



**Regional Workshop on
State of Beach Management in the Mediterranean
Application of the Bathing Area Registration &
Evaluation (BARE) System
in Mediterranean Coastal States
(Valletta, Malta, June 10-11, 2005)**

REPORT

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1. With increasing demand for leisure opportunities, beach environments figure highly in the social valuation of coastal recreational amenities, the latter often seen as a safe recreational environment that is enjoyed by a wide spectrum of society (adults and children visiting as individuals, couples, families, overseas and local holiday-makers). By definition, beach management “seeks to maintain or improve a beach as a recreational resource and a means of coast protection, while providing facilities that meet the needs and aspirations of those who use the beach” (Bird, 1996 p. 212.). In this context, the impact of sound beach management may be seen as an effective utilisation of an increasingly valuable (socio-economic and in places ecologic) national resource. It also leads to an encouragement of overseas tourism, an increase in quality for local recreational opportunities and an enhancement of nearby urban settlements. In practice, beach management may be seen to address socio-economic and environmental considerations as well as engineering aspects largely related to sediment dynamics. Beach rating procedures and award schemes used so far (e.g. Blue Flag) tend to either focus on single or few issues of concern to beach users or to ignore the nature of varying beach types and individual beach type requirements. In addition, most approaches tend to focus on the beach itself rather than the more holistic vision of a bathing area (including that area within walking distance and generally visible from the beach), and more often than not, stop short of integrating concerns into an effective beach management tool.

2. Under the aegis of the Mediterranean Action Plan, (UNEP), the Priority Action Programme Regional Activity Centre (PAP/RAC) has launched a regional study (2004/2005) to evaluate the state of beach management in the Mediterranean. The project is based on recent research that has resulted in the development of a Bathing Area Registration & Evaluation (BARE) technique that assesses beach quality in an objective manner and facilitates beach management through consideration of beach quality and/or shortfalls in a wide spectrum of beach types (resort, urban, village, rural and remote). The (BARE) approach differs from other beach rating/award giving schemes on a number of issues in that it:

- Evaluates not only the beach itself but the bathing area as a whole (i.e. the beach together with that area within walking distance and generally visible from the beach).
- Considers a wider variety of beach types other than resort and urban.
- Classes bathing areas according to a rating system that focuses on five main beach-related issues that have been shown to rate highly in beach user preferences and priorities.
- Provides a final bathing area classification not only as an incentive for enhanced advertising potential but primarily as a tool to identify priority needs in management.

3. In order to present the results of the above mentioned study and the BARE approach itself to a wider audience of professionals dealing with beach management in the region, but also to hear the experience of the countries on the subject, a Workshop on the Application of the Bathing Area Registration & Evaluation (BARE) System in Mediterranean Coastal States was organised on June 10-11, 2005 in Malta. In the organisation of the workshop, PAP/RAC was offered considerable help and assistance by the Euro-Mediterranean Centre on Insular Coastal Dynamics (ICOD), Malta, in whose premises in Valletta the meeting was held.

4. The Workshop was attended by 13 participants from 13 Mediterranean countries, as well as representatives of PAP/RAC and two international experts engaged by PAP/RAC. The complete list of participants is attached as Annex I, while the workshop agenda is reported in Annex II.

5. Mr. A. Micallef, Director of ICOD, welcomed the participants and made a brief presentation of the representatives of Maltese authorities and institutions attending the opening of the workshop.

6. Mr. L. Briguglio, Chief Executive Officer of the Foundation for International Studies, greeted the participants and welcomed them to the Foundation's premises which also host ICOD. The building is a part of the University of Malta which is the oldest university in the Commonwealth outside the Great Britain. He briefly presented all the institutions situated in the building: Islands and Small States Institute, International Environment Institute, and ICOD. Pleased with the opportunity to host such an important gathering, which is in line with the University's good links with many other Mediterranean scientific institutions, he wished the participants pleasant stay and fruitful work in the workshop. Full text of his speech is attached as Annex III.

7. Mr. I. Trumbić, Director of PAP/RAC, greeted the participants extending hopes for their pleasant stay in Malta and useful exchange of knowledge and information that could be useful for their future work. He then made a brief introduction to the Workshop, presenting the reasons behind its organisation and its objectives, as reported in the introductory chapters of this report. He pointed out the need to integrate beach management into ICAM. For that reason, PAP/RAC had engaged a group of renowned experts to develop an appropriate method. The participants would be expected to discuss the method and contribute to the development of a technique that could be used in the region and integrated into ICAM.

8. The Hon. George Pullicino, Minister for Rural Affairs and the Environment, welcomed the participants to Malta. He particularly welcomed the working relationship between Malta and PAP/RAC that had an important result in the CAMP project for Malta completed in 2002. That exercise highlighted the need for action towards beach management, especially with regards to tourism and health. The full text of the Minister's address is given in Annex IV.

9. Mr. A. Micallef thanked the Minister for finding time in his busy schedule to come and open the workshop, and for his kind words. He then briefly introduced the aims and objectives of the meeting, the principal one being to discuss the developed methodology. He explained how it had been tested in various countries and refined along the way.

10. Mr. A. Williams, a British expert engaged by PAP/RAC, presented a review of beach ratings and award schemes, including beach user preferences and priorities. He pointed out that the primary responsibility of coastal managers was to conserve coastal scenery quality in its natural state as far as is possible and/or to facilitate its enjoyment by the public via recreational activities in accordance with its primary aim. In practice, a balance is usually struck between developing recreation too far (so that conservation is impaired) and conserving absolutely (so that tourism declines). Is this what the beach user wants? Very little research has been carried out on this topic. A dearth of work exists with respect to rating beaches on any aesthetic scale. The Oxford Dictionary defines aesthetics as 'concerned with, capable of, appreciation of the beautiful'. The question may then be posed as to what is beauty. Philosophical musing on this point is not the aim of this paper. Ratings exist. If one has to have ratings, they should be objective and cover all possible aspects of the topic rather than the odd one or two. Most rating systems are based usually on one main measurable parameter e.g. the Marine Conservation Society in UK, produces the Good Beach Guide utilises water quality, the results being obtained from water analyses taken every week during the UK bathing season by the National Rivers Authority (NRA) - which is the UK Government 'watchdog' on these matters. It should be axiomatic that ratings must cover physical, human and biological parameters. The most commonly found rating scheme is the Blue Flag in Europe and the National Healthy Beaches Campaign in the USA. Most of the existing ratings imply that what is measured reflects beach user satisfaction, but factors such as noise, pests, numbers of people, relief, toilets, parking facilities, etc., are conspicuous by their omission in most ratings. Eleven such schemes are looked at ranging from the first carried out in Costa Rica to the recently developed BARE system.

11. A thorough discussion followed in which various issues were raised, such as: the need to standardise the terminology; will BARE compete with or complement other methodologies; the need to take into consideration the beach planning within urban planning; the need to point out the difference of BARE and the Blue Flag. A particular interest was attracted by the issue of beach cleaning. While beach cleaning, in general, is seen as positive, if it is done improperly it turns into a very negative feature. The example of some beaches in France was mentioned, where inappropriate beach cleaning methods ruining the dune system. Another important issue is the problem of beaches loosing the battle with nautical tourism, as maritime activities bring more income. There are beaches that also bring income through various facilities and services, but there are those, usually peri-urban ones, that do not create income but require maintenance. A particular problem faces small tourist villages where the beaches are threatened by marines or just plain free mooring. It is well known that a tourist image of a tourist village largely depends on a good beach nearby. If the beach is occupied by vessels the tourist are reluctant to use it and will not return to the destination.

12. The next session was dedicated to brief individual presentations of national beach management policies and practices.

13. Ms. G.M. Elsakka presented the experience of Egypt. Egypt has had the Environmental Law and since 1994 (Law No.4 of 1994). Its Part Three concerns the protection of water environment against pollution from different sources. It also includes the international classification, administrative judicial procedures and penalties. The Coastal Water Monitoring Programme (EIMP) started in 1996 and is managed by EEAA (Egyptian Environmental Affairs Agency - Ministry of the Environment). On a monthly basis, 48 samples are collected and analysed for basic parameters, bacteriology and eutrophication parameters (phase 1). According to the environmental characteristics, the Mediterranean coast of Egypt is divided into four major areas:

- i) The western region: It extends from Salum to W. Nobarja Drainage, and is characterised by relatively low levels of all the measured parameters, explained by a low population and low level of industrial and agricultural influence.
- ii) Alexandria region: Significant increase in the eutrophication parameters concentration was observed in some stations, such as El-Dekhila, El-Max, Eastern Harbour and El Maadi. This area is characterised by industrial, sewage and agricultural discharge. Alexandria beaches are the most crowded beaches of the Mediterranean coast of Egypt.
- iii) Nile Delta region: The high eutrophication level is due to discharges from fresh water outlets from the river Nile, lake Manzala and sewage discharge from Port Said area.
- iv) Eastern region: It extends from Port Said to Rafah and no significant changes have been observed in the concentration of ammonia and nitrate in 2004.

EIMP has achieved its goal by creating updateable data base that includes all the monitoring results of the Egyptian coast. There are notable improvements in the environmental state in most of the stations, with just few exceptions regarding the stations which undergo different kind of activities. The main objective of the EEAA is to improve the environmental quality of those hot spots.

14. Mr. K. Dahil introduced the current situation in Algeria. At the beginning of each summer season, a commission is formed at each coastal willaya with the task to identify and evaluate the state of the beaches and then formulate their observations in a set of recommendations to open or close the beaches. The commission also proposes the limits of the beach surfaces that are to be given in concession. Classification of the beaches is made on the basis of bathing waters, as well as on the basis of the commission's fieldwork report. A beach can be forbidden for use for the following reasons: bad water quality, safety deficiencies, absence of access, and absence of services. Beaches open for bathing must have material feasibility for use and must not present any danger for the users by meeting the following requirements: well marked and maintained access road; organised parking space, away from the beach; adequate sanitary

facilities; life savers and first aid, as well as appropriate facilities; facilities relative to the use of the beach. The legal basis on which beach management lies is composed of: law on protection and appraisal of the coast; law providing general rules for the tourist use of the beaches; decree defining the mandate, organisation and functioning of the willaya commissions charged with deciding where a beach should be closed or opened; decree defining the conditions and modalities of tourist use of the beaches open for bathing. The above mentioned law on protection and appraisal of the coast is a good instrument for the implementation of the national strategy of coastal protection and resource appraisal. It strengthens the national legislation aiming at a better management of a space under intensive use, with ultimate goal of achieving a harmonious development which would help preserve the irreplaceable resources for the future generations.

15. Ms. S. Hadjahmetović presented the situation of Bosnia and Herzegovina. She informed the meeting on the location of their coast and presented the main characteristics of the coastal region. Its most prominent feature is the sewerage system which discharges into the Mljet channel which is in another country (Croatia). At the end of the system there is a wastewater treatment plant (only primary level, without biological treatment) from which the waters are discharged through a submarine outfall (length = 950 m). Neum is the only coastal town and a popular tourist destination. With regard to beach management she pointed out that the recommendations of the World Health Organisation on beach management in Bosnia and Herzegovina were in use starting from the year 2005, and that there was a lot to be done. First of all they need to define the beach space. After that they will have to assess the situation with regard to polluters, as well as clear the situation of property to be able to decide on the duties and responsibilities of each stakeholder. For the time being, they perform regular beach monitoring which includes, among others, sea water quality, microbiological control of sand quality, chemical and physical agents, and hazardous organisms in the water. The beach monitoring and of sea water monitoring are carried out by the Institute for Health Protection together with the sanitary inspection. Ms. Hadjahmetović concluded her presentation by summarising the general situation in the region, as follows:

- incomplete sewerage system and waste water treatment pose the greatest problem;
- one modern sanitary landfill is going to be built;
- pre-feasibility study for waste water and solid waste management of the city of Neum will be prepared.

16. Ms. L. Dravec presented the beach management policy and practice in Croatia. She first briefly described the country and its main features. The most important figures for tourism are the total length of the coastline of 5,835 km, and the number of 698 islands and 1,185 islets and cliffs. Most of Croatian beaches are rocky (75%) or gravelly (almost 25%), while sandy beaches are quite rare. The responsibility for beach management is divided between the Ministry of Environmental Protection, Physical Planning and Construction and the Ministry of the Sea, Tourism, Transport and Development. Legal regulations complement each other creating an integrated approach to the management of the marine environment in Croatia. The legal basis of marine environmental protection is made of Environmental Protection Law (1999), and the Regulation on Bathing Water Quality Standards (1996). The latter was based on: Council Directive of EEC Concerning the Quality of Bathing Waters, Guidelines for Bathing Waters in the Mediterranean (UNEP/MAP), and the Criteria of World Health Organisation. The Regulation defines sampling criteria, methods of examination, and evaluation of the quality of sea on sea beaches. Monitoring of sanitary quality of the sea on beaches is performed primarily with the purpose of protecting the health of bathers and improving public health education. Another important legal document is the Regulation on the Arrangement and Protection of Protected Coastal Area of the Sea. It covers all islands, mainland belt with the width of 1000 m from the coastal line, and the sea belt with the width of 300 m. All beaches are within this area – it is clearly indicated that beaches in Croatia must not be fenced, and that there must be free access to the coast and the passage along the coast. The Book of Rules on Types of Sea Beaches and Conditions They Need to Fulfil determines the conditions the user has to fulfil concerning the arrangement of the coastal part of the beach. The user of the arranged and/or

the natural beach, in case of performing an economic activity of the sea, has to ask for concession in compliance with conditions of the Maritime Domain and Port Act. The user of the beach is obliged to: regulate and secure order on the beach; secure first aid equipment; visibly fence the beach on the side of the sea; provide means for saving bathers and a sufficient number of lifeguards. Croatia has joined the Blue Flag programme in 1998. In 2005 93 beaches were included in the programme. Test results of sea water sanitary quality for the year 2004, were as follows:

- high sanitary quality 21 % of beaches;
- the sea suitable for bathing 74% of beaches ;
- moderately polluted sea 5% of beaches;

The results of the examination and the annual elaboration of data are published on the web pages of the Regions and the Ministry of Environmental Protection, Physical Planning and Construction, as well as in the media. The results are also forwarded to the head office of ADAC, the German automobile organisation, with the objective of informing European tourists about the quality of the sea on our beaches. The ADAC compares the results of the examination of the quality of the sea according to the standards of the EU, emphasising for years that the sea in Croatia is the cleanest in the Mediterranean.

17. Mr. P. Louroutziatis informed the participants of the experience of Cyprus. The beaches of Cyprus, their development, any activities that can be done there, the protection of bathers, the passage of boats, the quality of the sea water, are regulated by laws. The Beach Protection Law that came into force in 1976 keeps development far away from the beaches. The Town Planning and Land Planning Law that came into force in 1990 converted these areas into public green areas and parks. The use of beaches is free for the public unless they want to use services. The cleaning and development of beaches is the responsibility of local authorities. Over the past years, considerable money has been spent on the protection of beaches against erosion. As a tourist destination, Cyprus should improve and expand the lifeguards system and launch a procedure to improve beach services.

18. On the basis of worries expressed by beach users with regard to safety, waste management, quality of bathing waters, facilities and landscape, Mr. D. Moulis presented the state of the Mediterranean coast of France, and particularly of the Languedoc-Roussillon region. In fact, that region has been the object of a global tourism management programme since 1960s which relied on the creation of 5 separate large tourist entities of preserved natural space ("Green oases"). The tourism development activities (marinas, urbanisation, ...) were often implemented in the immediate vicinity of the coast. In certain cases they have aggravated the "natural" withdrawal of the coast and were then accompanied by protection works. Having briefly presented the history of management of that coast and the distribution of responsibilities between the State and the local communities within the decentralisation process, Mr. Moulis explained the implications of beach management, with special reference to coastal erosion. Using concrete examples he presented the evolution, over the past 40 years, of the managers' awareness in the field of techniques and methods to be used in order to control erosion: after a period of massive erosion prevention works between 1960 and 1980, the managers slowly turned towards techniques that respected more the natural functioning (restoration of dunes, sand replenishments, ...) and towards a global consideration of erosion phenomena at the scale of coherent sediment zones. This evolution towards a more integrated coastal management is in course, but there are still important efforts to be done in the future in order to take into account the inevitable sea level rise.

19. Mr. V. Liguori presented the case of Italy. He informed the meeting that the causes of bad management and persistent degradation of many coastal zones of Italy should be sought among the problems resulting from the following: lacking or inadequate information on the state of the coasts and on the effects of human activities; poor coordination among various administrative levels and sectors and the respective policies; insufficient participation and involvement of various stakeholders. In Italy, coastal area management is organised at various levels, from the state, over regions to the local level. The concept of environmental quality has

been perceived jointly with the variables of the productive system. The beaches, as consolidated resources, have not avoided this development process. Re-qualification of offer leads not only to environmental but also structural and receptive improvement, owing to the application of precise criteria. The process started in 1980s with the Blue Flag. More recently, owing to a series of more precise indicators, Italy has arrived at Quality Certificates for the beaches. There are two types of quality certificates: for bathing waters and for the beaches. The Ministry of Health prepares a report on the bathing waters based on numerous parameters, defining the thresholds that must not be exceeded if safe bathing is to be secured. The Ministry of the Environment, together with the organisation "Legambiente" has assessed the quality of the beaches not only from the point of view of water quality but also with regard to receptive services.

20. Mr. V. Axiak presented the experience of Malta. Sandy beaches make up 2-5% of Malta's coastline though people also tend to make full use of other low-lying rocky shorelines for bathing and other recreational purposes. Such bathing areas have been promoted as main tourist attractions, and this has led to relatively large numbers of beach concessions. Other environmental issues include the loss of ecologically important habitats (e.g. sand dunes); intense water sports activities and illegal developments such as building of "boat houses". All such issues will need to be addressed in a national beach management policy which still needs to be developed and implemented. The competent authority for such beach management policy implementation will be the Malta Tourism Authority with other sectoral agencies such as the Malta Maritime Authority, the Malta Environmental and Planning Authority and the Department of Public Health playing complementary roles. The only beach that is presently being officially managed is that at St. George's Bay - though management plans will eventually include other areas such as Bugibba, Qawra and Mellieħa Bay. Local authorities are aware that proper beach management is essential for sustainable tourism and for proper beach use. As such, the development of a sensible beach management policy as well as its full implementation through proper tools is a top priority in the immediate future. Such beach management must be integrated within a comprehensive land and coastal use strategic plan. Proper bathing area registration and evaluation must play a key role in such beach management. However, schemes such as BARE will need to be properly assessed and their applicability to Malta needs to be verified through adequate baseline studies.

21. Mr. S. M. Edali introduced the situation in Libya. The total surface area of Libya is about 1,775,000 square kilometres. The coast extends for 1,950 km along the North-African Mediterranean coast. Libya lies within the so-called "Desert Zone", with no rivers, depending mainly on groundwater and the limited rainfall. According to the 1995 census, the population amounted to about 4.4 million, whereas the present population is estimated at about 5.87 million. The available data indicate a demographic imbalance, with population density much higher in the coastal cities (45 persons per square kilometre), while the density in the interior regions hardly reaches 0.45 inhabitants per sq.km. The urban population increase is constant, and has grown from 57.5% of the total population in 1973 to about 85.39% in 1995. The principal problem of the country is shortage of water. To overcome that a huge, 35 billion US\$ project, called the Great Man-made River was completed bringing the water from ground water reservoirs in the south to more than 4000 km distant coastal area in the north. Along with that system, there are a number of small and medium desalination plants with several large ones underway. To protect the environment and secure additional water supply through reuse of sewage water, treatment plants have been built in most cities and villages of the country. That water has to be used for irrigation. Of great significance for tourism is the fact that about 90% of the population lives in the 25 km wide coastal strip. The Libyan coast has a great potential for the development of tourism with excellent and extensive sandy and rocky beaches, most of which are unfrequented. Efforts to attract foreign tourists have only just started. Apart from the beautiful beaches and scenic attractions (marshes, hills, islands), there is a wealth of cultural and historic heritage (e.g. Sabratha, Leptis Magna, Shahat), and the traffic network is well developed enabling an easy access.

22. Mr. C. Peña Martínez presented briefly the Spanish situation. Beach management in Spain is covered by the Shores Act and the Spanish Constitution which declares the beaches as part of the public property (public domain) of the State. Thus, the responsibility for the beach management is with the Government and the General Directorate for Coasts. The main concerns are:

- To extend the limit established by the Shores Act for the protection zone of 100 m, where buildings for residential purposes are strictly forbidden, to other developed parts of the Spanish coast.
- To fight erosion (most of the Spanish sandy coasts are facing erosion processes) by means of: (i) appropriate management of the sand available at the coastline (e.i. doing by-passes), (ii) supplying sand where natural sources are now ineffective; (iii) controlling ports and marinas in order to make them fulfil their accepted obligations; (iv) performing an exhaustive investigation of the sea bottom looking for suitable sand for beaches.
- To secure public and common use of all the beaches and all the coastal public property.

All this is a legal framework of responsibilities (State, regional government, municipalities), sometimes a bit confusing for the people not involved in the political framework of the Spanish State where, for instance, the Governments of the Regions (Autonomous Communities) are responsible for land-use planning, marinas, leisure ports, water quality and waste disposal. This has led to the need for an agreement between the national and regional governments to implement an Integrated Management Plan of the Coastal Zone. If the agreement is not reached (and sometimes it does occur), any Coastal Zone Management Plan (integrated or not; sustainable or not) can not be realised.

23. Ms. A Bako gave an overview of the existing situation of beaches in Albania. The problems identified are mainly related to pollution, risks and threats of improper development towards the natural values that these areas represent. In her presentation she introduced the actions taken by the Government, based on the identified problems, regarding policies, plans, programmes and specific projects in order to improve the situation in the problematic areas, and to provide proper management of the beaches in Albania.

24. Mr. H. Abdelmalek presented the experience of Tunisia. The Tunisian Agency for the Protection and Management of the Coast (APAL), since its establishment in 1995, has been implementing an ambitious action plan aimed at management and protection of coastal areas, and especially beaches. With regard to the beaches, a pragmatic procedure was prepared and realised through the launching of several actions aimed at: (i) organisation of beach utilisation through appropriate plans (32 such plans have been prepared so far covering approximately 200 km of the coastline); (ii) implementation of beach utilisation plans in cooperation with the local communities, offering thus better conditions for beach users; (iii) treatment of the immediate environment of the beaches. The latter refers to refurbishment of the sea front through the creation of well arranged open spaces which two main objectives: protection of the beach from human pressure; and rehabilitation and revalorisation of the sea front. The programme launched by APAL covers 30-odd such open spaces. The actual work is entrusted to the municipalities, while APAL offers technical and financial support. (iv) Beach management as such: management of the use of the public maritime domain (PMD); control and surveillance of the PMD where APAL has the role of PDM ranger; taking care that facilities and services for the tourists are provided, as well a safety measures; beach maintenance and cleaning - APAL manages the national commission for coastal tourism environment and takes care of the cleaning of the majority of public beaches (some 100 km), while the remaining beaches are the responsibility of municipalities and tourism services; water quality control and monitoring (a national programme has been implemented since 1992 by the Public Health Services, envisaging regular sampling at 500 points along the coast enabling physical-chemical, bacteriological and heavy metals analyses).

25. Mr. A. Williams made a presentation on coastal scenic evaluation. Coastal areas of the world are under threat due to the forcing function of people who flock to the coast for habitation

and/or recreation. This squeeze affects an extremely strategic asset – the coastal scenery itself. Coastal managers together with planners need coastal landscape inventories in order to base sound management decisions on ascertained facts. Today, most scenic assessments have been carried out on a subjective basis. The present scenic assessment study has a checklist that itemizes 26 parameters (comprising physical, and human parameters), as a first step in quantifying scenery on an objective basis. These parameters were obtained by consultation with coastal experts and beach users (>500) and coastal scenery investigated at *circa* 100 sites in Europe. Each parameter was rated on a five-point scale, essentially covering presence/absence or poor quality (1), to excellent/outstanding (5). Parameter preferences and priorities obtained by a perception study were weighted pre application of a fuzzy logic systems/matrices approach relating to the selected landscape components, in order to reflect the importance of the various parameters. This enabled 'grey' areas to be incorporated into the evaluation in a consistent and objective manner. Results enabled histograms of weighted averages for the various attributes to be drawn as well as graphs for membership degree attributes for any coastal site. Membership degree figures gave the overall result of scenic assessment over attributes. High weighted averages for attributes 4 and 5 (excellent/outstanding) reflected high scenic quality. An Evaluation Index value (D) enabled scenic differentiation into the following classes:

CLASS 1: Extremely attractive natural sites with a very high landscape value, having a D value > 0.85.

CLASS 2: Attractive natural sites with high landscape values with a D value between 0.65 and 0.85.

CLASS 3: Mainly natural sites with little outstanding landscape features with a D value between 0.4 and 0.65.

CLASS 4: Mainly unattractive urban sites, with low landscape values, with a D value between 0 and 0.4.

CLASS 5: Very unattractive urban, intensive development sites with low landscape value and a D value < 0.

26. The presentation by Mr. Williams was followed by a discussion in which the objectivity of evaluation was questioned, and one participant stated that is something were subjective, expressing it in numbers would not make it objective. Mr. Williams replied that, if a majority of people agreed on something it made it valid. Participants also questioned some aspects of the research, such as the composition of the questionnaires, and manipulation of mathematics. The reply was that the research use random selection of beach users and that the end results showed no significant differences with regard to their age or sex.

27. Mr. A. Micallef, an expert in beach management engaged by PAP/RAC, presented an introduction to the Bathing Area Registration and Evaluation (BARE) technique. He explained how currently available beach rating procedures and award schemes tend to focus on single or few issues of concern to beach users, consider too many issues making the approach cumbersome, ignore the nature of varying beach types and individual beach type requirements, focus on the beach itself rather than the more holistic vision of a bathing area (including that area within walking distance and generally visible from the beach) and, more often than not, stop short of integrating concerns into an effective beach management tool. Mr. Micallef went on to describe how the BARE approach differs from other beach rating / award schemes, namely by:

- Evaluating not only the beach itself but the bathing area as a whole (i.e. the beach together with that area within walking distance and generally visible from the beach).
- Considering a wider variety of beach types other than resort and urban.
- Classing bathing areas according to a rating system that focuses on five main beach-related issues that have been shown to rate highly in beach user preferences and priorities.

- Providing a final bathing area classification not only as a guide to beach choice or an incentive for enhanced advertising potential but primarily as a tool to identify priority needs in management.

Mr. Micallef concluded by elaborating the main objective of the Bathing Area Registration & Evaluation System (BARE), that involves the elaboration of a system having enhanced scope for management intervention. It was described as representing a powerful tool able to:

- Contribute to overall beach user safety.
- Assist local management in selecting issues requiring priority intervention not only in terms of improvement but also through monitoring.
- Provide beach users with an opportunity to make a better-informed choice of bathing areas.
- Provide decision makers with a tool to better gauge the quality of their bathing areas and the necessary improvements for their upgrading.
- Provide local authorities (e.g. Local Councils) with a system reflecting criteria that may be used for more effective promotion of the bathing areas under their jurisdiction.

28. Mr. Micallef continued by presenting the pilot studies carried out in Croatia, Spain and Tunisia. He stressed that the pilot studies carried out utilising the BARE technique were not in any way intended to compare the level of beach management in each country but that the prime aim of the field study visits was to assess the applicability of the current version of the BARE technique, and to add, subtract, adjust parameters in order to make it a more versatile, accurate and applicable methodology to many diverse areas. Field visits were carried out at 33 sites in Croatia, 27 Tunisian bathing area sites and 27 sites along the Spanish (Andalusia) coast. Several of these were representative of much more extensive but similar areas (e.g. in Tunisia, this was especially noticeable in resort areas such as *Sousse* and *Monastir*, the sites evaluated in Spain were representative of the entire Andalucian coast. The surveyed coast in Tunisia stretched from *Sfax* in the south to *Bizerte* in the north, covering a distance of circa 500km; In Croatia, from *Dubrovnic* to *Split* (including some island sites > 210km) and in Spain from westerly Algeciras to the eastern tip of Almeria (approximately 450km). A breakdown of sites evaluated included 6 resort, 10 urban, 3 village, 5 rural and 3 remote bathing areas in Tunisia; 6 resort, 5 urban, 12 village, 9 rural and 1 remote bathing area in Croatia and 1 (questionable) resort, 8 urban, 6 village, 8 rural and 4 remote bathing area sites in Spain. One of the outstanding features noted with regard to bathing areas in Spain was the impact of the Lei de Costas. The latter so effectively safeguards coastal access to the public that it effectively prevents the establishment of 'Resort type' beaches in this country. Mr Micallef described the general observations of the pilot studies. Concerning water quality issues, absence of information boards denoting whether a beach was monitored for water quality and/or posting of water quality presents a stumbling block to any on-site beach quality evaluation and necessitates access to official Government public-domain records. This also reflects a failing in providing the general public/tourist with basic information (at resort, urban and village) regarding the safety of bathing waters. Easily accessible (in print or via internet) summaries of national bathing water quality results were found to be highly valuable as a direct input to the current bathing area evaluation exercise. Water quality in village beaches should also fall under the scrutiny of national water quality monitoring regimes. With regards to safety issues, the surveys raised doubts regarding the requirement of emergency telephone facilities as a safety related parameter. The evaluation table for safety parameters at urban and village bathing areas should be re-designed to better reflect importance of individual safety-related parameters. The pilot study clearly reflected the need to re-structure the current BARE section dealing with availability of facilities. It was shown that it is necessary to distinguish between facilities available in resort and urban areas, which currently are addressed in a single evaluation table. This would involve re-evaluating the facilities in both areas in question. Results suggested that for urban bathing areas, the evaluation table for facilities is currently too stringent resulting in an unjustifiable lowering of rating score. The section concerning the availability of Facilities on Urban Beaches should be revised on several issues to better reflect regional differences that were encountered in the field. The need to improve definitions for bathing area types as a consequence of ribbon housing development which tends to lower the distinction between rural – village – urban areas

was also identified. Mr. Micallef went on to describe specific amendments that were made to the BARE technique as a consequence of field observations made during the pilot studies. He also described a number of gaps identified in beach management. These included a clear need for formulating general beach management guidelines for easy reference by Mediterranean coastal states and the need to confirm beach user preferences and priorities in individual Mediterranean counties to identify any regional disparities.

29. In the discussion that followed the participants made compliments to the team for the hard work they had performed. Several issues were raised, such as: difficulties in classifying some beaches as they do not fit in the offered scheme; taking beach erosion into consideration; importance of lifeguards; future use of the technique. Regarding the time of the year when the surveys were made, the authors explained that the season certainly affects the results, but at this stage their interest was not in the results but in testing the technique. As to who should collect and use the data, it was stressed that the intention was to provide a tool for managers to be able to identify gaps and improve the beaches, but, if deemed suitable, the results could be used for promotional purposes.

30. For the ease of communication, the discussion continued with the participants split into two groups, one English speaking and the other French speaking, chaired by Mr. Williams and Mr. Micallef, respectively.

31. Eventually, the two groups were joined again and the results of the group discussions were presented. Various issues were raised and replies provided by the authors. One of more interesting questions was whether the intention was to improve the tourism product, the environment or both. The answer was both, naturally, as tourism could not work in bad environment. An issue that deserved a great attention of the participants was financing of beach management measures. While urban beaches are to be maintained by the municipalities, using, among others the revenues from the tourist taxes, the questing was who should maintain remote beaches. The conclusion was that the remote beaches should receive some level of management. Similar applies to the problem of litter. Namely, some resources should be found to remove the litter from all beaches, along with the action targeted at consciousness of the beach users through education programmes. The discussion resulted in a set of conclusions and recommendations presented in the Annex V.

32. Concluding the work in the workshop, Mr. Micallef thanked all the participants for their efforts and contribution to this important initiative and wished them safe flight home.

33. Mr. Trumbić extended hopes that the experience exchanged in the workshop would be useful for the participants' future work. He promised that PAP/RAC would continue its efforts in the field in the coming biennium, hopefully in cooperation with ICOD, whom he thanked for the efforts made to organise the workshop. He also thanked all the others that contributed to the workshop's success, the Foundation for International Studies, Messrs. Micallef and Williams, ICOD and PAP staff, and, last but not least, the participants whom he wished safe trip home.

34. Mr. Micallef also thanked everyone for their efforts and declared the workshop closed on June 11 at 17:30 hrs.

ANNEX I

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ANNEX II

Agenda

Friday, June 10

- 09:00 **Registration of participants**
- 09:15 **Welcome Address** – The Hon George Pullicino, Minister for Rural Affairs and the Environment.
- 09:30 Address by Mr. Lino Briguglio, Chief Executive Officer, Foundation for International Studies
- Introduction to the workshop** – Mr. Ivica Trumbic, Director, PAP/RAC
- Address by Mr. Anton Micallef, Director Euro-Mediterranean Centre on Insular Coastal Dynamics
- 10:30 **Review of Beach Ratings and Award Schemes; including beach user preferences and priorities** - Mr. Allan Williams, Project Consultant
- 11:30 **Session I a**: Brief (10 mins) individual participant presentations of national beach management policy and practice.
- 11:30 **Egypt** – Ms. Gehan Mohamed Elsakka
- 11:40 **Algerie** – Mr. Kamel Dahil
- 11:50 **Bosnia and Herzegovina** – Ms. Sabina Hadziahmetovic
- 12:00 **Croatia** – Ms. Ljiljana Dravec
- 12:10 **Cyprus** – Mr. Panikkos Louroutziatis
- 14:30 **Session I b**: individual presentations continued
- 14:30 **France** – Mr. Didier Moulis
- 14:40 **Italy** – Mr. Vincenzo Liguori
- 14:50 **Malta** – Mr. Victor Axiak
- 15:00 **Libya** – Mr. Sobhi M Edali
- 15:10 **Spain** – Mr. Carlos Pena Martinez
- 16:00 **Session I c**: individual presentations continued.
- 16:00 **Albania** – Ms. Alma Bako
- 16:10 **Tunisie** – Mr. Hassouna Abdelmalek
- 16:40 **Discussion**
- 17:00 **End of Day 1**

Saturday, June 11

- 09:00 **Session II: Bathing Area Registration & Evaluation (BARE) Technique.**
Introduction to the Bathing Area Registration & Evaluation (BARE) technique - Mr. Anton Micallef, Project Consultant
- 09:45 **Presentation on Coastal Scenic Evaluation** – Mr. Allan Williams
- 11:00 **Report on Pilot Studies carried out in Croatia, Tunisia and Spain** - Mr. Anton Micallef
- 11:30 **Open discussion** for individual reaction to BARE followed by group breakout sessions chaired by Mr. Anton Micallef and Mr. Allan Williams
- 14:00 **Group Discussions** continued.
- 15:00 **Report** on group discussions.
- 16:00 **Presentation of Phase III** - Broader scoped 'snapshot' evaluation of Mediterranean beaches.
- Concluding Remarks**

ANNEX III

Speech delivered by Mr. L. Briguglio, Chief Executive Officer of Foundation for International Studies

The Foundation for International Studies, set up in 1986, is the international relations arm of the University of Malta, a status instituted formally by Statute in 1994. It is an autonomous, self-governing organisation housing the University of Malta's international office and hosting a number of institutes which have an international vocation.

Devoted to the pursuit of research and training in various fields of interest, the Foundation's role is to stimulate debate on an international level. Through appropriate agreements and the provision of a permanent secretariat, the Foundation collaborates with national and international bodies which share its objectives.

The Rector of the University is the Foundation's Chairman. The Foundation's funding is mainly self-generated through the organisation of international conferences and short courses. It receives a small grant from the government, which in 2002, was equivalent to 10% of the annual turnover.

Mission Statement

The mission of the Foundation is to promote Malta as a hub for international studies particularly in the natural and social sciences, assisting the Government of Malta, and the University of Malta in its international affairs.

To fulfil its mission, the Foundation:

- initiates research and training activities;
- provides an avenue for international academic activities;
- publishes research findings for development;
- brings together researchers and scholars from all parts of the world;
- provides an opportunity for everyone in Malta to explore ways to widen their cultural perspectives.

Objectives

To fulfil its remit the Foundation aims to:

- promote research and training in international studies, particularly in the fields of physical and cultural environmental protection, European and Mediterranean affairs particularly intercultural dialogue and human rights, islands and small states issues, and the common heritage of mankind, and to undertake projects in the fields listed above;
- to cooperate with national and international bodies, organisations and individuals concerned with, or engaged in, the areas specified through appropriate agreements and the provision of a permanent secretariat when required;
- to organise seminars, conferences and summer school programmes;
- to publish books, journals, reviews and research findings relevant to the various programmes and projects run by the Foundation.

Centres within the Foundation for International Studies

The Islands and Small States Institute

The Islands and Small States Institute promotes research and training on economic, social, cultural, ecological and geographical aspects of islands and small states. It also offers post-graduate courses on islands and small states studies.

Based at the Foundation for International Studies at the University of Malta, the institute evolved from the Foundation's Islands and Small States Programme which had been set up in 1989. In 1993, the Programme was restructured as an Institute with the principal aim of enabling the organisation to offer academic courses.

International Environment Institute

The International Environment Institute, established in 1987, aims to foster respect and concern for humankind, present and future, and for the environment in its broadest sense: natural, urban and socio-cultural. The Institute conducts training, research and networking activities on a variety of environmental issues.

And last but not least:

Euro-Mediterranean Centre on Insular Coastal Dynamics (ICOD)

The Institute's Director, Dr Anton Micallef might wish to elaborate further on the Euro-Mediterranean Centre on Insular Coastal Dynamics during his presentation, after the introduction to this Workshop which is being jointly organised by them and the Priority Actions Programme, Regional Activity Centre of the Mediterranean Action Plan – UNEP.

ANNEX IV

Speech delivered by Minister for Rural Affairs and the Environment George Pullicino during the Regional Workshop on the State of Beach Management in the Mediterranean

I welcome you to this event organised by the Euro-Mediterranean Centre on Insular Coastal Dynamics on behalf of the Priority Actions Programme Regional Activity Centre of the Mediterranean Action Plan.

It is with great pleasure to welcome this working relationship between Malta and the PAP/RAC following the successful implementation of the CAMP Malta project that was finalised in 2002. That exercise highlighted the need for action towards beach management especially with regards to Tourism and Health.

The need for appropriate measures to manage Mediterranean beaches is recognised, yet the actions employed in implementing such measures are not always easy to undertake especially if a sectoral approach is undertaken and actions focus either on providing facilities for visitors or deal only with habitat protection.

Beaches are dynamic coastal areas and their equilibrium can be easily offset by inappropriate action that does not address the beach as a natural system. The sediment processes ensure that the beach itself acts as a buffer for coastal erosion. Important habitats are associated with beaches both on land where sand dunes shift and grow and underwater where sand provides an ideal habitat for sea grasses, namely *Posidonia oceanica*. The species that are found on Mediterranean beaches, as you well know, are various, with periodic visitors such as sea turtles, where beaches provide the ideal nesting grounds to ensure the continuation of the species.

But there are other migrant visitors, that travel large distances at times and in their millions, in search of these beaches. Tourists seek adequate space on the beach on which they can soak up the sun and an unpolluted sea in which they can bathe and partake in water sports.

The Mediterranean is the world's leading tourist destination, accounting for one third of international tourism with the sector topping the list of foreign currency source in the region. Mediterranean coastal areas have been modified and altered for decades, to accommodate the needs of the tourism sector and in most cases have led to negative impacts on the natural processes and systems through the discharge of untreated sewage, the loss of sandy beaches and the continuous threat to local and regional biodiversity. This development has also led to a gradual deterioration of the Mediterranean coastal landscape and character, in itself a source of attraction to the visitor.

The responsibility to ensure a continuous improvement in economic performance whilst safeguarding the region's biodiversity is ours; pro active measures to ensure a quality tourism product that respects the natural environment goes a long way in securing return visits especially if we keep in mind that there is an estimated doubling of tourism fluxes over the next twenty years. In recent years, tourism itself has produced a strong incentive for the protection of the landscape and the improvement of the quality of the environment.

The actions through which sustainable beach management can be implemented and is visible on the ground are manifold if a holistic approach is to be employed. A sound understanding of the characteristics of individual beaches in terms of the physical environment, land and sea uses can lead to a better understanding of the potential economic benefit that beaches can contribute to the respective nations and Mediterranean region as a whole.

Planners and environmental managers alike are constantly attempting to develop tools that can assist sustainable beach management to ensure better water quality, address litter management, ensure safety and safeguard important coastal habitats. I believe that this regional workshop will go a long way in building regional capacity for effective beach management through the novel technique to be presented.

ANNEX V

Conclusions and Recommendations

1. There is a strong need for harmonization of beach management in the Mediterranean.
2. The Bathing Area Registration & Evaluation (BARE) system should expand its beach registration section to better reflect a site's features of ecologic importance and investigate how best to consider the impact of ecological sensitivity on beach quality ratings as currently evaluated by the proposed system.
3. Remote, rural and village beaches should not be marginalized but given appropriate recognition as candidates of high value tourism products.
4. Especially on ecologically sensitive beaches, mechanical beach cleaning should not be used but replaced by hand litter collection.
5. The Bathing Area Registration & Evaluation system should investigate the potential integration of beach erosion into the current beach quality rating system, whereby erosion impacting on beach use is negatively penalized and corrective nourishment (carried out in an environmentally sensitive manner) rewarded.
6. The Bathing Area Registration & Evaluation (BARE) system holds a strong potential as an effective beach management scheme which may be used at both local and regional level by local planners / beach managers to:
 - establish baseline beach quality status
 - Identify problem issues
 - Carry out necessary improvements towards enhancement of beach quality.
 - Used as a self-checking mechanism to evaluate effectiveness of ongoing management.
 - As an input to beach concession contracts to specify a level of beach quality to be reached / maintained by the concession holder.
7. Beach user preferences and priorities in individual Mediterranean counties should be confirmed so as to identify any regional disparities.
8. The Bathing Area Registration & Evaluation (BARE) system should form an integral part of Beach Management Guidelines that should be developed by the Priority Actions Programme /Regional Activity Centre (PAP/RAC) in Split as a follow-up to existing Coastal Management Guidelines for this region.