# Sacred cows in coastal management: the need for a 'cheap and transitory' model

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The participative, 'bottom-up' approaches of contemporary European ICZM (integrated coastal zone management) are ineffectual and unsustainable. The approach lacks the authority and resources to deliver ICZM and should be abandoned. A new model of ICZM in a predominantly sectoral administrative framework is presented. It requires that capacity be built in existing statutory authorities and in-house ICZM groups be established. Time-limited participatory projects would be used to gain information on conflicts and issues that transcend existing sectoral boundaries, but this information would be passed to the established statutory authorities for action. A sound statutory and legislative basis is the essential prerequisite for effective coastal management – not voluntary partnerships.

**Key words:** Europe, coastal management, non-statutory ICZM, participation, consensus, statutory ICZM

#### Introduction

In Europe, traditional sectoral coastal management has undoubtedly failed to prevent coastal degradation. Spain provides many notorious case studies (Suárez de Vivero and Rodríguez Mateos 2005), and there are spectacular examples of continuing coastal degradation and development in erosion-prone locations on the Algarve coast of Portugal (Plate 1), and conflicts related to uncertainty regarding erosion response in Britain (Plate 2). Damage to Strangford Lough in Northern Ireland, possibly the most heavily protected coastal and marine site in the British Isles, has led to threatened legal action by the European Commission. Ironically, in some countries the best defences against the loss of coastal quality have been lack of money (for coastal engineering), remoteness and lack of development. Economic growth, improved transport systems and enhanced leisure time, however, are all contributing to a phase of intense pressure on the coast.

In response to the failure of sectoral management, a trans-sectoral model of 'integrated coastal zone

management' (ICZM) evolved. Unsurprisingly, the ICZM model is rooted in a fundamental belief that sectoral management, by definition, cannot deliver effective integrated management. During the last decade, ICZM has been enthusiastically promoted by the European Union as a process with great potential for resolving coastal issues and enabling sustainable development. Its development has been stimulated further by a European Recommendation (European Parliament and Council 2002).

However, despite the expenditure of millions of EURO, for example on the 30 + projects in the EC ICZM Demonstration Programme 1996–2000 (European Commission 1997 1999a 1999b), the ICZM 'movement' is patently failing in its aim of protecting the European coast. The process is making slow headway, while the environmental degradation of coasts is accelerating (European Environment Agency 2006). At the same time, expectations regarding the future development of ICZM have hampered progress in strengthening sectoral approaches. This paper explores progress in Europe where the focus lies on



Plate 1 Tourism-related development on eroding cliffs at Albufeira on the Algarve coast of Portugal Source: Photo Joni Backstrom, April 2005



Plate 2 Severe cliff erosion threatens the village of Happisburg on the east coast of Norfolk, England.

Derelict defences litter the beach

Source: Photo Mike Page, September 2005 http://www.happisburg.org.uk (accessed 19 December 2005)

a voluntary, bottom-up participatory model of ICZM that, we argue, cannot succeed because of the:

- preoccupation with consultation and consensus;
- lack of guiding legislation, government policy and direction;
- · weakness of current enforcement;
- insecure funding basis;
- lack of a statutory basis and therefore statutory authority;
- project-based focus;
- weaknesses in existing sectoral policies that it seeks to integrate;

- strength of development pressures;
- perceived conservation bias, i.e. it is viewed as a hindrance to economic development, rather than as a means of achieving sustainable development.

In particular, we focus on two characteristics of the contemporary ICZM model which, we believe, are largely responsible for the general failure of the process to make any worthwhile contribution to halting coastal degradation throughout Europe: (i) the limited influence of short-term initiatives staffed by short-term employees and (ii) the inefficiencies that arise when the goals of participation and consensus are taken to extremes.

### The limited influence of short-term ICZM initiatives

Existing sectoral management structures tend to tie up recurrent government expenditure on coastal management (in the widest sense). ICZM initiatives are seen as experimental, and consequently they are forced onto the funding fringes where they must rely on, and frequently compete for, external financial support. Such support is usually short-term, rarely more than 3 years. For initiatives to survive longer, they must generate funding from other sources. EU and national government attempts to advance the process and philosophy of ICZM are based on this short-term model. The majority of projects are created explicitly to utilize the funding available.

The typical ICZM initiative is a 2-3-year project hosted by a local authority and run by a project officer employed on a contract basis for the time span of the project. The host organization usually provides office space, and in some cases it will directly fund the project officer's salary. National statutory agencies with an environmental remit often provide the initial funding, for example English Nature in England and Wales. In the last decade the European Community has been the major financial support of many projects, funding them under various financial instruments such as LIFE, TERRA and INTERREG. It is a commonly stated objective of ICZM projects that they will strive to continue beyond the period supported by start-up funding. In practice, however, the projects are characterized by chronic financial insecurity (Scottish Executive 2002, 18; McGlashan 2002 2003), and failure to secure additional external funding often results in their collapse.

These short-term ICZM projects are usually staffed by project officers (typically in their twenties or early thirties). Job insecurity is a dominant influence, and staff are often obliged to spend a disproportionate amount of time seeking funding to maintain their own position. One study estimated that, on average, project officers spent half their time trying to raise funds (McGlashan 2003, 394). Job insecurity often motivates staff to move away from contract employment to a permanent job (perhaps entirely outside the ICZM field), or to another contract at the start of its cycle. This means that even if the project is eventually extended, or a new project quickly follows, the original project officer has departed and a new employee must be recruited. If a job opportunity presents itself an employee may move before the end of their current contract. At best, staff turnover results in the loss of useful contacts and experience; at worst the loss of a project officer at a critical time in mid contract can greatly demoralize and damage the whole enterprise. By 2002 only one of the nine local coastal for in Scotland had retained any of the same staff from start-up, and some had only employed their first project staff in 1999 (McGlashan 2002, 5).

Short-term contracts mean that project officers rarely attain the seniority that would increase their effectiveness and influence within their host organizations. A contributory factor is that even where a project officer does remain through consecutive contracts, there is no structured career progression, and the status and job title of the employee remains the same. If seconded project officers are promoted. they often return immediately to new positions in mainstream employment.

Project officers typically do not remain long enough to build up the network of personal friendships and professional relationships that form a potent part of the effectiveness of any worker. These are particularly important in the ICZM role, as the project officer is, by definition, trying to modify traditional attitudes and habits (for example, to encourage integration rather than sectoral work practices). Contract staff suffer from a general perception that they are employees of the project, rather than full employees of the host institution.

Young, temporary employees have little influence in large organizations in comparison to older, permanent and much more highly paid staff. It is lack of permanence and seniority, rather than youth, which are the more serious drawbacks. In discussing English Nature's review of its Estuaries Initiative, Hayes notes that

the seniority of representation on steering and management groups was identified as a useful indicator of local commitment and support for projects; more successful projects tend to engage more senior representation. (1999, 5)

There is little incentive to change attitudes and work practices at the behest of someone who is perceived as an inconsequential transient. The project is seen, quite correctly, as a temporary 'add-on' to normal institutional life, something that will disappear in the not too distant future. Indeed, in some authorities other employees are barely aware of the project's existence.

All the points made about project officers employed directly by ICZM projects are equally true when applied to the university employees (usually called research associates) who work in projects where a university is a partner. Once again all the disadvantages of youth, contract employment and job insecurity apply.

It is the great irony of ICZM that its core objective of sustainability of management is pursued by a movement itself characterized by non-sustainability. In too many cases an ICZM project is a scaffolding put up to support a structure that effectively collapses as soon as the scaffolding is taken away. In some cases the collapse is immediate and total because, with the contract staff gone, there is no one left in the host authority who actually worked on the project. An example of this is provided by the Donegal County Council/University of Ulster Demonstration Project 1996-2000 (Power et al. 2000). The project produced management plans for seven beaches and carried out some limited implementation measures on the ground. However, with the exception of a published good practice guide (Mc-Kenna et al. 2000), the capacity-building outcomes of the project were insignificant. A few permanent Council staff had superficial contact with the project, but, with one exception, these were low-ranking staff concerned solely with administrative matters. Since the project ended, two of its three project officers have left the ICZM field.

### Paralysis by participation and consensus

Virtually all ICZM projects are set within a contemporary management paradigm that attaches high value to public participation in decisionmaking. This is well illustrated by the European recommendation which has 'participatory planning' as one of the eight principles of successful ICZM (European Parliament and Council 2002). Participatory planning in turn is

part of a modern fashion of public 'empowerment', a management philosophy in which top-down, centralized prescriptive management is seen in a negative light, while bottom-up, decentralized participatory management is perceived positively. Closely associated with this concept of empowerment, and regarded as a primary mechanism for achieving it, is the 'subsidiarity' principle. Subsidiarity is a legal principle of the EU introduced by the Maastricht Treaty in 1992 (Gibson 1999). In general, subsidiarity expresses the idea that decisions should be taken at the lowest appropriate level, the implication for coastal management being that lower levels are more suited to public involvement in decisionmaking.

The philosophy of public participation is now so deeply embedded that, in the current climate, it would probably be impossible to get EU (or perhaps even national) funding for any environmental management proposal that did not include a strongly developed public participation component. Coastal management initiatives searching for funding must jump through the participation hoop set in front of them if they are to have any hope of success. Stakeholder participation is now an imperative to the extent that, in the coastal management literature, the emphasis is now on how it should take place, not if (Edwards et al. 1997; King 2003; O'Riordan 2005). In this paper we do not offer any criticism of participation per se. It is freely acknowledged that, as a general principle, the participation of the public is desirable in developing management models that will affect them. However, we take issue with two linked aspects of public participation as seen in ICZM initiatives. These are, firstly, the level at which it takes place and, secondly, its obsession with consensus.

The first of these concerns definition of the 'lowest appropriate level' at which ICZM projects should operate. EU countries already have national, regional and local democratic structures. However, the participation principle in ICZM is clearly based on the assumption that ever more local levels of consultation and agreement are necessary. This leads to a situation where established statutory for comprising local elected representatives are relatively neglected, while project staff must spend huge amounts of time, energy and money organizing and servicing local public meetings, stakeholder meetings, public surveys and follow-up consultation exercises. This reflects a widespread ICZM distrust of all existing organizations. We argue that this often leads to a situation where ICZM efforts become characterized by 'consultation paralysis', a condition where

nothing can be done because yet someone else must be consulted or re-consulted.

This situation is made much worse when the only acceptable outcome of this lengthy and cumbersome participation iteration is consensus. Many statutory authorities, for example planning departments, routinely conduct laudably comprehensive consultation exercises, but at no stage does the authority relinquish its power to act in the absence of consensus. Indeed, there is no presumption that consensus will be achieved. In contrast, many ICZM projects are permeated by a 'nothing is agreed until all is agreed' philosophy. For example, the overall aim of the Bantry Bay Charter Project in Ireland, part of the EU Demonstration Programme in ICZM, was to 'develop a consensus-based integrated coastal zone management strategy for Bantry Bay' (Cummins et al. 2004, 39).

It may be asked why the voluntary coastal management partnerships have become hooked on consensus outcomes. (Funding bodies almost invariably require stakeholder participation, but none demand consensus.) In practice, ICZM projects have little option because they operate within a self-imposed power vacuum. Since the typical ICZM project possesses neither the powers associated with ownership, nor those of executive authority, consensus may be perceived as the only way to win the support of stakeholders. Having initially rejected the possibility that sectoral agencies could deliver ICZM, and having then committed themselves to participation as opposed to mere consultation, the projects lack the ability to take unilateral (indeed any) executive action. This remains the case even where powerful statutory bodies are represented on ICZM initiatives, because it has become customary in the prevailing ethos that they participate on equal terms with other stakeholders on a one person, one vote basis. This 'leave your gun at the door' approach may be impressive as an exercise in local democracy, but in practical terms it is ill-advised, because power to act is effectively lost.

ICZM initiatives also tend to accept past mistakes as baseline conditions. For example, there is rarely any serious attempt to remove badly planned or inappropriate coastal defence structures. Those involved in participatory consensus-seeking exercises often concentrate on issues where agreement is most likely to be achieved, and avoid those that seem intractable. This issue is dealt with in a report on Scotland's local coastal management partnerships, which observes that

it may be considered that none of the partnerships has really been tested on the anvil of ICZM in the face of a large substantive coastal zone development issue. (Scottish Executive 2002, 19)

Under the heading, 'Maintaining Consensus – What Cost?', the report voices concerns that in their attempts to reach consensus, the partnerships have actively avoided conflict and controversial issues:

by only dealing with those 'motherhood and applepie' issues that everyone can easily sign-up to, the partnerships are not moving forward the cause of ICZM, as they are maintaining the status quo, and not challenging any stakeholders positions relating to the coast. (p. 20)

However, the report also points out that, in some cases, the non-statutory partnerships have been bypassed by developers who deal directly with the statutory bodies. It may be a defensible strategy for developers to treat the partnerships as an unnecessary extra layer of consultation. The perception may be that there is little point in consulting them since the statutory authorities must be dealt with in any case, either because they are the planning authority or because they are statutory consultees.

The search for consensus, or even just a high level of agreement, can lead to long delay, and management inertia. In these circumstances a participatory process acts as a brake on executive authority, and can work against the public interest rather than in its favour. Participation can lead to such a dilution of authority that it generates public disempowerment. This concept of participation as disempowerment may appear counter-intuitive, but the public is disadvantaged when those whose duty it is to protect its interest do not do so. The pursuit of consensus (in ICZM-speak 'win/win' situations) has become a 'Holy Grail' whose devotees often will not face unpleasant facts, such that consensus demands compromise. A consensus position might represent a socially acceptable compromise, but not necessarily (or even often) one that is environmentally acceptable. The objective carrying capacity of a coastal environment in physical, ecological and human terms represents the bottom line in sustainability, not a 'political' consensus. In practice, some stakeholders will wish to negotiate a consensus position that favours their own interests. It is very much in their interest if statutory authorities feel inhibited from taking proactive steps while attempts to reach consensus through a participatory process are ongoing. Self-serving stakeholders have much more to fear from a powerful statutory body determined to protect the interests of the wider public, than a well-meaning but consensus-hamstrung voluntary initiative.

There is a viewpoint that one advantage of the current system is that the coastal partnerships can act as honest brokers applying pressure on erring local authorities or developers, perhaps even using 'naming and shaming' sanctions against them. Partnerships can sometimes be quietly effective pressure groups, but they rely so much on consensus that any stronger action is unlikely to be agreed. In any case a more aggressive strategy could rebound against the partnerships if they are subsequently 'frozen out' of decisionmaking.

Even if consensus is not explicitly sought, a participation exercise is often a power play, in which various interests battle for influence with a management authority, which may have an agenda of its own (for example, to increase employment). The more powerful stakeholders often have a dominant influence with the lead authority. All may have a say, but some receive a more sympathetic hearing than others. A property developer, or industry representative, can dominate participatory structures. If they do not get their way they will often exert their rights as far as the law will allow, sometimes further, as the limits of the law are elastic depending on the socio-cultural context. Buanes et al. (2004) discuss the power dynamics in Norway, where the participation of stakeholders in coastal planning is formalized. In recent decades, aquaculture and tourism interests have been gaining in economic importance, while capture fisheries are in decline. This power differential is reflected in their relative influence on municipal planning authorities. Even Edwards et al., strong advocates of bottom-up participatory approaches in the UK, concede that

one must also consider whether geographically-integrated long-term strategic management objectives would be likely to be achieved were management authority to be entirely devolved to local communities, especially considering the potential for local short-term priorities, particularly those of dominant user groups, to override other interests. (1997, 162)

The perceived need to have high levels of public participation can lead to intractable scale problems. As the spatial scale increases, so does the number of

stakeholders and the complexity of issues. Since most projects are short and have few full-time staff, their best chance of achieving participation and consensus objectives is to focus the project on a relatively small spatial scale. The outcome is that the coast becomes an uncoordinated mishmash of relatively localized and sometimes overlapping (in both space and time) ICZM projects of varying scale. It is ironic that a process that puts so much emphasis on 'joined-up' management sometimes does not have its own initiatives integrated with each other. This is largely a function of the transient project basis of so much ICZM work.

Some of these ideas on public empowerment and participation have their roots in the United States. However, the USA has had specific coastal management legislation since 1972. Consequently ICZM initiatives are set within a legislative and administrative context that avoids management paralysis while stakeholders seek consensus. In other words, the public participate, but within the allowable limits of action (or inaction) set by the legislation. While it has its flaws (Hershman et al. 1999; Humphrey et al. 2000), the US legislation discourages the European habit of settling for the lowest common denominator on which consensus can be reached (often developer-friendly minimum management intervention).

Most European nations do not have well-developed comprehensive ICZM legislation, and the EU has not yet produced an ICZM directive. In comparing the statutory US and the current voluntary EU approaches Humphrey *et al.* state: 'we consider that a voluntary approach alone is unlikely to work at this stage' and 'in terms of effectiveness, a framework Directive would be a better option for bringing about ICZM in Europe' (p. 285). However, the expectation that governments will eventually introduce such EU-required legislation has probably had an inhibiting influence on ICZM development within statutory bodies, who may see little point in overhauling their own structures in advance of these expected changes.

## A proposed new model for ICZM initiatives

Staff and local stakeholders involved in traditional ICZM projects become personally and emotionally committed to them, and see their continuance as essential for the prudent management and sustainability of the local coast. Inevitably, as funding runs out,

and project extensions or new funding cannot be obtained, a sense of failure, abandonment and disillusionment takes over. This is well illustrated by the collapse of the much-publicized Bantry Bay Charter Project in Ireland.

Disappointment is partly generated by descriptions of the funding used to launch a project as 'prime-pump', 'start-up' or 'initial', terms that suggest that the project may continue on other funds. However, we argue here that it is simply unrealistic to expect that the EU or national governments will ever commit themselves to the long-term recurrent expenditure involved in keeping scores of local ICZM projects afloat indefinitely. There remains, of course, the alternative of funding by wealthy stakeholders such as industry and harbour authorities (for example, the corporate sector contributes just over half the membership fees of the Forth Estuary Forum), but this brings a risk that the integrity of a project might be compromised if financial dependency inhibited criticism of the activities of a major sponsor. In any case, it may be argued that industry should not be asked to fund the environment as it already pays taxes to government, which has as one of its functions the conservation of the environment on behalf of all citizens.

We believe that a new model of ICZM is needed that will accept the reality of short-term funding, but will use that funding to reap long-term benefits. In our proposed model the lead role in ICZM will be undertaken by statutory authorities or large, landowning NGOs. Within these bodies, time-limited projects, including those funded by the European Community and government, will still be a primary mechanism for advancing ICZM, but they will be explicitly short term. In the proposed model the project will end on a known date, and there will be no assumption or expectation that the project will continue beyond that date. The project will be similar to a time-limited consultancy contract.

The project might, for example, engage with the management issues and stakeholders of a given coastal stretch. It will hold meetings and workshops to identify issues and elucidate opinions, and where existing baseline data are inadequate it may carry out original research. Alternatively the project might concern itself with general structures for implementing coastal management within the authority, identifying administrative inefficiencies and opportunities for cooperation. In either case the project will make recommendations as to how issues can be resolved, but it will not be conceived as an implementation instrument. The project ethos is that it does the detailed analytical work that senior management does not have the time (or remit) to do. When the project ends a report will be made to the appropriate authority. The senior officers armed with their statutory powers can now take up the issues that have been identified and clarified by the project. During the project, the project officer can also bring urgent matters to the attention of the authority for action to be taken.

In his discussion of the funding problems of ICZM projects, McGlashan states

these initiatives cannot sustainably manage their environments when they do not have sustainable funding and staffing. They are funded and staffed in a short-term, reactive way, yet their aim is to manage using a sustainable and long-term strategy. (2003, 395)

However, we argue here that what matters is the sustainability of the ICZM process within responsible authorities, not the long-term survival of an individual ICZM project. A project is time-limited, usually based on availability of funding, but the process is a long-term organizational strategy.

Sustainability of the ICZM process within a local authority is most likely to be achieved when all coastal management activities, including routine work and specific projects, are hosted within an ad hoc or formal coastal management group of permanent employees who do not owe their jobs to the projects. These staff are already responsible for various aspects of coastal management (although their job titles may not indicate this), and therefore the unit requires no extra funding or administrative support. Staff in the unit can contribute to routine or project-based coastal management work while remaining in their current posts.

Staff thus remain within a career structure characterized by job security, sequential experience building and promotion. The involvement of permanent staff in project work will develop their capacity to deal with coastal management issues. There is the huge benefit that senior staff are far more likely to be involved. In contrast to contract employees, project personnel with permanent jobs are unlikely to leave on end of project, and their accumulated knowledge and experience is retained by the organization. The existing knowledge of local authority practice held by an employee is a direct benefit in that this can enable insights into the practical means of achieving ICZM. If a new project follows an earlier one, the staff involved will start with a much higher degree of expertise and experience. The authority might still employ short-term contract employees, but their role is to support the permanent staff for the duration of a given project.

ICZM projects undertaken in-house by a responsible statutory authority will have more status because they are integral to the institution rather than 'addons', and because they are staffed by permanent employees. Successive projects will be integrated with each other because there is a permanent cadre of knowledgeable employees within a dedicated management unit, who are following some kind of strategic ICZM plan. Indeed, even voluntary projects existing alongside in-house projects will be integrated because they report to the same unit.

It is more important that, over the 2–3 years of a project's life, an authority builds up the capacity of its staff to advance ICZM, than it is to advance coastal management at any one location. The main paradigm shift is that project funds should be primarily used to build up the management capacity of an authority with coastal responsibilities, while the normal funding instruments of the authority are used to advance coastal management on the ground.

# The proposed ICZM model and sectoral authorities

The current paradigm of ICZM is largely based on the assumption that sectoral organizations cannot deliver ICZM. However, it is our contention that society has made a serious mistake in ignoring the role of the existing statutory authorities. The potentially most effective controls on coastal degradation are the government functions of spatial planning, environmental protection and conservation designation. Hayes points out that, in some estuaries, 'the voluntary authority of Project Officers was not sufficient to achieve integration of plans and projects' (1999, 5). In contrast, sectoral agencies (e.g. the Environment Agency in England and Wales) have a much greater potential to deliver effective management of the coast than the contemporary generation of voluntary ICZM initiatives, because they wield executive authority and have recurrent funding.

It could be argued that that there is no need for a public authority to have in-house ICZM capacity. Large consultancy firms are undertaking contracts with a considerable, or even wholly, ICZM content. (For example, in the UK the stocktaking exercise required by the EU ICZM Recommendation was

awarded to a consultancy (DEFRA/Atkins 2004)). While consultants can play a role, sole dependence on them for advice on coastal management issues is unwise. In some companies, environmental consultancy is a subsidiary function to a core business of civil engineering. Advice from such sources can rarely be unbiased, since the wider industry of which they are part benefits if they recommend infrastructural 'solutions'. Objectivity is also compromised when consultants, anxious for repeat work, feel under pressure to make recommendations that suit their clients' interests.

The model proposed here does not involve the expense of employing dedicated ICZM staff, rather it involves the skills development of employees currently in post. With its own in-house coastal management capacity, an authority can maintain independence and integrity. There may be situations where the resources of an external consultancy may be needed, but ICZM-experienced staff liaising with the consultants will have a foundation of expertise, and will not have to take all on trust.

In summary, ICZM projects run in-house by a statutory authority will be free of the inefficiencies resulting from insecure contract employment, endless participation exercises and the consensus imperative. They will also be free of the expense, and risk of superficiality and bias, associated with consultancy. In-house projects informed by sound ICZM principles, but free from the drawbacks of the current model, could lead to significant positive changes in the *modus operandi* of local authorities.

In most contexts, commitment to the broad principles of ICZM among a very small group of senior officials in national, regional and local authorities would do more to protect and advance a sustainable coast than a multitude of attempts to 'empower' thousands of local citizens by achieving an unattainable or unsustainable consensus. Those best placed to bring about change, and quickly, are the powerful senior officers within these statutory authorities. It is unrealistic to expect that a shortterm, add-on ICZM project staffed by young temporary employees can bring about fundamental cultural change in a public authority within a time scale even remotely appropriate to deal with coastal degradation. An in-house ICZM unit should be in a much stronger position as it will be an organic part of the host organization, and will involve permanent staff, some of whom may be relatively senior. Timelimited ICZM projects should be primarily concerned with providing the information bank on which senior officers can act. We contend that far more attention should be given to influencing these senior officials in an avowedly top-down ICZM strategy.

Voluntary projects could still play a role alongside the model proposed in this paper. However, they should be seen as naturally ephemeral and when the problem is fully explored, they wind up. Such initiatives would not be conceived as permanent features of the coastal management landscape. If, exceptionally, a given project is of such value that it merits long-term continuance, its work programme should be subsumed into that of the authority, and the experience of the project officer retained by making a permanent appointment.

Sustainability of the project as opposed to the process is not a realistic or even desirable goal. In effect an explicit 'cheap and transitory' model of participatory ICZM would become the norm. It is possible that voluntary ICZM bodies could evolve into advisory bodies to statutory authorities. As such they could act as early-warning systems of impending or actual problems. Some NGOs presently fulfil that function, although by lobbying for their particular area of interest, they might be perceived as partisan.

There are obvious criticisms that can be made of our proposal that local authorities should assume the central role in ICZM. An enhanced local authority role raises the old problem of rigid administrative boundaries hindering effective management of a dynamic resource. For example, the area covered by the Forth Estuary Forum has seven local authorities, while the Severn Estuary Partnership covers 14. In addition the functional areas of local authorities in the UK generally stop at low water, with the Crown Estate being the responsible authority for the marine area. While bye-law powers can extend authority beyond low water, we recognize that, short of an EC Directive, full strategic integration across boundaries would necessitate some umbrellatype administrative structure, perhaps the Marine Agency mooted in the draft Marine Bill, or an equivalent under the Water Framework Directive. Strategic goals can also be achieved using various funding instruments. For example, the US Coastal Zone Management Act 1974 makes extra funding for State coastal management projects conditional on their following strategic objectives, while a similar financial incentive is used to encourage compliance with the strategic objectives of the non-statutory Shoreline Management Plans in England.

It may also be suggested that local authorities would not welcome an increased role in coastal

management, as they are frequently ill at ease in dealing with coastal issues. However, few authorities are resistant to an extension of their powers (quite the contrary), provided that they are given the funding to deliver. Other criticisms focus on their limitations, pointing out that in many instances their past record in coastal management has been far from exemplary. (For example, in the 1960s the local authority in Portrush Co. Antrim Northern Ireland levelled a dunefield and built a seawall to create a tourist amenity. As a consequence the very existence of an important recreational beach is now under serious threat.) However, we are convinced that past mistakes resulted almost entirely from lack of capacity and resources, particularly trained and knowledgeable personnel and, to a lesser extent, funding.

Even within the present flawed sectoral system, we believe that our proposals would bring about significant improvement in the delivery of effective coastal management. It has been our experience that 'turf war' demarcation disputes within authorities are more problematic than relationships between independent authorities of roughly equal status. If each authority had the type of dedicated ICZM unit we propose, we believe that integration would be much more likely, since like-minded people would be on both sides of the administrative interface. Even if a fit-for-purpose coastal management agency under an EU ICZM Directive (or the equivalent under a Marine Bill/Water Framework Directive), were to become reality, we believe that coastal management on the ground should be a local authority responsibility.

### Conclusion

A voluntary, project-based model of ICZM has developed in Europe as a reaction to the perceived failures of the traditional sectoral approach. Despite specific successes, the inherent weaknesses of the voluntary model have prevented it from doing much better than the sectoral approach - and it may even have inhibited improvement in the latter. The cause of integrated coastal management might have made more progress if the funds expended on ICZM initiatives had been used to finance lobby groups to influence various levels of government, rather than in conducting endless projects, most of which existed in a legislative vacuum.

There will be no significant improvement in the take-up of ICZM so long as it continues to function as a series of voluntary, powerless, under-funded and non-sustainable projects. (It should be emphasized here that our criticisms of the voluntary model are focused entirely on structures, and are made without prejudice to the personal qualities of project staff who we have invariably found to be well qualified and highly committed.) With member states of the EU now being required to take a more proactive role, the time is right to evolve towards a more efficient institutionalized model of ICZM. The most fundamental strategic decision that is required is a switch in emphasis towards top-down, rather than 'politically-correct' bottom-up initiatives. We contend that lack of capacity and expertise in coastal management was an important factor in past sectoral failures, so it should be the major goal of those committed to ICZM principles to strengthen the capacity of statutory sectoral authorities, not least because they operate with recurrent public funding, and their work is, therefore, sustainable.

Nothing in this paper should be taken as an assault on the vision and ideals of ICZM as such. It is acceptable, indeed desirable, that these ideals should include a high degree of public participation, and consensus where it can be achieved without compromising environmental sustainability. If, in the future, European governments introduce effective coastal management legislation, and are prepared to fund ICZM departments, then the landscape will change and the ICZM vision may be realized. Ultimately, innovative coastal management models, such as the modified public-private partnership (PPP) model proposed by O'Riordan (2005). might be introduced to counter the problems of funding, authority, sustainability and public participation variously encountered by both the current sectoral and voluntary models.

In the United Kingdom there are a number of current and proposed initiatives which may help to create a statutory framework for ICZM. Currently the draft UK Marine Bill (and its proposed Scottish equivalent) is under discussion, while EU member states are deciding how to implement the new Water Framework Directive (WFD). Some members of the coastal management community hold high hopes for both as vehicles to deliver effective coastal management with statutory teeth. The Marine Bill may offer something useful, although there are fears that the marine and terrestrial spatial planning aspects may not be adequately integrated. However, the water quality emphasis of the WFD makes it seem an unlikely vehicle for the delivery of many aspects of integrated coastal management.

Other current and pending initiatives include the designation of Marine Protected Areas, and Marine and Coastal National Parks (Scotland). If any or all of these statutory initiatives include ICZM in their remits and, importantly, national and local authorities are resourced to deliver it, coastal management may well take a significant step forward. Nevertheless, it remains our contention that the optimum development is a European Directive on ICZM.

In the meantime, we are making the case for pragmatism in the face of the facts of short-term funding, and existing sectoral control. We have proposed a simple model which we believe could greatly improve the delivery of ICZM, with the minimum change to existing legal, administrative or funding structures. Too often, ICZM enthusiasts are idealists who concentrate on highlighting the many deficiencies of sectoral management, while demanding its replacement by ICZM. Much irrevocable damage could be done to the coast before this goal is realized. As we wait, we should be practical and that means working to influence and improve the sectoral management structures that currently exist.

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