

# Tides of time

Sian Ka'an, a Unesco World Heritage marine site, is Mexico's largest natural reserve. How has the site dealt with tourism, hurricanes, development pressures and other challenges?

Elkhorn coral in the reefs of Sian Ka'an.



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**SPOTLIGHT** | Tackling the challenges

## Sian Ka'an: From Mayan temples to underground rivers and the Caribbean Barrier Reef

Although Sian Ka'an faces diverse challenges — from educating the local population to coastal development and even hurricanes — this Unesco World Heritage marine site seems to be dealing effectively with all of them.

Located in the Yucatán Peninsula, Sian Ka'an (Mayan for "where the sky is born") is Mexico's largest nature reserve. Its 1.3 million acres (about 520,000 hectares) span 120 kilometers (75 miles), nearly one-third of the country's Caribbean coast.

A biosphere reserve since 1981, Sian Ka'an contains tropical forests, mangroves, wetlands, dunes and marshes. It has rare hummocks (low tracts of forest surrounded by marshes), found only in Cuba, Florida's Everglades and the Yucatán. Sian Ka'an's marine section boasts blue waters, deserted beaches — nesting grounds for four endangered turtle species in the summer — and more than 100 kilometers of the Caribbean Barrier Reef.

Listed as World Heritage in 1987 for its unique geography and wetlands, Sian Ka'an is also home to two dozen Mayan archaeological sites more than 2,000 years old.

The site's original evaluation for World Heritage status — prepared by the International Union for Conservation of Nature, a Unesco partner — observed that Sian Ka'an's natural characteristics "make access difficult and provide a natural barrier to disturbance." Nevertheless, the Yucatán is only a short flight from major North Ameri-

can cities. Notes Unesco's Marc Patry, a program specialist for Latin America and the Caribbean: "Millions of people take their holidays in nearby Cancún. Over the past 20 years, the development pressures on the peninsula have been enormous. You're talking more and more hotels every year. The only place development stops is once you reach Sian Ka'an."

Adds Art Pedersen, a Unesco program specialist in sustainable tourism: "It's the last outpost of wilderness in this stretch of country that's been built up in an enormously rapid fashion. When you go into the park, it's like entering a cathedral. You feel: What a relief — I'm back in peace and quiet!"

Development along the coast is endangering the reef. Beneath the Yucatán are caves where underground rivers flow; rainwater that falls on the peninsula courses through this cave system into the sea. If that water is contaminated, the reef suffers. As the building surge continues on land, the water beneath it grows more contaminated — sewage-treatment facilities are rare around Sian Ka'an. Some species of mangrove will filter impure water, making them natural reef protectors. But the mangroves alone cannot resolve the problem. Unesco has begun a project to map the underground cave system to improve Sian Ka'an's water quality. This demands high-tech solutions, like airborne remote-sensing devices. Sensitiz-

ing the local population to pollution is another key part of the mapping endeavor.

The World Heritage Centre works with the Sian Ka'an park management to identify the origin of underground water flowing into the site. This, says Patry, gives Unesco the opportunity to train park authorities in best practice. Unesco also works with a local nongovernmental organization, Amigos de Sian Ka'an (Friends of Sian Ka'an); through the NGO, it can reach government decision-makers and thus en-

courage wastewater treatment policies that will reduce pollution of the underground river system and the reef area.

Sian Ka'an was inscribed on the World Heritage list while still containing privately held land, and a 20-kilometer strip along the coast is in private hands to this day; this represents only 1 percent of the park, but it is an issue nonetheless. When the Mexican government nominated Sian Ka'an for World Heritage status, it committed to keeping this small but significant stretch free from major developments. Unesco has supported the creation of a land trust, through which development rights can be exchanged. The coastal strip is assessed based on ecological value — some sections are turtle-breeding grounds, others have rich mangrove ecosystems, while others are rated less valuable ecologically. Sections of higher ecological importance are restricted,

but owners of land with smaller ecological worth can sell their development rights. This helps protect the portions that are more important for conservation, and encourages development on those that are less so. Notes Patry: "It's a complicated project, but we're proud to be part of it, and we're starting to see results."

Work with the community has gone even further. Unesco has helped develop a successful small business, training locals as tour guides. "Communities run their own guide companies and bring people into the park," Pedersen points out. "Five percent of the profits go back to the park, which is nice, because there's recognition by the business that the park and its conservation are important to the longevity of their economic activities." Much of the work on the develop-

ment of this microenterprise was funded by the United Nations Foundation, which continues to assist World Heritage efforts at Sian Ka'an and in the Yucatán Peninsula.

Finally, sitting flush in the Caribbean's Hurricane Alley, Sian Ka'an faces another threat — every year, between June and October, it must ride out the hurricane season. In August, it took a hit; some remote field facilities — places where rangers spend the night — were destroyed. The wild Sian Ka'an site features few amenities, so when hurricanes blow, normally nothing gets destroyed that needs rebuilding. But in this case, the park asked the World Heritage Centre for help, and the organization accommodated with a small grant; this was the first time Sian Ka'an had ever approached Unesco for hurricane financing. ■

### Unesco's Marine Program

Unesco's World Heritage List, begun in 1972, now comprises 878 natural and cultural sites of outstanding universal value. The World Heritage Committee established its Marine Program in 2005 and has so far inscribed 31 areas as World Heritage marine sites, ensuring their preservation for future generations. Notes Unesco Program Specialist Marc Patry: "Fortunately, we've seen renewed efforts around the world to have the best deep-sea and coastal regions inscribed on the World Heritage list. They need our attention and protection."

For more information, visit <http://whc.unesco.org>

**VIEWPOINT** | Francesco Bandarin, World Heritage Centre director

## 'We need to engage with all actors of civil society'

Francesco Bandarin, director of Unesco's World Heritage Centre, looks back over the first year of the three-year "Tides of Time" program, a partnership with Jaeger-LeCoultre and the International Herald Tribune that focuses on raising awareness of and support for World Heritage marine sites.

What role does the private sector play in the World Heritage Program, and in conservation in general?

The World Heritage Convention has existed for 37 years and has enabled, so far, the protection of 878 sites of outstanding universal value. Thirty-one of those are marine sites.

Unesco's mission is important, and we can't do it alone. Conservation of our built heritage or natural surroundings is a public mandate, which unfortunately does not benefit from enough resources. We need to engage with all actors of civil society and invite them to be a part of

this mission. Partnership with the private sector is one of the forms we are pursuing, and it's working.

How would you rate the first year of the "Tides of Time" partnership?

I think we really touched a nerve. In one year, we've been able to generate more visibility for marine sites, which will certainly help to draw in more partners and more funding. Through the media campaign of the partnership, we've been able to reach out to people around the world and raise a wide variety of issues. It's been a great year, and we look forward to the second one.

What would you like to see the program accomplish in its second year?

We will shortly be starting a new phase of this partnership. In addition to the print and online communication strategy, we'll be reinforcing our team to provide countries with the assistance they need and help them to identify more poten-

tial marine sites for inscription on the World Heritage List, thus increasing protection available to them. We will also be able to strengthen our activities at policy and local levels, where support is most needed. It's vital for the people working at the site level — the communities, the managers, the field researchers — to be provided with adequate resources to ensure a sustainable future for these precious places.

How has the "Tides of Time" program altered attitudes inside Unesco?

The success of the program was seen by everybody, both inside Unesco and outside, by colleagues in the member states. People have understood that what we're doing — dealing with the private sector — is good because we are showing visible immediate results. It is making us stronger in our operations and giving us more exposure. Moreover, it is a contribution toward changing the attitude about the role of the private sector in conservation. Jaeger-LeCoultre and others are part of the process, and are showing by doing. Action is the key. ■



Francesco Bandarin.

### Watch auction raises funds for World Heritage marine site in the Philippines

From Feb. 16 to Feb. 20, visitors to the Jaeger-LeCoultre Web site ([www.jaeger-lecoultre.com](http://www.jaeger-lecoultre.com)) were able to participate in an online auction of the prototype of the Swiss manufacture's new watch, the Master Compressor Extreme W-Alarm Tides of Time model. The event raised £13,540 (about \$19,700).

The model has been specially created for the "Tides of Time" partnership among Jaeger-LeCoultre, Unesco's World Heritage Centre and the International Herald Tribune. Three of the cities on the 24-hour world time dial were replaced by World Heritage sites: Scandola, Galápagos and Tubbataha. The

limited series of 350, which will be delivered to retailers this fall, is produced in Grade Five titanium, but the prototype, in steel and titanium, is unique. It was purchased by a French collector.

Proceeds from the auction will go to the Tubbataha Reef Marine Park, a World Heritage site in the Philippines. Says Angelique Songco, the park's manager: "The funds will allow us to upgrade our low-definition, short-range radar system, which was donated 12 years ago." Radar allows park rangers to detect illegal entrants and poachers without using manned patrols — saving money on fuel, but also reducing exposure of

rangers in the water, especially in rough seas. "We are very happy with the results," Songco says. The new equipment, she adds, should be ready for installation by October.

Both Tubbataha Reef Marine Park and Jaeger-LeCoultre are pleased with the outcome. Jaeger-LeCoultre's Chief Executive Officer Jérôme Lambert calls it a concrete example of global support. "The fact that the people who participated in the auction knew precisely where their money was going was important — it gave sense and depth to the affair," he says. "It became a common project, something people can believe in and feel engaged in."

**Tides of time:** Sian Ka'an did not involve the reporting or editorial departments of the IHT. It is the ninth of a series on Unesco's World Heritage marine sites. The next installment, on Everglades National Park, will be published on May 14. The series is a partnership among Jaeger-LeCoultre, Unesco's World Heritage Centre and the International Herald Tribune. Text by JOSHUA JAMPOL. For information on the IHT Advertising Supplements program: [www.ihinfo.com/pages/advertising](http://www.ihinfo.com/pages/advertising)

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