Rural community in the Mediterranean Region in 2030: Projections and future scenarios. Climate Change and Social Change.

Comunidades rurales de la región mediterránea en 2030: proyecciones y escenarios futuros. Cambio climático y cambio social.

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Summary: This article is the result of a work carried out during the Seminar of Ecological Orientation that the Institute of Social Ecology of Viena (IFF) prepares every year. Under the topic "Climate Change and Social Change", the participants were motivated to recreate future scenarios where the climate change would be a reality. Our choice was a rural community in the Mediterranean region. Taking into account the consequences of the Climate Change, we were interested in comparing two different scenarios, depending on the social, economic, cultural and political decisions made by the society. Decisions that we make today and can seriously affect our future.

Key Words: Mediterranean. Climate Change. Social Change. Future scenarios. Global warming.

Resumen: Este artículo es el resultado del trabajo realizado en el Seminario de Orientación Ecológica que cada año celebra el Instituto de Ecología Social de Viena (IFF). Con el tema "Cambio Climático y Cambio Social" como guía, los participantes fueron animados a recrear escenarios futuros en los que el cambio climático fuese ya una realidad. En nuestro caso elegimos una comunidad rural en la zona mediterránea. Contando con las consecuencias del cambio climático, nos interesaba comparar dos escenarios contrapuestos, dependiendo de las decisiones sociales, económicas, culturales y políticas realizadas por la sociedad. Decisiones tomadas hoy y que pueden afectar seriamente nuestro futuro.

Palabras clave: Mediterráneo. Cambio Climático. Cambio social. Escenarios futuros. Calentamiento global.

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1.- Introduction to the key issue: Mediterranean Rural Community 2030.

The history of the Mediterranean basin has received exceptional scientific importance since it has been the cradle of important ancient civilizations inhabiting the lands surrounding the Mediterranean Sea. It has been the central link of transport, trade and cultural exchange between diverse people. Its history is important to understanding the origin and development of the Mesopotamian, Egyptian, Persian, Phoenician, Jewish, Greek, Roman, Arab and Turkish cultures — and hence it is important to understanding the development of Western civilization as we know it today. Moreover, the Mediterranean basin is a biodiversity hotspot (MYERS, 2000; MEDAIL, 1999), which means that it is characterized both by exceptional levels of plant endemism and by increased habitat loss. To give an example, there are 11,700 endemic plants in the ecoregion, many of them threatened with extinction. It is the biggest closed sea of our planet and it is home for 232,200,000 people with a density reaching 111 people/km2. Nowadays the region supports one of the biggest tourist industry spots in the world and it is a nodal place for fossil fuel trade, especially petrol, due to the vicinity with oil producing regions.

During the three day course of Ecological orientations we have selected to elaborate on how a hypothetical Mediterranean rural community would develop the following years until 2030. Such a selection was made because since the beginning of the 20th century Mediterranean rural regions have become vulnerable in socio-ecological terms due to the increasing pressure from human activities, while climate change poses an extra threat for the stability and the well-being of its numerous inhabitants. Moreover, two of the authors had a special interest on the region themselves due to their previous research activities.

As to the structure of this paper, in the next paragraphs we elaborated on the following topics using sufficient up-to-date literature: Assumptions on climate, Key differences for scenarios (Scenario selection), Energy base and supply, Lines of conflict, Key institutional changes and Aspects of daily life – individual perspective.

2.- Assumptions on climate.

The world is getting warmer and all regions will be affected in different ways. There is no doubt that climate will change in the Mediterranean region. However, uncertainty exists over just what form these changes may take. One of the basic tasks of this project was to make assumptions on future climate change in the Mediterranean. Such assumptions contain prediction on how the basic elements of the climate like

temperature, rainfall, even changes in wind patterns. Most of these assumptions are based on modeling and scenario studies.

2.1 Temperature change.

Rising concentrations of greenhouse gases alone could cause warming over the Mediterranean region similar in magnitude to the global increase. Results from experiments indicate that temperatures over the region as a whole could rise by about 3.5°C between now and the latter half of the 21st century in response to a doubling of carbon dioxide concentrations (WIGLEY, 1992). Moreover, according to a model study, about half of this rise - between 1.4 and 2.6°C - could occur by the 2020s (ROSENZWEIG and TUBIELLO, 1997). In connection with global temperature rise results from experiments show that temperatures across the Mediterranean region could rise between 0.7 and 1.6°C for every degree rise in global mean temperature (PALUTIKOF and WIGLEY, 1996). Finally, many studies do not take account possible increases in aerosol emissions to the atmosphere, which could act as a negative feedback of this warming. One study suggests that aerosols may reduce warming over the Mediterranean region by 1-2°C over the period 2030-2050 (MITCHELL, 1995). The net effect may even be to give an impression of cooling over the central Mediterranean in summer over the next few decades. In any case, the long-term prospect remains one of warming throughout the Mediterranean region as the relative influence of greenhouse gases increases over time.

2.2 Precipitation changes.

There is a great uncertainty on predicting how the patterns of precipitation will change in the Mediterranean and this is due to the weakness of Global Climate Models to predict regional changes. This weakness is attributed to the coarse resolution of global climate models, which do not adequately depict many geographic features and the interactions between the atmosphere and the surface (XUEJIE, 2008). A model predicting changes in the regions for the 2020s suggests an overall decrease of between 1.5 and 7.3% (ROSENZWIEG, 1997). Most experiments show a widening in the seasonal precipitation gradient with more precipitation in winter and less in summer. Nevertheless, a common feature of many models is a decreasing annual precipitation over much of the Mediterranean region south of 40 to 45^{o}N, and increasing precipitation north of this. In the Mediterranean area, yearly precipitation trends are negative in the east, while they are non-significant in the west. It is likely that the seasonality of precipitation will change and the frequency of intense precipitation events will increase, especially in winter (ALCAMO, 2007).

2.3 Changes in wind patterns.

Concerning changes in winds patterns, regional model simulations provided different scenarios, with mean annual wind speed increasing over northern Europe by

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about 8% and decreasing over Mediterranean Europe. Wind pattern changes are rather difficult to predict for the Mediterranean region till the year 2030 (ALCAMO, 2007).

2.4 Subsequent phenomena of Climate change in the Mediterranean region.

Several subsequent phenomena of climate change can have direct impacts on the well-being of the societies and to the ecosystems supporting them in the Mediterranean region. Such phenomena include water shortages, severe droughts, desertification, increased fire risk and above all changes in tourism patterns. First, the decrease in mean precipitation can lead to a significant decrease in water availability, which could involve considerable impacts on water resources around the Mediterranean basin (GIBELIN, 2003). Increased frequency of water shortages and decline in water quality are expected with any decrease that might occur in the annual rainfall amount, the duration of rainfall events and with any increase in the intervals between rainfall events. Consequently, the Mediterranean region may experience an increase in dry periods by the late 21st century. Warmer, drier conditions would lead to more frequent and prolonged droughts, which would start earlier in the year and last longer. The regions most affected could be the southern Iberian Peninsula, the Alps, the eastern Adriatic seaboard, and southern Greece. Dry conditions can result in a longer fire season and an increased fire risk. Fire danger, length of the fire season, and fire frequency and severity are very likely to increase in the Mediterranean.

Furthermore, an increase in the extent and severity of desertification is expected to occur in the Mediterranean region. While much desertification is attributed to poor land use practices, hotter and drier conditions would extend the area prone to desertification northwards to encompass areas currently not at risk. In addition, the rate of desertification would increase due to increases in erosion, salinisation and fire hazard and reductions in soil quality. Together with an increasing temperature, this would lead to less available water, less biomass and soil organic matter content and hence to a decrease in aggregate soil size and stability. As a consequence, the soil permeability would decrease, soils would develop surface crusts and infiltration rates would decrease dramatically. Changes in vegetation cover and soil structure would lead to an increase in overland flow and in the erosion of the fertile topsoil layer. As a result, the process of desertification is likely to become irreversible (LAVEE, 1999).

Since tourism is an important economic activity for the region, there is no doubt that it will be affected from changes in climate. Tourism along the Mediterranean is likely to decrease in summer and increase in spring and autumn, therefore the tourist season is expected to flatten. MADDISON (2001) has shown that Greece and Spain will experience a lengthening and a flattening of their tourism season by 2030. Winter tourism in mountain regions is anticipated to face reduced snow cover.

Finally, as natural and anthropogenic systems experience changing climatic conditions, opportunities for the distribution and establishment of invasive exotic plant

species are projected to increase. Changes in climate are likely to impact species directly, and because these impacts may then lead to shifts in competitive abilities, there may also be changes in the structure of natural communities. In the future, variable impacts of high CO_2 concentrations can be expected on the germination, establishment, growth and regeneration of vegetation. Natural communities will also be affected by secondary impacts of climate change such as modified fire, wind-damage, flooding and grazing regimes. Together these changes may increase the vulnerability of ecosystems to invasion from non-native species (BARDSLEY, 2007). Finally, the range of plants is very likely to expand in the north and contract in southern European mountains and in the Mediterranean Basin. Endemic plants and vertebrates in the Mediterranean Basin are also particularly vulnerable to climate change (Malcolm et al., 2006).

3. Scenario Selection.

From the four scenario families of the IPCC we have selected to project the future of a (hypothetical) Mediterranean community in two scenarios, the A1 and B2. This selection was the result of a personal choice and based also on their contradictory nature.

3.1 A1 Scenario description.

The A1 storyline and scenario family describes a future world of very rapid economic growth, global population that peaks in mid-century and declines thereafter, and the rapid introduction of new and more efficient technologies. Major underlying themes are convergence among regions, capacity building, and increased cultural and social interactions, with a substantial reduction in regional differences in per capita income. The A1 storyline is a case of rapid and successful economic development, in which regional average income per capita converge - current distinctions between "poor" and "rich" countries eventually dissolve. The primary dynamics are:

- Strong commitment to market-based solutions.
- High savings and commitment to education at the household level.
- High rates of investment and innovation in education, technology, and institutions at the national and international levels.
- International mobility of people, ideas, and technology.

The transition to economic convergence results from advances in transport and communication technology shifts in national policies on immigration and education, and international cooperation in the development of national and international institutions that enhance productivity growth and technology diffusion (IPCC, 2000).

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3.2 B2 Scenario.

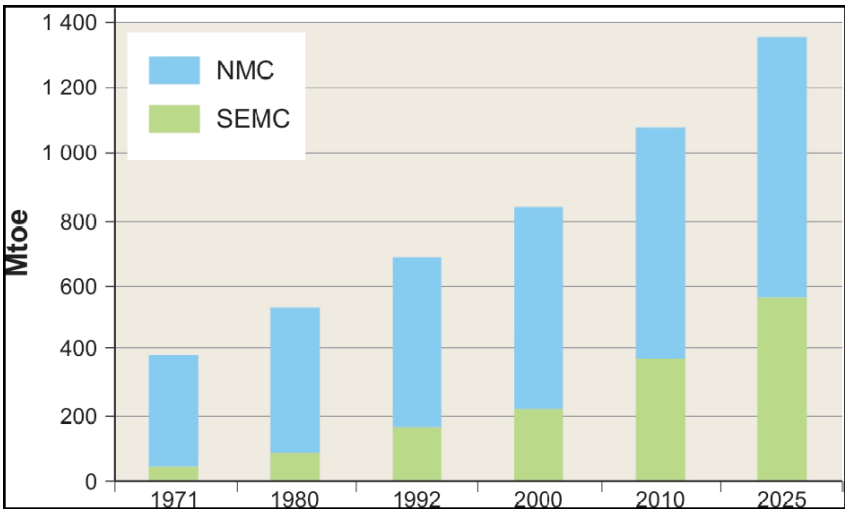
The B2 world is one of increased concern for environmental and social sustainability compared to the A2 storyline. Increasingly, government policies and business strategies at the national and local levels are influenced by environmentally aware citizens, with a trend toward local self-reliance and stronger communities. International institutions decline in importance, with a shift toward local and regional decision-making structures and institutions. Human welfare, equality, and environmental protection all have high priority, and they are addressed through community-based social solutions in addition to technical solutions, although implementation rates vary across regions (IPCC, 2000).

4. Energy base, supply.

4.1 Assumptions on energy supply in the Mediterranean basin.

The energy situation in the Mediterranean region is diverse and exceptional. For making assumptions on future trends, the differences between *northern-rim countries* (NMC like Spain, Italy, France, and Greece) and the *southern and eastern Mediterranean countries* (SEMC, North Africa, Turkey, Middle East) have to be taken into account. In A1 scenario it is assumed that there will be no important changes regarding the priority being given to energy constraints, but that the current technological development will go on. The key assumption on energy supply for this scenario is related to a continuing rapid growth in energy demand (for example, total electricity demand in the Mediterranean countries has more than tripled over the past three decades). According to these projections, the total demand for primary energy in the whole Mediterranean Basin could reach 1365 Mtoe in 2025. Compared with 2000, this would be an increase of 65% over the period (544 Mtoe), or 2.1 per cent on average per year, compared with an average annual GDP growth of 2.7 per cent per year (BENOIT, COMEAU, 2005).

Trends and projections



The six main energy consumers in the Mediterranean (BENOIT, COMEAU, 2005).

Excluding traditional biomass, the largest constituent of the energy base at the present is oil (35%), then coal (25%) and gas (21%) (Sims et. al. 2007). In the A1 scenario, this situation would not change significantly, and fossil fuels would still meet 87 % of energy needs in 2025, with oil being the most important (40%). The energy base of the rural community would remain then within this classical triangle.

4.2 Fossil Fuels.

Most of the forecasts around energy supply anticipate that there would be enough probable reserves of oil and gas for decades and of coal possibly for centuries. In the case of the fossil fuels, they supplied 80% of world primary energy demand in 2004 according to the IEA reports and their use will grow in absolute terms for 2030 if there are not policies against this situation (between 2002 and 2030 by a 44%). Despite their increase in absolute terms, the share of oil in the energy supply is projected to decline in favor of natural gas.

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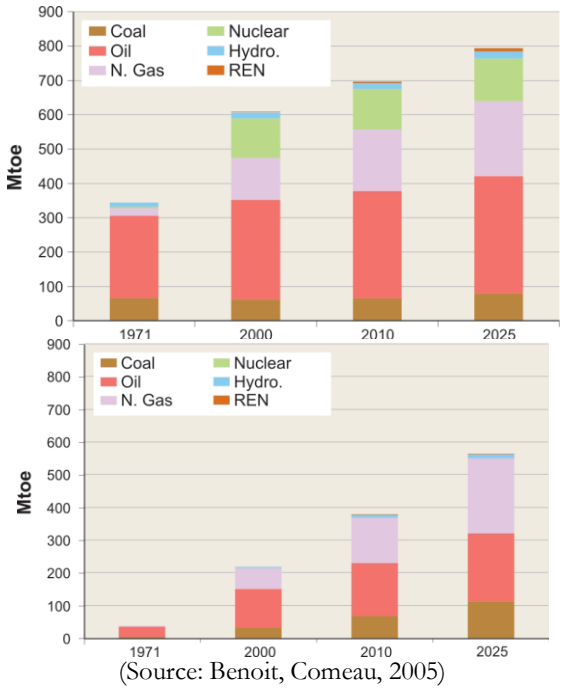
4.2.1 Coal.

The demand of coal has increased sharply during the last decades, more in the southern and eastern Mediterranean countries, although the northern Mediterranean countries continue being the biggest consumers. There are some diverging forecasts about the future demand for coal. According to the IEA 4500 GW of extra power generated by coal will be needed and the demand would more than double by 2030. Other studies foresee that the consumption of coal will be stable or even decrease. This trend would be related to the pressure from greenhouse gas-related agreements (BENOIT, COMEAU, 2005).

Primary Energy Demand by Source (A1 scenario)

NMC **SEMC**



(Source: Benoit, Comeau, 2005)

4.2.2 Natural Gas.

In global terms, the existing proven global reserves of natural gas are 6500 EJ, with more than a half of them being located in Russia, Qatar and Iran. Probable reserves and possible undiscovered resources that expect to be added over the next 25 years amount to 2500 EJ and 4500 EJ, respectively (SIMS et. al. 2007). In the case of Mediterranean basin, the presence of natural gas in the energy supply was almost insignificant during the seventies, but today the share in the energy balance has reached around 25%. Despite the fact that it is projected that the main energy source will remain oil, its share in the total supply would fall. In A1 scenario with concentration of populations in towns and along coasts, gas demand would increase until 33% by 2025 (BENOIT, COMEAU, 2005).

4.2.3 Renewable energy sources.

Renewable energy sources amounted to over 15% of world's primary energy supply in 2004, being divided into traditional biomass (7–8%), large hydro-electricity (5.3%, being 16% of electricity generated), and other 'new' renewables (2.5%). The current key renewable energy sources in Europe are hydropower (19.8% of electricity generated) and wind. By the 2070s, hydropower potential for the whole of Europe is expected to decline by 6%, translated into a 20 to 50% decrease around the Mediterranean (Alcamo et. al. 2007).

Today, in the Mediterranean countries, renewable energy sources amount to about 6% of commercial energy supply (including biomass), and hydropower is also the most important, producing most of the electricity from renewable sources. Because of the current interest in renewable energy sources, it is projected that they will increase between now and 2030. The problem is that in the A1 scenario, because of the growth in total demand, the share of renewable energy sources in the total energy supply is projected to be less than 4% (this percentage changes if we include biomass, but no more than 10%) (BENOIT, COMEAU, 2005).

In the case of a B2 scenario, environmental externalities and fossil fuel price risks will be taken into account more seriously, and several forms of "new" renewable energy sources would be able to compete with conventional energy sources. At present, solar water heating, PV in remote areas, wind farms on exceptional sites, bio-ethanol from sugar cane, and forest residues for combined heat and power (CHP) are starting to become competitive in some Mediterranean locations (Sims et. al. 2007). In the specific case of the rural communities, they would have access to these new renewable energies through subsidies or other incentives (from the EU, governments) and they would become managers of these resources. Moreover, in B2 scenario, where the market is getting more local or regional, less energy would be needed for transport. All these circumstances would decrease the pressure on the energy supply, quite to the contrary of the A1 scenario.

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5. Lines of conflict.

First of all, we should attempt to define what ***environmental conflicts*** are. The way of using the natural resources generates conflicts between the different actors who do so. The source of these conflicts is thus the struggle for the access to distribution and use of the natural resources and the "environmental services", which a social group considers essential. In addition, conflicts are also generated by the differential beneficial or harmful effects that the mode of resource use produces (GONZÁLEZ DE MOLINA et. al. 2007).

5.1 Conflicts in the A1 scenario

Ownership conflicts. A tourist area usually needs large parts of land and many natural resources. In the case of a Mediterranean community it is also common that the land or forest around the villages are divided into small plots, and distributed among the different families, or on other occasions, under a communal ownership. There might appear conflicts, for instance, when not all the families are willing to sell their properties to the companies willing to provide tourist services there.

Management of the natural resources. Other conflicts would be related to different modes of resources use. It is foreseeable that the tourist companies enclose the land and forbid traditional uses of the natural resources (hunting, cultivating, livestock pastures, wood collection) to the remaining community. The uses of the land will be more linked to conservation management, breaking the traditional relationship between population-forest/land in these regions. This could be considered an "intermodal conflict" (GUHA, 1993), because there will be two different management modes in conflict: a *multiuse mode of use* (cultivating/livestock/forest resources) vs. an *industrial/conservationist mode* (tourist services).

Global conflicts. While the previous types of conflict could be contemplated from a local/regional context, the ones related to imports and energy supply should be considered under a global point of view. We have to emphasize that these communities would continue being highly dependent on imports of fossil fuels in an A1 scenario, so they would be vulnerable to conflicts around fluctuations of the global market prices. There are many possibilities, how these conflicts could materialize, such as invasions into private properties, illegal introduction of livestock into the enclosed lands, arsons against reforestations related to „everyday forms of peasants resistance" but also more modern ways of protest, related to New Social Movements like strikes and demonstrations (SCOTT, 1986).

5.2 Conflicts in the B2 scenario.

On the other hand, lines of conflict in the B2 scenario are more connected to "intramodal conflicts". All the actors would act in the same mode of use, or in other words, the mode of use would not be in dispute. The rural communities would develop a *multiuse management* of the natural resources. Thus, the main conflicts would develop around the *ownership of important resources* for surviving (e.g water). Actors involved into these conflicts could be the different regions that share resources like a river, a lake or a forest. These different communities can also dispute over the *subsidies* from the government or other institutions in order to get access to renewable energy sources. And in general, there can be conflicts caused by *resource depletion* issues: deforestation, soil erosion, desertification, flooding and pollution (UNEP 1999).

To sum it up, the conflicts in the A1 scenario can also be classified as *reproductive conflicts* (GUHA, 1993), because the ecological sustainability and the survival of the rural community is under threat. On the contrary, the conflicts in the B2 scenario are *distributive conflicts,* and are less aggressive to the sustainability of the ecosystem, even though they are also important and can provoke perceivable changes in the community structure.

6. Key institutional changes.

While it was already difficult to make assumptions on climate and energy base in the rural areas of the Mediterranean region for the next two decades, this is at least as difficult for the assumptions on institutional changes as the driving forces are of multiple kinds in the different countries – the dynamic interactions of economic, political, social, organizational and cognitive factors. In other words, given a political or socio-economic critical mass, certain developments can take place whether or not formal institutional competencies or requirements exist and conversely, in the absence or decay of this critical mass, other developments will not take place, even where these may be legally required (FAURE, GUPTA, NENTJES, 2003: 340-341).

As in the above mentioned cases of making assumptions on future trends on energy and potential conflicts, the differences between *northern-rim countries* (NMC like Spain, Italy, France, and Greece) and the *southern and eastern Mediterranean countries* (SEMC, North Africa, Turkey, Middle East) have to be taken into account in this case as well. If appropriate reasons at hand, it will be differentiated here between the A1 and B2 scenarios for NMC and SEMC, while more emphasis will be given to the NMC countries based on the knowledge of the authors available.

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6.1. Key institutional changes in the A1 scenario

As to the A1 scenario for NMC countries, in many instances it follows the trend scenario as presented by DATAR, which is a liberal one with a reduction of EU Common Agricultural Policy funding and thus also of farming and an evolution towards a *generalized residential countryside*. Such a development would meet the short-term needs of the middle classes but would be costly in environmental terms. This would entail an all-car scenario with increasing areas of built-up and other artificial land (BENOIT, COMEAU, 2005: 257). It can be assumed that with globalization as the main driving force, only areas able to face the fierce international economic competition after opening up the markets would be able to develop without major obstacles. There remains the question, whether such areas could be those with more diversified economies or those focusing heavily on tourism or/and export of commercial crops grown on large farms with a lot of mechanization and unfortunately with a decreasing soil quality as mentioned above.

The liberalization of agricultural trade could lead to increased poverty especially in the SEMC, as it could open the currently highly protected cereal-crop farming and cattle-raising to competition. In 2003, in several of them, import custom rates on cereals averaged between 10 and 77 per cent. Together with the internal support for the consumption, these are still strategic in maintaining social stability, as high grain prices can provide an annual income for middle-class farmers and affect countries' competitiveness, but most importantly, they enable the economic survival for poor farmers (BENOIT, COMEAU, 2005: 260). These protective measures, however, pale in the face of those provided by the EU, so in case of the reductions of subsidies in the EU-Med (mainly NMC) countries following this scenario, similar negative developments in widening disparities could be expected in the NMC countries.

In contrast to the current trends of rural revival, apparent especially in France in the region of Languedoc, the developments in the scenario A1 would thus prevent rural revival especially in the more remote areas of rural areas, and if any, a revival would be rather focused on coastal tourist destinations close to cities (BENOIT, COMEAU, 2005: 255).

Even though the regional average income per capita could converge and the current distinctions between "poor" and "rich" countries would eventually dissolve, the disparities within the countries between the cities and the rural areas could be more strengthened, as both financial, manufactured, natural and human capital would get concentrated in cities or growing suburban areas.

The expected high rates of investment and innovation in education, technology, and institutions at the national and international levels would thus not be very helpful for the remoter rural areas. Just like capital would get concentrated in the urban and suburban areas, so this can be assumed to be true also for the more and

more market-oriented public institutions joining increasing number of public-private partnerships. There would be a marked concentration especially of higher-level educational, healthcare and "cultural" institutions in the cities, strengthening the drive for a further brain drain from the remote rural areas.

6.2. Key institutional changes in the B2 scenario

Unlike the A1 scenario, the B2 world is one of increased concern for environmental and social sustainability. Increasingly, government policies and business strategies at the national and local levels would be influenced by environmentally aware citizens, with a trend toward local self-reliance and stronger communities. Government policies could set an overall legislative framework and "tame" the wild economic globalization threatening the lifestyles of rural dwellers. Local governments cooperating in the form of micro-regions would gain more importance and strength and would, provided enough initiative, common visions and cooperation with nongovernmental organizations, as well as with higher levels of government are guaranteed, head in the direction of more environmentally balanced, economically diversified and socially just communities.

However, declining in importance of international institutions with a shift toward local and regional decision-making structures and institutions entails a risk that issues on international level, which cannot be tackled well on lower levels, would be insufficiently treated. Synergies between partnerships on international level, like the Mediterranean Action Plan, the Euro-Mediterranean Partnership and international funds for the environment would be needed to strengthen to help the SEMC upgrade their capacities in monitoring systems and environmental protection infrastructures (BENOIT, COMEAU, 2005: 366) Also other international action frameworks like enforcing the Ramsar Convention on wetlands or the General Fisheries Council for the Mediterranean could help to manage the coastal areas in a more sustainable way (BENOIT, COMEAU, 2005: 366).

As according to IPCC, human welfare, equality, and environmental protection would all have high priority in the scenario B2, they would be addressed through community-based social solutions in addition to technical solutions (IPCC, 2000). A major role could be played by a more diversified economy of the rural areas, a trend present in some of the NMC already (BENOIT, COMEAU, 2005: 254, 257). This could be taken through locally-based and managed farm-like multifunctional units in micro-regions. These would produce local brand-named agricultural and handmade products and besides this provide possibilities for low-impact tourism, formal and especially informal holistic education for both locals and tourists, provide space for active cultural participation and finally, provide basic healthcare services. To finance these activities, selling energy from renewable sources to grid would seem like a viable option. Further option could be grants received from government for regional research projects, etc. However, as the implementation rates would vary across regions (IPCC,

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2000), the question of effective communication would be crucial to prevent conflicts between regions and enhance a more balanced development of the whole Mediterranean.

7. Aspects of daily life – individual perspective

Making assumptions about aspects of everyday life in these two chosen scenarios is on the one hand a very creative exercise; on the other hand, the one at least substantiated. Thus it is to be seen rather as an impulse for further thinking about the range of possibilities of future realities.

7.1 Aspects of daily life in the A1 scenario

From an individual perspective the future would not look very optimistical for an average rural Mediterranean dweller in the A1 scenario. As mentioned before, in a *generalized residential countryside*, the short-term needs of the middle classes would be met, but would be costly in environmental terms. This would mean an all-car scenario with increasing areas of built-up and other artificial land (BENOIT, COMEAU, 2005: 257) More cars driving towards more supermarkets in the suburbs would be a daily reality for middle-aged middle class. Moreover, brain and youth drain would be expected in areas not able to withstand the pressures towards a more mechanized and large-scale agriculture in a liberalized market of agricultural goods. These would be either drawn to towns or recruited for seasonal work to tourist centres, more and more unified, although claiming their uniqueness on surface. Thus, one could face a country of large-scale mechanized farms, tourist "paradises" on more and more crowded coastline on one the hand and of ghost villages on the other hand.

7.2 Aspects of daily life in the B2 scenario

On the contrary, focusing more empowerment in the hands of local governments and initiatives as it would be the case of a B2 scenario would give more chance to a comfortable life for a border spectrum of Mediterranean rural areas. The already started rural revival (at least in some countries) would gain more support, if regional self-sufficiency in at least some areas, a year-round income, a comfortable living in communities offering jobs, education, active cultural life, healthcare institutions could be assured in the multifunctional centres of microregions. A welcomed effect would be also a relatively stabilized environment, not depleted of its last fertility in the large-scale mechanized farms. Moreover, the negative trend of coastlines built up with tourist places, supermarkets and ever growing infrastructure for suburbs would be prevented in this case of focus on regional, low-impact and

diversified economy and thus the rural dwellers would not get more and more deprived of the beauty of their countryside.

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