

## **PROTECTION OF SEA TURTLES: PUTTING THE PRECAUTIONARY PRINCIPLE INTO PRACTICE**

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### **BACKGROUND**

Costa Rica is known worldwide for its impressive biological diversity as well as its dedication to conservation. It is perhaps the Latin American country that has the most developed environmental legislation. For instance, Costa Rica's Constitution was amended in 1994 to grant every person the right to a healthy and ecologically balanced environment. The same year, Congress ratified the Convention on Biological Diversity (CBD), one of the first international agreements to contemplate the precautionary principle. Under Article 7 of the Costa Rican Constitution, all international treaties duly ratified by Congress become part of the domestic legal framework, and take precedence over national laws.

In April of 1998, Costa Rica enacted its Biological Diversity Law. This was based on the CBD. Article 11 of this law introduced the precautionary principle. This principle is also referred to in this law as *in dubio pro natura*, a Roman law principle for environmental protection that asserts that in case of doubt, any decision should favour the protection of nature.

Within this legal framework, it is important to consider how and to what extent the precautionary principle can be put into practice to achieve effective environmental protection. This paper examines a case where citizen groups used the precautionary principle to challenge a controversial regulation that allowed the killing of green sea turtles in Costa Rica.

### **SEA TURTLES IN COSTA RICA**

Because of their strategic location in the Central American isthmus, Costa Rican shores are blessed with nesting populations of five of the seven existing species of sea turtle.

One of these is the green sea turtle (*Chelonia mydas*), a species that is listed as Endangered in the IUCN Red List of threatened species (IUCN, 2004). Green sea turtles may require several decades to reach reproductive maturity (Boulon and Frazer, 1990; Hirth, 1997). The World Conservation Union (IUCN) assessment highlights 'extensive subpopulation declines in all major ocean basins over the last three generations as a result of overexploitation of eggs and adult females at nesting beaches, juveniles and adults in foraging areas, and, to a lesser extent, incidental mortality relating to marine fisheries and degradation of marine and nesting habitats. A 48% to 67% decline in the number of mature females nesting annually over the last three generations was also documented worldwide' (IUCN, 2004).

Every year between June and September, gravid females migrate to the 35km of beach between Parismina and Tortuguero on Costa Rica's Caribbean coast. This area is one of the most important nesting sites for this species in the world, and the largest in the Western Atlantic Ocean. Studies of migratory periodicities show that the turtles return faithfully to this beach to lay their eggs at intervals of two or three years, continuing a cycle of life which has perpetuated for centuries (Opay, 1988).

The Caribbean Conservation Corporation (CCC) was established in 1959 to study and protect Caribbean green turtles in Tortuguero (TNP, undated). The Tortuguero National Park (TNP) was formally created in 1975 to protect this important nesting site and the green turtle. To provide further protection, the National Parks System Law of 1977 prohibited the capture of sea turtles inside these protected areas. The green turtle was first deemed reduced or threatened in 1993 under domestic law<sup>1</sup> and later, in 1997, it was declared in danger of extinction<sup>2</sup>.

The green sea turtle has traditionally been hunted by Caribbean communities for meat, fat and eggs. As a result, the turtle population is believed to have come perilously close to extinction in the 1960s when some estimate that nearly every female turtle arriving to nest in Tortuguero was illegally taken for turtle soup for the export market, and for meat and eggs for the local market (TNP, undated).

Faced with this reality and in an attempt to regulate and limit turtle hunting, in 1982 the Costa Rican government enacted a regulation officially establishing a quota of 1800 for the annual capture of green sea turtles in Costa Rica's near shore waters. The regulation required that the turtles be butchered at state regulated slaughter houses, and their meat sold only within the country. The regulation had the effect of significantly reducing the permitted level of harvest from the actual level of harvest observed at the time it entered into force. However, by the late 1990s high rates of poaching meant that the number of green turtles being killed each year was actually many times higher than this legal limit, thereby putting unacceptable pressure on the already fragile population. While the law permitted turtle hunting in some of Costa Rica's waters, poaching also took place in the protected areas where such hunting was strictly prohibited.

### **I'll see you in court**

In the light of this, sea turtle conservation groups, environmental non-governmental organizations (NGO) and some ecotourism hotels from Tortuguero<sup>3</sup>, requested INCOPECA – the Costa Rican Fisheries Authority (Instituto Costarricense de Pesca y Acuicultura) – to amend this regulation and prohibit all harvesting of green turtles. They were unsuccessful in their attempt. So, in May of 1998 the groups filed a lawsuit to challenge the regulation before the Constitutional Court, a branch of the Costa Rican Supreme Court.

Since its creation in 1989, this court has resolved very important environmental cases, and Constitutional Court jurisprudence has made a significant impact on environmental legislation. This, despite the fact that Costa Rica is a civil law country where written law takes precedence over case law.

The lawsuit argued that the Costa Rican regulation that permitted hunting of an already endangered species was incompatible with the Costa Rican Constitution and with its conservation obligations under many of the international agreements to which Costa Rica was a signatory. Among these was included the Inter-American Convention for the Protection and Conservation of Sea Turtles (1996, came into force 2001). The objective of this Convention is to promote the protection, conservation and recovery of sea turtle populations and of the habitats on which they depend, based on the best available scientific evidence, taking into account the environmental, socioeconomic and cultural characteristics of the Parties (Article 2). Also cited in support of this case were CITES, the CBD, the Convention on the Protection of Flora, Fauna and the Scenic Beauties of

the Americas (1941) and the Convention for the Conservation of Biological Diversity and Protection of Priority Protected Areas in Central America (1992).

The petitioners further argued that the quota that permitted the taking of 1800 turtles per nesting season was established arbitrarily and was not based on adequate science. Capturing breeding adults such as those in the Costa Rican near shore waters is likely to have very serious long term impacts on sea turtle populations, because turtles take decades to mature and females only nest every two, three or more years. The consequences of a dwindling adult population at such a significant nesting site would be felt for generations and across oceans (AIDA, 2004).

Despite the fact that INCOPECA licensed commercial fishermen to hunt 1800 green sea turtles per year, the agency could point to no research to support the sustainability of that figure; thus, the agency did not know whether the allowed take was harming the population. The fact that the agency established a quota with no scientific basis highlighted the serious lack of information for the management of this species within the agency (Opay, 1998).

Moreover, there was no evidence that scientific research was being conducted to study how the population of green turtles was responding to this type of management, despite the fact that these permits had been issued for 15 years.

Furthermore, lax enforcement by governmental authorities led to the death of many more than the permitted number of turtles each year. In 1997, CCC researchers documented the illegal taking of 1700 turtles from Tortuguero Beach alone (EMS, 2004). As a result, CCC estimated that approximately 7000 individuals were being taken per nesting season<sup>4</sup>. The existence of a legal market meant that turtles caught illegally could also be sold openly.

Finally, the petitioners argued that much of the take was harvested from beaches in the Tortuguero National Park where turtle hunting is strictly forbidden. While Costa Rican law prohibits the hunting of turtles within the Tortuguero National Park, INCOPECA was issuing permits to fishermen in the knowledge that very few turtles were present outside the park and that the fishermen were likely to cross park boundaries (Opay, 1998, p17).

Because there was uncertainty as to how this 'legal' exploitation of the green turtle was affecting the ecological equilibrium of the species, the petitioners invoked the precautionary principle and asked the Court to nullify the regulation as a means to prevent the extinction of the green turtles. The petitioners emphasized the fact that green turtles are listed as endangered species in the Red List of Threatened Species established by IUCN and under the Costa Rican Wildlife Law. Furthermore, like all other sea turtle species the green turtle is listed in Appendix I of CITES, which means that the Parties have judged they are threatened with extinction.

INCOPECA's defence in court was based on the argument that the agency did not have actual scientific proof that any marine species in the Costa Rican exclusive economic zone were facing extinction. It is worth noting that that this is precisely the form of argument that the precautionary principle seeks to counter. They claimed that

all the efforts of the institute were aimed at preventing such extinctions through the implementation of the regulation.

The General Attorney's Office (Procuraduría General de la República) is always a party in Costa Rican cases in which the constitutionality of a law or regulation is being challenged. In its briefs to the Court, this office supported the petitioners' arguments and asked the Constitutional Court to set an example that would save the green turtle from extinction. The office concluded that the take of such a large number of turtles did not appear to be consistent with a sustainable development policy.

Furthermore, an *Amicus Curiae* presented by the Costa Rican Ombudsman (Defensoría de los Habitantes de la República) was highly influential in the case. This institution is charged with balancing and controlling the environmental and social impacts of decisions taken by public authorities, so its position was critical. It was the consideration of the Ombudsman, that the precautionary principle '...mandates that the interpretation of the law and the behaviour of the administration should be carried out using environmental protection as the main goal and not to threaten the marine resources as in this case'. The Ombudsman also added that the Wildlife Law and CITES both state that the use or trade of endangered natural resources such as the turtles should be subject to very strict regulation and only be permitted in exceptional cases. They argued that these requirements were not met in this case because the regulation was very broad and was not based on technical studies that could justify the take.

While CITES applies only to international trade and does not involve any obligations to limit harvest within states, the recognition by CITES parties that the green turtle was threatened with extinction was used by both petitioners and supporters as an argument to require maximum protection measures.

### **A HISTORIC RULING**

With all these different arguments and important jurisprudence to define, the decision of the Court was eagerly awaited by different sectors. Finally the decision was issued by the Constitutional Court on 19 February 1999<sup>5</sup>. Among other important aspects, the court ruled:

'...articles 7, 50 and 89 of the Constitution have been violated for non compliance with the protection established by International Conventions, leaving unprotected the right to a healthy environment and more specifically the right to an ecologically balanced environment, for which preventive mechanisms should be established to avoid the extinction of the species; this requires a responsible attitude by the competent administrative authorities.

Furthermore, this take is not even allowing the turtles to arrive on time to reproduce and this implies the total extinction of this species from our coast; species that do not even belong to us, they come to nest on our shores and thus all this violates the constitutional rights that protect the environment as future generations also have the right to get to know them and appreciate the same ecosystem that we do today.

The violation of article 7 of the Constitution is also evident because the International Conventions have been contradicted, as this regulation allows

hunting of green turtles for consumption and trade without sufficient scientific basis to indicate that it is feasible to do and in that sense, leaving the turtles irresponsibly unprotected. The sole existence of a doubt about their survival possibilities makes this regulation unconstitutional, according to the principle “in dubio pro natura”, where the sole doubt about the harm that could be caused to the ecologic equilibrium is enough to protect it, and even more when there are scientific studies that require the maximum level of protection.’

The Constitutional court recognized that the regulation protected the green sea turtle for the first time, authorizing a certain level of take without any previous scientific study on the potential risk to the species. The Court considered that the regulation permitting turtle hunting should be abolished since it was declared in danger of extinction under domestic law.

In the end, the Constitutional Court decided to annul the regulation permitting the take of 1800 green turtles. Subsequently, INCOPECA published a resolution stating that hunting and commerce of the green turtle were prohibited<sup>6</sup>. As a result Costa Rica’s green sea turtle fishery is now officially closed.

This was an extremely important ruling in that it was the first time that the Court upheld the constitutional right to an ecologically balanced environment. It differed from previous cases where arguments had been based on the right to a healthy environment, with the focus being on the impact on human health rather than biodiversity and ecosystem protection.

The precautionary principle was thus, for the first time, invoked by the Court as one of the means to grant such rights. This is perhaps one of the most important outcomes of this case. The fact the court ruled that Costa Rica is required to comply with all international conventions to which it is a signatory is also worth pointing out. These are legally binding and must be implemented through domestic law and policy.

### **SOCIOECONOMIC IMPACTS OF THE BAN**

An important evaluation that was carried out before this case went to court, was the socioeconomic implications of the case. On the one hand, many fishermen made a living from green sea turtle hunting, and green sea turtles were an important source of protein for the inhabitants of the Caribbean Coast of Costa Rica. On the other hand, people in Tortuguero – mostly former turtle fishermen – today make a good living from ecotourism that is dependent on the protection of the turtles.

Since the 1980s, tourists have been visiting Tortuguero to observe nesting turtles and other wildlife. Since 1993, Tortuguero villagers have been prohibited from taking any green turtles, even for subsistence use. Efforts to develop an alternative income source for former turtle users were initiated by CCC and the Costa Rican National Park service in 1990 with the establishment of a tour guide training programme. Tourists wishing to see nesting turtles at night must now be accompanied by a licensed tour guide (Troeng and Silman, 2000). Today, Tortuguero receives close to 33,000 visitors a year, and the gross revenue from marine turtle tourism in Tortuguero – which provides 265 jobs – is estimated at almost US\$7 million a year (Troeng and Drews, 2004). Tourists pay considerable fees to local guides to watch sea turtles nest on Tortuguero Beach, and sea turtles are now more valuable to at least some villagers alive than cooked up in a stew.

From a socioeconomic perspective the ban on harvesting has had winners and losers. The villagers and the thriving tourism industry in Tortuguero had a great deal to gain from the prohibition of turtle hunting. The fishermen who lost out were mostly from the Port of Limón, and if they were to come to Tortuguero National Park area to illegally catch the turtles, they would be affecting the local Tortuguero economy.

### **CONSERVATION IMPACTS OF THE BAN**

It is important to analyse the results that the prohibition of green turtle harvesting has had in relation to the situation that prevailed before the application of the precautionary principle. According to research data, the ban on green turtle fishing together with increased enforcement are likely to have diminished hunting and increased adult turtle survivorship in Costa Rica since 1999 (Troeng and Rankin, 2005).

Additionally, although cooperation between conservationists and turtle fishermen in Limón has traditionally been limited, due to opposing views on turtle exploitation, after the court ruling communication between them increased. As the affected parties, they began to organize themselves and demand an alternative solution for their livelihoods. Some of the petitioners met with the fishermen and both asked the government to provide compensation to the turtle fishermen for the first nesting season. Also, a joint awareness campaign to protect green turtles from illegal fishing, using posters and TV advertisements, was also conducted by the petitioners and the fishermen. Possible cooperative projects for the fishermen were identified, including the construction of a processing plant for seafood products; turtle watching by boat; a nesting beach conservation project; construction of a museum/visitor centre; and education programmes for fishermen about sea turtles and sustainable fishing techniques (Silman et al, 2000).

In the long-term, it should be noted that it will be important to carefully assess and manage the potential negative impacts on the ecosystem of tourism to the area.

### **CONSISTENCY OF APPLICATION OF THE PRECAUTIONARY PRINCIPLE BY THE CONSTITUTIONAL COURT**

This case study provides the opportunity to assess whether the Constitutional Court has been applying the precautionary principle consistently in other cases involving natural resources management.

A review of the jurisprudence of the Constitutional Court reveals that one of the first applications of this principle was in a case involving protected areas. In that case, the court ruled:

‘In the protection of our natural resources should exist a preventive approach, in other words, if the degradation is to be minimized, it is necessary that precaution and prevention will be the dominant principles. (...) One should keep in mind that we are in a field of Law where the most important laws are those that can prevent all kinds of damage to the environment since there are no laws that can repair afterwards the damage already inflicted to the environment. This preventive approach is even more urgent in the case of a developing country.’<sup>7</sup>

In another case, referring to Environmental Impact Assessment the Court stated that a prior EIA is the ideal technical instrument for fulfilling the precautionary principle on environmental issues.<sup>8</sup> In another case, this tribunal ruled that the actions taken by public authorities to protect the environment were insufficient as they did not prevent negative impacts on the environment, according to the precautionary principle.<sup>9</sup>

The precautionary principle has also been used in a ruling on measures to control shark finning. A case was brought to the Constitutional Court calling for precautionary measures to be implemented since the Government was allowing shark fins to be landed without effective controls. The practice of shark finning is known worldwide to be a wasteful and unsustainable practice causing severe declines in shark populations. The court ruled that there was an unjustified delay by the Customs Authorities in applying precautionary measures to control the landing of shark fins by foreign vessels<sup>10</sup>.

However, a different approach has been taken in a case concerning the construction of high tension power lines. In this case the Court did not apply the precautionary principle to restrict construction, because it argued that it was not clear that the health of the people and the integrity of the environment were under a real and imminent threat.<sup>11</sup>

Recently, a case was brought to the court challenging 'sport hunting permits' established under the Wild Life Law<sup>12</sup>. The case was presented by the Ombudsman and is based on similar arguments to those used in the green sea turtle case: the absence of scientific research regarding the status of wildlife populations that would be necessary to justify that hunting does not comply with the preventive and precautionary criteria included in the Biological Diversity Law. The case is being studied by the Court and it will be very interesting to observe how the precautionary principle will be applied to an activity that in some other parts of the world is considered a conservation tool.<sup>13</sup>

## **CONCLUSIONS**

This case study illustrates a situation where the precautionary principle was used to its extreme, to entirely prohibit the consumptive use of a species. In this the evidence of the endangered status of the green sea turtle worldwide, and the poor management practices being used in Costa Rica, justified calling on the precautionary principle as a 'lifesaver' for the green sea turtle population and for the local economy of Tortuguero.

For Costa Rica, as a civil law country, one of the most important achievements of the case was the strong acceptance of the precautionary principle. This is all the more impressive as the precautionary principle is a very innovative approach, and judges and public authorities are often reluctant to switch the burden of proof in cases where there is lack of evidence, as they did in this case. This application reflects the Court's demonstrated willingness to apply the precautionary principle in a range of cases relating to natural resources. The reasons for the refusal of the Court to require the more precautionary strategy in the case of the high tension power lines is not clear. Perhaps people are more sensitive to the environment than to health risks. Alternatively, criteria for applying the precautionary principle could vary with the individuals sitting in the Court.

For a developing country it is not always feasible to base decisions on the best scientific information available, which could be seen as a limitation on the scope for applying

precautionary measures. Nevertheless, the precautionary principle offers an opportunity for countries to require the proponents of use of a specific natural resource to bear the cost of research necessary in order to ensure that its use is sustainable. This case could also be of importance in other countries where similar conditions exist and where lack of financial or technical resources is typically used as justification to avoid taking precautionary measures to protect natural resources.

Environmental groups and even public institutions have been using the precedent of the green sea turtle case and the interpretation of the precautionary principle as applied by the Court to question management practices in relation to natural resources that are conducted in the absence of scientific criteria. Obviously, there are some cases where this is not feasible, such as artisanal fisheries. However, when dealing with endangered species or fragile habitats, the precautionary principle constitutes a powerful tool for applying immediate and strong protection measures.

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## ENDNOTES

1. 'Decreto Ejecutivo No 22545-MINAE' of 30 August 1993.
2. 'Decreto Ejecutivo No 26435-MINAE' of 30 October 1997.
3. This group included the Caribbean Conservation Corporation (CCC), Sea Turtle Restoration Programme (PRETOMA), the Environmental and Natural Resources Law Centre (CEDARENA), the Inter-American Association for Environmental Defence (AIDA), Fundación Neotrópica and the World Society for the Protection of Animals (WSPA).
4. During the Central American Marine Turtle Workshop, which convened in Tortuguero at the end of September 1997, an exercise was undertaken to calculate the level of poaching over a period of two nights during the Workshop. The estimate was based on beach surveys conducted in the early morning hours. The evidence suggested that more than 150 turtles were taken from the beach during these two nights alone (Opay, 1998).
5. 'Resolución No 01250-99' of 11h24 of 19 February 1999.
6. 'Resolución No 92', La Gaceta 78, 23 April 1999.
7. 'Resolución No 5393' of 27 October 1995.
8. 'Resolución No 6322' of 3 July 2003.
9. 'Resolución No 2481-2002'.
10. 'Resolución No 2140-2004'.
11. 'Resolución No 2219-99' of 24 March 1999.
12. Case No 04-007573-0007.
13. IUCN Resolution RECWCC093,  
([http://www.iucn.org/congress/members/adopted\\_res\\_and\\_rec/REC/RECWCC3093-%20REC007%20-%20REV1%20Final.pdf](http://www.iucn.org/congress/members/adopted_res_and_rec/REC/RECWCC3093-%20REC007%20-%20REV1%20Final.pdf))