IUCN Conservation Outlook Assessment 2017 **(archived)**
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Please note: this is an archived Conservation Outlook Assessment for Islands and Protected Areas of the Gulf of California. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Islands and Protected Areas of the Gulf of California

SITE INFORMATION

Country:
Mexico
Inscribed in: 2005
Criteria:
(vii) (ix) (x)

Site description:
The site comprises 244 islands, islets and coastal areas that are located in the Gulf of California in north-eastern Mexico. The Sea of Cortez and its islands have been called a natural laboratory for the investigation of speciation. Moreover, almost all major oceanographic processes occurring in the planet's oceans are present in the property, giving it extraordinary importance for study. The site is one of striking natural beauty in a dramatic setting formed by rugged islands with high cliffs and sandy beaches, which contrast with the brilliant reflection from the desert and the surrounding turquoise waters. It is home to 695 vascular plant species, more than in any marine and insular property on the World Heritage List. Equally exceptional is the number of fish species: 891, 90 of them endemic. The site, moreover, contains 39% of the world's total number of species of marine mammals and a third of the world's marine cetacean species.
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SUMMARY

2017 Conservation Outlook

Significant concern

While management of individual component protected areas is effective, threats from over-fishing, bycatch, pollution, exotic species, tourism development and climate change are significant across this large serial property. Despite the positive trends toward increasing the protection of the property, illegal, unregulated and unsustainable fisheries remain a concern for the protection of the World Heritage values.
Monitoring of the vaquita, an endemic cetacean species found only in the Upper Gulf of California, has shown that this species is close to extinction. The main cause of the continuing decline of this species is its bycatch in illegal gillnet fishery aiming totoaba, a critically endangered fish highly praised for its swim bladder on Asian market. Recently, the Government of Mexico has undertaken unprecedented measures to address the issue, including through inter-agency cooperation between CONANP, the Mexican Navy and other partners. However, given dramatically low numbers of the remaining individuals of the vaquita, the success of these measures remains to be demonstrated.
Therefore, while management effectiveness and the overall state of the property’s OUV appear to be relatively good, the status of the vaquita, which is specifically recognized as part of the property’s OUV, remains critical.
Additionally, the results of a recent ecological assessment of all marine protected areas in Northeast Mexico show that while marine areas in parts of the property remain in good condition, in other components they are in poor condition and showing decline, particularly in south-eastern parts along the coast of Nayarit state.

Current state and trend of VALUES

High Concern
Trend: Deteriorating

Large parts of the property and many key species and habitats remain relatively

well preserved. However, despite the positive trends toward increasing the protection of the property, illegal, unregulated and unsustainable fisheries remain a concern for the protection of the World Heritage values. The lack of successful enforcement of stopping the illegal gillnet fishery in the Upper Gulf of California has led to the near-extinction of the vaquita, an endemic porpoise only found in the Gulf of California. Results of a recent ecological assessment of all marine protected areas in Northeast Mexico also show that while marine areas in parts of the property remain in good condition, in other components they are in poor condition and showing decline, particularly in south-eastern parts along the coast of Nayarit state.

Overall THREATS

Very High Threat

Bycatch of the highly endangered vaquita, over-fishing and tourism development is rated as “very high”.
Other bycatch, uncontrolled tourism, pollution and exotic species are rated as “high”. Threats to the marine resources are increasing from both artisanal and industrial fishing. The bycatch of the vaquita in illegal gillnet fishery is the main factor leading to its current status of being in immediate danger of extinction (Rojas-Bracho and Reeves, 2013). The impact of bycatch on other marine species (i.e. other cetaceans, turtles, seals and shark as well as other fish species) has not been assessed yet, but is most likely high. The illegal fishery on totoaba also poses a high or very high threat for this endangered species. Pollution from farm agricultural, shipping and coastal developments are also on the increase in the Gulf, and are expected to get much worse as tourism development continues around the region. Destruction of mangroves associated with the development of recreational facilities has a strong economic impact on local fishing communities and on food production in the region. The increasing impacts of climate change will particularly impact corals, calcifying organisms, and coastal wetlands. Although still not very well understood climate change has most likely a direct impact on the productivity of the Gulf of California, thereby also impacting the fish stocks.

Overall PROTECTION and MANAGEMENT

Mostly Effective

The property has a sound management system, with highly dedicated CONANP

staff responsible for the management of individual component protected areas which comprise this serial property. While no integrated management structure of plan exists for the entire property, coordination between different protected areas and management units appears to be well organized in practice. Years of working with the communities has led to generally good relations and a number of highly successful programmes have been developed, including monitoring programmes with participation of local communities.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **Striking natural beauty**
  Criterion:(vii)

  The serial property is of striking natural beauty and provides a dramatic setting due to the rugged forms of the islands, with high cliffs and sandy beaches contrasting with the brilliant reflection from the desert and the surrounding turquoise waters. The diversity of forms and colours is complemented by a wealth of birds and marine life. The diversity and abundance of marine life associated to spectacular submarine forms and high water transparency makes the property a diver’s paradise.(SoOUV, 2013)

- **A natural laboratory for the study of speciation and oceanographic processes**
  Criterion:(ix)

  The property ranks higher than other marine and insular World Heritage properties as it represents a unique example in which, in a very short distance, there are simultaneously “bridge islands” (populated by land in ocean level decline during glaciations) and oceanic islands (populated by sea and air). Moreover, almost all major oceanographic processes occurring in the planet’s oceans are present in the property, giving it extraordinary importance for the study of marine and coastal processes. These processes are indeed supporting the high marine productivity and biodiversity richness

that characterize the Gulf of California. (SoOUV, 2013)

▶ **Diversity of terrestrial and marine life**
Criterion:(x)

The diversity of terrestrial and marine life is extraordinary and constitutes a unique ecoregion of high priority for biodiversity conservation. The number of species of vascular plants (695) present in this serial property is higher than that reported in other marine and insular properties included in the WH List. The number of species of fish (891) is also highest when compared to a number of marine and insular properties. In addition the marine endemism is important, with 90 endemic fishes. The property provides habitat for about 35% of the world’s total number of cetacean species, including the smallest one, the critically endangered vaquita. In addition a large number of California sea lion colonies occur throughout the property. The endangered Blue Whale and Fin Whale as well as the vulnerable Sperm Whale also visit the property. In addition the serial property includes a good sample of the Sonora desert ecosystems, considered one of the richest deserts in the world from the desert biodiversity point of view. (SoOUV, 2013)

Assessment information

Threats

Current Threats
Very High Threat

Threats to the marine resources are increasing from both artisanal and industrial fishing. The bycatch of the vaquita in illegal gillnet fishery is the main factor leading to its current status of being in immediate danger of extinction (Rojas-Bracho and Reeves, 2013). The impact of bycatch on other marine species (i.e. other cetaceans, turtles, seals and shark as well as other fish species) has not been assessed yet, but is most likely high. The illegal fishery on totoaba also poses a high or very high threat for this endangered species. Pollution from farm agricultural, shipping and coastal developments are also on

the increase in the Gulf, and are expected to get much worse as tourism development continues around the region. Destruction of mangroves associated with the development of recreational facilities has a strong economic impact on local fishing communities and on food production in the region.

► Invasive Non-Native/ Alien Species

High Threat
Inside site, extent of threat not known

The main threat for the native species of the islands is the introduction of exotic species such as cats, rats, and goats, which are set loose (or have been set loose in the past) on purpose or by negligence by people from tourist yachts or fishermen who camp on the islands. These introductions radically alter delicate island ecosystems. (WDPA, 2011; CONANP, 2006).
For several islands successful actions have been taken to eradicate and/or control alien or exotic species, as well as to conduct research on how to reach eradication (UNESCO/IUCN, 2017).

► Tourism/ visitors/ recreation

High Threat
Inside site, scattered(5-15%)
Outside site

Tourists and other visitors such as research scientists can degrade island and coastal habitats, cause erosion, leave wastes and litter, and disturb the breeding grounds of birds and sea lions. Looting of archaeological sites, deforestation of dunes and tree-felling also occurs (WDPA, 2011). Whale watching occurs in several areas and has the potential for disturbing cetaceans; however, currently there are no indications of negative impacts (UNESCO/IUCN, 2017).
Surveillance, monitoring, closed seasons, and compliance of regulations by tourism and industrial companies are important and have been implemented in a number of areas.

► Marine/ Freshwater Aquaculture

Low Threat

Inside site, localised(<5%)

The continual development of shrimp farming, in conjunction with municipal and agriculture effluents has raised concerns about: a) depletion of fish stocks, b) reduction of mangrove forest, c) frequent harmful algal blooms in coastal waters and shrimp ponds, and d) water quality deterioration (Páez-Osuna et al. 2003). The nutrient load discharged from shrimp farming in the coastal waters of the Gulf of California is small in comparison with other sources (i.e. agriculture, municipal effluents); nevertheless, the impact in certain coastal areas can be significant (Páez-Osuna et al. 1999). A study by Barraza-Guardado et al. (2013) indicates that the material load in shrimp farm effluents in Bahía de Kino change biogeochemic processes and the health of the coastal ecosystem. Further assessment of the impact under consideration of other sources is needed.

► Water Pollution

Low Threat
Inside site, scattered(5-15%)
Outside site

Pollution from farm run-off, boat fuel, plastic flotsam and sewage are on the increase in the Gulf, and are expected to get much worse as tourism development continues around the region (WDPA, 2011; Bath and Putney, 2010) and as the human population density increases. In comparison to other regions in the world, the pollution levels in the Gulf of California remain relatively low to moderate. However, contamination hotspots are found for metals and metalloids, in sites where mining spills have occurred and for nutrients and pesticides, in wetlands that receive discharges from intensive agricultural and shrimp farming. Locally pollution can be very high, such as in coastal lagoons in Sinaloa (Orduña-Rojas and Longoria-Espinoza, 2006), and Guaymas Bay (Ortiz-Lozano et al. 2005). There are still numerous coastal environments in the Gulf of California where the scope of pollution sources and events have been poorly studied (Federico Páez-Osuna et al. 2017).

► Tourism/ Recreation Areas

High Threat
Inside site, localised(<5%)

Analysis by WWF indicated that urban and tourist development in the Gulf

posed a major threat to the region (Cisneros-Mata, 2010). The construction of ill-conceived large-scale tourism resorts can overburden the ecosystems and natural resources, such as fresh water supply, local communities depend upon.

► Fishing / Harvesting Aquatic Resources

Very High Threat
Inside site, scattered(5-15%)
Outside site

Bycatch and entanglement of non-target marine species in fishing gear can pose a major threat to local wildlife. Bycatch occurs mainly in gillnet fishery which causes mortality of small cetaceans such as dolphins and the vaquita, larger whales such as the Bryde’s whale, seals, turtles, sharks as well as other non-target fish. The illegal gillnet fishery in the Upper Gulf of California has been identified as the main cause for the high extinction risk of the vaquita (Rojas-Bracho and Reeves 2013; UNESCO/IUCN, 2017).

► Fishing / Harvesting Aquatic Resources

Very High Threat
Inside site, widespread(15-50%)
Outside site

Over-fishing of marine resources can occur from both artisanal and industrial fishing. Trawling, shrimp trawling, the use of line and depth seines and harpoons and the (illegal) overfishing of commercially important and endangered species such as the totoaba, are all contributing to the gradual degradation of this rich sea. Currently, over 85 percent of the Gulf’s fisheries are either at their maximum sustainable yield or overexploited (Cisneros-Mata,2010). The American Fisheries Society official list of North American Fishes at Risk of Extinction reports (an underestimated) 11 at-risk-species- in the GoC. Five are large serranids some endemic or nearly endemic. This species are sensitive to overharvesting because of their late maturity and formation of localized spawning aggregations. The ASF also lists the GoC, specially its northern part as 1 of 5 geographic hotspots in North America where numerous fish species are at risk. In short, the fishers of the Gulf are often overharvesting, and in some cases even depleting, their stocks (Brusca et al., Sala et al. 2004; Velarde et al. 2004).
A recent study (Arreguin-Sanchez et al, 2017) concludes that most of the

observed changes in fish stocks are also strongly linked to climate effects. They recommend that management measures for fishery should be guided by an adaptive strategy in which harvest rates are consistent with year-to-year biomass availability and ecosystem dynamics.

Potential Threats

High Threat

The increasing impacts of climate change will particularly impact corals, calcifying organisms, and coastal wetlands. Although still not very well understood climate change has most likely a direct impact on the productivity of the Gulf of California, thereby also impacting the fish stocks.

► Ocean acidification, Temperature extremes

High Threat
Inside site, throughout(>50%)
Outside site

By 2050, climate change is expected to increase temperatures by 2 ºC, and decrease rainfall by 20% with high variability from season to season and year to year. Sea level rise will particularly affect wetlands. Sea temperature rises will cause coral diseases and mortality, while ocean acidification will kill calcifying species (Cavasos, 2008).
Climate change is also expected to impact the local communities. For the past two years the Mexican Fund for the Conservation of Nature (FMCN) has supported CEDO (Intercultural Center for the Study of Deserts and Oceans) to help the Upper Gulf of California Biosphere Reserve develop a strategy to understand and reduce the vulnerability of coastal communities facing impacts from Climate Change. Their work includes the identification of communities most vulnerable to the effects of climate change, broadening awareness in the region, developed two training manuals to be used by local communities for monitoring and evaluating climate change indicators. CEDO also has been working with the Special Areas for Protection of Flora and Fauna in the Midriff Islands and other partners to model ocean acidification and temperature impacts on the Northern Gulf ecosystem and will continue advancing understanding of vulnerability in coastal communities throughout the Gulf of California.
At this point it seems that climate and climate change are an important, but

not completely understood (Arreguin-Sanchez et al, 2017) source of variation that should be incorporated, together with ecosystem information, within scientific advice for management (i.e. fishery).

Protection and management

Assessing Protection and Management

► Relationships with local people

Highly Effective

The National Commission for Protected Areas (CONANP) works closely with local communities to develop livelihoods that are compatible with conservation. Years of working with the communities has led to generally good relations and a number of highly successful programmes have been developed, including monitoring programmes with participation of local communities (UNESCO/IUCN, 2017).

► Legal framework

Mostly Effective

The General Law of Ecological Equilibrium and Environmental Protection (La Ley general del equilibrio ecológico y la protección al ambiente (LGEEPA)) provides the overarching legislative framework for the establishment and management of protected areas in Mexico. Most of the islands and all marine areas of this serial site are the property of the Federal Government (SOUV, 2010; UNESCO/IUCN, 2017). In addition to protected area laws, a number of legislative instruments provide a framework for protection of certain endangered species of flora and fauna.

► Enforcement

Serious Concern

Illegal fishing activities, particular illegal fishing of totoaba in the Upper Gulf of California, remain of concern and even unprecedented inter-agency efforts by CONANP, the Mexican Navy and PROFEPA have not succeeded so far in improving the situation (UNESCO/IUCN, 2017).

► Integration into regional and national planning systems

Highly Effective

The Property is well integrated in the national system of protected areas and through CONANP with regional and national planning systems. (Bath and Putney, 2010)

► Management system

Mostly Effective

Management of the property is exercised by the National Commission for Protected Areas (CONANP), a specialized agency of the Mexican Ministry of the Environment and Natural Resources (SEMARNAT). CONANP is a decentralized agency, and direct management activities for the property are implemented through three Regional Directorates (SOUV, 2010; CONAP, 2006; UNESCO/IUCN, 2017). Most of the marine protected areas of the Gulf have developed and published Management Programs through participatory processes. While all component protected areas that are part of the property have well established management programmes and plans in place, no integrated management structure exists for the entire property, although coordination between different protected areas and management units appears to be well organized (UNESCO/IUCN, 2017).

► Management effectiveness

Mostly Effective

Most of the individual component protected areas that constitute the property are effectively managed (UNESCO/IUCN, 2017). However, illegal fishing activities, particular in the Upper Gulf of California, remain of concern and even unprecedented inter-agency efforts by CONANP, the Mexican Navy and PROFEPA have not succeeded so far in eliminating illegal fishing of totoaba (UNESCO/IUCN, 2017).

► Implementation of Committee decisions and recommendations

Data Deficient

A number of requests and recommendations have been expressed by the World Heritage Committee in its most recent Decision, mainly with regards to

the situation with the critically endangered vaquita and illegal fishing of totoaba. These include requests to "ensure fully effective implementation and enforcement of the recently established permanent ban on gillnets use, sale, manufacture and possession at sea and on land within the Vaquita Refuge and the current gillnet and longline suspension zone and in the adjacent land areas" and to "fully implement the programme on development of alternative gear for legal fisheries which would not cause bycatch of vaquita and other marine mammal species, sharks and turtles" (World Heritage Committee, 2017). However, given that this Decision has only recently been adopted, it is not possible to evaluate effectiveness in its implementation.

► Boundaries

Highly Effective

The property was inscribed on the World Heritage List in 2005 and was subsequently extended in 2007 and 2011. Currently it comprises 12 components and extends over 688,588 ha. The serial approach is an adequate reflection of the biogeographic range and diversity of the Gulf of California and its islands (World Heritage Committee, 2013).

► Sustainable finance

Some Concern

The total annual operational budget (not including staff salaries) for the management of all component protected areas was 7,854,959 Mexican pesos in 2016. Most of the components experienced a reduction in budget in 2016 compared to 2015. In some components the reduction was quite significant, for example the budget for Archipiélago de San Lorenzo decreased from 200,000 pesos in 2015 to 85,000 pesos in 2016. However, many component protected areas can also count on external resources in addition to allocated budget (State Party of Mexico, 2016).

► Staff training and development

Some Concern

Most of the component protected areas have a stable amount of technical staff, although in some areas the number of staff appears rather low compared to the size of the components. All component protected areas also

have Advisory committees which support their management (State Party of Mexico, 2016).

► Sustainable use

Some Concern

CONANP works closely with local communities to assure that their use of natural resources is sustainable, and roughly about 1/3 of the annual budget goes to supporting community projects. (Packard Foundation, 2012; WDPA, 2011; Bath and Putney, 20010; CONANP, 2006). However, illegal and unsustainable fishing remain of high concern in many areas (UNESCO, 2017).

► Education and interpretation programs

Highly Effective

A number of excellent educational and community engagement programmes have been developed in many components of the property and some of them can serve as best-practice examples worldwide (UNESCO/IUCN, 2017; State Party of Mexico, 2017).

► Tourism and visitation management

Mostly Effective

Visitation is increasing especially near the city of La Paz, and the number is increasing. Sport fishing
both by tourist service companies and independents is well established in the central and southern
areas from La Paz and Loreto. Adventure and ecotourism groups come individually and in guided groups and cruises to watch whales and nesting birds, to skin-dive, kayak, sail, camp and trek. Guidelines for tourism and ecotourism, tourist
information and permits are obtainable at the regional and local offices of CONANP. There is an Orientation
Center at Bahía Kino opposite Tiburón (WDPA, 2011). Some component protected areas (e.g. Bahía de Loreto, Cabo Pulmo, Islas Marietas) have a Programme of Public Use in place. In some components assessments of carrying capacity have been undertaking. Visitation levels vary quite significantly among the components with Balandra, Bahía de Loreto and Islands of the Gulf of California, B.C.S. receiving the highest numbers (State

Party of Mexico, 2016).

► Monitoring

Mostly Effective

A number of monitoring programmes exist in most components and these include monitoring of populations of sea birds, sea turtles, sea lions, bats, marine fishes and invertebrates. Most of these programmes are undertaken by CONANP in collaboration with research institutions and other partners (State Party of Mexico, 2016). A number of monitoring programmes involving members of local communities have also been developed and highly successful (UNESCO/IUCN, 2017; State Party of Mexico, 2016).

► Research

Highly Effective

Almost all major oceanographic processes occurring in the planet’s oceans are present in the Gulf of California, which gives it extraordinary importance for the study of marine and coastal processes. The islands are seen as natural laboratories for the examining of speciation, colonization, interaction and adaptation among species; also for geological and evolutionary research. MacArthur and Wilson’s theory of island biogeography was tested there. Between 1994-6 an archaeological project on Isla Espíritu Santo and I. Partida uncovered 127 shelters, camps, shell middens, funeral caves and cave paintings. Universities in northwest Mexico and southwest U.S.A. work from field stations at Bahía de los Angeles on the peninsula, Isla Rasa in the San Lorenzo archipelago, on Isla Isabel and at Bahía Kino and Guyamas on the mainland. The National University of Mexico has monitored seabird populations on Isla Isabel since 1981; the Universities of Nayarit and Guadalajara also use the island’s excellent opportunities for research. Much remains unknown but numerous research projects are in hand. Much information is available although it is scattered. Research will also be promoted by a new South Californian Fund for Protected Natural

Areas. Research is also supported by a number of NGOs working in the Gulf of California, mainly WWF, CI, TNC and PRONAT (WDPA, 2011; CONAP, 2006)

Overall assessment of protection and management

Mostly Effective

The property has a sound management system, with highly dedicated CONANP staff responsible for the management of individual component protected areas which comprise this serial property. While no integrated management structure of plan exists for the entire property, coordination between different protected areas and management units appears to be well organized in practice. Years of working with the communities has led to generally good relations and a number of highly successful programmes have been developed, including monitoring programmes with participation of local communities.

► Assessment of the effectiveness of protection and management in addressing threats outside the site

Some Concern

The Management Program for the property takes notice of the impacts to the Gulf of California coast from “upstream” urban and industrial areas. Given the huge number and immensity of impacts, most attention is focused on wetlands since they are the breeding and nursery habitats of much of the Gulf’s fish. The resources available for this large task are extremely limited in comparison to the immensity of the problem (CONANP, 2006). Illegal fishing activities, particular illegal fishing of totoaba in the Upper Gulf of California, remain of concern and even unprecedented inter-agency efforts by CONANP, the Mexican Navy and PROFEPA have not succeeded so far in improving the situation (UNESCO/IUCN, 2017).

► Best practice examples

1. A number of highly successful community engagement programmes have been developed in some components and can serve as best-practice examples. These are multi-sectorial projects involving different levels of governance, NGO’s, academies and community to develop capacities to coordinate actions that benefit the people and the ecosystems. An example of this is the active involvement of the Comca’ac’s people in conservation

and research efforts. 2. Successful eradication of introduced species, such as rats, on several islands (i.e. Farallón de San Ignacio and San Pedro Mártir islands) can also serve as a best-practice example.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Striking natural beauty**

Good
Trend:Stable

The aesthetic values of the site have been well preserved. Many of the islands remain in pristine conditions and are not affected by any development (UNESCO/IUCN, 2017).

▶ **A natural laboratory for the study of speciation and oceanographic processes**

High Concern
Trend:Deteriorating

While many of ecological and oceanographic processes continue unimpaired, high concerns remain regarding the future of some key species, particularly the critically endangered vaquita (UNESCO/IUCN, 2017). Furthermore, concerns remain with regards to overfishing. All this may trigger further changes in the entire ecosystem.

▶ **Diversity of terrestrial and marine life**

High Concern
Trend:Deteriorating

The property remains in an overall good state of conservation. However, the critically endangered vaquita, endemic to the Gulf of California, is at risk of imminent extinction. Its numbers declined from approximately 300 at the time of the inscription of the property to 59 in 2015, and further to an estimation of 30 individuals in 2016 (UNESCO, 2017). A recent ecological

assessment of all marine protected areas (MPAs) in Northeast Mexico has been undertaken by CONANP (2016) through ecological scorecards compiled for individual protected areas based on a number of indicators. The results show that marine areas are in good condition in parts of the property (Cabo Pulmo, San Lorenzo), but are in poor condition and showing decline in other parts, particularly in south-eastern parts along the coast of Nayarit state (Isla Isabel and Islas Marietas) (UNESCO/IUCN, 2017).

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**

High Concern

Trend: Deteriorating

Large parts of the property and many key species and habitats remain relatively well preserved. However, despite the positive trends toward increasing the protection of the property, illegal, unregulated and unsustainable fisheries remain a concern for the protection of the World Heritage values. The lack of successful enforcement of stopping the illegal gillnet fishery in the Upper Gulf of California has led to the near-extinction of the vaquita, an endemic porpoise only found in the Gulf of California. Results of a recent ecological assessment of all marine protected areas in Northeast Mexico also show that while marine areas in parts of the property remain in good condition, in other components they are in poor condition and showing decline, particularly in south-eastern parts along the coast of Nayarit state.

Additional information

Benefits

Understanding Benefits

▶ **Importance for research, Contribution to education**

Almost all major oceanographic processes occurring in the planet’s oceans

are present in the Gulf of California, which gives it extraordinary importance for the study of marine and coastal processes. The islands are seen as natural laboratories for the examining of speciation, colonization, interaction and adaptation among species; also for geological and evolutionary research. (WDPA, 2011)

▶ **Outdoor recreation and tourism**

The economic benefits derived from the site include major commercial, artisanal, and recreational fishing, and tourism.

▶ **Fishing areas and conservation of fish stocks**

The property is extremely important for supporting major fisheries in the Gulf of California. However, high concerns remain with regards to both illegal fishing and unsustainable levels of legal fisheries (UNESCO/IUCN, 2017).

Summary of benefits

The Gulf of California has an extraordinary importance for the study of marine and coastal processes. The islands are seen as natural laboratories for the examining of speciation, colonization, interaction and adaptation among species; also for geological and evolutionary research. (WDPA, 2011)
The economic benefits derived from the site include major commercial, artisanal, and recreational fishing, and tourism.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Fundación Mexicana para la Conservación de la Naturaleza		Funding of projects by government agencies and NGOs to improve the conservation and management of the property, and support local communities to develop sustainable livelihoods.

№	Organization/ individuals	Project duration	Brief description of Active Projects
2	David and Lucile Packard Foundation		Funding implementation of the Integrated Program for Marine Protected Areas of the Gulf of California.
3	WWF Mexico		Gulf of California Program WWF works to ensure that the Gulf remains a healthy and productive marine area that can support local communities as well as the abundant wildlife within and near its waters. We have helped create several protected areas within the Gulf, and have worked to protect areas such as Cabo Pulmo National Marine Park from any future coastal development.
4	Conservación del Territorio Insular Mexicano, A.C. (ISLA)		Assessment of the sea cucumber in the marine protected areas in the Bahía de los Angeles area. Working the sport fishing assessment with special attention to totoaba. Assessing local eco-tourism companies to obtain a certification under the NMX-AA-133-SCFI-1996. Eco-tourism Sustainability Norm.
5	The Slim Foundation (Fundación Slim)	From: 2013	The Slim Foundation is working together with NGOs and government agencies on projects regarding sustainable fishing in the upper Gulf of California. They are also involved in the integral restoration of islands in the Gulf of California and Baja California Peninsula region as well as environmental education.
6	Leonardo DiCaprio foundation		Cooperation with Mexican government, Slim Foundation and others in vaquita conservation.
7	Grupo Tortuguero of the Californias		Conservation of marine turtles in the Gulf of California.

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