



Theme 2

OCEAN ADVOCACY: ROLE OF WOMEN & YOUTH IN COMMUNICATING THE MESSAGE AND EFFECTING CHANGE – REGIONAL ADVOCACY AND REGIONAL CAUCUSES

**Tuesday 6th November
(Parallel Session – afternoon)**

Chair & Rapporteur: Makram Gerges



Programmes of the Foundation for Environment Education

Vince Attard

*Programmes of the Foundation for Environmental Education
Nature Trust (Malta)*

Abstract

The Foundation for Environmental Education (FEE) is a nongovernmental and nonprofit organisation aiming to promote sustainable development through environmental education (formal school education, training of staff and general awareness raising). FEE is mainly active through Nature Trust's five environmental education programmes: Blue Flag, Eco-Schools, Young Reporters for the Environment, Learning about Forests and Green Key. All its programmes focus on the creation of public awareness with a target to promote sustainable development and responsible environmental citizens

The Specific objectives of FEE are: to raise public awareness of environmental and sustainable development issues; to encourage citizens to take an active role in environmental management to take practical steps to reduce negative environmental impacts; to extend learning in the wider community; and to develop skills to initiate and sustain Local Agenda 21 initiatives.

Priority Areas of FEE activities include: the integration of water, waste and energy in schools' environmental management systems (bearing in mind that participating schools have their own specific environmental issues that demand their attention through eco schools); beach management with health and safety, environmental management and information through the Blue Flag Programme; encouraging public interest and promoting solution contribution through young reporters; and caring for forests and their contribution to climate change through LEAF Sustainable Tourism through the Green Key Programme.



An Australian youth perspective on sustainable fisheries and marine protection in the Australasian and Pacific regions

Dylan Furnell

*IOI Australia, Townsville City Council
Australian Youth Representative*

Abstract

This paper focuses on my views as an Australian youth of the importance of implementing the law of the sea in relation to the protection of marine environments and species, in particular on the high seas, the deep oceans, and Antarctica.

The presentation will discuss some national and regional arrangements in Australia and neighbouring states designed to implement strategies for the sustainable management of important fish species and the implementation of marine protected zones in the high seas and the deep ocean. One of the most important and challenging issues facing the sustainability of fisheries is IUU fishing and ports of convenience. Urgent steps must be taken to address this.

The establishment of a network of marine protected areas, no-take zones, or a decrease in allowed catch sizes and a decrease in fishing season in the Antarctic should become a priority to ensure the Antarctic marine ecosystem is further protected from IUU fishing and exploitation by other parties. Policing and enforcing remote areas such as Antarctica is difficult, but with continued cooperation between CCAMLR and the institutions that have implemented Antarctic marine species treaties and protection plans the Antarctic marine ecosystem will be preserved for future generations.

These are the issues that need to be addressed to ensure ocean sustainability for future generations, as it is those generations that will inherit the problems caused by those before them

Introduction

Sustainable fisheries and marine protection in the Australasian and Pacific regions.

This paper focuses on my views as an Australian youth of the importance of implementing the law of the sea in relation to the protection of marine environments and species, in particular on the high seas, the deep oceans, and Antarctica. The presentation will discuss some national and regional arrangements in Australia and neighbouring states designed to implement strategies for the sustainable management of important fish species and the implementation of marine protected areas in the high seas and the deep ocean.

Australia has many policies regarding the management of the marine environment. The main department that focuses on the ocean is the Department of Agriculture, Fisheries and Forestry. This department looks after the political arrangements, political agreements and legislation with regards to sustainable fishing and aquaculture. The legislation of fisheries management in Australia is based on the principles of Ecological Sustainable Development (ESD). This focuses not only on fisheries management, but also the wider ecosystem. Australia was one of the first countries to develop a national plan to manage and protect its oceans. This ocean policy is the basis for fisheries management planning and integrated management of marine ecosystems. These policies include Marine Protected Areas as controlled by the Department of Environment and Water Resources, fisheries management, and protection against illegal fishing, which is managed by the Australian Fisheries Management Authority (AFMA). There are also the state and territory governments, which control fisheries management and coastal protection in areas under their jurisdiction. Local governments are also involved through integrated coastal zone management and water quality improvement plans.

Australia has an important role in international ocean relations. As a country, Australia has signed and ratified many international ocean related policies. Some of these include the:

- UN Convention on the Law of the Sea (UNCLOS)



- Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), the 1995 Washington Declaration that inaugurated the GPA, 2001 Montreal Declaration, 2006 Beijing Declaration
- Global Environment Fund and its Multi-focal Program for the Pacific
- The Mauritius Strategy: Sustainable Development of Small Island Developing States
- The Apia Convention, which led to the establishment of the South Pacific Regional Environment Program
- High Seas Task Force

Not only has Australia been involved with many international agreements, but has been heavily involved in ocean governance in its own region. The Australian government has many agreements between itself and the countries of New Zealand, Chile, Timor Leste, Papua New Guinea, Indonesia, France and the Pacific Islands. These arrangements focus on the sustainable management of the oceans and the importance of Australia's role in Pacific Ocean affairs. One such issue is the protection of high seas enclaves, which is a priority for the Australian and Pacific region.

Considering that 64% of the ocean is outside a country's EEZ, more needs to be done on a global scale to protect the high seas. High seas biodiversity has a huge effect on the Exclusive Economic Zones of all the countries in the Pacific region. Many migratory and high seas species use these areas to have offspring. Many of these species provide revenue through tourism ventures and also food production for the local population. With so little known about the habits of high seas ecosystems, a plan for action needs to be developed so that we do not lose another marine ecosystem that we know so little about. These high sea enclaves must be recognised globally as no-take marine protected areas, so that species populations in these areas can recover. High seas enclaves would also provide a safe haven for many migratory species. Another option is to create areas of protected high seas corridors for migratory species. This would ensure protection for highly sought after species for parts of their migration. While policing would be difficult, cooperation between Regional Fisheries Management Organisations and a comprehensive Global Positioning System and vehicle monitoring systems that are already in place could prove quite successful. Such systems are already in place to protect countries from illegal unreported and unregulated fishing.

One of the most important and challenging issues facing the sustainability of fisheries is Illegal Unreported and Unregulated fishing, ports of convenience and the lack of flag state control. These issues are not just a severe threat to the Australasian and Pacific areas, but also a major global problem. IUU fishing is a main impediment to the achievement of sustainable world fisheries. IUU fishing is such a threat to global fisheries management because of the state of the world's fisheries. According to the FAO, 50% of the world's fisheries are fully exploited, 17% over fished, 7% fully depleted and 1% of stocks recovering. The rest of the fisheries are either moderately exploited or underexploited. IUU fishing represents a major loss of revenue worldwide, estimated between 4 and 15 billion US dollars globally. IUU fishing is designated as unauthorised or illegal fishing in a country's Exclusive Economic Zone (EEZ) and in Regional Fisheries Management Organisations, the use of prohibited gear and the failure to report catch sizes. IUU fishing is increasing in the High Seas fishery areas. Australia has had huge successes in the battle against illegal fishing, with huge reductions in motorised illegal foreign fishing vessels in the last year in the northern areas of the country. This has been thanks to tough policies on illegal fishing vessels, and education outreach programs in neighbouring countries. Managing the problem of IUU fishing in the Pacific region has not been as successful as the Australian area, because of the larger area, lack of resources and the different countries legislation with regards to fisheries management.

A major problem with regards to IUU fishing is the issue of transshipment outside countries' EEZ's. Evidence of this in the Pacific Islands can be found in cases such as when a vessel, after being



out at sea for 13 months, returned with only a minute fraction of what catch size its hold could support. The most probable reasoning behind this is the offloading of its load on the high seas to a vessel registered in the same country. This is becoming a major problem as vessels fish in countries' EEZ, continue to the high seas where there is a lack of control, offload the catch and return to fish again in the EEZ. This misreporting of catch sizes is exploiting countries with poor controls in relation to marine policing. The lack of control in some areas of the Pacific is being addressed by the countries' regional fisheries management organisations and nongovernmental organisations, as fishing is central to economic development in many small Pacific governments. This lack of control in the high seas, deep seas and in countries has to be addressed further, so that sustainable fisheries management can be achieved. Further problems include ports of convenience, the cost of at-sea enforcement, inadequately trained enforcement officers, unclear procedures and the lack of strong legal regimes. In order to halt the influence of IUU fishing, stronger fines and penalties must be introduced along with better qualified enforcement officers, a stronger legal framework, stronger cooperation between countries in the same region and the further development of tools such as Vessel Monitoring Systems and information systems. With these measures in place there is the potential for IUU fishing in the Pacific to be almost completely eliminated.

Another important issue for the Australasian and Pacific region is the protection of vulnerable deep sea biodiversity. Deep sea ecosystems are extremely delicate, with many fish and coral species living well below 300 metres. Little is known about deep sea biodiversity and from what little is known it is evident that humankind is having a dramatic effect on deep sea coral systems; in some areas it has been documented that bottom trawl fishing has caused losses of 95-98% of coral cover on some deep sea seamounts. This is a major problem because of the dispersment of seamounts, many species are only found in these areas. Not only has deep sea bottom trawling destroyed many coral habitats, but is also responsible for the major depletion of targeted deep sea fish stocks. Two of the major problems of deep sea bottom trawling are: that a systematic study has never been undertaken to determine the geographic extent of deep sea bottom trawling in relation to vulnerable deep sea ecosystems and the impact that it has on these ecosystems; and that it occurs along the continental margin, that lies just outside a country's EEZ, on seamounts, oceanic ridges and ocean plateaus. High seas bottom trawling is a problem in the Southwest Pacific, with bottom trawl fisheries virtually unregulated with regards to their impact on deep-sea biodiversity. Furthermore most high seas areas are not covered by regional fisheries management organisations which are competent in regulating deep-sea bottom fishing.

Currently, almost all bottom trawl fisheries are conducted in a manner inconsistent with the conservation and management provisions of the 1995 UN Fish Stocks Agreement and the 1995 UN FAO Code of Conduct for Responsible Fisheries. In order to decrease the impacts of deep sea bottom trawling, awareness must be raised in all levels of society – perhaps through designating 2010 as the International Year of Deep Ocean. Furthermore, establishing more deep sea protected zones throughout the regions of the world. There are already some deep sea protected zones in the Northern Hemisphere with the World Wildlife Fund being one of the major players in establishing these protected areas. Another area is the South Tasman Rise, which was established by the Australian Department of Environment and Water Resources. It protects an area of seamounts that has been deemed rich in biodiversity, which, therefore, needs to be protected; it is still a work in progress with many issues still to be sorted out, with regulation of bottom trawling vessels virtually unregulated. More areas like these need to be protected, not just in a country's EEZ, but also in the high seas, where no country has jurisdiction. While it may not be in the interests of countries to establish these deep sea marine protected areas, it is an issue of international significance that needs to be addressed urgently.

Another issue of international significance is the oceans in the Antarctic region. Currently, there are very few marine protected areas in the Antarctic region; this is of great concern considering that the area is so abundant with many forms of vulnerable sea life. Presently, thanks to the Convention for the Conservation of Antarctic Marine Living resources (CCAMLR), there are restrictions on fish catches throughout the Antarctic. Policing in remote areas such as this is very difficult and relies on cooperation between a number of states. This has been demonstrated in the Antarctic, with the countries that have research stations in the Antarctic assisting in policing the



area. Further action must be taken to protect the Antarctic Ocean biodiversity. These actions could include the full protection of whale species within a 200 nautical mile zone and a large Antarctic Representative System of no-take Marine Protected Areas. If these measures were established, then there would be a stronger and firmer base for biodiversity in the region to flourish. With a fairly good policing system already in place, then it can be achieved without a major increase in resources. If this cooperation continues then it can be used as a guiding example for other regions of the planet.

In conclusion, we must address the issues all over the planet. Not just as separate countries, but as a united global population. We must teach each other by openly sharing information and knowledge, and not keeping good ideas to ourselves. It is essential that we learn and build upon the past and the mistakes that were made. It is essential that we do not forget the past while continuing to look into the future while working diligently in the present. We need to integrate all our successes together to ensure ocean sustainability for future generations. It is those generations that will inherit this planet, and we need to have built strong foundations that they can in turn build upon, so that they can in turn pass on a healthy global marine ecosystem to their successors.



Engaging women and youth in addressing ecosystem based management, good governance and security issues in the Mediterranean – Black Sea region

Dr. Vladimir Golitsyn

*Professor of International Law
Moscow State University of International Relations
(MGIMO – University)³
Ministry of Foreign Affairs of the Russian Federation*

Abstract

The main purpose of the *Pacem in Maribus* XXXII Conference is the advancement and promotion of the sustainable use of marine resources and sound ocean management. It is well recognized that without active engagement of women and youth in activities that can facilitate sustainable use and sound management, we will not be able to achieve these goals.

From the earliest times, the Mediterranean and Black Seas have played an important role in the development of culture, identity and history of countries bordering these two seas. However, if we look at the specific situation in the Mediterranean–Black Sea region today, we will discover that the overall situation of the area constituted by the connected Mediterranean–Black ecosystems, covering approximately 30 countries throughout 3 continents (Europe, Asia and Africa) and with a population of more than half a billion people, continues to dramatically worsen in relation to the environment, with potentially negative economic and social effects on the population. The Mediterranean and Black Seas, one of which is a closed and the other is a relatively closed sea, with limited exchange, are seriously negatively affected by the huge load of pollutants coming from rivers and water courses in European, Middle Eastern and African countries. The widespread insecurity induced by terrorism and by new conflicts is adding to the already complex environmental problems. Given the economic significance of the Mediterranean–Black Sea region, a successful terrorist attack on or in the port infrastructure there could have a substantial economic impact.

There is no single medicine that could be prescribed to heal the present situation. There is just no simple solution to how we can deal with emerging dangerous trends and areas of growing concern. However, one can identify at least three issues that should receive priority attention, namely: ecosystem-based management approaches to the conservation and sustainable use of seas, oceans and their resources; good governance; and maritime security. None of these issues could be addressed with a good chance of success unless women and youth are actively involved in them and realize that the future of this historically and economically important region and the survival of the Mediterranean and Black Seas are in their hands. The presentation addresses in detail these three issues and the role of women and youth in this regard.

Introduction

Distinguished Participants, Ladies and Gentlemen,

I would like to express my sincere appreciation to the International Ocean Institute and other organizers of *Pacem in Maribus* XXXII for inviting me to participate in this International Conference, which has a very challenging title “*Waves of Change: Women, Youth and the Sea*”. This Conference is organized in Malta, which in the minds of all of us is closely associated with major developments in maritime law and the launching of negotiations that resulted in the conclusion in 1982 of the United Nations Convention on the Law of the Sea, recognized by the world community as the Constitution for the Seas and Oceans. My particular thanks go to Dr. Aldo Drago, Chairman of the Local Organizing Committee of the Conference and, Dr. David Busuttil, the Executive Director of Fondation de Malte, as well as to the respective Maltese authorities for their hospitality.

The main purpose of the *Pacem in Maribus* XXXII Conference is the advancement and promotion of the sustainable use of marine resources and sound ocean management. It is well recognized that active engagement of women and youth in activities that can facilitate sustainable use and sound management is crucial. The active role of women in sustainable development in general is

³ Dr. Golitsyn is former Director of the Division for Ocean Affairs and the Law of the Sea, United Nations, New York



well known; it therefore needs to be included in the sustainable use of marine resources and sound ocean management. As for youth, the future of the seas and oceans strongly depends on their sound management and is intertwined with youth's future. Without the vigorous participation of both women and youth in these issues we will not be able to achieve these goals.

I would like to start my presentation with a brief reference to the extremely important role that the seas and oceans play these days in our lives:

- They support human life on Earth. They not only provide a source of food, but also generate nearly half of the oxygen in the atmosphere
- They absorb huge quantities of carbon dioxide (CO₂) and influence climate and weather patterns.
- Healthy coastal and marine environments are essential to human wellbeing and sustainable development. Coastal and marine ecosystems provide a wide range of important habitat resources, and goods and services that are of significant direct and indirect economic and social value.

From the earliest times, the Mediterranean and Black Seas have played an important role in the development of culture, identity and history of countries bordering these two seas. Although the "Green Paper", "Towards a future Maritime Policy for the Union: A European vision for the oceans and seas" prepared by the Commission of the European Communities refers to the role played historically by seas and oceans in the lives of many Europeans, in my view it also quite elegantly describes their role in the lives of many other people, and in particular those living in the countries bordering the Mediterranean and Black Seas who are not only Europeans. So if we paraphrase what is stated in the introductory part of the Green Paper, we can say that historically the Mediterranean and Black Seas have provided people living around them with a living as fishers and mariners, they have given them health and enjoyment, new horizons to dream of and a rich vocabulary of words and metaphors to be used in literature and their daily lives. They have been seen as a source of romance, but also of separation, unknown perils and grief.

However, if we look at the situation in the Mediterranean–Black Sea region today, unfortunately, we will witness the following. At the International Conference on "The Protection and Sustainable Development of the Mediterranean-Black Sea Ecosystem" held in Venice in May this year, its participants, after reviewing the situation in the Mediterranean–Black Sea region, reached the following conclusions reflected in the Venice Statement of 26 May 2007:

- That the overall situation of the area constituted by the connected Mediterranean-Black ecosystems, covering approximately 30 countries throughout 3 continents (Europe, Asia and Africa) with a population of more than half a billion people, continues to dramatically worsen in relation to the environment, with potentially negative economic and social effects on the population;
- That the Danube and other major rivers which flow into the Black Sea, carry considerable amounts of pollutants from the States that they flow through, and collect, along the way, waste and dangerous substances from the activities of millions of inhabitants who live along their banks;
- That similar problems affect the Mediterranean, which is a relatively closed sea, with limited exchange; it is seriously negatively affected by the huge load of pollutants coming from rivers and water courses in European countries, the Middle Eastern and African countries;
- That biodiversity is seriously threatened and many species of shellfish, fish, mammals and birds are in danger of extinction, also from the introduction of exotic (alien) species;
- That development of agriculture, forestry, industrial and mineral production techniques and in regional planning, transport, infrastructure, tourism and recreation and, at more general level,



changes in the world economy are in many cases accelerating the transformation and even degradation of landscapes.

- That this threat is accompanied by the potential – but real – migration of millions of people from poor countries who tend to cross the Mediterranean Sea moving into Europe; this will cause an enormous social, economic and cultural impact;

So, the question arises, what should and could be done? There is no single medicine that could be prescribed to heal the present situation. There is just no simple solution to how we can deal with emerging dangerous trends and areas of growing concern. However, in my view, one can identify at least three issues that should receive priority attention, namely: an ecosystem-based management approach to the conservation and sustainable use of seas, oceans and their resources; good governance; and maritime security. None of these issues could be addressed with a good chance of success unless women and youth get actively involved in them and realize that the future of this historically and economically very important region and the survival of the Mediterranean and Black Seas is in their hands. The statement addresses these three issues and the role of the women and youth in this regard.

Currently, it is well recognized that development of the seas and oceans and their resources, in order to be sustainable, should be organized and conducted in a way that guarantees the health of ecosystems. In other words, it should ensure that the ecosystem retains its structure, activity and resilience over time. If this goal is achieved then ecosystems will continue to contribute to human welfare in a sustainable way. Thus, it is recognized that countries should apply ecosystem-based management approaches to the development of seas, oceans and their resources and that this approach entails that management of economic development should be based on the best understanding of the ecosystem interactions and processes necessary to sustain the ecosystems' structure and function. The latter means that ecosystem management should be scientifically based and should rely on the best scientific understanding of the functioning of ecosystems.

History has proved that sustainable economic development can no longer be achieved on the basis of a conventional sectoral approach. Consequently, ecosystem management also implies integrated cross-sectoral management of human activities, which takes into account the effects of multiple uses: inland, coastal and sea/ocean uses. The Global Programme of Action for the Protection of Marine Environment from Land-based Activities (GPA) considered at the Second Intergovernmental Review Meeting which took place in Beijing, China, in October last year, proclaims that national programmes of action should focus on integrated management approaches and processes and that integrated coastal area management should be harmonized with river basin management and land-use plans. As ecosystem does not recognize or correspond to administrative or national boundaries, adequate or effective ecosystem-based management may require the establishment of an appropriate framework structure at national or international level, corresponding to the specifics of a particular ecosystem, to achieve its goals.

It was evident from the deliberations in 2006 at the seventh meeting of the Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP), which focused on "Ecosystem approaches and oceans", that the main problem experienced by practically all countries is difficulty in merging traditional sectoral interests into an operational governance scheme for managing cumulative ecosystem impacts and for efficient allocation among sectors. Sector-specific management authorities are afraid of dilution of their decision-making authority and, therefore, tend to resist ecosystem-based management approaches.

At the International Conference in Venice, to which I have already made a reference, its participants from the Mediterranean and Black Sea countries were asked to present national reports. Analysis of these national reports reveals that, as may be expected, the Mediterranean and Black Sea countries are at various stages of trying to apply ecosystem based management approaches to ensure their economic sustainable development: from very early to some more advanced stages. Analysis of these reports further reveals that there is still some confusion about the correct understanding of what constitutes an ecosystem management approach to economic



development, sometimes interpreting it as something simply equivalent to the protection of environment from pollution. However, as I've explained earlier, ecosystem based management approach includes, but is not limited to the protection of environment from pollution. It is also obvious from these reports that it is not yet well understood that while a sectoral approach to ecosystem management is mandatory, it is only one element of the system and should be combined and applied with integrated cross-sectoral management planning and implementation of economic strategy. It is further obvious from the reports that the pace of implementation of integrated ecosystem coastal management is rather slow and encounters a lot of resistance. Some of the structures created to facilitate the ecosystem management approach do not function effectively and give the impression that they exist only on paper.

One cannot seriously consider transition to an ecosystem based management approach without addressing the issue of good governance. Recognition of the need for an ecosystem-based management approach is a consequence of our increasing knowledge of the operational dynamics of the natural world. Such management will require institutional and policy change to accommodate physical realities that can no longer be ignored. Thus, the concept of good governance is of central importance to this transition process because effective ecosystem based management will need to alter human behavior, discouraging patterns of conduct that are ecosystem damaging and encouraging patterns of conduct which accord with the operation of the natural world. The significance of governance lies in the fact that it shapes the manner in which individuals and groups think about and approach the use of resources and the natural environment.

The importance of good governance in transition to an ecosystem based management approach was highlighted in the Green Paper of the European Commission, which I have already mentioned. The Green Paper concludes that principles of good governance suggest the need for a European maritime policy that embraces all aspects of the oceans and seas. This policy should be integrated, intersectoral and multidisciplinary, and not a mere collection of vertical sectoral policies. In its Communication adopted on 10 October 2007, setting out a vision for an integrated maritime policy of the European Union, the Commission pointed out that such integrated maritime policy will change the way the policy is formulated and decisions are taken in the maritime sectors and it will enable the relevant authorities to analyze interactions between the various sectors and policy areas concerned and to take them into account at every level so as to develop tools to exploit synergies and avoid conflict.

It is the issue of good governance where the role of women and youth is of crucial importance, because without their active engagement in this process we can hardly speak about effective governance.

In realizing the urgency and importance of transition to an ecosystem based management approach, in particular, for developing countries, at the end of last year, I decided that DOALOS, my former office, should embark upon developing a training course on ecosystem management with the help of some leading world experts. This three/four day training course on ecosystem management consists of four modules, one of which (module four) directly relates to good governance.

As pointed out in the module, human use of the ocean/coastal environment is shaped by human perception of the environment, by culture and experience, and by evaluation of the benefits and costs of acting in particular ways. This process is not limited to assessments of economic cost and benefit, but incorporates legal risks and social, cultural, and psychological factors as well. The significance of governance is in its capacity to alter individual and group perception, evaluations, and consequent behavior so as to further goals of natural system sustainability through effective ecosystem-based management. In this context, governance provides the means of changing the pattern of human uses of the ocean environment. In this framework, governance needs to be understood to be more than government and traditional systems of command and control. Rather, it encompasses three key general mechanisms: government; the marketplace; and civil society, i.e. NGOs and social institutions of all types. These mechanisms interact with one another in an ongoing, continuing pattern of dynamic interrelationships.



The module highlights that governance is of crucial importance as it provides the means of transition from current management arrangements to ecosystem-based management. The key elements of governance, the government, the marketplace, and civil society offer a variety of possible means to influence behavior and provide needed flexibility, allowing for the selection of mechanisms that are locally appropriate and effective in different locations. The tasks ahead are to understand the operation of ocean/coastal ecosystems, to appreciate the effects of human uses on those systems, and to construct management systems and norms of behavior that allow for the sustainable operation of the natural systems that provide humanity with essential goods and services. While these requirements are simple to state, they are much more complicated to achieve operationally. With regards to ecosystem-based management, the task of governance is to help close the gap between how things are presently done and what needs to be done to effectuate a new approach operationally.

It should be emphasized that although different from governmental bodies that can establish legally binding norms enforced by the power of the state, NGOs and social institutions do indeed affect ideas and patterns of thought and, often, can exercise very compelling social pressures that encourage adherence to particular norms of behavior.

As pointed out in the module, the mix, character, and influence of the three identified governance mechanisms, government, the marketplace, and social institutions, are site specific and vary from place to place. In this respect, each state and each region has its own "governance profile," with a unique blend of characteristics. Accordingly, the relative role of each of these key mechanisms must be identified and evaluated within the particular historical, cultural, and political context of different regions, states, and communities. What works well in one setting may not work well in others.

If we turn our attention again to the Mediterranean-Black Sea region, it appears from national reports submitted at the Venice Conference that there is also some confusion in a number of countries regarding what constitutes 'governance'. It appears from some presentations that governance is understood as actions taken only by the government. It also follows from some reports that there is still a lack of environmentally sound information and that environmental agencies tend to have weak standing in relation to industry related government authorities and industry itself. Unfortunately, in some countries, environmental efforts are frequently of a declarative character and are not supplemented by the necessary enforcement measures. And finally, what is most discouraging, very few reports referred to the role of civil society, which includes women and youth, in ensuring good governance.

If I am asked what needs to be done to ensure good governance, which includes ecosystem-based management approaches, my advice would be the following:

- Increase efforts in raising public awareness of the importance of applying the ecosystem-based management approach to economic development;
- Intensify training activities of officials and managers who are responsible for and are involved in the application of the ecosystem-based management approach;
- Ensure that the ecosystem-based management approach is implemented by taking into account the best available scientific advice;
- Ensure public openness of the process and its transparency;
- Provide conditions for sufficient involvement of civil society in the process, stressing in particular the role of women and youth.

Due to the limited time allocated to this presentation, I will limit my observations on the issues of maritime security to comments of mostly a general nature. This is an extremely important subject for the countries of the Mediterranean-Black Sea region. However, it will be discussed in detail at the next meeting of the Informal Consultative Process in New York next year and the Secretary-



General will be required to present in this regard comprehensive information to facilitate deliberations on this subject. So, I see my purpose simply to highlight the importance of this subject, because it is closely related to our ability in the future to successfully manage the seas and oceans and their resources in a sustainable way. And these goals, as has been noted numerous times at this Conference, cannot be achieved without active engagement of women and youth in this process.

Maritime security is generally an issue that attracts a lot of attention these days, but it is of particular significance for countries of the Mediterranean–Black Sea region. According to the Green Paper, 90% of Europe's external trade and over 40% of its internal trade is transported by sea. 350 million passengers pass through European seaports and 350,000 people work in ports and related services, which together generate an added value of about 20 billion Euro. The direct turnover of marine tourism in Europe is estimated at 72 billion Euro. The Mediterranean and Black Seas are of great economic significance for countries bordering these two seas. Hundreds of billions of dollars worth of merchandise trade is conducted in this area.

As pointed out in the Secretary-General's report on oceans and the law of the sea, today's challenges to maritime security increasingly comprise more nontraditional threats, such as: terrorist acts against shipping; trafficking in weapons of mass destruction; piracy and armed robbery at sea; illicit traffic in narcotic drugs, psychotropic substances and nuclear substances; smuggling of people and arms. However, depletion of natural resources, degradation of the marine environment, as well as natural disasters, are also directly relevant to the security agenda, since they can undermine the natural bases on which the livelihoods of millions of people depend and can have a negative impact on maritime trade, as well as such key industries as, *inter alia*, fishing and tourism.

Risks and threats faced by the countries of the Mediterranean– Black Sea region require control and compliance with maritime safety rules via port state control and efficient vessel traffic management, as well as the implementation of international instruments such as the International Ship and Port Facility Security (ISPS) Code. Strict implementation and observance of the ISPS Code plays a particularly crucial role in this regard.

In concluding my presentation, I wish to point out that good governance, which implies ecosystem based management approaches to the conservation and sustainable use of the seas and oceans, including the Mediterranean and Black Seas and their resources as well as maritime security, could only be achieved with active engagement and participation of all elements of civil society, and women and youth are playing a particular important role in this regard.

Thank you for your attention.



Erosion hazard vulnerability of Northern Malta's coastal zones: How may women and youth be implicated in it?

Maria Theresa Farrugia

Ministry for Infrastructure, Transport and Communications

Abstract

Coastal erosion is a global problem, with enormous economic and social consequences. The recent implications of sea-level changes will complicate matters for most of the 60 percent of the global population living within the coastal zones. The local research strands normally cited with regards to northern Malta's coastal zones concentrate on coastal erosion from the geomorphological aspect, emphasising an explanation of the processes involved in the formation of erosion features. They also indicate the overall management of the areas emphasizing the safeguarding of areas of ecological importance. However, the hazard aspect of vulnerable coasts is largely neglected and the role of women and youth in mitigating this neglect is overlooked.

Women and youth may contribute a lot in helping the understanding of such problems. Yet in developing countries, such population sectors tend to suffer from persistent inequalities and thus this situation should be reversed by giving opportunities for instilling in these two sectors of society a sense of engagement in the opportunities and challenges presented by the coastal zones. For this reason, the paper addresses several objectives which need to be undertaken to empower both women and youth in achieving opportunities for acquiring skills, knowledge and awareness about the vulnerability issue of the coastal erosion hazard, by using Northern Malta's coastal zone as a case study.

The aim of this paper is to emphasise the importance of including women and youth in the process of identifying vulnerable coastal characteristics together with elements of the human impact on the coastal environment. In this way, the paper aims at increasing the knowledge and skills in young generations and women about Malta's coastal zones. This would generate more awareness towards participation in the conservation of the coast and in tackling its vulnerability issue of coastal erosion hazards.

Introduction

Forty-four percent of the world's population lives within 150 kilometres of the coast. In 2001 over half the world's population lived within 200km of the coastline. The rate of population growth in coastal areas is accelerating and increasing tourism adds to the pressure on the environment, (<http://www.oceansatlas.org/>). In both developed and developing countries, there is intense pressure to develop the coastal areas for tourism, ports, mineral extraction, fishing, agriculture and industrial development, (United Nations, 1982).

In addition to this, the coastal zone is also confronted with its own natural erosive dynamics. Every day, the surging action of waves, the movement of longshore currents, and the pounding of storms erode shorelines, (Christiansen and Hamblin, 2004). At least 70 percent of the sandy beaches around the world are recessional, (Bird 1985). In addition, approximately 86 percent of U.S. East Coast barrier beaches (excluding evolving spit areas) have experienced erosion during the past 100 years. Further to this, one can add widespread erosion in California and in the Gulf of Mexico, (Douglas, Leatherman, and Zhang, 2004). Europe is also impacted negatively by erosive coastal dynamics, (European Commission, 2004).

Thus, since erosive coastal dynamics potentially cause large-scale economic, social and physical damage, they are usually considered to be a hazard to people. Truly, a hazard may be defined as a product, process or condition, which potentially threatens individuals. The degree of loss resulting from the occurrence of the phenomenon can be maintained as being the vulnerability of people to such hazard.

However, coastal erosion is a natural phenomenon that only turned into a hazard due to the urbanisation process on the coast. Such process may have led to a number of economic activities to imply their pressure on the coastal zone. Through these activities, the coastal area has become a specific battleground for the debate between 'developers' and 'environmentalists', (United Nations, 1982). Local individuals themselves are usually left out of these debates. Women and

youth form a hefty part of the spectrum of locals. Although several governments and other organizations around the world have intervened to enhance their participation in a number of activities, there still remains a lot to be done.

The Local Situation of the Maltese Islands

An Overview

On Census Day 2005, the total population of the Maltese Islands consisted of 200,819 males, or 49.6 percent of the population, and 204,143 females, (National Statistics Office, 2007). As seen in Table 1, the number of women residing in the Maltese Islands surpasses the number of males.

District	Total		Males		Females	
	No.	per cent	No.	per cent	No.	per cent
Southern Harbour	81,047	100.0	40,398	49.8	40,649	50.2
Northern Harbour	119,332	100.0	58,853	49.3	60,479	50.7
South Eastern	59,371	100.0	29,618	49.9	29,753	50.1
Western	57,038	100.0	28,182	49.4	28,856	50.6
Northern	57,167	100.0	28,482	49.8	28,685	50.2
Gozo and Comino	31,007	100.0	15,286	49.3	15,721	50.7
Total	404,962	100.0	200,819	49.6	204,143	50.4

Table 1:
Population by Sex: 2005
Census of Population and
Housing 2005, Volume 1:
Population. - Valletta: National
Statistics Office, 2007

Moreover, women seem to have higher literacy rates than men, as seen in Table 2. In fact, for 2005, the male literacy rate stood at 91.7 percent and the female literacy rate at 93.9 percent.

The highest literacy rate was recorded in the Northern District with 95.5 percent of the residents aged 10 years and over being literate. In addition, the majority of people aged 15 years and over have at least a secondary level of education, (National Statistics Office, 2007).

District	Total	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90+
Total	92.8	98.3	97.6	96.5	93.2	90.7	88.9	80.7	75.4	70.5
Southern Harbour	89.8	97.8	96.5	94.2	89.4	86.9	85.4	78.1	71.9	59.0
Northern Harbour	93.6	97.7	97.9	96.8	93.8	92.1	90.1	83.9	82.6	85.1
South Eastern	92.0	98.9	97.6	96.8	92.5	88.3	85.9	72.7	66.1	62.5
Western	93.4	98.7	98.0	96.8	93.8	91.7	90.3	79.0	72.9	72.0
Northern	95.5	98.7	98.5	97.8	96.1	94.6	92.1	84.3	76.0	72.4
Gozo and Comino	93.2	99.0	98.0	96.4	94.0	91.5	91.6	84.4	72.9	60.5

Table 2:
Literacy rates by age
group and district

Census of Population
and Housing 2005,
Volume 1: Population. -
Valletta: National
Statistics Office, 2007

Therefore one can maintain that women and youth in Malta form a substantial part of the local population, not only in terms of numbers, but also in relation to education and literacy. However, it is regretful to note that their participation in various themes and issues, like coastal issues, is somehow lacking.

Case Studies

The lack of involvement of women and youth in coastal issues, especially those relating to erosive coastal dynamics, will be seen through this paper in the analysis of the three case study areas located along Northern Malta, as seen in Figure 1.

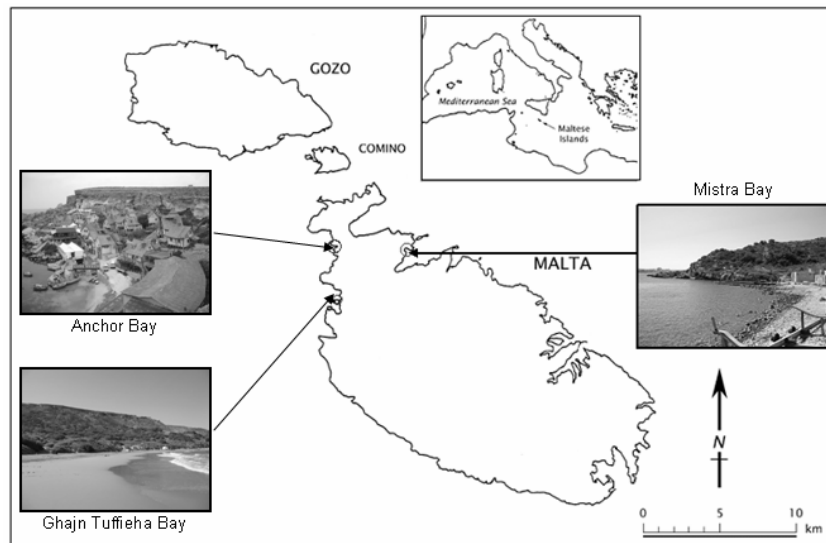


Fig. 1: Location of Case Study Areas

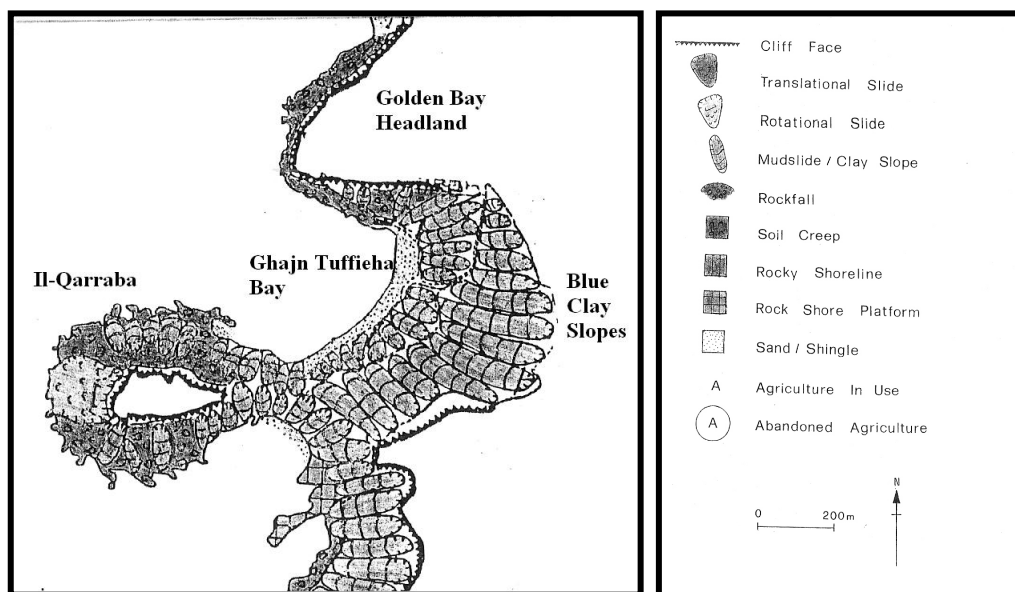


Fig. 2: The Geomorphological Composition of Ghajn Tuffieha Bay (Adapted from: Magri, 2001)

Ghajn Tuffieha Bay

Ghajn Tuffieha Bay is located along the coast between ir-Ramla tal-Mixquqa (Golden Bay) and il-

Bajja tal-Gnejna (Gnejna Bay). As seen in Figure 2, the area is morphologically composed of:

- A pronounced limestone structure, namely the Golden Bay headland;
- A stretch of sand forming Ghajn Tuffieha Bay;
- Steep clay slopes at the back of the bay;
- A highly weathered limestone ridge made up of Il-Qarraba.

(Malta University Services, 1997)

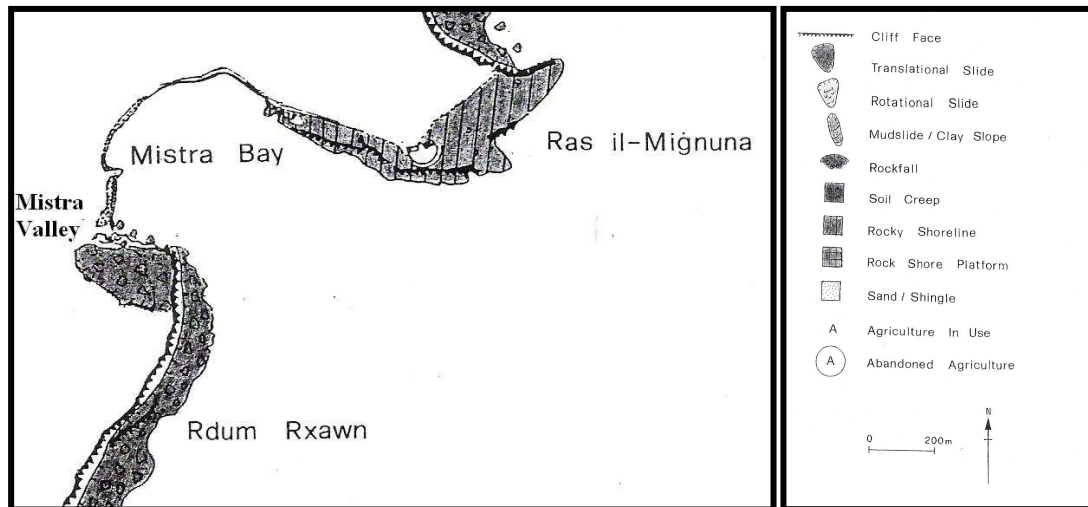


Fig. 3: The Geomorphological Composition of Mistra Bay (Adapted from: Magri, 2001)

The most common type of sediment along this bay is sand. In fact, this sediment occupies half of the bayhead in the form of a wedge-shaped belt which is approximately 150m long and 25m wide, and then tapers gradually towards the south where it turns into a narrow, 100m long sand/cobble beach. The geology of Ghajn Tuffieha Bay is mostly Coralline Limestone. Surrounding Ghajn Tuffieha Bay there are a number of Blue Clay slopes.

As part of a Management Plan for Ghajn Tuffieha Bay, the Gaia Foundation has implemented various methods to disseminate information with the local Maltese population, visitors and foreigners involved in environmental management. By presenting opportunities for locals, the Gaia Foundation has also given women and youth the prospect of involving themselves in coastal related issues. Importance was given so that people were made aware not only of nature conservation, but of coastal management in general. (The Gaia Foundation, 2005)

Mistra Bay

Contrastingly to Ghajn Tuffieha Bay, public awareness programmes regarding coastal management are not present at Mistra Bay. This may be attributed to a number of factors. Just outside the bay there is a fish farm that may even hinder the growth of marine biodiversity (Borg, 2002, De Giovanni, 1991, Farrugia, 2006). Moreover, the dominant activities in this bay are yachting and jet skiing, thus attracting people that seek these activities.

In addition to this, the type of sediment present at Mistra Bay is mainly cobbles with pebbles scattered mostly along the foreshore and with sand being found either in the sea or along the backshore. The 690m² of sediment situated at this bay is coarser than that at Ghajn Tuffieha Bay, probably due to the fact that the sediment at Mistra Bay is of a different rock type than that of Ghajn Tuffieha Bay.

In fact, this bay, located along the North Eastern coast of Malta between Ras il-Mignuna and Rđum Rxawn, is morphologically composed, as Figure 3 indicates, of:

- A steep limestone structure named Ras il-Mignuna;
- A Globigerina Limestone valley named Mistra Valley;
- A stretch of sand and cobbles together with rocks forming Mistra Bay;
- A highly weathered limestone ridge named Rđum Rxawn (Farrugia, 2006).

Anchor Bay

Unlike Mistra Bay, Anchor Bay is located along the North western coast of Malta between Ras in-Niexfa and Rdum id-Delli. As seen in Figure 4, morphologically the area is composed of:

- A pronounced limestone structure named Rdum id-Delli;
- Eroded cliff material together with a narrow inlet named il-Prajjet;
- A highly weathered limestone ridge named Ras in-Niexfa.

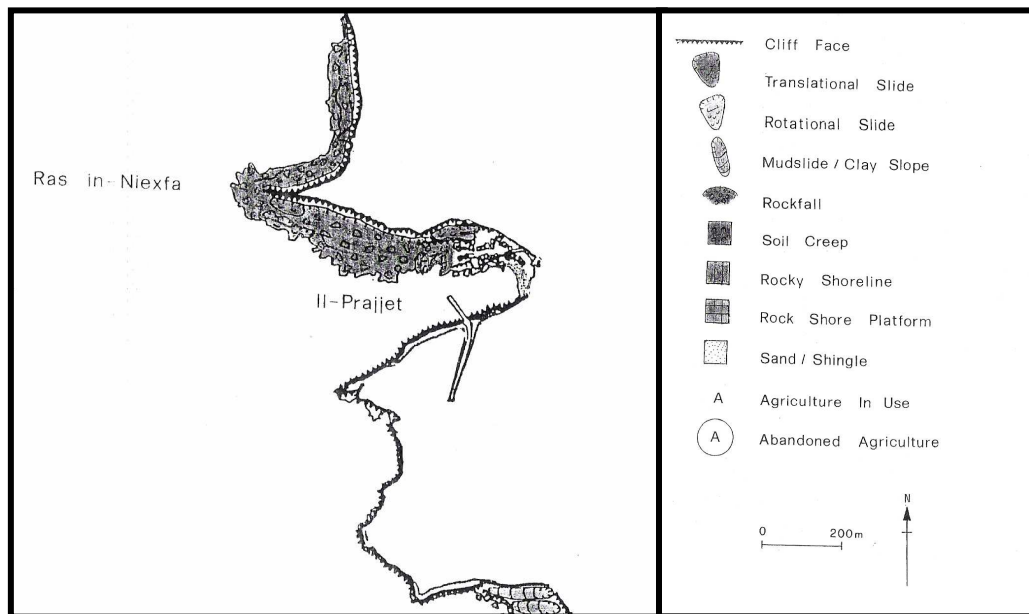


Fig. 4: The Geomorphological Composition of Anchor Bay (Adapted from: Magri, 2001)

Anchor Bay is geologically composed of Upper Coralline Limestone with Blue Clay being present on the northern side of the bay. The site features an Upper Coralline Limestone plateau, with the southern side presenting a sheer cliff face and the northern side featuring excellent examples of lateral spreading phenomena. The landslides on this part of the bay are posing a hazard to Popeye's Village, which is one of the most popular tourist attractions of the Maltese Islands. At this site, monitoring of the lateral spreading is taking place through the installation of eight GPS benchmarks. Yet, there is no involvement of locals in hazard management at Anchor Bay and neither of local women and youth.

Results and Recommendations

As the case studies indicate, the involvement of women and youth in coastal management issues in Northern Malta is still limited. Therefore, a number of key measures should be carried out to involve both women and youth and to raise community awareness on the subject of coastal erosion. Yet, in order to increase community awareness, key messages must be communicated to target audiences in a way that they understand, and that inspires them to take action. For this reason, a series of other actions and research possibilities should be carried out, as seen in Table 3, which further enhance the involvement of women and youth in issues dealing with erosive coastal dynamics.

Yet, in relation to erosive coastal dynamics throughout the Maltese Islands, one should not only promote actions towards the involvement of women and youth in coastal related issues but also promote actions to safeguard areas from coastal erosion and reduce the risks faced by people when going to such areas. As seen in Table 4, the proposed actions fall into two categories; those that deal with restrictions and others that deal with further studies. Overall these actions tend to maintain that coastal erosion is not an issue that has to be taken for granted and that such actions or similar ones need to be implemented to ensure better management.



Table 3: Actions enhancing the involvement of women and youth in coastal erosion issues	
Action	Reason
The implementation of research initiatives and questionnaires	These should look into the effect of coastal erosion on the living conditions of women and youth together with any effect of this process on their work and educational opportunities
Carrying out of Public Awareness Programmes	Their aim is to empower women and youth to identify study and eventually try to tackle the problem of coastal erosion.
Campaigns involving further more the wider public	By involving and including women and youth on aspects dealing with the effects of coastal erosion there would be more effective decision making groups.
Implementation of projects, both on an national scale and regional scale	Women and youth should be involved in these projects that measure the impacts and risks arising from coastal erosion together with elements of the human impact on the coastal environment.
Gender and Coastal Issues should be taken in consideration	Gender is to be given special focus in coastal issues. Societies in coastal areas mostly have their own behavioural peculiarities, which need to be understood for achieving sustainability.
Provision of adequate knowledge and skills to everyone	Women and youth need to be provided with the skills and knowledge necessary to plan for and respond to the dangers posed to their societies by coastal threats.
Partnerships aimed at preserving coastal zones	The building of partnerships with women and youth to support the preservation of coastal zones for future generations is surely a positive way forward.
Ensure good governance through involvement in decision making	Involve women and youth in decision making concerning the social, cultural and physical environment, and in the development of policies and enforcement of laws in order to ensure good governance.

In every action and method implemented to safeguard the coastal zone from its erosive dynamics it is important to take note on public participation. Special significance should be given towards the involvement of women and youth in these actions, as these target groups form a hefty part of the global society of today.

Conclusion

As seen throughout this paper, erosive coastal dynamics shape, mould and sculpt the shorelines of the Maltese Islands. Regarding Northern Malta, coastal erosion is ongoing. The mapping of such process would surely be an important contribution to the Islands. The development of risk assessments is also seen as crucial, so as to know the risks and impacts faced by buildings situated at the coastal fringes. However, future directions and recommendations need to be taken, mostly on persuading stakeholders in seeing the coast as an area to be safeguarded rather than exploited. For such reason, good coastal protection measures together with monitoring and eventually public participation measures need to be given their due respects.

Regarding public participation measures, moreover, an emphasis should be made on the involvement of women and youth in the issues related to coastal erosion and coastal management. Yet, for doing so, key messages must be communicated to the target audiences in a way that they understand, and that inspires them to take action. Once this will be done, the involvement of women and youth would surely enable them to make a difference for the sustainable management of coastal resources for present and future generations.



Table 4: Actions to protect the coast against the coastal erosion hazard (Adapted from Farrugia, 2006)		
Action	Recommendations	
	Short term	Long term
Limiting building and development near the coast.	Deny or restrict building permits near the coastal fringe. Remove abandoned structures from the coastal zone as these may create further risks to the people if these should collapse.	Create boundaries for limiting construction near the coastal zone. Mention the action as one of the priorities in the Housing Topic Paper.
Restrain development in hazard prone areas. especially where there have been occurrences of landslides.	If possible, move structures landwards so the probability of risk would decline.	Develop Hazard Management Schemes that look not only at hazards like coastal erosion, but also at the processes that help such hazards or else that result from them.
Restrict hard-engineering structures along the coast	Hard engineering structures should be minimally used. However, in the short run, these tend to bring more positive results than soft engineering structures.	Create an organisation that analyses the impacts of hard engineering structures on the coast in the long and short run and establish whether they are viable to construct or not.
Carry out coastal erosion studies over the years to understand the processes and try to create appropriate methods to mitigate its movement.	Invest in monthly studies that can be carried out on a number of bays to analyse the dominant processes on each bay.	Create a Management Plan for the Coastal Zone, which not only looks at shoreline movements throughout the years and the factors which instigate such movements, but also at methods of how to mitigate coastal erosion.
Consider the coast not as a zone to be exploited, but a zone for safeguarding	Limit most of the development along the coastal fringe, especially with regards to recreational use.	Unintentional and intentional management of coast need to look at the sustainable use of the coast and also at safeguarding such zone from further deterioration.



References

- Bird, F. C. E., 1985. *Coastline Changes: A Global Review*. John Wiley & Sons Ltd., Chichester.
- Borg, E., 2002. *Spatial conflicts at the coast: aquaculture vs. tourism/recreation: one industry at the expense of the other?* Unpublished B.A. (Hons) dissertation, University of Malta.
- Christiansen, E. H. and Hamblin, K. W., 2004. *Earth's Dynamic Systems*. 10th Edition, Pearson Education Inc, New Jersey.
- De Giovanni, M. S., 1991. *The effects of fish farming on water quality at Mistra Bay*. Unpublished B.S.c. dissertation, University of Malta.
- Douglas, B. C, Leatherman, S. P., and Zhang, K., 2004. *Global Warming and Coastal Erosion*. *Climatic Change*. Vol. 64, Issue 1-2, 2004, Kluwer Academic Publishers, Netherlands. Pp. 41-58.
- European Commission, 2004. *Living with Coastal Erosion in Europe: Sediment and Space for Sustainability; Results from the EuroSION Study*. Office for the Official Publications of the European Communities, Luxembourg.
- Farrugia, M. T., 2006. *Coastal Erosion Hazards around the Coast of Malta*, In Micallef, A., Vassallo, A. and Cassar M., (Eds.), 2006. *Proceedings of the Second International Conference on the Management of Coastal Recreational Resources - Beaches, Yacht Marinas & Coastal Ecotourism - 25th-27th Oct 2006 - Gozo, Malta; Euro-Mediterranean Centre on Insular Coastal Dynamics; Foundation for International Studies; Valletta*, pp.69-79.
- Malta University Services, May 1997. *Ghajn Tuffieha Area: Geology, Geomorphology and Hydrology*. Malta University Services, Msida.
- National Statistics Office, 2007. *Census of Population and Housing 2005. Volume 1: Population*, National Statistics Office, Valletta.
- The Gaia Foundation, 2005. *Management Plan for Ghajn Tuffieha*. The Gaia Foundation, Ghajn Tuffieha
- United Nations, 1982. *Department of international Economic and Social Affairs, Coastal Area Management and Development*. Pergamon Press, Oxford.

Web References

- UN Atlas on the Oceans- <http://www.oceansatlas.org/>: (Last accessed on 13 April 2008)



Environmental Awareness in Youth: the HELMEPA Junior approach

Marina Papaioannou

Hellenic Marine Environment Protection Association - HELMEPA

Abstract

Since 1993 more than 44,000 schoolchildren in Greece became active in the protection of the marine environment through their participation in the HELMEPA Junior Program. Through their activities, many of these children have managed to influence the environmental conduct of people in their local communities. Now HELMEPA Junior members have joined forces with children in Australia, Cyprus and Turkey in an attempt to influence decision-making centers around the world to respect the marine environment and take into consideration the needs of future generations. As a result, the issue of Environmental Awareness in Youth prominently features in meetings of the International Maritime Organization (IMO), whilst the latter has appointed children from Cyprus, Greece and Turkey as its "Ambassadors for the Protection of the Marine Environment".

Introduction

It is with great pleasure that we participate in *Pacem in Maribus XXXII*, as the cooperation between the IOI and HELMEPA goes way back in the years; indeed it was the late Elisabeth Mann Borgese that on 4th June 1982 co-signed on behalf of IOI the Declaration of Voluntary Commitment "To Save the Seas", which gave birth to HELMEPA.

HELMEPA is a voluntary, nongovernmental, non-profit making organization inspired by the late Greek ship owner George P. Livanos and founded by Greek seafarers and ship owners. The Association's mission is to lead in an effort to eliminate ship-generated marine pollution by nurturing an environmental consciousness throughout the shipping industry "from ship owner to seafarer".

Activities

The means used by HELMEPA in order to achieve its mission are education, information and motivation. Annual refresher training seminars on land and onboard ships are offered to HELMEPA members along with motivational and educational aids in printed and electronic form. All activities follow the latest developments in international maritime legislation on pollution prevention, safety at sea and security. The financial operation of HELMEPA is sustained only by the annual fees of its members, 450 ocean-going vessels and 180 companies and organizations in Greece and abroad. The 13,000 Greek seafarers-members, being the driving force of HELMEPA, do not contribute financially.

In accordance with its mandate, HELMEPA has also been active in spreading this unique example of an alternative approach to the issues of prevention of marine pollution and safety at sea throughout the international community. As a result, similar non-profit, nongovernmental Associations have been established in Australia - AUSMEPA, BRITMEPA in the UK, CYMEPA in Cyprus, PHILMEPA in the Philippines, TURMEPA in Turkey and URUMEPA in Uruguay. Since June 2006, AUSMEPA, CYMEPA, TURMEPA and URUMEPA have joined HELMEPA to found the International Marine Environment Protection Association – INTERMEPA.

Marine pollution originates from human activities taking place mainly on land, but also at sea. This coupled with the fact that most Greek seafarers and ship owners traditionally come from coastal and island areas of the country, which have developed historic bonds with the sea, led HELMEPA to undertake initiatives to also raise the environmental awareness of the wider society.

The HELMEPA Junior Program

So, since 1983, HELMEPA has been launching its annual public awareness campaigns using means such as environmental exhibitions in various parts of the country, voluntary beach



cleanups, TV spots, printed material and schoolchildren poster contests. The symbol of this initiative has remained throughout the years the HELMEPA “Seagull”.



Fig 1, 2: Two “Seagull” posters with environmental messages distributed in Greece and worldwide

Coordinated research, that was conducted amongst 150,000 schoolchildren that visited HELMEPA’s environmental exhibitions between 1983 and 1992, revealed that ages 7 to 13 are the most receptive segment of youth on which the message of HELMEPA could have a positive impact. Furthermore, it revealed a clear request from the children to be provided with a platform from which they could voice their environmental concerns, promote their ideas and demand the respect of older generations.

It was these very findings that in 1993 led to the creation of HELMEPA Junior, an environmental education program operating on an annual basis throughout Greece with the participation of 3,500 schoolchildren, aged 5-13, and divided in Groups of 10.

HELMEPA Junior offers volunteering schoolchildren the opportunity to obtain a “hands-on” environmental education, by performing a wide range of activities concerning the protection of the marine environment. At the same time, through the activities they perform and with their enthusiasm and directness, these children become the best couriers of sound environmental messages within their local communities throughout the country.

The most popular activities of HELMEPA Junior schoolchildren groups include voluntary beach clean-ups, disseminating environmental motivational material in their local communities, organizing recycling initiatives and recording illegal sources of pollution. By doing so and reporting their findings to their local authorities, they put pressure on them to become more active on environmental issues.

A basic element of HELMEPA Junior is that the children themselves decide about the program. Every year, leaders of the most active groups come to Athens invited by HELMEPA to form the Board of Representatives. The children discuss their experiences from the program, make their



proposals for its further development and issue a press release with their decisions and to the grown ups.

Furthermore, HELMEPA Junior members participate every year in a Drawing Competition under a different theme, always related to the protection of the environment. Winning drawings, which are chosen by the children-members of the Board of Representatives, become HELMEPA posters widely disseminated at home and abroad.



Fig 3, 4: Two Children's Drawing posters with environmental messages distributed in Greece and worldwide

In the spirit of our cooperation with other sister organizations, the HELMEPA Junior drawing contest is gradually expanding beyond the boundaries of Greece. Two years ago it included children from Cymepa in Cyprus, while this year it was carried out with the participation of children from the equivalent junior programs of CYMEPA in Cyprus and TURMEPA in Turkey.

During the 15 years of operation of HELMEPA Junior, more than 44,000 children from 650 schools around Greece have become members and implemented a wide range of activities in their regions. These children were supported in their activities by over 1,700 volunteer teachers, whose contribution is essential to the successful operation of the Program.



Fig. 5: Children from HELMEPA Junior and TURMEPA during their joint activities in the island of Chios.

In recent years the HELMEPA Junior program has expanded beyond national boundaries. In 2002, the European Parliament awarded the children of HELMEPA and CYMEPA Junior and their volunteer teachers for their environmental efforts. Recognition came also from UNEP with the Global 500 award and IMO, where in March 2000 two children-members of HELMEPA Junior



addressed the national delegations to the organization. Since then, the Environmental Awareness in Youth is a regular topic at IMO's Marine Environment Protection Committee meetings.

During 2004, a joint drawing contest was organized with the participation of Greek and Turkish children. Moreover, visits were exchanged between schoolchildren-members of the junior programs of HELMEPA and TURMEPA from the island of Chios in Greece and the coastal town of Cesme in Turkey. Together with their parents and teachers, as well as Board members and staff from the two Associations, the children symbolically cleaned up beaches in Chios and Cesme and declared their commitment to work together towards protecting their common marine environment.

In 2005, 4 children-members of the Junior programs of HELMEPA, CYMEPA and TURMEPA participated in UNEP's Children's World Summit for the Environment, which took place in Japan with 600 young delegates, aged 11 to 14, from many countries from all continents. Besides representing their countries, these children also represented the IMO as its "Ambassadors for the Protection of the Marine Environment", following the proposal of the Organization's Secretary General.

Following a week of exchanging ideas and sharing concerns, the 600 children came up with their own Declaration of commitments and petitions. Their main petition to all the adults of this world was: *"We the Children Need Your Help to Save the Environment!"* With such dedicated representatives of the world's younger generation, how can we remain passive?

In October 2006, two 12-year old schoolchildren-members of HELMEPA Junior from Greece and TURMEPA Junior from Turkey were invited by IMO and addressed the plenary of the 55th Marine Environment Protection Committee in London.

Dionysia Lympelopoulou from the island of Leros and Serra Kuman from Istanbul addressed their message to the delegates of more than 160 countries, conveying their concern that there is no time to waste with respect to the protection of the environment. The kids, through their message, asked for the assistance and cooperation of those who are involved in the decision-making process.

The Secretary General, Mr. E. Mitropoulos praised the concerted efforts carried out at a local level by the junior sections of INTERMEPA, announcing steps of action and cooperation with them as well as his intention to promote the vision that the children become ambassadors for the protection of the environment.

Now we are trying to work together with former members of HELMEPA Junior, many of which are university and college students. We want them to continue to carry their environmental messages to the campuses where they can project experiences they have acquired through their activities with HELMEPA Junior.

Conclusions

Regardless of the various widely publicized commitments and agreements reached by governments and international institutions over the last 30 years, progress made in protecting the marine and coastal environments has not been sufficient to redress the current environmental crises. Ocean resources and environmental conditions continue to decline.

At present, development is based on the exploitation of the earth's resources with little attention given to the consequences. We are faced by a situation whereby our planet cannot continue to sustain current levels of development and consumption much longer.

In order to change the way we live, especially those of us in so-called developed countries, there is a need for a new ethic of living that must become a part of all sectors and levels of society.

Sustainable development requires that we think globally and act locally. Every positive act by any person in the world makes a difference. Individuals make up groups that collectively make up the



state, governments and the entire human population. Given that young people are the ones that will inherit the earth and will become the future leaders, it is very important that they take the lead in making the choices and taking the actions that can move the world towards sustainable development.

It is our hope that environmental programs such as HELMEPA Junior contribute towards helping the youth of today become responsible and environmentally aware citizens of tomorrow, who will avoid making the same mistakes as the older generations.

Through their cooperation within the framework of INTERMEPA, children can become aware of the common problems facing the environment and of the global effect of environmental issues. Furthermore, children may exchange ideas regarding the ways in which they become active for the protection of the environment and discover ways of common action in order to put pressure on decision-making centers around the world to respect the right of future generations to a clean and healthy environment.

Direct communication between youth from different countries will help overcome prevailing prejudice and preconceptions regarding other nationalities and bridge existing gaps amongst nations. It is only then that people may come to realize that there are no borders to marine pollution and that the health of our planet depends on the wellbeing of its seas; the oceans of our planet are highways that connect nations rather than dividing lines between them.

For more information you may visit the following websites: www.helmepa.gr and www.intermepa.org.

References

HELMEPA Declaration of Voluntary Commitment "To Save the Seas"

2007 HELMEPA Junior Action Plan

55 MEPC (Marine Environment Protection Committee) – IMO Report (October 2006)



The World Ocean Observatory: An Internet-Based Forum for Ocean Information and Education Service

Peter Neill

Director, World Observatory

Abstract

The World Ocean Observatory, an Internet-based forum for ocean information and educational service, was a key recommendation of the 1998 International Commission for the Future of the Oceans. It was intended to provide a place of exchange and dialogue about the ocean defined as "an integrated, global, social system," relating the ocean to such issues as fresh water, food, energy, trade, transportation, international finance, science and research, public health, governance, culture, and community development. It was to be universally accessible through the Internet, providing information and service at no cost to its users. W2O was established in 2005 as a project of the Open Space Institute and is directed by Peter Neill.

W2O now includes several elements: The Cultural Ocean, The Physical Ocean, The World Ocean Directory, The World Ocean Forum, and The World Ocean Classroom. Each of these contains links to major ocean agencies and organizations, exemplary projects around the world, more than 18,500 ocean-related organizations worldwide, pro-active services, educational curricula, and much more. It is intended to provide responsible scientific information to build ocean awareness and political will for the sustainable ocean. Last week visitors from 147 nations used the site.

The presentation will guide delegates through the Observatory and suggest a variety of tools that will enable further distribution of ocean information through web-based events, international networks, audiovisual projects, online exhibits, and other tools to connect people efficiently and effectively the world over to ocean issues and activities

The International Oceanographic Data and Information Exchange (IODE) Programme of the Intergovernmental Oceanographic Commission of UNESCO (IOC) was established in 1961 and has always considered capacity development as one of its core priorities. Since the late 1990s IODE developed a capacity development strategy that is based on combining provision of infrastructure, training and operational support in a regional context. This strategy has led to the development of Ocean Data and Information Networks (ODINs), which now exist for Africa, the Caribbean and South America, the Indian Ocean, European countries in economic transition and Western Pacific regions. Training as well as continuous professional development are important elements in the ODINs. The paper will illustrate the various tools that have been developed including OceanTeacher, IODE Alumni database, OceanPortal and OceanDocs. In addition, the increasing focus of IODE to serve ocean science, observation and management will be demonstrated through the Marine Atlases. Finally, the paper will introduce the planned development of a global distributed data network (OceanDataPortal) that will enable any user to seek and retrieve data stored in any of the participating data providers around the world.