CHAPTER 13

A CRITICAL PATH TO DESIRABLE COASTAL FUTURES

Stephen Bloye Olsen

THE STATUS OF COASTAL GOVERNANCE TODAY

An initial phase of discovery is over. The defining features of the practice of coastal governance are known and widely recognized by their practitioners. Molly Kux's hunch, as recalled in the Introduction to this volume, was correct. There is indeed much that is transferable in what is being leaned about coastal stewardship in the North and in the South. Furthermore, there is much to be gained when the learning flows both ways.

In the Anthropocene, the planet's coastal regions have become the primary habitat for humans, the dominant species. This makes coastal regions—defined as the first tier of watersheds, the estuaries and the productive coastal waters extending out over the continental shelves—the crucible in which we must halt and then reverse the headlong rush

to ever less sustainable forms of societal behavior. This is a massive challenge, but like other forms of change in complex ecosystems, it may occur quickly when long established patterns crumble and give way to the forces that demand restructuring the systems through which resources and power are distributed.

In an increasingly crowded and interconnected global society we know that it is the ability to *integrate* across what we know and what we do that is most critical. This integration must occur at many scales and across many previously compartmentalized bodies of knowledge. First, we must integrate and apply our knowledge of how ecosystems function and respond to human actions. Ecosystems must be defined as living systems that include our species as one of their components. Human societies may currently be a dominant force on this planet but this does not place us above or otherwise insulate us from the fundamental laws and processes that govern all life. The second priority for integration lies in constructing and maintaining nested systems of governance that unite planning and decisionmaking at the scale of a community to planning and decisionmaking at the scale of the planet. We have come to recognize that biodiversity is a crucially important feature of a planet that is healthy and welcoming to us and to our fellow species. We have yet to learn that cultural diversity may be equally important, if not necessary, to the long-term health of a planet that is friendly to our species. Both forms of integration require significant change to the values and the behavior that mark contemporary global culture. In the Anthropocene, an era of dramatic change, the task is not to resist change itself but to harness the energy released and give it a positive direction.

A major lesson has emerged from three decades of experimentation in coastal governance by people in a wide range of settings. It is that the *values* that underpin the coastal governance approach described in this volume—values such as participation, transparency, accountability—do indeed build constituencies. The overt recognition that many problems are rooted in social inequity is refreshing. We have learned that the application of the best available knowledge to solving problems and grasping opportunities contributes to a sense of empowerment.

In an initial phase of experimentation, most integrated coastal management (ICM) projects and programs in low-income nations adopt a strategy to focus their resources on small geographic areas. This permits them to hope for a discernible impact and avoid a confrontation with the institutions and groups that would otherwise see the participatory and integrating approaches of ICM as a threat if advocated at a national scale without first demonstrating their practicality and effectiveness. The "pilot project" approach has therefore been a dominant strategy of externally funded investments in coastal management in low-income nations. Pilot projects have indeed demonstrated repeatedly that it is possible to achieve many, if not all, of the First Order enabling conditions and to document changes in behavior that, when sustained, can produce a harvest of improved societal and environmental conditions. But it has also become clear that isolated small-scale efforts, while valuable as demonstrations of what is possible, have great difficulty in surviving over the long term once external subsidies, technical assistance, and moral support are withdrawn. The problem lies in the forces at work within the larger systems that are functioning by another set of values and rules. Recognition that enabling conditions must be constructed simultaneously at several layers in the governance system has its initial expression in "co-management" and what CRC has called the "two-track" approach. Both recognize that small-scale demonstrations must involve and be supported at higher levels in the governance hierarchy.

Examples of sustained effort and progress today exist largely in the North. These examples have all been constructed as expressions of "nested systems" in which actions at the local level are expressions of goals and policies that have been negotiated and formally endorsed at larger scales. In the U.S., major elements of state coastal zone management programs are implemented at the municipal and county scale as expressions of formally constituted state programs that are also approved, and partially funded, by the federal government. The coastal management directive of the European Union may be an initial step in the same direction. The successes of regional programs that have been operating for two decades or more—such as the Chesapeake Bay Program, The Wadden

Sea Cooperation and the programs implemented by the Great Barrier Reef Authority—all operate at large enough spatial scales to influence societal behavior, build constituencies and attract resources for sufficiently long periods. They are reaping harvests of significant environmental and social benefits.

Since nested systems of coastal governance are essential to sustained progress, the priority for the next generation of coastal governance is to put in place the necessary enabling conditions (First Order outcomes) across a range of spatial scales. During this period, we must continue to discover and codify how best to achieve the changes in values and behavior that are essential to the practice of coastal stewardship. The long-term results of programs must be documented and analyzed in order to build a robust body of experience on how to achieve and sustain the goals that define coastal stewardship.

The implementation of policies and programs will signal the transformations that are required if more sustainable—rather than less sustainable—patterns of behavior are to take root. In this period, we can also hope that the pioneers will define "sustainable forms of development" in clear operational terms in specific locales and will be able to offer models and inspiration to others.

In a final phase, we will have turned the corner and will see that the trends of resource overuse, misuse and destruction have been halted and that that the gulf between the haves and the have-nots that produces the poverty, inequalities and social instability of today is being bridged. We will have entered a time when development is defined as qualitative improvement rather that quantitative growth.

ACHIEVING AN INITIAL THRESHOLD OF ENABLING CONDITIONS ACROSS SPATIAL SCALES

If the next phase in the advance toward more sustainable forms of development in coastal regions is to create the enabling conditions, what are the major categories of actions that are required? The enabling conditions discussed in Chapter 1 can be grouped into three large categories.

Capacity to translate the principles of coastal stewardship and participatory democracy into an operational reality is today the primary factor limiting forward progress. Such capacity must first be instilled within individuals and then expressed through institutions. CRMP concluded that learning-by-doing, complemented by education, specialized training and exchanges among practitioners together form effective strategies when these are tailored to the identified needs in specific places. The integrating forms of analysis and thought that are central to coastal governance are beginning to find expression in some university curricula but there is much to be done to equip the next generation of professionals with the concepts and tools required to link across disciplines and function effectively as interdisciplinary teams.

Today much that is being learned is undocumented and remains within the personal experience of the individuals concerned. There is much reinventing of the wheel. Many projects and programs falter or fail when attempting to make the transition from planning and analysis to the implementation of a plan of action. Often, this is a consequence of designs that do not recognize that success is best defined and measured by the change in behavior of target groups and institutions. Too many funding organizations persist in demanding Third Order outcomes—more fish, restored environmental conditions, and higher incomes—in the compressed time frame of a generously funded project. They underestimate the challenges of achieving the specific changes in the practices required of specific groups within a society. The result is inefficiency, frustration and cynicism.

These misjudgments can be countered by the codification of what is known, and what have been repeatedly demonstrated as good practices. Such good practices are needed as a guide to the sequences of actions, and the linkages among actions, that bridge between periods of planning and periods of implementation. Such codification must address the

challenges of constructing nested systems of governance. As illustrated by the cases in this volume, such practices must be refined and adapted to the needs and capacities of individual places. This, in turn, requires investment in extension programs that are designed to both disseminate and apply what is known and to feed back the adaptations that are needed and the new topics that require the attention of the research and policy-making communities. Extension services are recognized as essential in public health and in agriculture, and likewise they must become a feature of a phase dedicated to creating the enabling conditions for effective coastal governance.

It has become obvious that the governments of many low-income nations cannot, or will not, make the monetary investments required to sustain promising first generation coastal governance programs. It is also unclear to many what defines a program deserving of sustained support. This suggests that an international coastal governance certification process should be developed and implemented. A defining feature of such certification should be the articulation of a set of standards, endorsed by an appropriate international institution, and reliance upon a peer review process to determine what programs meet such standards. Certification would provide a program with visibility and status. A subsequent, and equally important step, will be to provide sustained core funding for certified programs. Such core funding would sustain the basic structure and operations of a program and put it in a position to compete for the resources required to carry out its programs. Certification renewals would be determined in part by the demonstrated ability of a program to attract the additional resources required to advance its agenda. A certification program will need to define thresholds of institutional capacity and be designed to incrementally advance incipient but sound programs to greater levels of capacity. Such categorization of the institutional capacity of coastal governance programs could do much to avoid misjudgments in assigning agendas and budgets to an institution that call for a complexity of actions which outstrip its capacity.

Constituencies that are informed and motivated to actively support a system of values and a plan of action lie at the heart of social change. Indeed, the experience of the last decades has demonstrated that the participation of those affected by a program (the "stakeholders") is central to success. This is because only a small fraction of the changes that are required to achieve project or program goals can be imposed. Success lies primarily in voluntary compliance. This calls for the construction of informed and motivated constituencies.

It has been demonstrated, but is not widely understood, that behavioral change does not result from providing a society with information (McKenzie-Mohr, 2000; Stern, 2000). A connection must be made to the values and the beliefs of an individual or a society. When this connection is successfully made, the support and the energy released can be very large. Since "all politics is local," it follows that constituencies must be built place by place. Effective coastal governance cannot shun the importance of values and must see its efforts as an expression of the politics of a place. In the Anthropocene, the forging of alliances among groups and institutions with shared values and shared goals is a central part of the agenda for the next phase and beyond. This, too, is an expression of politics.

Commitment to a coastal governance agenda needs to be formalized if it is to have legitimacy. The rules must be made explicit or standards of transparency and accountability will be prone to misunderstandings if not to self-serving re-interpretation. In a nested governance system the formality and the political complexity of winning formal commitment increases at higher levels of hierarchy. However, if the necessary constituencies, the institutional capacity, or both are weak or missing, a formal commitment by a national government can have little real meaning. The result is a commitment that exists only on paper, and a proliferation of "paper parks," dormant laws and squandered budgets. Thus, formalized commitments are no more important than the other two expressions of enabling conditions and the three must be constructed in concert. In a

coastal governance system, such commitment should signal the beginning of a long-term effort with the authority and the financial and other resources required for the implementation of public policy. Only a small portion of the financial resources may flow from government. But government commitment is essential. Government provides legitimacy and a legal framework for negotiating conflicts, assessing progress and imposing standards of accountability.

We are learning that in the Anthropocene the most critical feature of formalized commitment is the endorsement of unambiguous goals for the social and environmental outcomes that the program is working to achieve. In a nested system, where authority is decentralized, and where the local culture and context shapes *how* something is done, it is clear that goals—not complex plans—give a program identity and purpose.

STRATEGIES TO CATALYZE POSITIVE BEHAVIORAL CHANGE AT ALL SPATIAL SCALES

In conclusion, the second generation of an advance to global stewardship of the primary human habitat has begun. This phase must be different from the first. It requires codifying what is now known about the practice, certifying and sustaining programs that meet explicit standards of good practice, and implementing regional and global networks designed to ease the dissemination of new knowledge. At the regional and national scales, we need networks of institutions capable of providing extension services that connect the web of practices that mark the path to a future that is both desirable and achievable. The methods and indicators for assessing progress, for gauging the capacity, and for evaluating the performance of individual programs is a first step along the path—and it is a step that needs to be made without delay.

REFERENCES

McKenzie-Mohr, D. Fostering Sustainable Behavior Through Community-Based Social Marketing. *American Psychologist*. May 2000. Vol. 55, No. 5, pp. 531-537.

Stern, P. Psychology and the Science of Human-Environment Interactions. *American Psychologist*. May 2000. Vol. 55, No. 5, pp. 523-530.

CRAFTING COASTAL GOVERNANCE IN A CHANGING WORLD

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A great many people in USAID, in CRC and in the countries where we have worked have contributed to what has been achieved and learned. The authors of this volume thank everyone involved for their creativity, their energy and their leadership in addressing the complex issues in coastal regions. Most especially we thank our in-country teams and our partner institutions who taught us how what was being learned elsewhere could be appropriately applied to their own cultures and the needs of their countries. We have not attempted to list all those that have contributed to the ideas and the experience presented in this volume. To do so would require several long paragraphs.

While so many contributors to the program, one name stands out: Lynne Hale, former associate director of CRC. Lynne left CRC in the last year of the program—but only after setting in motion the drafting and redrafting that has resulted in this volume of reflections, experience and future directions. Lynne was CRC's point person with USAID. She led the design of the CRMP II field programs and made sure that they capitalized on what had been learned from the first set of filed programs. Throughout the 18 years of the program Lynne's passion, perseverance and perception made it the success it became. All who have contributed to this volume thank her and wish her well in the next stage of her career.

PREFACE

OCEANS, COASTS, WATER, AND THE EVOLVING USAID AGENDA

By Bill Sugrue *Director*

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Since 1985, the U.S. Agency for International Development (USAID) has partnered with the University of Rhode Island Coastal Resources Center (CRC) in carrying out the Coastal Resources Management Program (CRMP). CRMP is a pioneering initiative working with developing countries around the world to advance the principles and practices of integrated coastal management (ICM). During this 18-year partnership, USAID and CRC, together with partners in the field, have learned a great deal about the complexities and challenges of better managing our coasts. This has included learning how to balance the need for ecologically healthy coasts with the need to promote a better quality of life for those who live and work there. Throughout this process, CRC has been an instrumental force in promoting a "learning agenda" for (ICM). In the selected CRMP stories included in this book, you will share in some of that learning. Let me summarize here some of the key principles that underlie the ICM learning agenda.

ADVANCE INTEGRATED WATER AND COASTAL RESOURCES MANAGEMENT FOR IMPROVED ENVIRONMENTAL PROTECTION AND MANAGEMENT

It is essential that ICM and integrated water resources management (IWRM) be mainstreamed into sustainable development efforts. ICM and IWRM are essential foundations for improvements in health, food security, economic development, democracy and governance, and biodiversity conservation. We must recognize the interdependence of these development goals. The interdependence of human health, food security, governance and the other human activities is obvious. How development objectives are pursued in these sectors can have dramatic impacts on biodiversity, and on the biosphere. The biosphere is currently in free-fall, so the significance of these impacts is not trivial. Conversely, biodiversity conservation programs, properly conceived, can significantly support CRMP objectives in economic development, food security, governance and other areas. The challenge to development assistance organizations is to ensure that they move beyond single sector responses to more integrated, cross-sectoral approaches that do justice to the exceedingly complex and interrelated factors that shape our world. Principles of integration as practiced in ICM and IWRM must be given the commitment of time and resources that they deserve.

Create Strong Governance at All Levels

Good governance is more than just good government. It encompasses a range of processes in which public, private and civil societies organize and coordinate with each other to make decisions, and distribute rights, obligations and authorities for the use and management of shared coastal resources. A central operating principle of the CRMP has been that effective governance systems are what create the preconditions for achieving sustainable environmental and social benefits. We have learned that good coastal governance functions best when it exists as part of a nested system—that is, one that operates simultaneously at scales ranging from the local to the global. For example, sub-national and community-based management efforts stand the best chances to be effective and to be sustained

over the long term when they are supported by policies and institutional structures at the national level. Meanwhile, national-level initiatives build capacity for ICM governance across spatial and sectoral scales, providing support to local initiatives while addressing coastal development and conservation of more wide-ranging national interest.

PROMOTE PRIVATE AND PUBLIC PARTNERSHIPS

Participatory approaches to conservation are now recognized as one of the few means to ensure sustainable management of ecosystems and natural resources while also meeting local peoples' livelihood needs. This participation is most effective when it includes both the public and private sectors. ICM and IWRM are too complex for one institution or group of constituencies to "go it alone." Forging carefully selected, strategic private-public partnerships can help.

Eco-tourism is just one of the issues around which coastal programs are testing such partnerships. The hope is that by partnering with the private tourism sector, chances improve for achieving environmentally sound, financially sustainable, and culturally appropriate coastal tourism development. When these partnerships succeed, eco-tourism can have significant, positive impacts on local economies and can provide strong incentives for sound environmental protection and management. A caution is that "environmentally sound" and "culturally appropriate" cannot be throwaway lines. They need to be taken seriously. Not all eco-tourism is very "eco," and unless there is true and transparent participation—i.e. the local community is fully engaged, not simply consulted—the impact of tourism on local communities can be destructive economically, socially, and culturally, and the impact on the environment catastrophic and permanent. It is not easy to do this right—but it is essential to do so.

EMPOWER COASTAL COMMUNITIES TO SELF-MANAGE THEIR RESOURCES

This must be done while promoting alternative livelihood and food security objectives. In cases where local social and economic networks are

already well established and thriving, even at relatively low income levels, poorly conceived outside interventions can be extremely and negatively disruptive. Since poverty is not solely a function of income, but also of control of assets, empowerment, and control over one's fate, even the most well-intentioned efforts at poverty reduction or economic growth can have the opposite effect on people if existing arrangements are not taken fully into account. This is especially worthy of consideration in the case of indigenous communities. In such cases, poverty prevention, rather than poverty reduction, may be the appropriate goal. In this way, intact communities with essentially sound traditions of resource management may best be assisted by simply strengthening and supporting their control over local resources. Only modest, incremental initiatives aimed at ensuring continued food security and additional income streams may be called for; but here again, full engagement of the community, not simply consultation, must be the norm.

ADVANCE INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING AT BOTH THE NATIONAL AND LOCAL LEVELS

Inadequate capacity to practice ICM and to design and implement strategies that lead to more sustainable forms of coastal development remains a primary factor limiting progress in ICM. Too often, development projects bring in external expertise and funding without a parallel effort to build and strengthen in-country partner organizations—leaving partner organizations and the larger ICM effort vulnerable to failure when outside assistance ends. CRMP has used a different approach. Its preference has been to strengthen institutions over extended periods of time and to transfer the skills and the responsibilities for implementation to CRMP collaborating organizations. This approach is grounded in the belief that long-term collaborative relationships with partners maximizes learning and increases the probability that productive efforts will be sustained over many years.

The CRMP experience has also demonstrated the value to be derived from cross-portfolio learning. For example, we have seen how communities in the Philippines that developed community-based marine sanctuaries were able to provide useful insights to Indonesian practitioners attempting to

establish their own marine reserves. Similarly, experience in Ecuador and Sri Lanka in the development of shoreline management guidelines helped CRMP undertake the process more efficiently in Tanzania.

While USAID, through its overseas missions, presently supports coastal and marine activities in over 40 countries, only a small handful of those USAID missions have been able to invest in a more comprehensive ICM approach, with broad attention to all of the general principles cited above. The challenge remains to enhance the dialogue between development agencies and national governments on the economic, social and environmental values of marine and coastal resources, and the proper level of investment to maintain these resources as national and local assets. These priority challenges, which must be faced, and which will help guide USAID's future directions include the need to:

- Mainstream applied fisheries research and management into ICM programs, and promote effective governance of commercial, artisanal, and subsistence capture and culture fisheries. Science and technology advances must influence decisions on coastal resource management in a context of good governance. Both are crucial.
- ❖ Establish networks of marine protected areas with substantial ecological reserves in all regions, while ensuring the sustainability of these activities through the development of alliances and partnerships. Conservation groups and their allies in government and the private sector have made good progress over the past 20 years in establishing parks and reserves to preserve terrestrial biodiversity. The scientific basis for defining these reserves, and managing and linking them, has grown more sophisticated. The number and variety of partners supporting these efforts has grown as well. Coastal and marine reserves need to catch up. Strong partnerships among conservation groups, government, the private sector, and local communities will be essential.

- Enhance coastal and nearshore water quality through partnership programs to control both point and non-point sources of marine pollution, while addressing the impact of the growing number of coastal megacities. There has been little meaningful engagement in a significant way with the challenges of coastal resource management in the context of megacities. This is a huge challenge that needs to be confronted for reasons of human welfare and environmental quality.
- ❖ Reduce the vulnerability of coastal populations and their infrastructure to the growing threat of flooding, storm surge, and coastal erosion due to climate change and rising sea levels. Mitigation efforts are essential. A great deal remains to be done that has not yet been done. But serious—even drastic—efforts in mitigation do not eliminate the need to undertake, simultaneously, ambitious initiatives in adaptation because sea level rise and other effects of global climate change seem inevitable.

What is next? Clearly, coastal and freshwater management challenges and needs will not abate in the foreseeable future. World leaders reaffirmed at the 2002 World Summit on Sustainable Development in Johannesburg the central role that these resource issues will continue to play in the sustainable development agenda. USAID is in full agreement with that affirmation and remains committed to full engagement on these issues.