Equator Initiative Case Studies
Local sustainable development solutions for people, nature, and resilient communities

RESIDENTS’ ASSOCIATION FOR THE PROGRESS AND DEVELOPMENT OF CAMPO AMOR, ZARUMILLA
Peru

Empowered lives. Resilient nations.
Local and indigenous communities across the world are advancing innovative sustainable development solutions that work for people and for nature. Few publications or case studies tell the full story of how such initiatives evolve, the breadth of their impacts, or how they change over time. Fewer still have undertaken to tell these stories with community practitioners themselves guiding the narrative.

To mark its 10-year anniversary, the Equator Initiative aims to fill this gap. The following case study is one in a growing series that details the work of Equator Prize winners – vetted and peer-reviewed best practices in community-based environmental conservation and sustainable livelihoods. These cases are intended to inspire the policy dialogue needed to take local success to scale, to improve the global knowledge base on local environment and development solutions, and to serve as models for replication. Case studies are best viewed and understood with reference to *The Power of Local Action: Lessons from 10 Years of the Equator Prize*, a compendium of lessons learned and policy guidance that draws from the case material.

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PROJECT SUMMARY

The Residents’ Association for the Progress and Development of Campo Amor, Zarumilla (Asociación de Pobladores por el Progreso y Desarrollo de Campo Amor, Zarumilla – ASPOPRODECAZ) represents the 11,000 inhabitants of Campo Amor, a coastal town in the buffer zone of the Tumbes National Mangrove Sanctuary. The region is a gateway to this important protected area, and home to many community members who depend on the aquatic products provided by the mangrove ecosystem.

ASPOPRODECAZ was created in response to the pressures on this fragile natural reserve resulting from population growth, logging, and solid waste pollution. In response, the association has reforested the surrounding mangrove swamps, devised environmental education programmes, and established the first tree nursery in the region. A key innovation of the organization’s work is a sustainable waste management program that employs 250 families in recycling and solid waste collection.

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KEY FACTS

EQUATOR PRIZE WINNER: 2008

FOUNDED: 2003

LOCATION: Campo Amor, Tumbes Region

BENEFICIARIES: 11,000 inhabitants of Campo Amor

BIODIVERSITY: 750-sq. km. coastal ecological reserve
Within the buffer zone of Tumbes National Mangrove Sanctuary in the province of Zarumilla, the Residents’ Association for the Progress and Development of Campo Amor, Zarumilla (ASPOPRODECAZ) is working to improve local livelihoods while safeguarding this ecologically diverse coastal environment. The association was founded in 2003 in response to increased pressure on local ecosystems and resources from solid waste pollution, logging, and excess extraction of mangrove resources. Since then, ASPOPRODECAZ has been involved in several ambitious initiatives designed to improve the livelihoods of local residents, including the treatment of solid waste, the reforestation of mangrove plants, educational programs, and the development of a local tree nursery.

Campo Amor is a town of roughly 11,000 inhabitants in the Tumbes Region of northern Peru. Human settlement around the region continues to expand, placing growing pressures on the local environment, and especially on the fragile mangrove ecosystems which line the coastal zone. The principal threats to the Tumbes National Mangrove Sanctuary are urban development, aquaculture, overexploitation of timber, fish, crustaceans and shellfish, contamination from domestic effluents and agricultural runoff.

A vital resource for local communities and biodiversity

Coastal communities such as Campo Amor depend upon the many resources provided by the Tumbes mangrove ecosystem. Mangroves are a valuable ecological and economic resource, being important nursery grounds and breeding sites for birds, fish, crustaceans, shellfish, reptiles and mammals; a renewable source of wood; and accumulation sites for sediment, contaminants, carbon and nutrients. They also offer protection against coastal erosion, among other threats. Mangrove forests protect inland coastal areas by absorbing the potentially destructive effects of storms and intense wave action. They also have the potential to mitigate flood damage by dispersing the energy of floodwaters.

The Tumbes mangrove stands are home to a large variety of common and endemic species. The sanctuary provides refuge for fish, more than 200 species of birds (including many rare or endangered species), and rare and threatened mammals, including the crab-eating raccoon (*Procyon cancrivorus*) and the neotropical river otter (*Lutra longicaudis*). The mangrove forests are composed of over 40 varieties of plants, among them the red mangrove (*Rhizophora mangle*).

Mangrove forest destruction contributes directly to the collapse of vital coastal ecosystems; fisheries decline, coral reef systems are less productive, clean water supplies are degraded, coastal soils become salinized, land erodes, and there is an increased risk of damaging floods. Food chains that stretch far beyond the boundaries of the mangrove forest are also severely disrupted. Ocean predators such as swordfish, sharks, whales, dolphins, and the hawksbill, Olive Ridley, and giant leatherback turtles all depend upon healthy coastal habitats and an adequate resource base for their own survival. A decrease in the coastal resource base reduces productive capacity of the ecosystem resulting in increased competition for marine resources among local wildlife and human populations.

There are also real and profound economic consequences to mangrove deforestation. Island residents depend on the mangrove forests for timber to use in construction, for firewood, and to make charcoal. The exploitation and deterioration of the Tumbes mangrove habitat was therefore not only endangering the health, vitality, and productive potential of the delicate coastal ecosystems, but was compromising the economic security of communities such as Campo Amor as well. In response to this threat, ASPOPRODECAZ has taken a series of steps to arrest the degradation of the Tumbes National Mangrove Sanctuary.
Key Activities and Innovations

As part of the Participatory Management of Protected Areas Project – sponsored by the World Bank and the Global Environmental Facility (GEF), and executed by the Peruvian National Trust Fund for Protected Areas (PROFONAPE) – ASPOPRODECAZ has helped to pioneer a development approach involving participation of local stakeholders in the management of protected areas. The approach combines alternative livelihoods support for a sustainable natural resources management strategy that has led to several key activities and innovations.

Waste management

In one of its flagship programme areas, the association has implemented a solid waste collection and recycling program that employs over 250 families and reduces damage to the mangrove forests from pollution and contamination. As part of this programme, waste cans are placed around the community and in the schools and clean-ups are regularly scheduled. Waste and other solid residuals that once choked tributaries and contaminated waterways are now collected and disposed of in an environmentally responsible manner. Tributaries and waterways flow freely and cleanly as they feed into the Tumbes Mangrove Sanctuary. The dramatic improvements in environmental health and sanitation have even allowed ASPOPRODECAZ to explore the potential for ecotourism in and around the sanctuary.

Environmental education

ASPOPRODECAZ has also taken steps to address a lack of environmental awareness among the general population. With an eye towards the future, they have created the “ecological classroom”, a programme designed to increase the scope and accessibility of environmental education within their community. The association works extensively with local youth in order to educate them on both global and local environmental issues. More than 3,000 children from different educational institutions have participated in the programme which includes ecological competitions, plays and activities to encourage participation.

Reforestation

The initiative has also successfully implemented the first community tree nursery in the region in order to reforest degraded mangrove and inland humid-tropical forests. So far, ASPOPRODECAZ has contributed more than 100,000 seedlings of forest species to a variety of civic and community organizations engaged in the restoration of local areas.

Women’s empowerment and animal husbandry

The association also supports the creation of small-scale farms which are managed by female community members. The farms allow these women to learn skills such as seed selection, planting, and animal husbandry. In addition, the women are able to incorporate a wider variety of fresh, locally-produced farm produce into their family’s diet. The small-scale farm programme yields an additional benefit in the sense of empowerment it provides to female heads-of-household. This feeling of empowerment then allows for broader participation in traditionally male-oriented activities, such as politics or community planning.

Sustainable energy

As an offshoot of the animal husbandry programme, the association is also currently implementing a bio-gas manure and organic matter project. The goal of this is to harness and utilize biogas from livestock manure and organic waste. This program has significantly lowered demand for local firewood and the exploitation of local forests.
Biodiversity Impacts

The Tumbes National Mangrove Sanctuary lies within the 750-square kilometre Tumbes Reserved Zone, a coastal ecological reserve in northern Peru. Created in 1994, the reserve spreads across the provinces of Tumbes and Zarumilla and provides habitat to a rich variety of both animal and plant species. Deforestation had severely reduced the available productive habitat and diminished the available supply of forest products and hardwood species that were once abundant. To counter the ongoing degradation of the protected areas, ASPOPRODECAZ has directly supported the reforestation of mangrove and inland forests with over 100,000 tree seedlings planted, including algarroba (Prosopis pallida), charan (Caesalpinia sp.), cedro (Cedrela sp.), madero (Glicidia sp.), Huayacan (Tabebuia sp.), ceibo (Erythrina crista-galli), and palo santo (Bursera graveolens), among other species. These hardwoods provide a habitat which is critical for the survival of a variety of plants and animals, including the Mantled Howler Monkey (Alouatta palliata), American crocodile (Crocodylus acutus), jaguar (Panther onca), Margay (Leopardus wiedii), fox (Vulpes vulpes), White-tailed squirrel (Ammospermophilus sp.), anteater (Vermilingua sp.), Gray Brocket Deer (Mazama gouazoubira), peccary (Tayassu tajacu), and oncilla (Leopardus tigrinus). The forests are also home to many endemic bird species, such as the Little Tinamou (Crypturellus soul), Magnificent Frigatebird (Fregata magnificens), Hook-billed Kite (Chondrohierax uncinatus), and the Rufous-headed Chachalaca (Ortalis erythroptera). Given this abundance of species, these hardwood forests constitute a vital component of Peru’s coastal biodiversity, making them a target for conservation efforts. The association’s work in raising conservation awareness has played a key role in these efforts.

In addition, the group’s reforestation activities have contributed to a reduction in greenhouse gases through the sequestration of atmospheric carbon, while the solid waste treatment component of the project has also led to reduced pollution of the local environment and to a reduction in greenhouse gas emissions that occurred through the burning of waste.

Socioeconomic Impacts

Through their various programs, ASPOPRODECAZ is able to provide employment opportunities for the benefit of more than 300 families. The increased participation of women has also led to an increase in family incomes and brought economic revitalization to the community. Women’s groups have implemented self-sustainable activities such as the production of handicrafts, preparation of food products and poultry farming. ASPOPRODECAZ has also entered into contracts with private sector companies such as Consorcio Hidalgo e Hidalgo, Padko, the Peruvian Army, private education institutions, and local businesses in an effort to scale its solid waste collection and treatment operations. The World Bank, in reviewing these initiatives, identified key success factors as being: (i) a past history of continued assistance from national and international NGOs that helped build the association’s capacity, and (ii) the fact that proposals had been developed and implemented by the association itself, rather than external actors, which has contributed to its high level of ownership and commitment to success. The increased and diverse opportunities that ASPOPRODECAZ provides communities are a valuable source of income in the local economy.

Social inclusion and gender equality

ASPOPRODECAZ is strongly committed to social inclusion and gender equality. The association’s non-discriminatory organizational structure enables previously disenfranchised social groups, such as women, children, and the elderly to participate in decision-making processes. These groups offer unique and valuable contributions to ASPOPRODECAZ’s efforts which then further inform the evolution of the association’s mission. The participation of a larger cross-section of civil society groups has also allowed for a larger overall impact of project activities as these groups are now invested in project outcomes.
Sustainability and Replication

SUSTAINABILITY

Sustainability of its programmes is a priority for ASPOPRODECAZ’s work. The capacity building and social inclusion components of the initiative ensure the continuity of the association’s leadership and vision. The various programmes that the association supports provide diversified employment and income opportunities for the residents of Campo Amor, which are important motivators for continued community engagement with ASPOPRODECAZ. Furthermore, the environmental conservation and agricultural components of the initiative are providing Campo Amor with a more resilient resource base from which to derive sustainable livelihoods.

ASPOPRODECAZ’s commitment to education also demonstrates the association’s vision of sustainability. By educating local youth on environmental and economic topics, ASPOPRODECAZ is helping to cultivate an emerging leadership that embodies the spirit and core values of the organization.

REPLICATION

ASPOPRODECAZ has been instrumental in developing leadership capacity at the local level. As part of the World Bank/GEF-funded Participatory Management of Protected Areas Project, ASPOPRODECAZ has been able to support efforts to expand the technical and organizational capacity of project participants. Thanks to these partnerships, communities such as Campo Amor which were suffering from extended economic and environmental decline have seen a resurgence of community leadership and civic action which have halted these processes. The positive example that ASPOPRODECAZ is setting in terms of social inclusion has garnered regional and international attention, making the initiative a best practice case for replication by other organizations within the region.

PARTNERS

ASPOPRODECAZ has formed important partnerships with both domestic and international partners. The World Bank attributes part of the group’s success to its ability to capitalize upon these partnerships in order to build capacity at the local level. Notable partners include the following:

- The Peruvian National Institute of Natural Resources (INRENA): works closely with ASPOPRODECAZ in developing sustainable resource management strategies for the Tumbes National Mangrove Sanctuary.

- The Peruvian Trust Fund for National Parks and Protected Areas (PROFONANPE): has provided financing through the Economically Sustainable Activities Program (PAES) for workshops, training and technical assistance for the solid waste and recycling programme, the biogas project, and for reforestation activities.

- The World Bank and Global Environment Facility: provided an endowment for technical and financial assistance, the drafting of master plans and protected areas management contracts, small-scale sustainable economic activities, training and advisory services for INRENA, capacity building for local civil society, monitoring and evaluation, and information management and dissemination.

- The Regional Government of Tumbes: co-financed the ASPOPRODECAZ community nursery which has been contributing to the restoration of degraded forestland.

- The Peruvian Government: through the Peruvian Urban Employment Program, ASPOPRODECAZ was able to engage in several capital and infrastructure improvement projects, such as the construction of culverts to prevent overflow and flooding of populated areas from the frequent and heavy rains.

- The Spanish Agency for International Development Cooperation (AECID): financed portions of the community nursery management, the ecological classroom, and funds various capacity building workshops.

- The Provincial Municipality of Zarumilla: has provided financial and in-kind support for the solid waste treatment program.

- The National University of Tumbes: has provided environmental lectures and workshops, and has also assisted in the various reforestation programs.

- The Cayetano Heredia University: provides technical assistance for the women’s small farm project.
FURTHER REFERENCE

- Presentation on work of ASPROINCA for Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria (CIPAV)
- ASPROINCA Photo Story (Vimeo) [http://vimeo.com/15960538](http://vimeo.com/15960538)

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