



**Welcome** to the third newsletter for the SPICOSA Project's Education and Training Network for Coastal Management Professionals and Students.

**What's New?**

This newsletter includes:

1. An update on the latest additions to the SETNET website
2. An overview of the recent SPICOSA presentation at the Rome SAF meeting in June
3. WP12 Education Progress update
4. WP13 Plans for the next 18 month period
5. Improving ICZM- A Whole Systems Approach
6. How to Identify an ICZM Champion
7. Plans for a SAF Training Workshop in Stockholm in November 2009
8. Summary of some of the latest education and training opportunities listed on the SETNET website



Jacksons Bay, Summer 2009, South Wales, UK

**LATEST SPICOSA TRAINING ALERTS.....**

September 1-2nd, 2009. Deliberation Support Tool training at University of Algarve, Portugal.

October 15-16<sup>th</sup>, 2009. Deliberation Support Tool training after the SSA Cluster meeting, Copenhagen.

November 21-22<sup>nd</sup>, 2009. Improving ICZM using a System Approach, Stockholm, Sweden.

Project N° : 036992

**ACRONYM :**  
Science Policy Integration for Coastal Systems Assessment

**WORK PACKAGE :** WP13 (Professional Training)

Reporting on D13.5.

**Training workshops report – Pilot SAF Professional Training.**

|                                |                               |               |           |
|--------------------------------|-------------------------------|---------------|-----------|
| REPORTING PERIOD :             | From : Month 13               | To : Month 28 |           |
| PROJECT START DATE :           | 1 <sup>st</sup> February 2007 | DURATION :    | 48 Months |
| Date of issue of this report : | From : Month 12               | To : Month 28 |           |
| Document prepared by :         | Partner (43)                  | (ENVISION)    |           |

Integrated Project funded by The European Community Under the Sixth Framework Programme Priority 1.1.6.3 Global Change and Ecosystems

*D13.5 Training Workshops Report*

**UPDATE ALERT.....**

Take a look at WP13.5 "Training Workshops Report" from Cork and Gdansk. Downloads are available from the SETNET and SPICOSA websites.

**To be at the forefront of education and training in coastal management, go to the SETNET homepage: <http://www.spicosa.eu/setnet/index.htm>**



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## Rome SAF Meeting in June 2009

The importance of high quality training to disseminate European research on coastal zones.

The SPICOSA research team gathered for a plenary meeting in Rome in June 2009, hosted by the Institute for Coastal and Marine Environment, CNR, Italy.

Many of the 17 study site areas in the project have now developed great practical experience in systems thinking, modelling, and engagement between scientists and policymakers. It is clearly recognised that the legacy of this EU Framework project on the sustainability of coastal zones will depend on the production of high quality training materials that enable the transfer of knowledge and techniques to a wider European audience.

Workpackage 12 of the project, led by the University of Algarve, has finalised the selection of a range of educational materials, designed to European standards, that are aimed at undergraduate and postgraduate students. The material covers both socio-economic and physical aspects of Marine Systems Science. Free standing modules will be available to add to existing degree schemes, depending on those aspects which need strengthening within current course catalogues.

Workpackage 13 of the project, led by Cardiff University in partnership with the University of Gdansk, University of Cork and Envision, has begun to develop training material aimed at professionals working in the coastal zone. Other than scientists, there are a wide range of professionals involved in decision-making in the coastal zone, including planners, engineers, lawyers, surveyors, archaeologists, conservationists, port managers, and strategic policymakers. These professionals have diverse skills and roles, but arguably they have a common need for training material which is practical, concise and in plain language. Drawing on the experience of SPICOSA study sites, the workpackage is developing a range of materials into a training package that will be delivered in Stockholm during November 2009, and at further locations around Europe in 2010.

The project is particularly interested to hear from advocates of Integrated Coastal Zone Management (ICZM) who understand the need for integrated, interdisciplinary science to support ICZM- we believe that SPICOSA offers just such a model and we would welcome your attendance at one of our training courses. At the SPICOSA Forum on Wednesday 10th June, presentations from a range of international speakers emphasised the importance of taking an evidence-based approach to decision-making in the coastal zone. This should particularly involve close collaboration between natural scientists, economists and social scientists, so that existing obstacles to science-policy collaboration in Europe's coastal zones are overcome.



SPICOSA participants, Rome, June 2009

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## WP12 Education Developments

As SPICOSA progresses, so more information is available for WP12 to convert into educational material. Versions, ranging from nearly complete, to early drafts of all of the SAF volumes are now available, and large amounts of material have been produced by the SSAs; very useful for educational courses in need of good examples!

From the point of view of WP12's outputs, John Icely, supported by Envision, has run two field based courses for Master's level students, based around the SPICOSA methodology in Faro, Portugal.

A further one week course, including an introduction to the KerCoast tool is to be run in September 2009. The framework of this course will then be transposed to a Master's course at the University of Plymouth in the UK. This is important to demonstrate that the tools that we are creating can be moved from one site to another, an important goal of WP12's work.

Work continues to develop a full Master's module based around the SAF. A curriculum has been designed by Alice Newton in Faro and initial lectures given by Chris Lowe in Plymouth based on the systems approach; these will be built upon and included in online resources that will be made available for general use through the SETNET and SPICOSA webpages.

ESCOLA SUPERIOR DE GESTÃO, HOTELARIA E TURISMO - Universidade do Algarve



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University of Algarve*



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## WP13 Professional Training Plans for Phase 2

The second phase of the SPICOSA project is the most important period for training. The period runs between February 2009 and August 2010.

Phase 1 involved identification of training needs, development of SETNET and development of two pilot training workshops at Cork and Gdansk.

Phase 2 will involve expanding the role of SETNET and developing a training workshop for SSAs and "Systems Approaches Champions" in Stockholm, Sweden in November 2009. Supporting case study material for each of the SPICOSA themes will also be developed. These include:

- Causal linkages
- Social analysis
- Economic analysis
- Ecological analysis
- Model library use
- Observational considerations
- Decision support systems
- Examples of best practice

This is for use by SSA Teams and Champions in local cascade workshops.

Deliberation Support Tool (DST) workshops will also be organised, the first at University of Algarve, September 1-2 2009. Others are planned to run in parallel with cluster and SAF meetings later in the year.



*Heritage Coast, Southerdown, South Wales, UK*

In addition, Node 5 will be involved in reviewing how the SAF has and could potentially contribute to effective ICZM practices across Europe. This will be via close collaboration with Thau Lagoon, Le Guadiana, Barcelona, Scheldt and Cork Harbour SSAs. These sites were selected because they represent the broad range of issues faced by SSAs involved in the SPICOSA project.

Outputs from this work will include examples of best practice and a number of reports and academic papers. These will form a valuable part of the SPICOSA legacy.



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Improving ICZM- A Whole Systems Approach

"The greatest shock to scientists in the 20th Century was the realisation that you can understand nothing, absolutely nothing, about the whole by understanding the parts." (Capra F,1996, The Web of Life).

This phrase encapsulates the essence of systems approaches, highlighting how individual real or abstract elements act completely differently when part of a larger complex system.

In terms of ICZM, a systems approach can act as a multidisciplinary tool that brings together principles and concepts from a broad range of sectors, including sciences, engineering and economics. Systems theory thus serves as a bridge for dialogue between autonomous areas of academic and professional practice.

It is particularly useful in assisting decision-makers understand different perspectives of coastal issues and the relationships between them. A visual representation can be especially effective at demonstrating how parts of the system affect one another and the degree to which those influences take place. The systems approach is also effective at reducing potentially complex systems down to a one page simplified summary which is more digestible for busy decision-makers and for non-expert stakeholders to understand.

The following steps summarise how to create a systems diagram:

1. Identify (coastal) stakeholders within a pre-defined geographical area
2. Allow stakeholders to identify and clarify an issue
3. Review stakeholders, bring in experts if necessary
4. Using a facilitator, involve stakeholders in drawing a systems diagram of an agreed common issue- use EXTEND software or post-it notes and pens to draw physical/ environmental, social and economic flows which are an influence on the issue being considered. Ensure there are "system inputs" and "system outputs". Concentrate on getting the linkages and direction of flow between system units correct
5. Allow stakeholders to explain why their part of the system works in the way it does (ie. their legal responsibilities or corporate priorities)
6. Keep discussing and amending until there is a shared view of the system (it is likely that you will need to redraw system or rephrase issue several times)
7. If possible, populate the systems diagram with data or expert guesstimates (not always possible!)

Once a systems diagram has been created, it should be analysed by considering where flows start and finish, which outside influences are within/ beyond the control of the stakeholder group, where blockages and feedback loops (+/-) exist and by considering the impact of system variance if appropriate.

What new product do you get after creating a systems diagram?

Following development of a systems diagram, a number of new products will have been created. These will include:

1. Improved (probably new) understanding of an issue and its system
2. Identification of potential solution(s). Note- if an issue is complex, it may require a complex solution. A systems approach will help identify common solutions for multiple partners, thereby creating management options that may not have previously existed.
3. A safe, risk free, virtual environment for testing out solutions.

How can we use systems thinking to improve ICZM?

Applying a methodology in a new environment is an interesting exercise, however ICZM practitioners need a tool that will facilitate their work and lead to more efficient and effective ICZM practice. The Systems Approach Framework offers that tool. In particular, it should assist stakeholders to develop a clear, common understanding of problems/ issues and their system, raise awareness of the roles and priorities of other stakeholders and improve communication.

More importantly, and this is something that only a Systems Approach can provide, it can help ICZM practitioners identify shared goals, shared benefits and common solutions. Together these support a sustainable framework for whole-system ICZM improvement.

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## How to Identify an ICZM Champion

A Champion is a charismatic, well respected professional who will take forward a new idea and help implement and embed it into professional practice. It is important that the right person is chosen for this role. The following guidelines will assist in identifying an appropriate Champion to take forward the Systems Approach Framework (SAF) in Integrated Coastal Zone Management. The selection of a Champion should be undertaken by each local Study Site team.



*Could this be your ICZM Champion?*

The person chosen to be a local Champion should exhibit the following characteristics:

1. The person should be an experienced, senior level professional (but not an academic!)
2. The person should be well known and respected by a broad range of ICZM professionals in the local area
3. The person should be aware of the principles of and actively engaged in ICZM in the local area
4. The person should be passionate about improving ICZM practices and sustainable use of the coastal environment
5. The person should be open to new ideas (ie the SAF)
6. The person should have available time to learn about the SAF and to promote it widely.

Once a Champion has been identified, they will need to be appropriately briefed about the SAF and the SPICOSA project. It is likely that their available time will be limited, therefore summarised information (about the SAF, about systems approaches, about local Study Site activities and how these fit in with the rest of the project) should be provided by the Study Site Team Leader and Study Site Training Representative. References to further appropriate information should also be provided.

The role of the Champion should be clarified at the outset, and will most likely include:

1. to learn about how ICZM can be improved using a systems approach (via briefings with the Study Site Leader, possible attendance at training meetings, read appropriate background material- important to stress the benefits the SAF can provide that no other approaches can)
2. to lead local meetings on "improving local ICZM using a systems approach"
3. to promote the use of systems approaches in ICZM and general coastal management practice
4. to "give permission" to colleagues to participate in SPICOSA and/ or try a new approach (ie. the SAF)
5. to set local priorities and check on progress towards achieving progress in priority areas
6. to report back to the local SAF leader on progress in implementing the SAF beyond the immediate project partners.

A good Champion can make the difference between the SAF being implemented widely across Europe and the SAF remaining a project based academic exercise. Choose wisely and you will be rewarded!

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## SAF Training Workshop in Stockholm, November 2009

SPICOSA Work Package 13, dedicated to professional training, will organize in cooperation with Stockholm University, the SAF Training of Trainers Workshop. This is specifically developed for SSA Training Representatives and for those interested in developing SPICOSA training skills.

SPICOSA objectives concern an improvement of the science-policy interface as well as communication and integration of those groups.

One of the SPICOSA goals is to transfer knowledge on the System Approach Framework through the active participation in coastal policy implementation and decision process. This involves close cooperation with local stakeholders and authorities.

Work Package 13 has undertaken a series of studies and reports in order to incorporate into professional training the methodologies and knowledge associated with the System Approach Framework. As a result, the SAF Professional Learning Module is currently being designed. This will act as a supporting tool for local SSAs to deliver their own training activities.

To support the successful implementation of the SAF training course in SSAs, Work Package 13 is inviting the SSA Training Representatives, SSA Members and Champions of the Systems Approach to the training workshop, which will be held on Tuesday 24th and Wednesday 25th November 2009 in Stockholm University.



*Tovetorp field station, Stockholm*

The workshop will develop the practical application of key SPICOSA concepts (e.g. causal linkages, social analysis, economic analysis, ecological analysis, model library use, observational considerations, decision support systems, examples of best practice) using case studies. Participants will leave the workshop with the skills and experience to cascade SPICOSA knowledge to local decision makers and a self contained resource pack to support cascade activities.

The workshop venue provides the facilities for about 50 people. The training course is free, although participants will need to meet their own travel, accommodation and subsistence costs.

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## Education and Training Opportunities

| <u>Date</u>         | <u>Course</u>  | <u>Deadline</u> | <u>Country</u> |
|---------------------|--|-----------------|----------------|
| 24/11/09 - 25/11/09 | Improving ICZM Using a Systems Approach  | 01/11/09        | SWEDEN         |
| 09/11/09 - 11/12/09 | Training Programme on Regional Ocean Governance for Mediterranean and Eastern European Countries Towards a holistic maritime policy                          | 08/09/09        | MALTA          |
| Ongoing             | Annual Doctorate Program (PHD) in Coastal Geosciences and Engineering GERMANY<br>annual The PhD programme of the Integrated School of Ocean Sciences (ISOS): | 01/09/09        | GERMANY        |
| Ongoing             | Annual POMOR - Master program for applied polar and marine sciences RUSSIAN FEDERATION<br>annual Three-Week Courses Coastal and Marine Management            | 01/09/09        | ICELAND        |
| Ongoing             | Annual Water and Coastal Management (M.Sc.)  | 01/09/09        | GERMANY        |
| Ongoing             | Biannual 2010 Summer Institute in Advanced Coastal Management  |                 | UNITED STATES  |
| 09/11/09 - 11/12/09 | Training Programme on Regional Ocean Governance for Mediterranean and Eastern European Countries Towards a holistic maritime policy                          | 01/11/09        | MALTA          |

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