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**THE ROLE OF VALUE CONFLICT ASSESSMENT
TECHNIQUES IN THE FORMULATION OF
IMPLEMENTABLE AND EFFECTIVE COASTAL
ZONE MANAGEMENT POLICIES:
VALCOAST**

SUMMARY FINAL REPORT

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I. OBJECTIVES

The research objectives of the research were set out as to:

1. Address all aspects of developing coastal zone management strategies compatible with sustainable development and assess the major impacts of pursuing such strategies.
2. Develop a comprehensive valuation, conflict management and decision making system (CAGORA) for selecting among alternative coastal zone management strategies.
3. Analyse requirements of a coastal zone informatics system to provide relevant, potent and accessible information to all stakeholders and decision makers.
4. Integrate (and analyse) the results of the above research activities by applying these to the case study of (originally three) coastal communities.

The project adopted a general hypothesis regarding the failure of environmental policies, and the conflicts these generated. In this regard it was postulated that this was due to a failure to:

- develop environmental policy alternatives with a thorough understanding of all their ramifications, not only for the pursuit of other social ends (ea. economic development, distributional equity etc.) but also for the protection of interrelated environmental media;
- assess comprehensively all these ramifications/impacts;
- evaluate these impacts with the direct participation of all impacted societal sectors (hereinafter "stakeholders", including community organisations, economic interest associations, special interest groups, experts, institutions, governmental agencies, general public);
- develop relevant and potent information provision systems ;
- feedback information gleaned from past experiences to establish 'best practice' policy formulation guidelines.

The subsequent development of CAGORA (Objective 2) and its application in the coastal zone management (CZM) case studies (Objective 4) has enabled many of these features to be specifically addressed within the VALCOAST research.

II. METHODOLOGY

While it is possible to itemise many of the tasks undertaken as discrete elements of a methodology, many of these were conducted in parallel and investigated both within the case studies and at a more general level. It was agreed that each partner would be responsible for the development of a case study, and that this would provide the focus not only for a general but systematic narrative on CZM, but also would form the basis for investigation by the VALCOAST questionnaire, which in turn provided additionally the source of data for use in the CAGORA analyses. To present the tasks as a list does not imply that there was a straightforward stepwise process from each to the other, but the following account attempts to explain the important relationships between each.

A. Selection of case studies for both the general and context specific case.

The initial work suggested that the case studies should themselves embody two cases. One a general case of coastal zone management in the area, the other being focused on a specific issue or conflict which could be observed and which might also serve to provide the basis for the evaluation of specific alternative policies, using CAGORA.

The UK Case Study

General Case: the coastal area of the Inner Solway Firth

Special Case: the management of the cockle fishery in this area

The Spanish Case Study

General Case: L'Albufera nature reserve or Park

Special Case: the delineation of the geographical boundaries of the Albufera Park

The Greek Case Study

General Case: the coastal areas east of Rethymnon

Special Case: conflicts between tourist(ic) development and conservation interests

The Belgian Case Study

General Case: the Flemish coastal zone

Special Case: the maintenance of "unbuilt space" in this area

B. Investigation and reports of each case study

The investigation of the circumstances in each case study included a general description of the area, a general account of the legal regime, and particularly those instruments of direct application to the special case considered, the identification of the challenges for CZM and the present processes and institutional arrangements. The final part of these studies identified the "stakeholders" and present participatory and conflict management mechanisms. In each case study the investigating partner thereafter attempted to elicit a value tree and exhaustive account of stakeholder interests in the context specific case, based on this work and observation. This provided an important base for Part 3 of the questionnaire, and listing from which respondents were selected.

C. Review of the literature and initiatives relevant to the new CZM agenda

Commenced at the start and continued throughout the investigations.

D. Review of value issues and value conflict/value discourse techniques

In proposing CAGORA as an alternative approach it has been important to review the presently used means of value discourse and at least be able to demonstrate the manner in which the VALCOAST project has presented an alternative to these. Value systems/positions themselves are clearly identifiable within the new agenda for Integrated Coastal Zone Management (ICZM). The elicitation of the value trees in the case studies was largely heuristic, however, and not driven by any perceived outcomes of, or by the typology offered in this review.

E. Development of the VALCOAST questionnaire and CAGORA

The questionnaire comprised the principal research tool in the investigations, and in its development a number of key aspects of the enquiry had to be incorporated. It was designed as the means of investigation not only of the responses from stakeholders (those with a private interest) and officials (those with a public responsibility) to aspects of coastal zone management in general (Part 1), but also in the context specific case (Part 2). Moreover it provided the means of gathering data on the relative importance or value priorities of respondents (Part 3), for use in subsequent CAGORA analyses.

The elaboration of CAGORA as an analytical method and the context in which it can be used is not described in detail here, but a full account of this appears in the final report of the study.

F. Pre-trials and use of the questionnaire in case studies

The questionnaire was modified slightly on the basis of experience gained with pre-trial tests, and then applied to stakeholder and officials in each of the case studies.

G. Analysis of results and CAGORA analyses

Analysis of results from Parts 1, 2 and 3 of the questionnaire for both stakeholders and officials in each case study, and CAGORA analyses using data gathered in Part 3 of the questionnaire.

H. Review of policy implications of the findings of the VALCOAST project (see section IV)

III MAIN RESULTS

Legal regimes are of primary importance in coastal zone management, for it is within such sets of rules and administrative arrangements for their enforcement and implementation that management occurs. To the extent that generalisation is reasonable from the case studies the team observed the following features, which if not supportable in each and every case, are at least not contradicted by the findings of any one.

- The legal regimes have evolved on a sectoral (in its widest sense) and largely self-referencing basis. They are complex, rarely transparent and embody a high degree of specificity.
- Cross-sectoral and inter-sectoral relationships are largely ad-hoc and relatively informal, but do exist.
- The management of activities, sectors etc. under this regime is largely top-down, and outcome-oriented, in some cases directly and prescriptively commanded by virtue of the regime.
- The incorporation of general policies arising from the international and European rules associated with the new agenda for Integrated Coastal Zones Management (ICZM) is occurring, specifically the first stages of the implementation of the Community Habitats Directive in three of the case studies has been traced.

The new agenda for coastal zone management is characterised by the special requirements for coastal area management recognised in Agenda 21, and more specifically by the desire to address biodiversity and conservation initiatives, and a more ecologically (focused) sustainable development. Integration is seen less as a requirement to rewrite the existing regime, but one of integration (within the existing regime) of the

responsibilities of agencies at different levels of government (vertical integration) and of the responsibilities of different government sectors (horizontal integration). What is really sought is the coordinated application of this regime to the implementation of a new agenda, so that while each instrument may still embody sectoral specificity (one for which it was originally intended) a new ICZM framework provides that their use in combination is one that is consistent with, and achieves, the sustainable development of the coast (and associated policy goals). This may benefit from the amendment of the existing legal regime but does not require its replacement. It has to be evolutionary.

The existing regime is largely outcome-oriented in character. The established consensus for ICZM appears also to favour such approaches, or at least this consensus has maintained consistency with such models and approaches. VALCOAST has favoured and examined CZM within a process-oriented approach, one that provides for, and benefits from, the real participation of stakeholders. The team noted that similar "experiments" are becoming more current. The difference is not one concerning integration for this is desirable in either model, it is rather more simply which approach integration is to serve.

The project observed in each case study a range of conflicts, and in each of these one has provided the basis for a "special case" in the case study reports. In the case studies the new CZM agenda is beginning to be evident but conflicts have a longer history and although many of the issues may be common also to the new agenda the team could not offer findings from the case histories regarding the direct impact of the new agenda. If there were to be no conflicts, however, then the matter would be simple and any number of models of CZM might be considered effective. The project was concerned therefore primarily with the management of these conflicts in the research enquiry, and accordingly suggest that it is the management of these conflicts that poses the major challenge for European CZM.

The team inferred that most of the information presently available to stakeholders and of relevance to CZM fails to consider the requirements, perceptions, concerns and capacity to access and assimilate it, that the diverse groups of stakeholders may have. Moreover the proliferation of environmental databases designed to be understood only by the specialist fail to inspire trust, or contribute to the stakeholders willingness to co-operate.

The team concluded that this must receive priority attention and postulated again that only process oriented CZM can provide for a value discourse not only on what is a matter of record but also on what could or should be a matter of record. A participatory process of coastal zone management becomes also the process whereby information is gathered and disseminated with the co-operation of the stakeholders and officials involved.

Specific findings from the case study questionnaires and CAGORA analyses

- A presumption of greater involvement in the CZM process is the willingness of stakeholders to co-operate within the management framework. In the case studies the team observed that the characteristics of the process and how it is evaluated by the stakeholders do not (with one case exception) influence their willingness to cooperate. This both supports an essential tenet of process-oriented approaches (i.e. the willingness of stakeholders to participate), and represents an important finding that suggests some optimism for outcome-oriented approaches;
- The results suggest that stakeholders feel alienated by the agenda setting process that exists within the case studies; it is difficult to figure out the CZM process, and critical features of it are not clear;
- There are significant differences in the extent to which stakeholders and officials believe that the process is receptive to stakeholder input, and of the extent to which officials believe they engage in participatory management and conflict management;
- There is a high support for local government (also legal, and expert and stakeholder committees) both in terms of the assessment of their effectiveness and their equitability, which supports a participatory, process-oriented approach;
- The variability of assessment of specifically designed mechanisms such as co-operation agreements, and policy instruments such as command and control, charges and subsidies, suggests no universal pattern of agreement on the fairness of these, other than generally low support for market based approaches. Again this suggests caution for outcome-oriented approaches that seek to universally impose such mechanisms and instruments;

- Stakeholders do not consider themselves to be highly informed and are negative or ambivalent regarding the ease by which information can be assimilated;
- In one case study it proved possible to evaluate proposed alternatives using CAGORA; the data gathered allow evaluation of such alternatives in the other case studies, but at the present time in each of these a clearly identifiable set of alternatives are not manifest - rather the range of alternatives is complex or cannot be discretely classified.

IV SCIENTIFIC INTEREST AND POLICY RELEVANCE

Scientific interest and novelty

All decision making involves values. In many cases evaluation techniques in support of the decision-making process explicitly seek the identification and measurement of, and calculation with, assigned values. Other approaches, current in sustainable development thinking and coastal zone management, envisage systems of indicators that rank or evaluate sustainability or indeed even the 'effectiveness' of coastal zone management policies. In contrast to these value constructions VALCOAST has sought to investigate and represent the range and distributions of values (held and expressed) in the coastal zone (among stakeholders and officials). In none of the case studies had such an effort previously been made.

The construction of the value tree in each of the VALCOAST case studies was largely heuristic, and depended to a great extent on familiarity and "immersion" in the case studies themselves (see for example Albufera case study). The resulting value tree, its roots and branches, required discussion and compromise between the case studies. While the value tree differed slightly in each of the case studies there was an overall cohesion, which in part satisfied the requirements of a comparative analysis, but which was not forcibly imposed, and which was revisited in the light of pre-testing trials with the questionnaire.

The resulting value trees themselves may be useful starting points or reference points for others engaging in similar studies. The team suggest that it is within this value domain that conflict management measures should be seen. Neo-classical approaches such as benefit-cost analyses, while enjoying normative consistency and theoretical underpinning, ultimately require values reduced to a single criterion calculable in monetary terms. The very calculus required for this constrains the potential of such techniques to illuminate value patterns and value conflicts, and makes them far less suited tools for conflict assessment and management.

Instead VALCOAST has sought to examine the degree of agreement and conflict between the values held and observed in the value patterns for each of the case studies. These patterns have been used to discuss the extent to which the value debate in each of the case study areas will be "conflict laden" and perhaps more importantly the extent to which coalitions may be influential in resolving conflict and sustaining co-operation.

For all case studies, though to varying degrees, the sharing and distribution of values represented in the subsequent CAGORA analyses suggested the conflict management task may be eased by the possibility of the formation of a larger coalition drawing group and individual support.

The development of CAGORA and the analyses possible using it demonstrated a very different approach to those of traditional methods used in outcome-oriented approaches. As an evaluative tool it also can generate "solutions" based on cardinal rather than ordinal comparison but importantly provides a methodological framework where this can be done not only by the incorporation of expert analysis (e.g. impact matrix) but alternatively by direct stakeholder assessments. This project's analyses have emphasised the potential of the technique for exploring coalitions, core solutions and solidarity analyses.

Policy relevance

All aspects of the VALCOAST project and the resulting findings have implications for ICZM policies. The team have examined CZM approaches in the context of both outcome-oriented and process-oriented models. The research has favoured the process-oriented approach, indeed the VALCOAST project and the CAGORA methodology are predicated on a participatory process-oriented management. The team have, however, used the research to investigate a range of regulatory mechanisms and tools that are more common in the outcome-oriented approaches, which are evident not only in the existing legal regime but also in the discussion of

the new agenda for CZM. The results at least suggest caution for outcome-oriented approaches in the elaboration of new rules, and their integration within the existing regime, for the new CZM agenda.

Moreover the team believed the greatest challenge that must be faced by this new agenda is that of managing conflicts in this process. The work on this, which has followed a different approach to traditional conflict management techniques, offered an alternative model that can be applied in many management contexts. While the team believe such techniques are best employed within a participatory process, they acknowledge that their usefulness may not be limited to this. Equally the team have suggested that the more traditional instruments (cost-benefit analyses etc.) may also find application within a participatory model.

However the team hope that the research of the study at least provide greater support for process oriented approaches and show that this is a fundamental choice for policy makers. As noted above either approach would benefit from integration, the real question is which approach is such integration to serve.