ICZM Networks in the Baltic Sea Region

Aude Körfer[1] & Valérie Morel[2]

[1] Baltic Sea Research Institute Warnemünde, Germany
[2] University of Artois / EUCC-France, France

Abstract

Social networks are of special importance to ICZM in that they promote better stakeholder integration and the development of shared visions for the territories concerned. In a relatively short time, ICZM networks developed in parallel with the process of ICZM. This article focuses on a regional seas scale, considering ICZM networks in the Baltic Sea Region. A better knowledge of the networks themselves, of their development on a regional sea scale, but also of their role in the ICZM process are required. In order to face the number and the complexity of the networks, we first suggest methods for network identification and characterisation. These methods serve to give an overview of the existing networks and allow us to trace their evolution over time. The chronological approach shows the development of the networks and indicates that they are strongly linked to the historical and geopolitical context of the region. In fact, ICZM networks reflect particularities of the Baltic Sea region and in particularly the recent and quick change in the area. A key question is how efficient these networks are and what benefits network analysis can offer to the process of ICZM. In fact, network analysis uses data, which can serve as indicators for an evaluation of different aspects or steps of the process and in particularly implementation of ICZM on one territory concerned. Generally speaking, ICZM networks analysis enables a better knowledge of the process of ICZM, the stakeholder initiatives and strategies.

1   Background and Motivation

1.1. Network approach

Networks are a type of organisation composed of nodes (individuals, organisations, territories, etc.) and ties (relations between the nodes). There are many types of network analysis. Geographers tend to be concerned with maritime networks, road networks, etc., computer scientists with information networks like the internet, or economists with trade and financial networks. Networks are also the subject of studies in sociology. Social networks correspond to a "structure of ties among the actors in a social system. The actors may be roles, individual persons, organisations, industries, or even nation states. Their ties are based on conversation, affection, friendship, kinship, authority, economic exchange, information exchange, or anything else that forms the basis of a relation"(Nohria & Eccles 1992).

As a participative process, Integrated Coastal Zone Management (ICZM) requires co-operation between the actors concerned in order to build a common and sustainable vision for the territory. Networks are actively promoted in the ICZM process: "Networking is an efficient mechanism for strengthening coastal zone initiatives through connecting, informing and engaging stakeholders and facilitating information and knowledge exchange" (National Resource Management Ministerial Council 2006). As social structures networks developed in parallel with ICZM. As dynamic structures, they correspond to the continual need of adaptation of ICZM to new territories, environmental and economics stakes (Henocque & Denis 2001).

ICZM networks have a shared objective in that they seek to promote a sustainable development for coastal areas. In our definition, "ICZM Networks" are networks either that describe themselves as dealing with ICZM, or that deal with marine and coastal environment (pollution, risk management,

maritime safety, etc.), and with coastal and maritime activities (sustainable fishing, sustainable tourism, etc.). Dedeurwaerdere reminds us that, "from a functional point of view, the aim of a network governance is to create a synergy between different competences and sources of knowledge in order to deal with complex and interlinked problems" (2005). Networks are particularly useful for balancing the different coastal and marine interests.

Few specific studies exist on ICZM networks, which are relatively recent structures. Nevertheless, some regional or local analyses of ICZM networks have been carried out. Through the case study of Mont St-Michel Bay (France), Raymond et al. (2005) show the benefits of local networks in the implementation of ICZM. The analysis of Zahl (2004) deals with social and regional networks in sustainable tourism along the West-coast of Schleswig-Holstein (Germany). In England, Taussik & Gubbay (1995) focus on ICZM networks and define conditions for successful networks. An inventory of "International cooperation and organisations around the Baltic Sea" was made available in a report of the Finnish Environment Institute (1999) although this inventory is not specific to ICZM.

At the European level, the notion of ICZM networks is tackled in the framework of the Demonstration Programme on ICZM (*Participation in the ICZM Processes: Mechanisms and procedures needed).* No reference is made to the term 'network' whether in this document or in the EU Recommendation on ICZM (413/2002-EC). However networking between the coastal actors is still promoted: firstly through the principle of participative policy (ch. II (f)), and secondly in chapter V on *Cooperation.* The notion of networks and networking is also present in the EU Green Paper on marine policy, this time as "maritime cluster" and "network of maritime clusters". Maritime clusters are sectoral networks aimed at promoting economic and innovative competitiveness: "Clusters can help advance the competitiveness of entire sectors, or a group of sectors. This can be done by sharing knowledge, carrying out joint research and innovation (product development), pooling education and training, sharing innovative organisation methods among a group of enterprises (common procurement or distribution) or common promotion, including in marketing and advertising" (EC Green Paper 2006).

1.2. ICZM networks

Networks are complex organisation and dynamic structures, corresponding to no one-definition. Some particularities of ICZM networks can already be noticed. A network is organised to achieve defined aims, such as increased communication, better representation of interests (e.g. tourism interests), territories (e.g. islands) or groups of actors (e.g. NGOs representing civil society). They usually aim towards common activities. Networks can also be purely informational. This is the case where networks are based on common databases in order to strengthen the interaction between the partners.

ICZM networks can have a sector-based approach, when they are composed either of actors from only one sector (e.g. fishermen's interests, harbour actors, etc.), or one particular type of actor (research institutes, regional authorities, etc.). In this case, the network is termed "homogeneous". But a network can also be heterogeneous, when different coastal sectors or types of actors are involved and where the objective is cross-sectoral. Heterogeneous networks are better placed at representing and integrating coastal stakeholders. To be efficient, such networks need to be well organised and share common work methods. The network representations below (figure 1 and 2) were adapted from Taussik (1995) to represent the potential networks that might result from a high diversity of actors and sectors.
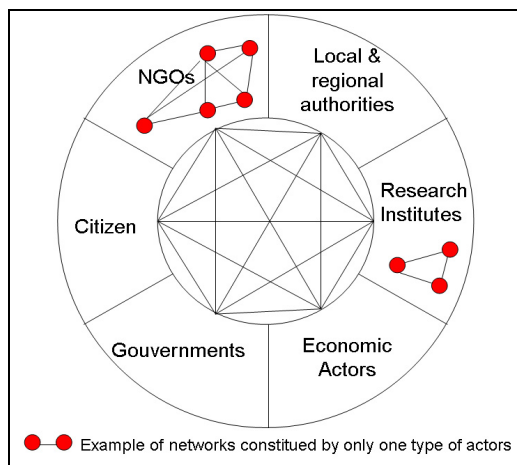
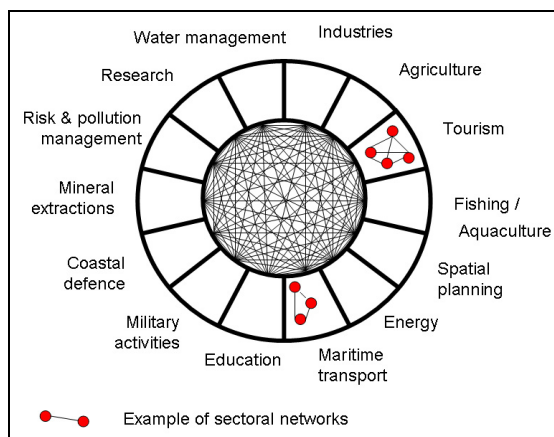Figure 1.   Potential members of ICZM networks

Figure 2.   Potential sectors represented in ICZM networks

The shared aim is the focal point of the network and explains why actors adhere to the network. Even if the partners are authorities or organisations, they are represented in the network by individuals. Motivation and involvement of the actors are essential to keep a network dynamic. Because they are made of social relations, networks are inherently instable. Networks can disappear once their aim has been achieved (a positive conclusion, e.g. the fight against a defined policy), but also if the partners are disappointed with the network: not enough activity, little democracy in the decisional process, objectives of the network not met, etc.

Networking promotes horizontal relationships. Nevertheless, a balance of power can appear between the partners. Each partner needs to see their interests served by networking. As dynamic structures, networks also have the capability to adapt themselves to new situations. The development of a new activity in a territory (e.g. wind energy) can either cause new networks to emerge or an integration of the new problem into the existing networks.

Networks cover different types of social and legal structures. A network can be informal or have a defined legal status (association, intergovernmental organisation, non-governmental organisation, etc.). Informal networks are particularly difficult to identify and analyse. Few have a webpage such as *Balloon*, the *Baltic Lagoon Network*, which wants to be an open network for all interested people. Even networks with an official status however keep their potential for change. A network can also be constituted as project-based; in this case the network is organised to set up a common project. The network can be either a short-term network (restricted to a funding period) or a long-term network if the members keep working together.

The knowledge on ICZM networks is partial and studies on the subject are sporadic. We need an overview of ICZM networks to answer the question of the benefits of such of networks for the process of ICZM. The current article corresponds partially to the results of a Master degree diploma in ICZM (Körfer 2006) about the role of ICZM networks in the development of ICZM in the European Union. This article focuses on the Baltic Sea networks to show the regional seas specificities.

2   Objectives

Network analysis remains a relatively new approach in ICZM. There is a need to examine in detail the specifics of ICZM networks. The complex system and interconnectedness of the networks requires instruments for their identification and characterisation. Considering that networks are always in constant transformation, we also need a method to follow their evolution through time and space. We propose simple tools which permit both: identification and analysis of their evolution over time. As adaptable structures, networks are influenced by the territorial context, but networks also influence the territory. Thus, it is important to understand the spatial, environmental, historical, economic and geopolitical characteristics of the territory under consideration. The historic development of the networks in the Baltic Sea Region shows the particularities of the area and also of the networks themselves.

The regional sea scale also requires closer analysis since the regional seas approach is promoted by different European documents on ICZM. The evaluation report (EC 2006) of the Recommendation on ICZM (413/2002-EC) considers the national scale (scale of implementation), but also the regional sea level. In the EU Green Paper on maritime policy (EC 2006), the regional seas approach is considered most appropriate for promoting the sustainable development of European seas. It also means the recognition of the action conducted by regional commissions such as HELCOM, Barcelona, OSPAR, etc. In addition, the Baltic Sea corresponds to one of the trans-national co-operation zones of the INTERREG programme. For these reasons our aim is to give an overview of the Baltic Sea networks, which are often referred to as examples and promoted by the European Union to other regional seas.

Are ICZM networks really efficient and helpful? Our aim is also to bring into question the efficiency of ICZM networks and to ask how coastal management benefits of this networking. But ICZM network analysis is a matter itself and we want to show how ICZM network analysis itself contributes to ICZM by providing indicators for the process of ICZM.

3   Location and Methods

3.1 Particularities of the Baltic Sea Region

To approach the Baltic networking, we need to remain some geographic, economical and political particularities of this regional sea. As a sea, the Baltic Sea is at first a maritime network in which ports constitute the nodes. Maritime trade includes the hinterland for the dissemination of the goods. In the words of Braudel, speaking for the Mediterranean Sea, the specific unit of the sea is "created by the movements of men, the relationships they imply, and the routes they follow" (1975). Maritime Baltic trade networks date back to the Hanseatic League, which was at its peak in the 15th century and comprised 170 cities (Braudel 1984). Although most of these were situated in the Baltic Sea region, the Hanse was not only a coastal network of harbour cities, but rather a maritime network with cities from the hinterland as full members. In a way, this former network is an example of the expected integration to be achieved through ICZM networks. The river basin of the Baltic Sea includes non-coastal countries like the Czech Republic or Belarus. Nine coastal countries need to be considered, nearly all of which are Member States of the European Union. The exception is Russia where the Baltic Sea coast comprises the region of St. Petersburg and the enclave of Kaliningrad.

Physical interactions between the sea, the coast and the hinterland are particularly strong in the Baltic Sea Region. The size of the river basins linked to the Baltic Sea is four times bigger than the sea itself. Furthermore, water quality is strongly influenced by the inherent characteristics of the Baltic

Sea such as micro tides, low salinity and low depth. Consequently, ICZM networks have to face specific problems, which are sometimes more acute than in other closed regional seas like the Mediterranean Sea.

3.2 Methods

The identification of the networks is the first step of our analysis. This requires an inventory of the different ICZM networks. The internet is our main source of information and also the favoured communication tool of the networks themselves. Information on the internet is not always updated, raising the question whether the networks are still active or even exist. Online information is usually provided by the networks themselves, meaning it is subjective. This is particularly relevant when it comes to evaluating the efficiency of the network's activities. Is the network really as active as it pretends to be?

To identify networks we used a table (table 2) composed of different qualities and characteristics. The following criteria were used to define an ICZM network: geography, actors, timescale, project framework, perspectives (aims, objectives) and internal structure (funding, topics, organisation, language). If necessary, the characteristics could be modified, e.g. to highlight certain financial characteristics. Table 2 presents an example of how the table of criteria was applied to a selected network. The example is the "Coalition Clean Baltic", a network of networks composed of 25 national NGOs.

Table 1:   Table used in network identification – the CCB network in 2006 (Körfer 2006).

Network name : **CCB – Coalition Clean Baltic**				**Table CCB (1) – 2006**			
	Characteristic 1			Characteristic 2	Characteristic 3	Characteristic 4	Characteristic 5
A. geography	Scale			Continuity	No continuity	Geopolitics	Head office
	EU + third country ●	EU	State	Region	●			Sweden
B. actors	Institutionnals			Research Institute	Universities	NGO	Private sector
	State	Region	Local			● 25 NGOs	
C. time	birth			For a given period	Long term	renewal	
	1990				●		
D. framework	European Programmes			National Programme	Regional policy	Informal co-operation	Other
	INTERREG (A B C)	LIFE environment	PRCD	Other				network of NGOs
E. aims	Around a project			Information / experience exchange	Defence of common interests	lobbying	
				●	●	●	
F. funding	Self-financing			European funding	National funding	Regional funding	Projects
	● (Member NGOs)			●			●
G. organisation	Around a leader			Hierarchy	horizontal		
					Board elected for 2 years		
H. language	English			Different languages	All partner languages		
	●			●			
I. topics	Environment			Social	Economy	Politics	Other
	●						
J. objectives	Scientific results			Intensify co-operation	Economic development	Support to political decision-making	Development of tools
				●			●
K. partners	**DENMARK:** Danish Society for Nature Conservation **ESTONIA :** Estonian Green Movement, Estonian Society for Nature Conservation **FINLAND:** Finnish Association for Nature Conservation, Finnish Society for Nature & Environment **GERMANY**: BUND für Umwelt und Naturschutz Deutschland, InfoBalt **LATVIA** : Environmental Protection Club of Latvia/VAK, Latvian Green Movement **LITHUANIA** : Lithuanian Green Movement, Lithuanian Fund for Nature, Environmental Information Centre **POLAND**: Polish Ecological Club PKE, PKE Gliwice, Green Federation – GAJA, Ecobaltic Foundation, Ecological Library Foundation, Ecodefense! **RUSSIA** : Neva River Clearwater, Green World, Friends of the Baltic , The Guide Environmental group, The Greens of Karelia, Centre for Environmental Information **SWEDEN**: Swedish Society for Nature Conservation, Swedish-Polish Association for Environment Protection, Friends of the Earth, Sweden, WWF/Sweden **UKRAINE**: The Western Centre of the Ukrainian Branch of the World Laboratory							
J. Links	IUCN, Global Water Partnership, HELCOM, Baltic Sea RAC, Baltic 21 Senior Officials group							

Bringing together all the inventory results yields an overview of existing networks. However, networks are dynamic structures, meaning that the network landscape is always in motion and networks appear and disappear. For this reason, an inventory always refers to a certain point in time. Using this snapshot approach, the table in table 1 can also be used to trace the evolution of a network over time. We propose a frequency of two years for analysis.

4   Results

4.1 Overview of the Baltic Sea ICZM networks

The following inventory (table 2) shows the networks we consider to be ICZM networks or linked to ICZM. The second column describes the specific approach taken by each network (taken from table 1 characteristic "I"). Networks are presented in groups according their thematic focus and the type of network. The countries represented in the different networks are also indicated.

Table 2:   Inventory of the ICZM networks in the Baltic Sea region

	ICZM Approach	S	FIN	EE	LV	LT	RUS	PL	D	DK	N	IS	BY	EU	Third states
Intergovernmental scale															
HELCOM	mar. env.	●	●	●	●	●	●	●	●	●				●	
CBSS	Cooperation	●	●	●	●	●	●	●	●	●	●	●		●	
Regional & local authorities networks															
Baltic sea Commission	regional dev.	●	●	●	●	●		●	●	●	●				
B7	islands	●	●	●					●	●					
Agenda 21 as a framework															
Baltic 21	planning	●	●	●	●	●	●	●	●	●	●	●			
BLA21F	planning	●	●	●	●	●	●	●	●	●		●			
CoNet CZA 21	planning	●	●	●	●	●	●	●	●	●					
VASAB 2010	planning	●	●	●	●	●	●	●	●	●			●		
Project-based network															
INTERREG III B - BSR		●	●	●	●	●	●	●	●	●	●		●		
Baltic Gateway	transport	●			●	●	●	●	●	●					
Baltic Master	mar. safety	●	●			●	●	●	●	●					
Bernet	eutrophication	●	●	●			●	●	●	●					
SUPORTNET II	tourism	●		●	●	●		●	●	●	●				
BALTCOAST	planning	●	●	●	●			●	●	●					
SEAREG	Sea level	●	●	●				●	●						
Bothnian	tourism	●	●				●			●					
STBR / STBR II	transport	●	●				●				●				
Coastman	ICZM	●	●	●	●	●	●		●						
Watersketch	water		●			●		●	●	●					
BSB	mar. pollution	●	●	●	●	●	●	●	●	●			●		
Coastsust	ICZM		●	●	●	●			●						
Balance	env.+ planning	●	●			●		●	●	●					
ASTRA	climate	●	●	●	●	●		●	●						
REMIDO	planning	●		●	●	●		●	●						
BEN	Planning	●	●	●	●	●	●	●		●			●		
INTERREG III C															
PlanCoast	planning							●	●						●
Copranet	tourism	●						●	●	●					●
IntermareC	mar. clusters							●	●						●
FP 6															
ENCORA	ICZM	●						●	●	●					●
BONUS	science	●	●	●	●	●	●	●	●	●					
UNESCO															
The Baltic Sea project	education	●	●	●	●	●	●	●	●	●					
NGO networks															
Coalition Clean Baltic	envir.	●	●			●	●	●	●	●					
EUCC	envir.		●		●	●	●	●	●						
WWF - Baltic	envir.	●	●	●	●	●	●	●	●	●					
Informal networks															
BALLOON	Lagoon		●			●	●	●	●	●					

The list of partners or countries taking part in the network is only a partial indicator of participation. Only the internal running of a network can give us an idea of the real participation of the actors in terms of financial participation, motivation, influence on the other partners, etc. However, we can observe that most networks we inventoried are project-based. This means that they are set up for a limited period of time.
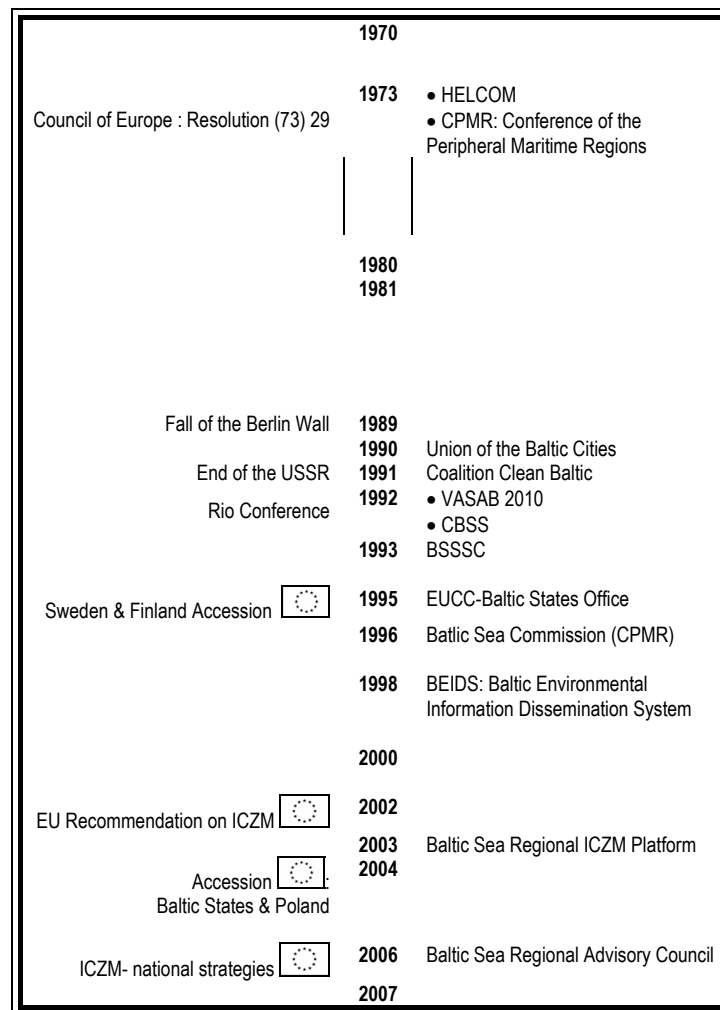
Other networks are directly or indirectly the result of local implementation of Agenda 21, which was first developed at a regional scale in the Baltic Sea (e.g. BLA 21, CoNet CZA 21, etc.). Schernewski

(2006) distinguishes between environmentally and planning-oriented networks. Our table shows a similar distinction: NGOs have a more environmental approach, while the networks created through Agenda 21 are more oriented towards spatial planning. Project-based networks that are active within the framework of INTERREG orient themselves along the implementation programme of the European Spatial Development Perspective (EC 1999b).

4.2 Historic development

Our first result is a simple inventory (table 4). However, inventories need to be structured. Our table (table 1) allows for several criteria to act as a basis for structuring the results. We chose the year of the network's emergence (criterion "C-1") to draw up a chronology of network development. This permits us to highlight the strong influence of the regional context on network development and multiplication. At the same time, it introduces an historic dimension to our primarily geographical approach to networks. A timeline (table 3) highlights links between historical events and the emergence of networks. Our timeline is based on an inventory made in 2006 and begins with the birth of HELCOM, which can be considered the first modern Baltic Sea network. The timeline may not be taking into account networks which disappeared before 2006.

Table 3:   Timeline of the Baltic Sea ICZM networks (2006)

	1970	
Council of Europe : Resolution (73) 29	**1973**	• HELCOM • CPMR: Conference of the Peripheral Maritime Regions
	1980	
	1981	
Fall of the Berlin Wall	**1989**	
	1990	Union of the Baltic Cities
End of the USSR	**1991**	Coalition Clean Baltic
Rio Conference	**1992**	• VASAB 2010 • CBSS
	1993	BSSSC
Sweden & Finland Accession	**1995**	EUCC-Baltic States Office
	1996	Batlic Sea Commission (CPMR)
	1998	BEIDS: Baltic Environmental Information Dissemination System
	2000	
EU Recommendation on ICZM	**2002**	
	2003	Baltic Sea Regional ICZM Platform
Accession : Baltic States & Poland	**2004**	
ICZM- national strategies	**2006**	Baltic Sea Regional Advisory Council
	2007	

The HELCOM Commission was founded in 1973, when urgent action was needed to improve water quality and counteract high pollution levels in the Baltic Sea. This commission represents the first intergovernmental network in the region, which is all the more remarkable since it emerged during the

Cold War. In this respect, the commission broke new ground in Baltic Sea co-operation. HELCOM, an initiative of the Baltic countries, is now close to the European Union.

The political context is of special importance in the Baltic Sea region. Before the fall of the Berlin Wall the Baltic Sea was not a shared area but a border. This had impacts on intergovernmental and non-governmental co-operation in the area. Maritime and military strategies were based on national or East/West approaches. The post-Cold War era was an opportunity to re-assess the economic, political and also the environmental situation of the Baltic Sea. The urgency to do something to preserve the Baltic Sea, which was recognised as common heritage, appeared again as a motive for action and co-operation. A similar sense of emergency has acted as a driver towards better co-operation in the Mediterranean Sea.

Many co-operation networks and environmental NGOs appeared at the beginning of the 1990s, such as the *Union of the Baltic Cities* (1991) or the *Coalition Clean Baltic* (1990). They promote a comprehensive approach to Baltic Sea issues and support participation of civil society in the former Eastern Bloc countries. Some of these NGOs began with a pure focus on the environment and only later extended their activities to encompass sustainable development. The Rio Conference (1992) marks the beginning of the sustainable development movement, which took concrete shape in 1998 when the regional Agenda 21 for the Baltic Sea was founded (*Baltic 21*). Compared to other European regional seas, the development of NGOs has been particularly important in the Baltic Sea area. Their special place and the specific importance of environmental NGOs are explained by the political and economic situation of the former Eastern Bloc countries. In many cases NGOs interceded in fields where weakened national States were not able to intervene, or in fields the State did not consider a priority.

Recent Baltic Sea history is shaped by two European integration phases. The accession of Finland and Sweden to the EU in 1995 was followed by the accession of the Baltic States and Poland in 2004. With the exception of Russia, all border countries of the Baltic Sea are now Member States of the European Union. By promoting the Northern dimension in its foreign policy, Finland has intensely promoted greater regional co-operation, particularly to ensure the political stability of the region. During its last EU presidency in 2006, Finland proposed a resolution on the Baltic Sea. The document places great importance to the environmental protection of the sea and promotes networking in education, trade and transport.

Generally speaking the timeline shows a multiplication of ICZM networks. The last council created in the Baltic Sea Region concerns fisheries and has been initiated by the European Council. This means that the density of networks is growing in the Baltic Sea Region. It also means that the relationships between networks are a matter of increasing interest.

5   Discussion and conclusion

5.1 Are networks so helpful to ICZM?

Are the ICZM networks developed in the Baltic Sea Region efficient? To answer this, we need to remember what we expect from them: a long-term perspective, information exchange, transfer of experience, land-sea integration, common projects, etc. The efficiency of a network is also linked to its operation. Co-ordination needs and costs depend on the size of the network, both in terms of number of members and spatial extension, which in turn influences efficiency. The maintenance of a network is a task in its own right. The optimum size of a network remains difficult to evaluate.

In terms of efficiency the internal running of the network is a matter of interest, but it is really the efficiency of the ICZM networks as whole that is of concern here. Many networks are project-based networks. For example, nearly 20 ICZM networks were identified that developed as part of INTERREG III B - Baltic Sea Region (2002-2007). The main difficulty with this type of networks lies in knowing, whether they are maintained beyond the funding period, either still as project-based

networks or as informal networks. Without this, it is difficult to know if they really promote a long-term approach or if their creation is only linked to funding opportunities.

Linking and joining material, human and financial resources also contributes to the development of joint projects. Networks can work together intermittently, but can also establish permanent relationships. The internet makes these relations particularly apparent. *The Baltic Sea NGO Forum* is one example where ICZM networks and environmental networks are linked to other Baltic networks. Such a platform can give a useful overview of how regional networks are interlinked at a point in time. Exchange of information and experience is a frequent type of shared network activity. Shared databases constitute a long-term link between networks. An internet platform was recently opened by *EUCC-The Coastal Union*, recognising the importance of strengthening the links between different Baltic Sea organisations and networks that are active in the field of ICZM. Some NGOs or project-based networks focus on similar topics or areas. Greater efficiency may ensue if the networks decide to join efforts. However, this situation can also lead to competition and inefficiency, especially if one network might become redundant. Links between the networks are important to avoid this situation and change any overlap into positive dynamics.

ICZM networks give the possibility of better land-sea integration but also European integration. In the case of the Baltic Sea this second aspect of the integration is particularly visible. Land-sea integration raises a question: Do Baltic networks really take into account the hinterland or are we witnessing a clear-cut division between coastal and maritime networks? There is an interesting proposition in the Green Paper for spatial integration of the hinterland in maritime clusters: "Despite the fact that many clusters are concentrated in coastal areas, the maritime economy has impacts beyond the coastal regions and connections with players in regions distant from the coast need to be established too". However, we should bear in mind that etymologically, a cluster means a "closed space".

Networks play an active part in European integration. Within the Baltic Sea region, this means promoting the relationships among the new EU Member States and with Russia. Outside the region, it means promoting the interests of the Baltic Sea at the European or international level. In fact, some networks facilitate better links between the Baltic Sea Region and the rest of the European Union. For example, the *Conference for Peripheral Maritime Regions is* organised by regional sea commissions including a Baltic Sea commission. A similar case can be made for INTERREG C projects, where Baltic actors become partners of supra-regional networks. The efforts made in transnational co-operation reflect on other types of co-operation. In fact, stability and a general climate of confidence are pre-conditions for better non-governmental co-operation overall.

5.2 Benefits of network analysis itself

Network analysis, carried out as described above, makes it possible to trace the evolution of networks through time. It could therefore be used as a social and geopolitical indicator of ICZM. ICZM networks also provide information about different aspects of the ICZM process. In fact, networks can serve to measure public participation, spatial integration of actors, new pressures on coastal areas and also regional co-operation. Data like the number, the density, the composition, the topic, the role of ICZM networks on a territory concerned are as many indicators of the environmental diagnostic or coastal management. Table 4 explains how network analysis could be used in this sense.

Analysing networks in this manner makes it possible to measure their concrete impact on the territory concerned. Network analysis also makes it possible to study the impact of specific types of network. For example, the EU Green Paper for a maritime strategy encourages the formation of maritime clusters. However, what effects may the development of strongly economic networks have on the regional balance of ICZM networks? In future, networks will need to take greater account of land-sea integration. This particularly means that coastal actors will have to develop co-operation with maritime actors. It does not mean to occasionally consult maritime actors, for instance on a defined problem, but to develop long-term relationships.

Table 4:   Use of networks analysis as an indicator in ICZM

EVALUATION OF...	Indicator	Measure
Public participation	Number of local networks	Increasing / decreasing
	Composition of the networks	Representation of civil society
	Consultative or decisive function of the observer networks	Relations between networks
	...	
Spatial integration	Maritime actors in the network?	Number
	Hinterland considered in the networks	Integration of river basin actors
	...	...
New pressure on the coast	New topics	Qualitative
	Inactive topics	Qualitative
	...	...
Regional Co-operation	Trans-boundary network	Increasing / decreasing
	Project-based network	Number of projects
	...	...
Efficiency	Concrete results of the network	deliverables
	...	...

It is important to give a special attention to the quick dynamic of the networks in the ICZM process. The participative process of ICZM is indeed strongly linked with networking at a local or larger scale. The promotion of networking in ICZM has for aim better integration of stakeholders and territories, active participation of the stakeholders and balancing representation of coastal interests. Network analysis give information on the stakeholders strategies and in particularly about their short or long term involvement, or about their efforts to have a better integration of the coastal and marine stakeholders. On this way, network analysis questions each coastal stakeholder about its own involvement in one or more networks.

In order to complete our assessment of regional sea-based ICZM networking, the next step will be to take another regional sea as a study area, in a similar way as we did for the Baltic Sea. Is there for instance in the Mediterranean Sea a similar distinction between the environmentally and planning-oriented networks? It may lead us to discover other factors that influence networking practice. For example, we did not consider the working habits of the actors in this study. Do networks correspond to a specific idea and mode of working? It is now important to keep pace with the development of networks and to obtain more background in order to evaluate their long-term effect on ICZM.

References

Braudel, F. (1975): The Mediterranean and the Mediterranean World in the Age of Philip II, Volume I.

Braudel, F. (1984): Civilization & Capitalism, vol. III « The perspective of the world ».

Dedeurwaerdere, T. (2005): The Contribution of network governance to sustainable development, Les séminaires de l'IDDRI, N° 13, 15 p.

EC – European Commission (1999a): Demonstration Programme on ICZM, Participation in the ICZM Processes: Mechanisms and procedures needed, Final Report.

EC – European Commission (1999b): European Spatial Development Perspective, Towards Balanced and Sustainable Development of the Territory of the European Union, 87 p.

EC – European Commission (2002): Recommendation of the European Parliament and of the Council of 30 May 2002 concerning the implementation of Integrated Coastal Zone Management in Europe, (2002/413/EC), 4 p.

EC – European Commission (2006): Green Paper, Towards a Future Maritime Policy for the Union: A European vision for the oceans and seas, 49 p.

The Finnish Environment Institute (1999): Raising environmental Awarness in the Baltic Sea Area, Helsinki, The Finnish Environment Institute 327

HELCOM (2005): The Baltic Sea Action Plan, 12 p., (http://helcom.navigo.fi/stc/files/Publications/ BalticSeaActionPlan/ Baltic_Sea_Action_Plan_brochure.pdf)

Henocque, Y. & J. Denis (eds.) (2001): A Methodological Guide: Steps and Tools Towards Integrated Coastal Area Management, IOC Manuals and Guides, N° 42, UNESCO, 66 p.

Körfer, A. (2006) : Le rôle des ONG et des réseaux dans le développement d'une politique européenne de Gestion Intégrée des Zones Côtières. Master 2 Développement Intégré des Territoires et des Littoraux, Université du Littoral Côte d'Opale, 163 p. + annexes.

Morel, V., A. Körfer & Ph. Deboudt (2007): « Réseaux et Gestion Intégrée des Zones Côtières dans l'Union européenne : un regard de géographes », Montréal, Vertigo, Vol.7, N°3, (http://www.vertigo. uqam.ca, forthcoming).

National Resource Management Ministerial Council (2006): National Cooperative Approach to Integrated Coastal Zone Management – Framework and Implementation Plan, 57 p., (http://www.deh.gov.au/coasts/iczm/index.htlm)

Nohria, N. & R. Eccles (1992): Face-to-Face: Making Network Organizations Work. In: Nohria, N. & R. Eccles (eds.), Networks and Organizations: Structure, Form, and Action, Harvard Business School Press, Boston, Massachusetts, 288-308.

Pickaver, A. (2003): Integrated Coastal Zone Management in the Baltic States - State of the Art Report, 93 p., (http://www.eucc-d.de/infos/EUCC_Baltic_ICZM_State_of_Art.pdf.)

Raymond, Y., F. Tartarin & S. Pennanguer (2005): De l'intérêt des réseaux d'acteurs en gestion intégrée de la zone côtière: l'exemple de la Baie du Mont-Saint-Michel. PNEC, Rennes, Agrocampus, 88 p., (http://www.agrocampus-rennes.fr/halieutique/pdf/904.pdf.)

Rupprecht Consult (2006): Evaluation of integrated coastal zone management in Europe, Final report, August 2006, dec. 2006, (http://ec.europa.eu/environment/iczm/pdf/ evaluation_ iczm_report.pdf.)

Schernewski, G. (2006): Integriertes Küstenzonenmanagement im Ostseeraum, Hintergrund und Praxis, Wasser und Abfall, September 2006, 20-26.

Taussik, J. & S. Gubbay (1996): Networking in Integrated Coastal Zone Management. In: Taussik J. & J. Mitchell (ed), Partnership in Coastal Zone Management, Cardigan, Samara Publishing Limited, pp.57-63.

Taussik, J. (2004): Developing and sustaining coastal networks. Report of the Coastnet workshop at littoral 2004, (http://www.coastnet.org.uk/files/publications/CNET%20WORKHOP%20LITT'04%20report. 060205edit.doc.)

Zahl, B. (2004): Zukunft Küste, Soziale und regionale Netzwerkanalysen, Theoretische Grundlagen und ausgewählte Fallstudien, Arbeitspapier 1, Kiel, Institut für Tourismus und Bäderforschung in Nordeuropa, 35 p.

Address

Aude Körfer
Baltic Sea Research Institute Warnemuende (IOW)
Seestrasse 15
D - 18119 Rostock, Germany

audekorfer@wanadoo.fr

Valérie Morel
Université d'Artois, EA 2468 «Dynamique des réseaux et des territoires»
9 rue du Temple, BP 665
F - 62 030 Arras Cedex, France

valerie.morel@univ-artois.fr