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# **MedOpen – a virtual training course on ICZM**

## **2012 Advanced Course Final Report**

MedOpen/2012/AC  
MAP/Priority Actions Programme  
Split, November 2012



**MedOpen – a virtual training course on ICZM**  
**2012 Advanced Course on ICZM with the focus on ICZM Process**

## **Introduction**

Priority Actions Programme/Regional Activity Centre (PAP/RAC) of the Mediterranean Action Plan (MAP) has been developing the activities in the field of Integrated Coastal Zone Management (ICZM<sup>1</sup>) in the Mediterranean for more than 30 years. The implementation of MAP Coastal Area Management Programmes (MAP CAMPs), practical coastal management projects in selected Mediterranean countries, triggered numerous training activities for PAP/RAC - in 2004 the MedOpen, an on-line ICZM training course in the Mediterranean, was developed for the first time. This course improved the Mediterranean networking activities in the field of coastal management, and successfully promoted the use of the Internet among the coastal management practitioners in Mediterranean countries.

In 2010, the 2<sup>nd</sup> run of MedOpen was initiated. This run was of significant importance, particularly because of the turning-point in the Mediterranean coastal zone management – the development, signing and ratification of the ICZM Protocol. The elaboration of the ICZM Protocol was included into the MedOpen 2010/11 lectures, which helped the dissemination of knowledge on its importance.

The MedOpen training course aims to assist the Mediterranean countries in building capacities for coastal management. It has been globally agreed that the ICZM is an optimal approach to a successful coastal management, and therefore, such an approach was used in this training course. The main advantage of the MedOpen training course is that it is an internet-based training, completely free-of-charge and opened to all those who are interested in coastal management.

The target users of MedOpen are decision makers (at the local, national, regional and international level), policy advisors, project managers, staff and experts from international organisations and institutions, academic researchers, students, and all others interested in coastal management.

The main objectives of the MedOpen Course can be summed up, as follows:

- to promote Integrated Coastal Zone Management (ICZM) as a sustainable approach to coastal management;
- to present the basics of ICZM, benefits of using this approach, actors and responsibilities, legislation and finances needed, a way to prepare and implement the ICZM projects, tools, techniques and methods that may be used, as well as good practices in coastal management;
- to provide an open and free-of-charge training opportunity for those involved or interested in coastal management;
- to provide candidates with the opportunity to experience a simulated coastal management situation and participate in finding practical sustainable solutions;
- to improve the Mediterranean coastal management networking and to promote the Internet among coastal management practitioners in Mediterranean countries.

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<sup>1</sup> ICAM or ICM are sometimes also used for acronym

## **About MedOpen 2012 Advanced Course**

The Capacity Building Plan and the Steering Committee meeting held in Barcelona in March 2012 gave a “green light” to conduct the MedOpen 2012 Advanced Course. The 2012 MedOpen Advanced Course was in the first place intended for the PEGASO partners. The main objective of the Course was to get acquainted with the ICZM in general but in more detail with the ICZM Process being crucial for the implementation of pilot projects in the PEGASO CASES.

The total of 35 candidates applied for the Course until 18 April 2012, which was the application deadline. By the end of the Course, three candidates reported that they were not able to follow up with the Course due to their professional commitments and daily workload. The Course started with its lectures on 14 May 2012 and lasted 13 weeks. The week 13 started on 3 September instead of on 6 August due to summer break, which was used by candidates for their Final Essay preparation. By the end of August and beginning of September, five candidates asked for the extension of the Final Essay submission deadline from 3 to 7 September, which was accepted by the MedOpen team.

A particular value of this-year MedOpen Advanced Course lies in the wide range of candidates’ backgrounds, including: marine geology, applied and experimental ecology, oceanographic biology, marine biology, spatial planning, economic sciences, ocean policy research, ethnology, engineering and economics, environmental sciences, geographic, forest engineering, fisheries biology, earth sciences, marine sciences, marine ecology and soil sciences. Although it may seem that this makes the communication difficult, it has successfully contributed to the multidisciplinary approach to ICZM, by opening the door to the interdisciplinarity.

The candidates also had the strong and above average academic background. Most of them hold a university degree of who eight hold a PhD and six hold an MSc degree. Two are postgraduate students, while the others have not specified their degree. From the point of view of their occupation, the majority of the candidates work for their national institutes, universities or research centres.

Most of the candidates came from the Mediterranean countries, i.e. two from Croatia, two from Egypt, nine from Greece, one from Italy, two from Lebanon, two from Morocco, two from Spain and one from Turkey. As for the others, two came from Georgia, one from Japan, six from Romania, two from Russia, one from Ukraine and one from Qatar.

## **MedOpen 2012 Team and Administration**

Mr. Yves Henocque and Mr. Brian Shipman were engaged as Lecturers of the MedOpen 2012 Advanced Course with Mr. Henocque as a Head Lecturer. They both administrated the topics for discussion *via* MedOpen Forum and moderated the Forum discussions. The Simulation Game was co-ordinated by Mr. Gonzalo Carlos Malvárez García. The Project Co-ordinator was Ms. Branka Barić. More information on the MedOpen Advanced Team can be found in Annex I. A list of MedOpen Advanced candidates is attached as Annex II to this Report. A Syllabus for the MedOpen 2012 Advanced Course is contained in Annex III.

The Final Essays were evaluated by Mr. Henocque (see Annex IV). Mr. Henocque’s Final Report, including the MedOpen 2012 Advanced evaluation and ideas for future, is contained in Annex V, while the Simulation Game elaboration and evaluation were prepared by Mr. Malvárez García (see Annex VI). The post evaluation of the Course prepared by lecturers and some of the participants is included in Annex VII. Discussions on the topics (from the

MedOpen Forum) are contained in Annex VIII, while communications during the Simulation Game (including detailed step-by-step instructions to students) are attached as Annex IX.

The MedOpen Advanced training course used mainly the PAP/RAC published materials, as well as different BP/RAC, CP/RAC, REMPEC, MCSD, EC, and other materials. All materials are referenced within the text of the lectures. Some Simulation Game materials were revised and updated by Mr. Malvárez García.

### **MedOpen Communication Tools (Advanced Forum and Google Docs)**

The **MedOpen Advanced Forum** was set up as a place where candidates and the MedOpen Team can exchange their ideas and discuss about the lectures and coastal zone management in general. The Forum started on 14 May 2012, with the *Welcome* topic prepared jointly by the three lectures.

A series of discussions, initiated by the Forum moderators, followed after each week of lectures. The topics were based on the Advanced lectures and included a broad discussion and some specific stimulating questions for the participants (see Annex VIII).

In addition, a Forum for development of the Practical Simulation Game was opened by the Simulation Game moderator on 25 May 2012. This space was used for most communications during the Simulation Game from week 5 (11 June) of the MedOpen Advanced Course (see Annex IX).

The **MedOpen Google Docs** was also a place for information exchange among the candidates and the MedOpen Team. The login names and passwords were given to the Advanced candidates and lecturers so that they could exchange the documents among themselves. It has also proven to be useful in communication – the candidates have uploaded their Final Essays on MedOpen Google Docs.

### **Final Essays assessment and conclusions**

**(prepared by Y. Henocque, Head Lecturer and Forum Discussion Moderator)**

Nine Final Essays in total, two of which were a result of a joint work – which is a novelty in the Final Essays preparation, were prepared by 12 candidates. This was a good average when compared with previous MedOpen Advanced runs. Also, the subjects for the Final Essays were excellently chosen.

Interestingly, most of the Final Essays are based on local case studies, which makes the ICZM approach much more focused but not always well articulated at the bigger scale following the “putting into context” principle in regard to the political, institutional, economical, participatory, as well as knowledge processes. Trajectory of change through the sites history is generally well covered through the governance response (institutional analysis, stakeholders’ participation) if often missing leading to a kind of gap between a well described past and current situation and poorly articulated new proposals, as if it were like building up on scratch. Besides urban development, the first sector at stake is tourism, which reflects the actual situation on most of the Mediterranean coast but which leads to the diversification of activities issue. To this Mediterranean feature, one could oppose the Japanese case with the sector of fisheries coming first and at the origin of most of the local ICZM-like initiatives. Fisheries, maritime transport, extraction activities, port development, etc., are still poorly considered within the ICZM approach. Lastly, though it has been mentioned in some of the

Essays, almost no reference is made to the principles, objectives and tools of the Mediterranean ICZM Protocol<sup>2</sup>.

The Final Essays submission was followed by detailed comments made on the Essays by the Head Lecturer, as well as by responses from the candidates to these comments (see Annex IV).

### **Forum discussions assessment and conclusions (prepared by B. Shipman, Lecturer and Forum Discussion Moderator)**

There are a number of broad conclusions from the use of the Forum:

- The Forum received a very high “viewing” level - over 3,700 hits to just 13 topics from the registered subscribers of students and lecturers, indicating a very high level of readership by the 35 students.
- The quality of discussion was generally high, with a number of particularly challenging posts.
- The overall respondees to the topics are restricted to only a small proportion of students (33%). A total of 46 postings were made by students, and a further 38 by lecturers.
- The level of activity declined drastically over the course. This can in part be attributed to the start of the Simulation Game, the loss of a number of students, and the beginning of the summer holidays. No feedback is available from the students on the value of the Forum. The late peak was in response to the Final Essay topic, rather than Course contents.

The timing of the course so close to the summer break affects the overall use of the Forum. Students focus their on-line activity to the Simulation Game. The purpose of the Forum is not clearly described and does not strongly encourage participation. The result being that, apart from a small minority, students focus on other essential course components. The quality of discussion was however very high. It would be useful to receive student feedback on the contents and value of the Forum.

In order to keep the communication activities with the Advanced Course certified candidates alive, as well as to ensure a common place for exchange of experience for the good of their work, and even for their future activities, the creation of a MedOpen *alumni* network within the PAP/RAC MedOpen website would be useful, too.

### **Simulation Game assessment and conclusions (prepared by G. Malvárez García, Simulation Game Co-ordinator)**

The Simulation Game is heavily based on participation in group work and requires that a set number of students are consistently networking for the duration of the exercise.

The success of the Simulation resides in cohesive group work given that it is the intense feedback generated in the decision-making progress that intensifies the performance of students as well as stimulates communication with tutors searching for new answers to issues that in the theory component may not have been discovered.

The PEGASO MedOpen 2012 Simulation Game exercise was successful with a very minority of students in the group due to:

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<sup>2</sup> The Final Essays submission was followed by detailed comments made on the Essays by the Head Lecturer, as well as by responses from the candidates to these comments (see Annex IV).

- Severe difficulties in the use of the Forum have hampered to some extent student to student communication and proved the wrong vehicle for document exchange.
- Document exchange tool that was not used by students to provide documents (in the Simulation Game).
- A few students took all the initiative and imposed a pace that was leaving behind others and severe fading was noticeable from those who could not keep up.
- Work load and pace was perhaps above average for a part-time course for professionals.
- There is a marked enthusiasm from those in the Simulation who are working in the leading institution (PAP/RAC) in MedOpen, which was predictable.

Given the above, the marks reflect an almost binary black and white distribution with those who did something scoring top marks and all the rest reflecting absolutely no activity.

### Assessment of candidates' overall work

The overall work of the candidates was assessed by taking into account their participation in the Forum discussions and Simulation Game, as well as their Final Essays. A number of 15 candidates in total have successfully completed the MedOpen Advanced Course. The grading of candidates' overall work is presented in the table below.

No.	FINAL ESSAY	SIMULATION GAME	PARTICIPATION TO THE FORUM	FINAL GRADING
1	na	na	Fair	Fair
2	na	na	na	Unattended
3	na	na	na	Unattended
4	na	na	na	Unattended
5	C	na	na	Fair
6	na	na	na	Unattended
7	C	na	na	Fair
8	A	A	Good	Excellent
9	na	na	na	Unattended
10	na	na	na	Unattended
11	B	A	Fair	Good
12	na	na	na	Unattended
13	na	na	na	Unattended
14	na	na	na	Unattended
15	na	na	na	Unattended
16	C	na	Good	Fair
17	na	na	na	Unattended
18	na	na	na	Unattended
19	na	na	na	Unattended
20	na	na	na	Unattended
21	B	A	Excellent	Excellent
22	na	na	na	Unattended
23	B	A	Excellent	Excellent
24	B	A	Excellent	Excellent
25	na	na	na	Unattended
26	na	na	na	Unattended
27	C	A	Good	Good
28	na	na	na	Unattended
29	na	A	Fair	Good
30	D	B	na	Good
31	na	na	na	Unattended
32	A	A	Excellent	Excellent
33	na	na	Fair	Fair
34	na	na	na	Unattended
35	B	na	na	Good

\*na = No record of Activity

## Conclusions and ideas for future

MedOpen, a virtual training course on ICZM in the Mediterranean, proved to be a very successful tool in disseminating knowledge on integrated coastal zone management. Apart from improving the Mediterranean networking activities in the field of coastal management, it successfully promotes the use of the Internet among the coastal management practitioners in the Mediterranean and other countries.

In their reports on MedOpen Advanced 2012 (see Annex V and Annex VI), Mr. Henocque and Mr. Malvarez pointed out some potential improvements for the future editions of the MedOpen training course. The summed-up recommendations are as follows:

### Mr. Y. Henocque:

- Each participant could be asked to prepare a **“learning agreement”** which would outline his/her professional development goals and priorities for the course. These agreements could be formally signed by the participants and later posted on Google docs. This would stimulate participants to encourage the discussion of progress on their learning goals with their advisors, to suggest certain adjustments and help participants in developing new priorities.
- During the selection process, each participant could be charged with selecting a **mentor**—an experienced coastal management professional (from their home country) who will encourage preferably in-person discussion all along the MedOpen training course. The purpose is to link the participants with experienced coastal managers who could advise and coach the participants throughout the course in order to provide participant-specific benefits in their professional development, and to add momentum to building an expanding network of coastal management experts in the region.
- A survey could be submitted to the participants at the end of the first month, asking participants to identify their predominant or preferred style of **leadership and management**.
- In order to give more stake to the final essay, at the beginning of the course, participants could be advised of a voluntary competition to design and implement a small **coastal management project** costing no more than US\$3,000. The best three proposals would be awarded funding for implementation of their outlined projects.
- It is highly recommended to conduct a **post-course evaluation** to assess how participants applied the skills and knowledge acquired during the course. Two questionnaires would be formulated: one to be sent to the participants, and one to the participants' mentors.
- Impact assessments (surveys) could be distributed to course participants at approximately six to nine months after the end of the course, and then again at the 15 to 18-month mark. These surveys will seek to assess longer-term ability of participants to use in their work the professional ICZM practice and the project management knowledge, skills, and tools acquired or strengthened by the course. Equally important, these surveys would seek to assess what impact participants' strengthened skills are having on their larger organizations, projects, or programmes. As well, they would seek to assess changes in “softer” targets of the course— e.g., course impact on the participants' attitudes, viewpoints, and critical thinking skills on key issues facing ICZM at the local, national, or regional levels.



Lastly, impact evaluations would assess (hence contribute) the attempt made at creating a more active regional network of ICZM practitioner/experts - a network that stimulates the sharing of knowledge, experience, and skills in the region.

- The 18-month post-course evaluation would include an additional section for those three individuals who were awarded funding for their **service projects** (see recommendation above). This section would seek to assess how well this element provided additional opportunity to practice the knowledge, skills, and attitudes from the course in a situation where they had full control over the design and implementation of the project from start to finish.

Mr. G. Malvarez:

- One element that may be of significant improvement for future editions of MedOpen (in particular for the Simulation Game) is the utilisation of **Learning Management System** - a software package that supports the management and delivery of learning content and resources to students via web (such as Moodle or WebCT software). This kind of system may also allow student registration; the delivery and tracking of all the components of the e-learning course and content; assignment and marking; and instructor-led training classes in real time communication virtual classrooms.
- It would be desirable to establish a well structured **Teaching Agreement** (Guidelines) as a way to formalise the commitment between students and instructors. The teaching agreement should include a Module/Subject Guide including at least the following section:
  1. Key Information (Instructor, dates, level, expected outcomes, etc.)
  2. Introduction to the Simulation Game (Practical Module)
  3. Intended Learning Outcomes
  4. Outline Delivery (attendance requirements)
  5. Assessment (description and dates)
  6. Assessment Criteria and Marking Standards
  7. Assessment Offences
  8. Learning Resources
- It is envisaged that a key role in Simulation Game would be played if there were **teaching assistants** (Mentors) who would help to make the practical part of the work more dynamic. The mentors would be assigned to groups of students and operate as motivators and controllers in order to help students keep the momentum and ensure timely and correct delivery of the set outcomes.
- The development and implementation of **Teaching Quality** survey, which would help in assessing and identifying students' preferences and enables quick feedback. The quality survey, to be deployed at the end of each section of the program shall include questions related to mentor and instructor's performances during the delivery.
- At the end of group of lectures (Modules or parts of the Simulation Game) the students will be asked to complete a brief questionnaire, evaluating the extent to which the module has fulfilled its objectives.



## **ANNEX I**

### **MedOpen 2012 Advanced Course Team**

#### **Mr. Yves Henocque, Head Lecturer**

First trained as a scientist (marine ecology) who then acquired management and international cooperation skills (to start with in Japan and South-East Asia) through technical training and professional practice, it was from the very beginning of the 1990s that Dr Yves Henocque has settled in the Mediterranean to start a new coastal environmental laboratory within the French Research Institute for Sustainable Development of the Sea (IFREMER) in Toulon. After a dedicated vocational training in the United States in 1994, he started practicing integrated coastal management (ICM) and strategic planning in the Mediterranean and other marine regions like the Indian Ocean (1995-2000). More recently, he expanded his experience in Thailand (Department of Fisheries) as the Team Leader and Co-Director of CHARM (Coastal Habitats and Resources Management), a 5-years and 16M Euro project (2002-2007) co-funded by the Thai Government and the EU. Since 2008 he has been the Nature & Society theme leader within IFREMER Prospective and Scientific Strategy Division where, among others, he contributes to the building up of national maritime strategies with local governments and stakeholders.

#### **Mr. Brian Shipman, Lecturer**

Brian Shipman spent much of his career in the maritime south west of the UK delivering coastal management and economic regeneration programmes. He was founding chairman of CoastNET, the UK's ICZM network in the 1990's and represented the local authority sector in the UK in the national and EU coastal and marine policy drafting. He was involved in the EU Demonstration Programme on ICZM (1997-2002) as a project manager and as consultant to the European Commission. He became EU co-operation manager for the region of Cornwall in 2002, and manager of diverse co-operation projects across the EU and with third countries on spatial development, climate change and economic regeneration. In addition to consultancies for the EU, the UNDP and UNEP programmes, he has been consultant ICZM Expert since 2002 to PAP/RAC.

#### **Mr. Gonzalo Carlos Malvárez García, Simulation Game Co-ordinator**

Dr Gonzalo Carlos Malvárez García works at the Physical Geography Area of the University "Pablo de Olavide" in Seville, Spain, where he is a full-time Lecturer and Dean of Faculty. Also, he is the Director of the Master's course in "Education in coastal management for the Mediterranean - Educom@med", and another doctoral programme on "Strategic spatial planning". His field of work relates to coastal geomorphology, but also to the application of analytical tools and findings in the development of tools for Integrated Coastal Zone Management - including development of indicators, carrying capacity, resilience and vulnerability. He earned his PhD in Environmental Science at the University of Ulster (UK) in 1997. He is the author and co-author of many conference and technical reports, and journal articles related to environmental science.

#### **Ms. Branka Barić, MedOpen Co-ordinator**

Ms. Branka Barić is a Programme Officer at the UNEP/MAP's Priority Actions Programme Regional Activity Centre (PAP/RAC), responsible for MedOpen. In 15 years with PAP/RAC, Ms. Barić has been involved in a number of projects, most of them ICZM related, such as the Coastal Area Management Programmes (CAMPs) for Albania, Israel, Lebanon, Slovenia and Montenegro; EIA and SEA; Projects in Africa; Integrated Coastal Area and River Basin Management (ICARM); PlanCoast; Landscape Management; etc. She is the author, co-author and editor of conference proceedings and technical reports related to ICZM.

## ANNEX II

### A List of MedOpen Advanced Candidates

	NAME & SURNAME	E-MAIL ADDRESS	EDUCATIONAL	INSTITUTION	COUNTRY
1	Walaa Ali	walaa_ali_85@yahoo.com	Marine Geology	NIOF, Alexandria, Egypt	EGYPT
2	Svetlana Baranova	<a href="mailto:nauka@instecology.ru">nauka@instecology.ru</a>	Kuban State Agrarian University , Dr.	Research Institute of Applied and Experimental ecology of the Kuban State Agrarian University	RUSSIA
3	Hocein Bazairi	hoceinbazairi@yahoo.fr	PhD, HDR - Oceanographic Biology	Mohammed V University - Agdal	MOROCCO
4	Nikoleta Bellou	<a href="mailto:bellou@hcmr.gr">bellou@hcmr.gr</a>	Dr. Ret. Nat. Biology	Hellenic Centre for Marine Research, Institute of Oceanography, Athens	GREECE
5	Fabrizia Buono	fabrizia.buono@unive.it	Spatial Planning	Ca' Foscari, University of Venice, Italy	ITALY
6	Rita Chedid	<a href="mailto:majal@alba.edu.lb">majal@alba.edu.lb</a>	Master Degree in Economic Sciences	MAJAL, Lebanon	LEBANON
7	Aiko Endo	<a href="mailto:a-endo@sof.or.jp">a-endo@sof.or.jp</a>	Research Fellow of the Policy Research Department	Ocean Policy Research Foundation, Japan	JAPAN
8	Veronique Evers	<a href="mailto:veronique.evers@gmail.com">veronique.evers@gmail.com</a>	Ethnology	PAP/RAC External Collaborator, Split, Croatia	CROATIA
9	Gialamas Giannis	<a href="mailto:igiala@hcmr.gr">igiala@hcmr.gr</a>	Engineer	Hellenic Centre for Marine Research, Athens	GREECE
10	Amiran Gigineishvili	<a href="mailto:amiran@lic.org.ge">amiran@lic.org.ge</a>	Ma degree in Engineering&Economics	Lanchkhuti Information Centre, Georgia	GEORGIA
11	Emilia Guisado	<a href="mailto:esguipin@upo.es">esguipin@upo.es</a>	Environmental Sciences	University Pablo de Olavide	SPAIN
12	Mamuka Gvilava	<a href="mailto:MGvilava@ICZM.ge">MGvilava@ICZM.ge</a>	PhD	"GioGraphic", Tbilisi, Georgia	GEORGIA
13	Mohamed Jabran	<a href="mailto:jabran252002@yahoo.fr">jabran252002@yahoo.fr</a>	Forest Engineer	Provincial Directorate of water and forestry	MOROCCO
14	Victor Karamushka	<a href="mailto:vkarama@yahoo.com">vkarama@yahoo.com</a>	Expert in Environmental Research, Policy and Education	University of Educational Management, Kyiv	UKRAINE
15	Maria Karkani	<a href="mailto:karkani@hcmr.gr">karkani@hcmr.gr</a>	University Degree, Fisheries Biologist	Hellenic Centre for Marine Research, Athens	GREECE
16	Mohammad Khawlie	<a href="mailto:khawlies@yahoo.com">khawlies@yahoo.com</a>	Earth Sciences	Qatar Enviro & Energy Resear Inst	QATAR

	NAME & SURNAME	E-MAIL ADDRESS	EDUCATIONAL	INSTITUTION	COUNTRY
17	Suzan Kholeif	suzan_kholeif@yahoo.com	M. Sc. in Geology (Palynology)	NIOF, Alexandria, Egypt	EGYPT
18	Abdou Khouakhi	abdouu2005@gmail.com	Ph.D. (ongoing)	Faculty of Sciences of Rabat, Morocco	MOROCCO
19	Petroula Kiragianni	<a href="mailto:petiakira@yahoo.gr">petiakira@yahoo.gr</a>	University Graduate, Teacher	Ministry of Education, Greece	GREECE
20	Athina Kokkali	<a href="mailto:athkokkali@hcmr.gr">athkokkali@hcmr.gr</a>	Marine Scientist, Tourism Planner	Hellenic Centre for Marine Research, Athens	GREECE
21	Yolanda Koulouri	<a href="mailto:yol72@hcmr.gr">yol72@hcmr.gr</a>	Researcher	Hellenic Centre for Marine Research, Athens	GREECE
22	Eugenia Marin	<a href="mailto:jenica@indd.tim.ro">jenica@indd.tim.ro</a>	Masters Degree	Danube Delta National Institute, Tulcea	ROMANIA
23	Vasiliki Markantonatou	<a href="mailto:vmarkantonatou@her.hcmr.gr">vmarkantonatou@her.hcmr.gr</a>	Research Technician	Hellenic Centre for Marine Research, Athens	GREECE
24	Corinne Martin	<a href="mailto:corinne.sophie.martin@gmail.com">corinne.sophie.martin@gmail.com</a>	Marine ecology (PhD level), Researcher	Hellenic Centre for Marine Research, Athens	GREECE
25	Nour Masri	<a href="mailto:nour.masri@undp-lebprojects.org">nour.masri@undp-lebprojects.org</a>	Environmental Management	Environmental Resources Monitoring in Lebanon Project, UNDP	LEBANON
26	Marian Mierla	<a href="mailto:mmierla@indd.tim.ro">mmierla@indd.tim.ro</a>	Master in Soil Science	Danube Delta National Institute, Tulcea	ROMANIA
27	Olga Moiseenko	<a href="mailto:olga.moiseenko.65@mail.ru">olga.moiseenko.65@mail.ru</a>	PhD	National academy of science of Ukraine	RUSSIA
28	Iulian Nichersu	<a href="mailto:iuli@indd.tim.ro">iuli@indd.tim.ro</a>	Dr. Ing.	Danube Delta National Institute, Tulcea	ROMANIA
29	Iuliana Nichersu	<a href="mailto:iulianan@indd.tim.ro">iulianan@indd.tim.ro</a>	Spatial Planning Ing.	Danube Delta National Institute, Tulcea	ROMANIA
30	Sinem Önder	<a href="mailto:s.onder@medcoast.net">s.onder@medcoast.net</a>	B.SC. Biology	Mediterranean Coastal Foundation, Mugla	TURKEY
31	Christina Pavloudi	<a href="mailto:cpavloud@hcmr.gr">cpavloud@hcmr.gr</a>	Postgraduate Student	Hellenic Centre for Marine Research, Institute of Marine Biology and Genetics	GREECE
32	Sylvain Petit	<a href="mailto:sylvain.petit@ppa.t-com.hr">sylvain.petit@ppa.t-com.hr</a>	Bac +4	PAP/RAC, Split, Croatia	CROATIA
33	Cristian Trifanov	<a href="mailto:kris@indd.tim.ro">kris@indd.tim.ro</a>	Masters Degree	Danube Delta National Institute, Tulcea	ROMANIA
34	Antonio José Trujillo Martínez	<a href="mailto:antonio.jose.trujillo@uab.cat">antonio.jose.trujillo@uab.cat</a>	Degree in Geography	Universitat Autònoma de Barcelona	SPAIN
35	Maria Natasa Vaidianu	<a href="mailto:marianatasa.vaidianu@g.unibuc.ro">marianatasa.vaidianu@g.unibuc.ro</a>	Dr. Degree in Geography	University of Bucharest	ROMANIA

**Athina KOKKALI, Nour MASRI and Maria KARKANI confirmed officially their unavailability to continue with the Course.**

## ANNEX III

### Syllabus

WEEK	LECTURES	RESPONSIBLE	PRACTICALS	RESPONSIBLE
Week 1 14 <sup>th</sup> May	1. SUSTAINABLE DEVELOPMENT ISSUES IN THE MEIDITERRANEAN	Lecturer: B. Shipman		
Week 2 21 <sup>st</sup> May	2. HOW TO RESPOND?	Lecturer: B. Shipman		
Week 3 28 <sup>th</sup> May	3. BASIC PRINCIPLES OF ICZM	Lecturer: B. Shipman		
Week 4 4 <sup>th</sup> June	4. BENEFITS OF ICZM	Head Lecturer: Y. Henocque		
Week 5 11 <sup>th</sup> June	5. WHO IS RESPONSIBLE FOR ICZM?	Head Lecturer: Y. Henocque	SIMULATION GAME <ul style="list-style-type: none"> <li>• Introduction of the area and scenario</li> <li>• The roles</li> </ul>	Simulation Co-ordinator: G. Malvarez
Week 6 18 <sup>th</sup> June	6. LEGISLATIVE AND FINANCIAL FRAMEWORK	Head Lecturer: Y. Henocque	<ul style="list-style-type: none"> <li>• Briefing for principal consultant or team</li> </ul>	Simulation Co-ordinator: G. Malvarez
Week 7 25 <sup>th</sup> June	7. EXAMPLES OF INTRODUCING ICZM AT THE NATIONAL LEVEL	Lecturer: B. Shipman	THE GAME DEVELOPS	Simulation Co-ordinator: G. Malvarez
Week 8 2 <sup>nd</sup> July	8. ICZM PROCESS; HOW TO PREPARE AND IMPLEMENT ICZM PROJECTS?	Lecturer: B. Shipman		
Week 9 9 <sup>th</sup> July	9. TOOL BOX	Head Lecturer: Y. Henocque	SUBMISSIONS OF PROPOSALS AND RESOLUTIONS	Simulation Co-ordinator: G. Malvarez
Week 10 16 <sup>th</sup> July	10. GOOD PRACTICES DEMONSTRATIONS	Head Lecturer: Y. Henocque	DEADLINE FOR THE SUBMISSION OF THE FINAL ESSAY PROPOSALS	Head Lecturer: Y. Henocque
Week 11 23 <sup>rd</sup> July	11. THE PROTOCOL ON ICZM IN THE MEDITERRANEAN	Lecturer: B. Shipman		
Week 12 30 <sup>th</sup> July	12. CONCLUSIONS AND IDEAS FOR FUTURE	Head Lecturer: Y. Henocque Lecturer: B. Shipman		
Week 13 3rd September (instead of 6 <sup>th</sup> Aug due to summer break)			FINAL ESSAY SUBMISSION	Head Lecturer: Y. Henocque

In parallel min. 4 guided discussions on the ICZM topics

## ANNEX IV

### Final Essays Evaluation and Detailed Comments (prepared by Mr. Yves Henocque, Head Lecturer and Forum Moderator)

#### Assessment of the MedOpen 2012 Final Essays

*Yves Henocque, MedOpen 2012 Head Lecturer and Forum Moderator*

Interestingly, most of the Final Essays are based on local case studies, which makes the ICZM approach much more focused but not always well articulated at the bigger scale following the “putting into context” principle in regard to the political, institutional, economical, participatory, as well as knowledge processes.

Trajectory of change through the sites history is generally well covered though the governance response (institutional analysis, stakeholders’ participation) is often missing leading to a kind of gap between a well described past and current situation and poorly articulated new proposals, as if it were like building up on scratch. Besides urban development, the first sector at stake is tourism, which reflects the actual situation on most of the Mediterranean coast but which leads to the diversification of activities issue. To this Mediterranean feature, one could oppose the Japanese case (Final Essay 9) with the sector of fisheries coming first and at the origin of most of the local ICZM-like initiatives. Fisheries, maritime transport, extraction activities, port development, etc., are still poorly considered within the ICZM approach.

Lastly, though it has been mentioned in some of the essays, almost no reference is made to the principles, objectives and tools of the Mediterranean Protocol on ICZM.

Table 1 below presents the respective grading<sup>3</sup> for each of the Final Essays. Besides the overall presentation, the main criteria is the operational level of the proposed solutions or action plan in regard to the existing multidimensional context. From A to E, in decreasing order:

**Table 1 – Final Essays grading**

GRADE	Final Essay 1	Final Essay 2	Final Essay 3	Final Essay 4	Final Essay 5	Final Essay 6	Final Essay 7	Final Essay 8	Final Essay 9
				A					
B			B			B		B	
C		C			C		C		C
D	D								
E									

1. Integrated coastal zone management (ICZM) in Turkey. *Sinem Onder*
2. Concept of creation of an entertainment and wellness center in Kazachya Bay (Black Sea, Ukraine). *Olga Moiseenko*
3. Towards a better management of touristic activities for a sustainable development in Danube delta Biosphere Reserve: Sulina town. *Natasa Vaidianu*

<sup>3</sup> For more information about the grading system used :  
[www.en.wikipedia.org/wiki/ECTS\\_grading\\_scale](http://www.en.wikipedia.org/wiki/ECTS_grading_scale)

4. VIS+20, Réflexions sur un plan de gestion intégrée des zones côtières (GIZC) pour l'île de Vis. *Véronique Evers, Sylvain Petit*
5. An integrated management approach to protect coastal resources in Lebanon. *Mohamad Khawlie*
6. An ICZM strategy for the Natural Park of the Estrecho (Tarifa) in Southern Spain. *Emilia Guisado*
7. Development of ICZM strategy for the coast of Cilento and Vallo di Diana National Park and the MPAs of Santa Maria di Castellabate and Infreschi and Masseta coast. *Fabrizia Buono*
8. Planning for green tourism in the Former American Base of Gournes-Dia Island area (Hersonissos Municipality, Crete). *Corinne Martin, Yolanda Koulouri, Vessa Markantonatou*
9. The integrated management of forests. River basins and coasts in Japan. *Aiko Endo*

In Table 2, each Final Essay is reviewed against the Mediterranean ICZM Protocol main criteria.

**Table 2 - Final Essays contents against the main criteria related to the Mediterranean ICZM Protocol**

<b>Name</b>	<b>Sinem Onder</b>	<b>Olga Moiseenko</b>	<b>Natasa Vaidianu</b>	<b>Véronique Evers Sylvain Petit</b>	<b>Mohamad Khawlie</b>	<b>Emilia Guisado</b>	<b>Fabrizia Buono</b>	<b>Corinne Martin Yolanda Koulouri Vessa Markantonatou</b>	<b>Aiko Endo</b>
<b>Criteria</b>									
<b>Scale</b>	National	Local	Local	Local	National	Local	Local	Local	National/ local
<b>Land-sea continuum</b>			X	X		X	X	X	X
<b>Carrying capacity</b>		X	X	X			X		
<b>Temporal scale</b>		X	X	X				X	
<b>Participation mechanism</b>						X			X
<b>Legal and institutional arrangement</b>	X	X		X		X	X	X	X
<b>Combination of policies and instruments</b>	X		X	X	X	X	X	X	
<b>Diversity of maritime activities</b>		X	X	X	X	X	X	X	X
<b>Reflecting place specificity</b>	X	X	X	X	X	X	X	X	X
<b>Risks assessment</b>					X	X			
<b>Pollution mitigation and restoration</b>					X				X
<b>Knowledge transfer</b>		X		X	X				



## Final Essay Detailed Comments

### **Integrated coastal zone management (ICZM) in Turkey.**

Sinem Onder

*A national overview of the state of ICZM in Turkey and local initiatives including Special Environmental Protection Areas (SEPAs). The overall feeling is that we have an assessment which is rather descriptive than analytical. Instead of embracing the whole subject and in order to be more specific, it would have been better to focus on one aspect; in this case it could have been the SEPAs and their use as ICZM pilot projects. Although it is said that the “large part of the SEPAs’ establishment in coastal”, what appears first in Figure 2 is they probably hardly match the very large SEPA which is in the centre of the country and they are very limited to the south-western coast of the country. There are probably political reasons to such a pattern and one may question the validity of transferring experiences in other totally different context along the ‘three-sides’ coastline of the country. Besides local projects, what about the coherence with other “regional projects, nation-wide ICZM Strategy and Action Plan’s studies”? ICZM should be a real-life approach and as such is underpinned by linking dynamics from local to national level and vice-versa: how does it work in the case of Turkey, amongst competing administrations (vertically and horizontally) and stakeholders’ vested interests? What are the regional gaps and how the comparative advantages from one region to another could be used to the benefit of a national strategy? Trying to answer these questions may help in making the list of proposals more operational, presenting them in a step by step approach in relation to the policies and institutions that might implement them.*

### **Concept of creation of an entertainment and wellness center in Kazachya Bay (Black Sea, Ukraine).**

Olga Moiseenko

*Presenting the ICZM approach as a development-driven activity in concrete terms is very seldom. It is the very subject of this final essay and it should be commended for that. This unique site and facilities located close to a big city (Sevastopol) and its airport (as from the picture) in a still healthy environment (Kazachya Bay) is certainly worth of such a sustainable development project. One can understand that the main initiative is coming from the City Council addressing the State (Armed Forces of Ukraine) and the private sector to develop the ‘National Oceanarium’ as an entertainment and wellness center, but nothing is said about the concerned stakeholders outside the National Oceanarium. How this site and its future activities can contribute to local development? How the ICZM process should be developed in regard to stakeholders’ and public participation to make it something else than a mere investment business in between the State (Armed Forces of Ukraine), the Sevastopol City Council and the private sector? What are the institutional mechanisms that could be used to start progressively generating such a participation? What about existing plans (protection, urban development, national defence policy, etc.) and what could be the contribution of such a project in regard to local and regional development, and its compatibility in regard to the military use of the bay? A single project as this one, which looks highly pertinent in this case, should be developed in a more multi-objective perspective (political, institutional, economical, knowledge integration, participation processes) and at the next larger scale in regard to a possible better coordination of Sevastopol and its region’s plans and actions and beyond, of the national policies at stake.*

## **Towards a better management of touristic activities for a sustainable development in Danube Delta Biosphere Reserve: Sulina town**

Natasa Vaidianu

*The subject here is quite original since it is about an urban settlement (Sulina) in the middle of the Danube Delta Biosphere Reserve. The history of Sulina town is described in a very comprehensive way since Roman times and throughout the surprising “Danube European Commission” till the second world war, a kind of ‘island town’, historically at the crossroad of Eurasia all turned toward the Black sea and maritime activities. Nowadays, and from the viewpoint of management, one got the feeling that there are at stake two key planning instruments: the General Urban Plan and Biosphere Reserve Action Plan. But, if a few words are said about the General Urban Plan, we know nothing about the Biosphere Reserve Action Plan though it is implicitly very clear that the latter is rather restrictive than incentive. “Excessive control of the Reserve’s Administration” is mentioned several times, which makes all the more important to know more about this Administration history and functioning mechanism. Stakeholders’ view that the “Biosphere Reserve statute is imposing too much restrictions” would deserve some insight into the way it is managed in regard to its objectives. What’s wrong with the Reserve’s Administration and what would be needed to reform it? What are the linkages between the Biosphere Reserve’s Action Plan and the General Urban Plan? If there are not, what should be done for a better articulation between both? Answering these questions would give more perspective to the proposed policies as regards their practical implementation, which probably requires their prioritisation through a step by step approach generating ownership within the Reserve’s Administration, the town decision-makers and all the stakeholders concerned. Lastly, what about the National ICZM Strategy as a possible facilitating framework?*

## **VIS+20, Réflexions sur un plan de gestion intégrée des zones côtières (GIZC) pour l’île de Vis**

Véronique Evers, Sylvain Petit

*An excellent presentation of a specific site (island of Vis, Croatia) and its management trajectory throughout its history (for the sake of sharing, the English executive summary could have been more generous!). The strength and weaknesses of the successive plans (1991, 2009) are comprehensively covered though it would have been even more instructive to use the 2009 plan indicators (if any?!) to assess the efficiency and performance of the plan from a stakeholders’ perspective. As regards the new ICZM plan proposal and its coordination mechanism, it would have been useful to identify the actual leaders amongst the ‘concerned parties’; identifying all the stakeholders concerned is one thing, looking at the main leaders amongst them for actual implementation is another thing and there are probably a lot of evidences in that regard since at least two development plans have already been implemented in the area. Coming to the quite significant SWOT analysis, it would have been instructive to draw the main lessons out of it, lessons that could pre-figure the strategy and the objectives. The vision would be rather the authors’ assumption provided it has first to be worked out and fine-tuned by the stakeholders following the scenario exercise. The quite well developed process in regard to the plan preparation certainly requires, besides the Steering committee, a technical unit in charge of coordinating the whole process. Again, this final essay would deserve an extensive English executive summary in order to be shared with the other MedOpen participants but above all to be presented and debated with the national and local stakeholders in Croatia.*

## **An integrated management approach to protect coastal resources in Lebanon.**

*Mohamad Khawlie*

*The case is about the preparatory design of sensitivity and vulnerability mapping along the coast of Lebanon for better protection against pollutions and hazards. Derived from the oil contingency plans methodology, it may give strong monitoring and response guidance to decision-makers and managers. In order to establish the respective sensitivity maps, the Lebanon coast should be divided in coastal units taking into account the main environmental characteristics as described but also the requirements to management and decision making processes in case of a pollution due to an accident (contingency plan). Data collection should embrace information on the various environmental (physics-biological, dynamics) and socio-economic characteristics. The “global” index or “vulnerability index” (encompassing environmental and socio-economical indices) should then be calculated for each of the coastal unit, maybe at two seasons (the two extremes in regard to wind and rain regimes). Besides the use of a GIS, a multi-criteria study may help to give a relative weight to each of the factors of vulnerability depending on the characteristics of each coastal unit. Such an approach should help then to choose up one or several coastal units that may give way to a demonstration contingency plan, at the scale of a bay for example. There are been several studies made for that purpose including the study on Sensitivity mapping of the French Mediterranean Coastal Environment (CIESM, 2010). The main issue to such an expert-guided initiative is the stakeholders’ participation, how and at which moment should it be mobilized?*

## **An ICZM strategy for the Natural Park of the Estrecho (Tarifa) in Southern Spain**

*Emilia Guisado*

*The case is in a very strategic area highly characterized from the environmental point of view. Interestingly, it has many points in common with the Italian case (Cilento and Vallo di Diana National Park), Frabrizia Buono’s own final essay though regions in Spain have a devolved authority on coastal waters. The geographical context is well presented though the social context could have been somewhat more developed, more specifically regarding the different categories of stakeholders and their vested interests. As for the issues identification, one may wonder if the items 6 and 7 (economic development, transfer cost) are not a consequence of the other environmental issues and should have therefore been presented as such. A cause-effect tree in regard to each of the identified issues might help in articulating them and later, upon the proposed scenarios development, make choices and objective priorities. As per the institutional analysis, Figure 4 and its comments give quite a good insight of the varied governance levels (national, regional, municipality) and their articulation. One missing element at national level is the Strategy for Coastal Sustainability (Sano et al., 2009) and its diagnostic that lead to the establishment of a SWOT analysis and factsheets covering each of the Spain Coastal Unit. Surprisingly, like in the case of MPAs in Italy (Cilento and Vallo di Diana National Park), one learn there are two management plans, one devoted to the natural resources and the other one to the use and management of those resources. There may be a reason for such an artificial splitting between resources and uses, but this point should have been developed or at least questioned as regards the ICZM integrated approach. This would have also helped in articulating the existing plans with the proposed ICZM plan: again, are we heading toward two ICZM plan, one devoted to the resources and the other one to the uses? Probably not, and this would be a great leap from what was there before. Are decision-makers, managers and stakeholders ready to accept it? This should be one of the first questions to ask to the newly established Tarifa Coast Commission for ICZM.*

## **Development of ICZM strategy for the coast of Cilento and Vallo di Diana National Park and the MPAs of Santa Maria di Castellabate and Infreschi and Masseta coast.**

*Fabrizia Buono*

*A quite important subject regarding the coherence of MPAs in regard to a landward national park with no overall integrating strategy neither at the region (Campania) or country level. The assessment of existing management framework (with no specific body dealing with the MPAs...), the issues at stake, is very informative but could have been a bit more developed regarding the history and the evolution of institutions in charge at regional and local level. For example, it becomes quickly obvious that the consultative body, 'Community of the Park', does not have a satisfactory enough representation of stakeholders to tackle the issues, more especially the very issue at stake, tourism, since the private sector is not represented (as from the presentation). This aspect should have been discussed especially when considering the proposal of having 'all stakeholders involved' into the CCA process. In the described process of Phase 1, the mechanism that could allow such an involvement remains a bit vague; before 'inviting all the stakeholders' there are several steps that should be considered including working individually with focus groups at different sites, more particularly in between the watershed, coastal and maritime communities. As regards the overall proposal for an ICZM strategy, while it was previously presented, no practical linkage is made with the existing management plan, i.e. what the managers and stakeholders have been using till now. Building on what already exists is crucial because it is the condition of ownership; the previous assessment should be a living matter (trajectories of change from the past, throughout the present and toward the future) onto which any new initiative should be articulated. Lastly, provided the author's good knowledge of the area, it would have been probably possible to give a notion of time in the unfolding of the four phases as well as the funding sources when they are probably lacking at local, regional or national level (it is probably not by chance that 3 years later after the MPAs were created there is still no management body to take care of them...).*

## **Planning for green tourism in the Former American Base of Gournes-Dia Island area (Hersonissos Municipality, Crete)**

*Corinne Martin, Yolanda Koulouri, Vessa Markantonatou*

*A very interesting case, very well presented in its complexity through space and time (history of the sites) thanks to a comprehensive assessment (including the very informative figures and tables) from a political, institutional and environmental point of view (particularly the Posidonia mapping) though the social aspects are hardly touched upon. The latest is certainly the weakest part of the essay (and certainly the hardest to cover) showing how much it is important for an assessment team to be multidisciplinary especially as regards the social sciences which are very often overlooked. While the assessment of the FAGB/Island of Dia is quite developed, there is a transitional gap with section 5 (Development plan) which is a bit presented as a "shopping list" of activities but without a well defined strategy on the basis of the assessment itself. How these activities are going to be implemented, following which priorities in coherence with the existing management plans? Since they are antagonistic groups (more especially regarding the future of the FAGB) what about building up scenarios to try to come up with a common vision and prioritise the objectives hence the activities?*

*A remark about the public/private partnership approach in the last paragraph page 9: it would be a mistake to put aside the private sector; green tourism won't be achieved if commercial constraints are not taken into consideration right from the inception of the plan. They (private investors) won't come afterwards but should be involved as much as possible right from the beginning. Here, as it is somewhat touched upon in the last lines of the essay, it is the governance process which is at stake in between central/local governments, private sector and civil society.*

## **The integrated management of forests, river basins and coasts in Japan**

*Aiko Endo*

*The need for a very crucial integration between river basins, coasts and maritime areas is presented through a number of research sites. The approach here is about lessons learned from local experiences to start building up a national policy. Interestingly, a parallel is made between the varied central administrations in charge, the lack of coordination between these administrations and the role of local governments though this latter is probably not sufficiently described in regard to the actual decentralization practices in Japan. For example, it would have been interesting to know more about the nature and content of prefectures' ordinances on 'integrated management of forests and river basins'. Does it make any difference regarding the varied impacts on the coastal zone? Are some of the research sites embedded in such ordinances at prefecture level? Following a nested governance approach, for each of the research site it is of the utmost importance to look at the next larger scale, including the linkages (political, institutional, financial) between the municipalities concerned and the prefectures and their policy they depend on. The 12 issues identified from the national assessment through case studies are quite informative but they could be organised in a more operational way: from 1 to 6, we are tackling specific practices (e.g. logging, recycling plant, dam/barrage, etc.), impact issues (e.g. flow and nutrients, marine debris, etc.) and social issues mainly related to depopulation and aging local communities; the next issues (7 to 12) are more general and all relate to management aspects. Such an analysis should lead to maybe more operational recommendations as regards the 7 selected issues, from the river basin to the coast and the sea, with a strategy leading to priorities depending on the scale of application.*

## ANNEX V

### MedOpen 2012 Final Report (prepared by Yves Henocque)

UNITED NATIONS ENVIRONMENT PROGRAMME  
MEDITERRANEAN ACTION PLAN  
PRIORITY ACTIONS PROGRAMME / REGIONAL ACTIVITY CENTRE

#### MedOpen 2012 - FINAL REPORT *Pegaso project – WP6: ICZM training course* (May – October 2012)

*PAP/RAC MedOpen Project Co-ordinator: **Branka Baric***  
*Head Lecturers and Forum Moderators: **Yves Henocque & Brian Shipman***  
*Simulation Game Co-ordinator: **Gonzalo Malvarez***

### Introduction

The scope and complexity of Integrated Coastal Zone Management (ICZM) programmes which can be successfully implemented by any nation is directly dependent on its national capacity. Yet, despite substantive efforts over the last two decades in education and training in countries of the Mediterranean region, there remains insufficient individual and institutional capacity to implement meaningful coastal management programmes. Amongst others, the reasons may be:

- lack of emphasis on building a critical mass of practitioners and constituencies for coastal management;
- lack of enabling conditions and continued support for coastal programmes;
- too few leaders with a vision for sustainable progress along the region's coasts;
- focusing capacity building on the "wrong" knowledge and skills areas;
- too much reliance on external expertise and funding—a reliance that keeps the region from fully developing its own capacity.

This MedOpen session was settled in the frame of the EU-funded Pegaso project with one of its work package (WP6) devoted to education and training. As one of the Pegaso partners, the Priority Actions Programme Regional Activity Centre (PAP/RAC) of the Mediterranean Action Plan (MAP), based in Split, Croatia, thus started delivering its virtual course on integrated coastal zone management in May 2012 to 35 selected candidates from 14 countries from the Mediterranean (23 participants), the Black Sea (11 participants) and one special guest from Japan. The purpose was to deliver a course that would not only focus on building individuals' knowledge and skills, but a course which through a series of interventions would expand and strengthen the network of individuals and, hopefully, even institutions contributing to coastal management in the Mediterranean and Black Sea regions. It means delivering a course that gave participants a taste of the breadth and depth of coastal management plans and programmes, and the technical and professional expertise existing in these regions. It means delivering a course that focused not so much on the technical and scientific knowledge and skills for coastal management, but rather on the professional, project management, and ICZM practice skills and knowledge critical to today's coastal manager—skills that include conflict resolution (Simulation Game), communication (Forum), and policy and decision-making (Final Essay).

The course was designed to accomplish several goals. First, to reflect a balance of ICZM practice, project management, and professional knowledge, concepts, models, tools, and skills. This design responds to a key message emerging from the region and around the world—the need for a new direction in capacity building. Because most ICZM managers enter the field of ICZM with a technical education and/or experience background, it is a direction with a less exclusive focus on science and/or technical skills for coastal management and a greater focus on other skills and knowledge essential to an effective coastal manager. Also, there are already many excellent technical and science-oriented training programmes available in the region, the approach of the *MedOpen – virtual training course on ICZM* is to complement these other training courses.

**Table 1 - Final grading and overall outcome**

	Name & Surname	Position / Country	Final essay	Simulation game	Forum participation	Final grading
1	Walaa ALI	Assist. Lecturer Marine Geology, NIOF, Alexandria, EGYPT	na	na	Fair	Fair
2	Svetlana BARANOVA	Deputy Director, Research Institute of Applied and Experimental ecology Kuban State Agrarian University , RUSSIA	na	na	na	Unattended
3	Hocein BAZAIRI	Oceanography Biology, Mohammed V University – Agdal, MOROCCO	na	na	na	Unattended
4	Nikoleta BELLOU	Marine Biology, Hellenic Centre for Marine Research, Athens, GREECE	na	na	na	Unattended
5	Fabrizia BUONO	Spatial Planning Researcher, Ca' Foscari, University of Venice, ITALY	Fair	na	na	Fair
6	Rita CHEDID	Economic Sciences, Project Officer - Urban Observatory, LEBANON	na	na	na	Unattended
7	Aiko ENDO	Research Fellow, Policy Research Foundation, JAPAN	Fair	na	na	Fair
8	Veronique EVERS	Ethnology; PAP/RAC External Collaborator, CROATIA	Excellent	Excellent	Good	Excellent
9	Gialamas GIANNIS	Engineer, Hellenic Centre for Marine Research, Athens, GREECE	na	na	na	Unattended
10	Amiran GIGINEISHVILI	Engineering&Economics, LIC Director, GEORGIA	na	na	na	Unattended
11	Emilia GUIADO	Environmental Sciences, University Pablo de Olavide, SPAIN	Good	Excellent	Fair	Good
12	Mamuka GVILAVA	ICZM National Focal Point for Georgia, "GioGraphic", Tbilisi, GEORGIA	na	na	na	Unattended
13	Mohamed JABRAN	Forest Engineer; Head of Service of Forest and Planning, MOROCCO	na	na	na	Unattended
14	Victor KARAMUSHKA	Expert in Environmental Research, Policy and Education, UKRAINE	na	na	na	Unattended
15	Maria KARKANI	Fisheries Biologist, Hellenic Centre for Marine Research, Athens, GREECE	na	na	na	Unattended
16	Mohammad KHAWLIE	Earth Sciences; Consultant, QATAR	Fair	na	Good	Fair
17	Suzan KHOLEIF	Marine environment, NIOF, EGYPT	na	na	na	Unattended
18	Abdou KHOUAKHI	Ph.D. student (ongoing), Faculty of Sciences of Rabat, MOROCCO	na	na	na	Unattended
19	Petroula KIRAGIANNI	University Graduate, Teacher, GREECE	na	na	na	Unattended
20	Athina KOKKALI	Tourism Planner, Hellenic Centre for Marine Research, Athens, GREECE	na	na	na	Unattended
21	Yolanda KOULOURI	Researcher, Hellenic Centre for Marine Research, Athens, GREECE	Good	Excellent	Excellent	Excellent
22	Eugenia MARIN	Researcher, Danube Delta National Institute, Tulcea, ROMANIA	na	na	na	Unattended
23	Vasiliki MARKANTONATOU	Research Technician, Hellenic Centre for Marine Research, Athens, GREECE	Good	Excellent	Excellent	Excellent
24	Corinne MARTIN	Researcher, Hellenic Centre for Marine Research, Athens, GREECE	Good	Excellent	Excellent	Excellent
25	Nour MASRI	Project Manager, UNDP Environmental Resources Monitoring, LEBANON	na	na	Fair	Unattended
26	Marian MIERLA	Soil Science, Danube Delta National Institute, Tulcea, ROMANIA	na	na	na	Unattended
27	Olga MOISEENKO	Senior Researcher, Marine Hydrophysical Institute, National Academy of Science of Ukraine, RUSSIA	Fair	Excellent	Good	Good
28	Iulian NICHERSU	Researcher, Danube Delta National Institute, Tulcea, ROMANIA	na	na	na	Unattended
29	Iuliana NICHERSU	Spatial Planning Ing., Danube Delta National Institute, Tulcea, ROMANIA	na	Excellent	Fair	Good
30	Sinem ÖNDER	MEDCOAST Project Assistant, Mediterranean Coastal Foundation, Mugla, TURKEY	Poor	Good	na	Fair
31	Christina PAVLOUDI	Postgraduate Student, Hellenic Centre for Marine Research, Institute of Marine Biology and Genetics, GREECE	na	na	na	Unattended
32	Sylvain PETIT	Programme Officer, PAP/RAC, Split, CROATIA	Excellent	Excellent	Excellent	Excellent
33	Cristian TRIFANOV	Researcher, Danube Delta National Institute, Tulcea, ROMANIA	na	na	Fair	Fair
34	Antonio José TRUJILLO MARTÍNEZ	Research Technician, Universitat Autònoma de Barcelona, SPAIN	na	na	na	Unattended
35	Maria Natasa VAIDIANU	Geography Researcher, University of Bucharest, ROMANIA	Good	na	na	Good

Considering the participation to at least one of the three core activities (Forum, Simulation Game, Final Essay), 15 registered participants got a degree from “fair” to “excellent”, which makes about 50% of the total attendees provided some of them officially left the course before it ends up. The “fair” ones (6 participants) participated to at least one activity while the “good” (4 participants) and the “excellent” (5 participants) participated to two or three activities. In prevision of a next MedOpen session, there may be an issue of pondering the grading attributed to each of the activity from the participation to the Forum, through the Simulation Game and finishing up with the Final Essay. Interestingly, the Black Sea countries are well represented (5 participants) amongst the 15 laureates.

The rest of the participants are considered as not having attended the course and as for the pondering this is a rule that will have to be specified to the next MedOpen session participants.

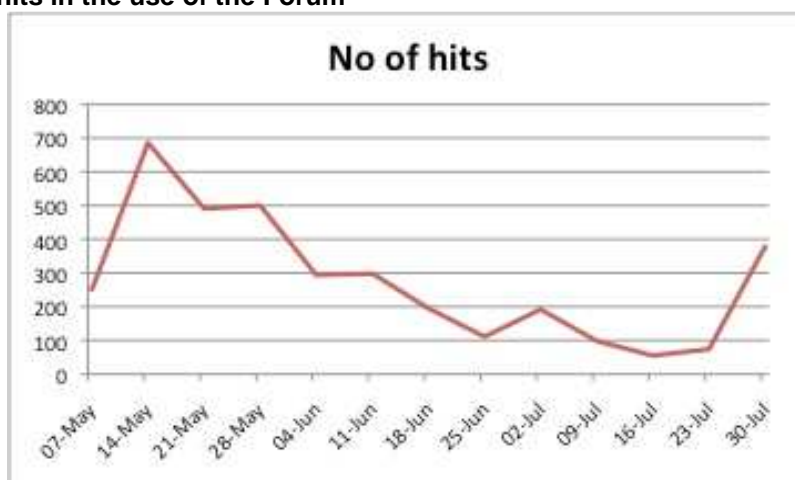
## Implementation of activities and main outputs

### Use of the Forum

There are a number of broad conclusions from the use of the Forum:

- The Forum received a very high “viewing” level - over 3,700 hits to just 13 topics from the registered subscribers of students and lecturers, indicating a very high level of readership by the 35 students.
- The quality of discussion was generally high, with a number of particularly challenging posts.
- The overall respondees to the topics are restricted to only a small proportion of students (33%). A total of 46 postings were made by students, and a further 38 by lecturers.
- The level of activity declined drastically over the course. This can in part be attributed to the start of the simulation game, the loss of a number of students, and the beginning of the summer holidays (see the Figure below). No feedback is available from the students on the value of the Forum. The late peak was in response to the Final Essay topic, rather than course content.

### Number of hits in the use of the Forum



The timing of the course so close to the summer break affects the overall use of the Forum. Students focus their on-line activity to the Simulation Game. The purpose of the Forum is not clearly described and does not strongly encourage participation. The result being that, apart from a small minority, students focus on other essential course components. The quality of discussion was however very high. It would be useful to receive student feedback on the content and value of the Forum.



### Participation to the Simulation Game

The Simulation Game is heavily based on participation in group work and requires that a set number of students are consistently networking for the duration of the exercise.

The success of the Simulation resides in cohesive group work given that it is the intense feedback generated in the decision making progress that intensifies the performance of students as well as stimulates communication with tutors searching for new answers to issues that in the theory component may not have been discovered.

The PEGASO MedOpen 2012 Simulation Game exercise was successful with a very minority of students in the group due to:

- Severe difficulties in the use of the forum have hampered to some extent student to student communication and proved the wrong vehicle for document exchange.
- Document exchange tool that was not used by students to provide documents (in the Simulation Game)
- A few students took all the initiative and imposed a pace that was leaving behind others and severe fading was noticeable from those who could not keep up.
- Work load and pace was perhaps above average for a part-time course for professionals.
- There is a marked enthusiasm from those in the Simulation who are working in the leading institution (PAP/RAC) in MedOpen, which was predictable.

Given the above, the marks (Table 1) reflect an almost binary black and white distribution with those who did something scoring top marks and all the rest reflecting absolutely no activity.

### Final Essay drafting and submission

Interestingly, most of the Final Essays are based on local case studies, which makes the ICZM approach much more focused but not always well articulated at the bigger scale following the “putting into context” principle in regard to the political, institutional, economical, participatory, as well as knowledge processes.

Trajectory of change through the sites history is generally well covered though the governance response (institutional analysis, stakeholders’ participation) is often missing leading to a kind of gap between a well described past and current situation and poorly articulated new proposals, as if it were like building up on scratch. Besides urban development, the first sector at stake is tourism, which reflects the actual situation on most of the Mediterranean coast but which leads to the diversification of activities issue. To this Mediterranean feature, one could oppose the Japanese case (Final Essay 9) with the sector of fisheries coming first and at the origin of most of the local ICZM-like initiatives. Fisheries, maritime transport, extraction activities, port development, etc., are still poorly considered within the ICZM approach.

Lastly, though it has been mentioned in some of the Essays, almost no reference is made to the principles, objectives and tools of the Mediterranean Protocol on ICZM.

Table 2 below presents the respective grading<sup>4</sup> for each of the Final Essays. Besides the overall presentation, the main criteria is the operational level of the proposed solutions or action plan in regard to the existing multidimensional context. From A to E, in decreasing order:

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<sup>4</sup> For more information about the grading system used :  
[www.en.wikipedia.org/wiki/ECTS\\_grading\\_scale](http://www.en.wikipedia.org/wiki/ECTS_grading_scale)

**Table 2 – Final Essays grading**

GRADE	Final Essay 1	Final Essay 2	Final Essay 3	Final Essay 4	Final Essay 5	Final Essay 6	Final Essay 7	Final Essay 8	Final Essay 9
A				A					
B			B			B		B	
C		C			C		C		C
D	D								
E									

1. Integrated coastal zone management (ICZM) in Turkey. *Sinem Onder*
2. Concept of creation of an entertainment and wellness center in Kazachya Bay (Black Sea, Ukraine). *Olga Moiseenko*
3. Towards a better management of touristic activities for a sustainable development in Danube delta Biosphere Reserve: Sulina town. *Natasa Vaidianu*
4. VIS+20, Réflexions sur un plan de gestion intégrée des zones côtières (GIZC) pour l'île de Vis. *Véronique Evers, Sylvain Petit*
5. An integrated management approach to protect coastal resources in Lebanon. *Mohamad Khawlie*
6. An ICZM strategy for the Natural Park of the Estrecho (Tarifa) in Southern Spain. *Emilia Guisado*
7. Development of ICZM strategy for the coast of Cilento and Vallo di Diana National Park and the MPAs of Santa Maria di Castellabate and Infreschi and Masseta coast. *Fabrizia Buono*
8. Planning for green tourism in the Former American Base of Gournes-Dia Island area (Hersonissos Municipality, Crete). *Corinne Martin, Yolanda Koulouri, Vessa Markantonatou*
9. The integrated management of forests. River basins and coasts in Japan. *Aiko Endo*

*Detailed comments have been provided for each of the Final Essays sometimes followed by further comments and exchanges with their authors. The fact that at least two of them were collectively (2 or 3 students grouped together) drafted came out as a very positive experience since both Final Essays were judged as "excellent".*

## **Overall remarks**

- While the long-term goal of the course is to build a regional cadre of coastal management practitioners/leaders, the starting point is to focus on building individual skills and knowledge. Hence, the course worked in parallel to build both individual and team skills through the use of the Forum and the Simulation Game which have been regularly practiced by about half of the participants.
- Introduction and time for question and reflection were built into each lecture with participants asked to reflect on specific topics of relevance to the course and to their work in coastal management. Other times participants were asked to reflect on a topic or issue of their choice which could relate to the course, to their own professional development, or to the future of coastal management in their country. While the reflections were private or made collectively as reflected into the Final Essays, some participants volunteered to share some of their thoughts through the Forum, and in so doing provided interesting insights and comments about the content of the course.
- At the beginning of the course, participants were advised of a voluntary competition including their active participation in communicating through the Forum and through to a Simulation Game, and the drafting of a Final Essay of their choice. Within the framework of the Simulation Game, the initial imaginary scenario was introduced to the candidates together with natural conditions of the area presented through different data. The candidates were given specific roles, possible pathways for the development have been offered, and they were then invited to develop the situation and propose solutions. The Simulation Game and discussions were moderated, and outputs evaluated by the Simulation Game Co-ordinator.
- Each Final Essay was to be delivered in written form (seven pages or less) reflecting the heavy emphasis in the course on effective communication and presentation skills. Making a written presentation of their subject proposal to an external audience provided an excellent opportunity for participants to practice the skills they had honed during the course.
- During the Final Essay preparation phase including the subject identification, there were significant exchanges between the Head Lecturer in charge and the students. The bulk of the recommendations made touched upon:
  - An explicit connection to advancing ICZM in the participant's country and location;
  - Benefits or potential benefits to multiple coastal stakeholders;
  - An explicit project logic - articulated in writing presentation;
  - A clear and realistic assessment of resource needs (people, money, and materials);
  - Junctures that demonstrated the use and application of course skills and tools;
  - Ideas presented in a compelling, articulate, and concise manner.
- As a whole, the nine submitted Final Essays, be there at the international, national or local scales, well captured the integrated coastal zone management approach though in a very different way, depending on the scale, the country or the place, the main issues at stake, and also depending on the author's perception. A detailed assessment of the Final Essays have been worked out and submitted to their authors, sometimes giving place to further comments and exchanges.

## **Problem encountered and ideas for future improvement of the activity**

- About half of the candidates from 14 countries (Mediterranean and Black Seas + one guest from Japan) have been actively participating, either in the Forum, the Simulation Game or the Final Essay. The timing of the course so close to the summer break probably affected the overall participation including the use of the Forum and participation to the Simulation Game. The purpose of the Forum should be more clearly described to encourage participation.

- While this 4-month MedOpen training course was organized in the frame of the PEGASO project, it should be considered as a starting point focusing on building individual skills and knowledge. The following suggested ideas (most of them already submitted at the previous MedOpen session) could emphasize this individual learning while instilling some team skills:
  - instead of just asking their motivation, each participant could be asked to prepare a “**learning agreement**” which would outline his/her professional development goals and priorities for the course. Participants would review the agreement with the course advisors prior to finalizing the document. Once completed, the agreements could be formally signed by the participants. Between modules, participants would be encouraged to discuss progress on their learning goals with their advisors. The latter would provide encouragement, suggest adjustments where necessary, and help participants develop new priorities where appropriate. Once agreed, learning agreements could be posted on GoogleDocs with corresponding participant’s photo for mutual information;
  - During the selection process, each participant could be charged with selecting a **mentor**—an experienced coastal management professional—from their home country. At intervals, mentors would make themselves available to participants for discussions—preferably in-person discussions—all along the MedOpen training course. The purpose is to link the participants with experienced coastal managers who could at a minimum advise and coach the participants throughout the course, and at best continue contact and provide coaching of the participant after the course. The intent of the mentoring element would be two-fold: to provide participant-specific benefits in their ICM professional development, and to add momentum to building an expanding network of coastal management experts and leaders in the region. Each participant would complete a mentor/mentee agreement form that would guide his or her interactions with and expectations of the relationship;
  - a survey could be submitted to the participants at the end of the first month, asking participants to identify their predominant or preferred style of **leadership and management**. Participants would then be asked to reflect on the survey results. What do those results reveal about how the participant manages work or leads others? What are the pros and cons of their particular style/profile? After raising awareness on their preferred/predominant style, participants could then be asked to reflect these different tools/approaches to leadership—styles in their own Final Essay.
  - In order to give more stake to the Final Essay, at the beginning of the course, participants could be advised of a voluntary competition to design and implement a small **coastal management project** costing no more than US\$3,000. The process would involve writing a proposal for submission not only to a Head Lecturer but to a review panel. In the final module of the course, the best three proposals would be awarded funding for implementation of their outlined projects. In awarding the winning proposals, a panel of experts would consider the merits of both a written proposal and a possible oral presentation on its highlights. At the very beginning of the course, they would be provided with the general guidelines in developing their service project proposal and the criteria by which that proposal would be judged.
  - It is highly recommended to conduct a **post-course evaluation** to assess how participants applied the skills and knowledge acquired during the course. Two questionnaires would be formulated: one to be sent to the participants, and one to the participants’ mentors.
  - While formative evaluations - those which identify strengths, weaknesses, and areas for improvement - are essential for immediate or short-term adjustments to course content and delivery, it is **impact assessments** which are the more critical tool for assessing whether the MedOpen training course model is achieving its longer-term goals of ICZM capacity building in the region. In consideration, impact evaluation surveys could be distributed to course participants at approximately six to nine months after the end of the course, and then again at the 15 to 18-month mark. These surveys will seek to assess longer-term ability of participants to use in their work the professional ICZM practice and the project management knowledge, skills, and tools acquired or strengthened by the course. Equally important, these surveys would seek to assess what impact participants’ strengthened skills are having on their larger organizations, projects, or programmes. As well, they would seek to assess changes in

“softer” targets of the course - e.g., course impact on the participants’ attitudes, viewpoints, and critical thinking skills on key issues facing ICZM at the local, national, or regional levels. Lastly, impact evaluations would assess (hence contribute) the attempt made at creating a more active regional network of ICZM practitioner/experts - a network that stimulates the sharing of knowledge, experience, and skills in the region. It will help answer whether alumni and their organizations are more likely - as a result of having been part of the *MedOpen virtual training course on ICZM* experience - to communicate with and call upon one another.

- The 18-month post-course evaluation would include an additional section for those three individuals who were awarded funding for their **service projects** (see recommendation above). This section would seek to assess how well this element provided additional opportunity to practice the knowledge, skills, and attitudes from the course in a situation where they had full control over the design and implementation of the project from start to finish.
- The three last items would strongly contribute to the building up of a MedOpen *Alumni’s* network.



## **ANNEX VI**

### **Simulation Game Final Report (prepared by Gonzalo Carlos Malvárez García)**





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**FINAL REPORT**  
PEGASO CAPACITY BUILDING in ICZM  
MedOpen SIMULATION GAME 2012.

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**MEDOPEN Virtual Training in Coastal Zone Management for the Mediterranean  
SIMULATION GAME**

**2012 PEGASO Edition**

*Prepared by*  
**Dr. Gonzalo C. Malvarez**

**for**

**UNITED NATIONS ENVIRONMENT PROGRAMME  
MEDITERRANEAN ACTION PLAN  
PRIORITY ACTIONS PROGRAMME / REGIONAL ACTIVITY CENTRE**

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## Introduction

The physiographic, societal, planning, ecosystemic and institutional dimensions of coastal management are broad and complex. Complexity is also a common rule in environmental and societal processes, thus when dealing with the exercise of implementing the ICZM (Integrated Coastal Zone Management) process one must work with complexity and uncertainty. To understand the proper functioning of ICZM principles and process, an in depth knowledge of the cement (the integrative elements) is paramount. Thus focussing on the synergies, political will, networking, ecosystemic approaches, spatial planning and other concepts which value the important role of connectors in the whole arrangement must be highlighted in any attempt at implementation of the ICZM process.

In the midst of all this epistemic debate sometimes a key factor is overlooked: Who are the professionals managing the coast? The actual practitioners at Regional, Local or National Level are they Civil Engineers, Geologists, Environmental scientists, Geographers, Arquitects, Lawyers, Politicians, Economists...Biologists. In fact, all in that list (and many more) are in practice responsible for the design and implementation of coastal management. For all these professions and academic profiles there are well developed and planned programmes in higher education which focus in highlighting the traditions of their discipline and, sometimes, venture in an attempt for facing complexity and multidisciplinary. None, however, face such a complex issue as ICZM in their curricula. Consequently, *what is the profile of capacity building needed for coastal managers?*

In the Capacity Building objectives of PEGASO the focus must be placed in emphasising the relationships between coastal disciplines and issues. It is not easy, however, to find the correct balance between the practical (pragmatic) and theoretical (academic) pitch in capacity building for PEGASO. *On the one hand* practitioners of the management of the coast often use their own resources to develop their capacity incurring in autodidactic approaches that are inevitable but disorganised and too dependant on personalities and context. This type of improvisation, and more often than not their success, normally leads to reaffirmation of folkloric views, often too pragmatic and lacking academic or systemic background. The experienced coastal managers often rely on their interpersonal skills developed through years on the back of effective negotiation and continuous running of conflicts. This approach is far from the ICZM views, in which true governance is at the centre of the process, and is unsurprisingly heavy in political load. *On the other*, academic approaches are often based on the backbone of a "tradicional" discipline such as those listed above. These, although involving sound scientific base, keep focusing on capacity building (which in essence is not detached from content-based teaching and learning) on the "wrong" issues in the construction of knowledge and skill programmes because they reproduce learning and teaching methods that are correct in the original fields of expertise. This being a generalisation, is a contrastable shortcoming in most ICZM programmes that are accessible to the managers of the coast who are actually in the job and cannot update their original training flexibly.

The PEGASO edition 2012 for MedOpen faces these challenges and offers a integrated view in capacity building using corner stone concepts established in higher education teaching and learning and applies them to the highly complex field of ICZM. This approach is characterised by:

- Offering multidisciplinary views on issues that occur on coastal environments;
- Avoiding the limitations of tradicional disciplines, respectfully accepting their contribution in the sectorial knowledge they provide.
- Deploying significant support from capable staff in various fields, including of teaching skills
- Focusing on the necessary skills of potencial and existing coastal managers always considering the ICZM viewpoint, such as:
  - ICZM and social sciences
  - ICZM and science
  - ICZM and technology and instrumental elements

As for many open and multidisciplinary courses aimed at professionals the PEGASO edition of MedOpen targeted a specialised (although heterogeneous) student group. The practical element (the Simulation Game) centered on the identification and development of three key skills, such as (i) **reading** skills sufficient to understand, comprehend and review (diagnostic reading) proposed readings. It is assumed that students will read more widely than the specified materials and that the depth and interpretation of the reading is carried out in great depth. It is important, thus, that students know how to find and choose additional materials and inspirations; (ii) demonstrate **academic judgement** by gathering appropriate evidence or data, which can be critically evaluated. The diagnosis should be sufficient to enable the basis for logical argument, discussion and constructive proposals; and (iii) the ability to **present** their findings in writing or by a presentation to others (which may involve presenting or writing a report or proposal for other students or tutors). This is expected to be done in a convincing and, preferably, professional way.

### **Simulation Game: a Situational Practice for skill-based teaching and learning**

This practical component focuses on developing transferable and interpersonal skills for students, building on the theoretical base that they already have or have developed during the theoretical component of the course. The key skills that the students have to develop in this part of the online programme are:

- The capacity to comprehend complex situations, including surprisingly improbable developments in the history of a coastal site. This leads to the generation of conflicting interests and hence students will resource to conflict management techniques
- The understanding of scenarios through the full description of an imaginary (but quite topical) coastal site and its fate. Scenario building is a skill and output that students inadvertently develop through practice.
- How to deal with spatial planning from the bottom up, which leads to the practice of consensus reaching, development of societal groups and networks and having to face insolidarity or lack of common grounds when it comes to proposal building. Governance in action.
- Completing a proposal under flexible guidelines, having to lobby and submit an idea for future development in a complex situation.

In this PEGASO edition of MedOpen, the situation created for the Simulation is based on an imaginary site (Coast of Torres) which suffers after the economic slow down of the beginning of the century poses the highly complex scenario of ICZM facing the potential redevelopment of an abandoned urbanisation project. The issues that are the concern of the students (or stakeholders in the simulation game) include environmental as well as socio-economic.

The scenario, fully presented in Annex 1, represents the imaginary context for the issues and the role play. The dynamics for problem solving are described in further documents (various annexes in this document) and summarised in the following sections.

***The Scenario. An imaginary site on the Mediterranean coast.*** The coast of Torres (the imaginary site), population had risen by over 10% per annum between 1950 and 2000, a figure that closely matches the growth of visitor traffic to western mediterranean coasts over the same period. A construction boom paralleled this dramatic expansion of the resident and visiting populations, resulting in considerable stress on the coast and demanding a management response to safeguard the coastal, and specifically beach, resources upon which the region's economy is based.

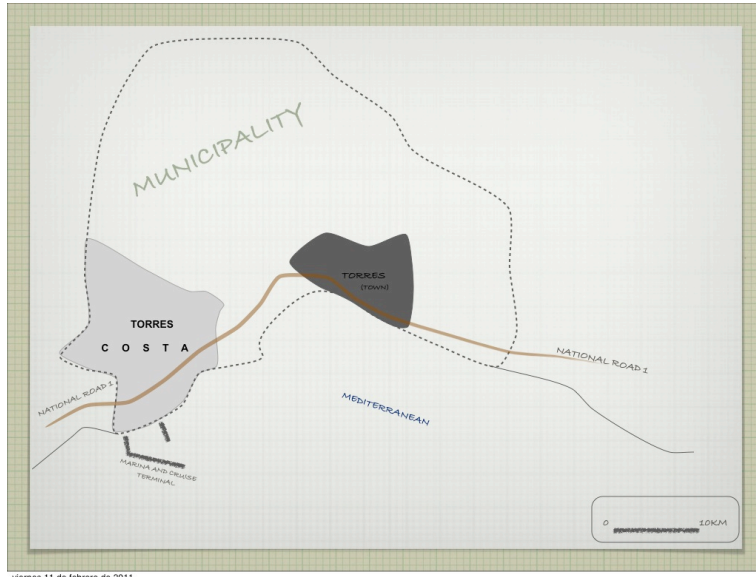


Figure 1: Sketh map of Torres

Unfortunately, a broadly based management response had only been implemented the major part of postwar development of the coast having taken place under extreme laissez-faire politic-economic regimes and its aftermath. In consequence, those with an interest in coastal management, including engineers, have had to fight a rearguard battle, reacting to stresses induced by the absence of a strong environmental thrust in official decision making. Thus, until the 1980s, official actions were strictly limited to practical measures safeguarding vulnerable sections of the coastline or the sponsorship of construction projects (particularly marina developments) offering commercial gain. Even in those situations, engineers lacked a complete understanding of the physical consequences of protective and

commercial coastal building, as subsequent siltation and erosion processes brought about many unforeseen and unwanted effects.

**Spatial planning and management.** A set of standard concepts for basic policy is provided for students to be able to develop plausible proposals. The idea is to allow freedom yet provide a framework emphasising the importance of the multiscale view that is necessary in spatial planning (and ICZM) highlighting the Regional scale. The *Regional level management* is a key element in the new structure of spatial planning strategy. Subregional plans are a mandatory framework for spatial plans of local scale and urban planning. Other instruments which introduce territorial impacts are also subject to the resolutions in subregional planning, such as environmental or other coastal affections.

**Environmental and Socioeconomical impacts of abandoned urban projects.** Students are introduced into the various issues and impacts so that the constructive proposals are based on a set of agreed issues. A full description is presented on the Simulation website (see Annex 2). These are: *Visual impact; Erosion; Biodiversity decrease; Pollution; Unemployment increase; Conflicts between Public Administration and private sector; Loss of economic value of the area; Marginalisation of population; Transfer of cost between private and public sector.*

### **The dynamics of Situational Practicals:**

The main shortcomings for achieving a perfect run are not attributable to this circumstance but to some of the usual pitfalls of both ICZM capacity building and those related with distance teaching and learning. As in any formative programme there are issues that are two-folded that need analysis: the student's side and the teaching side.

The main issues concerning student's performance that can be improved from student's input are related to the pace chosen by students in their dedication, their commitment and the effective group cohesiveness. These elements are worked through a tight workplan which is laid out at the beginning of the Simulation.

#### *First Week of MedOpen*

A summary of the running strategy is deployed in the Simulation Game running pages (see Annex 3). During the first week it is needed to engage students in Simulation as strongly as possible. The instructor's initial effort is designed to ease student potential rejection to the learning structure. It may be necessary to use multiple levels of communication during this important time.

If students are not active by day 3 of the course, the instructor emails the students inviting them to join and also include an offer of assistance. A student's positive perception of instructor's commitment can lead to greater student success.

If the instructor does not receive an immediate (one or two day) response to the emails sent to the student, the instructor highlights that it will take some work and good time management and study skills on the part of the student to complete the program.

#### *Second and subsequent Weeks of MedOpen, except final submission date.*

Students are well aware of Simulation Game instructions from Simulation Website and thus the practical develops via the communication space in MedOpen web site. For the consultation of basic documents (extended role descriptions –see Annex 4– and other) students are suggested to use the Google Docs space generated by MedOpen Coordinators.

First, one week has passed which focussed in reading and understanding the Scenario in depth and to familiarising with simulation game dynamics. Then the instructor, after contact had been established with students and communicated the roles assigned each one. The game develops with the groups of students starting to work together in their assumed roles. Developers, environmentalists, and other stakeholders analyse the severity of the situation in Torres (using SWOT techniques, for instance) and then will propose to Consultants various development plans to provide Torres with some future. In week 4 groups provide a diagnostic and write up strategic lines of action.

Final proposal should be selected (the Major intervenes as moderator) and in week 5 the Strategy for Sustainable Development of Torres 2020 is presented. This document is the final submission and is used as assignment paper since it should reflect the acquisition of the main skills intended in the course's practical.

### *Final week*

Students submit their work. The main thrust is here the achievement of the goals set by the working groups and the demonstration of commitment by students and their groups. A Rapid Assessment Matrix was introduced for this edition of MedOpen in PEGASO (Annex 5).

The online tools are basic for students to achieve their goals since all meetings and coordination efforts for the submission are conducted via MedOpen's web site and, in particular, via the forum.

The various factors that affected the performance of course delivery in this edition of the program are related to the sequential postponement of commencement date and some other date related issues (the practical run mostly during the summer months).

Improvements could include the potential of utilisation of dedicated **Learning Management System** for compact teaching and learning web course tools. There are many existing platforms which support the provision of course tools both in open source and proprietor software; such as Moodle or WebCT.

A distributed Learning Management System is a software package that supports the management and delivery of learning content and resources to students via web. Most systems are web-based to facilitate "anytime, anywhere" access to learning content and administration. These systems may also offer student registration, the delivery and tracking of all the components of the e-learning course (theory and practice) as well as content, assignment and marking and may also allow for the management of instructor-led training classes in real time communication virtual classrooms. Most systems allow for learner self-service, facilitating self-enrollment, and access to courses.

Although the Simulation Game develops over only a few weeks, and the group is small, it is envisaged that a key role would be played if there were **teaching assistants** (Mentors) who would help dynamise the practical part of the work. The mentors would be assigned to groups of students and operate as motivators and controllers in order to help students keep the momentum and ensure timely and correct delivery of the set outcomes.

The key responsibilities of mentors would be:

- To act as a student advisor providing students with useful information about the Simulation Game that is not provided in instructions.
- To help accommodating to course pace creating an atmosphere where students can learn from their own experiences as well as from their mentor's experiences.
- To support and encourage the participation of the students in the forum (or other communication areas) to increase visibility, enhancing supportive discussions.
- To improve instructor/student communication and understanding.

Finally, the development and implementation of **Teaching Quality** survey, which would help in assessing and identifying students' preferences and enables quick feedback. The quality survey, to be deployed at the end of each section of the program (in the case of the Simulation Game, only one survey before marks are distributed) shall include questions related to mentor and instructor's performances during the delivery.

At the end of group of lectures (Modules or parts of the Simulation Game) the students will be asked to complete a brief questionnaire, evaluating the extent to which the module has fulfilled its objectives. This will normally ask for tick-only responses to most questions, and will use a simple rating scale, but will also give students the opportunity to provide more detailed responses or free-form comments.



The quality of the teaching need to be evaluated with the view to improve. By asking students to comment on the course we may be able to modify (in a positive way) the work involved at a particular issue, and the structure and methods for the MedOpen course as a whole.

### **Summary of results of PEGASO MedOpen Practical (Simulation Game):**

The Simulation Game is heavily based on participation in group work and requires that a set number of students are consistently networking for the duration of the exercise. The effective number of students was too low in this edition with a severe rate of drop outs that were no formalised.

The success of the Simulation resides in cohesive group work given that it is the intense feedback generated in the decision making progress that intensifies the performance of students as well as stimulates communication with tutors searching for new answers to issues that in the theory component may not have been discovered.

The PEGASO MedOpen 2012 Simulation Game exercise was successful with a very minority of students in the group due to:

- Severe difficulties in the use of the forum have hampered to some extent student to student communication and proved the wrong vehicle for document exchange.
- Document exchange tool that was not used by students to provide documents (in the Simulation Game)
- A few students took all the initiative and imposed a pace that was leaving behind others and severe fading was noticeable from those who could not keep up.
- Work load and pace was perhaps above average for a part-time course for professionals.
- There is a marked enthusiasm from those in the Simulation who are working in the leading institution (PAP/RAC) in MedOpen, which was predictable.

As a result from the needed adaptation to the various paces, the final Rapid Assessment Matrix was not submitted by students , but was understandably so given the dates that this was occurring (August)

Given the above, the marks (posted in a separate file with the rest of marks) reflect a almost binary black and white distribution with those who did something scoring top marks and all the rest reflecting absolutely no activity.

Overall, the shortcomings of the method and the profile of the students participating was a major issue but despite that the Simulation Game was able to offer some great experiences to all producing excellent reports and products. The proposals made by the participants were of excellent quality and could easily be real proposals in a professional context for ICZM. All students products and outcome are available.

*Gonzalo Malvarez  
Sevilla, November 2012*



## ANNEX 1: FULL SCENARIO DESCRIPTION:

In this document you will find all the necessary information to understand the (imaginary) settings for the Simulation Game of MedOpen 2012 for PEGASO.

- **History and development.**

- Settlement in Torres
- The crash

- **Spatial planning guidelines**

- National level
- Regional level
- Local level

- **Environmental setting**



Figure 1 Overview of Torres

*Read carefully all pages.*

### History of Torres

In 1965 the new International Airport 60 kilometres east of the town of Villa (the largest town in the Torres Coast) opened a whole new future. The coastal stretch, naturally fragile and dynamic given the Mediterranean setting offered a basic natural resource for development of the newly appreciated coastal tourism that was beginning to take off since northern European countries initiated a continued economic development after World War II.

Nowhere is this better illustrated than in the coast of Torres (Figure 1), where population grew by over 10% per annum between 1950 and 2000, a figure that closely matches the growth of visitor traffic to western Mediterranean coasts over the same period. A construction boom paralleled this dramatic expansion of the resident and transient populations, resulting in considerable stress on the coast and demanding a management response to safeguard the coastal, and specifically beach, resources upon which the region's economy is based.

Unfortunately, a broadly based management response has only been implemented the major part of postwar development of the coast having taken place under extreme laissez-faire politic-economic regimes and its aftermath. In consequence, those with an interest in coastal management, including engineers, have had to fight a rearguard battle, reacting to stresses induced by the absence of a strong environmental thrust in official decision making. Thus, until the 1980s, official actions were strictly limited to practical measures safeguarding vulnerable sections of the coastline or the sponsorship of construction projects (particularly marina developments) offering commercial gain.

Even in those situations, engineers lacked a complete understanding of the physical consequences of protective and commercial coastal building, as subsequent siltation and erosion processes brought about many unforeseen and unwanted effects. In more recent years managers have learned from previous experience, while legislators and planners have made concerted efforts to set out the basis for a more effective and comprehensive system of coastal management.

However, although progress has undoubtedly been made, it has taken place without full knowledge of the variation in coastal vulnerability that exists along the coast. Proper analysis of vulnerability is now required to provide an essential underpinning to planning in the region. Until recently, these measures have been dominated by physical components, although there has been growing recognition that coastal vulnerability is equally a function of human activities.

#### **Settlement in Torres:**

Fishing communities occupied sites immediately adjacent to beaches, and locations for the salting of fish were located close to, and sometimes on, the beach itself. As early tourism developments occurred, promenades were constructed in front of existing houses, encroaching on to the back-beach. Although the promenades did not obstruct littoral processes in fair weather conditions, they were subjected to inundation from both the sea and nearby streams during storm conditions, which led to concerns from local councils for further protection or strengthening of the new promenades.

In Torres, the occupation of the back-beach by infrastructural work affected the littoral dynamics in a predictable way. The back-beach, which had previously been effective as a coastal defence feature through the provision of protection in rare severe wave conditions, became fixed by vegetation during relatively long periods of inactivity. Once the back-beach had become superficially indistinguishable from the rest of the hinterland's landscape in terms of vegetation and apparent inactivity, development pressures and the absence of strict planning controls led to its urbanization in a number of prime locations. In the most highly urbanized sections of the coastal fringe, the complete elimination of the back-beach as a morphological feature occurred. This is clearly evident in many sites along Torres coast, where fishermen's cottages and vegetable gardens had given way to promenades, restaurants, apartments, and hotel blocks by the 1970s (Figure 2).

By the late 1980s Torres coast presented a situation of

unsustainable development. The attempts of application of more rational spatial planning, incorporating elements such as public spaces for various public sector provisions (educational, recreational -parks-, health, cultural, etc) revealed impossible due to exceeded physical and infrastructural carrying capacity. Both, private developers and the public sector responsible for spatial planning looked inland as a basic resource for further development and for appropriate provision of public infrastructures. Hence, basic features enabled the generation of the 30000 inhabitants project supported (although only in *laissez faire* approach -not financially-) by the town council.

This, however, does not imply that the Regional and/or National administration backed the idea or even the concept. The project suggested a six fold increase in population but local planning was the only instrument available given that sub regional, regional or national spatial plans had not been developed.



Figure 2: Villa in 1950 and in the late 1990s. Note encroaching of urbanisation on shoreline in the lower plate.

### **Torres 2000-2010. The Crash:**

Following the great development during the 1990s and the general return to *laissez faire* in planning (or rather in applied management) Torres is driven by market forces to continue an urbanization programme that is unsustainable. Local government (municipality) seizes the model since it becomes the most effective way to fund new developments and maintenance of existing ones. Just like other private stakeholders, local authorities trust that property values will continue rising endlessly and the dependence from this economic and managerial model become absolute. In this situation, the Town Council approves the support for the construction of Torres Costa mega urbanization in 1999. This represented an increase in local population of some 75% additional inhabitants. The promoters, CD Ltd (Concrete Dreams Limited) embarked in a 10-year strategy which involved seeking and securing funds from many investors interested in the project.

In the heart of the project, a golf course, a shopping centre, various other private initiatives and the expectance that the new liberal approach would generate the necessary resources to contribute to local services which would be absorbed by local government in due course.



Figure 3: presentation of the Torres Costa Project by CD Ltd. to the Town Council in 2005

In 2005 the new municipal office for urban and land planning approved the go ahead for construction and embarked in a 10 year program for infrastructure provision (water mains, sewerage, access roads and electricity supply, and the promoters received the final granting of permissions for project development (Figure 3). The funding, coming mainly from international financial firms, was to be implemented in a way that the selling of the various phases would ensure viability of the project. A massive scheme of endowment mortgages packages to be issued for future home owners. The investments would mature during the construction thus becoming self-funding and substantial benefits would then revert on promoters and home owners themselves. Many first time buyers saw themselves as future investment brokers in the operation that attracted local,

national and international interest.

However, in 2007 only 15 % of the project had been established and the incipient credit crunch introduced serious doubts in the maturity of investments and moreover left broke the main moneylenders of the operation. Construction pressed on with new credit (very fragile and dubious sources this time) and in 2009 an overall collapse of the Torres Costa Project was formalised by the declaration of bankruptcy of CD Ltd, who disappear as fast as it had shown. Up to 85 % of the chalets, buildings and terraced houses were now half finished, not sold. Infrastructure half deployed and services out of the question.



Figure 4: Current landscape of abandoned urbanisation project in Torres

The Golf course was visible due to the massive deforestation and the increase of invasive species present and the marina's dikes abandoned now lay battered by waves in bad weather because the final off shore artificial reefs were never fully implanted (Figure 4).

The Town Council was forced to dissolution from Regional Government after massive money laundering was discovered in an operation from National and international police The investigation was coded Operation Malakka. The Regional Ministry for Public Works and Housing installed a provisional government to ensure a safe transition through democratic elections as soon as feasible.

### Spatial planning and management:

The planning documents affecting the Torres coast are classified at various scales: Supranational, National, Regional and Local. In the National level the main objective is the zoning and regulation of Public Lands. In Regional planning the instruments are developed to provide a generic framework for land use and Local planning is mostly in charged of urbanisation instruments. The Supranational level is mainly regulated in the ICZM Protocol for the Mediterranean. Take some time to study the Protocol before continuing.

### National level management

Nationwide planning is linked to the Coastal Law and the main directives are:

- Boundary designation. As noted earlier, this is concerned with defining those parts of the coast that form part of the public domain under the Law. As well as a legal requirement, this provides the first step in the protection or defence of vulnerable areas. Initially planned for completion within a 10-year period from the enactment of the Law, this was not achieved, although there has been a rapid acceleration in activity since 1997.
- Power of Sanction. This allows the Direction General for Coasts (DGC) of the national administration to take action against those abusing the public domain in a wide range of activities that impinge directly on both the

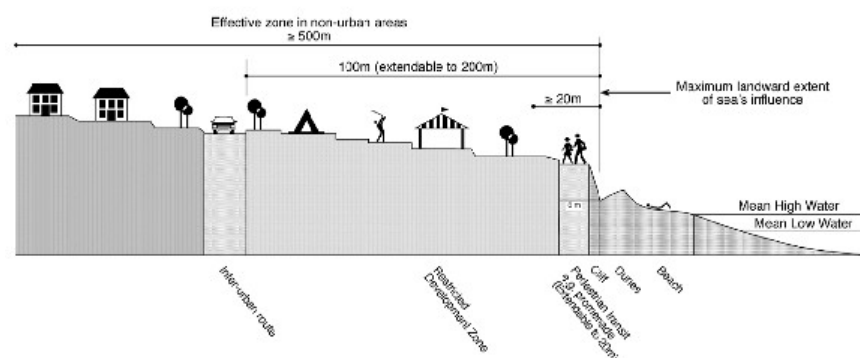


Figure 5: zoning predicted in application of National level coastal management

physical integrity of the coast and recreational activities. Thus, the unauthorised extraction of materials (sands, gravels, etc.) that might compromise marine processes can be controlled, as can unauthorised construction work (see Figure 5), vehicle parking and camping. Almost 6000 prosecutions resulted in the first two years of operation alone and fines have been levied on defaulters.

- Overseeing of urban plans. The DGC through the Coastal Act is responsible for ensuring plans comply with the Law and thus municipalities' intentions are examined in respect to whether the seafront harmonises with the various land-use, access provision and building restrictions.
- Granting of title to use the public domain. Certain activities, particularly concerning health and public safety, require proximity to the shoreline and the DGC has power to grant title in these cases. Sanitation facilities fall into this category and upgraded units have been granted title. The growing problem of ensuring sufficient fresh water supplies underpins permission for a desalination plants, again within the public domain.
- Coastal defence projects. Finally, the Administration will assist developments to improve the infrastructure, provided that the law is respected in terms of provision of transit rights and recognition of the public domain and that the work does not promote urban expansion. Improvements to promenades come under this heading, as do the various other works of coastal protection that has traditionally been this authority's responsibility, namely breakwater construction, cliff protection and beach stabilisation, together with the more strictly environmental concerns of dune, marsh and wetland conservation and recuperation of degraded coasts.

### ***Regional level management***

This is a key element in the new structure of spatial planning strategy. Subregional plans are a mandatory framework for spatial plans of local scale and urban planning. Other instruments, which introduce territorial impacts, are also subject to the resolutions in subregional planning, such as environmental or other coastal affections. The main function of the sub regional plan is to allow for more detailed planning at a sub regional level serving as the framework for the development and coordination of policies, plans and projects by the Administration, public entities and individuals.

Responsibility for the production of sub regional plan lies with the Office of Housing and Territorial Planning of the Regional Ministry for Public Works.

Three types of normative regimes are predicted for application for Public and Private stakeholders:

- ***Directive***: these are normative of mandatory nature. Their applicability is immediate for public and private stakeholders in urbanisable land.
- ***Instruction***: are mandatory in terms of the objectives that are sought after, and public administration is obliged to comply with the objectives although the means to achieve these is not determined in the actual regulation.
- ***Recommendations***, of indicative nature aimed at the development of strategic lines in accordance with the overall objectives of the plan. The recommendations are aimed at the public administration affected by the plan (sectoral and territorial offices) and any deviation from them must be justified and in no way must actions contradict spatial planning directives.



The overall structure of the subregional plan is designed for improving territorial cohesion, including the enhancement of quality of life, sustainability of natural resources exploitation and improvement of territorial competitiveness in the national and international context.

### Local level management

New political and administrative structures introduced following expansive socioeconomic boom of the 60s introduced changes in the planning legislation. The principal instrument was the Reform of the Land and Urban Planning Act with its requirement of each municipality to produce its own urban plan (Figure 6). Although it was the case that the previous 1956 Land Act, which had demanded similar Plans, the response of Town Councils was slow to the point of non-compliance in some instances among other reasons because the provincial and national plans were not ever completed.

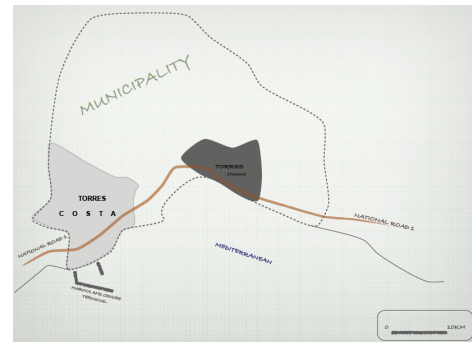


Figure 6: generic layout of Torres municipal plan. Dark shade is the old town, Torres Costa project is shown as approved in latest local plan

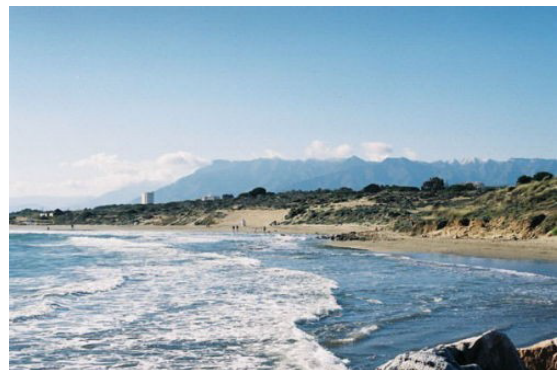
On the Torres coast the council was fast, producing its plan in 1959 followed by a second in 1968. After the original Act had already been superseded by the 1975 Reform, new Plans produced following the Reform recognised problems inherited from the earlier legislation and made provision for environmental conservation and improvements in the social and economic infrastructure. Moreover, the application of the three broad land-planning categories of 'urban', 'urbanisable' (programmed for development) and 'non-urban' was more firmly established. Nevertheless, although there was widespread recognition of existing problems, many were beyond remedy, while economic development priorities continued to hold pole position. However, growing concerns over the image projected by the old established resorts gradually brought about a shift in emphasis, so that by the end of the century major improvements in the economic and social infrastructure (including promenade completion and sewage provision) had been made.

One aspect of the new types of Land Act is to be noted: rustic or agricultural land was now to be classified as "non urbanisable", as stated above. Thus, the set up and intention of the Law is clear: the emphasis is on regulation of urbanisation and other sectoral policy for spatial planning will have to wait.

### Environmental Settings:

The dynamic equilibrium of the physical environment is a common low energy, wave dominated marine setting with semi reflective beaches highly dependent on sediment supply from short-steep river network. Biological control of production is sensitive due to overfishing and some blooms in chlorophyll *a*, maybe linked to abusive use of fertiliser in agricultural lands inland from Torres.

Figure 7: Spilling waves in the western sector of Torres after a storm in the semi-reflective beaches near the newly designed development area



Torres coastal environments are wave dominated and subjected generally to low energy levels. Tidal range is small

(<20cm average astronomical tidal range). The mean significant wave height is 1.0 m. with a mean period of 5.0 seconds producing a coast dominated by high frequency waves. The average directional components of the dominant wind waves are E to W and W to E that generates intense surf zone longshore drift and active cross shore sediment transport in exposed areas. The effective fetch is limited to an average 500 km. and only rarely do swell waves affects the shores.



Figure 8: The intense occupation of the back beach with residential and business areas deactivates the natural protection of the beach system

The morphology of the inner shelf is steep and narrow. Oceanic depths are reached within two kilometres from the coast in some sections. This results in a concentration of wave action on a narrow fringe of steep coastal shelf, with predominantly intermediate to reflective beaches (Figure 7). Sediment supply is mainly reworked fluvial sands and supply is episodic and concentrated in time around seasonal heavy rainfall.

The beaches formed after the changes in agricultural practices and climatic abnormalities in the 15<sup>th</sup> century silted the previous estuaries. The recent development of intensive agricultural practice (green houses) and demands from the tourist industry, lead to the completion of a regulating plan of the entire river basin for water management. This translated in more than 8 major dams that blocked sediment supply to the coast. Shoreline comparison studies have shown that from

1950's, the shoreline suffers net transgression of an averaged 300 metres. During storms in 1989 damage extended to the back beach which was occupied by restaurants and other tourist related businesses (Figure 8).

The projected recreational harbour to the West is in the area where longshore drift is limited inside these boundaries. The emerged beach disappeared and the Ministry of Public Works carried out a controversial beach nourishment campaign using 415,000 m<sup>3</sup> of fine sediment from off shore sources. Public pressure resulted in the immediate execution of remedial works. However, post storm recovery of the beach was never contemplated as an option. The identification of potential trends in cross-shore sediment transport and a geographical analysis of the spatial distribution of wave energy dissipation under severe wave and wind conditions (i.e. those that originated extreme erosion) may have provided sufficient information about alternative mitigating measures.

## ANNEX 2: ISSUES AT THE IMAGINARY COASTAL SITE:

In this document you will find all the necessary information to understand the (imaginary) impacts derived from the abandonments of the Torres Costa project in 2007.

Environmental impacts  
Socio-economic impacts

*Read carefully all pages.*

### **Environmental impacts:**

**Visual impact.** View quality is partially dependent on relatively unchanging landscape elements like mountains or valleys; views are also affected by more readily altered landscape features, particularly built structures such as buildings. In case of abandoned buildings view quality can be seriously deteriorated, especially if towering over flat coastal areas where the visual field is wide and open. Some of the abandoned developments in Torres are composed of two enormous unfinished and badly preserved fifteen-storey buildings. Its dilapidated appearance and its location at the top of a cliff generate a huge negative visual impact.

**Landscape modification.** The original topography is significantly changed once urbanisation process starts. Waste soils, gravels and residues, temporary soil piles on construction sites, vegetation elimination and asphalt cover are common actions during urbanisation. These processes change progressively the especially sensitive coastal landscapes. Once the coastal stretch has become superficially indistinguishable from the rest of the hinterland's landscape in terms of vegetation and apparent sedimentary inactivity, development pressures and the absence of strict planning controls leads to encroached urbanisation in a number of prime locations. Some of the 2,184 houses (half of them under construction), two shopping malls, hotels and two golf courses are there now. All of the latter elements are also under construction. The current bankrupt situation of the building company has paralysed the works.

**Erosion.** At most locations, the occupation of the back-beach by infrastructural work has affected the littoral dynamics in a predictable way. The back-beach, which had previously been effective as a coastal defense feature through the provision of protection in rare severe wave conditions, became fixed by vegetation during relatively long periods of inactivity. In the most



highly urbanised sections of the coastal fringe, the complete elimination of the back-beach as a morphological feature has occurred. Also digging and moving of soil and rocks leave abandoned loose earth and residues. Experimental studies and field investigations show that loose silt and earth piles formed by urban construction can be eroded seriously: the tracks generated thirty years ago during the construction phase of some large sites still remain. These tracks cause severe erosion problems in the area. The vegetation is unable to remain in these conditions as the little forest cover of the soil disappears and the area become more vulnerable to erosion.

**Biodiversity decrease.** As coastal habitat conservation is directly related to species conservation, degradation of coastal areas would end in a decrease of biodiversity. It is the damage to biodiversity and ecological values resulting from the abandoned of the resort what has driven Public Administration to order its demolition. Some of the constructions, located in an arid area which is rich in species of plants. However, due to the fragility of this ecosystem, plants population has decreased in the surroundings areas of the abandoned building due to the erosion process described above.

**Pollution.** Abandoned buildings usually trigger the creation of uncontrolled and unsupervised garbage disposal. Besides garbage, half-built housing development may bring other kind of pollution. In most of the finished parts people are currently living without sewage treatment plant. The pollution generated is being noticed downstream the rivers, where organic pollution is increasing. Pollution effects can be summarise as a decrease of water quality for aquatic life and recreational activities, eutrophication, alteration of ecological conditions and increase of illnesses related to water.

## Socio-Economic impacts:

**Unemployment increase.** When a building work is paralysed many workers end up in unemployment. Nowadays construction companies normally form macro-groups, so unemployment dimension is greater. Some of the promoters and Construction Groups were declared in bankruptcy proceedings for suspension of payments in October 2007. This has paralysed many urban developments in the residential areas producing not only direct layoffs from companies but also to the subcontracted companies and secondary services for construction, which are also affected by this bankruptcy. The global project employed over 1,500 employees. Employees of subcontracted companies have brought a lawsuit against the promoting company to consider the situation.

**Conflicts between Public Administration and private sector.** When urbanisation or single buildings are abandoned there is usually a confrontation between different stakeholders. What to do with the project and who has to pay are usually sensitive issues that end up in costly and slow lawsuits. For instance, despite some buildings were declared in ruin state, there is a lawsuit between city council and land's owner, and depending on the decision of the court the building will be demolished (city council will) or rehabilitated (private owner will). Some were also subjected to conflict as the resorts abandoned by the private developer and the Public Administration wanted to demolish it. Firstly, the developer and the Administration did not agree about the price that had to be paid to buy the land. Secondly, the Regional Government and the National Administration did not agree about the quantity of money each had to put forward illustrating that the conflicts also affect the very nature of the fragile institutional framework that is in place for the management of complex (though frequent) coastal issues.

**Loss of economic value of the area.** Reduced view quality can cause economic losses for communities, planners, policy makers, and developers. Sale prices of a house or the aesthetic impact of a scenic lookout is greatly influenced by the view it offers, which is determined largely by the landscape features directly visible from observer locations. Considering that abandoned buildings spoil considerably the landscape, tourism industry can be damaged by this issue. Hotels located on the beachfront are a good example of this: the aesthetics of the beach is

being seriously damaged, thus tourists who look for less unpleasant views may have to move to another beach and/or resort, resulting in economic losses to the municipality.

***Marginalisation of population.*** Abandoned buildings are used by homeless people, who live under unhealthy and dangerous conditions, without public services and with risk of building's collapse. Sometimes homeless people have occupied the old ruined buildings and these people are living under precarious circumstances. In both cases, the structure of the buildings lack of external wall and windows, and their thirty year old derelict structures have never been checked. There is neither access to water or electricity.

***Transfer of cost between private and public sector.*** Private failures are sometimes solved by the public administration. Both rehabilitation and demolition are expensive processes. The demolition of some buildings will cost to Public Administration 6,5 millions of euros to demolish and to restore the landscape. The resort is formed by 370 apartments, two restaurants, one swimming-pool, tennis courts, one discotheque and an open-air theatre. Demolition works are difficult and time- consuming as some tasks are hand made.

## ANNEX 3: Start up instruction to Students

Welcome Scenario Issues Roles **Running**

MedOpen  
2012

### Timetable

HERE IS SOME TIMING INDICATIONS FOR SIMULATION RUN

The Simulation Game is accessible for the PEGASO students doing MedOpen. The game will start in **week 5** of MedOpen, and it will last for 5 weeks.

#### The sequence is as follows:

First, you dedicate one week to read and understand the Scenario in depth and to familiarise yourself with simulation game dynamics. Then the Simulation Coordinator will establish contact with you and will communicate the roles assigned to each one.

The game develops and the group of students start to work together in their assumed roles. Developers, environmentalists, and other stakeholders will analyse the severity of the situation in Torres (using SWOT techniques) and then will propose to Consultants various development plans to provide Torres with some future. In week 4 all students become consultants and use MedOpen tools to provide a diagnostic and extract strategic lines of action.

Final proposal should be selected (the Major intervenes as moderator). In week 5 the Strategy for Sustainable Development of Torres is presented.

#### Table of the programme:

when	what	how
Week 1 MedOpen week 5	<b>Introduction</b> of the site and scenario. Assignment of the roles by Simulation Coordinator	Read carefully <b>all</b> the site pages and documents.
Week 2 MedOpen week 6	<b>Simulation Coordinator assigns roles.</b>  <b>Stakeholders develop proposals:</b> Developers, Environmentalists, Citizen groups begin configuring their proposals. <b>Consultants:</b> to research environmental issues in general; Appoint manager and assist stakeholders in scoping	A skype conference to be organised to fully explain scenario.  Publication of roles list (email)  Groups (stakeholders) will meet in virtual rooms or email to configure proposals. Some of the tools described in MedOpen to be used
Week 3 MedOpen week 7	<b>Major:</b> salutes citizens and moderate  <b>Stakeholders:</b> Prepare outline of case for project, define their objectives and use tools (e.g. SWOT matrix) to produce initial proposals  <b>Consultants:</b> to research environmental issues in general; Appoint manager and post e-mail address.	<b>Stakeholders:</b> use chat to coordinate proposals. Write proposals and send to Consultants  <b>Consultants:</b> Written statement to be submitted for next week by email.
MedOpen week 8	<b>Consultants:</b> receive submissions and investigate projects in group meetings.  Develop final •SO Strategies (Strengths and Opportunities Strategy) •ST Strategies (Strengths and Threats Strategy) •WO Strategies (Weaknesses and Opportunities Strategy) •WT Strategies (Weaknesses and Threats Strategy)	<b>Major)</b>  <b>Consultants:</b> use e-mail or on-line chat. <b>Present results with strategies from SWOT</b>
Week 5 MedOpen week 9	Presentation of Strategy for Sustainable Development for Torres	Publication of Presentations via Web

The TORRES Costa Simulation Game

MEDOPEN for PEGASO 2012

## ANNEX 4: Role descriptions and allocation

Gonzalo Malvarez  
Simulation Game  
June 2012

### SIMULATION GAME ROLES

In this document you will find a succinct description of the profile of the stakeholder you represent in the Game. You must have received a table by now with your name and the role assigned and you are expected now to perform as a member of the society acting in Torres.

You will think and act to promote a future development plan for the abandoned urbanisation resort described in the Scenario and Issues pages. The role provides you a context for your proposals or behaviour as a consultant assessing the proposals.

#### Promoters and developers:

##### *NCDLtd (New Concrete Dreams Limited).*

Members of NCDLtd are aggressive developers whose goal is to continue urbanisation. They will provide proposals for development in this line. As aggressive private urban developers the interest is to maximise returns and thus public services are perceived as a cost and not a benefit. They place significant blame and pressure on local and regional government in providing services for their development plans.

##### *NU Developments (Non Urban developments)*

he alternative to urbanisation. However, given that the mega project was started and is now abandoned, a member of NU development must consider the complex issue of re utilisation of existing land use. However, you are a developer and want to make business in the area. You tone is aggressive but focusses on modern alternative ways to promote the area through innovation, renewable energy, alternative tourism, etc. All in the abandoned urban space and all funded by public and private sources. NU Development pushes the Regional Development Office to support them.

##### *GtG (Greener than Green). Extreme conservationist group*

Fed up with the history of abuse from urbanisation development, this radical environmental group is in constant demand for conservation in the area. They focus on natural resources and represent a non profit organisation that is committed to their land but are not developers. The profile is set to represent bottom up alternatives and they feel that the Major and other local politicians need to share their view that proposals from outsiders will be fatal in the long run, as previous experiences has led them to believe. They are active in demanding cleaning up of urban structures and need to provide alternatives.

#### Consultants

##### *COCA (Consulting, Certifications and Assessments). Environmental and spatial planning consultants*

he consultant group is supporting the other in making their proposals. At some point all become consultants and share the valuation of all proposals. The main element here is to use spatial planning and other assessment techniques that you may know or have learnt in the course. As time is short,

the consultants will use at least a full SWOT structure for their final report to the Major. The recommendation of the consultant will ultimately be received by the Regional Government after the Major's go ahead.

#### Major of Torres

*Mr(s) Lucca Grijande-Nauer; recently won the local elections.*

This role can be played by a student or the Simulation Coordinator. The profile is that of a local committed to a rational development, fed up with the exploitation of their beautiful land by foreigners and now under significant pressure from Government who has just devolved power to local politicians in the town council.

He is not a radical and sometimes may be tempted by fast growth, thus he's interpretation of Coastal Act and other applicable land planning regulations is constantly an issue for the stakeholders who see vulnerable flexibility to continue development in the classic fashion (concrete). However, he is a committed member of society and will measure his moves always.

ALL STUDENTS MUST PLAY A PART AS ONE OF THE FOLLOWING ROLES AS STAKEHOLDERS:

**ROLES**

- A NCDLtd (New Concrete Dreams Limited).
- B NU Developments (Non Urban developments)
- C PASTA (Project ASessments for Tourism Adaptation). Economist consulting group
- D GTG (Greener than Green). Extreme conservationist group
- E COCA (Consulting, Certifications and Assessments). Environmental and spatial planning consultants
- X Mr(s) Lucca Grijande-Nauer; recently won the local elections

	NAME & SURNAME	SIMULATION GAME ROLE	CODE
1	Sinem Önder	COCA (Consulting, Certifications and Assessments)	1E
2	Maria Karkani	COCA (Consulting, Certifications and Assessments)	2E
3	Petroula Kiragianni	COCA (Consulting, Certifications and Assessments)	3E
4	Marian Mierla	COCA (Consulting, Certifications and Assessments)	3E
5	Olga Moiseenko	COCA (Consulting, Certifications and Assessments)	4E
6	Emilia Guisado	COCA (Consulting, Certifications and Assessments)	5E
7	Antonio José Trujillo Martínez	COCA (Consulting, Certifications and Assessments)	6E
8	Fabrizia Buono	Greener than Green	1D
9	Aiko Endo	Greener than Green	2D
10	Suzan Kholeif	Greener than Green	3D
11	Eugenia Marin	Greener than Green	4D
12	Nour Masri	Greener than Green	5D
13	Iulian Nichersu	Greener than Green	6D
14	Maria Natasa Vaidianu	Greener than Green	7D
15	Iuliana Nichersu	MRS. LUCCA GRIJANDE-NAUER	X
16	Hocain Bazairi	PASTA (Project ASessments for Tourism Adaptation)	1C
17	Gialamas Giannis	PASTA (Project ASessments for Tourism Adaptation)	2C
18	Mohamed Jabran	PASTA (Project ASessments for Tourism Adaptation)	3C
19	Christina Pavloudi	PASTA (Project ASessments for Tourism Adaptation)	4C
20	Abdou Khouakhi	PASTA (Project ASessments for Tourism Adaptation)	5A
21	Cristian Trifanov	PASTA (Project ASessments for Tourism Adaptation)	6C
22	Walaa Ali	Promoter (NCDLtd)	1A
23	Nikoleta Bellou	Promoter (NCDLtd)	2A
24	Veronique Evers	Promoter (NCDLtd)	3A
25	Mamuka Gvilava	Promoter (NCDLtd)	4A
26	Sylvain Petit	Promoter (NCDLtd)	5C
27	Yolanda Koulouri	Promoter (NCDLtd)	6A
28	Corinne Martin	Promoter (NCDLtd)	7A
29	Svetlana Baranova	Promoter (NU Development)	1B
30	Rita Chedid	Promoter (NU Development)	2B
31	Amiran Giginishvili	Promoter (NU Development)	3B
32	Victor Karamushka	Promoter (NU Development)	4B
33	Mohammad Khawile	Promoter (NU Development)	5B
34	Athina Kokkali	Promoter (NU Development)	6B
35	Vasiliki Markantonatou	Promoter (NU Development)	7B

New Concrete Dreams

New Concrete Dreams

SEALING OUR FUTURE

New Concrete Dreams Ltd.

#### OUR VISION

Make no mistake, the only way forward is by the development of high quality urban spaces. More than 80 % of the population lives in cities, and cities are the major driving forces of economic and societal development. Why turning our interest elsewhere?

Concrete Dreams represented a symbol of the XX century. Many factors contributed to a conversion to a more modern progressive company that, nevertheless, maintain the same objectives: growth, improvement of economic indicators and attraction of foreign markets into our coastal zones. This way, we will never stop growing. We have the technology; you have the dream. Let us build it for you right here on the coastline.



**NEW CONCRETE DREAMS LTD.**  
Main street n. 1 Torres Costa

We are specialised in re-construction and re-development of unfinished project; you think it was impossible...think twice !

New Concrete Dreams

New Concrete Dreams

...we have constructed where everyone else thought saturation point had been achieved: you'll see about that !



#### RE-DEVELOPMENT

Strategies for redevelopment are not simple. We follow our instincts and provide enormous resources to finding and exploiting natural resources for your comfort.

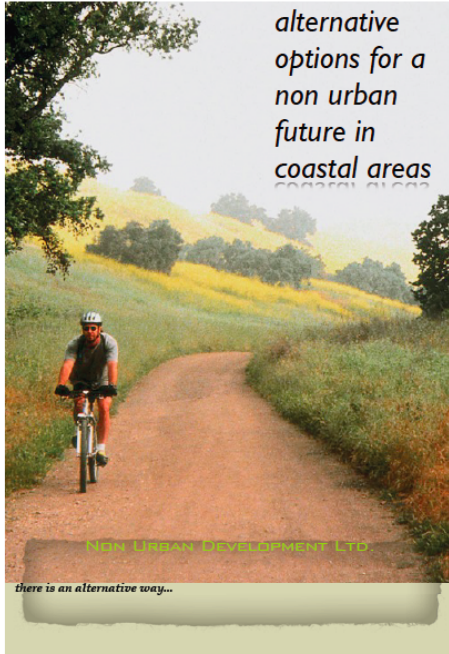
Most coastal sites have problems with water management and shoreline erosion. NCD Ltd has developed near impossible sites via unimaginable concrete structures so that you and your family (and more importantly your investment) are safe. Coastal structures help securing our investments and, despite new trends in soft protection, we trust big sea walls better...they are simply tougher !

More development equals more services. We will link with the Regional Government to tailor make a development project that fits the restrictive spatial strategies. We focus, in short, in getting you more buck for your buck...

Contact us today to transform your natural environment into something profitable  
**NEW CONCRETE DREAMS LTD**



FOR URBAN DEVELOPMENTS, LTD.



FOR URBAN DEVELOPMENTS, LTD.



Our company specializes in providing a new perspective to developing projects in coastal areas. We search for heritage values both in the natural, built and cultural environments. Our attention to landscapes and their rich values to locals translates in projects for sustainable development that connects with locals, governments and those interested in long term societal and economic growth.

Our team of specialists have a background in environmental sciences, spatial environmental planning and environmental law. We assess thorough comprehensive territorial analyses the possibilities of the project or plan sites and provide long term viable solutions.

Of course we are not interested in swift development and particularly hate urbanization projects for their short term view on economic growth.

Some coastal areas are under the stress of abandoned urbanization. We can revert this situation: ask us how.





## ANNEX 5: TORRES Rapid Impact Assessment Tool

The TORRES Rapid Impact Assessment Tool is designed to help her Excellency the Mayor of Torres and other organisations to provide a preliminary assessment and screening of the potential environmental impacts of the project or proposal before a final decision is taken.

The RIA considers potential environmental, social and economic factors. Indicators are listed for each factor and these are used as a checklist. A designated person (e.g. Project Manager) will assess the project/proposal against each factor, scoring them on a scale of 1 to 10. To enhance visual representation the scale is colour coded as follows:

Scale Score 1-3 (RED): Negative Impact

Scale Score 4-7 (AMBER): Neutral Impact

Scale Score 8-10 (GREEN): Positive Impact

The completed matrix; a summary of the positive, neutral and negative environmental, social and economic impacts; and any recommendation are considered before any decision is made on the project/proposal. The results of the TREAT may result in a decision to carry out a more detailed impact survey and report before a final decision on the project/proposal is taken.

This tool contains:

- A full Rapid Impact Assessment matrices, which lists all of the environmental, social and economic factors and allows you, for each one, to provide a score (1-10) and any additional Comments & Remedial Measures.
- A summary sheet on page 10, which can be used to provide an overview of the impacts of the project (positive, neutral and negative) and can be submitted with reports for further consideration.

## Rapid Impact Assessment Matrix

Score each factor on a scale of 1 to 10 where a score of:

- 1 = significant adverse impact
- 2 or 3 = negative adverse impact
- 4 to 7 = neutral impact
- 8 = good positive impact
- 9 = very good positive impact
- 10 = excellent positive impact

1	2	3	4	5	6	7	8	9	10
Significant	Negative		Neutral				Good	Very good	Excellent

### Air Pollution

A substance in the air that can cause harm to humans and the environment. Major pollutants caused by human activity include CO<sub>2</sub>, carbon monoxide, sulphur and nitrogen dioxides, mostly related to burning different types of fuel.

Air Pollution Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<ul style="list-style-type: none"> <li>- significant air pollutant emissions</li> <li>- direct and indirect primary PM<sub>10</sub></li> <li>- direct and indirect NO<sub>x</sub></li> <li>- a deterioration of existing air quality</li> <li>- objectionable odours</li> <li>- alteration of air movement</li> <li>- alteration of temperature</li> <li>- increased use of (e.g. diesel) fuel</li> <li>- creation of a cycle route</li> <li>- tree planting scheme</li> </ul>		

## Waste

Items that people or organisations no longer have a use for; or that they are required to discard because it is hazardous.

Waste Factor Indicators	Overall score 1-10	Comments & Remedial Measures
<ul style="list-style-type: none"> <li>- <i>Is the proposal likely to generate waste?</i></li> <li>- <i>Have the types and amounts of waste been assessed?</i></li> <li>- <i>Have steps been taken to ensure that any waste produced is not disposed of illegally?</i></li> </ul>	[INSERT]	[INSERT]

## Water Pollution

Any chemical, physical, biological change in the quality of water that has a harmful effect on any living thing that drinks it, uses it, or lives in it. It is usually caused by human activities by discharging pollutants at specific locations through pipelines or sewers into surface water. These are known as 'Point Sources'.

Water Pollution Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<p><i>Is there a risk of water pollution from:</i></p> <ul style="list-style-type: none"> <li>- <i>Sewage disposal</i></li> <li>- <i>Pesticides</i></li> <li>- <i>Fertilizers</i></li> <li>- <i>Oil / Petroleum</i></li> <li>- <i>Metals and Solvents</i></li> <li>- <i>Storage tanks</i></li> <li>- <i>Industrial Sources</i></li> <li>- <i>Recreation activities or tourist attractions including swimming pools or animal housing?</i></li> </ul>		

### Noise/Vibration

The degree to which noise interferes with the peaceful pursuit of normal activities (e.g. sleep, speech, listening to TV/radio); the degree to which it may impair health. Vibration causing disturbance, annoyance, inability to concentrate; sources include roads, railways, construction activities. Can cause damage to buildings, sensitive machinery and equipment. Noise/vibration sources include machinery, traffic and water vessels, amplified music and large social groups.

Noise/Vibration Indicators	Factor	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<p><i>Is the proposed activity likely to:</i></p> <ul style="list-style-type: none"> <li>- <i>Create disturbance or an adverse impact caused by vibration?</i></li> <li>- <i>Create disturbance or an adverse impact caused by noise?</i></li> <li>- <i>Create additional disturbance during evenings and night?</i></li> </ul>			

<b>Amenity</b> How will the proposal impact on the visual environment?		
Visual Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<ul style="list-style-type: none"> <li>- Will the proposal result in a noticeable (adverse) change in the physical characteristics of the existing environment?</li> <li>- Will the project complement or contrast with the visual character desired by the community?</li> <li>- Will any change to the visual environment be mitigated by normal means such as landscaping and architectural enhancement?</li> <li>- Will avoidance measures be necessary to minimize adverse change?</li> </ul>		

### Water Conservation

The usage and recycling of water. Measures include the use of water saving technology (e.g. low flush toilets; rainwater harvesting); water metering. Using hot water also contributes significantly to the production of greenhouse gasses.

Water Conservation Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<ul style="list-style-type: none"> <li>- <i>Has a water conservation assessment been carried out?</i></li> <li>- <i>Are water conservation measures appropriate?</i></li> </ul>		

### Energy (carbon reduction)

The scientific consensus is that our current levels of man-made carbon dioxide (CO<sub>2</sub>) and other gaseous emissions are leading to global warming. These emissions are mainly caused through the use, supply and generation of energy. Unchecked and reversed these rises in temperature will lead to uncontrollable climate change and severe consequences for life on earth.

Spain's mandatory climate change and energy saving scheme is central to improving our energy efficiency and reducing CO<sub>2</sub> emissions. It will operate as a 'cap and trade' mechanism, acting as a financial incentive to reduce energy by putting a price on carbon emissions caused by energy use.

Energy Use Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<ul style="list-style-type: none"> <li>- <i>How will this proposal affect energy consumption?</i></li> <li>- <i>Has the proposal been assessed against the Regional Carbon</i></li> </ul>		

<p><i>Reduction Plan?</i></p> <ul style="list-style-type: none"> <li>- <i>Will the proposal contribute to achieving the Regional Carbon Reduction Plan?</i></li> </ul>		
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### Energy Efficiency

Efficient energy use is using less energy to produce the same level of energy service. It is primarily achieved by using more efficient technology or processes, rather than by changing individual behaviour. Examples of how it can be achieved include: better insulation; fluorescent lighting; skylights; use of more energy efficient appliances or building design; renewable energy sources e.g. bio-fuels, wind, tides.

Energy Efficiency Factor indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<p><i>What energy efficiency measures have been considered / proposed?</i></p> <ul style="list-style-type: none"> <li>- <i>Insulation</i></li> <li>- <i>Skylights</i></li> <li>- <i>Energy efficient appliances</i></li> <li>- <i>Renewable energy sources</i></li> <li>- <i>Building design</i></li> </ul>		



### Access to quality green space and public domain coast

Green space is accessible green places and open coast we can visit and enjoy that provide opportunities for recreation, relaxation, social interaction, play and spiritual reflection.

Recreational Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<ul style="list-style-type: none"> <li>- Will the proposal affect / reduce / increase access to green space/public domain coast?</li> <li>- Will the proposal affect opportunities for recreational activity?</li> </ul>		

### Flooding

Flooding is caused by rising ground water levels, burst water drains, hillside 'run off' from sudden rain, and flooding from rivers or the sea. Common sources include a watercourse being unable to cope with the water draining into it from surrounding land; local drainage capacity and sewers becoming overwhelmed as a result of heavy rainfall

Flooding Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<ul style="list-style-type: none"> <li>- Will the proposal increase the risk of flooding?</li> <li>- Will the proposal reduce the risk of flooding?</li> <li>- Will the proposal impact on the quality and supply of groundwater?</li> </ul>		

## Transport

Transport is a major source of greenhouse gasses, air pollution, and noise.

Transport Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<p><i>Will the proposal:</i></p> <ul style="list-style-type: none"> <li>- <i>Affect the present patterns of movement of people e.g. greater car use; impact on existing transportation systems, including roads, transit, cycle, or pedestrian facilities?</i></li> <li>- <i>Increase traffic hazards to pedestrians, cyclists, or motorists?</i></li> <li>- <i>Increase congestion?</i></li> <li>- <i>Lead to changes to existing parking facilities, or the demand for new parking facilities?</i></li> </ul>		

## Biodiversity & Cultural Heritage

This can be described as the variety of life in a particular habitat. These include the living things around us like the different animal species; plants; forests; mountains; rivers; seas; gardens; and parks. Cultural heritage applies to any landscape, monument, building or other feature which has been notified as being of special cultural importance or significance.

<b>Biodiversity Factors Indicators</b>	<b>Overall score 1-10 [INSERT]</b>	<b>Comments &amp; Remedial Measures [INSERT]</b>
<p><i>How will the proposal affect biodiversity?</i></p> <ul style="list-style-type: none"> <li>- <i>Directly</i></li> <li>- <i>Indirectly</i></li> <li>- <i>Cumulatively</i></li> </ul> <p><i>Will the proposal enhance / maintain biodiversity?</i></p> <p><i>How will the proposal impact on statutorily protected areas adjacent or nearby?</i></p> <p><i>How will the proposal impact on the area's cultural heritage of national or local importance?</i></p>		

### Local Environmental Quality (LEQ)

This may include 'nuisance' defined as: *"a problem which interferes substantially and unreasonably with a person's well-being or comfort, or the enjoyment of his property"*

Local Environmental Quality Factor indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<p><i>Will the proposal have an impact on the following:</i></p> <ul style="list-style-type: none"> <li>- <i>Litter</i></li> <li>- <i>Graffiti</i></li> <li>- <i>Light Nuisance</i></li> <li>- <i>Odour Nuisance</i></li> <li>- <i>Smoke nuisance</i></li> <li>- <i>Dog fouling</i></li> <li>- <i>Detritus &amp; grime</i></li> <li>- <i>Anti-social behaviour</i></li> </ul>		

## Social and economic effects

The following criteria refer to the effects on the social and economic well-being of the local community and its quality of life.

Socio-economic Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
<p><b>SOCIAL EFFECTS</b></p> <p><i>Will the proposal have impacts for the local community on the following:</i></p> <ul style="list-style-type: none"> <li>- <i>Healthy lifestyles?</i></li> <li>- <i>Access to public and other essential services?</i></li> <li>- <i>Availability of suitable and affordable housing?</i></li> <li>- <i>Learning, training and skills</i></li> <li>- <i>Availability of, and access to cultural activities?</i></li> <li>- <i>Participation, choice and control?</i></li> <li>- <i>Equality of opportunity by gender, race, age etc.?</i></li> <li>- <i>Crime and fear of crime?</i></li> <li>- <i>The level of and access to community space, buildings and facilities?</i></li> </ul>		
<p><b>ECONOMIC EFFECTS</b></p> <p><i>Will the proposal have impacts for the local economy on the following:</i></p> <ul style="list-style-type: none"> <li>- <i>Local sources of materials</i></li> </ul>		

<i>and services?</i> - <i>Business competitiveness?</i> - <i>Business development?</i> - <i>Skills development?</i> - <i>Employment land and premises?</i>		
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### Resource depletion/reuse

The use of resources for the construction and the operational requirements of any proposal or activity.

Resource Depletion/ Reusable Factor Indicators	Overall score 1-10 [INSERT]	Comments & Remedial Measures [INSERT]
- <i>Will any timber used be from an accredited source?</i> - <i>Are the materials sourced from a sustainable source?</i> - <i>Is the project utilising local suppliers and contractors?</i> - <i>Is the project maximising the use of recycled products?</i> - <i>Have the environmental effects associated with building materials been assessed?</i>		

## Rapid Impact Assessment Summary Sheet

1	2	3	4	5	6	7	8	9	10
Significant	Negative		Neutral				Good	Very good	Excellent

**Guidance:** For each of the indicators listed in the left-hand column of the table, if the score is between 8-10, enter the words 'good', 'very good' or 'excellent' into the '**positive impacts**' column; if it's between 4-7, enter the word 'neutral' into the '**neutral impacts**' column; and if it's between 1-3, enter the words 'significant' or 'negative' into the '**negative impacts**' column.

Name of Project: [INSERT]		Completed by: [INSERT]	
	<b>Positive impacts</b>	<b>Neutral impacts</b>	<b>Negative impacts</b>
Air pollution			
Waste			
Water pollution			
Noise/Vibration			
Amenity			
Water conservation			
Energy			
Energy efficiency			
Access to quality green space			
Flooding			
Transport			
Biodiversity & Cultural Heritage			
Local environmental quality			
Social & Economic Factors			
Resource depletion			





## **ANNEX VII**

### **Post Evaluation of the Course by Lecturers and Some of the Participants**

#### **Post evaluation by lecturers**

**Yves Henocque:**

#### **Final Essays assessment and conclusions**

Nine Final Essays in total, two of which were a result of a joint work – which is a novelty in the Final Essays preparation, were prepared by 12 candidates. This was a good average when compared with previous MedOpen Advanced runs. Also, the subjects for the Final Essays were excellently chosen.

Interestingly, most of the Final Essays are based on local case studies, which makes the ICZM approach much more focused but not always well articulated at the bigger scale following the “putting into context” principle in regard to the political, institutional, economical, participatory, as well as knowledge processes. Trajectory of change through the sites history is generally well covered through the governance response (institutional analysis, stakeholders’ participation) if often missing leading to a kind of gap between a well described past and current situation and poorly articulated new proposals, as if it were like building up on scratch. Besides urban development, the first sector at stake is tourism, which reflects the actual situation on most of the Mediterranean coast but which leads to the diversification of activities issue. To this Mediterranean feature, one could oppose the Japanese case with the sector of fisheries coming first and at the origin of most of the local ICZM-like initiatives. Fisheries, maritime transport, extraction activities, port development, etc., are still poorly considered within the ICZM approach. Lastly, though it has been mentioned in some of the essays, almost no reference is made to the principles, objectives and tools of the Mediterranean ICZM Protocol.

The Final Essays submission was followed by detailed comments made on the Essays by the Head Lecturer, as well as by responses from the candidates to these comments.

**Brian Shipman:**

#### **Forum discussions assessment and conclusions**

There are a number of broad conclusions from the use of the Forum:

- The Forum received a very high “viewing” level – over 3,700 hits to just 13 topics from the registered subscribers of students and lecturers, indicating a very high level of readership by the 35 students.
- The quality of discussion was generally high, with a number of particularly challenging posts.
- The overall respondees to the topics are restricted to only a small proportion of students (33%). A total of 46 postings were made by students, and a further 38 by lecturers.
- The level of activity declined drastically over the course. This can in part be attributed to the start of the Simulation Game, the loss of a number of students, and the beginning of the summer holidays. No feedback is available from the students on the value of the Forum. The late peak was in response to the Final Essay topic, rather than Course contents.

The timing of the course so close to the summer break affects the overall use of the Forum. Students focus their on-line activity to the Simulation Game. The purpose of the Forum is not clearly described and does not strongly encourage participation. The result being that, apart from a small minority, students focus on other essential course components. The quality of discussion was however very high. It would be useful to receive student feedback on the contents and value of the Forum.

In order to keep the communication activities with the Advanced Course certified candidates alive, as well as to ensure a common place for exchange of experience for the good of their work, and even for their future activities, the creation of a MedOpen *alumni* network within the PAP/RAC MedOpen website would be useful, too.

### **Gonzalo Carlos Malvárez García:** **Simulation Game assessment and conclusions**

The Simulation Game is heavily based on participation in group work and requires that a set number of students are consistently networking for the duration of the exercise.

The success of the Simulation resides in cohesive group work given that it is the intense feedback generated in the decision-making progress that intensifies the performance of students as well as stimulates communication with tutors searching for new answers to issues that in the theory component may not have been discovered.

The PEGASO MedOpen 2012 Simulation Game exercise was successful with a very minority of students in the group due to:

- Severe difficulties in the use of the Forum have hampered to some extent student to student communication and proved the wrong vehicle for document exchange.
- Document exchange tool that was not used by students to provide documents (in the Simulation Game).
- A few students took all the initiative and imposed a pace that was leaving behind others and severe fading was noticeable from those who could not keep up.
- Work load and pace was perhaps above average for a part-time course for professionals.
- There is a marked enthusiasm from those in the Simulation who are working in the leading institution (PAP/RAC) in MedOpen, which was predictable.

Given the above, the marks reflect an almost binary black and white distribution with those who did something scoring top marks and all the rest reflecting absolutely no activity.

### **Post evaluation by some of the participants**

#### **1)**

#### **Post Evaluation template**

Post Evaluation should be made by the participants. The evaluation should focus on the following elements answering the following questions: what was good? What could have been better?

#### **Topic/content**

What was good?

The course achieved to provide a good general aspect of ICZM in Mediterranean and some general background about the knowledge gained from previous experience on ICZM.

What could have been better?

The true implementation of ICZM: The methodology and the tools for applying ICZM, the variance of questions set in an ICZM approach, for looking deeper into the aspects of ecosystem based approaches and understand how theory can be applied (i.e. identify stakeholders, conflicts of an area, the different aspects of human pressures, approaches for stakeholder engagement, management effectiveness through indicators etc).

### **Training methodology**

What was good?

The idea of notes, supplementary material for advanced course and the final essays were fine. The discussion forum was a good idea for questions or thoughts between students and instructors.

What could have been better?

More fruitful ideas and participation through discussions in portal could be more advanced, maybe innovated by instructors for further thinking on this topic. Less time could be spending for the final projects (one essay could be enough) and more discussions on the projects themselves and the approaches used. Some Live Meetings and videos/material/examples would also be useful for motivating and exchange of ideas. Also a longer course could take place for the advanced level.

### **Documents/material**

What was good?

Lectures and supplementary material was useful and precise in general aspects of ICZM.

What could have been better?

Sharing experience with practitioners who have already been involved in these processes is also useful to understand the real concept of integration.

### **Trainers**

What was good?

Participation methods were excellent through the platform and communication between students and teachers was also of good quality.

What could have been better?

Involve more tutors maybe from several aspects that characterise ICZM in order to widen the areas of coastal management and different approaches.

## **2)**

### **Post Evaluation template**

Post Evaluation should be made by the participants. The evaluation should focus on the following elements answering the following questions: what was good? What could have been better?

### **Topic/content**

What was good?

The course was very good, complete and well structured.

What could have been better?

In my opinion, the participation of students was scarce thus derived in some problems when working in groups. In addition, there were too many readings and it was very intense for two months, sometimes hard to follow if you are working or doing other activities at same time.

**Training methodology**

What was good?

I do like how the subjects were introduced by the different responsible people, was a great start point. Also the simulation game is a great piece of training.

What could have been better?

I found hard to keep the pace of the forum at some stage. Also, for the simulation game, the commitment of the trainees is essential to guarantee the success of the game.

I also would improve the final report, for me, it was difficult to know what it was needed to deliver as a final essay. Perhaps it would help to distribute some guidelines at the very beginning of the course.

**Documents/material**

What was good?

It was good and clear.

What could have been better?

Sometimes the reading material was too large to be read in a couple of days and thus the participation on the forum was sometimes impossible.

**Trainers**

What was good?

Yes, they are professional and their comments were useful.

What could have been better?

**3)****Post Evaluation template**

Post Evaluation should be made by the participants. The evaluation should focus on the following elements answering the following questions: what was good? What could have been better?

**Topic/content**

What was good?

The lecturers are very knowledgeable about their subject. They were very responsive by email and on the forum.

What could have been better?

I was disappointed that few students engaged in the simulation game. I am wondering if something could be done to "force" students to engage in the game (maybe a threat of a sanction?).

**Training methodology**

What was good?

The quiz for each lesson.

What could have been better?

The quiz could be a little longer.

**Documents/material**

What was good?

There were more than enough extra materials to read!

What could have been better?

## **Trainers**

What was good?

As mentioned above, the trainers were well chosen.

What could have been better?

## **4)**

### **Post Evaluation template**

Post Evaluation should be made by the participants. The evaluation should focus on the following elements answering the following questions: what was good? What could have been better?

### **Topic/content**

What was good?

A great overview of ICZM, lot's of information and practical examples. There were very useful presentations of the different approaches for the implementation of the ICZM Protocol, its challenges and opportunities.

What could have been better?

The ICZM process (available online) could be integrated to be a part of to the MedOpen course.

### **Training methodology**

What was good?

Very interesting discussions and exchange of experience on the forum, which is real added value because some of the participants to the course happened to be experts in fields of activity related to ICZM.

What could have been better?

A question should always come with the introduction text to each lesson, so as to stimulate the discussion on the forum.

### **Documents/material**

What was good?

A lot of material is displayed.

What could have been better?

Some of the documents are very big, long and time consuming, therefore abstracts could be provided.

## **Trainers**

What was good?

Very good from Mr. Shipman to introduce each lesson with a question. Mr. Henocque was very reactive and eager to provide additional materials.

What could have been better?

Guidance is required for the simulation game, no intervention from Mr. Gonzalo partially unable the "game" to run.

## **5)**

### **Post Evaluation template**

Post Evaluation should be made by the participants. The evaluation should focus on the following elements answering the following questions: what was good? What could have been better?

**Topic/content**

What was good?

All the lectures given were really informative, helpful and useful.

What could have been better?

I would be very glad to participate in an even “more advanced” course relevant to ICZM or to attend in a constant way series of seminars in order to be in “contact” with all these relevant issues but in a more independent way (not in the close way I was committed to this course).

**Training methodology**

What was good?

Expression of opinions and statements through the forum was really useful, as well as the input and the respond of the trainers.

The simulation game was also very helpful.

I think that the final essay was the most important task in the whole process.

What could have been better?

There was little participation in the simulation game.

I would prefer some more time for the simulation game.

I would also like some more guidelines during the process of the simulation game.

**Documents/material**

What was good?

The advanced material was very informative and comprehensive.

Current publications relevant to the different lectures were also very helpful.

What could have been better?

The way the “language” is being used for the lectures seems to be difficult to follow especially in the beginning of the course when the participants are not very keen on this “special language”.

**Trainers**

What was good?

All trainers were enlightening, encouraging, informative and very helpful.

What could have been better?

I would like to have some more guidelines from our trainers during the process of the simulation game.

## ANNEX VIII

### MedOpen Forum Discussions on the Topics

#### WEEK 1

**First of all and before you start, welcome to the MedOpen 2012!**

**First of all and before you start, welcome to the MedOpen 2012**

**#1 Posted : Monday, May 14, 2012 7:00:20 AM**

An integrated approach to coastal management and governance means reaching a new level of knowledge and applying of lessons from experience to emerging issues. Managers working in centralized programs need to adapt national rules and regulations to the specific needs and concerns of coastal ecosystems and shoreline areas while leaders working primarily at the community level must engage more partners and layers of government to make progress.

Let's hope this intensive twelve weeks course will provide an inspiring setting for all of you, ICZM practitioners from the Mediterranean region and beyond. This course was designed to share ideas, lessons and strategies to forward the art of designing and implementing local, national and regional place-based integrated coastal management.

During these twelve weeks, we lecturers and game moderator will make our best to accompany you all the way so that, while focusing on building individuals' knowledge and skills, this virtual course meets the demands of your advanced group by :

- Drawing together participants with experience and skills in coastal management
- Performing at a deeper level of analysis and processing of programme content
- Structuring activities so that participants can lead the discussions and share critical thinking, assessment and problem-solving with peers (simulation game)
- Offering an opportunity for applying knowledge and skills learned in the course (final essay).

It depends on all of us, on our capacity to interactively communicate through the MedOpen forum, to make such an ambitious challenge possible!

Please be aware that the emphasis of the course is on policy and management, thus is not primarily focused on natural science research and data analysis skills, since many professionals already possess them or have access to in-country technical staffs and research assistance.

Your lecturers and game moderator:

Yves Henocque has been practicing integrated coastal management (ICM) and strategic planning since the 90s in the Mediterranean and other marine regions like the Indian Ocean (1995-2000) and more recently in Thailand as Team Leader and Co-Director of CHARM (Coastal Habitats and Resources Management), a 5-years project (2002-2007) co-funded between the Thai Government and the EU. Since 2008 he is IFREMER Maritime Strategy Senior Advisor where, among others, he is contributing to the building up and implementation of national maritime strategies and integrated coastal and ocean management strategy and action plans in France, Europe and other Mediterranean and East Asian countries.

Brian Shipman spent much of his career in the maritime south west of the UK delivering coastal management and economic regeneration programmes. He was founding chairman of CoastNET, the UK's ICZM network in the 1990's and represented the local authority sector in

the UK in the national and EU coastal and marine policy drafting. He was involved in the EU Demonstration Programme on ICZM (1997-2002) as a project manager and as consultant to the European Commission. He became EU co-operation manager for the region of Cornwall in 2002, and manager of diverse co-operation projects across the EU and with third countries on spatial development, climate change and economic regeneration. In addition to consultancies for the EU, the UNDP and UNEP programmes, he has been consultant ICZM Expert since 2002 to PAP/RAC.

Gonzalo Malvárez is a professor of Physical Geography at the University Pablo de Olavide in Seville, Spain. Although he got his PhD in beach morphodynamics, he has been related to ICZM since his work became useful for knowledge transfer to Regional and National Governments for their coastal strategies. He has been in higher education since the early 1990s and teaches Marine Science, Spatial Planning and Geography. In MedOpen he moderates the Simulation Game, a type of practical work he has developed for years in the context of University postgraduate programmes. The Simulation Game which, is a highly practical and interactive part of the MedOpen course. Your involvement is key.

Then, good luck to everybody!  
Yves, Brian and Gonzalo

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**#1 Posted :** Sunday, May 13, 2012 9:52:20 PM

**Lecture 1: Sustainable Development Issues in the Mediterranean**

**Lecturer: Brian Shipman**

This first lecture on this course is not about ICZM, it's about the Mediterranean and its sustainability issues. This is important - the Mediterranean is a special sea with very special characteristics, these characteristics must in turn shape a distinctive ICZM response.

*"Of all the world's continents only the Mediterranean is liquid",* wrote Jean Cocteau. It's an interesting thought - a continent whose citizens inhabit its coastal rim looking inwards to the sea.

It's no exaggeration to say that the Mediterranean is one of the most dynamic places of interaction between different societies and cultures on the planet. Its role in human history is unsurpassed by any other expanse of sea. Its opposing shores are close enough to permit easy contact, but far enough apart to sustain cultural, ethnic, religious and political differences and identities. Paradoxically, the shared identity of Cocteau's "Liquid Continent" is its extreme diversity.

In the 21st Century political rivalries and economic disparities across the Mediterranean are as strong as ever. The goals of political stability, or of a great pan-Mediterranean economic union, appear as elusive as ever.

It is on the shared environmental problems however - particularly on marine and coastal issues - that the sovereign nations of the Mediterranean and the EU have agreed to transcend political differences and work together. This began effectively in 1976 with the signing of the "Barcelona Convention - the Convention for the Protection of The Mediterranean Sea Against Pollution".

In the following four decades the 21 states bordering on the Mediterranean and the EU have together been developing a succession of environmental initiatives, including the Protocol on Integrated Coastal Zone Management, within the framework of the United Nations Environment Programme's Mediterranean Action Plan (UNEP/MAP).



Whether these initiatives will address the fundamental issues of sustainable development and achieve their desired effects will depend on a combination of factors. The most important of these factors are: political willingness at all levels – from the supra-national through national, regional to local levels; the relevance of the processes and the tools available, and finally the capacity of those key individuals, communities and institutions to participate and deliver results.

In this first lecture page of MedOpen we set out a series of key sustainability issues faced by the Mediterranean. The data comes primarily from within the UNEP/MAP system of Regional Activity Centres (RAC's) around the Mediterranean responsible for coordinating action on these key issues. An additional report, the "Synthesis Report of the Assessment of the Intergovernmental Panel on Climate Change" (2007) has been selected by the MedOpen Team for this topic and are posted alongside the lecture.

### **What to do next?**

**1. Read and test your knowledge of the on-line lecture, and read the additional material provided.**

**2. Go to the discussion forum to discuss the issues in more detail, and to challenge the analysis. Consider the following questions:**

***a. Is the analysis of individual issues correct?***

***b. For the purposes of coastal management - is there a hierarchy of issues?***

***c. Are these the right issues – are there additional issues that could be considered in the context of coastal management issues?***

**Remember that we have just one week to consider this topic before we move on to lecture 2 in which we look at how we respond through ICZM to these issues.**

As a community, the participants of the Advanced course bring an enormous wealth of knowledge and experience together - so I look forward to a very fruitful and challenging discussion. Please put any question or comment you have onto the forum so that I can answer and moderate the exchanges you may have between you.

I will be available all week.

Brian Shipman

### **#5 Posted : Tuesday, May 15, 2012 12:23:39 PM**

A few points regarding c. that I have not seen in the Lecture, nor in the Additional materials (though they might be mentioned somewhere in the Additional articles... or will come up in the next lectures?):

1. where does ICZM ends and Marine Spatial Planning (MSP) begins? is there an official 'distance from the shore'? are these approaches the same thing?
2. is it because they are too far from the coast that offshore exploitation of natural gas and oil were not mentioned? or maybe there aren't any such exploitation in the Mediterranean sea?
3. what about the projects of coastal windfarms for the production of renewable energy: have any been built?

4. with reference to freshwater shortages in some Mediterranean countries, are there any desalination plants along the Mediterranean coastline?
5. what about the impact of recent years' jellyfish blooms on coastal tourism? has the impact been too minimal to be mentioned?

I am curious to hear from course participants who may have such knowledge to share.  
Corinne

**#6 Posted : Tuesday, May 15, 2012 3:00:06 PM**Hi everyone,

Well I think "point 1." in Corinne's post is very interesting.

My opinion, is that those approaches are complementary, meaning that any good ICZM process would integrate MSP requirements and vice versa.

This part of your question actually brings to my mind another question, to you fellow course participants:

Why ICZM is not just considered as a combination of watershed management and MSP!?

Sylvain

**#8 Posted : Wednesday, May 16, 2012 9:23:35 AM**  
**Future Issues for ICZM**

Underlying Corinne's detailed questions posted yesterday is an issue of major importance for ICZM in the Mediterranean - namely the interrelationship between the terrestrial and marine environments and what are the future drivers of change coming for the marine dimension.

I don't have the detailed information to answer all her questions but, as we will see later in the course, there is a very clear definition of the marine spatial limits of ICZM in the ICZM Protocol which defines the limit as extending to the territorial sea limit. However, most of the drivers of change are likely to come from beyond those boundaries, not least the exploitation of the marine environment in ways raised by Corinne's questions.

Marine spatial planning is an increasingly important tool in moderating between competing uses at sea - but the questions for ICZM are the extent to which these new uses have onshore impacts and the sustainability of their ongoing operation.

**So, Corinne provides us with a timely reminder that the issues so far discussed represent the status quo and we need to consider what issues in the future may shape ICZM.**

Brian

**#9 Posted : Wednesday, May 16, 2012 9:25:55 AM**

Hi everyone,

Here is a question I would like to ask Sylvain about his post. I'm quite ignorant in watershed management, and for now, I can't figure how ICZM could be considered a combination of watershed management and MSP. I thought watershed management meant there had to be an outlet of running water in a lake or the sea when ICZM can be applied in any coastal zone with or without running water. Is watershed management actually wider than this?

Veronique

**#10 Posted : Wednesday, May 16, 2012 10:04:37 AM**

If I may interfere, adding to Brian's comment you are all touching a very tricky issue about the "continuum" between the watershed, the coastal areas and more offshore waters. There are different approaches addressing these different areas though they have many common

features and tools: we are talking of "Integrated water resource management", of "integrated coastal management" and for offshore waters different approaches like "Large ecosystem management", "seascapes", "marine eco-region", etc. Of course, there are overlappings between these various areas and it is very much the case between the watershed (80% of the coastal waters pollution is coming from) and the coastal area but you will notice that the stakeholders are not necessary the same, like the scientists and experts they pertain to different 'circles' and are not necessarily speaking to each other... Now, it should be clear that the new buzzword which is Maritime Spatial Planning (MSP), as a planning tool, is part of ICM and further offshore to what some like to refer as "integrated coastal and ocean management" (ICOM). It's all a question of policy and the right scaling that goes with it, but the ICM principles and processes remain basically the same.

Yves

**#12 Posted : Wednesday, May 16, 2012 11:36:37 AM**

Well thanks Yves, your comment - you will pardon the expression - brings more water to my mill (btw. I don't really know if I can use this expression in english!?).

@ veroetloulkitchou (c'est toi Veronique??), I guess the watershed management issues are not an obligation when it comes to ICZM, I mean it depends clearly on the area of study, but as Yves said, water resource management is a key aspect.

Actually, I will be happy to know more about watershed management (WM), but so far I think WM has to be considered in any ICZM process (just like off shore waters), if we are looking to up-scale the size of our project areas!?

Sylvain

**#13 Posted : Wednesday, May 16, 2012 12:30:34 PM**

On analysis & on hierarchy of coastal management issues:

Certainly, this is quite applicable to the Mediterranean . Thanks indeed.

But the question should be (more likely): Is there a pre-determined set of hierarchy for coastal management..???

I don't really think so... This is especially true in ICZM..where things become quite complex (inter-related & different sectoral inputs) & where local conditions change from place to place.

I would like to suggest the addition to our marine-coastal-land integration consideration a new look in what has become common in other environmental fields, namely, the "NEXUS" approach.... (example: the water-Energy-Food Nexus)... so in our concern we can talk about the "Marine-Coastal-Land Nexus" whereby integration of the 3 components & their interactive influence on each other is obvious.

Regards for all,

Mohamad Khawlie

**#14 Posted : Wednesday, May 16, 2012 12:57:49 PM**

I would like to add some thoughts relevant to the initial questions raised by Brian.

As Brian already posted "issues so far discussed represent the status quo....".

It seems to me that some of the issues in the advanced lecture are analyzed more than others (such as population and urbanization, biodiversity) either because they probably are a matter of hierarchy for the integration and management of coastal zone? (e.g. population and urbanization) or because some of these issues have become "fashion" and therefore were priority for funded research programmes and networks ? (e.g. biodiversity). Finally, for some other issues, information is probably shorter because there is still lack of knowledge.

However, there are different issues which concern different regions of the Mediterranean and ICZM can give solutions to these differences. As I am living and working in Crete there are a lot of issues concerning tourism, coastal erosion and water shortage. As far as fisheries are concerned, I think that a big issue is essential fish habitat (EFH).

Best regards

Yolanda

**#15 Posted : Thursday, May 17, 2012 11:49:37 AM**

Kawlie's reference to the NEXUS approach sent me hurrying to Google to search for more information...

At first I thought that the WATER-ENERGY-FOOD SECURITY triangle is similar to the sustainability triangle that we've been using for many years. However, I see that is a much more dynamic analysis, with an equally dynamic responses for policy makers. So, I'm now reflecting the use of the term for the MARINE-COASTAL-LAND NEXUS for ICZM - and it will probably find its way into my Powerpoints sometime soon!

So, can anyone can think of an ICZM MARINE-COASTAL-LAND NEXUS concept map?

<http://climatecommercial.files.wordpress.com/2011/01/wef-water-food-energy-graphic.jpg>

<http://www.sei-international.org/...tandingTheNexus-2011.pdf>

Brian

**#16 Posted : Thursday, May 17, 2012 3:04:26 PM**

Reacting to Kawlie's NEXUS parallel and Brian's additional information, it seems to me that we will have to be more focused as regards the triangle MARINE-COASTAL-LAND if we want to make it operational. I mean WATER, ENERGY AND FOOD (WEF) are of the order of very specific goods but that are very applicable to each of the component of the MARINE-COASTAL-LAND triangle: WEF may apply to the marine component, or the coastal or the land one but each time regarding specific goods or services depending on the area where "marine" is the maritime (including the activities which the word 'marine' doesn't) area, "coastal" is the interface between the land and the sea, and "land" is the watershed (Sylvain, we're coming back to the watershed and don't separate it from the water resource management, we are talking about the same thing when we link the resource, water, to its ecosystem, the watershed).

Yves

**#18 Posted : Friday, May 18, 2012 9:12:05 PM**

I would like to stress the uniqueness of Mediterranean biodiversity. There is a recent publication (Coll et al., 2010. The biodiversity of the Mediterranean Sea: Estimates, patterns, and threats. PLoS ONE 5(8): e11842. doi:10.1371/journal.pone.0011842) that listed approximately 17,000 marine species occurring in the Mediterranean Sea. Moreover, the authors support that this number will be even higher in the future, as undescribed species will be added in this list.

As far as for the hierarchy of issues examined, the way I understand it, ICM as well as MSP, varies depending on the scale of implementation.

For example, there is plenty of data available that supports specific emerging issues for Mediterranean, like the non-indigenous species and climate change, coastal erosion as Yolanda underlined, commercial fish and the Endangered/ Listed species. A future threat that has been recognized in Med (and globally) is marine litter /microplastics and underwater noise, for which data so far is vague.

Some issues become more important in the scale of East Mediterranean, or even in the national level i.e. the increase of temperature and salinity, alien species in east Med, where west Med seems to develop faster in the renewable energy field (i.e. offshore windfarms in France that have been set- [www.gwec.net/index.php?id=128](http://www.gwec.net/index.php?id=128)). Another example could be maritime traffic for west Med ("Around 20% of Mediterranean ports are in the Eastern Mediterranean east of Greece, compared with 80% in the west and central Mediterranean region" SAFEMED- REMPEC, 2008. Study of Maritime traffic flows in the Mediterranean Sea. REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN SEA (REMPEC). Final Report - Unrestricted Version, July 2008).

Some countries face a major pressure from military activities and consequently underwater noise, where others suffer from extraction industries pollution.

Time scale could be an important factor as well, as technology and human demands develop (i.e. radioactivity that played a major role in the '80s or sea safety from shipping activity).

I am curious though for the NEXUS approach and its implementation to coastal and marine management. So far, MARINE-COASTAL-LAND proposed by Yves and WATER, ENERGY AND FOOD (WEF) seem to me possible triangle concept for marine & coastal management. It would be great if this interesting discussion would develop along with the lectures and the issues that will raise through them. I have a feeling that there are many things to discuss about dynamic approaches like this!

Vmarkantonatou

## **WEEK 2**

### **Welcome to the second of the MedOpen lectures – How to respond?**

**#1 Posted : Sunday, May 20, 2012 10:04:18 PM**

Lecture 2: How to Respond?

The opening of this lecture contains a big claim for ICZM, describing it as "*... an approach globally recognised as optimal to a successful coastal management.*"

The lecture presents ICZM in the Mediterranean as a process with clear policy goals and a strategic context, a process in which public sector agencies at all levels, private sector and the NGOs, and all actors play their part in the management of the coast. Thus ICZM follows the pluralist political model in which all interest groups have primacy in determining policy outcomes.

However, there is some scepticism about its practical implementation: "*Even though ICZM is an effective tool for advancing towards sustainability in the coastal zone, ensuring equitable use of coastal resources (natural, socio-economic and cultural) and integration among the different administrative and societal sectors, the success of ICZM in supporting sustainability goals in Europe has been limited due to, among others, the challenge associated with translating the basic principles of ICZM into management action (Shipman et al. 2007, Diedrich et al., 2010).*"

After you have completed the lecture, I invite you to consider a recent review and critique of ICZM, "[The Way Forward for the Mediterranean Coast](#)" notably Section 5: Barriers and threats to creating a self-sustaining ICZM process in the Mediterranean. This is a *realpolitik* sketch of the state of ICZM in the Mediterranean in 2009.

So, somewhere between the high ideals of the policy makers at the macro-level and the reality on the ground, might ICZM in its current state be better characterised as the “science of muddling through” ?

Additionally, ICZM is a relative ‘oldie’ in the sustainability field; new ‘young guns’ such as climate change now compete powerfully for the attention of decision-makers and the public. In the Mediterranean the ICZM Protocol provides a powerful political instrument, unique in the world, but ICM needs to reinforce its potent intellectual *raison d’être* if it is to turn basic principles into action. In the discussion forum for Lecture One we saw the emergence of a new term – the “Maritime-Coastal-Land Nexus” which places ICZM in a clear spatial context – the challenge is to operationalise this nexus.

We will come back later in the lectures to the detailed process of ICZM implementation and the ICZM Protocol. But at this stage you might like to consider the following questions relating to the place of ICZM in the sustainability debate:

1. How realistic in such a complex region as the Mediterranean is it realistic to expect that the pluralist ICZM political model can predominate?
2. Is there a sufficient “connect’ between the concept of ICZM and its perceived need, i.e. are the various interest groups even aware of their shared interests and needs in the face of strong competition from other sectoral agendas such as climate change and biodiversity?
3. What differentiates ICZM from other integrated approaches currently advocated such as Marine Spatial Planning or Integrated Water Resource Management?

#### **#2 Posted : Wednesday, May 23, 2012 2:55:49 PM(UTC)**

Reading through this week's lecture materials, I wondered whether ICZM would have achieved more if it had been a 'Directive' with legal basis in EU countries... also, I realized that a more catchy name may have helped (compare with the "Habitat" directive, which anyone can pronounce without thinking too much!!).

With regards to question 2, 'climate change' and 'biodiversity' should not be considered as separate agendas from ICMZ. I understand ICZM to be one of the tools to anticipate and mitigate the effects of climate change (e.g. in the case of coastal zone erosion due to sea level rise). ICZM is also one tool to preserve biodiversity, e.g. through the protection of coastal habitats from human impacts (pollution, coastal urban developments, natural/mineral resource exploitation, fisheries, etc). One example that comes to mind is that of fish: many have coastal spawning/nursery grounds and, if associated habitats are damaged, this can have negative impacts on adult fish populations and biodiversity in general (and also on associated local small-scale fisheries). On top of that, climate change may result in alterations of spawning/nursery habitats, making them less suitable to produce recruitment for the fish adult population. Through this example, I aim to emphasize that ICZM should not be seen in isolation, but could 'implant' itself on more "fashionable" agendas such as climate change and biodiversity.

I totally agree with this extract from "The way forward...": "ICZM fails to grasp the imagination of politicians in particular and the community in general. "Demystifying" the concept is a priority through using a simplified and positive terminology as proposed in the ICZM Marketing Strategy". ICZM definitely needs a marketing strategy, and before taking on this course, I would never have thought this!

Corinne

**#3 Posted : Wednesday, May 23, 2012 8:47:22 PM(UTC)**

As Corinne said, "demystifying" is definitely an urgent task. Many local initiatives are following the same principles and processes as ICM and they are not labelled as such. It is important to also build on these initiatives. In a specific place, no one project will make the difference on its own; it should be considered as complementary to other initiatives wherever they come from, government, private sector or civil society. Putting into context and making synergies should be the leitmotiv of any ICM practitioner.

Yves

**#4 Posted : Thursday, May 24, 2012 9:51:37 AM(UTC)**

I agree with Corinne's and Yves' comments and I would like to add some thoughts too, especially for the 1st and 3rd questions.

Marine Spatial Planning and Integrated Water Resource Management may seem to be more effective tools than ICZM in achieving their specific goals in several cases as well as different Directives that are followed, but I think that it is like we are "losing the forest while we are looking only the tree" (I don't know if this expression exists in English language). In other words, this "Coastal Squeeze" describing the process, by which coastal habitats are lost between fixed landward boundaries and the forces of erosion and rising sea levels, is being witnessed because governments and organizations turn their attention either to planning or management issues. However, ICZM has been recognized as an integral part of both planning and management activities.

I would also like to refer to Figure 2 presented in the article of Shipman & Stojanovic (2007). I was really surprised that a large percentage of EU-Mediterranean regions have succeeded to have progress with ICZM, while other European countries haven't. I believe that this is partly due to many Mediterranean initiatives in ICZM (e.g. MAP, METAP, Euro-Mediterranean Partnership, Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem) because of the known Mediterranean issues also analyzed in the previous lecture. On the other hand my feeling here in Greece is that several issues related to ICZM has been achieved mostly because of the "top down" process but still there are many things to be done from the "bottom-up" process. Especially during this period of financial crisis, I think that the most important barrier and threat to creating a self-sustaining ICZM process in the Mediterranean is the lack of a clear vision for the coast at the regional scale that has been replicated at the local level.

Yolanda

**#5 Posted : Friday, May 25, 2012 8:32:09 AM(UTC)**

Firstly, in terms of "marketing" at the international level, I totally agree with Corinne, as I do think "ICZM" is definitely not the sexiest name ever. Neither is ICM, because when we deal with documents in English and French we have to go from ICZM to GIZC or GIC.

Concerning Q 2), I'd like to think that there is no competition between ICZM processes and sectoral agendas like CC, biodiversity or any global risks.

Some sectoral approaches seem to me like they can trigger a concerting/participatory process, which would be a good step towards ICZM. I mean, for example, if one region is very attractive for tourism, local efforts for a sustainable management, are first going to gravitate around that one sector.

If you start the process with different groups of interests, dealing with that one sector, then naturally, the strategic vision for sustainable management of an area, will be enlarged as long as the partners are part of a network. Then, spillover effects can be expected from a sectoral approach..

..isn't that when ICZM offers a relevant framework that can help enlarge the scope of actions, and as well integrate both MSP and IWRM??

Sylvain

**#6 Posted : Friday, May 25, 2012 3:50:00 PM(UTC)**

I fully agree that ICZM could be more attractive in terms of "marketing" as Corinne and Sylvain supported, not only concerning the name but also the terminology used. This makes it stiffer and definitely does not promote the multi disciplinary approach it represents.

I personally believe that the processes themselves should be kept separate, as coast faces different qualitative and quantitative matters compared to marine and terrestrial environments, but it needs for a closer link and coordination between MSP, IWRM and ICZM initiatives.

I found an interesting questionnaire conducted by the EC in 2011, trying to gather stakeholder feedback for the status and future of Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM) in the EU, and to assess where further EU action would be most useful

([http://ec.europa.eu/fisheries/partners/consultations/msp/summary-results-of-msp-questionnaire\\_en.pdf](http://ec.europa.eu/fisheries/partners/consultations/msp/summary-results-of-msp-questionnaire_en.pdf))

This discrimination perception and future- oriented incapability is something regularly seen in management, planning and policy. Several initiatives have been taken more in the aspect of addressing an issue (which has already become a problem) rather than preventing it. What's more, these initiatives (institutions, projects, laws etc) lack of connectivity (a term used on MPAs which i personally find well-aimed). In other words, there is a gap between stakeholders to face things in wholeness and cooperate directly in a more holistic approach of a matter. Institutional ambiguity is just an example of no common platform between decision-makers/scientists/managers/private stakeholders.

As for climate change and biodiversity aspects, I understand them as objectives to be served by all these different planning & management strategies, and they are the key-link of the different approaches we adopt; ie if we could somehow illustrate this as a temple, the columns would be the approaches chosen (ICZM, MSP, IMP, IWRM etc) that would support sustainability (in terms of biodiversity, GES of seas, human health etc).  
vmarkantonatou

**#7 Posted : Friday, May 25, 2012 7:32:30 PM(UTC)**

I totally agree with main part of my colleges about 1st and 3d questions. Coming to 2nd question I'd like to add something.

According to ICZM strategy social, political, and environmental processes are researching in complex. So, natural phenomena are interdependent processes, they must be explored like an unbreakable cycle: climatic changes and anthropogenic pressure->changes in biota life conditions-> biodiversity become lower. Only if we look at natural processes as unbroken cycles, we can make forecast scenarios of transformations of ecosystem and its components.

Olga

**#8 Posted : Friday, May 25, 2012 8:08:52 PM(UTC)**

Hi there!

Although so much stuff has been already said in relation to the questions, and I almost agree with all views, I just one to share a couple of thoughts.



Undoubtedly, the lack of legal framework in terms of a Directive has reduced the effectiveness of the ICZM in many countries. The disperse competences in coastal areas as they are shared within the three levels (local, subnational and national) produces a devastating effect on the ICZM implementation. Thus need of a legal framework to set up responsibilities throughout the managing scales. In my point of view this is one of the main differences between ICZM and other integrated approaches such as Marine Spatial Planning or Integrated Water Resource Management.

In this line, also the complex concept and its "hard to pronounce" name (In Spain we use the acronym GIZC), as other colleagues have pointed out, are crucial in terms of success for the ICZM progress and marketing. Linked to that fact, many of the local communities with strong interests in the coast zone and other stakeholders have no enough information neither knowledge about what ICZM means, how they might be affected by its implementation, how they can contribute to the process and so on. Sadly, most of the time this is due to the fact that there is not a mandatory framework or a recommendation coming from the administration in terms of the ICZM to promote and support the process.

Emilia

**#9 Posted : Monday, May 28, 2012 6:51:12 AM(UTC)**

Reacting a bit late and just before starting up with Lecture 3, I would like to add to all previous comments on 'difficult-to-sell' ICZM, the fact that most of the time it rather addresses the land (shore) and not much the marine area while the ICZM protocol extends to the 12 nautical miles. It is so true that for example in France, within the new maritime policy, it was decided to change the ICZM label into ICOM (gestion intégrée de la mer et du littoral) in order to make things clear. Then, don't forget that the Mediterranean countries' maritime areas boundaries which most of them are today limited to 12 nautical miles could change in the future in a common move in between all the Mediterranean countries. The debate just started but the idea could make its way in the coming years.

Yves

**#10 Posted : Tuesday, June 05, 2012 10:38:15 AM(UTC)**

Hello everyone, thank you for the very interesting comments.

While we are bringing up the boundaries of the maritime domain, i allow myself to drop a question - although maybe late in the discussion.

The definition of the "coastal" domain came up recently in an expert meeting in efforts to plan for a national ICZM strategy. Are there documents that i could skim through that would present different modalities for defining the coastal area. I guess a number of factors could be at stake, such as administrative boundaries, topography, coastal resources, etc.

Would appreciate the tip.

Nour Masri

**WEEK 3**

**#1 Posted : Sunday, May 27, 2012 10:17:28 PM(UTC)**

**Lecture 3: BASIC PRINCIPLES OF ICZM**

The lecture sets out the basic principles of ICZM. The language will be very familiar to anyone involved in the field of sustainable development. Indeed ICZM was one of the earliest promoters of the now well-known principles of SD. At first sight, much of the language used - ...*"a way to ensure that human action is undertaken with a concern over balancing economic, social and environmental goals and priorities in a long-term perspective"* seems to be yet more *"motherhood and apple pie"*(1) of the SD debate - rich in ideals but poor in real world application.

## So what makes ICZM different?

Firstly and obviously is ICZM's focus on a specific geographic entity – the coast. But, perhaps ICZM's greatest strength - woven through all the principles - is the emphasis on governance processes and operationalisation - particularly in the real world of multi-level administrations, stakeholder participation and adaptive management.

So, the basic principles of ICZM are not just about the **WHAT** of sustainable development, but also the **HOW**. This is best summed up in the statement from the lecture that *“ICZM is not a blueprint for the future but an on-going process for co-ordination of actions”*, in other words, ICZM is a shared journey over an indeterminate timescale. ICZM provides a practical frame within which a whole range of sustainable development objectives can be achieved over time. ICZM is that practical and pragmatic “uncle” in the SD family.

In my introduction to the last lecture, I characterised ICZM as the *“science of muddling through”*(2) . At first this may seem a derogatory term, but it is the pragmatic recognition that, to be effective, we must be adaptive to real-world issues without losing sight of the basic principles. Thus, we will never have adequate data, political barriers seem insurmountable, and there will never be enough resources. I am reminded of an analogy from my political science lectures on the role of ideals and principles. Humans always wanted to fly - our imagination stimulated by the myth of Icarus - but flying only became a reality for those who accepted the need for mechanical assistance, fabricated wings, and accepted the high risk of failure. We have never achieved the effortless grace of the eagle – the principle, but we are on a constant journey to achieving it – the process.

As we have discussed extensively in the past 2 weeks, one of ICZM's key weakness can be its impenetrable language and lack of apparent relevance to others beyond the closed intellectual ICZM circle. PAP/RAC have long recognised this and added an important vision to the underlying principles, a simple six-point statement of what kind of coast ICZM offers that answers the simple question *“what does mean for me?”*

PAP/RAC's Six Principles of Coastal Sustainability – a coast that is:

- resilient - resilient to climate change, resilient to natural processes, resilient to human processes
- productive - productive financially, competitive, high in value, increasing GDP, alleviating poverty
- diverse – diverse in ecological, diverse in experiential terms
- distinctive – distinctive culturally, distinctive in marketing
- attractive – attractive to visitors, investors and to local people
- healthy – free from pollution.

We will come back to the practical application of IZM in future weeks, but for this week please consider the principles, and in particular:

**What are the threats to the principles when faced with a real world situation? Is ICZM's lack of a specific sustainability focus its strength or its Achilles' Heel?**

(1) “motherhood and apple pie” a US English idiom meaning a statement of something so obviously good it can't be criticised, but on the other hand is so obviously good its almost empty of meaning.

(2) “muddling through” an English idiom which roughly translates as “to manage to do something although you are not organised and do not know how to do it.”

(NB: readers may have noticed my repeated use of English idioms in these posts – please feel free to add to my stock from the rich wealth of idioms from other languages.)

**#2 Posted : Tuesday, May 29, 2012 8:48:24 AM(UTC)**

*Lecture 3 already, times flying...I wish a good week, full of discussions, to my fellow participants and lecturers.*

Sectoral and specific approaches are not just going to be washed away, and that is not what ICZM is trying to achieve, so often its integration to spatial planning consists of building bridges between actors, helping national strategic vision for sustainable coastal management to grow gradually and last. (e.g. get over institutional or financial barriers)

In the frame of the Barcelona Convention, Parties do have to deal with sectoral protocols anyway (solid waste, CC, Biodiversity, etc). In my vision, **ICZM feeds itself from sustainable, even if sectoral, approaches!?** ICZM processes have a catalysis effect for synergies.

So the non-specific focus on sustainability, its flexibility, is the strength of ICZM. Pilot projects are „ice-breakers“ between sectoral approaches, laboratories for trans-boundary exchanges and a chance to examine and evaluate the relevance of a specific ICZM strategy and actions implemented. Thus, the evaluation is important in terms of process just as much as it is for results (for a better coast) achieved in one area.

The example of CAMP projects –mentioned in previous posts- are tool kits that help the local decision makers and stakeholders to implement ICZM processes and, those projects are shaped so that feedback can easily be gathered, both on good and bad practices. The lesson material indicates that some regions are already talking about 2nd or 3rd generation of projects, they are actually implementing approaches shaped thanks to studies carried on the processes of implementing ICZM.

So it makes sense to me (as said in the lecture 3 intro.), that an absolute prerequisite, is that ICZM needs to be process oriented from the early beginning. Moreover, as by nature it requires vertical and horizontal integration, *can't we say that networking is not an output but a way of working, the one and only way to structure a long term vision for a territory?*

Sylvain

**#3 Posted : Tuesday, May 29, 2012 11:21:49 AM(UTC)**

**sylvain wrote:**

*So it makes sense to me (as said in the lecture 3 intro.), that an absolute prerequisite, is that ICZM needs to be process oriented from the early beginning. Moreover, as by nature it requires vertical and horizontal integration, [i]can't we say that networking is not an output but a way of working, the one and only way to structure a long term vision for a territory?*

Thanks for these insightful comments Sylvain, I agree that the process is of key importance. The challenge however is to maintain the focus on the long-term sustainable vision, social processes are notoriously prone to 'drift' from their original purpose. So, the process needs careful design and management to maintain focus on that long-term vision.

I am a strong supporter of pilot projects as a way of promoting effective networking and building trust. Unfortunately, over the decades such pilot projects have usually been funded by the grant cycles of international and national funding agencies, resulting in excessive repetition and duplication in the absence of a clear "roadmap" towards true sustainable coastal development. As we will see later in the course, the Mediterranean has developed a

unique, strategic governance architecture that may help to break this cycle - the ICZM Protocol.

Brian

**#4 Posted : Wednesday, May 30, 2012 4:56:52 PM(UTC)**

I think that I disagree a little with Sylvain: it appears to me that ICZM's lack of a specific sustainability focus is a somewhat weakness. My guess is that the short-term use of ICZM as a tool in pilot projects is due to modern ways of funding development, i.e. through projects with clear beginnings and ends, and fixed budgets. Gone are the days when governments or the EU could/would fund work without clear boundaries and expected results. Hence, this accountability need has resulted in ICZM not having a specific sustainability focus.

To be fair, I bring no solution to the problem! Maybe governments need to be convinced that using ICZM is an investment for the future, which may not bring clear short-term results as a project would. A bit like when a government funds the education of its children: no-one would expect a short-term return on such an investment, whilst the long-term benefits to the country as a whole are undeniable.

Corrine

**#5 Posted : Thursday, May 31, 2012 8:09:00 AM(UTC)**

Hie everybody

I would be tempted to agree with Sylvain and vote for "not having a specific sustainability focus is a strength of ICZM", as it allows the recognition of the plurality of its objectives and leads to a wide recognition of the coastal functions. I think it also allows a wider dialogue with stakeholders having a feeling they are placed on an equal footing.

PAP/CAR's vision for the coast expressed in a simple language accessible to a large audience is of great help for promoting ICZM. However, it seems to me that very often, the focus in the projects is placed on some of the principles – mainly the ones related to protection – when some other may be neglected – mainly the "productive" side. It is also true that during the projects, this vision is sometimes lost from sight as the actors tend to focus on the ICZM process or its tools, forgetting the ultimate goal is the sustainable development of the coast.

P.S: Corinne, I liked so much your metaphor with children education, it is so true we have to keep in mind our long term objectives !

Véronique

**#6 Posted : Thursday, May 31, 2012 9:17:45 AM(UTC)**

Well, project funding is what it is, and programmes are ready for the coming 10 years, but going from a funding to another and on, helps to build and strengthen networks. To quote Brian, it is about "building trust".

ICZM processes need to be network driven, where each projects outcomes and/or results are step-stones toward a "better coast".

I also find Corinne's parallel with education quite interesting. And I agree that governments and institutions have to get over short-term return expectations for each penny invested in our field.

Veronique (aka Veroetloukitchou...I hope one day I ll told the meaning of that, if there s one? :) ), points out that the "productive" side in ICZM projects is more likely to be neglected. That makes me wonder about where and how often do we have the private sector involved? I mean involved not only in tax paying or in the consultative stages (which is already a good

thing) but in the long term financial support of the sustainable development of specific coastal areas??

Sylvain

**#7 Posted : Thursday, May 31, 2012 10:15:43 AM(UTC)**

Hello everyone!

I am following this kind of conversation during this 3rd lecture with really much of interest!

I also liked Corinne's parallel with education and I totally agree with this.

But I also agree with Sylvain in many points. Here are my thoughts.

I think that ICZM's lack of a specific sustainability focus is its strength and at the same time its Achilles's Heel.

Therefore, the real threat to the principles of ICZM is the weaknesses of the principles themselves.

But at the same time these principles can ensure a long-term perspective with periodic reviews and adjustment of management arrangements to current and future changes required for sustainability.

ICZM looks like focusing on a "moving target" but actually ICZM is a dynamic process characterized by features similar to the ones of the political system of democracy.

Most of the major principles related to environment and development have similarities with democratic processes, which are also characterized by both their strength and weaknesses.

A participatory process, for example, which focuses on facilitating horizontal and vertical dialogue, agreements and compromises between all parties involved in the use of coastal resources.

Imagine the "chaos" that can follow such a process.

Nevertheless, it is this process that may change behaviour of institutions, individuals, groups, businesses and investments, which, to my opinion, is a very important step in the whole procedure in order to achieve conditions sufficient to sustain a healthy and equitable human society that is sustaining the qualities of the ecosystem of which it is a part.

I would also like to share with you something I read from the material given and I totally agree with it, which is that ICZM is a "tool" towards sustainable and therefore qualitative development than quantitative growth. According to Olsen et al. (2009, additional reading of the lecture), if such ideas were to be made operational, the changes in economic policy and governmental priorities would be significantly different from those that prevail today.

Yolanda

**#8 Posted : Thursday, May 31, 2012 4:04:42 PM(UTC)**

Excellent discussion indeed! Reacting on Yolanda's last point (qualitative development / quantitative growth) we are touching upon the way of measuring all this in order to be capable to report to decision-makers and donors about the effectiveness of their funding and investment. We are getting close to Lecture 4 and the indicators issue which is a recurrent weakness in demonstrating ICM projects efficiency (maybe, there are some good ideas to pick up from the education sector!...)

Yves

**#9 Posted : Thursday, May 31, 2012 4:30:51 PM(UTC)**

I fall in with Yolanda, that the general principles of ICZM could be a powerful element for the implementation of ICZM but on the same time its Achille's Heel.

The Protocol expresses a central challenge for the Mediterranean Member States to operationalise for an optimal sustainable development status and provides a foundation basis for a future action on sustainable development. Thus this fundamental flexibility is necessary for being adopted and implemented at the national scale- a complex and difficult procedure dealing with each country's unique problems and conflicts, and at the same time put them under the same umbrella: the ICZM process and goals. Under this idea, Corinne put it correctly that probably it is the Projects' needs to enter in a more general concept for funding, taking higher risk of missing the initial goal.

On the other hand, these principles can easily become a disadvantage where ICZM is described as having inaccurate defined output, benefits and rewards. I was wondering how much effort and time had to be spent from experts to explain the very concept itself. "Being a means to an end rather than an end in itself is an intrinsic handicap".

We are aware of the low public recognition level of ICZM (difficult relevant language and unclear methodology as discussed in previous lectures). ICZM principles seem to have failed to attribute the importance of participation in all levels. It lacks the triangle of good governance - targeted actions - stakeholder participation and does not provide a clear planning framework.

For example it does not define the roles and relationships of institutions to participate in the ICZM process at regional and local level. What's more there is no guidelines to specify the level of commitment required per Member State. Furthermore, there is no geographical jurisdiction of the interest area that makes things even more complicated when we come to the implementation of management.

To criticize a bit more, it fails to optimize the prospective for sustainable collaboration between stakeholders (i.e. scientists and administrative agents) and lacks relevance to decision makers. Even public participation and consultation (I am not sure if these two are different) is important as a drift to their representatives for participation in a constructive manner.

There is no responsibility awakened i.e. in local or individual level for participating in the process of a sustainable future.

I believe the lack of communication and networking between projects enrolled is also an indicator of this incapability for looking for the linkage between the different (generation) projects in order to "elongate" their cycles in a productive way and provide a long-term, mature sustained process of ICZM.

Finally, I fully agree that other options for the private sector involvement should be included in the management strategy, like making them part of the ICZM than keeping them on the other side.

vmarkantonatou

**#10 Posted : Friday, June 01, 2012 9:23:41 AM(UTC)**

Excellent and provocative discussion everyone but, before we get too pessimistic I had better leap to the defence of ICZM!

The weaknesses listed so well in the last posts are acknowledged. However as we will see in later lectures, the Mediterranean has made significant progress in providing the institutional

framework for ICZM through the Protocol; raised its profile through initiatives such as Coast Day, and is pioneering new ways of engaging the public and stakeholders. As a very accessible illustration of putting at least one of the principles into action I will point you to this short (2 minute) [video](#) of some excellent engagement work in progress on the CAMP Almeria in Spain. Globally, the Mediterranean is one of the "hot spots" of ICZM.

Have a good weekend everyone! On Monday, you will be hearing from my colleague Yves Henocque instead of me, but I will be watching the debates with interest.  
Brian

**#11 Posted : Saturday, June 02, 2012 4:38:33 PM(UTC)**

I believe ... or excuse me to say... somehow I believe the text on ICZM needs UPGRADING...!!!

What do I mean... well... Look at the major "Principles"... which go back to the Rio Summit of 1992...& a little later Euro-Mediterranean works... Shouldn't they be upgraded..??

Let me give some examples :

- + Where is reference to the Principle of Green Growth... Of course, some may say it's already implied... But really I don't think so...
- + Where is reference to the "Nexus" approach where the association Land-Coast-Sea-Nutrient are inter-twined together
- + How about the new approaches for characterising a good Coast as : The RPD DAH... Resilient..Productive.. Diverse..Distinctive.. Attractive..& Healthy..
- + Where is the introduction of the knowledge of ancient sea civilizations (like the Japanese) into consideration..I mean the Concept of " Satoumi " ..

So, would be a good idea to get going with new introductions & upgrading.

Mohd. Khawlie

**#12 Posted : Tuesday, June 05, 2012 2:55:47 PM(UTC)**

As far as I can read, NEXUS is a management and governance process based on a holistic and intersectorial approach. It could be extremely useful by pointing out the inter-influences of the 3 components Marine-Coastal-Land. Sounds fresh and is interesting indeed.

Isn't ICZM a mother concept to it??...focused on pushing forward greater policy coherence in coastal and marine areas, with a definitely strong anchorage to long time established principles, defined in details in the ICZM Protocol??

I think we agree, that environmental conservation and sustainable development are evolving in a fast pace, but the Principles stay the same. Does Rio +20 need new discussions on principles??

The course is so far presenting ICZM in a way a large public could understand its principles, and moreover offers a great opportunity to discuss. New approaches are the sign ICZM is evolving, adapting...that's just what it is by essence.

Sylvain

**#13 Posted : Tuesday, June 05, 2012 6:18:58 PM(UTC)**

Very much agree with Sylvain, the principles are there and what is evolving is the "how" we implement those principles. Don't get the course wrong, it is certainly perfectible and in need of updating sometimes but it is mainly there to lay down the ICM foundations, to share experiences especially from all over the Mediterranean, but the rest (the walls and the roof if you will) will be very much with you, your own experience within your own political, legal, institutional, socio-economical and cultural context where you live or where you act as an

ICM expert. Use the books, forget them, and go back to them to read them from a new perspective enriched by your own experience.  
Yves

## **WEEK 4**

**#1 Posted : Saturday, June 02, 2012 1:12:13 PM(UTC)**

### **Intro Lecture 4: The benefits of ICZM**

Hi everybody! Following Brian I am going to be with you the next three lectures hence the next three weeks during which Gonzalo will join us to start with you the simulation game.

After the basic principles of ICZM we are now looking at its possible benefits throughout the ICZM process or we should rather say 'processes'. As shown throughout this lecture, ICZM may bring over many benefits (outcomes), more or less measurable, while it is often difficult to link them to the dynamics of ICZM. As an introduction, it is these dynamics I would like to schematically introduce so that you may then look at these benefits throughout an overall vision that could make your demonstration to decision-makers easier.

Besides the policy cycle, Stephen Olsen (Olsen S.B. 2003. Frameworks and indicators for assessing progress in integrated coastal management initiatives. *Ocean & Coastal Management* 46, 3-4: 347-361) introduced the Orders of Outcomes framework designed to complement the latter by focusing on the sequence of outcomes that are supposed to be achieved when working to realize desired societal, environmental and economic conditions (please have a look at the figure from S. Olsen, 2003).

The 1st Order outcomes define the four enabling conditions for the sustained practice of ecosystem-based management, an approach you have been already talking about but which is not besides ICZM but part of it. It includes the formal commitments (considered as benefits) required to implement a plan of action directed at the achievement of defined ecosystem conditions.

The outcomes that mark the full scale implementation of a formally approved and sustainably funded plan of action are addressed in the 2nd Order, as changes in the behaviour of governmental institutions, the behaviour of the relevant groups (sometimes called "first" and "secondary" beneficiaries) exploiting or otherwise affecting ecosystem conditions and the behaviour of those making financial investments in the system. An important feature of this third category of 2nd Order change is success in generating the funds required to sustain the project/programme over the long term.

The 3rd Order marks the achievement of the specific societal, environmental and economic quantity/quality goals, i.e. the very objectives of your ICZM project/programme. In ecosystems that are much altered by human activities the achievement of a sequence of 3rd Order goals marks the path to more sustainable forms of development towards the culmination of sustained courses of action that mark achievement of the 4th Order.

Now, with that vision in mind I invite you to immerge yourself into Lecture 4 and its documents.

But before that, let me wish you a very nice and resting weekend!

See you then on Monday through the Forum!

Yves



## **#2 Posted : Tuesday, June 05, 2012 8:46:08 PM(UTC)**

Hi everyone!

To my opinion, one of the most interesting and most important issues raised from the material of the advanced course given is the valuation techniques for the non-use (Existence or Biodiversity) Value.

At the same time, it is extremely difficult to work someone on this for obvious reasons and secondary because the techniques that are being referred have many limitations (e.g. travel cost, contingent valuation).

I would like especially to refer to Contingent Valuation (CV) method because as I was reading through this, many questions were coming up.

So I have searched a little bit further and I think that even though CV has certain limitations, this method seems to be promising and could be used to derive useful information.

However, I kept on thinking if the payment question can either be phrased as the conventional 'What are you willing to pay (WTP) to receive this environmental asset?', or in the less usual form, 'What are you willing to accept (WTA) in compensation for giving up this environmental asset?' (Venkatachalam, 2004).

Despite the fact that the NOAA (1993) panel suggests that the WTP measure compared to the WTA measure is a suitable measure of value, I tend to agree that the environmental impact assessment studies should look at the negative impact of the developmental and environmental projects on the poorer section of the society who are indirectly paying in terms of damage cost (and not only in developing countries). Therefore, from the point of view of the losers, the WTA compensation rather than WTP should probably be considered as an appropriate measure.

vmarkantonatou

## **#3 Posted : Wednesday, June 06, 2012 9:44:51 AM**

I believe that this week's lesson main idea is the very careful selection of the evaluation approach of economic and social benefits, along with the "baseline scenario". For sure, these terms have different meaning implemented in different case studies (site-specific).

CV methods, as far as I understand, have been criticized for their validity (accuracy) and reliability (reproducibility) to measure true economic values. But the way I see it, the crucial factor in this is the capability of the interviewer to elicit real facts.

The most important bias is when responders over state WTP when they know that it is just a questionnaire and not a real demand.

This means that progress must be done in the state of the interview procedure, i.e. make the responders familiar to the goods and services, and the scenarios presented in the service. Maybe, the proposed payment vehicle should be realistic (depending on their income). Or, economic values could be "replaced" from a set of goods and services to the responder instead of a monetary price, or choose from the tradeoffs between alternatives provided.

As for the travel cost, I was wondering, apart from the "demand curve", shouldn't there be something like a curve of service provision to have a more holistic view, of what is being offered and how this cost is estimated?

I would also like to stress something very nice I read in Bowen and Riley (2003) about the initial step for indicators development: that available information is not always the appropriate one, and this is something faced not only for indicators and models.

Yolanda

**#4 Posted : Thursday, June 07, 2012 1:10:52 PM**

Just a quick comment on this very interesting discussion. Decision-makers have yet to fully embrace these decision tools into practical applications and working procedures, and the availability of data information for models and indicators is generally problematical as the last post points out. Despite these issues, the tools remain extremely valuable as an intellectual discipline for informing decisions. So, if we can't present their methodologies robustly or results with a high degree of certainty, their value as an "output" of the ICZM process appears limited.

My question therefore to the students is how can we best use and present these important tools in a real-world ICZM situation?

Brian

**#5 Posted : Thursday, June 07, 2012 3:00:00 PM**

Hello everybody!

This lecture was very useful for me. I am marine chemist and knew much new from the unknown sphere. I'd like to put question to the colleagues, how to take into account those natural risks which did not get an obvious effect (decrease/increase of biodiversity) yet, but they affect quality of an environment (pH, Eh) and determine the scenarios of an ecosystem development and a dramatic result of which will be obvious within the next few years?

Olga

**#6 Posted : Friday, June 08, 2012 5:44:27 AM**

Very important points raised. I'll be back in the forum this afternoon for further comments...

Yves

**#7 Posted : Friday, June 08, 2012 3:02:02 PM**

Hi everyone,

So we are intending to convince and/or confort the local stakeholders in the use of ICZM for a „better coast“ in their territory. The good thing is that explaining the essence of ICZM, we ll be telling them that we are talking about a very flexible process, which is very up to them to adapt, attractive indeed.

Presenting existing models to evaluate the sustainability of their actions is crucial. Definitely, measuring outcomes we ll always drive local decision makers...but the process can't go without being measured as well...well then models need to be implemented. In order to balance priorities at a local scale, models like the DPSIR are crucial tools, but they need to be user friendly and attracting to the locals. So evaluation models, as we can see in CAMP project, with the use of IMAGINE (e.g. last Brian's video post on CAMP Almeria) are helping to have a large consultation process, but with solid coordination.

The risk would be to create a monster with no head: I ll try to remember that local consultation needs coordination.

I realized and i want to stress out the need and the importance of what people tend to call serious games/role playing games/etc. for the presentation of managing tools. They permit to stress out interconnections in our Land-coast-maritime Nexus, and drive decision makers in evaluating both process and outcomes environmentally, socially and economically.

That why I really forward to next week, and to see you all in our simulation game.

Sylvain

**#8 Posted : Friday, June 08, 2012 6:30:24 PM**

Yes Sylvain, look like everybody's set for the simulation game!

To close up this week lecture about ICZM benefits, let's say that they much depend on beneficiaries' perception.

Building up constituencies and winning formal commitment, two important enabling conditions (1st Order outcomes introduced at the inception of this lecture), start with demonstrating the possible benefits of ICZM through a given coastal zone management strategy to decision makers and other stakeholders.

The analytical approach suggested by the economists Bower & Turner (1996) is based on a "without ICZM" versus "with ICZM" comparison. The "without-with" comparison should be combined with the application of scenarios or alternative futures as mentioned earlier.

In considering the "without ICZM" situation, attention should be given to the common "business as usual" management strategy, which is not reflecting the real thing since the complex social-ecological systems in any area are not static but subject to an almost continuous process of adaptive change as socio-economic react and learn from past experiences. These adaptations may in turn generate feedback effects in bio-physical processes and functions and so on. Then, the rate and scale of the adaptive behaviour is conditioned by human perceptions of the nature, extent and severity of environmental change impacts. Thus, the perception by different stakeholders of the danger and risk related to a problem like the increasing storm surges is a key variable in implementation of ICZM, and hence in the achievement of net benefits of ICZM.

Now, we are approaching the weekend and I will soon address an introduction to our next lecture: who is responsible for ICZM hence who should be mobilized and how?

A very nice weekend to all of you!  
Yves

## **WEEK 5**

**#1 Posted : Saturday, June 09, 2012 10:26:57 AM**

Take your time, have a look at the intro for your coming week!

Now, we are entering Lecture 5 where "governance" is a key attribute of ICZM. You will see that in introducing governance the Mediterranean Strategy for Sustainable Development is quoted at length. I strongly invite you to have a look at it and you will see that "Promoting sustainable management of the sea and coastal zones and taking urgent action to put an end to the degradation of coastal waters" is one of the seven priority fields of action across the four main objectives of the strategy which are 'Economic development', 'Reducing social disparities', 'Changing unsustainable production and consumption patterns', and the last but actually underpinning objective which is 'Improving governance'.

Improving governance, is very much what ICZM is about but it may succeed only if it generates ownership through meaningful public participation. This is one of the key conditions on which I would like to expand a bit before starting the lecture.

Promoting meaningful public participation:

In all the models, public participation and local involvement are recognized as crucial components of coastal management. Similarly, NGOs and community organizations are, among others, increasingly playing a major role in coastal zone management initiatives around the world. In most of the cases, communities have typically participated in coastal zone management through public meetings, hearings and inquiries, and as representatives on advisory committees or councils. In many countries, public involvement is a legislated requirement for the development of and implementation of any sector or field management programmes.

Let's have a look at a number of lessons that may be considered as central to provoke and grab opportunities allowing public participation to happen (e.g. see Glavovic, 2000, about the South Africa experience):

- At the outset, key stakeholders should agree on an appropriate process and structure to secure broad political support for the initiative. This approach stands in contrast to common practice, which typically begins with technical analysis of a problem. By concentrating on process considerations first, attention can be given to building political support before stakeholders assume positions based on differing perceptions about how best to solve the problem. The setting up of a specific programme and its coordination body may promote the credibility of the process seen as a partnership between government, civil society and the private sector.
- The process should be designed in an inclusive, voluntary and culturally sensitive manner. Particular attention needs to be given to designing culturally sensitive and appropriate methodologies to engage diverse participants effectively in the participatory process. Different kinds of opportunities, forums and participation methodologies need to be developed, tested and applied, depending on stakeholder needs. It should be an iterative process in which capacity and trust are progressively built over time, contributing to deeper insights and to enhanced stakeholder relationships. Locally networked and informed regional managers may play a key role in this regard.
- The process should be aimed at empowering historically disadvantaged individuals, groups and communities. Socially and geographically distinct patterns of poverty and inequality will be perpetuated unless there is a commitment to empowering those who are marginalized. Creating opportunities for meaningful public participation can be a powerful means of mobilising historically disadvantaged people.
- The process should be conceptualised as a partnership-building endeavour. A broadly owned policy outcome is based on a shared commitment to its implementation. Such partnership-like relationships provide the basis upon which stakeholders can learn about and appreciate the interests of others. Conceptualising the process as a partnership-building endeavour helps to foster a common understanding of the issues and builds a shared set of values that can be then translated into practical measures for cooperation.
- The process should be designed and managed to deepen and extend public deliberation. Promoting public participation presumes that participants are well informed about the issues at hand and are able to engage in group discussions that get to grips with the substantive nuances of the issues. It also presumes that participants are able to work through their differences of opinion and develop a common understanding of the issues. Usually, public meetings provide limited opportunity for in-depth discussion. Alternative forums and participatory methodologies are required to extend and deepen discussion, including small group discussion that facilitate increased interaction between specialists and stakeholders, as well as deeper levels of interaction between stakeholders.
- The process should be managed in an innovative, reflective and deliberative manner that is responsive to changing circumstances and stakeholder interests. From an operative point of view: (a) keeping the momentum requires independent facilitators who, depending on circumstances, may need to play different roles, ranging from mediator to negotiator, educator, advocate and so forth; (b) building stakeholders' interest, understanding and trust necessitates timely, accurate and regular feedback that reflects the nature of their contributions and the manner in which they have been integrated into the products of the process; (c) the process should be designed and managed to be responsive to the needs and interests of stakeholders and to the new insights that emerge in the course of the process, (d) careful attention needs to be given to using the most appropriate media and

means to make the outputs of the process widely accessible and reach particular target audiences, such as key decision-makers or the youth; (e) conducting such an extensive participatory process requires securing sufficient financial resources as well as a reasonable timeframe to engage stakeholders in formulating the coastal policy.

As you can guess, engaging into such an adventure requires the experience and the appropriate techniques of “social engineering” to do it. Most of the time it is poorly done, why? Because most of the time there is not such a skill in the project, the social practitioners are not there but rather environmentalists or biologists or ecologists but not the social engineers which are badly needed.

No situation is perfect, of course we are working with what we have but we have also to be aware that there are requirements we cannot ignore if we want to achieve a meaningful participation hence genuine ownership of an ICZM programme or project.

Now, Lecture 5 and its forum are yours!  
Yves

**#2 Posted : Monday, June 11, 2012 10:57:51 AM**

Hello Everyone :)

Hope your day is shiny and full of blessing.

Thanks a lot Yves for this valuable lecture. I wanna say that every piece of info at this lecture and the previous ones is very appreciated.

I wanted really to know the role of governance in the ICZM process, since I was thinking that the NGOs, is the only player who succeed the ICZM Process. But it seems that the ICZM process is a very branched process, which includes public participation, community organizations, political

support, stakeholders, civil society and the contribution of private sector. The structure to the secure political support of governments is very interesting to me, also achieving a meaningful participation, which needs the involvement of experience and social engineering in ICZM programme or project is a powerful technique.

Walaa

**#3 Posted : Tuesday, June 12, 2012 9:15:52 AM**

Hi everyone,

I think that it would be unfair to say that only the NGOs have been the only players who have really participated in the ICZM process.

Until now, we have learned from the previous lectures that at least for the Mediterranean many initiatives have been taken place related to ICZM (e.g. MAP, METAP, Euro-Mediterranean Partnership, Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem). As far as Europe is concerned, the European Commission adopted the Recommendation 413/2002/EC aimed at establishing a common framework for the implementation of ICZM in the Member States. Responses of the Member States resulted in strategic recommendations and specific actions to be carried out in order to implement ICZM all over the EU. The European Spatial Development Perspective (ESDP) also provides a policy guidance framework for the Member States. Other coastal-relevant European Directives strictly related to ICZM exist.

ICZM in the Mediterranean has accomplished some progress, mainly as result of local, national and regional initiatives. As far as the national level is concerned, the task of ICZM

has been left to the national authorities, especially in the Mediterranean, where the countries are strongly relying on central governments.

The national authorities are encouraged to take lead in advancing ICZM, though in many countries actions seem to occur at the sub-national level with a limited guidance by the central level.

On the other hand, there are NGOs that have played their role in ICZM process, even worldwide, emerging specific issues (e.g. oil spill accidents, effects of climate change), but in the dialogue of ICZM process more actors should be included. For example, civil society in many Mediterranean countries is not accustomed to active participation in public affairs.

To my opinion, access to information for all the partners within the process, as well as for the general public, is really required. Additionally, participatory approaches are really necessary, in which stakeholders are not only given the impression of participating in decision-making and need to be helped but they are full partners and have also responsibilities all along the ICZM process.

Yolanda

**#4 Posted : Tuesday, June 12, 2012 11:31:20 AM**

Hi YOLANDA,

I have said in my previous post that "I was thinking that the NGOs, is the only player who succeed the ICZM "

I didn't give my feedback or my input to the content of the lectures yet, I'm still studying this lectures and the previous ones.

Have a great day :)

Walaa Ali

**#5 Posted : Tuesday, June 12, 2012 11:46:14 AM**

Walaa Ali hi,

I understood that the comment you've made was what you used to think. I just took the chance, with this comment, to share some thoughts on this issue.

Have a nice day too!

Yolanda

**#6 Posted : Tuesday, June 12, 2012 1:10:07 PM**

In a sense I agree, let's say I hear, Walaa Ali saying (or thinking out loud) "only NGOs succeeded in ICZM", when it comes to public participation.

No individuals would be participating at all without structures like NGOs and local associations. I can't actually think of any other way, for a direct involvement of the public to the ICZM processes??

Sylvain

**#7 Posted : Tuesday, June 12, 2012 9:28:29 PM**

Great discussion about NGOs' involvement! Of course, though depending on countries, often NGOs represent an important expertise pool with a lot of field experience but they sometime limit their action to a kind of 'community-based management' where the private sector and local governments are missing. For sure, the 'ideal' situation does not exist and you often have to go ahead with bits and pieces within the process, but whatever the issue what is

important is to look at it from a multi-objectives perspective where at the same time you keep considering the political, institutional, economical, knowledge and participation aspects. Think of the ICZM practitioner as a skilled juggler!  
Yves

**#8 Posted : Tuesday, June 12, 2012 9:33:43 PM**

and by the way, don't forget to get into the simulation game proposed by Gonzalo and find out the kind of stakeholder you want to be!  
Yves

**#9 Posted : Thursday, June 14, 2012 4:58:26 PM**

Hello,

Following the discussion, I want to share some thoughts related not only to the importance of Governance in ICZM but also in the play that indicators, models and data plays in the whole process.

In my opinion, to achieve a full ICZM the promotion of public participation of stakeholders as well as managers is needed. However, to achieve the complete engagement needed, sometimes it might be necessary to provide stakeholders with tool that will facilitate the understanding of the coastal issues, talking at local scale. I mean that sometimes, the bridge between Scientifics and local communities is such big that dialogue seems to be impossible. I deeply believe that the data and indicators that are provided from Scientifics need to be transformed into valuable and understable tools for stakeholders and managers to use it efficiently in decision making processes. Thus if the tools that measure and monitor ICZM could be understable for the population that will help to show the civil society how ICZM could assure a sustainable development and the benefits for its implementation . Therefore when a broad and concise knowledge about the coastal issues is achieved by all actors, then the Governance could be completely developed.

By the way, today Elinor Ostron died. Rest in peace!  
Emilia

**#10 Posted : Thursday, June 14, 2012 7:02:02 PM**

Emilia, I did not know Elinor Ostrom passed away. As you say, rest in peace after giving us so much!

The gap you are talking about between scientists and local communities is true with decision-makers as well. And this famous gap between science and policy (including local policy local communities are contributing to in a way or another) won't be filled up by scientists because their institutions are not asking them to do so (and they won't be rewarded on that criteria!) even if they may contribute to the development of tools that facilitate access and understanding of scientific data. It is why we are talking of ICZM "practitioners" i.e. people the role of whom is to bridge that gap, to facilitate knowledge transfer hence policies that adapt to changes including knowledge progress. To the risk of disappointing, scientists cannot do the facilitation job just by themselves, they contribute to knowledge while ICZM practitioners or if you want managers (to be differentiated from policy-makers acting under certain forms of governance) facilitate the integration of knowledge into the governance process.  
Yves

**#11 Posted : Friday, June 15, 2012 1:10:55 PM**

THANK YOU ELINOR OSTROM! These are the words you gonna find at:  
[www.earthday.org/blog/thank you](http://www.earthday.org/blog/thank%20you)

And if you go there, you will be gratified with an extra video-conference from her. A great moment!!...

Yves

**#12 Posted : Sunday, June 17, 2012 8:56:50 AM**

Apologies for contributing so late in the week to the forum!

I was pleased to read in the lecture that public participation (local communities in particular) is key to a successful ICZM process. And there even was mention of promoting gender equality, along with taking anti-corruption measures. The societal benefits of gender equality are rarely acknowledged, whilst pretty much everyone is aware of the negative effects of corruption.

I just wanted to mention that Systematic Conservation Planning (<http://www.nature.com/nature/journal/v405/n6783/full/405243a0.html>), an approach widely followed to design networks of protected areas (traditionally on land, but there are recent applications in the marine environment), relies on stakeholder involvement to set conservation targets. This collaboration between scientists and stakeholders makes the planning process more transparent. I strongly believe that if stakeholders (including the wider public) are involved in the decision process, then they are more likely to "respect" the result of the decision, be it a protected area or an urban development project.

Corinne

**WEEK 6**

**#1 Posted : Saturday, June 16, 2012 2:16:56 PM**

Hello everybody!

While you are choosing up the actor you want to be into the simulation game, we are finishing (already!) our 5th week and entering into the 6th one with Lecture 6 on 'legislative, institutional and financial framework'.

This lecture is very much about the setting up of the enabling conditions (or '1st order outcomes' as commented in Lecture 4 intro) for sustainable coastal and marine areas development, and for building up these enabling conditions Mediterranean countries are quite fortunate since they have a common framework and its guidelines which is the Mediterranean ICZM Protocol. As indicated in the lecture, the first item in its menu of actions is about defining the coastal zone and I would like to emphasize this a bit.

In the Protocol, coastal zone boundaries are defined in a very flexible way as: (i) the seaward limit of the coastal zone is the external limit of the territorial sea (12 nautical miles) ; (ii) the landward limit is the limit of the competent coastal units.

It is clear that the definition of the coastal zone varies with each existing model. With respect to the size of the coastal zone, there is usually a trade off between comprehensiveness (bigger) versus acceptability and practicality (smaller). Some non Mediterranean countries, such as Sri Lanka and Costa Rica, have adopted a narrow definition of the coastal zone. In contrast, seaward boundaries can extend as far as the outer limit of the Exclusive Economic Zone (EEZ), which is the case for most of the countries that developed a Maritime or Ocean Strategy.

But whatever the boundaries and because of the dynamic and "open system" nature of coastal and marine areas, analysis for planning and management should add other areas to the boundaries of the management of the ecological area, which are the demand areas (see B.T. Bower & R.K. Turner. 1996. Characterising and analysing benefits from integrated



coastal zone management (ICZM). "Designing Sustainability", Fourth Biannual Conference of the International Society for Ecological Economics, Boston University, 4-7 August 1996).

What are these varied demands?: demands from within the designated area; demands from outside the designated area but within the watershed; demands from outside the watershed, with respect to, e.g. waste disposal of pollutants transported into the area via atmospheric transport; demands for coastal recreation, including visits to unique marine areas, and internationally determined demands, such as for global shipment of crude oil and oil products. Even if you have defined who should be the project's first beneficiaries, that's pretty much enlarge your list of 'stakeholders' you have to take into consideration, be there from the government, the private sector (market) or the civil society.

Therefore, any management area should be considered in its multi-scale dimensions. For example, over-fishing and the impacts of unregulated tourism may be considered as local pressures, but the degradation of wetlands or seagrass beds from the area of focus may be reducing the flows of larvae that repopulated the area and these impacts may be or may not be beyond the reach of local action. Careful documentation of the impacts of such global pressures as climate change might help to be aware of this scale issue and link with other policies or programmes addressing the causes of global warming.

Finally, don't forget that a local ICZM project should also be understood as part of an actual or potential network of local coastal management projects (and it does not matter if they are not labelled 'ICZM') which through replication and scaling up, may convince and help regional and national governments in developing their own regional or national ICZM strategies.

In the meantime, a nice weekend!

Yves

## **#2 Posted : Thursday, June 21, 2012 2:02:44 PM**

This week, as I guess we all noticed, Rio+20 Earth summit started, and some first elements are to be noted.

This week lesson concerns, to quote Yves, "setting up of the enabling conditions" here more specifically for the coastal areas, but one can easily understand that those questions are also crucial for global environment conservation. Therefore, I would like to share one article with you, about commitment and common framework for sustainable development, from Rio+20. Check it out:

<http://www.guardian.co.uk...eakened-draft-agreement>

Believe me, it is not that I want to spread pessimism...it's just because I believe this matters need to be discussed, and that the platform we are using is a chance for us to exchange.

Hear from you soon in the simulation game; and there, there would be competition ;)  
Sylvain

## **#3 Posted : Friday, June 22, 2012 6:53:01 AM**

Hi everyone,

Thank you very much for the article you've submitted which is really very interesting...and though you feel the need to discuss about this, ....at the same time you want to be so much aggressive acting already your "role" of promoter in the simulation game. Do not

misunderstood me. I just want to be a little bit provocative. My point is that it is in our human nature to "adopt" an attitude adjusted to our interests. As promoters (I belong to the same group with you), we've been asked to be aggressive and our approach to be "caricaturesque". OK we will be!... but we have to keep in mind that the final goal of the simulation game is all together to come up with a Strategy for Sustainable Development of Torres...to come to a consensus through integration. See you in the simulation game "partner". Let's play the game...

Yolanda

**#4 Posted : Friday, June 22, 2012 8:02:48 AM**

Hi again for contributing to the topic of the forum,

I am sorry for not responding earlier to the forum, but I am still in the process of understanding and discriminating terms such legislations, regulations, multilateral environmental agreements, multilateral governance agreements, programming agreements, Directives, Protocols, institutions, International Programmes, Conventions, essential for the long-term ICZM and sustainable coastal development. So much effort and so little progress, as Sylvain pointed out with the article related to Rio+20.

Despite all these, I would like to express my points in relation to this lecture and to Yves' comments.

1. Indeed, coastal zone boundaries are defined in a very flexible way in the ICZM Protocol, but, for example, in the second paragraph of Article 8 of the Protocol, concerning protection and sustainable use of the coastal zone, there are points to facilitate, partly, defining these boundaries. What I want to say is that we all need to "built on" the Protocol thus coming to another point about an "ICZM Directive" that may be proposed. On the other hand, EU ICZM Recommendation which is an incentive-based approach may be more effective on the European level than the regulatory approach of an "ICZM Directive".

2. Another issue raised by Yves was about demand areas. I totally agree with Yves' point, that apart from demand areas, we need to take into consideration a broader list of stakeholders (e.g. government, private sector, civil society) and though the relevant article (Bower & Turner 1996) refers to the social benefits to be gained from the implementation of ICZM, it is the economic efficiency principles that based on. What about social benefits related to participatory approaches concerning the stakeholders? And when referring to the stakeholders we should not refer only to NGOs. I think that here there is a misunderstanding. In most of the cases, NGOs care about environmental conservation at any cost. What is the point, for example, to take measures in order for the reefs to be preserved if the local people are poor? Every group of stakeholders has its role and should participate in the ICZM process. I will repeat again that ICZM process is similar to the system of democracy.

Yolanda

**#5 Posted : Friday, June 22, 2012 11:03:33 AM**

Hello everyone,

I wanted to share some thoughts in response to this week's lesson.

1. I found the evaluation of ICZM in Europe document extremely interesting and the progress towards a more integrated approach in CZM is obvious. I was also surprised with the outcome of the regional seas approach that allows for greater collaboration between signatory nations and for the transfer of technology, information and experience in ICZM.

2. Other international conventions/ policies exist which are of relevance to the coastal area could be: International Convention for the Prevention of Pollution by ships (MARPOL, 1978); Bonn Convention on the Conservation of Migratory Species (1979); Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

On the other hand I wonder, what are the benefits of adopting already established legislative frameworks than producing a new one (i.e. in the form of MSFD or WFD) for improving the mechanism of adoption of ICZM?

### 3. Principles of Good ICZM

- As far as we have seen, the need for participatory planning and involvement of relevant bodies & stakeholders in integrated management are revealed again and again as necessary procedure, but at the same time they are the most difficult to accomplish. (example: in this course I counted more than 20 people enrolled, where there is a minimal "active" participation for knowledge and experience exchange)

4. Finally I was wondering how difficult political or financial support can be, in countries that experience a financial crisis (and a general collapse of institutional structures), like Greece. What is the proper way to support long- term perspectives when citizens do not have hope for tomorrow, and generally the immediate future is unstable? (Yolanda I think we mean more or less the same thing here)

Vmarkantonatou

**#6 Posted** : Friday, June 22, 2012 11:26:53 AM

Just a short comment to Vessa (vmarkantonatou) related to the question of the second point. I think that maybe sometimes it is easier to build on already established legislative frameworks and secure this way a long-term process.

I totally agree with you about the case of Greece (4th point).

During this course, I keep on thinking the ways to process within this financial crisis considering that many of the stakeholders may think that ICZM process is a kind of "luxury" under these circumstances.

Yolanda

**#7 Posted** : Friday, June 22, 2012 12:44:53 PM

I agree Yolanda.

Actually there are many issues referenced in this course that I am thinking of the way they could be implemented in Greece, under the current financial circumstances.

I just wanted to say, that as far as I have experienced this situation, unfortunately this is not only a matter of economics, but it also influences all structural, political and social issues in the country.

I believe there is though a possibility for re-valuation of our resources and sustainable development aspects, but we shouldn't forget that there is no more trust in authorities and government.

vmarkantonatou

**#8 Posted** : Saturday, June 23, 2012 5:34:22 PM

While Brian just sent you the Lecture 7 intro, I would like to end up this week lecture commenting briefly on Yolanda's and Vessa's allusion to the situation in Greece and the

somewhat inappropriate ICZM framework in such a case. Experience will tell you that you have to look at it in a very flexible way, the principles are there, fine, but the implementation way may be quite different depending on the context. What is first at stake is the governance system which is there and if trust towards authorities and government fled away, it may be good to look at what remains and what and where could be the starting point to start building up something. In this case, that could be first the strengthening of self-organized communities and skilled local governments (capacity building) through micro-projects. The important thing while doing that is that the practitioner keeps an overall vision throughout the multi-objectives approach I was mentioning in order not to get lost into 'particularities'. If I am doing this at a very local level, what does it mean from a political, legal, institutional, economical, knowledge and participatory view? What could be then the strategy to scale up what is done at the local level? And then probably you will have to adapt very quickly the beautiful plan you had in mind once you start the project because it's a dynamic process and the process counts more than the output.

I leave you there folks, and see you around!  
Best, Yves

## WEEK 7

#1 Posted : Friday, June 22, 2012 9:35:43 AM

### Lecture 7: EXAMPLES OF INTRODUCING ICZM AT THE NATIONAL LEVEL

Hello again all,

With Yves you have been discussing the “enabling conditions” for ICZM, and by now you will have experienced the scenario exercise that looks at the local, on-the ground reality of decision-making. In this lecture we look at how nation states can create the framework that raises the status of ICZM from isolated projects or voluntary initiatives ICZM as a requirement, a “job that must be done”, one that is driven by legal requirement or nationally agreed priorities.

So, imagine yourself for the moment as a middle- level official in the environment ministry of an unspecified Mediterranean country ... your Minister sends down a question after returning from a meeting ... “...apparently the ICZM Protocol says we have to have a ‘National ICZM Strategy’ - what is a national strategy for ICZM ...and what's the point of this strategy?” Maybe you can tell by his tone that he is not too enthusiastic at the prospect in his mind of a major bureaucratic distraction involving endless consultations and mountains of paper.

So you look around the world for inspiration and ideas...

We have included some of these international examples in our lecture, along with other examples of national frameworks such as coastal laws. They are all very different. They reflect different perceptions, histories, legal traditions, cultures, geographies, and even the oceans the face. Many are single issue-driven, such as development or fisheries. So, how to proceed in the specificities of the Mediterranean? The reply to the Minister's question looks to be a difficult one! All that is clear is that Article 18.1 of the ICZM Protocol requires that, “Each Party shall further strengthen or formulate a national strategy for integrated coastal zone management and coastal implementation plans and programmes...”

Fortunately for you - our poor harassed bureaucrat - we at PAP/RAC are making your life easier by producing a set of guidance on what a national strategy is for, and what it might contain. Above all the ICZM national strategy is not seen as a massively detailed geographical strategy dealing with the minutiae of each section of the coast. The focus of the

national strategy should be on governance and a clear plan of action. It is for local plans and programmes to elaborate the details. The key objectives are simple, to:

- Articulate an agreed, clear national vision for the sustainable development of the coastal zone
- Establish through governance the integration and harmonisation of multiple interests in coastal zone
- Identify both the priorities and the means to achieve the sustainable development of the coastal zone.

The need for speed, clarity and simplicity are stressed. The important point is to provide clear national guidance and authority for ICZM, along with the official government “stamp of approval”.

We will look at the process of preparation in later lectures, but for now the key questions for this lecture (and maybe for your ministerial briefing) are:

- **What should be the key areas for the national strategy to address?**
- **What are the key benefits of preparing a national strategy – after all it is much better that your Minister feels he wants to produce the strategy rather than just complying with a Protocol to a Convention to which his country is a signatory?**

Brian Shipman

## **#2 Posted : Wednesday, July 04, 2012 7:32:42 AM**

First of all, it is indeed much better that my Minister feels he wants to produce the strategy, because as ICZM is a complex and site-specific process, there is no one-fit-all approach and each country should select the most appropriate to its political, social, environmental, and economic circumstances. I was really impressed by reading that in countries with developing economies emphasis is mostly placed on coastal resources management and especially by the example of the Philippines where they have embraced community-based management. On the other hand, a completely different approach is the one in countries such as USA, Canada and New Zealand, with well-developed administrative systems where the emphasis is placed on devising administrative procedures facilitating co-ordination and enabling policy integration.

The second reason for which it is better my Minister to feel he wants to produce the strategy is that in this way there will be a high-level political support for having a national strategy which is really required. Of course it would be also useful if my Minister “inspires” other high-level government agencies as well as administrative agencies of different levels (regional, local).

The third reason is that I will have the opportunity to give answers to his questions and then help him achieve this national strategy and maybe I get promoted if he will be elected again, but first I will have to complete with success this course. (Sorry guys for all this “delirium” in the heart of the course, but thinking all these just made me laugh and I hope you laugh too).

Reading through the lecture of the advanced course and some of the additional reading and taking in order to answer to the key questions raised in this lecture, I was keep asking myself. Should the question about the key areas for the national strategy to address have different answers to the Minister (emphasis to the political decisions?) and to our Professor?  
Yolanda

## WEEK 8

#1 Posted : Sunday, July 01, 2012 10:45:54 PM

### Lecture 8: HOW TO PREPARE AND IMPLEMENT ICZM PROJECTS

Happy Monday morning everyone!

As the Spanish football team have just elegantly demonstrated at Euro' 2012, having a plan and sticking to it can work. I can't promise that the ICZM processes and procedures discussed in this lecture will deliver the same lucrative trophies, but the examples have been shown to deliver very positive results.

But first, an important distinction:

#### Procedure versus Process for implementing ICZM Projects

The diagram shown on-line has been the foundation for the tried and tested CAMPs (Coastal Area Management Projects), dating back to 1989. This diagram and the "Operational Manual" (see Additional Material) provide the basic instructions for the delivery of a CAMP within the very specific context of the Mediterranean Action Plan (MAP) – a robust "procedure" on which to develop the work plan, contracts, Terms of Reference etc.

There is a world of difference however between a "procedure" and a "process".

Simplistically, a **procedure** such as the one illustrated leads you to a desired output – in this case the ICZM plan or project. As such, the procedure has served the CAMP programme well over more than two decades.

A **process** on the other hand is designed to achieve outcomes – wider societal and environmental benefits leading towards the sustainable development of the coastal zone. The details of this wider process are less well understood, and it has not been articulated in a single operational manual here in the Mediterranean or elsewhere. Thus, there has been much "reinvention of the wheel" in ICZM projects.

We at PAP-RAC have been giving much thought recently to this wider "process" of preparing ICZM projects, plans and programmes. Since the MedOpen lecture material was prepared we have launched a unique wiki-based roadmap for the **ICZM Process** to which I refer you.

Perhaps for the first time the ICZM process has been encapsulated into simple key linear stages from the initial "Establishment" stage, to the "Realizing the Vision". It is still in its early 'beta' stage of development, and its application will vary according to local circumstances. But, as a web-based application, it will learn from experience, and infinitely expand over time.

Importantly, the process is designed to apply to ICZM projects, plans, strategies and programmes, and its emphasis is on the achievement of sustainability outcomes. As such; technologies, IT applications, project administration, data collection and analysis, etc. are subservient to the core task of achieving the winning goals - a consensus for sustainable development, and a solid governance foundation for its delivery.

I ask all of you therefore to look at the Process as an essential component of this course.

Remember however - just as Genera Moltke stated in the 19th Century "*no campaign plan survives first contact with the enemy*" (unless you are the Spanish football team!) - any ICZM process should recognise the roles of chance, friction, "fog", uncertainty, and interactivity in the real world.

And, a question to consider for this lecture:

***Have we got a winning process?***

**#2 Posted : Wednesday, July 04, 2012 8:26:19 AM**

As far as I can see, a lot has been done to produce a flexible and adaptable tool to help the ICZM Protocol being implemented. From the materials we have in the lesson, especially the methodologies that have been used to implement previous CAMP projects, we can't help but notice the changes, from „procedure“ to „process“ the approach was polished, refined.

Ok, I feel like I am basically just rephrasing Brian's introduction text :(

Well...what I see, is that the ICZM Process, to be found online, is the result of very dynamic interactions and cooperation. Many practitioners of coastal zone management have been involved in discussions, implementation programmes, evaluation and monitoring of activities. This has been going for many years, with people from different sectors, fields of activity, countries and backgrounds.

I think that as long as such a tool is in those hands and keeps on passing into others, its relevance and efficiency being challenged, we will be on a good path, and so definitely we do have a winning process.

Of course, and in reference to the previous lesson, an other key to that success, is that we need Yolanda to be promoted, meaning she convinced her minister of the importance of national ICZM strategy. Then she will inspire other politicians in her region and beyond ;)

Sylvain

**#3 Posted : Thursday, July 05, 2012 11:37:58 AM**

Hi everybody,

I would like to ask whether it is wise to always define ICZM and its process in relation with sustainable development. Especially in the time of global crisis, the concept of sustainable development is being more and more criticized as many economists put in question the “development” logic of the concept, and advocate degrowth. Is ICZM so linked to development that without it, it has no reason to be beside that? Could the objective of sustainable management of the coastal zone be sufficient to ICZM?

Yolanda

**#4 Posted : Thursday, July 05, 2012 1:55:01 PM**

Hi everyone,

I would like to repeat something that I've mentioned in the topic of the third lecture in relation to the comment of Veronique above (veroetlouchou) if got it right. It was something from the material given during that lecture which is, that ICZM is a “tool” towards sustainable and therefore qualitative development than quantitative growth (Olsen et al., 2009). And I think that the totally wrong idea is the one of "growth" that economists like to play with, instead of development. So, I strongly believe that if the idea of sustainable (qualitative) development supported by the ICZM process was to be made operational than the one of quantitative growth, then the changes in economic policy and governmental priorities would be significantly different from those that prevail today.

Yolanda

## #5 Posted : Saturday, July 07, 2012 6:03:54 PM

Before entering into Lecture 9 (ICZM tools), a quick double comment about Vero's and Yolanda's posting: sustainable development is not a destination but a process and ICZM is the one applied to the coast and maritime waters and as regards 'quantitative growth', nations are still sadly using the GDP as an economical benchmark, a quite reductive notion of 'human well-being'!

See you on Lecture 9....

Kind regards, Yves

## WEEK 9

### #1 Posted : Sunday, July 08, 2012 7:45:01 AM

#### Lecture 9 – The ICZM tools

As an introduction to Lecture 9 devoted to a number of tools articulating the setting of the ICZM process, I would like to emphasize three important underpinning issues: the facilitating role of ICZM, building up on existing knowledge, and considering MSP (marine spatial planning) as a tool contributing to the delivery of ICZM.

The sole ambition of the few comments and examples developed below is to help you considering and articulating the ICZM tools in a very pragmatic and adaptive way.

Rather than being an all-encompassing solution for managing coasts and oceans, ICZM and more particularly national ICZM strategies should be seen as **facilitating and strengthening the implementation of diverse frameworks and processes** given the commonality of their operational goals and approaches, and areas concerned.

As in Xiamen (China) and Batangas Bay (Philippines), the inclusion of ports within an ICZM programme can strengthen the willingness and cooperation of the port authority, facilitating the implementation of the various international maritime and environmental instruments that the country has ratified.

#### Integrated implementation of Oil spill Preparedness, Response, and Cooperation (OPRC)

The ICZM programme in Batangas Bay, Philippines, contemplates the establishment of an OPRC response unit equipped with Tier One Oil spill response facilities. This involves collaboration with major private sector stakeholders including Shell, Mobil, Caltex and other oil companies operating around the bay and the Port of Batangas authorities. At the same time, the ICZM programme maintains much-needed statistics on fishing, tourism and other livelihood activities in the bay. Local government staff has been trained in oil spill damage claims under the International Convention on Civil Liability for Oil Pollution Damage (CLC), which the Government of the Philippines has ratified.

The identification of issues should be based on the **gathering and integration of existing knowledge** with additional studies where it is needed in order to share the available knowledge and promote a common understanding of ecosystem changes over time.

The UK report, *Charting Progress – An Integrated Assessment of the State of UK Seas (2005)*, “brings together the scientific monitoring data, describing and evaluating what the data says about the current state of UK seas, and some of the trends, which are currently observable”. As said, it is made on existing information to “provide a firm foundation for future policy-making and for *charting progress* towards achieving the vision that was set out



in a previous report (*Safeguarding Our Seas, 2002*). The reverse could have been true: bringing the knowledge together to then set out a vision for the country and its regions.

It is important to underline that such a synthetic assessment was not made in once but has been going through a whole process including the previous drafting of four sector reports (Marine environment quality; Marine processes and climate; Marine habitats and species; Marine fish and fisheries).

Even where information is limited, much can be achieved by consulting informed people, including specialists, government officials, resource users and coastal stakeholders. But in the same time, attention needs to be given to synthesising and sharing research findings with a broad audience, necessitating more effective communication not only between researchers but between researchers, managers, coastal stakeholders and the public. At the end, what counts is not to make a comprehensive assessment of the status of the coastal and marine ecosystems elements but to identify the major threats and issues that have to be tackled.

The last comment goes to the so-called **Maritime Spatial Planning** (MSP) which may be considered as a possible useful planning tool throughout the ICZM process provided it may be applied well beyond local governments' area of interest, at a large marine ecosystem scale. For example, in the introduction of the Firth of Clyde (Scotland) marine spatial plan, it is said in the introduction that "effective ICZM requires the application of a range of instruments and tools such as legislation, technological solutions, research, voluntary agreements, education, stakeholder engagement and facilitation", and that "Marine Spatial Planning is also a tool that enables the delivery of ICZM."

#### **Outlines of the Firth of Clyde (Scotland) Marine Spatial Plan**

##### **Background and Context**

This provides an overview of the Firth of Clyde and sets the political context within which this plan has been developed

##### **The Framework**

This establishes the framework in which the policies and proposals have been developed and integrated. It includes the Vision, Aims of the Plan, Objectives and Guiding Principles

##### **Crosscutting Policy Themes**

There are four policy areas which impact upon the policies and proposals of the Sectoral Plans. These are: Environment, Communities, Heritage and Safety

##### **Sectoral Plans**

Sectoral plans have been developed for key sectors within the Firth of Clyde: Energy and Subsea Infrastructure; Fishing; Mariculture; Recreation and Tourism; Shipping and Transport. These forward looking strategic plans will help guide the sustainable development of activities

##### **Implementation and Monitoring**

The implementation of the plan will depend upon the action of many different bodies and agencies both public and private. A five-year action plan, detailing what should be delivered by whom and when, is set out.

*From: Scottish Sustainable Marine Environment Initiative. Firth of Clyde Marine Spatial Plan Draft. March 2009*

Now, I let you enjoy the lecture while, don't forget !, you are starting thinking about your final essay.

A very good week to all of you! Yves

**#2 Posted : Friday, July 13, 2012 11:26:51 AM**

Hi everyone,

I would like to say that the publication included in additional reading of the advanced lecture was really very interesting (Tintore et al., 2009).

I come to agree, at a high degree, with this scientific approach to coastal management, but maybe because I am a scientist. Can really a team of scientists do all the "dirty job"?

Yolanda

**#3 Posted : Sunday, July 15, 2012 9:04:40 PM**

Dear Yolanda, I am late in reacting to what you said but I would like to reply that, no, scientists should not be asked to do "all the dirty job" but should work with ICZM practitioners and managers to ensure that the transferred knowledge may be useful to the decision-making process.

This is the very end of this week and I now propose we pass on the next lecture which is about 'good practices'.

yves

**WEEK 10**

**#1 Posted : Sunday, July 15, 2012 9:29:41 PM**

Hello to everybody, on holidays or not!

In this lesson it is proposed to have a look at a number of local coastal zone management examples in the Mediterranean and try to come out with some lessons that may be useful for further ICZM development in the frame of the Protocol. To complement this Mediterranean overlook, I would like to enlarge the vision to the lessons that we may draw from experiences all over the world. You will see that fundamentally, there are many common observations with the Mediterranean's ones.

Altogether it appears that there is no recipe for ICZM where the process may be triggered by concern over sectoral issues or by regional issues, and can be implemented through a number of different institutional schemes and management instruments. The very definition and delimitation of the coastal zone varies considerably among coastal States, as does the extent to which integration is desired; the scope of issues, environments, and stakeholders involved in the management process; and, the approaches and methods employed to achieve management objectives. Diverse factors such as the political and cultural nature of a country or region, the resources available for management, and the existing institutional structure, influence the approach adopted or adapted. As a result, the models do not easily lend themselves to comparison, but there are common features characterizing varied approaches which can provide insights into the trends and current practice of ICZM internationally:

- the particular context and experiences that generated each ICZM model appear to be unique to that country or region and are a function of a host of legal, political, social and cultural factors;
- coastal management efforts can be divided into three types: (i) single issue initiatives focusing on a single or a limited number of coastal problems (e.g. Sri Lanka, Barbados, Ecuador, Thailand, United Kingdom initiated their respective coastal zone management programmes to address erosion control and shore protection); (ii) comprehensive coastal management models adopt a more cross-sectoral approach, incorporating a variety of issues in order to achieve sustainable development in the coastal zone (e.g. most of US states, some Australian states, South Africa, a number of EU member states), the scope of these management initiatives being often constrained by the mandate and responsibilities of the

lead agency ; and, more recently and increasingly, (iii) integrated maritime policies including ICZM as a crucial governance tool at the interface between the land and the sea (in 2008, no less than 40 countries had taken concrete steps toward cross-cutting and integrated national ocean policy for the management of their coast and marine areas under national jurisdiction);

- the Philippines is one of the few countries in the world to effectively incorporate the fisheries sector into its ICZM planning. Notwithstanding the difficulties that may be involved, ICZM cannot be achieved without such an important sector (like tourism) being factored into the planning process;

- coastal management requires local action. Local government involvement is therefore essential to the successful implementation of the various economic development and environmental management policies and action plans forwarded by central government, but local government are rarely involved in the design of the policies and programmes;

- disparities between the capacities of central and local governments are another factor contributing to weak implementation. Most local governments do not have the financial and human capacity they require to implement the projects and programmes forwarded by central government. Lack of incentives is another reason for weak programme execution at the local level. Also, the lack of a legal requirement gives ICZM a low priority in most states;

- generally speaking, investments in capacity building in support of coastal and ocean management since UNCED (1992) have been fragmented and failed to deliver the integrating knowledge, concepts and tools that are required. Overall, fragmentation of efforts at multiple levels is the most important barrier that needs to be overcome to improve capacity building;

- usually, ICZM assumes that the leadership and responsibility lies with governments. But while the participation of stakeholders and the public is promoted, there is scant recognition of any role for the market. Yet, with the globalisation trend, experience tends more and more to demonstrate that it is typically market forces that dominate in shaping the trajectory of coastal change with highly variable roles for civil society. Approaches that have proved most successful are those that stress (i) strong involvement by those affected by coastal change, (ii) incentive-based methods, and (iii) the willing compliance with plans of action. Such approaches often translate into “community-based management” demonstrating that positive outcomes can also be produced at small, localized scales. However, such local successes have also proved to be resistant to “scaling up” in good part because they have required intense efforts, often heavily subsidized by external funding and expertise, strong local leadership and compromises and arrangements that are much dependent on local conditions;

- many handbooks and guidelines have been issued since UNCED that describe the features of ICZM and EBM as these should be expressed in practice, first very much separately but fortunately more and more combined under the same policy. To advance an understanding of the dynamics of socio-ecosystems, sustainability science is progressively emerging as a new academic discipline bringing together scholarship and practice, global and local perspectives from north and south, and disciplines across the natural and social sciences.

Wish you an excellent week and don't forget your final essay subject!

All the best, Yves

## WEEK 11

#1 Posted : Friday, July 20, 2012 6:18:30 PM

### Introduction to Lecture 11: The Protocol on ICZM in the Mediterranean - the Little Red Book

This week we are discussing the groundbreaking “**Protocol on Integrated Coastal Zone Management in the Mediterranean (ICZM Protocol)**” – known to its many fans as “*the Little Red Book*”.

In the ICZM Protocol we have the first supra-state legal instrument in the world aimed specifically at coastal zone management. It is one of a series of protocols to the **Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention)** adopted in 1976.

For those of us not so well informed about the subtleties of international law, a protocol is simply a supplement to an international treaty or agreement – amending or adding provisions. The “*Kyoto Protocol*” is perhaps the best-known example, setting out provisions to implement the United Nations Framework Convention on Climate Change. A multi-lateral protocol may ‘enter into force’ when a fixed number of states express their consent for entry into force.

The ICZM Protocol entered into force in March 2011 after the required 6 ratifications. Interestingly, one of the ratifying parties is the EU, which means that the provisions of the Protocol are binding on all the Member States. In the EU legal hierarchy this therefore places an obligation on the Member States equivalent to any international treaty, and nominally higher in the EU legal hierarchy than a Directive.

As can be seen from the lecture text, the ICZM Protocol is an all-embracing document – setting out the geographical coverage, comprehensive principles and means of implementing ICZM in the Mediterranean. A total of 40 Articles - most commonly seen in the A5 sized little red book in English, French, Spanish and Arabic texts.

#### So, why is it important?

Firstly, it is the first supra national, legally binding agreement on ICZM in the world, and is seen a model for other regional seas. No small achievement given the complexity and diversity of the Mediterranean.

Secondly, the Protocol as a legal text gives ICZM a major “competitive edge” in the Mediterranean against competing agendas, notably the recent surge in marine initiatives (largely EU-driven) that threaten to “squeeze” out ICZM in the battle for political priority.

Thirdly, the Protocol sets very definitive boundaries for the “coastal zone” based on real-world lines of governance: the coastal administrative units on land and - in an outstanding stroke of foresight - the coastal waters to the external limit of the territorial sea. Thereby putting ICZM in the Mediterranean firmly in the realm of both terrestrial and marine policy.

Fourthly, its provisions provide a solid platform for future action. The Protocol is the launch pad for the recently agreed Action Plan for the implementation of the ICZM Protocol for the Mediterranean (2012-2019)

Progress on the Protocol has been rapid. From its signing in 2008 it was the fastest of all the Barcelona protocols to enter into force, and the Action Plan was adopted by the “Contracting Parties” at their meeting in February of this year.

However, in the words of the old English proverb, "*the proof of the pudding is in the eating*". Can the provisions of the ICZM Protocol really be turned into action in these uncertain times?

In my opinion, a legally binding international agreement backed by an agreed action plan is certainly a more robust foundation for the future than the fuzzy and voluntary "EU Recommendation on ICZM", or the short-term opportunistic project-funding cycles. So, if ICZM is to come out fighting from this difficult period anywhere in the world, the ICZM Protocol puts the Mediterranean in poll position(1).

Sorry about the mixed sporting metaphors!

(1) "Pole position", is the position of a racing car at the front of the grid at the starting grid – giving a strong advantage over the other cars.

Brian

**#2 Posted : Sunday, July 22, 2012 11:14:14 AM**

Thanks Brian for the great and sports introduction, and an excellent week to everybody!  
Yves

## WEEK 12

### LECTURE 12: CONCLUSIONS AND IDEAS FOR FUTURE

**#1 Posted : Sunday, July 29, 2012 8:22:35 AM**

Hi folks!

After two and a half months of total 'immersion' in ICZM; eleven lectures, a role-playing simulation, and a final essay to write, here we come to the 'finale' - Lecture 12. By this point the many strands of ICZM - from the macro, regional-sea ambitions of the Little Red Book (the ICZM Protocol), to the micro concerns over the development of Torres (1), that forgotten corner of a Spanish coast - should be coming together into a simple understanding of the core principles, purposes, dynamics and potential of ICZM in the Mediterranean.

If only it were so simple. We, the MedOpen students and lecturers, are a cross section of real-world coastal practitioners - from NGO's, research institutes, universities, international agencies, consultants and the public sector at all levels - each with our own unique perspective on the complex "ICZM web".

Few of us can stand far enough back to see the whole structure. Most of our waking hours are spent doing our "day job"; participating in meetings, writing reports, doing some analysis, or even going to the "field". We spend most of our time up against reality, interacting locally in our particular corner of the ICZM web. In short, when you're part of the action, it's very difficult to simultaneously "stand back far enough", keep the vision.

So it is in life: to the town mayor at a local stakeholder meeting, ICZM is a vague acronym in the subtitle of the local project; to the senior official in a capital far from the coast it's just one more international commitment he must brief the minister about the next day; to the fisheries scientist ICZM is yet another arena in which to fight for his sectoral interest and there is no guaranty that he/she will make a link with the ecosystem-based approach of fisheries he/she may be trying to promote .

As you read this week's lecture, pull back your mental camera to its widest angle. See how the Protocol could power a multi-scale Mediterranean-sized ICZM web, the delicate policy fibres multiplying over and over as the web stretches out to coasts at national, sub-regional and local levels, webs within webs of people, institutions and communities. And, as you prepare for that final essay, take a moment to reflect. Most of you have chosen a very local topic, but think about those special 'Mediterranean-wide' (not to say global for a number of them) factors we discussed at the very start. Then consider where you fit into the wider ICZM web that links international and national policy-makers with your tiny part of the coast and with others on all sides of this remarkable 'liquid continent' or so-called "sea within the land".

Consider also the dynamic that keeps the web together and growing - the "ICZM Process" designed to ensure the delivery of real coastal sustainability.

And finally, how can you, as a local ICZM practitioner, draw on the unique regional driver that is the ICZM Protocol?

This is not a one way street, ICZM is nourished by top-down/bottom-up dialogue at all stages of its cycle, by what you have contributed in this course, and your final essay will feed back into the growing body of knowledge and experience that is ICZM towards sustainable development of the Mediterranean region.

Now, after closing up the simulation game (the results of which will be sent to you later) let us wish you an excellent summer break while, don't forget!, we expect your final essay to be sent by no later than the 3rd of September.

Your devoted lecturers,  
Brian and Yves

(1) Torres – widely believed to be the inspiration for Lorca's "I am afraid of being on this shore,/ a branchless trunk,/ and what I most regret /is having no flower, pulp or clay /for the worm of my despair." Extract from Sonnet of the Sweet Complaint date unknown.

**#2 Posted : Friday, August 03, 2012 11:34:16 AM**

Hi fellow students and lecturers,

First, I had like to thank a lot our professors, which have given us a great insight on the vast world of ICZM, sharing tools to better understand and work with it in the future.

I am glad I had the chance to exchange with "real-world coastal practitioners", and there are some people I will be glad to work with and meet sometime.

As I have the chance to look almost everyday at the beauty of the Mediterranean Sea, and we the "MedOpen crew" share that same privilege (for those from the Black Sea, no offence, I am sure it works as well), I realize -trying to drop some romanticism- day after day how much this sea is a beautiful bridge between people.

Cheers,

Sylvain

## ANNEX IX

### MedOpen Forum for Development of the Practical Simulation Game (Instructions and Communications)

**#1 Posted : Friday, May 25, 2012 10:01:04 AM**

Forum for development of the Practical Simulation Game  
malvazg

**#2 Posted : Friday, May 25, 2012 1:16:15 PM(UTC)**

Dear All,

this space will be used for most communications during the Practical Simulation Game from week 5 (11th June) of the MedOpen course.

I will be in touch from next week in relation to the allocation of roles for students.

Keep reading and completing your theory lectures: enjoy!

Bests

Gonzalo

**#3 Posted : Monday, June 11, 2012 4:19:56 PM**

Dear Students:

Today we begin the Practical component of the MedOpen course: the Simulation Game in which you all become stake holders in an imaginary case that we prepared for you.

#### **STEP 1:**

Visit thoroughly the Simulation Game page. You can access through the MedOpen site (see Simulation Game in the upper menu).

This week you must review all documents associated with the dedicated web page for the Torres Scenario. During the coming days you will receive an email with the description of your own Role assigned by the coordination of the Simulation.

Now enter the imaginary world of Torres Coast. You must study carefully the evolution and development of Torres, because you now become an interested party, a committed stakeholder of the Torres society, facing unprecedented challenges. Use your knowledge and skills in coastal management to provide Torres with a better future.

Contact me for academic queries (the technical ones too, but I will re-route).

Bests

malvazg

**#4 Posted : Friday, June 15, 2012 2:16:08 PM**

Dear prof. Malvarez,

If it is not too late, I would like to apply for a position at New Concrete Dreams Limited. I am very eager to join this company as a manager, as I think it offers great career opportunities. A lot has been done to stop property development in the region, but I am performance driven, and sure that there are still great economic opportunities out there.

The new position you offer in Torres seems very challenging to me. In fact, I am familiar with the area and with previous and on going projects, particularly in the tourism industry. To my opinion, as a private developer, NCD Ltd., has great chances for successful investments in the area. In fact, the national authorities really want to clear the place and start a new spatial planing strategy.

As far as I know, it is still a mess there, so we can get the best of the situation, getting both work in clearing down the area and then be involved in the future real estate projects. I come from the tourism industry, and I have good contacts in the national administration and with some, eager to help, promoters. I will be glad to share more information, if you give me a chance to convince you during an interview.

I would very much appreciate if you could take my application in consideration.

Yours sincerely,

Sylvain

**#5 Posted : Sunday, June 17, 2012 9:14:59 AM**

I see that Sylvain wants to be on the "dark side" !! ;-)

I just wanted to comment on the name "Operation Malakka" ([http://www.medopen.org/simulation\\_game/Scenario.html](http://www.medopen.org/simulation_game/Scenario.html))... anyone who is Greek, or who has been in contact with Greeks in an informal manner, should know what "malakas" means... (the 's' is dropped when you call someone like this). I won't say here what it means, as it is rude, but it made me laugh that a police investigation could be called like this :-D

Corinne

**#6 Posted : Monday, June 18, 2012 8:22:41 AM**

@Corinne, yep...the dark side :-D

Nobody feels like taking sides??

About "Malaka", I was 7 months in Crete last year...I didn't want to say anything when i first saw it, but now that you are pointing it out... :)

Sylvain

**#7 Posted : Monday, June 18, 2012 8:34:02 AM**

Dear All,

Today, 18 June we start our second week of the Practical Simulation Game.

I am posting a list with the roles you would play in the Simulation.

Let me know if you have any comments or otherwise, await instructions which would be posted in this forum.

A document indicating detailed info on each roles will also follow.

Bests

Gonzalo



**#8 Posted : Monday, June 25, 2012 9:28:50 AM**

**INSTRUCTIONS FOR WEEK 3**

Please, read carefully the indications below.

**Mrs Grijande-Nauer:**

Send Greetings to Torres Citizens

**Developers:**

New Concrete Dreams.

Greener Than Green.

NU Developments.

***Use chat or forum to coordinate proposals. Write proposals and send to Consultants next week. (from 2 July)***

**Consultants:**

COCA (Consulting Certifications and Assesments)

PASTA (Project ASsesment for Tourism Adaptation)

***Prepare a written statement for Developers: guidelines for proposals by end of week. (by 29th June)***

Gonzalo

**#9 Posted : Tuesday, June 26, 2012 1:18:08 PM**

Hi there,

following the Simulation's Game timetable there is a skype conference to be organised to fully explain scenario. I was just wondering is this meeting going to take place ...??

Personally I believe that it would be very useful to go through the scenario and discuss some ideas together. It would also be indicative of how many stakeholders are finally going to participate in this simulation game, and a nice change of getting to know eachother since a few people comment in the forum sofar.

Best regards

Vessa

**#10 Posted : Tuesday, June 26, 2012 1:42:48 PM**

Dear townspeople,

First of all, THANK YOU!

I am extremely honored to have been selected the mayor of Torres. I am boundlessly grateful to the votes of 75% of the townspeople who thus empowered me to make the daily life better.

Our town requires a lot of improvements. It's now time to start repair all the damages from the past years. It's going to be a lot of work, but we can do this together!

As mentioned in the election campaign, I will direct the attention of the town authorities to the problems of our coast, severely damaged. As a mayor I will do my best to deal first with this problems. According to the four-step plan, first of all, I will start with a set of reports on actual

state. I need to see exactly the situation on the field to find the proper solution for every problem. For this, I already started by asking from my team for a technical report on the environmental and socio-economic state. But I will also need support from every one of you: ***In your opinion, what's wrong?*** Please let me know all your problems, so I can build for you a better life.

Let me assure you that in my activities I will be guarded by no other principles than those of the LAWS: both legal and ethic.

I am proud of your trust, Torres, and I will justify it to the best of my competence and knowledge.

Thank you!

Yours sincerely,

Your new mayor,

Mr(s) Lucca Grijande--Nauer

iulinich

**#11 Posted : Friday, June 29, 2012 8:07:39 PM**

Dear Mr(s) Lucca Grijande--Nauer and developpers of Torres,

It's a pleasure for COCA Consultin group to share with you a set of guidelines to drive the future development and changes that Torres will face in the future. We trust that these guidelines will be of great importance in any decision that might be taken in relation to the development of the coast and thus that our opinion as Consultants will be key in that process.

Please find below the written document ( Sorry, no possibility of doing attachments).

Best Regards

Emilia

**Subject: Torres Costa Project**

*To whom it may concern,*

As announced before, Regional Government has decided to request alternative projects from developer companies in order to re-utilize the Torres Costa area in which previous mega urbanisation resort project was abandoned. COCA Consulting Group has been selected by the Regional Government as the consultant to support the developer companies in their proposals as well as assess several projects and recommend one of them to the Regional Government.

COCA Consulting has defined some criteria which will be seeked in the assessment process among projects. The developer companies are suggested to consider these criteria as a guideline in their project development.

- First of all, projects are expected to protect the environment while improving the social, economic and cultural life quality and standards of the society. In this regard, projects should be based on the restoration of local ecosystems functionality and on a balance landscape setting between rural and natural areas and human settlements.

- The development of coastal and alternative tourism is essential as a clean industry which creates value for the region, so the project should help the improvement in tourism and other

activities related of high added value and excellence.

- The project should create job / business opportunities for local community. On the other hand, it should also construct public facilities (parks, libraries, markets, cinema, etc.) for the use of local community as well as newcomers / tourists. Moreover, the works of environmental restoration should become an opportunity for local jobs creation.
- The concept of the project should be sustainable development, thus the project should provide tools to monitor and implement such strategy at short, mid and long term, such as renewable energy, water management, waste management, landscape restoration under alternate new and modern management criteria, etc.
- Previously unfinished and abandoned buildings need to be assessed in terms of need, functionality and environment. Re-utilization of these buildings after restoration in an environment-friendly way might be considered as an option in order to prevent the damage by deconstruction and reconstruction. In this regards, developers should promote projects of building re-utilization based on landscape architecture criteria in order to recover environmental, social-behavioural, and aesthetics of the pristine Torres costa area.
- Developers should develop and implement environmental assessment tools (such as Environmental Impact Assessment, Ecosystem Approach and Strategic Environmental Assessment) in order to choose the most appropriate and sustainable option among several ones. COCA Consulting is ready to support the developers in implementing these tools in their projects. An added value to be considered is to award projects that are more consistent with the new ICZM Protocol principles.
- After receiving all the proposals, the projects will be evaluated in terms of benefits to society, environment and use of resources.

Yours sincerely,

**COCA Consulting Group**

**#12 Posted : Tuesday, July 03, 2012 3:50:53 PM**

02 July 2012

Dear Mr(s) Lucca Grijande-Nauer, Major of Torres,

Dear COCA Consulting Group,

Subject: Torres Costa Project – Development proposal by New Concrete Dreams Ltd

First of all, we would like to thank the Mayor of Torres for the letter sent to us, New Concrete Dreams Ltd, on Wednesday, the 27th of June. We are delighted to read that the well-being of Torres population is a major concern for the newly elected Mayor, as it is for us. Below, we detail the proposition of our Company for the redevelopment of Torres. The quality of life in Torres will be improved through increased employment and earnings, by attracting foreign markets and tourism, and by offering to all the inhabitants of Torres a better future. Given the guidelines given by COCA Consulting Group for the development of the area (as per their letter dated July 29th), we can assure you that we can meet every single of their requirements.

Here is our proposal for the development project of the Town of Torres:

- First of all, we want Torres to be a safe place to live, and a safe place to invest. As this is the core of our philosophy, our first step will be to further protect all the sites of Torres from coastal erosion. So, pushing aside recent and untested trends in soft protection, we are proposing the construction of solid concrete sea walls along the 200-300 m shore line, as well as sand dumping, in order to build two sandy beaches, and a picturesque coastal promenade linking the Costa area to Torres, and where local residents and national/international visitors will be able to walk, cycle and roller-blade.

- Once this step is completed, and following COCA Consulting Group's request to help increase tourism and other activities related with high added value and excellence by mitigating visual impacts, we propose the demolition of the two enormous unfinished fifteen-storey buildings at the top of the cliff, along with 700 of the half-built houses.

- Based on new technological advances in the treatment of waste derived from the demolition of large buildings, we will dispose of building debris directly in the nearby sea, at a depth of about 20 m underwater. The aim is to create artificial reefs and establish an artificial underwater park for recreational activities (e.g. sport diving, spear fishing), contributing that way in enriching local biodiversity and habitats.

- Following once more COCA Consulting Group's request to restore in an environment-friendly manner half-finished and abandoned buildings, and considering that we are specialized in re-construction and re-development of unfinished projects, we propose to reconstruct and redevelop 1,500 houses, two shopping malls, a number of hotels, one of the two planned golf courses and the marina and cruise terminal. In particular, the latter will be made so that it can cater for the largest cruise ship, which will bring thousands of visitors to the town, thereby providing business opportunities to shops, bars, and restaurants.

- In addition, we are planning to rehabilitate the resort abandoned by private companies, and formed by 370 apartments, two restaurants, one swimming-pool, tennis courts, one discotheque and an open-air theatre. All of them are going to be redeveloped following the model of a "club hotel", with each en suite apartment welcoming from three to six guests, but without kitchen as the formula of the club will be "all inclusive". We are especially interested in the renovation of apartments situated along the 100 m zone from the shore, with easy access to the beaches. We are sure that the local authorities will realize the importance of the development of those buildings for the tourism industry, and this activity can start immediately since we will not have to go back on previous decisions to grant authorizations.

- As public health is concern of ours, we are offering to help the Municipality with the construction of a sewage treatment plant. We are also offering a solution for waste management issues by disposing of the wastes in a dumping site situated 20 km inland from Torres and which we are planning to buy. The Municipality of Torres will be able to use this service at a discounted price. At last, we are ready to help the Municipality with the construction of a seawater reverse osmosis plant, which would solve the problem of water supply. As we noticed, the authorisation has already been given.

- Finally, we want to transform Torres into a very special place, unique in Mediterranean, and give a reason to every tourist to visit it: we propose the construction of an aquarium/aquapark of 20 hectares with dolphins and killer whales, a place with educational (learning about Mediterranean mammals and autochthonous wild life) and recreational purpose (with a gigantic open air swimming pool/toboggans, etc.). This point is in perfect harmony with the request of COCA Consulting Group to improve the quality of cultural life of the inhabitants.

All the parts of our project are simply the perfect way to create jobs and business opportunities for local community.

Dear Mr(s)Mayor, it is now time for us to present you what we are expecting to be provided in return.

Of course, we are aware of the financial crisis in Europe, and we know that these last years were hard for everyone, but the regional and local governments are to blame for the

desperate situation of Torres today. So we are expecting from you to prove us that you can give Torres a better future by:

- Guarantying and financing a maximum quality of the local and regional transportation infrastructure.
- Financing the local Torres public transportation program.
- Financing the demolition of the buildings and houses.
- Co-financing the construction of a water treatment plant.
- Financing building of a medical center.
- Guarantying long term investments in a high quality educational system (school, library etc) and security through acquisition of new equipment and hiring staff for police and fire protection department.

We are waiting for your answer. Please accept, dear sir/madam, the expression of our most humble greetings.

New Concrete Dreams Ltd Team

(Veronique)

### **#13 Posted : Tuesday, July 10, 2012 11:48:30 AM**

Dear COCA Consulting Group, Dear NCD Ltd Team,

\*COCA

After carefully reading the conditions that you come up with, I can say that I agree with your initiative. I appreciate your concern for the development of the Torres Costa area from all points of view (economic development, tourism, jobs, etc). I can also add that it was a very nice surprise to see your concern for the environment and sustainable development.

\*NCD

I was impressed by your ideas! Everything looks really nice. Still, I would have some questions/suggestions:

- on the point : - *Based on new technological advances in the treatment of waste derived from the demolition of large buildings, we will dispose of building debris directly in the nearby sea, at a depth of about 20 m underwater. The aim is to create artificial reefs and establish an artificial underwater park for recreational activities (e.g. sport diving, spear fishing), contributing that way in enriching local biodiversity and habitats.*

- Do you have an impact study? I don't think that this idea is too applicable. This could generate a serious impact on the environment and could change the ecosystem in the area! Please read carefully what COCA said: 'FIRST OF ALL, PROJECTS ARE EXPECTED TO PROTECT THE ENVIRONMENT'

- regarding all your plans.. what do people say? Do they want such an economic activity in the area? Ok, this could lead to a very well developed area (and rich, if I may add :) ) but what about the people? Do they want Torres to become such a crowded place? Maybe it would be better to resume this development plan to a few investments? - This is just a question, but I am really interested on how would the people react to your ideas.

Thank you very much for your collaboration,

I think that we are on the right track!

Major of Torres,

Lucca Grijande-Nauer, (iulinich)

**#14 Posted : Friday, July 13, 2012 11:14:03 AM**

To whom it may concern,

As part of our development project for the city of Torres, we have taken good note of the Mayor's comments.

As COCA is in charge of implementing environmental assessment tools for the project, we are looking forward to receive their study on our project activities linked to land extension on the maritime domain and underwater installations. To that endeavor, we would like the Mayor and Coca to know that we are ready to put at your disposal all the necessary documents and information.

Moreover, knowing the plight of the city's finances, we want you to know as well that we propose to realize the study of impact of the different activities of the project. Indeed, we have developed an environmental study bureau in NCDL, where we are working with the best experts and the latest technologies in the field of marine biology and geology. This study will of course be very competitive to market prices, as the cost will be diluted in our investments to come for the future of Torres.

On the other hand, knowing that we are up to date, the only developers who wish to invest in your locality, we believe it is useless to worry the population with boring issues. We are dealing with that. Be sure everyone will get free passes for the AquaParc big opening, and this notice, as the Mayor, feel free to share with your inhabitants.

Let's face it, Torres is dying, and it is the duty of local authorities to undertake everything in their power to ensure a minimum level of quality of life to its people. And that's what we are proposing, or more precisely, it is a bright future that we are offering to Torres. Our long experience in the development of urban and touristic projects, we are using for Torres' interest, is all local decision makers have to worry about.

Kind regards,

NCD Ltd.

**#15 Posted : Saturday, July 14, 2012 10:24:43 AM**

14 July, 2012

Subject: Non-Urban Development Plan of the Torres Costa: "Torres EcoLand Paradiso Project"

Dear Mr(s) Lucca Grijande-Nauer, Major of Torres,

Dear COCA Consulting Group,

Our team of specialists has a background in environmental sciences, spatial environmental planning and environmental law. We assess through comprehensive territorial analyses the possibilities of the project or plan sites and provide long-term viable solutions.

Non- Urban Development Ltd. enhances the quality of life for residents of the Torres Coast by protecting the natural landscape, rural areas and non- developed areas. We aim to create a sustainable and attractive city. We keep a high ambition on transforming the Torres Coast into an eco-region, namely the "Torres EcoLand Paradiso" with the lowest cost of development.

Non- Urban Development Ltd.'s exciting new plan combines many of the necessary elements of a sustainable countryside (transportation, open space, pedestrian and bike friendly streets, and energy-efficient buildings) that will solve the complex issue of re utilization of existing land use in a more sustainable mode. Particular care will be given to issues related to sustainable tourism, erosion the coast, restoration of habitats and landscape, but also effective design and pilot actions with the active participation of local communities.

## NON – URBAN DEVELOPMENT ACTION PLAN

In the present Proposal, Torres Coast is planned to become a model eco-city that will cover its energy needs 100% from renewable energy sources. Possibilities range from wind and solar photovoltaics (PV) for a variety of more alternative power generation technologies. Moreover, Torres will be an exemplary area promoting ecotourism, recreational activities and education with respect to nature. Visitors and residents will be

### I. TERRESTRIAL PART

#### A. NON- RENEWABLE ENERGY SOURCES

Torres Coast will become less of a city and more a resort, but it still holds the same promises of sustainability and will use the sun and wind and water to heat and power the area.

Two Renewable Energy Parks are to be constructed in Torres EcoLand Paradiso:

1. a Wind Park at the top of the hill
2. a Solar Park at the borders of the Torres Costa area (location of parks, see map of “Torres EcoLand Paradiso”).

Renewable forms of energy provide energy independence to an area, given that their use does not depend on the import of fossil fuels. Renewable energy forms allow an area to develop independently within its borders<sup>3</sup>. Thus the project will contribute to the sustainable environmental-socio-economic development of the region.

#### B. ENDORSEMENT OF ALTERNATIVE TOURISM (ECOTOURISM)

1. The majority of the ecotourism practices undertaken in Europe aim to take care of the land. In Torres EcoLand Paradiso people will feel connected to the earth, with respect towards the environment that provides them with the majority of their sustenance.

Residents will grow the majority of their food organically, try to re-construct their buildings using environmentally friendly materials, protect biodiversity and growing seasons and protect local water, soil and air.

A model eco region with ecotourism as its main activity can demonstrate a unique economic dimension, as income from tourists is kept within the community and is circulated between members. Income is often generated through the retail of their products and services and recycled to improve everyone in the community.

2. Promote energy efficient means of transportation, like bicycles and Electric Vehicle.

Project activities will include the development of a plan to install electric vehicle charging infrastructure throughout the region, preparation of a permitting and installation guide, efforts to assist fleet vehicle operators in adopting plug-in electric vehicles, and education and outreach to the general public.

3. Transform Torres Golf Club into the Torres FarmLand

The Farm will become a centre for families to visit, enjoy our children activities and relax while walking the farm, forest and river trails. NU Development Ltd. will work with community groups and farmers to manage farmland in ways that benefit biodiversity as well as food production and ecotourism activities.

4. Organic Agriculture/ Farming

Seasonal crops will keep the farm alive through oil, wine, flavor and other production.

Local products will be spread through the Market located in the Shopping Centre to encourage the financial development of the surrounding local shops. Not only does organic farming build healthy soil, but it helps combat serious soil and land issues, such as erosion.

## C. EXISTING INFRASTRUCTURE

1. The residents will have to go with Torres eco friendly development and construction. Hotels, restaurants and other facilities will have to compete with the environment as much as possible. Special guidelines will be established for the successful sustainable building projects of the existing infrastructure using materials and technology with respect to the environment, for example placing of photovoltaic on the roofs and parking places, outfit

### 2. Renovation of existing promenades

Existing promenades will be renovated in order to become functional again. A protective small wall can be built from the side of the sea, using rocks from the surrounding area and from the ruins of existing infrastructure. Soil stability around the promenades will be accomplished by local plant species.

### 3. Abandoned infrastructure

NU Development Ltd is visualizing a reconstruction of Torres under an alternative development umbrella that will serve the common welfare of the region, aiming at the lowest cost approaches. This means that re using again that destruction of existing infrastructure is not an easy task (time and money costly).

- About 20% of the abandoned residencies will be completely demolished.

The small lakes and forests that will be create with respect to ecotourism facilities will be valuable for the protection local biodiversity. Two artificial lakes and forests between the neighborhoods will be created. Some buildings of special architecture may be kept as sightseeing.

- The rest of residencies will be rebuild under eco friendly architecture basis.

- Re use of abandoned houses (i.e. like shops at part of the beach buildings)

- Renovation of the 2 abandoned buildings at the top of Torres hill

One building is suggested to become a Botanic Garden in order to emphasize the value of visiting parks and natural open spaces for the benefits they provide as healthy places for body, mind, and soul. The Botanic Garden will encourage people to increase their physical activity by visiting and engaging in activities in parks. Moreover, the future development of the Botanic Garden could lead to possible funding public activities.

The other building standing on the hill of Torres, which today is a source of visual pollution, is suggested to become an Art Center. There are major social, health, economic and environmental benefits in developing opportunities for and participation in arts and cultural activities.

## D. WATER QUALITY

The wind and solar farms created will generate enough renewable energy to offset the Torres plant's energy use.

1. Potable water will be provided via a desalination plant.

2. Waste and storm water will be collected in a waste water treatment plant and recycled for irrigation. The solid waste will be composted and reused as fertilizer for the island. The

WWT will also eliminate the long distance transport of wastewater to treatment plants and purified water back to the point of origin and will reduce water consumption and wastewater discharge significantly in the Torres area Furthermore, WWT can be easily integrated into watershed management plans. .



## II. MARINE PART

### A. IMPLANT OF ARTIFICIAL REEF

The reef will be located at 25-30m depth in front of the Torres Coast, using the infrastructure already available from the past. This reef will be the jewel of Torres.

One purpose of artificial reefs will be to provide a source of biological replenishment to local populations of marine vertebrates and invertebrates (spawning and reproduction grounds) and mitigate local habitat loss. Besides the biological benefits that might accrue from artificial reefs, reefs provide benefits to human users, whether commercial fishermen, recreational anglers, sport divers, or others.

### B. SUPPORT OF LOCAL ARTISANAL FISHERMEN

Revival of traditional fisheries in the area will support local community in Torres. Seminars educating young residents of Torres will create a new option for the area. Specific zoning for fisheries management will be developed within the area where commercial and recreational fishing will be completely prohibited to the reef (Core Area), and a buffer zone where special regulations will be established for artisanal fishing. The traditional Fishermen's cottages that were destroyed under the urban development during the 90's will be reconstructed in the infrastructure existing already at the beach. Special regulating funds will be developed for this specific action in order to support local fishermen (limited number) become sustainable.

### C. EXPAND RECREATIONAL ACTIVITIES (SCUBA DIVING, SURFING, CANOEING, SAILING)

### D. EXPANSION OF BREAKWATERS

Special care to the coast defence system should be paid in order to protect landscape, habitats and activities in Torres back- beach. Thus, small breakwaters vertical to the beach will be created with the infrastructure debris from demolition on the left and right side of the marina (see map of the Project). The breakwaters will be created not only to serve as beach defense from east and west winds, but will serve as a structure aligned completely with the marine landscape ideal for walks. Moreover, elongation of the marine pier in order to protect the beach from west- east wind (see map of Project).

## MONITORING

A successful environmental agenda does not wait for the perfect solution. It has to be experimental in nature and employ diverse working methods. Thus, monitoring is an important factor where each part of our operations has to find the method that best succeeds in achieving the objectives of this environmental programme. For this reason, sound scientific basis concerning the evolution of the Torres coastal zone is needed.

## COMMUNITY BASED MANAGEMENT

It has been widely recognized that public participation and local community involvement is an essential factor that contributes to the success of an areas management 33, 34. In the absence of strong community support, the integrity of the area relies more heavily on efficient enforcement, which is costly and not easily achieved. However, co-management and community involvement require a great deal of commitment and energy from all parties.

This Project is an effort to redevelop the abandoned Torres in a broad overall perspective, which takes into account the interdependence, and disparity of Torres natural system. The Project considers the long term perspective which take into account the precautionary principle and the needs of present and future generations. The protection of nonurban areas is further implemented through eco friendly development, which establishes maximum thresholds for intensive land uses that may not be supported by nonurban area goals. Moreover, the Torres EcoLand Paradiso Project will achieve sustainable provision of public services for all citizens guaranteeing the access to improved quality of life and welfare.

NU Development Ltd. will maintain a sense of place and retain community character in Torres Coast. The adaptive management during a gradual process which facilitate adjustment as problems and knowledge develop.

We take on the challenge!

\* Please, for detailed Plan see attachments (Proposal and Map of the "Torres EcoLand Paradiso Project"

vmarkantonatou

**#16 Posted : Monday, July 16, 2012 2:34:48 PM**

Dear Gonzalo,

This city of Torres is about to undergo some great changes, as many "students" are working on designing its future.

As a member of the NTC Ltd Team, I am under pressure since Non-Urban Dvpt posted a very ambitious and challenging offer, I am afraid we are going to lose a good share in the Torres development business, as it is a very competitive offer.

That is to say that we are into it, into our roles, exchanging, discussing each others point of view. Coca alongside with the mayor have set up criteria for the development of the city, NCD Ltd and N.U. Dvpt have made developing plan offers...we are moving forward.

At this point of the course, as we didn't hear from you for a long time, your reactions, comments and feed backs would be much appreciated.

I look forward to hear from you.

Best regards,

sylvain

**#17 Posted : Wednesday, July 18, 2012 7:12:56 PM**

Dear Sylvain:

you are right. We have been quite for some time; whilst this is for a variety of reasons, I think you will all be happy to hear that we are coming to the end and that a final twist has been planned for the closure. The lecturers for the theory module have supported a decision which imply that we will implement a specific tool (related to the theory lecture 9) so that the results of the simulation can be wrapped up with an assessment of the proposals.

I am posting today a document with the tool (TORRES Rapid Impact Assessment Tool) suggested by Brian and Yves to the appropriate "stakeholders" so that we can finalise the TORRES simulation with the evaluation of the proposals. We have decided this so that a better integration between theory and practice can occur.

Some proposals have been sent outside of the forum and thus we are in the process of compiling and organising documents.

I thank you for your timely message.

Bests

Gonzalo

**#18 Posted : Wednesday, July 18, 2012 7:46:28 PM**

Dear All:

**This is a message which requires action solely from Consultants:**

Thank you for all your work; you have received various development proposals and now it is time to close the process with a Rapid Evaluation which is closely related to the lessons learnt in the theory lectures running in parallel with this Simulation Game. Those proposals received outside of the forum or MedOpen platform will be uploaded on Google Docs for you shortly.

Today we have uploaded for you (COCA Consultants and PASTA Consultants) a Rapid Assessment Tool for evaluation of proposals. This tool which is specifically intended for quick review and assessment, should help you provide the Major (end recipient) with a complete view on proposals so that she can make a decision for future actions in Torres.

**To proceed now you should:**

- 1.- Log onto Google Documents. A direct link may work through [https://docs.google.com/...\\_zRSWyUiR1VTWjVmN0RiZk0](https://docs.google.com/..._zRSWyUiR1VTWjVmN0RiZk0)
- 2.- Download the Torres Rapid Impact Assessment file and complete the sections required (and applicable).
- 3.- Submit the final checklist or a executive summary report to the Major of Torres.

A proposed deadline for this is 27 July.

Please let me know if there is anything I could clarify.

All the best.

Gonzalo

