bessaoud 2013:13, who speaks of a "crisis of peasant agricultures, poverty and fragility of rural societies, advanced degradation of natural resources, major inequalities in the access to resources: land, finances and material"). We come back to each one of these main challenges, trying to be brief and specific on the

<sup>&</sup>lt;sup>1</sup> This grouping of countries refers to countries belonging to the Mediterranean geographic area, characterized mainly by its climate and flora, located on the Southern and Eastern shores of the Mediterranean Sea. It is made up of nine so-called Mediterranean Arab countries (MACs: Morocco, Algeria, Tunisia, Libya, Egypt, Palestine territories, Jordan, Lebanon and Syria), plus Israel and Turkey. Situations vary much among these countries, which limits the validity of any general statement; yet, there are common elements and they all face more or less similar challenges.

nature and magnitude of the problems, relying mainly on the results of a recent comprehensive research project called SUSTAINMED.

#### 11.1.1 Import Dependency

Import dependency is a major structural feature of many countries, and it is also the starting point of most projection and foresight analyses of the region (Cheriet 2013, Abis 2012, Cheriet et al. 2012). The main concern expressed then is that of a region depending on outside suppliers for the provision of its basic foodstuff. Actually, the region depends heavily on imports for only a few commodities: cereals, sugar, oils and oilseeds, as well as dairy products. It is for cereals that the total import bill for the whole region is the largest (more than \$12 billion in recent years) in spite of Turkey often being a net cereal exporter. Given the importance of cereals in the diet of most people, particularly the poorest, this cereal import dependency is the source of a major concern with economic, social and political ramifications. All are aware that the demand for cereals has been growing and will continue to do so – due mainly to demographic and economic growth – while there are serious constraints limiting the growth of domestic production.

Accordingly, IPEMED experts (Rastoin et al. 2012:4) wrote: "In 2008, the agricultural and food import bill of the SEMCs reached the abyssal figure of \$57 billion, that is almost three times as much as in 2000. [...] Food insecurity in the region unfortunately keeps growing and constitutes one of the factors of the unprecedented political crisis the SEMCs are going through". Similarly Abis, a keen observer of the geopolitical situation in the region, wrote: "The dependency of the Mediterranean Arab countries on international markets is growing, as a consequence of a multidimensional regime of constraints (ecological, demographic, logistical) and of a stronger and stronger purchasing power of the population, having led to a major diversification of food demand. Between 1990 and 2010, the volume of agricultural imports of the four North African countries (Algeria, Egypt, Morocco and Tunisia) trebled, from 9 to 27 billion Euros. These sums represent a considerable share of public budgets" (Abis 2012:152).

These citations reflect the fact that food import dependency has several important economic and political consequences. Firstly, there is a security dimension: with the Middle East and North African regions being the most food import dependent regions of the world, officials legitimately worry about their ability to secure supplies in times of crisis. Indeed, the experience of the 2008 crisis showed that governments of the region were willing to go to great lengths in order to ensure a reasonable degree of food supply security at the national level (Lerin et al. 2009). This leads immediately to the next dimension: the huge costs of that security, in terms of both balance of payments and public budgets. Finally, the fact that most governments of the region intervene massively on the markets for basic foodstuff illustrates the high political sensitivity of the food security issues resulting from that import dependency.

Given the magnitude of this concern, one wonders whether or not something can be done about it. Two challenges are thus identified: 1) Can domestic production be increased? and 2) Can agricultural and food imports be better managed?

The common wisdom on production is that natural resource constraints are so limiting that little can be done to increase domestic agricultural production. Yet, a look at past trends over several decades suggests that the performance of agricultural growth in the region was not as dismal as commonly believed. According to the Agrimonde exercise (Paillard et al. 2010), which examined scenarios for world agriculture until 2050, based on past performances between 1961 and 2003, total agricultural production – measured in Kilocalories (an energy equivalent) - in the Middle East and North Africa regions, where SEMCs have a very important weight, increased at a faster rate than the world average, less rapidly than in Asia and Latin America but faster than in the former Soviet Union and even in the OECD countries. Similarly, according to Belghazi (2013), the share of SEMCs (minus Palestine and Libva) in world agricultural production remained constant at 5.5% throughout the 1994-2007 period.<sup>2</sup> Again here, there were significant differences among countries: "In 2005-2007, five countries, Turkey, Egypt, Morocco, Algeria and Syria, made up more than 91% of the total agricultural production of the SEMCs (minus Palestine and Libva). During the same period, Turkey accounted for about 39% of the SEMC-9 agricultural GDP, Egypt for 25.5%, Morocco for nearly 10%, and Algeria for slightly more than 9%. The average growth of agricultural output between 1994-1995 and 2005-2007 was the highest for Algeria and Syria, slower for Egypt, Israel and Tunisia and the slowest for Morocco, Jordan, Turkey and Lebanon" (Belghazi 2013:3). In the same vein, available evidence suggests that most of the production growth can be attributed to productivity growth. Thus, the average land

<sup>&</sup>lt;sup>2</sup> For the sake of comparison, this 5.5% figure should be compared to the share of world population in the SEMCs, which is about 4%.

productivity increased by a factor of about 3 in four decades, but at about 15,000 Kcal/day, and per hectare it remained well below that of Asia and Latin America (Paillard et al. 2010).

Of course, cereals are but one among many categories of agricultural products, albeit a major one, and their relative importance, both in production and consumption, is declining. Many past debates have focused on the appropriate level of diversification of agricultural production, particularly on how much SEMCs should give up on cereals and specialize in fruits and vegetables, products for which they have a clear comparative advantage on international markets. Of course, such a choice would risk increasing the import dependency for cereals and, as further discussed below, it would have implications for the many poor semi-subsistence farmers located in dry remote areas, who are producers and sellers of cereals. Given all these considerations, it should be clear that accelerating the rate of growth of domestic production involves many challenges for public authorities in SEMCs.

The second question raised above, whether or not agricultural and food imports could be better managed, has not received much attention by analysts and observers, as reflected by the small number of references on this topic in the literature. Yet, the question is important. As already indicated, governments of the region took far-reaching decisions in response to the 2008 crisis. Analysing those decisions, their rationale and their impacts would be both interesting (to understand how governments behave) and useful for decision makers (to assess whether or not decisions of this type could be improved, in terms of public welfare, in future crisis situations). This is an interesting agenda for research, which however has not been addressed. Another dimension of the management of food imports has to do with infrastructure and logistics. This also was not investigated in the SUSTAINMED project. For interesting reflections on this topic, see Abis (2012).

#### 11.1.2 Stubborn Rural Poverty

Poverty, particularly rural poverty, has been and remains a major issue in SEMCs. In this respect, Israel and Turkey face a set of specific problems, less acute than those faced by most Mediterranean Arab countries, even if they are at times politically important. Thus, the focus of this section will be mainly on the Arab countries. For them, the challenges associated with increasing agricultural production, which we just discussed, are

compounded by those arising from the need to fight rural poverty, which makes the choice and pursuit of an appropriate agricultural and rural development strategy particularly difficult. Rural poverty situations vary greatly from one country to another. So, to be meaningful, discussions in this section will be conducted at the national level. To illustrate the problems and the progress made in recent decades, we will focus here on four key countries: Egypt, Morocco, Tunisia and Turkey. Those are the countries which received particular attention in the SUSTAINMED project. First a few figures for each country will illustrate the magnitude of the problem and the real progress made in recent decades (CIHEAM-IAMM 2014):

- In Egypt, the real expenditures per capita (as measured by household expenditure surveys, i.e., a robust indicator) increased by 93% in urban areas between 1975 and 2009, whereas they increased by 78% in rural areas during the same period. Admittedly, this represents a slow and uneven growth, but still a significant achievement.
- In Morocco, the same indicator, real average expenditures per capita, increased by 66% between 1990/91 and 2006/07, the year of the most recent household survey, the average rate of growth being slightly higher in rural areas – which however, as further discussed below, continue to lag behind urban areas.
- Tunisia has had an impressive record of poverty reduction over the years, cutting the level of poverty (using the national poverty line) from 40% in 1960 to 2.8% in 2010, according to official figures. At the same time, the growth rate of population declined and life expectancy increased markedly while improvements were achieved in education programmes, access to health care and basic infrastructure. The distribution of income also improved: the GINI coefficient for income per capita fell from 0.434 in 1985 to 0.408 in 2008 (UNDP 2010), and average per capita expenditures for the country as a whole increased, reaching \$3,872 (PPP) in 2008.
- In Turkey there has also been great progress in the fight against poverty during the last five decades. The poverty ratio, defined as the proportion of people with income less than 50% of the median income, decreased from about 49% in 1968 to 34% in 1987 and 16% in 2008. The GINI coefficient for income per capita decreased from 0.56 in 1968 to 0.43 in 1987 and to 0.38 in 2005.

Yet poverty, particularly rural poverty, remains a major issue in all four countries. The greatest challenge is probably faced by Egypt where the population density is generally very high, even in rural areas, particularly in the Nile delta (more than 900 persons per square Km in 2007 in rural "Lower Egypt", not including the four urban governorates of Cairo, Alexandria, Suez and Port Said). Generally speaking, the poor are concentrated in rural areas and particularly those in Upper Egypt. Rural poverty is also a major problem in Morocco, as reflected in the average monthly household income of 3,900 DH (i.e., around €350 at the official exchange rate, which is probably overvalued) in rural areas, with nearly 20% of households having a monthly income of less than 1,930 DH. In spite of real progress in the last 30 years, the UNDP human development indicator ranked Morocco the 130th country in the world in 2010, because of a high incidence of poverty in internal rural regions, poor literacy rates and poor performance of the public health system, as reflected for instance in high levels of infant mortality (CIHEAM-IAMM 2014).

The poverty situation in Tunisia is generally less acute than in most other Arab countries. According to the UNDP Human Development Index, Tunisia was ranked 81st in the world in 2010, the value of the index for the country having increased from 0.436 in 1990 to 0.683 in 2010, whereas the average for Arab countries increased from 0.398 to 0.590 during the same period. In addition, poverty seems to be mainly concentrated in urban areas, which account now for about three quarters of the poor population, as compared to about half in 1975. As a result, the rural poor accounted in 2007 for only 27% of the total poor population. Yet, as the dramatic events of Sidi Bouzid showed, rural poverty remains a major problem. Sidi Bouzid, where the 2011 revolution started, is a town of some 50,000 inhabitants located in the interior of the country, in a region where the economy depends heavily on agriculture.

Everywhere, the main problems facing rural areas are similar: a poorly educated and unskilled workforce; an ineffective institutional structure and a lack of efficient farmer organizations; a scattered pattern of settlement in some regions; insufficient development and maintenance of physical, social and cultural infrastructure; a high rate of dependence on subsistence agriculture; unequal access to soil and water resources; inadequate diversification of agricultural and non-agricultural income-generating activities; a high rate of hidden unemployment and low income levels; increasing migration; and the ageing character of the rural population.

The challenge for public policies is how to face that complexity. Among poverty alleviation policies, prime place has been given to food policies in many countries, notably in Algeria, Egypt, Morocco and Tunisia. The dilemma faced by public authorities for decades has been striking. The budget share of food is very high among the poor. Thus, keeping the price of food as low as possible is an effective way to protect the poor. But in North Africa, many farmers are also poor and their welfare is negatively affected by low prices for the products they sell. Hence, in many countries of the region, public authorities have put in place a complex system of market interventions, setting a wedge between producer and consumer prices. Specific measures have varied through time and from country to country; they have generally included border interventions (e.g., import taxes and physical import controls, or, mostly in the past, public monopolies) and subsidies of various sorts. The difference between producer and consumer prices has mainly been borne by the public budget. Admittedly, many of these public interventions were relaxed during the process of domestic liberalization in the 1980s and 90s. But this liberalization has only been very partial and the cereal markets, in particular, remain heavily regulated (CIHEAM-IAMM 2014). As a result, public budget costs have escalated and will continue to do so in the future if the policy mix is not radically changed. One can seriously doubt that such levels of public expenditures will be sustainable in the long term.

This illustrates one of the thorniest interactions among policy challenges faced by countries in the region: What is the most appropriate market intervention, given the import dependency discussed above? And what should be the rural poverty alleviation policy, given the major role given to market interventions in this domain? The link between these two challenges is critical because agriculture remains the main source of income for many rural poor. This is true even in cases where many of them have no, or only limited, access to land and water. Access to these two key inputs for agricultural production has been a source of major problems in all the countries under study. And past public policies have not been very effective in this area.

#### 11.1.3 Deteriorating Natural Resources

Soil, water and biodiversity, the main natural resources of interest here, are under threat in many parts of the world. The pressures are particularly acute in the Southern and Eastern Mediterranean region for a variety of reasons. In addition, these pressures will only increase with global warming. Great challenges result for the countries of the region. We will first briefly review here the threats to each one of these resources.

Soil erosion seems to be rapidly increasing in many dry and remote regions because the poor rural population cannot afford the investments which would be necessary for prudent sustainable management of the resource. Short-term pressures resulting from poverty and demographic growth lead to over-consumption (cultivating marginal lands, overgrazing, excessive collection of fuel wood). Besides, uncertain land tenure, poor literacy, and limited access to credit constitute additional obstacles to long-term investments. In more well-endowed regions, particularly on the plains, soils are more fertile and often irrigated. Several types of degradation can however be observed: soil salinization in some places, pollution by excessive use or inappropriate application of pesticides and chemical fertilizers. But the greatest threat to agricultural soils is urbanization, and particularly in coastal areas. In spite of the magnitude of these problems, sustainable management of soils does not carry the urgency it warrants, in public debates and concerns. One reason may be the difficulty of finding appropriate indicators of land degradation, that could be broadly understood by non-specialists and that could communicate the seriousness of the degradation, thereby becoming effective to generate policy action. This is reflected in the limited number of synthetic publications on the subject. One notable exception is a report from the Plan Bleu based on an extensive review of the literature, but dating back to 2003 (De Franchis; it is worth noting that in our literature search, we did not find anything comparable that was published more recently).

The De Franchis (2003) report makes it clear that soil degradation takes many forms and results from a multiplicity of causes. But, as just indicated, few meaningful quantitative indicators are available. For instance, the report quotes an estimate from FAO indicating that 15% of agricultural soils are under an erosion threat in the Mediterranean region. Is this very little or very serious? Several other experiences quoted in the report invoke both a sobering humility concerning the solidity of past diagnoses and a sense of urgency in spite of past mistakes and failures in efforts to conserve soils. First, the multiplication of catastrophic floods in cities around the Mediterranean basin, e.g., Nîmes (1988), Genoa (1993/94), Algiers (2001), point to the urgency of coping with huge increases in runoff water volumes following the construction of buildings and roads on large tracts of land. Secondly, the example of Israel (Gradus and Lipshitz 1996) illustrates how extensively fertile agricultural soils can be, and have been, diverted to other uses, particularly in the early 1990s when the country absorbed more than 600,000 migrants from the former Soviet Union in just a few years. Land use planning rules were not strong enough, or not forcefully enough implemented, to prevent an anarchic development of construction and to protect agricultural areas.

Finally, the relative failure of soil conservation efforts in Algeria over several decades has been well documented (Roose et al. 1998): "Over a total of 350,000 hectares treated by the DRS [Defence and Restoration of Soils], 60% were found to be degraded, 20% had disappeared and it is not clear that erosion was ever a threat on the rest of the surface, where terraces were well maintained". This disappointing impact is attributed to a complex set of interrelated causes: started during the colonial period, the projects were not always well designed, rarely well monitored and followed up, and did not involve the participation of the local populations.

These criticisms illustrate the complexity of soil conservation problems, which involve the interaction of several natural and social processes. Taking these limitations into account, new methods of intervention, more inclusive and targeting together the management of soils, water and biodiversity, have been suggested and experimented with in recent years. Not enough evidence is available yet to assess their effectiveness. But one thing is sure: the complexity which these methods attempt to tackle will continue to be a major source of challenges.

Water resources are well recognized as a source of major challenges in the Mediterranean region, which is often presented as a world "hot spot" in this domain (UN Commission on Sustainable Development 1997). Much has been written on the water problems in the press, in official documents from governments and various international organizations and also in the scientific literature. A brief synthesis, focusing on fundamentals, will be sufficient for our purpose here. The starting point has to be the concept of water balance, in spite of its limitations briefly discussed below. The basic idea is simple: since water is critical to life, will there be enough water resources to cover water needs? And under what conditions? This indicator reveals for instance the magnitude of one of the water management challenges faced by SEMCs: in 2009, 108 million people in the region were in a situation of "water stress" (less than 1,000 m3/ hab/year available), 58% of whom had even less than 500m3/hab/year (a situation defined as "water scarcity") (Blinda and Thivet 2009).

All projection works indicate that this situation can only worsen in the future. Looking first at water needs, it is clear that they will increase with demographic, urban and economic growth. Besides, with irrigated agriculture being by far the largest user of water, much will depend on whether or not irrigated areas increase and by how much. Two additional considerations regarding water needs or water uses must be taken into account: How much can water wastes be reduced or eliminated? How much can water use efficiency be improved? Reducing wastes and improving water use efficiency are both obviously desirable because this would improve the water balance by reducing water consumption. But achieving either one is challenging because it implies significant changes in the collective behaviour of water users, including new investments, new institutional rules and often a redistribution of benefits. This is difficult everywhere in the world.

On the supply side, there is no simple solution either. Not much can be done about increasing rainfall. Besides, all the available model simulations of the impact of global warming indicate that total rainfall will decrease in most regions of the SEMCs. Rainfall patterns will become more erratic and less evenly distributed, which will make rainfall harvesting and storage more challenging. In some parts of the region groundwater resources are relatively abundant. But many of these are not renewable and some are already overexploited, as is being done on a large scale in Libya. Several countries rely also on so-called "non-conventional" resources, such as the treatment and reuse of waste water, reflecting the high degree of water stress in the region. Generally speaking, it is the poorest people, in rural areas and also in urban ones, who suffer most from water scarcity. In several countries, the proportion of the rural population without access to drinking water is high by international standards.

What is the public policy agenda resulting from this difficult water situation? Interesting answers to this question can be derived from a comprehensive assessment of water resource availability and use in the region, conducted by the Plan Bleu in 2005 (Benoît and Comeau 2005). Two scenarios were considered: According to the first one, based on the extension of past trends, water use would increase significantly by 2025, several countries would increase their use of fossil, non-renewable resources and more than 80 million people would find themselves in a situation of "water scarcity", compared to 63 million in 2005. The second scenario, based on reducing wastes by 50% and increasing water use efficiency in agriculture (to 80%) would radically change the water balance situation. In other words, public policies must target water demand. This does not mean that the supply side should be given up: increasing water storage capacity remains desirable. However, much more can be gained on the demand side.

But that, as already indicated, is extremely challenging. Reducing waste and increasing water use efficiency would require major changes in behaviour by a variety of water users. Social constraints of various sorts must be overcome. The most important obstacle to the necessary changes in behaviour is probably the social and political reluctance to resort to economic policy instruments. Water being scarce, the obvious economic tool to use is to raise the price of water paid by its users, be it for irrigation purposes or for domestic use. But the social, cultural, religious, ethical and ultimately political obstacles to do so are overwhelming, particularly in this region. For instance, charging poor people, with a price reflecting costs, for urban water services, or farmers for irrigation water, is socially and politically very difficult. In addition, the social and political obstacles to overcome, when deciding to build new dams, particularly large ones, are also huge. As a result, the sustainable management of water resources has been, and will continue to be. extremely challenging. This challenge will be compounded in years to come by new uncertainties and complexities. Returning to the concept of water balance will help us to illustrate these uncertainties and complexities. Water balance assumes both a space and time scale, e.g., how much water is available and how much is consumed<sup>3</sup> in a given space (be it a country, a region, a watershed, etc.) during a given period (say one year, one season, etc.). But most water management decisions (e.g., building a dam, deciding what prices to charge for water uses, choosing a pattern of devolution of maintenance responsibilities to water users, etc.) involve combining several space and time scales. These combinations are always complex in real situations. As a result, to the uncertainties regarding how much water is available at a given place during a given time period, uncertainties which will increase with climate change, must be added those associated with complex social processes involving many actors: Who is going to do what? Where? And when?

Past and current public policies have addressed these issues which are well recognized in most SEMCs. But the main point to be stressed here is

<sup>&</sup>lt;sup>3</sup> A further complication must be acknowledged here. The concept of consumption may not be fully adequate for water, since water use, be it by the human body or by domestic animals or by crops, does not really destroy the water, which is returned to the atmosphere or to the soils or to water streams after use. However, managing the resource for subsequent use most often requires new human efforts and investments. As a result, reasoning in terms of consumption and of demand is appropriate in many instances.

that these water management policies have not been sufficient to reverse the worrisome trends discussed above.

Biodiversity is also under threat in the region. The threat is serious because, in the words of the Critical Ecosystem Partnership Fund (CEPF), a prestigious coalition of actors at the world level: "The Mediterranean Basin Hotspot is one of the most extraordinary places on Earth and is remarkable for both its high level of biological diversity and its spectacular scenery. [...] Approximately 13,000 of its 30,000 plant species are endemic, or unique, to the hotspot, and many more are being discovered every year" (CEPF 2010:3). Similarly, Médail and Quézel (1997:116) pointed out that about 10% of the known higher plant species were found in the Mediterranean region on a surface only equal to 1.6% of the world total land area.

There is a surprisingly wide and strong consensus on the causes behind the threats as well as what should be done to protect and conserve biodiversity. Population growth and the strong pressures exerted by tourism, which is massive and still growing, particularly in coastal areas, are seen as the main culprits, straining the limited resources, particularly water, leading to overexploitation and degradation, even destroying natural habitats. Here again, it is expected that climate change will exacerbate these negative pressures. Thus, the link with the degradation of other natural resources is strong. The same is true for the solutions which are proposed. Thus, the first two strategic directions of the CEPF are formulated as follows:

- To promote civil society involvement in integrated coastal zone management; and
- To establish the sustainable management of water catchments and the wise use of water resources.

For the IUCN, protecting species and protecting ecological sites requires the integrated management of the environment (ecosystemic approach) as well as major communication and training efforts (Cuttelod et al. 2009). In other words, the challenges faced to conserve biodiversity are very similar to those resulting from the imperative obligation to sustainably manage soil and water.

#### 11.1.4 Worrisome Demographic Trends

All the challenges identified above, regarding national food security in a situation of growing import dependency, stubborn rural poverty, and degradation of natural resources, are compounded by very worrisome demographic trends. Indeed, in spite of the demographic transition in which several SEMCs are definitely engaged, total population continues to increase, many young people are entering the labour market, creating a huge gap between national labour demand and supply, and – most importantly for our purpose – the total rural population continues to increase in most of the region. We will briefly review these trends before drawing implications for agricultural and rural development policies.

All the demographic parameters of importance for agriculture and rural development were reviewed in Mediterra 2008, the tenth annual report of CIHEAM (2008), devoted to a prospective exercise on food and agriculture in the region. Although conducted several years ago, the analysis remains valid and relevant. The following paragraphs are directly drawn from that report. In 2005, the total population of the Mediterranean Basin reached 454 million, i.e., 7.0% of the world population, well on track to a doubling in 50 years (1970-2020). But most of the recent growth took place on the Southern and Eastern shores of the Basin, and this trend is expected to continue in the foreseeable future. Between 1990 and 2020, the population is expected to increase by 14 million inhabitants in the North and by 130 million in the South and the East. Another mega-trend is urbanization. Between 1970 and 2005, total urban population doubled; between 1990 and 2020, urban population in the South and East is expected to increase from 108 to 214 million people, a rate of growth placing the Maghreb countries (i.e., North Africa) on top of all regions in the world on this score. Yet, rural population continues to increase, even if its share in total population declines. And this, of course, has major implications for agriculture: What are the employment perspectives? And, given the particular conditions of access to land and water resources, for what level of income?

Yet the demographic transition, primarily based on lower infant mortality and lower birth rates, is well engaged in several countries. For instance, in Egypt and Morocco, two countries where poverty remains a tremendous challenge, infant mortality rates are expected to decrease by two thirds between 1990 and 2020. Life expectancy is also increasing and is expected to reach 75 years in all SEMCs. Fertility rates have begun to decline, particularly in the Maghreb countries where the number of children per woman is near 2.1, whereas it is still much higher in Egypt, Syria and Israel. Another striking feature of this demographic transition in SEMCs is that it is taking place very quickly, portending major shifts in the age composition of the population. Yet, because of the strong demographic growth in recent years, the population of working age has increased very rapidly and job creation linked to economic growth has not kept pace with demographic growth. This trend will continue in the coming decades. Thus, it is estimated that the number of net entries into the labour market in the Arab Mediterranean countries between 1995 and 2025 will be between 80 and 85 million, a huge increase in the supply of labour.

As already indicated, these demographic trends and perspectives have major implications for agriculture and rural development. Contrary to what happened in Europe and other developed countries during the past century, the modernization of agriculture cannot be driven in SEMCs by a rapid decline in agricultural employment and a massive substitution of capital for labour, with the size of farms increasing. In this region, the number of hectares per agricultural worker, already very small, will continue to decrease, which will make any increase in the average productivity of labour very difficult and will dampen the possibility of improved agricultural income per person working in agriculture. Hence, it will be important to diversify the sources of income for rural households, thereby increasing the urgency of non-agricultural job creation in rural areas – a great challenge indeed, given what has just been noted about the huge increase in the total supply of labour in the whole economy.

# 11.2 Implications for the Euro-Mediterranean Relationship

Events on the Southern and Eastern shores of the Mediterranean Sea have rapid and direct consequences for Europe. Thus, it is not surprising that Euro-Med relationships have a long history and are both intense and very diverse, covering many fields from political and security issues to cultural cooperation. In addition, following the Barcelona conference which launched the Euro-Mediterranean Partnership (or "Barcelona Process") in 1995, a very elaborate institutional structure has been put in place between the European Union and 12 "Mediterranean Partner Countries" (MPCs) to orchestrate a wide range of collaboration activities (Philippart 2003).

Yet on the economic front trade liberalization has played, and con-

tinues to play, a unique role as the linchpin of efforts to strengthen the relationship. Today, it appears that this critical role given to trade liberalization has had major drawbacks, leading to frustrations and leaving in the background other areas of collaboration which could be more fruitful. We will first substantiate the claim that trade liberalization has been put at the forefront of the collaboration agenda and then suggest a few directions for an alternative agenda which could lead to a more productive relationship.

## 11.2.1 Trade Liberalization at the Centre of the Relationship for Decades

Even though the relationships between Europe, notably several of its member States, and Southern and Eastern Mediterranean countries are very old, it is in Barcelona in 1995 that a new, common and comprehensive strategy was formulated. The final agreement at the end of the conference included a Declaration and a work programme covering three domains: a) political and security, b) economic and financial, and c) social and cultural. Admittedly, geostrategic and political considerations were of great importance in launching this ambitious initiative; as stated in the Declaration, "the first objective of the partnership is to promote the emergence of a common area of peace and stability in the Mediterranean". And political means (through "multilateral political dialogue") were to be used for that purpose. But it is clear also that economic means, particularly trade liberalization, were seen as key instruments of this political objective. Thus, the Declaration stresses the complementarity among the three dimensions of the partnership: "convinced that the general objective of turning the Mediterranean basin into an area of dialogue, exchange and cooperation guaranteeing peace, stability and prosperity requires a strengthening of democracy and respect for human rights, sustainable and balanced economic and social development, measures to combat poverty and promotion of greater understanding between cultures, which are all essential aspects of partnership". In the economic sphere, trade liberalization appears as the main instrument of multilateral collaboration.

According to a broad acceptance of what was then the "Washington consensus", trade liberalization was seen as a powerful tool in the promotion of economic growth and, as a consequence, of poverty alleviation. In addition, the example of the European common market, relying on the

free flow of goods and services within the European economic space, was viewed as a great success to be emulated. The resulting economic integration would bring within reach the objective of building a space of "shared prosperity", to use the terminology of the Declaration.

Trade liberalization was not the only component of the economic package. Other activities were undertaken to support domestic policy reforms in MPCs, enhancing investments, notably foreign direct investment. And the amount of European financial aid was significantly increased, particularly loans from the European Investment Bank. Yet, the objective of creating an entirely free trade zone by 2010 was seen in 1995 as the main engine of the new and enhanced partnership.

Although the general objective of the Barcelona Process is clearly regional, SEMCs negotiate individually on trade matters with the European Union. Indeed they are far from a unified trading block. Following the launch of the Barcelona Process in 1995, a new set of bilateral agreements with the partner states were negotiated, to replace the former cooperation agreements with much more extensive and ambitious "Association Agreements". And indeed, agreements with all the MPCs, except Syria, were signed between 1995 and 2002. This was a major achievement even if the implementation of some of these agreements has been far from smooth.

The need to negotiate bilateral trade agreements instead of regional ones, imposed by the absence of a common organization for SEMCs, led to a somewhat paradoxical result in terms of trade liberalization: the creation of trade distortions among SEMCs, with each one negotiating specific conditions for its access to the EU market. Another exception to the principle of achieving a fully free trading zone has been the special treatment given to agriculture. As discussed below, this is quite understandable but it does illustrate the fact that the goal of full trade liberalization by 2010 was clearly utopian for reasons which are mainly of a political nature.

In spite of these difficulties, which became more and more obvious with time, the promotion of trade liberalization has ostensibly remained to this day the central component of the attempt to build a stronger Euro-Med relationship. The conference held in 2005, also in Barcelona, to "celebrate the tenth anniversary of the Barcelona Declaration" reaffirmed the centrality of trade liberalization, as it committed to "fulfilling the undertaking to achieve a Euro-Mediterranean free trade area by 2010" (Chairman's final statement). The terminology may look somewhat contrived, probably reflecting the uneasiness of the authors faced with the disappointing performance of the previous ten years but clinging to economic instruments in order to foster a partnership among countries divided by major geo-political conflicts. Indeed, the tensions were such that among heads of state or government of the SEMCs only the President of the Palestinian Authority attended the meeting, even though the conference had been touted as the "Barcelona Summit". It was characterized by some observers as "one of the most fractious of the EMP's history" (Menéndez and Youngs 2006).

The following quotation illustrates the importance given to trade liberalization: "Ten years after the launch of the Barcelona Process, the liberalization of trade in industrial goods is a reality. All industrial products originating in Mediterranean countries can enter the EU market duty free. Reciprocally, the Mediterranean partners (MPs) are progressively dismantling their tariffs over transitional periods of approximately 12 years. The liberalization of trade in agriculture is also largely achieved. More than 80% of agricultural products imported from the Mediterranean countries enter the EU market duty free or at reduced rates. Reciprocally, one third of the EU exports of agricultural products benefit from preferential treatment in the Mediterranean countries" (Montalbano 2007:48, Leandro 2005).

Accordingly, in the five-year work programme adopted at the Summit and covering a very wide range of common activities, a committee of Senior Officials was charged with the task to "design and implement a road map, for the creation of a Free Trade Area by 2010". And this was to include a 'progressive liberalization of trade in agriculture', the sector continuing to be seen as a drag in the liberalization process. The next step in this effort was to adopt a "negative list" approach whereby trade in all agricultural products, excluding those put on a small list of exceptions, was to be liberalized. The aim was to negotiate so-called "deep and comprehensive trade agreements" with individual partner countries, the terminology reflecting clearly the continued search for trade liberalization. At that time, the Euro-Med process was, for the EU, integrated into the new European Neighbourhood Policy, initiated in 2002 and covering both SEMCs and Eastern Europe and beyond (e.g., Armenia). Even though Morocco was granted "advanced status" in this process in 2008, the trade agreements signed with Mediterranean countries were judged to be quite "shallow" by independent observers a few years later (Dreyer 2012). In other words, trade liberalization continued to be put at the top of the Euro-Med partnership agenda but trade relationships remained fraught with many obstacles.

Developments in recent years, following the "Arab Spring", confirmed the importance of political considerations in the attitude of the EU toward SEMCs. This is explicit in the first sentence of a summary of the Communication from the European Commission of March 2011, entitled A Partnership for Democracy and Shared Prosperity with the Southern Mediterranean. The first sentence reads: "A new strategy for cooperation should enable the European Union (EU) to strengthen its support for those Southern Mediterranean countries undertaking political and economic reforms".<sup>4</sup> The weight given to those political considerations is fully understandable. It must however be borne in mind when assessing the significance of trade liberalization in the Euro-Med partnership. The Communication reasserts the role given to trade liberalization: "the renewed partnership should lead to the negotiation of Deep and Comprehensive Free Trade Agreements with the aim of creating free trade areas". At the same time. the very fact of setting "conditionalities" introduces differences among partner countries, differences which are in contradiction with the pursuit of free trade. In other words, the pre-eminence of political considerations over the ostensible objective of trade liberalization is clear.

### 11.2.2 Unintended Consequences of the Role Given to Trade Liberalization

In spite of the rhetoric, one must first stress that Euro-Mediterranean trade is far from liberalized 19 years after the first Barcelona Conference. The political obstacles to overcome have proven to be numerous and forbidding. This is particularly the case in agriculture. On purely economic grounds SEMCs, being massive importers of cereals, could be expected to have limited barriers to entry on their domestic markets for these products. Yet, this is not at all the case and nobody ever suggested such a liberalization of grain imports. The very fact that the move in some countries to let private traders, instead of State monopolies (i.e., "Offices"), be active in grain imports was hailed as a major liberalization step illustrates how far these countries are from free trade in this sector. The main point here

<sup>&</sup>lt;sup>4</sup> For the Communication summary see: http://europa.eu/legislation\_summaries/ external\_relations/relations\_with\_third\_countries/mediterranean\_partner\_countries/ rx0024\_en.htm.

is not to lament the lack of liberalization but to stress the importance of the political obstacles, however legitimate they may be.

In a somewhat symmetrical fashion, the obstacles to free entry on European markets of fruits and vegetables from SEMCs remain formidable. Yet, it is commonly accepted that SEMCs have a clear comparative advantage for these products. In a free trade perspective, this trade flow should be welcome. Our research (EUMED AGPOL and SUSTAINMED projects) has clearly shown that the economic stakes involved, although significant for specific producers, are minor if one assesses them from a broad European perspective. In this case again, major political obstacles stand in the way of free trade. More broadly, the very limited volume of South-South trade suggests that many obstacles prevent the growth of these trade flows. Admittedly, not all these obstacles are of a political nature but many are. Perhaps the most glaring example of such obstacles is the existence of a completely closed border between two SEMCs (namely Algeria and Morocco), which makes the objective of creating a fully free trade regional area totally utopian.

This contradiction between the call for trade liberalization and the constraints of hard political realities has had serious negative consequences. It has generated disappointment, frustration and acrimony, all of which standing in the way of a more realistic and productive relationship. For instance, French cereal farmers, supported by some intellectuals (Rastoin et al. 2012) lament that they do not have better access to SEMC markets. Similarly, the obstacles to SEMCs' access to the European markets for fruits and vegetables create many frustrations in these countries. And recent events have shown that the political obstacles remain very strong, as revealed in 2012 by the acrimonious debate in the European Parliament for the ratification of the Association Agreement with Morocco. The controversies in 2014 around the fishing agreement represent another example of conflicts and controversies raised by trade issues. More serious yet, the need for hard-to-obtain visas to enter Europe, a major obstacle to the free flow of labour which would normally be the rule in a fully free trade zone, is the cause of many frustrations in SEMCs, notably among young people.

But the most damaging consequence for the Euro-Med partnership of asserting and pursuing the utopian goal of full trade liberalization has been the neglect of other potential areas of collaboration, which could have been very fruitful for the partnership. For the agricultural sector broadly defined, this is true of support for rural development, for research and for agricultural education, in particular, Admittedly, rural development has not been totally neglected but it did not receive the priority it should have, given the magnitude of the rural poverty described in the first part of this paper. Only 2% of the MEDA I and II credits, covering the 1995-2006 period, were devoted to rural development. In the same vein, there is a long history of effective collaboration in the fields of agricultural research and higher education, and that history began well before the Barcelona Process was launched in 1995. Yet, in many SEMCs, the corresponding institutions have glaring weaknesses, well identified by professionals from both the North and the South familiar with the situation, and often associated with bureaucratic obstacles to efficient functioning, etc. Obviously, many of these shortcomings can only be addressed at the national level. But closer international collaboration, entailing long-term activities beyond the usual short-term horizon of common research projects, could have strengthened those institutions, as proven by the past record of a few success stories, which incidentally were quite diverse in nature.

#### 11.3 A New Strategic Direction Is Needed

Rather than building the North-South relationship on an elusive agricultural trade liberalization, the primary focus should, I believe, be placed on support to strengthen agricultural and rural development institutions in SEMCs.

The promotion of rural development is of course critical for all SEMCs and it is comforting in this respect that awareness of this need has made great strides in recent years, both within SEMCs and abroad. In this connection the launch of the ENPARD initiative is welcome. Thus, one may hope that the weight of the traditional "urban bias", leading to the neglect of agriculture and rural development in many countries of the region, as well as elsewhere, may be corrected. One acid test of the new commitment in favour of agriculture and rural development will be the amount of financial resources which SEMC governments are willing to devote for this purpose. In this domain, an external actor such as the EU cannot substitute for domestic commitment. So, the EU support to agricultural and rural development in SEMCs should not be primarily financial. It is longterm commitment to institutional support which is called for, as further discussed below.

In the past, the key organizational concept of development assistance has been the project. For decades, the World Bank and similar aid institutions have been organized to provide financial support to development projects, as illustrated by the classical project cycle (identification, preparation, appraisal, implementation, ex post evaluation) around which these development aid institutions function. Unfortunately, throughout the world, rural development projects have generally failed or faced enormous difficulties. As a former Director of Agriculture and Rural Development in the World Bank, I can testify that this is true of most so-called "integrated rural development" projects, of most agricultural credit projects, of practically all agricultural extension projects and of many others, for instance in agricultural research and in irrigation. Admittedly, some positive results have generally been obtained but, in most cases, the initial objectives justifying funding have not been reached, notably because the development of the relevant institutions has not been sufficient. Institutional development takes time and projects have too short a time horizon. Indeed and even worse, when projects are extended over a longer period than planned, it is often because they are not performing satisfactorily.

Experience in SEMCs and in many other countries of the world, both developed and developing, shows that rural development requires well-functioning institutions of many types: municipal and other local authorities; genuine farmer cooperatives capable to mobilize local resources and effectively controlled by rank and file members; similar institutions, such as water user associations, ensuring the wise management of natural resources for the benefit of the majority of local residents; and local credit institutions (notably microcredit). Civil society organizations (CSOs) can be very useful in directly playing these roles which serve the common good, as well as in fostering institutions specifically designed to play such roles. In addition, experience shows that to be successful rural development must entail many complementary components and hence strong coordination mechanisms involving a diversity of actors at the local level. Given the richness of the European experiences with local institutions of all sorts, there is a wide scope for potential cooperation in this domain, provided everyone involved fully understands that social situations vary widely in time and space and that a solution which may be appropriate somewhere may be inadequate elsewhere. Each local situation requires a specific set of institutions and of relationships among these institutions. EU support for such a development process could be very useful. It will however require a lot of local intelligence because the

process is very delicate. One may wonder whether the current EU aid delivery apparatus and mechanisms are nimble enough for such a task.

In the field of higher education, the standard institutional model to be emulated is that of the university. Not many universities in the world can hope to be like Harvard, but fortunately many universities perform very useful tasks, even if they command less resources than Harvard. A case in point is that of the American "land grant" universities, which have done wonders for the agricultural and rural development of the United States but also have contributed a lot to the development of agriculture in the rest of the world. In fact, there are many variations among universities in the world and many are quite productive. Other models can also be effective, such as that of the "Grandes Ecoles" in France. But the sad reality is that in many countries, universities and other higher education institutions are afflicted by serious structural weaknesses (insufficient financial and human resources, excessive bureaucracies, insufficient mobility and skewed age distribution of academic staff. low quality of incoming students, etc.). As a result, teaching tends to be bookish and graduates are ill-prepared for creative professional careers.

Many of these weaknesses can be found in SEMCs. It is mainly at the national level that effective action can be taken to remedy such situations. But international cooperation geared to institutional strengthening can also be very useful, as demonstrated by past experiences that were very successful. A few such experiences can be quoted here. When the IAV was created in Rabat, French professors from INA Paris and other agricultural "Grandes Ecoles" played a key positive role as mentors of young Moroccan academic staff. A few years later, IAV benefitted greatly from a special arrangement with the University of Minnesota for the formal training at the PhD level of several of its agricultural economists. Similarly, the agricultural economics department of INA Tunis benefitted from the institutional support it received from the Ford Foundation over several years. beginning in the late 70s. In this case, the Foundation mobilized academic professionals from various foreign institutions but closely managed the cooperation process using its own staff. This latter example illustrates that various institutional models can be effective. In India, the twinning arrangements, associating a state agricultural university with an American land grant university, supported by USAID, have sometimes been very successful. The many failures however suggest that domestic conditions remain critical for the success of institutional development.

EU support to higher education in SEMCs has been active on several

fronts for many years. And agricultural institutions have benefitted from that support. But my impression is that the main benefits have been derived by individuals who were thereby able to play their academic roles better, while whole institutions generally remain very weak. Thus, one cannot escape the feeling that much more could be done. But institutional support in this case is also extremely delicate and requires much intelligence, perhaps more than existing collaboration mechanisms can muster.

The case of agricultural research is similar to that of higher agricultural education. In most SEMCs, agricultural research is not mainly the task of universities but that of specific research institutions. These however generally suffer from the same weaknesses as those described above. Here again, the main action to remedy this situation has to be taken at the national level but international cooperation can be very useful. An illustration of such productive action is the case of the international agricultural research centres, supported by the CGIAR. These were created *ex nihilo* at the beginning by two American Foundations (Rockefeller and Ford). They now receive most of their financial support from development assistance budgets and are today major instruments of international collaboration in their field, including support to national agricultural research institutions in developing countries. The EU as a whole, including member states, is the major "donor" of the CGIAR. In addition, specific resources have been devoted by the EU to agricultural research in SEMCs for many years. Generally speaking, such support has been useful. But here again, it appears that much more could be done. In recent years, a lot of attention has been given to coordination networks, including often financial support to specific projects selected on a competitive basis through "call for proposals" procedures. The time may have come for large common programmes, with ambitious objectives and long-term commitments.

#### CONCLUSION

The urgency of the sustainable agricultural and rural development problems faced by SEMCs calls for a dramatic reassessment of current public policies, in spite of the real achievements of these policies in the past. This reassessment must include a re-examination of the intellectual foundations of these policies. The same is true for the design and implementation of supporting activities by external actors, principally the EU. I have argued that too much emphasis has been placed on trade liberalization as an instrument for the construction of a deeper Euro-Med relationship in past decades. Perhaps, this emphasis on trade liberalization resulted from obstacles to other collaboration activities, such as the freer movement of people or the inability to jointly manage regional conflicts. But, whatever the reasons, it appears today that the undue emphasis on trade liberalization has been counterproductive in the field of agriculture and rural development. It has generated disappointments and frustrations and has led to the neglect of other potential areas of collaboration.

The promotion of rural development in SEMCs is an absolute necessity if these countries are to tackle the urgent problems identified in the first part of this communication: alleviating rural poverty while wisely managing natural resources, bearing in mind that this must be done within the hard constraints imposed by the need to limit public finance deficits and to prepare for the arrival on the labour market of large cohorts of young people.

We believe that the EU can play a specific but very useful role to help SEMCs face these challenges through support to institutions needed for fostering rural development. The same is true for agricultural research and higher education, two fields of activity which are critical in the promotion of agriculture and rural development, agriculture remaining an essential component of most rural economies. And here again, the EU and many EU member state institutions can play very useful roles. But to be successful, institutional support requires much intelligence of the local situations. And the existing cooperation apparatus and mechanisms may not be nimble enough to muster that intelligence. Many actors beyond public assistance organizations will need to be involved. New mechanisms must be invented. This will be a major challenge for the future Euro-Med relationship.

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