

On Environmental Conservation in the Mediterranean Region

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Effective management of environmental conservation in the Mediterranean area requires real and effective cooperation between the countries on both shores. Southern countries are well aware of the problems concerning environmental conservation, and the criteria applied in the North are not valid for them. Political action should go beyond the frameworks established (state governments, the EU, and so on) to ensure cooperation that enables the establishment of protected areas shared by several countries. Moreover, we should find a common denominator in environmental issues leading to a Union of Mediterranean States. This would benefit research and efficient cooperation in several aspects related to the environment, such as fishery, agriculture, education and sustainability.

Exordium

Many things have and can be said about environmental conservation in the Mediterranean region, and especially in those situations that can promote cooperation between countries and regions, some of them recent and by recognised experts. In these pages I will confine myself to setting out some reflections on two complementary aspects, in which I have some experience as professor of ecology.

The first of these aspects, from the point of view of environmental problems, leads us to the question: what type of cooperation should the northern countries organise jointly with those of the South? What limitations does this involve and what has been the experience until now? (North and South are used here not only in a geographical sense but also in terms of relative economic development; it is an over-

simplification but will help us to understand.) What aspects do not completely work in this cooperation, when it has existed? And, above all and very particularly, are we aware of the basis of the environmental problems in order to approach the solutions with guaranteed success?

The second aspect is related to teaching and research in environmental sciences: what can the North of the Mediterranean region offer to the South (or vice versa)? And, equally valid, what can the West offer to the East (or vice versa)? What have we done until now and what experience have we gained? What remains to be done?

Environmental Cooperation

The first reflection on environmental problems is obvious but worth repeating: the European

riparian countries of the Mediterranean Sea have a major advantage over the other European countries when dealing with the environmental problems of the *Mare Nostrum*: they know about them because they suffer from them whereas the other countries do not (or only seasonally, when their citizens travel to the south of Europe on holiday). Southern European countries are aware of forest fires, lack of water, desertification, depletion of fishery resources and other problems completely beyond the experience of central and northern European countries. This, which often results in a lack of European environmental policies on Mediterranean countries, should bring us closer to the so-called Mediterranean Third Countries (MTCs) when finding solutions to common environmental issues. Problems that are common to the whole of Europe, such as pollution, are considered – although, for example, acid rain is anecdotal in the Mediterranean region – while those exclusive to the Mediterranean, such as those cited, are almost never taken into account.

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Another gross mistake often made in the past, but which we should not repeat, is seeking to apply the same criteria to both the MTCs and to the northern countries, whether in terms of economic development (which usually generates environmental problems) or environmental protection. From the point of view of the environment, these replicated criteria are of no interest to either southern countries or us. But neither are they feasible because they are bound to failure as, for example, sensitivity over the environment is closely linked to a certain degree of economic and social well-being, which has been assimilated to the guilty

conscience of the polluters but probably has more prosaic connotations. Only when the basic problems are solved can we tackle those that can be considered secondary: *primum vivere...*

There are two reflections, also in this context, that should perhaps be further explained. Firstly, the economic development characteristic of western society requires high consumption of all kinds of resources, whether domestic or foreign, while the South is rarely consumerist and exports little (at least of primary sector products). Secondly, what for the North can be environmental problems, for the South are often simply problems of survival.

When can the South be asked to invest in environmental protection? A triple example will illustrate why I see this demand as feasible. It concerns three wet areas of Tunisia, each of them protected by the government of that country for very different reasons. Bahiret el Biban is a large coastal lagoon, the southern-most in the country, separated from the Mediterranean Sea by an offshore bar likely to be developed (similar to what happened in the Manga del Mar Menor in Spain). However, this tourism development has not yet been prevented, despite domestic and foreign pressures, because the aquaculture of the lagoon generates a quarter of the country's fish production, exported to Europe and paid for with foreign currency. The income from development of the lagoon would certainly not compensate that of the fishery exploitation and protection together; the environmental degradation would be enormous, as in the aforementioned Spanish case, and can be seen in other coastal areas of Tunisia.

The second case concerns the Lake of Tunis, another lagoon, which until a few years ago was an example of extreme pollution in the Mediterranean in all reference texts. Since then, the two halves of this lagoon have been treated to keep them clean for European tourism. The fact that the city of Tunis, with much of its income



Protecting Bizerte Lagoon (EU/Neighbourhood Info Centre).

based on tourism, was almost surrounded by a stinking sewer encouraged purification, which was undertaken with European aid, especially German (as Germans account for most tourism), as well as Tunisian. The incentive here was the need to have quality tourism more attracted to this environment than to competing tourist countries in the North.

The third example is another lagoon, Lake Ichkeul, in this case fresh water, with a very rich fauna of migratory birds, which had to be protected from all points of view. The Tunisian

government was prepared to extract as much water from the lagoon as the nearby city of Bizerte needs for its industry now and in the future. Therefore, major European aid was required to maintain this lagoon, at least partially, which given its bird biodiversity would be the equivalent of the Coto de Doñana or the Ebro Delta for that country, with the objective of conserving it as an area rich in birds while allowing a less aggressive development for Bizerte (Ros, 1997, 2001). However, it must be noted that the extraction of water resources has been higher than expected, that there has been salinisation due to sea water intrusion, and that the bird population has diminished in the last decade.

In all these and other cases, the role of tourism is quite apparent, which is both a blessing and a curse (Ros, 2003, 2007). It is a blessing because it generates wealth and exposes the receiving countries to the winds of social and political development, and not only the economic development brought by European visitors. But the negative aspects of tourism are not insignificant. In the first place and generally, in the countries of the South tourism areas are separated from the urban or rural centres: there is no longer the fertile mix there was, for example, in Spain in the tourism boom years, which brought about the influx of new ideas at a time of political, social and cultural isolation (which, incidentally, is the current situation, for several reasons, in many MTCs, despite the Arab Spring).

In the second place, the population is abandoning the primary sector to move into basic services (hotels and catering) but no further, thereby creating a service-based society. In the third place, tourism can negatively affect the environment (and usually does); but, at the same time, the pressure of European tourists, who demand a better quality service, can be the seed that sows more respect for the environment, as has happened in Tunisia.

This comment must be linked to another essential reflection. The environment must not be confused exclusively with water, soil and air pollution; nor must pollution be exclusively associated with effects on human health. Of great importance in the Mediterranean Sea is the use of coastal areas for building of all kinds, the deterioration of ecosystems, pressures on animal and plant species and natural communities, over-fishing, exhaustion of aquifers, soil erosion, and so on (Ros, 2001).

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The environmental issue has a demographic, energy and, therefore, economic basis. There is a vicious circle which is difficult to resolve with half measures or, very often, botched jobs: we must get to the roots and resolve the demographic and economic impacts.

Unfortunately, countries are usually divided into rich and poor, and from the economic and ecological point of view it is difficult to see a future in which this situation of North and South, as mentioned, can vary. The so-called Matthew effect is applicable here, which says that the rich get richer and the poor get poorer, and this is basically because the southern Mediterranean countries grow in demography and the northern countries in the use of resources of all kinds, especially energy. This is very difficult to resolve, at least in a short and medium term future.

The solidarity expressed by, among other things, pledging 0.7% of Gross Domestic Product is not enough. In fact, the current economic crisis does not exactly help to extend this measure, which is only an act of good will by some countries. I understand that cooperation is necessary to resolve the demographic problem through the only channels possible:

integration of immigrants in the North and raising the standard of living in the South, which as a by-product reduces the birth rate. And we must resolve the economic issue through the cancellation of external debt and through economic development that does not follow the now familiar patterns that in the North only (and barely) work with a consumer society that squanders energy and food, and can afford investment in environmental protection. In the South (and here “South” is applicable to all countries in the Developing World, not only the Mediterranean), these luxuries are hard to attain.

Some environmental aspects derive from a subsistence agriculture which is aggressive for the environment but also an intensive agriculture aimed at exports, while the foreign currency income seems to justify any wrong. A sustainable agriculture would be more respectful of the environment (each country would be more efficient in relation to its climate), use less water, generate fewer contaminants and could set about resolving food problems. Moreover, the way the Northern Mediterranean (Spain, Italy) is dealing with the fishing issue is shameful and does not provide a good example to the South on marine resources (Ros, 2001).

The creation of a state of opinion favourable to protection of nature in the South involves encouraging the presence and activity of ecology groups, NGOs, associations, and so on. This entails a political change towards greater democracy and participation, prior and necessary steps for any environmental policy. The role of women is fundamental, but their participation in social affairs should not interfere in the lifestyle of the countries, already quite conflictive for other reasons. The non-interference of the North in the operational models of the South should be taken into account, as long as there is minimum respect for fundamental rights in these countries.

Another kind of cooperation that can be very important is still in its early stages: the establishment of protected land, coastal, island or sea areas, under the shared administration of two or more countries. Nature does not understand political frontiers or different legislations, and some migratory species (birds, fish, turtles, etc.) follow international routes and are subject to diverse criteria of exploitation and conservation. It does not seem so difficult to come to an agreement to jointly protect areas that are valuable from the ecological point of view, as happens (albeit not widely) to sustainably exploit shared resources. Some examples include common coastal or sea areas in France, Italy and Monaco, Spain and Morocco and Spain and Portugal, but they are still the exception to a rule that should become more widespread (Ros, 2001, 2003, 2007).

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On another level, the international agreements on the environment are one thing, and the model of urban, economic and industrial growth, etc, of each country, northern and southern, is another. Both should agree to be able to establish lines of action. There is nothing crazy about thinking that, in environmental issues, Mediterranean countries can come together and jointly resolve their problems, in a framework that goes beyond not only the different rather timid accords agreed until now, but even the EU framework itself. Just as Great Britain and France work simultaneously with the EU and the Commonwealth and French-speaking countries, respectively, on cultural or commercial issues, the Mediterranean countries should find a common denominator that

would lead to a United States of the Mediterranean for the environment, or something similar (Ros, 2001).

Cooperation in Research

In terms of environmental education and research, I have some experience in the coordination of a doctorate programme that brought together students from Morocco, Tunisia and Malta, placed them in Barcelona for two months and sent professors from here and other northern universities (France, Italy) to universities in those countries for short teaching stays. The courses of this MEDCAMPUS programme were on marine sciences, but students had a special interest in the most applied subjects (aquaculture, for example) and environmental aspects (such as environmental impact studies) (Ros, 1999a).

This project lasted three years in the 1990s, and from that experience some aspects are relevant to the subject in hand. Northern universities are still too selfish; those of the South, too rigid; the researchers and research groups, here and there, are too focused on their own problems. There are also still too many material and linguistic shortcomings, but these can be gradually resolved. There are two very positive examples: Royal Air Maroc offered flights at very affordable prices to Moroccan students and professors registered on the MEDCAMPUS programme; for its part, Barcelona University gave students efficient crash-courses in Spanish during the fifteen days before attendance on the marine science courses. The students were taught most of the classes in Spanish, but also in English and French.

However, an intensification of the aid and programmes that the EU allocates to this North-South collaboration is needed, as is a redirection of entrenched teaching practices (for example, the overburdening teaching ob-

ligations in our universities) which impede greater cooperation. The total budgets allocated to these projects should be higher than at present, but often the specific programmes that channel the aid to the MTCs can be unrealistic or inadequate. For example, it is not realistic to implement teaching programmes such as the aforementioned in countries of the South. Although this would probably promote greater involvement of their universities, it would be much better if the projects were designed together by the countries of the South (who know their own problems) and the North (using all their know-how to resolve them) and if students and professors of the southern shore of the Mediterranean could come into contact with the higher education and research centres on the northern shore.

What the future professionals from MTCs value most is what they usually lack in their universities of origin

After all, what do the students from the South most benefit from when they are here? Even more than the formal courses taught to them (in the case I am referring to, in the context of marine sciences), what the future professionals from MTCs value most is what they usually lack in their universities of origin: basically the research they can do themselves in our well-stocked libraries, free access to internet to explore journals and websites by universities and research centres accessible online, contact with local students and, especially, with the professors of our university departments and with researchers from our research centres. These different aspects were highly regarded in the reports drafted by the students at the end of their stay, but sometimes there were additional considerations, which should make us think.

For instance, contact with students from the North broke down many preconceived notions about the “risks” (religious, social, political) of delving, albeit for a brief period, into a western, middle-class, secular and not very religious society, in comparison with those from the South. Moreover, students very positively valued relations with Catalan professors, who curiously were always much more appreciated (in terms of personal treatment and time allocated to student consultations, regardless of the academic knowledge of the professor) in comparison to the professors from the countries of origin, perhaps too “rigid” in their relations with their students, as supposed heirs of a colonial past that they are trying to forget without much success. *Nil novi sub sole*: travelling, living together and sharing makes us all more human and reminds us that we belong to the same species and share the same history and the same old and diverse, yet common, geopolitical region. Environmental and training policies in environmental sciences in the Mediterranean region should be built upon this fundamental basis.

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