informationbulletin

Sustaining Economies and Ecosystems: Gender and Coastal Resource Management

Today, some 3.7 billion people, or nearly two-thirds of the world's population, live within 60 kilometers of a coastline. This narrow boundary separating upland territories from open waters makes up barely 3 percent of the planet's surface, but by the year 2025, three out of every four people, a total of 6.4 billion, will make their homes in the coastal zone.

Advanced industrial nations now recognize the environmental impacts associated with intensive coastal development. Coastal zone management initiatives, like many environmental protection policies, still provoke heated controversy, but are beginning to achieve notable effects at improving water quality, protecting fish and wildlife habitat, resolving conflicts among competing coastal resource users, and promoting sustainable development.

Developing nations confront environmental problems no less severe than those of industrial nations, but often less well understood and, if anything, more difficult to manage. With environmental constraints threatening to impose binding limits on the economic future of many developing nations, the United States Agency for International Development (USAID) is helping coastal communities conserve resources and promote sustainable growth.

Daunting challenges confront these efforts. Coastal resources are primary goods in traditional and developing economies, providing food, fuel, household materials, and even medicines for families that can ill afford to reduce harvesting activities. Getting by usually requires that every member of a household devote as much labor as possible to taking maximum advantage of all available resources. But conservation programs inevitably require that people reduce their reliance on these resources.

The short term success of programs attempting to persuade coastal households to reduce their resource use requires identifying practical economic alternatives to unlimited resource exploitation. Long term success depends upon whether resource conservation programs fully embrace the economic roles and responsibilities of every villager and family member whose life is connected to the future of the resources being conserved.

This ultimately requires engaging the support of those women whose roles in the coastal economies, and whose relations to these resources, are too often and too easily overlooked.

Women and Sustainable Development: Lessons from USAID's Coastal Resource Management Project

In 1988, USAID launched a $20.8 million Coastal Resources Management Project (CRMP). Under this initiative, implemented by the University of Rhode Island's Coastal Resources Center, USAID worked closely with the central governments of three countries – Ecuador, Sri Lanka, and Thailand – to address the coastal environmental problems threatening their future economic development.

This eight year pilot project followed a two-track strategy. Central governments were helped to formulate detailed "integrated coastal management programs," and to train a national cadre of scientific and technical staff to oversee program activities. At the same time, local citizens with vested interests in reversing the decline of coastal resources were mobilized to participate in conservation efforts tailored to their specific needs.

Coastal communities were selected to serve as testing areas, or "special management zones," where a variety of conservation techniques could be tested; the experience gained in these zones would lay the foundation for nation-wide program operations.

Though CRMP had not been designed with a special focus on gender issues, it became apparent that the treatment of gender considerations would be as important to the success of CRMP operations as gender-related divisions of labor were in the daily economies of coastal villages.

Women in coastal communities depend on available natural resources for augmenting their families' diets and income. Their labor, however, is often less visible than that of men. Women seldom own the equipment or machinery used to harvest natural resources. Women rarely own or control access to the resources they harvest; the more important natural resources, in fact, are seldom subject to private ownership.

Thus, subsistence and market-driven harvesting activities of women often escape the attention of researchers who are more attentive to the environmental and biological issues involved in baseline resource assessments.

Cockles, for example, are an important source of income for families living along the shores of Ecuador's bays and estuaries; most of the harvest, declining as a consequence of deteriorating water quality, is collected by women known as "concheritas." Women are also central actors in Ecuador's emerging "mariculture" shrimp industry. Only recently, however, have development programs focused on women's roles such as these in coastal economies.

The lagoons of western Sri Lanka have supported prawn farming for centuries, and women are traditionally employed in breeding and harvesting this valuable resource. On Zanzibar, where fish stocks have declined markedly in recent years, women fish in intertidal lagoons and farm seaweed for family consumption and exchange in local markets. Tourist-related coastal development, however, has encroached on traditional fishing grounds, which also suffer from over-fishing and the use of equipment that has been outlawed because it destroys habitat or targets juvenile fish. Mozambican women traditionally fish in unregulated local estuaries. As fish have become scarce in neighboring waters, these women have begun to seek legal rights to manage estuary fishing and protect this valuable resource.

Without well-developed conservation programs, these resources will be further depleted, the lives of these women and their families will grow harder, and the economic future of their communities will grow dimmer. But while conservation programs directly affected these women, the CRMP initiative, as designed, did not adequately address the need to integrate the changing roles of men and women into local conservation efforts.

To ensure that future efforts would recognize and adapt to the gender realities of coastal communities, CRMP program managers recruited support from the Global Bureau's Office of Women in Development. The resulting program revisions, mandating efforts to increase the

percentage of female participants and trainers, and to incorporate gender and family issues into CRMP instructional materials, strengthened the project's community participation features and its ability to respond to the interests and needs of local women.

Recent Developments: Women as Partners in Resource Conservation

The projects sponsored by CRMP have paved the way for others. USAID is now assisting several developing nations to design and implement integrated coastal resource management plans with scientific training, public education, and community outreach.

A particularly ambitious CRMP initiative is now underway in the Philippines. Coastal development has resulted in pollution discharges that degrade water quality, while deforestation of mangrove swamps has exacerbated shoreline erosion. Eroded silt destroys nearby coral reefs, and the loss of both mangroves and reefs deprive fisheries of vital habitat. Under these pressures, compounded by over-fishing and other stresses, fisheries have collapsed, and Filipinos now import rather than export fish.

Filipino women were recently responsible for between 50 and 75 percent of local fish processing and distribution. In addition, women prepared baits, mended nets, and tended equipment. These activities were combined with harvesting nipa for thatch and collecting fire wood from mangrove forests. Women also foraged rivers, swamps, and lagoons for shells, sea weeds, shrimp, crabs, and shellfish for food or for sale in local markets. But the collapse of fisheries has rippled through the village economies, and women find their work opportunities and their earnings in sharp decline.

USAID's CRMP is specifically designed to engage the participation and reflect the interests of Filipino women, as well as respond to the pressures on the coastal village economies and ecosystems. These efforts reflect the lessons learned through earlier conservation initiatives.

In community based programs, local resident stakeholders define the needs and determine the priorities of management efforts. Participation, however, is difficult to gauge. Program consultants, for instance, have noticed that women attending program meetings typically defer to the judgments of male heads of households. When questioned separately regarding the priorities most appropriate to conservation programs, women often address concerns otherwise ignored by their husbands or male relations. Thus, participation models recognize that families are not as homogenous as may once have been assumed, nor as bound by unitary definitions of self-interest.

If the roles, interests, and experience of women are to be reflected in program priorities, women's attendance at community meetings cannot be equated with participation. The Philippine program is devoting special attention to organizing women's support groups, to providing women with technical training, and to recruiting women for community education and outreach efforts.

Women's participation, however, is not without risks. Tambuyog, a non-governmental organization engaged in the Philippine project, reports that as local women have begun taking more active roles in the conservation program, the incidence of domestic violence has risen.

The Philippine program is also exploring alternatives to traditional property rights for controlling common access resources such as coastal and estuary fisheries. Community based property rights may be a step towards enhancing the ability of women to share in determining the uses and values of strategic resources.

Conclusions: Replicating the Lessons Learned

It is too early to look for the recovery of depleted fisheries, dying reefs, deforested mangrove swamps or other embattled natural resources. But conservation efforts are now becoming institutionalized among local, regional, and national governments of developing nations. USAID's investments to support environmental research, technical training, public education and outreach efforts are critical to the success of these resource management programs.

If these programs are to promote sustainable development they must do more than conserve resources; they must reflect the wisdom and experience, and address the needs and interests, of the women who pluck their livelihoods from the waters of lagoons and estuaries, who carry these harvests to market, and upon whose labor depends the future of their families and their communities. Unless resource management programs are truly open to the women they serve, these programs might succeed in promoting conservation, but they cannot succeed in promoting sustainable development.

USAID's coastal resource management programs are demonstrating that this lesson can be learned and reflected in program improvements, and that women can be full partners in resource conservation and sustainable development.

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