

# DONSOL

## WHALE SHARK TOURISM AND COASTAL RESOURCE MANAGEMENT

A Case Study on  
the Philippines



*for a living planet*®

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# DONSOL

## WHALE SHARK TOURISM

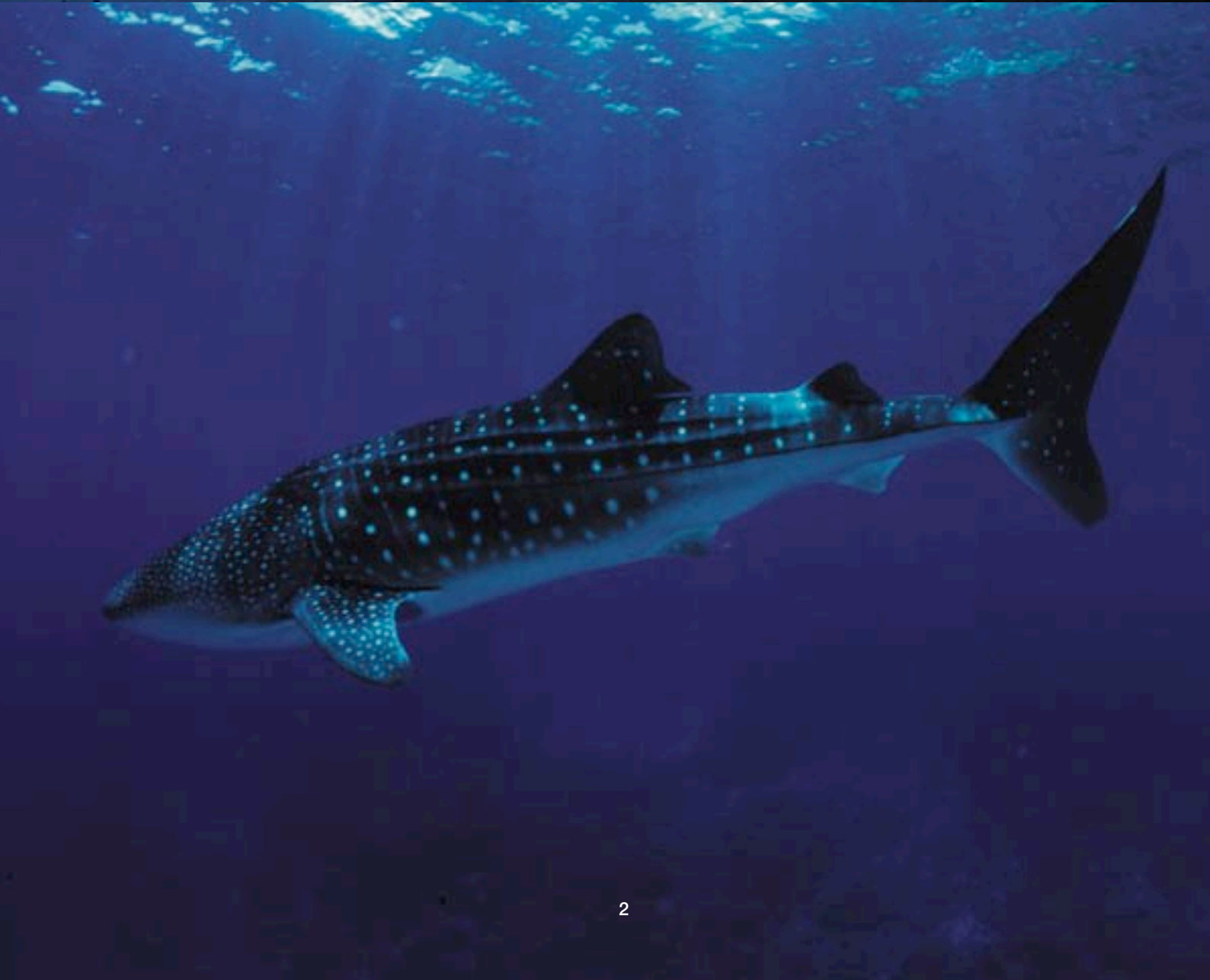
### AND COASTAL RESOURCE MANAGEMENT

#### A Case Study on the Philippines

*This case study on Donsol is the fifth in a series of analyses being undertaken by WWF-Philippines. This series aims to communicate key issues and lessons from field projects to fellow practitioners, program and policy staff, personnel of managed and/or protected areas, partners, and donors. The first in the series was on the Turtle Islands in Tawi-Tawi, which tackled the issues of entry points for conservation and how resource management ultimately depended on governance. The second case study discussed the establishment and operating systems of the multi-stakeholder environmental law enforcement program of El Nido, Palawan. The third study described how Tubbataha, a pair of offshore reefs 130 kilometers from the nearest island, became a protected area. The fourth case related the establishment of conservation fees paid by scuba-divers in Mabini and Tingloy, Batangas. This fifth case study tells the story of Donsol, Sorsogon and how the constant presence of whale sharks has transformed a small town into one of the world's best wildlife interaction tourist sites, even as it continues to struggle with problems in fisheries management.*

*The goal of these case studies is to help create a stronger understanding of the issues, and to promote further learning and sharing of successes and challenges. We welcome feedback on this case study and any others in this series. Please e-mail Joel Palma, Vice President for Conservation Programmes, WWF-Philippines ([jpalma@wwf.org.ph](mailto:jpalma@wwf.org.ph)).*





# GENTLE GIANTS UNDER THREAT

*The coastal waters of Donsol abound in plankton, the primary food of whale sharks.*

Imagine a fish the size of a bus. Now, imagine this fish coming straight towards you, emerging from turbid waters as you swim in the middle of the sea. The fish is so enormous, you can see its wide-open mouth, but not yet its fin. It swims slowly beneath you as you float, and the entire periphery of your vision is filled with the white spots marking its back. You catch sight of the dorsal fin, but not yet its tail. You look behind you, and you can barely see its head. Then you see the beginnings of its vertical tail, taller than a man, coming towards you. You panic a little, afraid the tail will slice you in half or knock the wind out of you. But then it passes quietly, body undulating as it gracefully swims away. You look at its retreating shadow as it disappears into the cloudy waters once again. You gasp for air and remember to breathe, having forgotten to do so from sheer awe. The experience should have been scary. Instead, it leaves you breathless with wonder.

This is how most tourists encounter a whale shark for the first time in Donsol, Sorsogon. And although the sight of the creatures amazes visitors,

what scientists find even more remarkable is the fact that this experience is repeated over and over again, and involves a supposedly solitary creature, in a small bay that is almost enclosed.

Marine biologists theorize that the Ticao Pass, into which the bay of Donsol opens in the west, hosts what may be the highest density of whale sharks in the world. While divers consider themselves lucky to see a single whale shark in other parts of the world, swimming with 15 whale sharks in a span of two hours is nothing unusual during whale shark season in Donsol.

For generations, whale sharks in still unknown numbers have been gathering in the waters of this coastal town to feed on the unusually high density of plankton in the bay. To the fishers of Donsol, a whale shark swimming alongside their boats is a common sight, especially during the months of March and April. Having grown up accustomed to the company of these creatures that visit them every year, these fishermen see the whale shark, or *butanding* in the local dialect, as no more than a gentle giant.



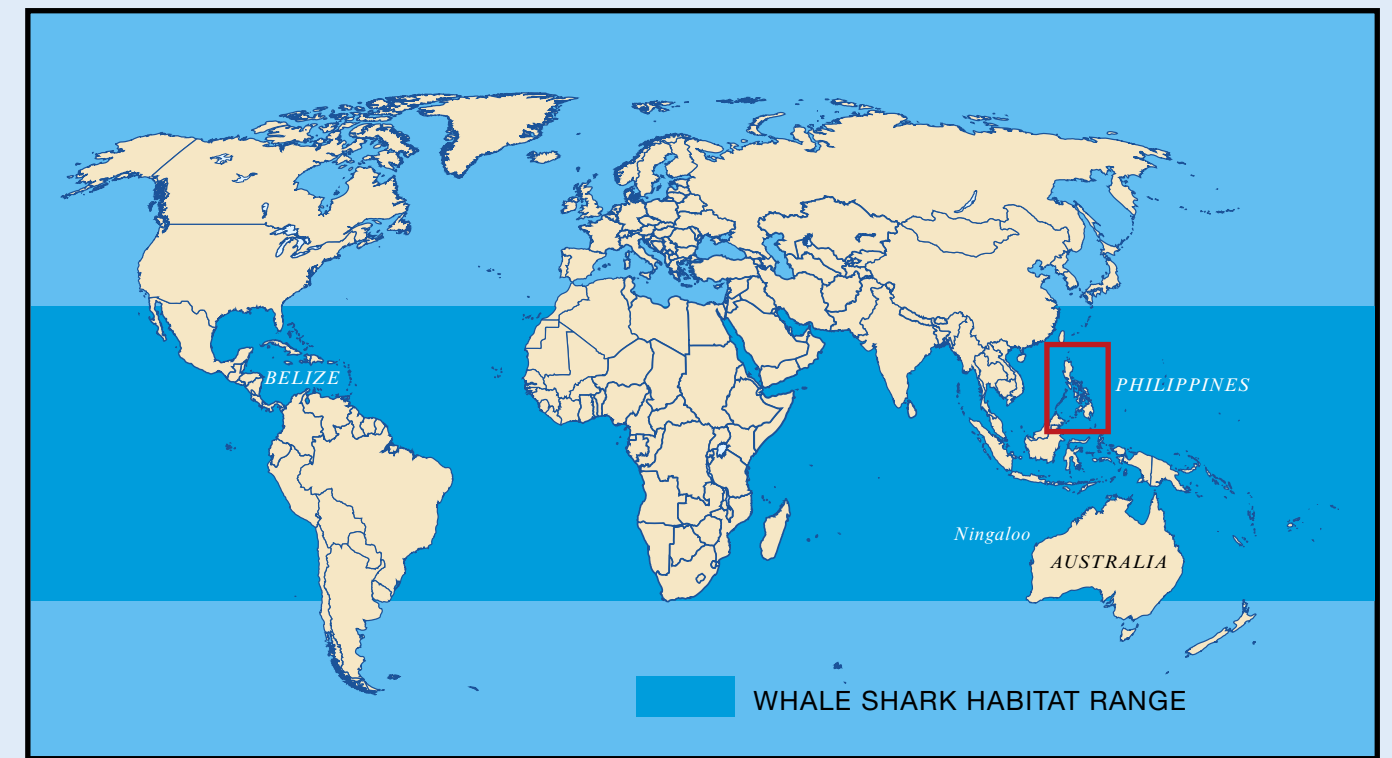


## Gypsies of the sea

The enormity of the whale shark—it can grow up to 20 meters long and weigh as much as 34 tons—makes it the biggest fish and living shark in the world. With its broad, flat head, white spots, and ridges along its back, the animal is unlikely to be confused with other large marine animals. The wide gaping mouth at the front of the head distinguishes it from other sharks, whose mouths are found beneath and behind their snouts.

Whale sharks are nomadic animals, whose habitat is defined by the ecological borders of tropical and warm temperate waters, forming a band around the equator extending to roughly 30° north and 35° south. They roam the Pacific, Atlantic, and Indian oceans, where seasonal sea surface and air temperatures and wind and current patterns are believed to influence their movement. Their migratory patterns remain unrecorded, but they have been observed traveling great distances across great bodies of water, covering many different countries.

Whale sharks can swim thousands of kilometers, following currents that lead them to feeding grounds. They temporarily reside in coastal or oceanic areas where plankton blooms. These free-floating animals and plants, almost invisible to the naked eye, make up most of the normal diet of the whale shark. After feasting for a few months, the giants head to another destination. No different from other living organisms, whale sharks rely largely on



*Location maps of the Philippines and Donsol (opposite page), and the habitat range of whale sharks (above).*

food for their growth, migration, and population. They swim constantly to survive.

The feeding habit of the whale shark sets it apart from its meat-eating relatives. The whale shark nourishes itself through filter feeding. Stretching up to four feet wide, its huge, gaping mouth makes it possible for whale shark to filter the plankton from the water. The plankton is strained by the animal's gill rakers, as the water is passed out of its body through the gills. Some individuals have been observed coughing, probably to clear or flush the gill rakers of accumulated food particles. If the whale shark accidentally scooped up an undesirable object, the animal would simply spit it out through a process called gastric eversion, turning its stomach inside out and ejecting the unsavory item.

Since a species' capacity for population increase is a function of an animal's age at sexual maturity and the intervals needed between pregnancies, then whale sharks are considered to have a low reproductive potential. These marine animals appear

to be slow-growing, their life span estimated at 100 years, and scientists agree that the animals are not ready to mate and reproduce until they are over 30 years of age. They may also have to wait for a few years before again giving birth to live offspring.

There are few opportunities for scientific research and monitoring to obtain biological information about the species. The very nature of the whale shark, huge animals and strong swimmers that cover vast expanses of sea, makes their study intrinsically difficult and fraught with technical problems. For example, virtually nothing is known about their growth rate. Measurement data and samples for age and growth rate determination would require captive animals. Even if satellite tagging is now technically feasible, tracking specific creatures over several decades would be very expensive. Reliable estimates of whale shark populations in some parts of the world are also difficult to obtain, as there has been no standardized collection of data.





*The commercial scale of whale shark hunting in the Bohol Sea suffered a dramatic decline in catch in the 1990s. Whale sharks were caught with a gaff (left), landed and chopped for trade (above).*

## Easy prey

In some parts of the world, the slaughter of whale sharks is common. Hundreds of them, lifeless and hooked through the mouth, are hauled onto bloodstained beaches to be cut open and chopped into hundreds of pieces for trade. For shark hunters, a whale shark is just another catch.

Historically, whale sharks swam in great numbers around most islands of the Philippines. For generations, they provided livelihood opportunities, particularly for fisherfolk in a small number of whaling villages in the Bohol Sea. Using a harpoon or gaff for whale shark fishery, the locals caught very small numbers of the animal for subsistence, and a small amount for local trade. The impact of small-scale fishery on the local population of the animal was unknown. Little information was available to determine the impact until the mid-1990s. What initially began as subsistence fishery became a means to supply the growing demand for whale shark meat, skin, and fins for the international market on a massive scale.

In the early 1980s, whale shark meat was actually at the bottom of the consumer list for exotic food, and was sold alongside shark fins. It was considered a low-grade product that required careful post-harvest handling and storage. If left unattended, the meat, which contains high concentrations of ammonia, produces an unpleasant smell that makes the product unappealing to consumers.

Marketing promotions and scarcity of supply molded the preferences of shark meat connoisseurs. By the end of the 1980s, tastes were changing; by 1997, consumers in Taiwan were paying as much as US\$13.93 per kilogram of the exotic meat. An average-sized whale shark with 20 tons of saleable meat could therefore be worth a quarter of a million dollars at the end of the market trail. From the line-up

of whale shark products up for international trade, meat has probably become the most important, surpassing liver oil, fins, and cartilage.

The huge demand for whale shark products opened the floodgates for the development of a commercial targeted fishery industry for the species. From 1990 to 1997, between 450 and 799 sharks were taken from just four of the primary fishing sites in the Bohol Sea for the Taiwanese market. Following the fishery peak in 1993, fish catch declined at an average of 27% per year in subsequent years. The catch per boat in two of the traditional whale shark fishing villages, Pamilacan Island, Baclayon in Bohol and Guiwanon, Talisayan in Misamis Oriental, also declined steeply, despite increased fishing effort and rising prices. Five other provinces in the Visayas and Mindanao joined the fishery race. An average catch of 13 sharks per site in at least 11 new whaling villages were recorded in 1997.

The bleak fate of the whale sharks in the Philippines in the 1990s also awaited the animal in other Asian countries that hosted the species' seasonal migration. In India, for example, whale sharks were first targeted by small-scale harpoon fisheries to extract liver oil. The product was locally used to waterproof traditional wooden fishing boats. The demand for whale shark meat drove the fisheries to an all-time high in the 1990s, resulting in a huge increase in fishing effort, with 279 whale sharks taken during the whale shark season in 1999. The following year, hunters felt a sharp decline, with only 160 whale sharks caught. A similar observation was reported in Taiwan, the major market of whale shark products. One scientific study reported a 60-70% decline in whale shark catch over a period of seven years, from 1990 to 1996.

It has not been easy for scientists to establish the declining fish catch in whale shark populations. The information available was sketchy at best, as most of these fisheries were too new, or the populations





poorly monitored. The impact of whale shark hunting on the population in one area, and how that in turn affected populations in other areas, has not yet been established. However, shark researchers have observed a decline in the seasonal sightings of whale sharks in fishing grounds with no history of whale shark hunting, such as Thailand and South Africa. The long-distance migratory nature of whale sharks suggests that local fishery could have far-reaching effects, possibly across regions or even continents.

Whale sharks are also thought to return to the same feeding grounds every year, such that particular whale sharks seen year after year have earned them nicknames among locals in Donsol. Putol, literally meaning “cut off,” has probably been the most popular whale shark among the *Butanding* Interaction Officers (BIO) since tourism started in the town. According to the story, Putol, reportedly measuring 18 meters, was accidentally trapped in a fish corral in Donsol some time in the 1960s. The owner of the corral was injured while trying to release the whale shark, and he angrily hacked the upper part of the caudal fin with a *bolo*, a jungle knife. The shark still bears the scar, earning him the nickname. Putol was last reported seen in 2000.

The Whale Shark Photo-Identification and Satellite Tagging Project of WWF-Philippines and WWF-Denmark, which only started in the summer of

2007, was able to establish that whale sharks indeed return to the municipal waters of Donsol. As of this writing, 119 individuals have been identified, with nine matches found between those from 2005 and 2006. The total number of visiting sharks is still unknown.

## Sleepy town no more

Donsol was once a typical fishing village, until the spectacular annual aggregation of whale sharks put it on the map for every wildlife enthusiast. Noel Castro, a fisherman and former barangay captain of a coastal village in Donsol, recalls the humble beginnings of tourism in his town, which changed the direction of whale shark conservation in the country. He describes his hometown as quiet and peaceful, before it became a wildlife adventure destination in 1998.

Sitting on the northwestern part of Sorsogon Province, Donsol marks the provincial boundary on the northwest, adjoining the province of Albay. The town has 51 barangays, 11 of which are situated in the coastal areas of the municipality. With a population of 39,995, population growth is relatively high, at an annual rate of 3.23%, higher than the national average of 2.36%. Fishing is the primary source of food and income. Castro reports that, prior to the tourism boom, there had been few development projects in his community; until recently, the common sources of drinking water were water pumps and open wells.

Castro recalls that a group of divers, led by David Duran of Sorsogon City, got wind of the frequent sightings of whale sharks in Donsol, and wanted to experience swimming with the creatures. One day in 1998, the intended frolic with whale sharks turned into a rescue operation—a whale shark was trapped in a fish corral, and was released only after a couple of failed attempts.

The incident was reported to WWF, which was conducting whale shark fishery studies in the Visayas at the time. A group of American scientists received the same information and visited the town on the first quarter of 1998 for a preliminary investigation of the migration of the whale shark population. Both groups convinced the local government that there is great potential for tourism to develop in their town if the whale sharks are protected. The local government of Donsol heeded the advice and declared its municipal waters a whale shark sanctuary on March 9, 1998. By virtue of Municipal Ordinance No. 12, Donsol became the first and only municipal whale shark sanctuary in the Philippines. The local government of Donsol later received commendation for what was deemed a good beginning for whale shark conservation.

*Donsol was a laid back fishing-and-agricultural town before the whale sharks attracted tourists from all over the world (opposite page). Although the experience of swimming with whale sharks is available in Australia and Belize, the number of sightings over a short period of time is the drawing factor of Donsol (below).*



## Protecting a species

The news of the whale sharks of Donsol attracted not only concerned groups and tourists, but also Manila-based shark hunters ready for the kill. Just after Donsol declared the species’ protected status in their town, one whale shark was caught by hunters who based themselves in the neighboring town. The animal was slaughtered and chopped up for international trade. This coincided with the time when whale shark hunters were experiencing a decline in catch in the Bohol Sea. The slaughters were given more publicity by the national media, and an outcry for stronger whale shark conservation followed.

Because of the killing incident, news about the whale sharks of Donsol spread like wildfire. Cameras and voice recorders started rolling, and the affair was soon covered by national media. Castro admits he was caught off-guard by the sudden turn of events,

and especially by the media attention. The Sorsogon Provincial Tourism Council, led by Cecilia Duran, played a key role in the information campaign and coordination with various agencies that eventually led to efforts to protect and conserve the species.

The butchery generated enough outrage to warrant local and national legislation in a scramble to protect the species. On the part of the national government, the Office of the President ordered a more widespread protection of the species. On March 25, 1998, shortly after the last reported whale shark slaughter, the Department of Agriculture, through the Bureau of Fisheries and Aquatic Resources (BFAR), signed Fisheries Administrative Order 193, banning the killing and sale of whale sharks and manta rays to prevent their rapid depletion. It was a policy developed overnight, but which was nevertheless celebrated by conservationists and other concerned groups. Dr. Louella Dolar, a marine science professor from Silliman University in Dumaguete City, views the total ban as a wise and precautionary approach to managing the whale shark population until a more thorough management plan can be designed and implemented, one which ensures the fair, equitable, and sustainable use of whale sharks. In addition to FAO 193, the New Fisheries Code (Republic Act 8550) was passed, which protects all fishery resources under its precautionary clause.

The administrative order and the fisheries code were bitter pills to swallow for whale shark fishers, especially those from the Bohol Sea, who were the most affected by the ban. For generations, the seasonal catch of large marine animals supported their subsistence. The nationwide ban now made their way of life illegal, and they feared it would drive them to starvation. A separate WWF project on whale watching tourism in one of these Bohol islands failed to take off, in no small part due to the locals' outrage at the perceived role of the organization in the

passing of the whale shark hunting ban. "We were not involved in the banning at all," says former WWF staff member Joyce Javillonar, "because we knew it would be disastrous to our relationship with project partners in the Bohol Sea, who depended on hunting for a living."

Despite the order from the national government banning the whale shark fishery, another individual was caught off Donsol and slaughtered five days after FAO 193 was issued. Manila-based shark traders raised the buying price by 150% in an effort to entice fishermen to kill more sharks before the nationwide ban took effect on April 10. There has been no open landing since then, but there have been unverified reports that new fishery sites had been opened, and that slaughter took place in the high seas.

Ten months later, on January 12, 1999, some 1,992 kilograms of whale shark meat almost made it to the international market. Forty-six cartons of the meat, declared as "fresh meat" by its exporter, was about to be loaded on a flight bound for Hong Kong when they were discovered and confiscated by the authorities. Two more confiscations of whale shark meat for shipment to Asian markets were documented by BFAR.

# Global efforts and successes

Today, the species is still under threat. International trade is driving the population to dwindling levels. Legal protection for the species in many countries, including India and the Philippines, has been hampered by the continued demand for whale shark, particularly in the Asian market. More than just local efforts, whale shark conservation needs international cooperation to achieve a greater geographic scope of conservation.



International cooperation was achieved during the 12th Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 2002, in Santiago, Chile. To address unregulated and unmonitored international trade, the Philippines introduced its joint proposal with India to include the whale shark in Appendix II of CITES during the conference. Such inclusion helps ensure that the exploitation of this globally threatened species is regulated and monitored, and that international trade is not detrimental to the survival of the species and the valuable ecotourism operations it supports. Many applauded the listing of whale sharks and other endangered species of plants and animals, but not all were happy with the outcome. Those involved in the trade were expectedly against it, while others felt that an Appendix II listing was not enough.

During the International Whale Shark Conference in Perth, Australia in May 2005, scientific experts and representatives from non-government organizations, inter-governmental organizations, and the tourism industry from 23 countries agreed that ecotourism, when appropriate, is the obvious answer to reverse the

*The migratory patterns and growth rates of whale sharks have not been established, due to the long distances they cover and estimated life span of one century.*

effects of extractive uses of this magnificent creature. Whale shark ecotourism has flourished in many parts of the world, including Mexico, Belize, and the Seychelles, as a sustainable and equitable community-based venture. It is a multi-million dollar industry, and has huge potential for further sustainable development. In Ningaloo, Australia alone, the estimated whale shark tourism revenues for a two-month season in 2004 amounted to Aus\$12 million (US\$7.8 million).

In Belize, the estimated value of a six-week whale shark tourism window was US\$3.7 million nationally, and US\$1.35 million for the Gladden Spit Marine Reserve in 2002. Given these figures, the value of one live whale shark was estimated at US\$34,906 annually. Assuming conservatively that the lifespan of a whale shark is 60 years, an individual could be worth over US\$2 million in tourism value in its lifetime. So far, 106 individuals have been photo-identified, and many of them roam the Belize Barrier Reef, returning yearly to feed.



# MORE VALUABLE ALIVE



Stories written about the whale sharks of Donsol make fascinating travel pieces, nature tales, or even memoirs. To quote former US Ambassador to the Philippines Francis Riccardone after his visit, “This is one of the few occasions you actually seek the company of sharks.” Since 1998, thousands of visitors from all over the world have gone to Donsol to swim with the sharks. On the other side of the tourists’ experience lies the story of how whale shark tourism has transformed the lives of the locals. This fledgling tourism industry has created jobs and provided a seasonal but steadily increasing source of income for the local government of Donsol.

## A fledgling tourism industry

Donsol’s thriving tourism industry did not become what it is today without growing pains since it started in 1998. The media hype did not only result in the legal instruments to protect whale sharks; it also brought tourists to Donsol. Since Donsol was not at all prepared for their arrival, the Donsol Municipal Tourism Council, a small local body composed mainly of local barangay leaders and members of the parish, was created, with assistance from the Sorsogon Provincial Tourism Council. The council envisioned itself as the frontline organization to receive and manage developing tourism activities in the near future.

WWF provided technical assistance to the council as tourism in Donsol kicked off. The council played a key role in setting up the tourism management system, having overall mandate of the tourism

programs in Donsol as authorized by the local government. The tourism council performed *ad hoc* functions such as accreditation, collection of fees, and imposition of fines and penalties. The whale shark interaction guidelines from Ningaloo in Australia was adopted as temporary precautionary measures to minimize disturbance of the animals. However, without the proper training and management system, the implementation of the guidelines in Donsol proved insufficient and ineffective.

The influx of tourists in 1998 overwhelmed the tourism council, especially since its members were trained in neither the hospitality industry nor conservation management. “The council lacked the experience and was unskilled to respond to tourism management concerns,” says then Barangay Captain Castro, who was also elected vice president of the council. Other than seeing the opportunity to generate income-generating activities from tourism, the council had little awareness of potential opportunities, as well as the risks and changes involved.





*A typical boat crew includes a spotter, butanding interaction officer and boat operators, with a maximum of seven tourists allowed per boat (above). Tourists eagerly waiting for the cue to jump into the water to swim with whale sharks (below).*



The barangay captain’s fears proved true. The months of April and May in 1998 saw a chaotic whale shark-watching season. As an observer noted, “Too many boats go after the whale sharks. I saw at least 20 boats, fully loaded with tourists, crowding an animal.” Boat collisions and a snorkeler run over by a boat were also reported. Boat operators, especially those not registered with the council, would charge tourists any amount they wanted. “There were no standards to speak of in delivering the tour services. Donsol lacked facilities, management systems, and skilled workers to accommodate tourists,” recalls Serafin Lacdang, chief of the Fisheries Division of the Office of the Provincial Agriculturist in Sorsogon. Lacdang, one of the first whale shark interaction guides, actively represented the provincial government during the start-up activities in the establishment of tourism in Donsol.

The haphazard manner by which tourism was handled during that first “unofficial” year of tourism made a bad impression on tourists and conservationists. It created an image that Donsol was not the safest place, both for the tourists and for the animals, for whale shark interaction.

To address these issues, a project to set up a management system was proposed, with the municipal government, the Donsol Municipal Tourism Council, and WWF-Philippines as proponents. In June 1998, the six-month grant from the United Nations Development Programme (UNDP) to implement the *Butanding* Ecotourism Development Project was approved. Management planning, establishment of the visitor management system and whale shark interaction protocols, capacity-building for local guides for tour services, and the production of environmental education materials for the nationwide campaign on whale shark protection were carried out.

## Systems in progress

By the time the whale shark season officially opened in February 1999, the management system appeared to be in order. Community members who actively participated in the project were eager to put their plans into action and apply their newly acquired skills. In particular, the *Butanding* Interaction Officers,



*Former barangay captain Noel Castro*



*Former Vice-Mayor Donnie Cleofe*





*More Filipino tourists flock to Donsol, but foreigners tend to stay longer (above). Watching the video orientation on whale shark interaction is a requirement prior to boarding the boats (below).*



who have become popularly known as BIO through the years, were confident of being able to deliver tour services after having gone through rigorous training on water safety and proper whale shark interaction. A BIO is a virtual tourist guide and an expert swimmer who is familiar enough with whale sharks to guide snorkelers when swimming with the animals.

“It was an ideal management structure that was anchored on the Donsol Municipal Tourism Council,” says former Vice-Mayor Donnie Cleofe, who was also one of the lead personalities in the protection of whale sharks in 1998. “The tourism council carried with it the true essence of community-based tourism. The grassroots, people from the fishing sector, were involved as service providers.” When Cleofe was vice-mayor in 1998, he recalls, the local government wanted to give the tourism council, as a private group, a chance to lead the management of the emerging whale shark tourism in Donsol. “If an enterprise like tourism can be treated like a real business in a corporate manner, in which the rules and regulations are followed to the letter, then tourism will really flourish.”

However, setting up a working system and achieving management stability proved too great a challenge for the Donsol Municipal Tourism Council. The financial opportunities presented by the unusual situation of Donsol—the onslaught of tourists without facilities and systems to cater to their demands—brought the various interests of the stakeholders to the fore. Entrepreneurs met the demand by providing accommodations and transportation based in Legazpi City or Sorsogon, the capital city of the province. The locals, however, were astute enough to realize that the bulk of the financial benefits from the whale shark tourism were going outside their town.

Even among institutions, emotional sensitivities ran high as the town of Donsol tried to take the helm of the whale shark tourism. The provincial tourism

council, having been one of the organizers of its municipal counterpart, felt slighted by the latter's attempt to stand on its own. Legal personalities, competence, and management roles became contentious issues.

The fate of the Donsol Municipal Tourism Council took a turn for the worse barely three months after the whale shark season opened. On April 19, 1999, theft occurred at the visitor center, which cost the tourism council a declared amount of PhP150,000 (US\$3,300). Newspapers reported that the amount, representing one week's collection from registration fees, boat rental, and tour guides, was kept inside a drawer of the *Butanding* Interaction Center. The loose manner of safekeeping gave rise to many speculations. The National Bureau of Investigation based in Legazpi City that investigated the incident even suspected an inside job, as there was no evident forcible entry into the center's premises.

The unresolved conflicts, combined with the incidence of theft, damaged the credibility and effectiveness of the Donsol Municipal Tourism Council in managing the town's burgeoning tourism. The local government eventually withdrew its support from the council and recalled an earlier policy that provided



*Serafin Lacdang, chief of the Fisheries Division of the Office of the Provincial Agriculturist in Sorsogon*



for the management role of the council over tourism. The council ceased to operate by the year 2000, and since then, the municipal government has taken charge of whale shark interaction services.

WWF-Philippines did not remain unscathed during this problematic period. “I saw the team from WWF-Philippines as an elitist group,” says Serafin Lacdang. “They seemed to know everything about what was good for the protection of whale sharks.” It did not help that later on, one of the staff members had problems in his dealings with the other stakeholders.

WWF was singing a different tune at a time when there was a scramble to set up tourism services and facilities and the economic opportunities they presented. Although WWF’s initial involvement was heavy on tourism development, it had always been clear to the organization that its agenda was the conservation of the whale shark and its habitat. At some point, WWF’s relationship with some of the local stakeholders became strained. In the long run, however, the stakeholders realized that the protection of the species was necessary because the tourism boom they experienced hinged on the whale sharks. Tourism development and whale shark conservation should not be in conflict at all, and WWF was able to stay and continue working in the area.

## How it works

The prevailing management system of Donsol’s whale shark tourism is relatively straightforward. Municipal Ordinance number 12, series of 1999, mandated the local government of Donsol to operate, control, and manage the community-based ecotourism project and activities. To this day, the local government administers and manages the operations of the tourism activities, through its Municipal Tourism Office. The Municipal Tourism



*The butanding interaction officers (BIO) are the front liners of whale shark tourism in Donsol, acting as both tour guides and life guards.*

Officer heads the office and reports directly to the Mayor. The Municipal Council, mainly through the Committee on Tourism, provides the legislative support for tourism activities.

The tourism office handles the operations of the *Butanding* Interaction Center. When a group of tourists signs up for the interaction, the fees to be paid are:

- PhP1,800 (US\$40) for the Boat Operators’ Association, which covers boat rental, fuel, and the services of the crew. A maximum of seven persons is allowed per boat.
- PhP200 (US\$4) for spotters of whale sharks
- PhP600 (US\$13) for the BIO association, the *Butanding* Interaction Officers who serve as tour guides and lifeguards rolled into one. At least one BIO is required per boat.
- Registration fee per person, at PhP100 (US\$2) for Filipino nationals and PhP300 (US\$7) for foreigners

After collecting the fees, the tourism office apportions the share of boat operators and BIO

associations, who then partition their share between the association and the members who rendered the services. The municipal government’s share of the income is remitted to the Municipal Treasurer’s Office, where it is included in the municipality’s general fund.

This management structure has survived three political cycles since the whale shark season in 1998. Donnie Cleofe sees the advantage of a development program like tourism being led by a local government. “For one, the revenue generated from tourism is accounted for. It goes directly to the Municipal Treasury and is subject to audit by the government. The records can be accessed by the public.” He adds that, by virtue of the Local Government Code of 1998, the local government has the mandate to formulate and implement development programs and other income generation activities.

However, there are disadvantages to a government-led tourism program. “The bureaucratic process of the government slows down the timely release of funds for tourism activities,” observes

Salvador Adrao Jr., municipal tourism officer since 2004. “And when they are released, the amount is way below the actual amount requested.” Inherent risks are also involved. “When leadership and seat of governance are passed to the wrong people whose game of public service is ‘politics,’ that will signal the onset of many problems to come,” says Cleofe. One indicator of bad governance, Cleofe adds, is political patronage, by which unqualified people are assigned to government posts.

Constant change in personnel is a challenge faced by Donsol’s tourism program. Since the mayor appoints the municipal tourism officer, the changes in appointees are dependent on the local chief executive’s terms of office. From 2000 to 2004, the municipal tourism officer held two positions concurrently. From 2004 to 2007, the appointees were changed three times. “Movement of personnel,

*Tourists register and pay fees at the Municipal Tourism Office of Donsol.*





*Whale shark spotters are able to detect the animals from a distance, based on the water's movement on the surface and the shadow beneath.*



especially in the Municipal Tourism Office, whenever a new set of political leaders is elected, is a challenge we face every three years,” says Maria Ravanilla, director of the Department of Tourism Region 5. “It’s like starting all over again. We receive requests for tourism orientation and training. But we gladly oblige.”

Ravanilla notes, however, that it would help if the local government would maintain permanent and skilled personnel beyond political cycles, so that the tourism programs and policies remain consistent. “When the new administration took over after the 2007 mayoral election, it was not clear to us what policies were implemented during the previous administration,” says municipal tourism officer-designate Nenita Pedragoza.

## Interaction frontliners

Despite the administrative instability inside the Municipal Tourism Office brought about by changing political cycles, the BIO’s and the boat operators’ groups have become two testaments to the success of whale shark tourism in Donsol. Next to the whale sharks, these frontliners are the ones the tourists remember most in their Donsol experience, and it has been that way for almost 10 years now. “The BIO and the boat operators as groups are very organized and skilled in the delivery of tour services,” says Salvador Adrao Jr. “This is one of the strengths of whale shark tourism in Donsol that I observed when I took over as Tourism Officer in 2004.”

Lambert Avisado, leader of the Donsol Boat Operators’ Association, reflects on how much his association has improved in terms of participation in decision-making, not only in tourism affairs but also in coastal resource management. “Before I got actively involved in the association, I would participate in small-time social activities such as youth-led fund raising. Now that the association is already in the social mainstream, we are more involved in bigger tasks, such as marine protected area establishment and the municipal fisherfolk registry. I believe our inputs are important.”

The Donsol Boat Operators’ Association started in 1997 as a small peer group composed of no more than 30 fishermen. The following year, they felt the need to respond as a formal group to the growing needs of the members for capacity building in tourism services. There are now 60 boat operators in the association involved in providing boat services to tourists. Over the years, the association has established social networks with private groups and government agencies that it is able to tap for its members’ needs. The Philippine Convention and Visitors Corporation (PCVC) committed to providing training for the members of the association and other logistical support for the improvement of their boats.

Bobby Adrao is a member of both the BIO and the boat operators’ groups. He recalls that he used to earn a lot from fishing alone. “But as my family grew, I also felt the decline in fish catch and the consequent reduction in income. This is why I joined the tourism industry.” Over the years, Bobby has become aware that the BIO provide a highly specialized service for whale shark interaction. They ensure order and safety, in addition to making it possible, even for those who lack swimming skills, to experience the interaction. Bobby affirms that as long as the whale sharks regularly visit the waters of Donsol, the group will continue to stay to provide services for tourism and to help in the protection of the environment.

## Tourist destination

Donsol was officially recognized as an important tourism destination in the Bicol region when it received a special Kalakbay award for its environmental tourism product in 2003. The Department of Tourism and the PCVC give awards to entities and individuals who have distinguished themselves in their respective fields in tourism. Since then, Donsol has been one of the banner sites of the 13 priority ecotourism sites of the Department of Tourism that contribute to the continuing increase in tourism arrivals.

Before the end of 2004, *Time* Magazine named the whale shark interaction in Donsol as the “Best Animal Encounter” in its “Best of Asia” special report. The recognition had several categories—from the best place to fall off the map to the best place to play chess—identified by the magazine’s field journalists. This accolade further established Donsol as an important tourism destination, for both the local and international markets.

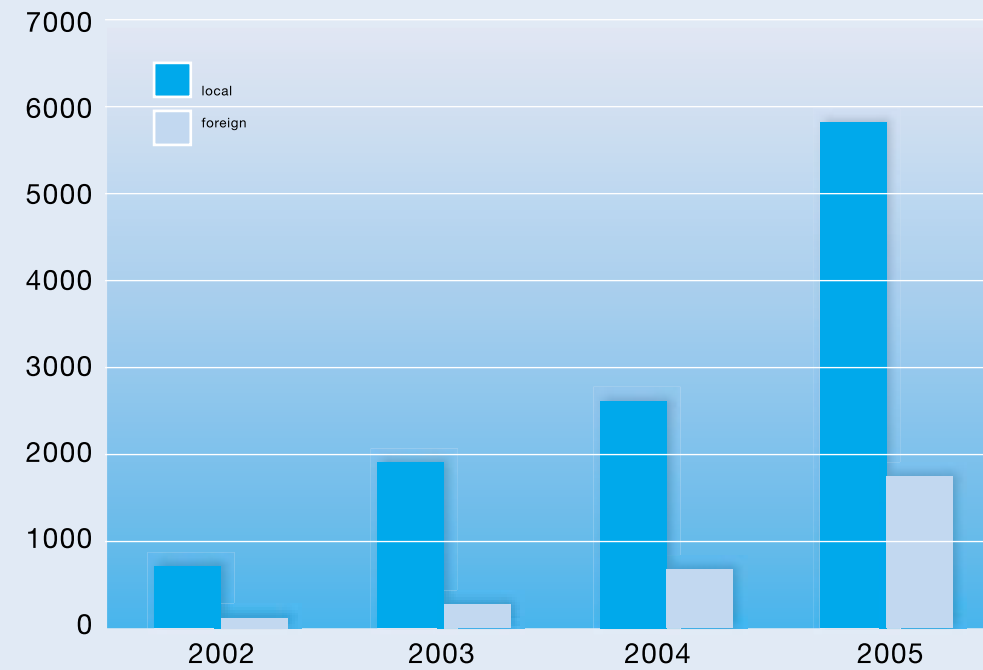
“Donsol offers a unique product that makes this fishing village a standout attraction,” says DOT’s Maria Ravanilla proudly. “Nowhere in the Philippines



*The Butanding Festival is held annually, wherein Donsol’s 11 coastal barangays compete for the best life size replica of whale sharks.*



Figure 1: Visitor arrivals in Donsol



can you find schools of whale sharks this big.” While the whale sharks are the undisputed “ace” of this tourism industry, the director explains that Donsol’s other advantages are accessibility from Manila both by air and by land, availability of reasonable accommodations, and a relatively stable peace and order situation.

One constraint is that the window for whale shark tourism is highly seasonal, ranging from six to eight months a year, when ecological conditions favor the bloom of plankton. Tourist season starts anywhere from November to January, depending on the arrivals of the whale sharks, and lasts until June. Peak season in terms of tourist arrivals and density of whale sharks is March to April, coinciding with the long Easter holidays and the summer vacation of Philippine schools.

From the data available for 2002 to 2005, tourist arrivals posted a staggering average rate of increase of 110% annually. The number of foreign visitors increased at an annual rate of 43%.

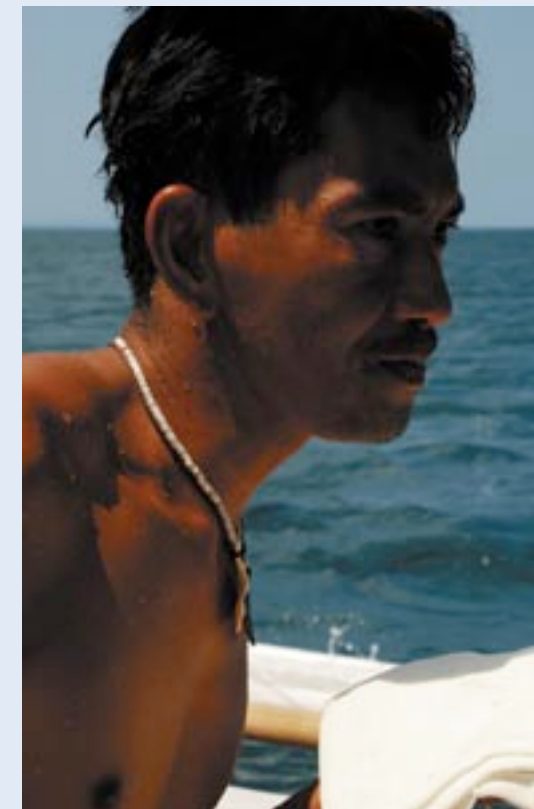
## Changing lives

Visitor spending on whale shark interaction and related services resulted in the generation of additional income for fisherfolk. This is apart from construction work, retailing, farming, and government service, among others. Eleven percent of the estimated 3,000 fishers in the municipality enjoyed seasonal employment during the open season in 2005. The employment is supplementary in nature, as those who were employed have other sources of livelihood. Some of them still fish at night or work in the farm on days when it is not their turn to cater to the visitors’ needs.

The BIO and the boat operators are the most obvious direct beneficiaries of whale shark tourism. Every arriving tourist means a demand for transport and guiding services, which remain the monopoly of local service providers. Demands for boat trips over a four-year period posted an annual increase of 76%. The total numbers of registered boat trips rose from 340 in 2002 to 1,845 in 2005.

Gilbert Guadamor, known to his peers as Embet, is the head of his family. Embet has never missed a single season of rendering tourism services since 1999. He describes each ride with tourists as a means of earning a net income of PhP475 (US\$10) per boat trip, an amount that assures food on the table for his family of nine children. If tourism arrivals are good, Guadamor can make an average of 12 boat trips in a month, and earn more than what he would from small-scale fishing. He almost abandoned fishing when he felt that the fish catch had dropped tremendously in recent years. “Spending for fishing operations for too little catch or without any catch at all is like throwing money away.”

Guadamor affirms that whale shark tourism has undoubtedly provided not just food on the table, but also shelter. He says with pride that his family has been protected from the scorching heat of summer and the violent winds of typhoons ever since he built a stronger house. From the galvanized iron sheets to the nails he used as construction materials, he earned them all from tour guiding.



Guadamor is able to set aside some savings from his tourism income, which is especially useful for the rainy season when fishing does not yield good income. The whale shark tourism season is followed by a three-month southwest monsoon or *habagat* that starts in late June. Strong winds and typhoons during *habagat* make for turbulent seas on the western part of the Bicol peninsula. Most of the boats in Donsol during this time are either anchored on the safety of riverbanks or dry-docked on beaches. “It is very rare that a fisherman would take a chance and go out to sea. One would only do so if he is desperate to bring home food for his family,” says Guadamor.

Former full-time fishermen whose families have at least one member working in the tourism sector claim that the industry has saved their families from possible hunger. If economic indicators are to be a gauge of the standard of living, the daily earnings of these tour service providers are higher than the existing market wage rate of PhP100 (US\$2) in the municipality and the regional minimum wage rate ranging from PhP162 to 209 (US\$4 to 5).

Perceptions of the magnitude of financial gains from tourism differ across different sectors. Although some households with no members working in the ecotourism sector assert that ecotourism has provided benefits to the community as a whole, fishermen like Eduardo Montaña, who have remained outside the tourism boom, could not comment either way when asked if his life had been affected positively or negatively by tourism.

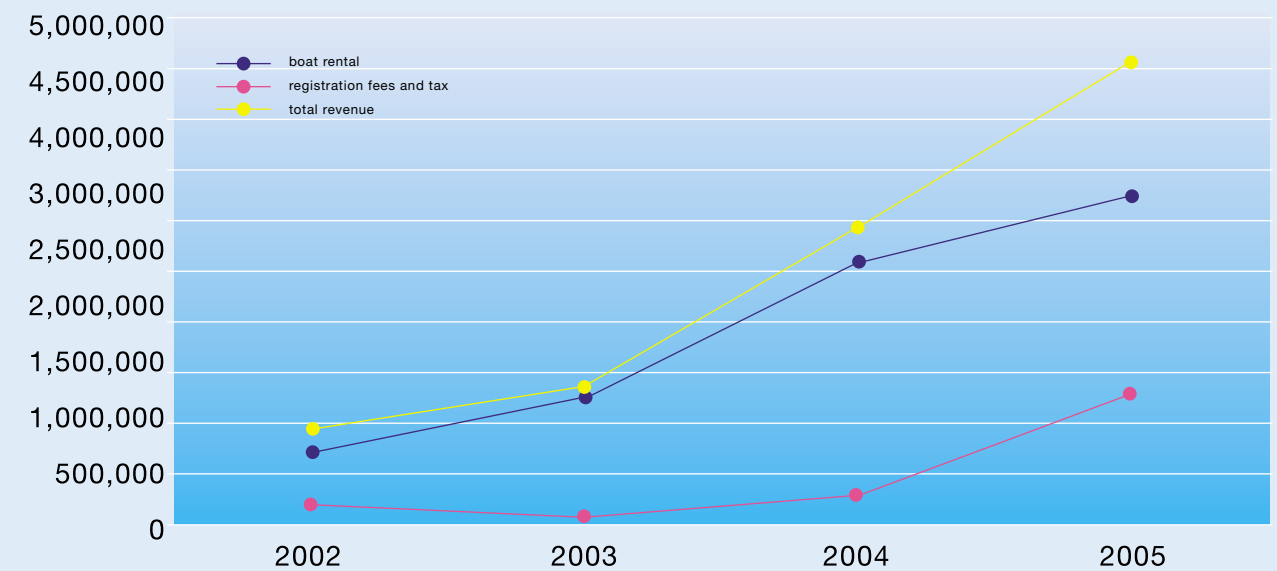
*Embet Guadamor, a local fisher who has been serving as butanding interaction officer over the past 9 years.*



Children participating in the Butanding Festival (above). A Donsolano, with his barangay's entry for the whale shark replica contest, waiting for the start of the street parade (below).



Figure 2: Revenues from Donsol whale shark interaction



## The economics of whale shark tourism

The phenomenal increase in visitor arrivals reflects on the revenues generated by the industry. Combined revenues generated by the local government from fees and taxes and the direct service providers—BIO, boat operators and crew—in 2002 accumulated to Php1,003,055 (US\$22,000). This figure increased almost fivefold to Php4,612,500 (US\$102,000) by 2005. Boat rental comprised the larger part of it, but it undoubtedly contributed to the income of the local government, as well.

For each whale shark interaction trip from Manila to Donsol, a local tourist spends an average of Php3,682 (US\$82), while a foreign tourist could expect to spend twice as much at Php7,493 (US\$167). The difference is due to the number of days spent by tourists in Donsol. Filipinos usually go to Donsol and stay for just a day and a half, while foreigners stay for three. There are four major expenditures: transportation, whale shark interaction, food, and accommodations.

Given the average expenses and number of tourist arrivals, whale shark ecotourism contributed an estimate of Php35 million (US\$780,000), net of travel expenses from country of origin, to the Philippine economy in 2005. At face value, it is a lot of money, but in terms of income distribution, only Php7 million (US\$150,000) or 20% of the revenue was retained in the local economy of Donsol. Transport services, including airlines, shipping, and bus lines to Donsol, are owned mostly by non-residents. Many visitors also look for better board and lodging facilities, and opt to stay instead in Legazpi City, 50 kilometers away. Investors in accommodations, however, face the constraint of the seasonality of the industry. In any case, transport and accommodation facilities in other places result in the outflow of potential income for Donsol and its residents.

As a matter of comparison, the income from whale shark tourism in Donsol is a far cry from income from the operations in Ningaloo, Australia and Belize in Central America. Considering that the whale shark season lasts half a year in Donsol, in 2005, it only generated 10% of Ningaloo's income in two months in 2004, and 20% of what Belize earned in six weeks in 2002.



# THE BIGGER PICTURE

*Despite the tourism boom, fishing remains the bigger part of daily life in Donsol.*



Beyond the whale shark ecotourism and the spectacular natural phenomenon that has transformed this once sleepy town, the story of Donsol is the story of how the sea is truly the lifeline of a fishing community.

## The fishery issue

**W**hale sharks make their annual pilgrimage to Donsol because of the abundance of food. The area, however, supports a far broader and more complex food chain than just the whale sharks.

The Burias-Ticao Pass provides the bay of Donsol with abundant plankton and small invertebrates that sustain various food levels. The pass is a feeding and migration ground for small pelagic fishes. Commercially important species such as large groupers and king mackerels abound in the area. The richness of fishery resources makes the Burias-Ticao Pass an important fishing ground for small-scale fishers from 15 municipalities of Sorsogon and the neighboring provinces of Masbate and Albay. Cetaceans and turtles are reportedly also present. Within the area are various feeding zones for spinner dolphins, bottlenose dolphins, Fraser's dolphins, false killer whales, pilot whales, and sperm whales. The

pass is also known to be shark-infested, with records of hammerheads, basking sharks, and their close relatives, the manta rays.

The fact that the whale sharks and the municipal fishing grounds are in the same geographic area easily establishes the link between the two. The whale sharks and the key pelagic species supplying the fisheries have a functional trophic interrelationship—they are present due to the abundance of food. If this ecosystem is disturbed and eventually destroyed, whether through unregulated tourism and/or the persistence of commercial fishing, it is only logical that without food, the migratory paths of the whale sharks would shift.

Bobby Adrao and Embet Guadamor's experiences of the diminishing fisheries of Donsol are not isolated cases. The observation is shared by majority of fishermen across the region, and affirmed by the fishery study conducted in Donsol.

In 2003, WWF-Philippines started implementing the five-year Sulu-Sulawesi Marine Ecoregion

Partnerships for Sustainability Program funded by the United States Agency for International Development (USAID). Donsol was one of the anchor sites, together with two other sites from the Philippines and two from Indonesia. In Donsol, one of the aims was to create a support link to tourism, making it part of a bigger framework that provides other options for conservation and resource management. As part of the project, WWF contracted Professor Victor Soliman of the Bicol University College of Fisheries to conduct the fishery study for one year, from 2004 to 2005. The results of the baseline studies on socio-economics and fisheries revealed patterns of over-fishing.

The municipal capture fishery is an economically significant industry. Close to 3,000 people in Donsol depend on fishing for their food and income. Donsol's fisheries yield multiple species, and although many types of fishing gear are used, the most dominant are the gill nets for catching small pelagic fishes. The fisheries catch consists mainly of sprats, mackerel, and scads, yielding an annual harvest of

1,350.89 metric tons. The current estimate of annual production from municipal fisheries alone is valued at PhP54 million (US\$1.2 million), making this industry almost eight times larger than whale shark tourism.

The study further suggests that these figures are a very conservative estimate of the entire fisheries yield of the area. For instance, large commercial purse seiners from other provinces operating in the municipal waters cost the small-scale fishermen an estimated total annual yield that is about 10 times the municipal annual fishery harvest. Small-scale fisherfolk struggle helplessly in the wake of the commercial fishing vessels, which have increased in number in the past years. Eduardo Montaña, who has been a fisherman in Donsol for the past 25 years, laments, “Life has become hard because of the purse seiners.”

The fishery study also shows that key commercial fishing stocks are overfished by 32.5%. Fishermen claim that before the 1990s, their average daily catch ranged from at least 50 to 200 kilograms. At present, their daily catch only ranges from 0 to 50 kilograms. Fishing has become a risky business, not because of the physical hazards, but because of the operational cost, with little or no returns. This indicates that the fishery is moving towards a condition of economic



overfishing, where fish catch no longer increases, even if the fisherfolk go farther and spend more time at sea. Doing so would only be counterproductive, and would only further dissipate the fisherman’s income.

# Protecting livelihood

It is becoming evident that the fishery sector could no longer support the number of people depending on it for income and livelihood. The results of the study provide bases for pursuing a fisheries management program.

“Whale shark tourism has actually helped reduce fishing efforts from the months of January to May,” says Bernard Abitria, chairperson of the Municipal Fisheries and Aquatic Resources Management Council (MFARMC) of Donsol and a boat operator for whale shark interaction. “Fishermen would rather get involved in tourism services because of assured income.” Abitria adds that, in a perfect world, the whale shark tourism season should allow the fishery to replenish itself. He observes, however, that fishermen get involved in tourism in the first place because of the complex problems besetting the municipal fisheries. In theory, if the fish catch had remained at the pre-1990s level, a fisherman would earn more from catching at least 50 kilograms of fish



Bernard Abitria,  
MFARMC chairman

than the PhP475 he would receive as a BIO. Thus, tourism subsidizes the losses incurred by small-scale fishermen due to commercial fisheries.

Under the administration of former mayor Salve Ocaya from 2004 to 2007, the local government took initial steps to address critical fisheries management issues. In response to the alarming results of the fisheries study, the local government supported the legislation of a municipal fisheries ordinance after a series of consultations with different sectors facilitated by WWF-Philippines.

The ordinance provides for the adoption of the fisheries management plan. The plan covers the management role of the MFARMC in marine resource use and budget allocation. Together with the Municipal Agriculturist Office, the MFARMC conducts fish monitoring, patrol operations, and regulatory measures such as licensing and registration. The municipal fisheries ordinance also reinforces the implementation of the existing whale shark interaction

safety protocols. The management plan offers a springboard for improvements and innovations in fisheries management as part of government service, a pioneering work in terms of policies among municipalities facing the Ticao Pass.

With support from WWF-Philippines and other enforcement agencies such as the Philippine Navy, the administration of Salve Ocaya achieved initial success in marine law enforcement. Apprehensions of commercial fishers resulted in charges filed in court.

In November 2007, the local government, under the resumed administration of Mayor Jerome Alcantara, declared a marine protected area (MPA) covering approximately 100 hectares and extending to three barangays. A multi-sectoral council was established to serve as its management body. One of the most important tasks that lies ahead of the

*The local fishermen, typically using small non-motorized boats, find it difficult to compete with commercial scale purse seine fishing operations.*





council is to define the patterns of resource use in the MPA and the mechanisms for the equitable sharing of benefits among the fishing community, the local government, and other stakeholders.

Although the full implementation of the fisheries management plan remains a daunting challenge, the local government, together with the fishery sector represented by the MFARMC, is taking initial steps toward resource management. What remains to be seen is whether these initial steps can be sustained, and what will happen when the local institutions, such as the local government, MFARMC, and MPA council, come face to face with a politically complex, even adversarial, issue such as the commercial fishers' encroachment on their municipal waters.

## Investing in conservation

Whale shark tourism, as a potent revenue earner in Donsol, offers opportunities to contribute significantly to conservation efforts. The full conservation potential of this resource, however, remains untapped.

The local government of Donsol faces the challenge of generating enough income and using it to cover short- and long-term conservation and management activities embodied in the fisheries management plan. These include stronger protection of whale sharks, resource assessment, livelihood projects, and monitoring and enforcement of policies, among others.

"The tourism in Donsol is a very good revenue center to cover the cost of fisheries management and the enforcement of tourism and fisheries policies," says Lacdang. He believes that even if only a certain percentage of the tourism revenue is earmarked for such activities, the local government will free itself

from the burden of resource mobilization.

The Director of the Department of Tourism shares the same opinion. "It is my wish to see Donsol fully empowered in managing its tourism and other rich resources," says Ravanilla. "I can see they are on the right track." Both the Department of Tourism and the local government of Donsol are concerned about financial support for tourism development, she notes. "The financial resources of the Department are limited, and there are other areas in the Bicol region that need attention for tourism product development." She believes that a financing scheme like a trust fund can help address this matter.

Results of the willingness-to-pay survey and key informants interview conducted by WWF-Philippines in 2005 reiterated the need to create a trust fund for conservation. Visitors and key stakeholders hold the view that proceeds generated from tourism should be kept in a trust fund. According to the same survey, the visitors' willingness to pay is dependent on the creation of a trust fund and a corresponding management body. Individuals and organizations at the local, national, and international levels who want to contribute to conservation financing believe that such a system should be set up.

The creation of a trust fund would help ensure that revenues generated go directly to projects and activities benefiting the coastal communities. During the multi-stakeholder consultations conducted on September 23, 2005, community leaders of the coastal barangay claimed that the municipal government had not given them their share of the revenues from whale shark tourism. The ordinance legitimizing the municipal government's management of the whale shark interaction explicitly states that registration fees shall be deposited in a Trust Fund, but this has not been implemented.

The municipal fisheries ordinance is clear on budget allocation for fisheries management, but



the contribution of tourism to the generation and mobilization of revenues for marine conservation and stronger protection of whale sharks is less defined. Substantial revenue has indeed been generated by whale shark tourism, but only a negligible amount has been invested in the conservation of the very source of these revenues, which may eventually jeopardize the sustainability of such tourism. "Economic benefits have blinded a lot of stakeholders, and kept them from seeing the true goal of whale shark tourism, which is conservation and sustaining the benefits of this tourism," remarks former Vice-Mayor Donnie Cleofe. If the management of tourism is truly geared towards the long-term conservation of whale shark, Cleofe asks, "How come there is no real investment on the part of the local government in research, for example, that will provide a better understanding of the animal? The more we know about them, the better we can manage them."



*A local proudly displays his purchase of pompano (above, left). Fishing is becoming an increasingly risky business, with too little catch as the constant threat (above).*

From the study conducted by WWF-Philippines in 2005, the average actual and annual expenditures on coastal resource management (CRM) only amounted to PhP793,644 (US\$17,600) while necessary annual expenditures are estimated at PhP4,593,216 (US\$102,000). Only about 17% of ideal expenditures, according to the fisheries management plan, were funded. However, considering that the annual municipal budget from 2001 to 2005 averaged at PhP31 million (US\$690,000), it is neither realistic nor practical for the municipal government to allocate more than 10% of its budget to CRM alone; there are other equally important components of rural development, such as health and agriculture, for the limited budget coming from the community development fund.



*A WWF staff catching up with a whale shark for photo identification (above). Damaged dorsal fin of a whale shark believed to have been caused by propeller guards (left).*

A promising turn of events is that the Municipal Planning and Development Office committed to allocating PhP3.3 million (US\$73,000) over three years to put the recently declared MPA into operation, effectively doubling the municipal spending on CRM in previous years.

However, the reality is, even if all of the municipal government's earnings from whale shark tourism were allocated exclusively for CRM, it would only raise 30% of the required annual budget for overall CRM. This financial situation underscores the need for the local government to find other sources of income for tourism and fisheries—ironically, the two industries that form the backbone of Donsol's economy. Instead of being viewed as expenses, CRM and whale shark management should be treated as investments, since improvements would redound to increased income for the municipal government and its constituents.

## Controlled encounters

In tourism, "carrying capacity" is the extent of recreational use an area can accommodate, while delivering high levels of visitor satisfaction and keeping impacts within comfortable levels for the resources themselves. The concept includes the management not only of the number of visitors, but of the manner and extent of use, as well. With visitor numbers increasing at an annual rate of 110%, future challenges include commercialism and visitor capacity.

Since 2001, the Municipal Tourism Office and the direct service providers have made efforts to manage the number of boats at sea at any given period. They agreed that only 25 boats at a time would be allowed for whale shark interaction. In principle, the number of *Butanding* Interaction Officers sets the limit on the number of boat trips that can be made per day,

since a boat cannot be allowed to go out without at least one interaction officer. They are also the direct enforcers of the interaction tour guidelines.

The peak months of March and April, especially during the long weekends of Holy Week and Labor Day, present a different situation. The tourist influx is so massive during these times that there have been instances when the tourism office accommodated more tourists than the limits set by the boat operators and *Butanding* Interaction Officers. In the whale shark season of 2006, Lambert Avisado admits that on one occasion, there were around 50 boats cruising the municipal waters looking for whale sharks. This is confirmed by Salvador Adrao Jr. "At that time, not all tourists went through the tourism office for registration and payment of fees. Some elected local government officials hosted a number of these tourists who didn't go through the process." "This is the problem when the tourism personnel are not familiar with nor properly oriented on their tasks," Avisado says. "In my experience over the years, the local government assigns new sets of casual employees every year."

Salvador Adrao is proud to say that in the summer of 2007, the limit of 25 boats was never exceeded. That summer, the boat operators and the *Butanding* Interaction Officers tested a three-hour maximum limit for whale shark interaction to help address the overcrowding of boats at sea during the peak season. According to some BIO, the scheme appeared acceptable to most tourists.

Aside from the maximum number of boats, however, there is the issue of violations of the whale shark interaction guidelines committed by both tourists and the BIO themselves. These guidelines were adopted from those being implemented in Ningaloo, Australia, to minimize disturbance and distress of the animals while tourists swim with them. The BIO's observation of these guidelines has been



inconsistent, however, ranging from compliance, to leniency, to active encouragement of tourists to touch the animals. In a study conducted by Angela Quiros in 2004 and 2005, Donsol's average compliance with the regulations was at "44% for the minimum distance kept; 82% for no touching, no path obstruction, and a maximum of six swimmers per whale shark; 89% for a maximum of one boat per shark; 99% for no flash photography and no SCUBA, scooters, and jet-skis."

The same study pointed out that some regulations in Ningaloo would pose difficulties when applied to Donsol. For example, the guidelines provide for a minimum distance of three meters between humans and whale sharks. However, the visibility of Donsol's waters is normally only in the three- to six-meter range, meaning that if the guidelines are followed faithfully, tourists would barely be able to see the whale sharks.

Moreover, interaction boats still do not have propeller guards and the gadgets necessary to protect the whale sharks from accidental hits. Propeller guards are required in the municipal ordinance, but due to technical difficulty in modifying the design of the motorboats, this requirement has not been enforced. As of the writing of this case study, propeller guards have been purchased with support from the Philippine Convention and Visitors Corporation. These are scheduled for distribution and mounting on the boats.



Quiros argues that human encroachment on the whale sharks' feeding grounds alters their behavior and interrupts their feeding habits. It is unknown to what extent the whale sharks are able to tolerate disturbance that could result in a change in migratory patterns, or worse, even the death of individual sharks.

# Nothing in black and white

There is more to the story of the 25-boat limit. Avisado explains that this limit is internal to their organization, but the absence of written tourism policies is another issue. "Our internal policies are good but they may not be sufficient," Avisado says when asked if it is enough to have internal policies to regulate boat activities. "We need policies from the local government that will address regulation of tourism activities, among other things."

"The glaring problem I encountered when I took over as Municipal Tourism Officer back in 2004 was the lack of written tourism policies," says Salvador Adrao Jr. Seeing the urgent need to address the policy gap, Adrao Jr. worked with the major service providers, the Committee on Tourism of the municipal council, and WWF-Philippines for the improvement of the existing tourism ordinance.



These consultations resulted in the drafting of a tourism operations manual.

Some members of the Municipal Council also initiated a review of the municipal ordinance mandating the municipal government's administration of tourism activities. Their intention was to define the management and pricing structure as well as fund management, to define operational procedures, and to officially recognize and accredit the *butanding* interaction officers and boat operators. Unfortunately, this initiative was nipped in the bud. "There was a strong move from a sector to block the efforts to improve the ordinance," explains Adrao Jr., alluding to conflicts of interest among those involved.

Another incident rooted in the lack of written policies occurred in 2006. The Boat Operators' Association decided to increase their service fee, in response to the 67% increase in diesel expenditures and 60% increase in boat maintenance expenses since the year 2000. The BIO also sought to increase

*Community consultations (opposite page) and members of the management council deliberating the establishment of the MPA (above).*

their service fees by 40%, from Php500 to Php700 (from US\$11 to 16).

The Boat Operators' Association submitted a proposal to the Committee on Tourism of the Municipal Council, where it seemed to have stalled. In any case, their request did not progress, which the boat operators interpreted as disapproval. The service providers argued that they are duly registered private organizations and are not employees of the local government. Thus, they are not subject to the dictates of the local government, even in their pricing. On the other hand, some members of the Municipal Council contested that since the local government is in charge of tourism, there should be a legal instrument supporting the pricing structure. The issue was only resolved when the mayor supported the move to raise the prices. She did not, however,



issue an executive order, perpetuating the practice of unwritten policies.

While boat operators and the BIO won in the end and the prices were increased, the incident caused a rift in the relationship between the service providers and some members of the local legislative body. The incident could have been avoided if there were mechanisms that spelled out how to effect proposed changes.

The potential negative impacts of unregulated tourism activities are apparently being noted by the present political administration. “To effectively carry out a sustainable and responsible tourism program” is the quick reply of Edwin Orticio, municipal development and planning officer of Donsol, when asked about the future plans of the local government for tourism. “This is part of the 10-point agenda of the new administration.”

## Participation and equity of benefits

The major institutions providing support and services for the management of tourism in Donsol are: the local government, through the Executive Office, Municipal Council, and Municipal Tourism Office; the peoples’ organizations such as the *Butanding* Interaction Officers, the Boat Operators’ Association, and the Donsol Innkeepers’ Association; and the Department of Tourism. Through the years, they have worked together, but not without conflicts of interests due to varying institutional positions.

Twice now in the history of Donsol, in 1998 and 2002, groups have emerged questioning the mandate of the players and claiming they have a stake in the game. DOT Director Ravanilla observed that attention should be given to the grassroots in order to have a genuine representation of stakeholders. “The approach should

be bottom-up rather than top-down. Each sector should reexamine itself in terms of its roles and functions in the tourism industry, reorganize when necessary, and come together for collective decision making.”

Vice-Mayor Jon-Jon Belmonte, who is also the chairperson of the Tourism Task Force created by the Office of the Mayor under Executive Order No. 005, series of 2007, believes in the participation of different sectors in the planning and management of tourism. “The task force is trying its best to enhance the participation of various stakeholders, even in the planning stage.” The intention of the task force to serve the interests of various stakeholders was put to a test immediately. When it presented the implementing rules and regulations of the tourism municipal ordinance to the members and non-members of the Boat Operators’ Association on September 20, 2007, there was a heated discussion over the decision of the task force to recruit additional boat service providers, on the grounds that the benefits from tourism should spread to more fishing households. Members of the association eventually walked out of the meeting because they perceived the presentation of the policy as a “take it or leave it” situation.

According to the Boat Operators’ Association, they are not against the idea of increasing membership in their organization. But there is an internal agreement among members that only boat operators who have undergone the basic training from the Department of Tourism and other agencies may join the organization and run a tour boat operation for whale shark interaction. “The association doesn’t want to compromise the quality of tour services by allowing boat operators who are not skilled and not familiar with the operations,” says Lambert Avisado. “A mistake of one member will reflect on the whole association.” He also fears that additional boats operating for whale shark interaction may be detrimental to the population of whale sharks, given the absence of clear, written



*Schools are one of the main platforms for increasing whale shark conservation awareness in Donsol.*

regulations, such as the maximum number of boats allowed per period, as discussed earlier.

These circumstances reveal gaps in the management system, and a failure to provide a platform for negotiating and balancing the perceived conflicting interests of various stakeholder groups. “Genuine participation of many sectors in the decision-making and management of tourism will require a no-nonsense leadership with accountability and transparency,” Donnie Cleofe points out. “There is so much to change in Donsol, such as attitude, behavior and culture, that oftentimes go beyond the area of intervention of external groups.” Edwin Orticio is optimistic that the results of the efforts to involve different sectors in tourism management will manifest in the years to come. “The tourism program is a continuing process. It may take years to realize the development goals of the local government.”

## Keeping tourism in perspective

The contribution of whale shark tourism to the growth of the local economy is like nothing Donsol has ever experienced before. It remains unparalleled in the whole of the Bicol region. Fortunately for the whale sharks, their incredible size helps to keep matters in perspective and emphasizes certain lessons.

First, the fact that there is still so much that is not known about whale sharks—even the identification of individuals that visit Donsol only started in 2007—makes managing them a guessing game. Research on whale shark may be expensive and, based on the nature of the animal, a long-term commitment. Their migratory nature also carries an inherent risk, because taking care of them in Donsol does not necessarily



mean the animals will be safe in the other areas they visit. In the same way, any benefits from conserving the whale sharks will not be confined to one locality. Information is necessary for stakeholders to establish a sound management system at any level.

In the meantime, assuming that the interest of local government is to sustain the industry and the benefits it brings, the expansion of tourism should be based on the precautionary principle. The boat operators, spotters, and BIO are frontliners not only among tourists, but also among the whale sharks. They could therefore play a key role in gathering information; their observations on swimmer avoidance and consequent disturbance of the animals' feeding habits should be noted and acted on. However, this task carries an underlying assumption that institutional and policy support mechanisms are in place to make management interventions possible. A first step the stakeholders could take is to set their policies in black and white and have them approved through legally and socially accepted processes, to prevent problems of ambiguity and conflict like the ones they have experienced in the past.

Second, whale shark tourism is seasonal and supplementary in nature. While its contribution to the local economy and people's livelihoods is beyond

doubt, it is not a panacea for all the problems of Donsol. The set-up of their tourism industry works because the service providers' livelihoods are able to accommodate the industry's seasonality—they are part-time boat operators/spotters/BIO, and part-time fishermen. More important, the two industries are complementary. They are not being weaned, for example, from destructive forms of fishing and being forced to convert exclusively to an "alternative" livelihood. Their income for the tourism season could not support their families for the entire year.

Third, fisheries remain the much bigger industry in Donsol. Tourism must therefore be treated as integral to a larger framework of coastal resources and fisheries management. This framework should be conducive to economic opportunities, and supportive of conservation at the same time.

Governance is a crucial element for effective coastal resource management. Private initiatives could go a long way, but government support and initiative could take it so much further in terms of putting social structures and legal systems in place.

Social structures require avenues for participation, ensuring the equity of benefits, and the establishment of socially acceptable means of resolving conflicts. The system may be currently working, but there are small fissures that, if left unaddressed, have the potential to escalate into conflicts in the future. Among these delicate issues are the fact that fisheries may be the bigger industry, but those involved in tourism are earning more. There is the difference in opinion on whether tourism is benefiting the community as a whole or only those who make a living from it. There was the incident of the local government wanting to open the Boat Operators' Association to more members, but meeting with opposition based on the internal rules of the organization—an indication of

*Tandy, the whale shark mascot, during the Ecological Summer Camp.*



*Bonuses of tourism in Donsol are dramatic sunsets and firefly watching.*

limited access to participation. On the other hand, the apparent need to increase such membership is a testimony to the boat operators' success, from their humble beginning as mere boats-for-hire to being at the forefront of the MPA council.

Donsol is already setting up legal systems supportive of conservation in Sorsogon through their adoption of the fisheries code and the establishment of the marine protected area. Among the challenges the stakeholders, particularly the local government, face is making sure that these interventions deliver results, in ways that will be perceived and felt by its constituents. Although there is initial displacement in terms of fishing access, the MPA, in theory, should contribute to the sea's productivity after a while. It is important that the economic contributions of these conservation interventions are monitored and clearly established.

## A web of life

It has been 10 years since the outside world "discovered" the whale sharks of Donsol. Today, tourism is flourishing. After the initial scramble to take advantage of the economic opportunities presented by tourists demanding transportation, accommodations, and tour guiding services, the dust is finally beginning to settle. Local institutions—the municipal government, the service providers' associations, the fisheries and marine protected area councils—are beginning to wake up to the responsibility that goes with the blessing of the whale sharks' presence, and they are taking steps to ensure that the sources of their livelihoods are protected.



What is beyond doubt is the fact that Donsol's fisheries and tourism are intrinsically linked. Its tourism depends almost exclusively on the whale sharks, wild animals whose migratory pattern is dictated by nature. Their presence in the municipal waters depends on the availability of food, which in turn depends on the ecological integrity of the ecosystem that supplies it. The same ecosystem supplies its fisheries, which remain the lifeblood of the municipality. The relationship between the people of Donsol, their fisheries, and the whale sharks that share their home is more than a simple food chain. It is a complex, rich, tenuous, but truly remarkable web of life.

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