



COOPETÁRCOLES

Costa Rica



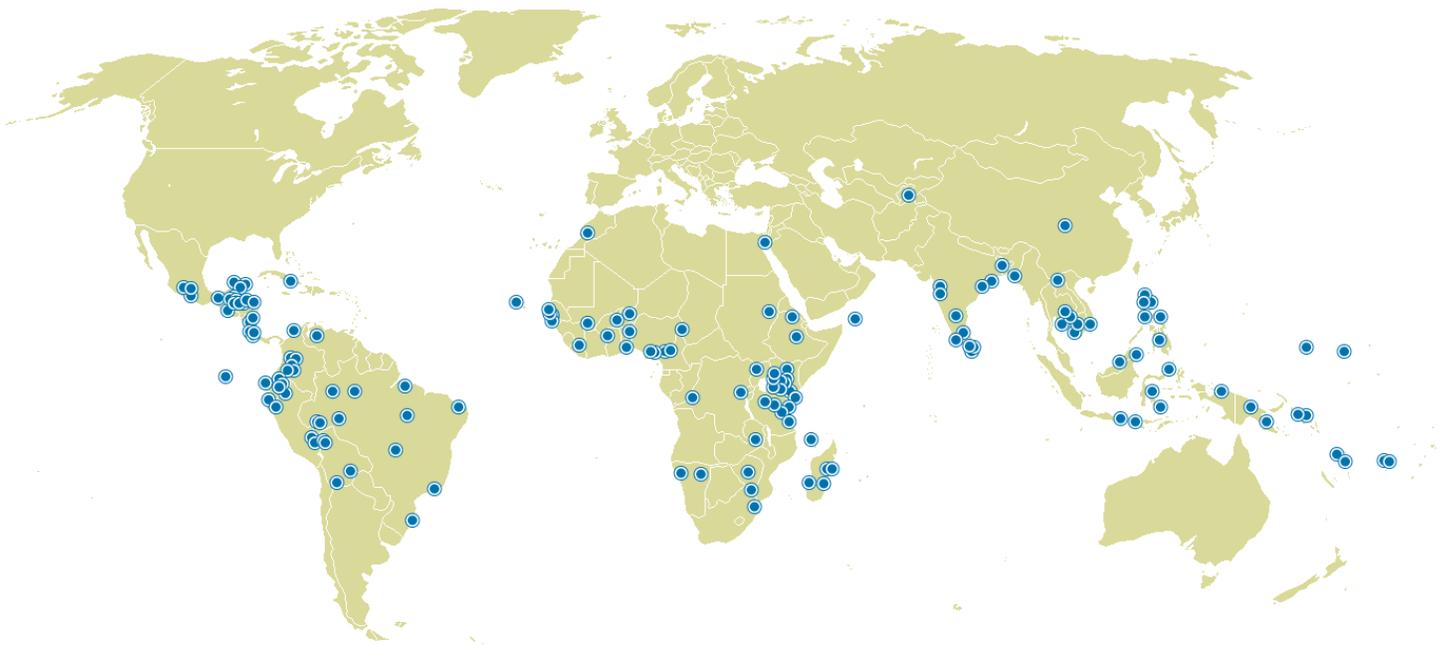
Equator Initiative Case Studies

Local sustainable development solutions for people, nature, and resilient communities

UNDP EQUATOR INITIATIVE CASE STUDY SERIES

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 artisanal fishers of the community of Tárcoles, located in the Gulf of Nicoya on the Pacific coast of Costa Rica, faced declining fish stocks due to a combination of overharvesting by commercial shrimp boats and unsustainable local fishing practices. At the same time, development of the tourism sector along the coast threatened to restrict access to the shore and to marginalize their work. The local fishing cooperative CoopeTárcoles R.L. was founded in 1985 to confront these twin threats.

At the forefront of these efforts has been the development of fishing bylaws that stress sustainable practices, enshrined in the community's 'Code of Responsible Fishing'. In partnership with CoopeSolidar R.L., the initiative launched a sustainable and community-based ecotourism venture in 2007 to provide an alternative source of income for local residents. In 2009, meanwhile, the group was successful in gaining approval of a community-managed marine area.

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KEY FACTS

EQUATOR PRIZE WINNER: 2006

FOUNDED: 1985

LOCATION: Gulf of Nicoya, Costa Rica

BENEFICIARIES: 250 community members

BIODIVERSITY: Carara National Park



Background and Context



The community of Tárcoles is located in the Gulf of Nicoya on the Pacific coast of Costa Rica, an area which boasts great geological, climatic and biological diversity, and is home to around 45 per cent of the country's plant species. Tárcoles is situated at the mouth of one of the most important rivers in the country, the Río Grande de Tárcoles, which feed fresh water into mangrove ecosystems, the two largest of which are Guacalillo and Tivives. These mangrove sites present a wealth of flora and fauna, including one of the largest populations of American crocodiles (*crocodylus acutus*) in the Americas. Furthermore, the adjacent Carara National Park boasts one of the largest remaining populations of wild Scarlet Macaw (*ara macao*).

CoopeTárcoles R.L. is a cooperative of artisanal fishers who practice and promote sustainable fishing methods in an effort to conserve their local marine ecosystem and the long-term vitality of their local economy. To this end, CoopeTárcoles encourages its fishing community to comply with responsible and fishing regulations and accountability according to their Responsible Fishing Code. As the vast majority of the residents of Tárcoles depend in some way on fishing for their sustenance or livelihoods, the cooperative strives to preserve the long term sustainability of these resources and establish strong ties between local fishers, NGOs and government officials in order to further local development and conservation goals.

Addressing threats to livelihoods and cultural identity

The Pacific Ocean represents for the community of Tárcoles not only their main source of livelihoods but also their sense of cultural identity. Unfortunately, prior to the formation of CoopeTárcoles, both the biological and cultural richness of this area had been deteriorating at an accelerated rate for a number of reasons.

First, natural resources were in decline due to irresponsible fishing methods by artisanal fishers, overexploitation by bottom-trawling, commercial shrimpers, and pollution from the Río Tárcoles which carries a great deal of industrial and organic waste from the country's largest urban centers.

Poverty in Tárcoles was increasing as fish stocks declined, and prices were staying low or declining as industrial fish products flooded the market. The cultural threats faced by this small fishing community were the rapid growth of coastal tourism and real estate development, including marinas that cater primarily to wealthy Westerners, which were displacing entire communities and blocking the access of local people to coastal and marine resources. These artisanal fishers also felt marginalized by the fact that they received little recognition for their traditional knowledge and contributions to conservation.

The fishing community of Tárcoles knew that they could address many of these issues by forming a united front and adopting sustainable fishing techniques, thereby improving conservation and contributing to the continuation of their traditional lifestyle. This thinking led to the creation in 1985 of the Fishers' Cooperative of Tárcoles R.L., later shortened to 'CoopeTárcoles'. The organization was founded by artisanal fishers from the community, with the objective of eliminating middlemen in the market for fish and other marine products, thereby obtaining better prices for their products and improving the incomes of its members, as well as facilitating the regeneration of marine resources and ensuring the long-term sustainability of their livelihoods.

Other objectives of the cooperative include sharing knowledge, encouraging better labor conditions, developing new sources of employment, and raising the stakeholders' organizational level and degree of participation. At the time of writing, the cooperative has 35 members (30 men and five women) and has a direct impact on an estimated 250 people, which includes not only fishers but also workers who are engaged in related trades, such as the encarnadoras who bait the fishing lines and the lujadoras who untangle the fishing lines, as well as those who process and sell the fishing products.

In 2003, CoopeTárcoles began to take more seriously the section of its bylaws dedicated to the pursuit of sustainable methods of natural resource management. After reviewing the Food and Agriculture

Organization of the United Nations (UN FAO)'s 'Code of Conduct for Responsible Fisheries', the members of CoopeTárcoles agreed to establish their own 'Code of Responsible Fishing' which was intended to serve as a set of guidelines that members could adopt voluntarily.

The Code was submitted to the national authorities in April 2005 and was successfully reviewed two years later by an audit of the authorities responsible for coastal and marine resources: the Costa Rican Institute of Fishing and Aquaculture (INCOPESCA), the Ministry of Environment and Energy (MINAE), the Ministry of Health, the Cooperative Development Institute (INFOCOOP), Garabito City Council, and, acting as observers, the Ombudsman's office and the UN FAO Regional Office. This code of conduct laid the groundwork for the creation of a community-managed marine area, a proposition which was accepted by INCOPESCA in January 2009 after a long process of political advocacy.

Fruitful collaboration

Collaboration between CoopeTárcoles R.L. and CoopeSolidar R.L. - a Costa Rican group committed to conserving marine resources and improving local livelihoods - began in 2001 and has proven a fruitful partnership in terms of promoting artisanal fishing as a dignified form of work and improving the protection of coastal and marine resources. CoopeSolidar has assisted CoopeTárcoles in developing certain participatory methodologies that have encouraged agreements and strengthened its capabilities, especially in terms of its political influence.

From this association was born in 2007 a sustainable ecotourism venture called Consortium Por la Mar (Consortium for the Ocean). The main idea behind this enterprise was to create additional sources of income for fishers and their families by taking advantage of opportunities for cultural tourism. In contrast with the existing model of tourism in the area, which was exclusive and promoted values other than those respected and practiced by local communities, Consortium Por La Mar emphasizes the traditions and experience of local people in the art of fishing and the wealth of natural resources found on the maritime coast of Tárcoles. The main product offered by Consortium Por la Mar is guided tours that give visitors a glimpse into the daily lives of fishers (both men and women) and other fishery workers through experiencing it with them and learning about their fishing methods, their daily task and the natural resources that exist in the area.



“The sea gives a lot, if it is respected.”

Mario Arias, an artisanal fisher from Tárcoles

Key Activities and Innovations



Artisanal fishing

The fishers belonging to CoopeTárcoles practice 'artisanal fishing', meaning that they employ traditional methods to catch fish from small boats, on fishing trips that last less than 48 hours and take place within five nautical miles of the low-tide mark. One of the most common of these traditional methods is the use of a long line with many baited hooks and nets. Their primary activity over the years has been fishing for white snook (*centropomus viridis*), seabass (*cynoscion* sp.), snapper (*lutjanus guttatus*), sharptooth smooth-hound shark (*mus-telus dorsalis*) and other small fish species. Membership dues fund a project manager and maintain the community's processing facility, where catches are received, weighed and sold directly to local tourism operators, effectively eliminating market intermediaries.

Advocacy

A second field of work is in political and cultural advocacy, aimed at improving the perception of artisanal fishing as a way of life and amplifying the voice of those fishers on the national stage. CoopeTárcoles has participated in and hosted a number of forums to unite stakeholders in the area of artisanal fishing, and has played a key role in progress toward national policy changes in community management of protected areas. The group has also made an effort to collect, disclose and disseminate information on the impacts of artisanal fishing compared to industrial shrimp fishing, in order to foster national appreciation for artisanal fishers' environmental contributions.

Research and monitoring

Third, the organization is engaged in research and monitoring, combining traditional knowledge and scientific methods. A series of publications and tools have been developed in order to enable better decision making at the local, regional and national levels. In order to compile information and contribute to local capacity devel-

opment, CoopeTárcoles began building a database recording daily fish catches, methods and site locations in 2005. This was largely a response to the failure on the part of government and academic institutions to return information they had collected to the artisanal fishing sector. Each fisher contributes information which is then compiled by another fisher who tabulates the information and enters it into a computerized database. Data analysis is undertaken jointly by CoopeTárcoles and CoopeSolidar, and is used to make decisions and take action regarding sustainable fishing management.

Disseminating this information each month has been another major element in building local knowledge. This has also made it possible for CoopeTárcoles to provide timely feedback to the state institution responsible for marine issues, thus solidifying their relationships with government officials. For example, they have recommended monitoring fishing for manta rays and have identified the need to carry out participatory research on lobster populations along the Pacific coast.

Using the database, CoopeTárcoles began a process of participatory zoning. Through open meetings with fishers, a map of the fishing spots, and information on fishing methods, they were able to determine the boundaries of the area with the greatest environmental vulnerability. This chosen zone was then double-checked against information in the database, and its geo-coordinates were defined using GPS to create maps. Aligning the maps with the information in the database has allowed CoopeTárcoles to identify areas of conflict, geological differences, and concentration and vulnerability of certain species.

This zoning also made it possible to identify new stakeholders - those who share resources either with the bottom-trawling shrimp boats or with artisanal fishers employing unsustainable techniques - and has been fundamental in the development of responsible management plans and norms specific to each distinct part of the marine area.

Furthermore, relationships and alliances have been established between the artisanal fishers of CoopeTárcoles, research NGOs and universities, with the goal of promoting knowledge exchange and sharing valuable information about the natural wealth of the Gulf of Nicoya.

In terms of innovations, CoopeTárcoles' Responsible Fishing Code is the first of its kind in the country, which is why the cooperative has been recognized nationally and internationally for its efforts and has contributed to international dialogue spaces and learning exchange-

es, with the goal of promoting responsible fishing in other artisanal fishing groups throughout the world. The organization was also the first to establish a database for local fishing activities, and has established the first community marine area for responsible fishing in Costa Rica. The group has also demonstrated the use of scientific technologies at the local level to improve their enterprise. In 2005, the cooperative implemented effective microorganism technology to purify the water with which fish are washed in the collection center.



“One learns to read the sea like reading a book, if it’s calm, if it’s angry or if it’s sick.”

Mario Arias, an artisanal fisher from Tárcoles

Impacts



BIODIVERSITY IMPACTS

The community of Tárcoles is situated next to Carara National Park, an important biodiversity sanctuary and tourism destination in the Central Pacific Conservation Area. The national park incorporates primary rainforest along the banks of the Río Grande de Tárcoles, which provides an important habitat for crocodiles as well as the chance for tourists to observe them as they gather at the mouth of the river. The park is also home to more than 400 species of birds. In addition to Scarlet Macaws, birds found in Carara include orange-chinned parakeets and other parrots, hummingbirds, woodpeckers, motmots, jacamars, manakins, antbirds, and several species of trogon, including the black-throated trogon. Several species of water bird inhabit the park as well. These include the anhinga, several species of heron, several species of egret and kingfishers. Among the reptiles present in the park are the American crocodile and several snake and lizard species. Green and black poison arrow frogs are among the amphibians present, while mammal species include the white-tailed deer, red brockets, collared peccaries, agouti, kinkajous, white-faced capuchin monkeys, mantled howler monkeys, Hoffmann's two-toed sloths and brown-throated three-toed sloths.

'The sea begins up in the mountain'

The fishing community of Tárcoles has a tradition of environmental awareness, with fishermen keenly aware of the need to conserve their natural heritage. A common expression in the area is 'the sea begins up on the mountain', a vision that has made the community amenable to conservation efforts. This environmental awareness has been critical for preserving the ecological integrity of Carara National Park, with its marine species safeguarded by more sustainable fishing practices. These are enshrined in the Responsible Fishing Code, which, among other provisions, prohibits the use of fishing nets with holes smaller than three inches, to reduce unintended by-catch. The use of these nets is also in line with traditional Tárcoles fishing practices.

Local biodiversity has also benefitted from the creation of the first nationally recognized Community Marine Area for Responsible Artisanal Fishing, an area that now covers 27,320 hectares. Conservation efforts have extended beyond the fishing community of Tárcoles, by engaging neighboring communities in the participatory zoning process to determine resource use and priority areas for conservation. The community's work has also included the creation of an environmental plan to clean up fish processing practices and local beach shores, while CoopeTárcoles's database has allowed the group to monitor populations of several endemic and endangered species

SOCIOECONOMIC IMPACTS

On the Pacific coast of Costa Rica, many communities depend on traditional methods of fishing for food and income, yet these fishing communities are among the poorest in the country and are increasingly affected by resource losses. Members of CoopeTárcoles have institutionalized sustainable fishing practices, protecting the economic future of their community. The organization has therefore had a direct impact on improving household welfare through existing livelihood options. At this time, the cooperative has a membership of 35 people (30 men and 5 women), all of whom directly benefit from sustainable fishing harvests. The organization's work also has wider impact, benefitting an estimated 250 people, including workers engaged in related occupations - often women and youth community members.

Positive effects have also been felt through new, diversified income sources. The group has successfully launched a partnership with local hotels to provide guided tours of the fishing cooperative to both promote understanding of local fishing practices and expand ecotourism opportunities. This venture is beginning to produce a viable source of alternative income for local fishers and has the potential to reduce pressure on fish populations. Job opportunities have been created in the resorts near Tárcoles and in Jaco, as tourism has be-

come the primary source of income for the local population. Most visitors come in groups, such as student groups, both from Costa Rica and from abroad. During an average month, CoopeTárcoles may see about three groups, some as large as 60 people. This helps to bring in additional income for the fishers, encouraging them not to abandon artisanal fishing, and also to compensate them for income they may have lost through their adoption of sustainable techniques.

POLICY IMPACTS

While Costa Rica claims the largest percentage of protected areas in the world, there was no precedent for community-managed marine areas at the time that CoopeTárcoles began its political advocacy. The cooperative, with assistance from CoopeSolidar, made a formal request to the Costa Rican Institute for Fishing and Aquaculture (INCOPESCA) to promote a concrete initiative in this direction. INCOPESCA responded favorably by setting up a commission composed of various government institutions and NGOs (including CoopeTárcoles and CoopeSolidar) to prepare a national proposal to make it possible for community organizations to request the creation of and management rights to marine protected areas. The proposal preparation process was slow, however, since legal competencies first needed to be established in the state and within INCOPESCA, in order to facilitate recognition of this type of protected area. During this process, CoopeTárcoles participated in all of the commission meetings and was able to make contributions to the proposal, including the identification of attributes of artisanal fishers, making reference to their particular histories, traditions and needs. Although the final proposal does not adhere precisely to what is internationally understood to be a community-managed protected area, it promotes a more participatory governance structure than has previously been seen in Costa Rica.

The proposal was accepted by INCOPESCA on April 4, 2008, and CoopeTárcoles began another arduous political process for the recognition and establishment of its own community marine area for responsible fishing. In January 2009, the community-based Marine Area of Responsible Artisanal Fishing of Tárcoles (MARAFT) was recognized by Costa Rican law. According to the General Usage Norms document, this area is not just for the use of CoopeTárcoles fishers; rather, it includes all artisanal fishers who pledge to practice responsible fishing.

CoopeTárcoles has also made progress in uniting artisanal fishers from throughout the country and region for political purposes through visits to its facility and participation in the National Artisanal Fishers' Forum.



Sustainability and Replication



SUSTAINABILITY

Consortio Por La Mar was established in order to create a source of financial sustainability for CoopeTárcoles's socioeconomic and environmental activities. The organization hopes that this enterprise will make it possible to gradually end its dependence on international aid and provide continuity to the organization's efforts in conducting ongoing research and data collection. In addition, the fishers and other artisanal workers who participate in the guided tours are able to earn income that allows them to spend fewer days fishing (or otherwise working with fish products), thus contributing to the sustainability of natural resources as well.

The voluntary nature of CoopeTárcoles's Responsible Fishing Code is part of its strategy to increase the social sustainability of its conservation efforts. Rather than focusing on disciplining infractions, CoopeTárcoles seeks to give fishers a sense of responsibility for their resources by convincing them of the importance of changing or reinforcing their attitudes.

REPLICATION

Through a multi-stakeholder agreement with INCOPESCA, Coope Tárcoles contributed to regulation standards for the establishment of a Community Marine Area for Responsible Fishing, thus establishing a legal framework and set of norms which other coastal communities can use to petition their own community-managed marine areas.

In November 2007, CoopeSolidar and Conservation International brought the presidents of most Latin American artisanal fishing cooperatives from the International Fishers' Forum in nearby Puntarenas to visit the Tárcoles facility. The visitors were so impressed that they agreed to work together to organize an artisanal fishers' forum the following year. In 2008, the First National Artisanal Fishers' Forum was held in Tárcoles. During these three days of work, artisanal fishers from throughout the Pacific coast of Costa Rica met to discuss issues of common interest and opportunities for the artisanal fisheries sector. Specifically, they were able to identify the major challenges faced by their sector, and elaborate certain steps that the government, international organizations and artisanal fishers should follow in order to improve the sector and to promote local development and the conservation of marine biodiversity.

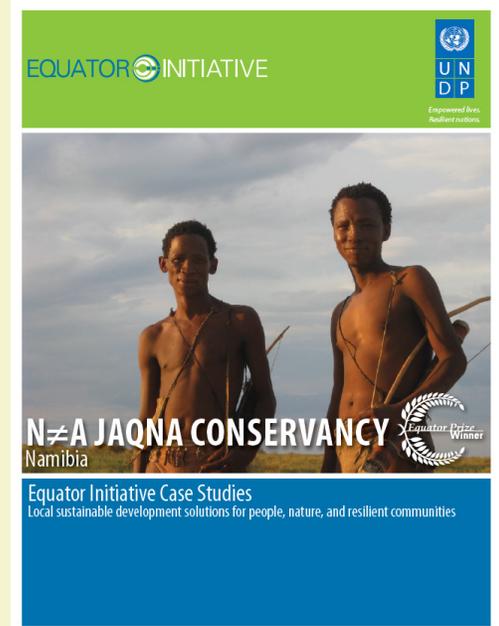
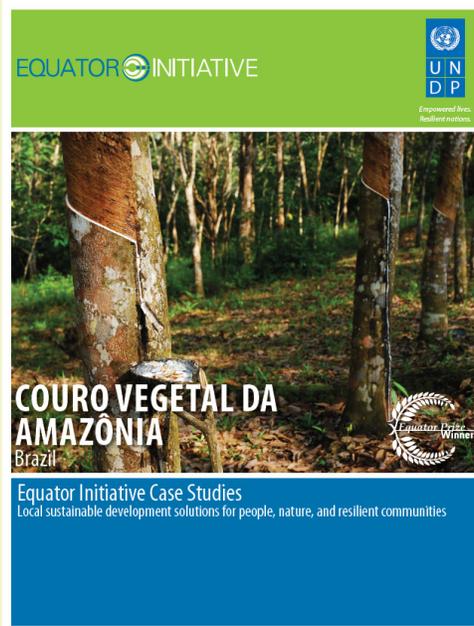
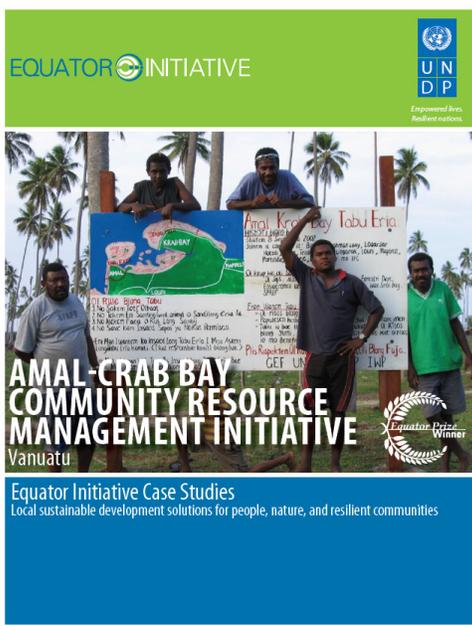
PARTNERS

- Fundación AVINA
- CoopeSolidar R.L.
- The Costa Rican Institute of Fishing and Aquaculture (Instituto Costarricense de Pesca y Acuicultura - INCOPESCA)
- Costa Rica's National System of Conservation Areas (Sistema Nacional de Areas de Conservacion - SINAC)
- The Ministry of Environment and Energy (Ministerio del Ambiente y Energia - MINAE)

FURTHER REFERENCE

- CoopeTárcoles website: <http://coopetarcoles.org/>
- Consortium Por la Mar website: <http://www.consorcioporlamar.com/>
- CoopeTárcoles Photo Story (Vimeo) <https://vimeo.com/24287333> (English) <https://vimeo.com/24287592> (Spanish)
- 'Un Día en Tárcoles' (Vimeo) <https://vimeo.com/27440993>
- 'Sustainable Fisheries in Costa Rica' (YouTube) http://www.youtube.com/watch?v=UWJ10LAmz_U

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