

MEMORANDUM

TO: INGRID ETIENNE, THE NATURE CONSERVANCY
FROM: Virginia Cornett¹
DATE: JUNE 21, 2007²
RE: Regulation of Maritime land and water resources in Mexico and its application to the conservation of such resources.

Below you find a broad overview of the regulation of maritime land and water resources in Mexico based on your questions.

- 1. What are the local, state and federal agencies responsible for the management and conservation of lands and resources lying below and immediately adjacent to (on the upland side) the high water line of the ocean? (Lands and resources of immediate concern include: fish and wildlife, water quality, coastal parks and beaches, shoreline development, coastal zone management, underwater (intertidal and subtidal) lands, and aquaculture management.)**

The following summarizes the agencies and the relevant laws, rules and policies.

Coastal land (beaches and 20 meters above the high water mark), territorial seas and the resources thereon or therein are under federal jurisdiction. These waters and land are considered goods of common use which can be freely transited by all the habitants of the Mexican Republic. Private parties can make special use of such resources exclusively through concessions or permits issued by the appropriate governmental authority. Generally speaking, the environmental ministry (*Secretaría de Medio Ambiente y Recursos Naturales* (SEMARNAT)) has jurisdiction over the Federal Maritime Land Zone (*Zona Federal Marítimo Terrestre*) or ZOFEMAT (as defined below), as well as over certain protected marine species. The Agricultural Ministry (*Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación* (SAGARPA)) has jurisdiction over fisheries resources. The Ministry of Communications and Transportation (*Secretaría de Comunicación y Transporte*) (SCT)) has jurisdiction over port areas; the Ministry of the Navy (*Secretaría de Marina* (SEMAR)) over maritime security; the Ministry of the Interior (*Secretaría de Gobernación* (SEGOB)) over islands; and the Ministry of Tourism (*Secretaría de Turismo* (SECTUR)) over tourist developments, although overlapping or joint jurisdiction may exist for certain activities. We will now look in more detail at the laws and agencies governing each specific area.

I. Coastal zone management (Federal Maritime Land Zone)

Article 27 of the **Mexican Constitution** establishes that the federal government has direct dominion over all the natural resources of the continental shelf and owns the waters of the territorial seas according to their extension under

¹ Virginia Cornett is an attorney with the law firm of Von Wobeser y Sierra, S.C. A special thanks to Virginia and her firm for researching this issue.

² This memo does not include the new Ley de Pesca.

international law, the internal marine waters, and the waters and estuaries that connect permanently or intermittently with the sea. Dominion over these resources cannot be passed to private parties and can only be used by private parties or Mexican companies by means of a concession granted by the appropriate federal governmental agency. The different regulatory laws of this constitutional provision discussed below divide the concept of “concession” into concessions, permits and authorizations, depending on the type of activity and the area where it is being carried out.

The **Federal Law of the Sea (*Ley Federal del Mar*)** regulates paragraphs four, five, six and eight of Art. 27 of the Constitution regarding marine zones (the Territorial Sea; the Internal Marine Waters; the Continuous Zone; the Exclusive Economic Zone; the Continental Shelf; the Island Shelves) (arts. 1 and 3). As mentioned above, all are under federal jurisdiction and this law further specifies that such jurisdiction applies with regard to the economic exploitation of the sea, the use of minerals dissolved in its waters, the production of electric or thermal energy derived therefrom, the currents and winds, the capturing of solar energy from the sun, the development of the coastal zone with regard to sea farming (*maricultura*), establishment of national marine parks, the promotion of recreation and tourism and the establishment of fishing communities; the protection and preservation of the marine environment and its protection from contamination; scientific research activities, among others (art. 6).

The **General Law of National Assets (*Ley General de Bienes Nacionales or LGBN*)** further specifies federal jurisdiction, defining the Federal Maritime Land Zone (ZOFEMAT) in relevant part as follows:

- When there are beaches on the coast, the federal maritime land zone will be a strip 20 meters wide of firm and passable land contiguous to such beaches or contiguous to the banks of the rivers, from where they flow into the sea one hundred meters up the river;
- all of the area of the cays and reefs located in the territorial sea;
- in the case of lakes, lagoons, estuaries or natural deposits of marine water that communicate directly or indirectly with the sea, the strip of 20 meters of federal maritime land zone will begin as of the point where the greatest annual reservoir (*embalse*) reaches or the limit of high tide...(LGBN, art. 119)

This Law establishes that the Federal Executive, through SEMARNAT, will promote the sustainable use and exploitation of the federal maritime land zone and the lands recovered from the sea, and that such agency may execute coordination agreements with the governments of the states and municipalities for the administration, conservation and oversight of these assets (LGBN, art. 120).

This Law also establishes that the maritime beaches and the ZOFEMAT are goods of common use (LGBN, art. 7). Article 8 of such law provides that “All inhabitants of the Republic may use goods of common use without any restrictions other than those established in the administrative laws and regulations. For special uses of goods for common use, a concession, authorization or permit granted with the conditions and requirements

established by the laws, is required.” Both this law and its regulation discussed below only make reference to “special uses” of these areas, without defining further what is meant by that.

The **Regulation of the Use and Exploitation of the Territorial Sea, Navigable Waterways, Beaches, Federal Land Maritime Zone and Lands recovered from the Sea (*Reglamento para el Uso y Aprovechamiento del Mar Territorial, Vías Navegables, Playas, Zona Federal Marítimo Terrestre y Terrenos Ganados al Mar, or RUAMAT*)** further specifies the rules applicable to the ZOFEMAT. It establishes that the beaches and the ZOFEMAT may be freely enjoyed by anyone, subject only to the following limitations and restrictions: SEMARNAT may impose restrictions regarding the use of vehicles and other activities on the beaches that could be dangerous to other users; the construction and installation of elements and works that impede the free transit of the beaches and the ZOFEMAT is prohibited unless approved in advance by SEMARNAT and; activities that contaminate such public areas are prohibited (RUAMAT, art. 7). Any individual or entity wishing to use or exploit the ZOFEMAT for “special purposes”, must have a concession (maximum term of 50 years with possibility of extension) or a permit (for short periods of time not affecting the environment)³ .

The law does not state specifically for what purposes concessions or permits will be granted. The web page of SEMARNAT’s enforcement branch (*Procuraduría Federal de Protección al Ambiente* or PROFEPA) indicates the legal instruments that authorize the legal occupation of the ZOFEMAT. They are:

- Concession: title granted by SEMARNAT for the exclusive use or exploitation of the ZOFEMAT for a specific time period (which is extendible); generally granted for tourist developments, hotels, restaurants, discothèques, aquaculture farms, tourist marinas, fishing camps and salt and rock mining
- Permit: document covering the use of the ZOFEMAT for a specific activity for one year; not extendible, but can be requested again; generally granted for beach vendors or preliminary works until a concession is granted
- Authorization: the resolution of SEMARNAT with respect to the modification of the terms of a concession;
- Use Agreement (*Acuerdo de Destino*): issued by SEMARNAT for the use and exploitation of the ZOFEMAT by any public federal, state or municipal entity; does not have time limit; does not transfer ownership nor is transferable; cannot be used for any activity other than the one agreed; generally granted for oil and gas, thermoelectric and nuclear facilities, and naval and port installations and facilities
- Removal of Land Recovered from the Sea (*Desincorporación de TGM*): when the sale of land recovered from the sea is authorized to the private party that has requested it and complies with the requirements of the Law.⁴

³ See powerpoint presentation *Zona Federal Marítima Terrestre y Ambientes Costeros* (SEMARNAT March 2006) at <http://207.248.177.25/images/stories/documents/tabasco/14.pdf>

⁴ www.profepa.gob.mx/PROFEPA/RecursosNaturales/ZonaFederalMaritimoTerrestre/Antecedentes.htm; <http://carpetas.semarnat.gob.mx/zofematac/instrumentosjuridicos.shtml>

Federal, state and local governmental agencies and entities will be given priority in the granting of ZOFEMAT concessions (RUAMAT, art. 23). Furthermore, under equal circumstances, preference in granting concessions to use the ZOFEMAT will be given in the following order: i) last owners of land that has become federal land due to maritime movements, ii) petitioners of extensions of concessions or permits...; iii) petitioners who will make a significant investment and assist the urban and socio-economic development of the area..., iv) bordering *ejidos* or *comunidades*⁵, v) owners or legitimate holders of the lands bordering such federal zone, vi) fishing cooperatives, vii) holders of concessions or permits to exploit materials found within the ZOFEMAT, and viii) the rest of the petitioners (RUAMAT, art. 24).

In addition, any foreign individuals or entities wishing to be concession or permit holders in the ZOFEMAT are subject to the requirements established in the Foreign Investment Law (RUAMAT, art. 28).

The rights and obligations of a concession may be assigned with the prior authorization of SEMARNAT provided the following requirements are complied with (RUAMAT, art. 37):

- The assignor is up to date in the payment of the fees indicated in the concession;
- The assignor is in compliance with the obligations indicated in the concession;
- The assignee meets the same requirements taken into account for the granting of the concession; for such purpose companies belonging to the same group or affiliates thereof will be understood to meet the same requirements;
- The ZOFEMAT, land recovered from the sea or any other deposit of maritime waters that was concessioned is not subject to an administrative or judicial ruling; and
- The continuation of the use or exploitation for which the area was concessioned is consistent with the determinations of the master control program and use of the federal zone.

The concessions and permits will expire for the following reasons (LGBN, art. 74 and RUAMAT, art. 44):

- Expiration of their term;
- Renunciation by the concessionaire ratified before the governmental authority;
- Fulfillment of its purpose or impossibility of doing so;
- Nullity, revocation and expiration;
- Declaration of “rescue”;
- When national security is affected;
- Death of the concession or permit holder.

⁵ *Ejidos* and *comunidades*, referred to as the “social sector”, are forms of land ownership where lands are held individually by the *ejido* or *comunidad* members or commonly among them and their sale or transfer still has certain restrictions although such restrictions were liberalized with the 1992 constitutional reforms. Much of the coastal areas of Mexico are owned by this “social sector”. *Ejido* land is governed through the Agrarian Law (*Ley Agraria* in Spanish).

Concessions or permits granted by unauthorized governmental officials or in violation of the laws, or by error, fraud or threat will be administratively annulled by SEMARNAT (RUAMAT, art. 46)

The following are causes of revocation of concessions or permits granted (LGBN art. 76, RUAMAT art. 47):

- Sub-assign, lease, lien or carry out any other act or contract by virtue of which another person partially or wholly enjoys the rights covered by the concession or permit or carry out any other legal or material act that alters its conditions;
- Engage in activities or works not mentioned in the concession or permit without obtaining the authorization of SEMARNAT in advance;
- Failure to make two payments of the fees indicated in the concession or permit;
- Induce, permit, consent or engage in illegal acts within the area granted in concession or permit;
- If the concession or permit holder or his relatives or employees oppose or prevent the inspections ordered by SEMARNAT;
- If the concession or permit holder, his relatives or employees impede free access to the maritime beaches, by areas indicated for such purposes by SEMARNAT;
- Not complying with the conditions established in article 29 sections II, III, IV, V, VI of this law (Concession holders of ZOFEMAT are obligated to: initiate the exercise of the rights consigned in the concession as of the date approved by SEMARNAT (II); initiate the works that are approved within the terms established in the concession, informing SEMARNAT of their termination within 3 working days (III); repair any damages caused by defects in the construction or in repair or maintenance work (IV); cover the expenses of demarcation and establishing of boundaries of the concession area (V); maintain the concession area in optimal hygienic conditions (VI));
- Any violation or breach by the concession or permit holder of the legal or regulatory provisions or of the conditions established in the concession or permit.

SEMARNAT may “rescue” or revoke concessions granted when based on technical studies it determines there is a public use or interest under the Law to do so. (RUAMAT, art. 50).

Any private party can denounce before the appropriate governmental authority the acts or omissions in violation of the RUAMAT (RUAMAT, art. 85). Therefore anyone can denounce someone who is violating his concession or permit which may result in the revocation of such concession or permit.

Finally, individuals or entities may request a concession or permit from the General Office of the Federal Land Maritime Zone and Coastal Environment (*Dirección General de Zona Federal Marítimo Terrestre y Ambientes Costeros*) and its Administrative Units in the States. This Office is responsible for the administration, conservation and sustainable use of the maritime beaches, the

ZOFEMAT and the lands recovered from the sea. If the works or activities on the ZOFEMAT or the lands recovered from the sea require an authorization in terms of environmental impact prior to being carried out, an environmental impact assessment must be presented to the General Office of Environmental Impact and Risk (*Dirección General de Impacto y Riesgo Ambiental*). PROFEPA is responsible for enforcement of the laws governing the ZOFEMAT.⁶ Concessions require the payment of an annual fee based on the number of square meters given in concession (Federal Fees Law, *Ley Federal de Derechos*, art. 232) although concessions for conservation purposes may be exempt.

II. Marine Flora and Fauna

As established above, marine resources are under federal jurisdiction. In this regard, since 2001 the fishing industry has been the specific jurisdiction of the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (*Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación*) (SAGARPA) through the National Fisheries Commission (*Comisión Nacional de Acuacultura y Pesca* (CONAPESCA)), except for certain threatened species which fall under the jurisdiction of SEMARNAT.

SAGARPA, through CONAPESCA, is responsible for both promoting fishing activities and preserving the resource. In this latter regard it is responsible for establishing methods and measurements for conservation of fishing resources (with SEMARNAT); regulating refuge areas; establishing closed seasons and zones; determining zones of capture and cultivation; regulating the introduction of aquatic species in federal waters; establishing permissible volumes of capture and regulating instruments and equipment, number of boats, their characteristics, etc.⁷ SAGARPA, with the help of SEMARNAT, is also responsible for maintaining a National Fisheries Chart (***Carta Nacional Pesquera***) which is an inventory of all fisheries resources in federal water bodies and is intended as a management tool (Fisheries Law, art. 3).

The **Fisheries Law (*Ley de Pesca*)** establishes that the activities of capturing, extraction and cultivation of flora and fauna that live totally, partially or temporarily in water (Fisheries Law, art. 1), require a concession, permit or authorization, except for fishing for domestic consumption by residents on the coasts, recreational fishing from land and aquaculture in waters that are not of

⁶ See powerpoint presentation *Zona Federal Marítima Terrestre y Ambientes Costeros* (SEMARNAT March 2006) at <http://207.248.177.25/images/stories/documents/tabasco/14.pdf>

⁷ In this regard there are also a number of NOMs that protect and/or regulate the capture of particular marine wildlife or marine ecosystems, including the following: NOM-ECOL-059-2001 (protected species); NOM-012-PESC-1993 (Totoaba and Vaquita Marina); NOM-061-PESC-2006 (excluders of marine turtles for Shrimp fleets); NOM-126-SEMARNAT-2000 (scientific collection of biological material of flora and fauna); NOM-131-SEMARNAT-1998 (whale watching); NOM-135-SEMARNAT-2004 (captive marine mammals); NOM-EM-139-ECOL-2002 (measures protecting marine and coastal ecosystems and protected species of the Biosphere Reserve of Gulf of California).

federal jurisdiction (Fisheries Law, art. 4). Concessions are granted for a minimum of five years and a maximum of twenty; in the case of aquaculture they can be granted for up to 50 years and they may be extended for equal amounts of time (Fisheries Law, art. 6)

The **Regulation of the Fisheries Law (*Reglamento de la Ley de Pesca*)**

classifies fishing into the following activities:

- I. Capture or extraction for purposes of a) commercial fishing, b) investigative fishing, c) educational fishing, d) sport-recreational fishing and e) domestic consumption fishing;
- II. Cultivation or aquaculture for the following purposes: a) commercial, b) investigative and c) educational (Regulation Fisheries Law, art. 30)

Article 31 of this Regulation then establishes for what activities concessions, permits and authorizations are granted, as follows:

Concessions are granted for:

- a) commercial fishing,
- b) commercial aquaculture and
- c) operation of industrial ships or floating plants.

Permits are granted for:

- a) commercial fishing,
- b) operation of industrial ships or floating plants,
- c) investigative fishing,
- d) sport-recreational fishing,
- e) fishing works necessary to justify the concession requests,
- f) fishing by foreigners, when an excess is declared in the exclusive economic zone, and
- g) investigative aquaculture.

Authorizations are granted for:

- a) educational fishing,
- b) fishing in the high sea or in foreign waters by ships under a Mexican registry and flag,
- c) installing fixed fishing equipment in federal waters,
- d) collection from the natural environment of reproducers, larvae, postlarvae, broods, eggs, seeds, young fish or any other state,
- e) educational aquaculture,
- f) introducing live species in bodies of water under federal jurisdiction,
- g) unloading in foreign ports or transport of species captured by Mexican flagged fishing ships,
- h) unload fish products in any form in Mexican port by foreign fishing ships and
- i) substitution of rights derived from the corresponding titles

Concession holders have certain obligations which include the extraction or capture of only the authorized species and only in the zones determined by SAGARPA; reporting requirements; fishing only with authorized boats and

equipment; and cooperating in the preservation of the ecology and the conservation of the species, among others (Regulation Fisheries Law, art. 45).

Investigative fishing (*pesca de fomento*) is defined in relevant part as “the study, scientific investigation, experimentation, exploration, prospecting, development, repopulation or conservation of the resources consisting of the aquatic flora and fauna and their habitat...” (Regulation Fisheries Law, art. 69). To engage in *pesca de fomento* you must have a permit (Regulation Fisheries Law, art. 31) and such permits may be granted to non-Mexicans (Regulation Fisheries Law, art. 73), but these permits are only granted for resources not already regulated by the National Fisheries Chart.

Concession or permit holders may be substituted with the prior authorization of SAGARPA, provided they comply with the requisites established in the Regulation of the Fisheries Law and except as expressly prohibited (Fisheries Law, art. 8). The Regulation of the Fisheries Law establishes that the substitution of concession and permit holders for commercial fishing and aquaculture may be authorized provided the concession or permit is currently valid; if the concession or permit has been in force for at least one year; the substitute complies with the requirements indicated in the Fisheries Law and its Regulation for the exercise of the activity, and the assets used for purposes of the concession or permit are transferred to the substitute or the substitute has the necessary assets (Regulation Fisheries Law, art. 37). However, concessions, permits or authorizations may not be sub-assigned, leased or subject to lien (Regulation Fisheries Law, art. 8).

Article 9 of the Fisheries Law establishes that concessions for commercial fishing may only be granted to Mexican boats or fishing units (Fisheries Law, arts. 9 and 10). However, article 14 of the Fisheries Law provides that SAGARPA may as an exception in the case of an excess of a species issue a permit to foreign boats to fish in the Mexican exclusive economic zone.

Permits may not exceed 4 years and can be transferred pursuant to article 8 mentioned above, except for the case of investigative fishing (Fisheries Law, art. 11). Investigative fishing permits will be granted to persons who show the technical and scientific capacity for such. Permits for sport-recreational fishing may be issued to Mexican or foreign individuals (Fisheries Law, art. 13)

Non-transferable authorizations for the following activities may be granted by SAGARPA only to Mexican individuals or entities: i) fishing on high seas or in foreign jurisdiction, with Mexican flagged ships; ii) installing fixed fishing nets or lines in waters under federal jurisdiction; iii) collection from the natural environment of reproducers, larvae, eggs, seeds, etc. for purposes of aquaculture production or research; iv) the introduction of live species into bodies of water under federal jurisdiction; and v) fishing for teaching purposes (Fisheries Law, art. 15).

Concessions or permits will be cancelled (*extinguirse por caducidad*) when the concession or permit holders do not initiate the exploitation within the established time period or suspend it without justified cause for more than 30

consecutive days and in the case of aquaculture in federal waters when they do not comply with the established investment plan (Fisheries Law, art. 16)

Concessions, permits or authorizations will be revoked when the holders thereof:

- i) affect the ecosystem or put it in imminent risk;
- ii) do not timely provide information requested by SAGARPA or provide false information;
- iii) without justification do not timely comply with the general technical conditions indicated by SAGARPA;
- iv) transfer authorizations or without the consent of SAGARPA transfer rights derived from a concession or permit; and
- v) enter into bankruptcy, liquidation or dissolution (Fisheries Law, art. 17).

Concessions, permits or authorizations will be annulled if after their granting elements affecting their validity appear (Fisheries Law, art. 18). Holders of cancelled or revoked concessions, permits or authorizations must wait four years to be able to renew their titles (Fisheries Law, art. 19).

III. Coastal wildlife

Endangered wildlife in general, including endangered coastal wildlife, is protected by the **General Wildlife Law (*Ley General de Vida Silvestre*)** which is under the jurisdiction of SEMARNAT. The mangrove forests along the coasts are also subject to the **General Law of Sustainable Forest Development (*Ley General de Desarrollo Forestal Sustentable*)**, also enforced by SEMARNAT through the National Forestry Commission (*Comision Nacional Forestal*), which law requires an authorization before deforesting (art. 58) and an environmental impact assessment before harvesting wood (arts. 73 and 76)

Also under the General Wildlife Law owners or possessors of lands or installations that engage in activities of conservation of wildlife must give notice to SEMARNAT, and they will be incorporated in to the System of Wildlife Management and Conservation Units (*Unidades de Manejo para la Conservacion de la Vida Silvestre*) (UMAs). If such land owners or possessors also exploit the wildlife, they must register their land as an UMA. The purpose of the UMAs is the preservation of natural habitat, populations and examples of wild species, and they may have specific purposes of restoration, protection, maintenance, recuperation, reproduction, repopulation, reintroduction, investigation, rescue, safekeeping, rehabilitation, exhibition, recreation, environmental education and sustainable use (General Wildlife Law, art. 39). The stated purpose of this system of units also includes the conservation of biodiversity and natural habitat of wildlife and the creation of biological corridors, among other conservation activities (General Wildlife Law, art. 46). What is not clear from the law, however, is what incentive (economic or otherwise) a landowner would have to become part of this system.

Coastal wildlife would also be protected under the coastal Protected Natural Areas which will be discussed in section V. on Coastal Parks and Beaches. In

addition, coastal mangrove areas are specifically protected from removal under the General Wildlife Law as further explained under Section VI regarding Shoreline Development

IV. Water quality jurisdiction

Article 130 of the **General Law of Ecological Equilibrium and Environmental Protection** (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*, or *LGEEPA*) states that SEMARNAT will authorize the emptying of wastewater in marine waters in accordance with the **National Waters Law** (*Ley de Aguas Nacionales*), its Regulation (*Reglamento de Ley de Aguas Nacionales*) and the applicable Official Mexican Standards (*Norma Oficial Mexicana* or *NOM*). The National Waters Law and its Regulation are enforced by the National Water Commission (*Comisión Nacional de Agua*) (CNA) which is an independent agency of SEMARNAT.

A concession is generally required to extract water from national waters, but it is not required to extract interior or territorial marine waters, unless the purpose is for desalinization, in which case a concession is necessary (National Waters Law, art. 17).

The dumping of waste water into the sea must be authorized by the Water Authority, in coordination with the Ministry of the Navy (*Secretaría de Marina*) when from mobile sources or fixed platforms (National Waters Law, art. 86 VI.)

The National Waters Law requires a permit to discharge wastewater into national waters, including marine waters (National Waters Law, art. 88). NOM-001-SEMARNAT-1996 establishes the maximum contaminant limits for wastewater discharges. Furthermore, the law, regulation and NOMs set forth requirements for sampling, monitoring and treatment.

In spite of having the inspection authority to verify compliance with wastewater discharge requirements, the actual capacity of SEMARNAT's enforcement arm, PROFEPA, for verifying compliance is very limited.⁸

V. Coastal parks and beaches

The regulation of beaches in general has been described above. In this section we will look at the Mexican system of Federal Protected Natural Areas (*Áreas Naturales Protegidas* (ANP)) (which are governed by LGEEPA arts. 44-77 and its Regulation in relation to ANPs (***Reglamento de la LGEEPA en materia de Áreas Nacionales Protegidas***) (Regulation LGEEPA of ANP)). The ANPs include the following legal figures: national parks, biosphere reserves, natural monuments, natural resource protected areas, flora and fauna protected areas, sanctuaries, state parks and reserves and ecological preservation zones in

⁸ *Política Ambiental Nacional para el Desarrollo Sustentable de Océanos y Costas de México. Estrategias para su Conservación y uso sustentable* (SEMARNAT, 2006) p. 22.

urban areas) (LGEEPA, art. 46). SEMARNAT has primary jurisdiction over these areas, except in the case of the last two. For state parks and reserves and ecological preservation zones in urban areas the respective states and cities have jurisdiction.

The purpose of the ANPs is to preserve the different natural environments represented in Mexico; safeguard genetic diversity of wild species; ensure sustainable development of ecosystems; ecological investigation and education; among other things (LGEEPA, art. 45). A Presidential Declaration (*Declaratoria que expida el Titular del Ejecutivo Federal*) creates the federal ANPs (LGEEPA, art. 57) and every ANP must develop a Management Program (LGEEPA, art. 65). An ANP can be declared over any type of property (LGEEPA, art. 63) and does not necessarily change the type of property. It only limits the activities that can be carried out on that property.

The ANPs are administered according to the LGEEPA, its Regulation, any applicable NOMs and the ANP's Declaration and Management Program (Regulation LGEEPA of ANP, art. 4). The ANPs may be divided into Nucleus Zones (the most environmentally significant areas that merit the most protection) and Mitigation Zones and the latter may again be divided into various sub-zones all of which have specific rules governing activities and the use of the resources therein (Regulation LGEEPA of ANP, art. 49).

In the case of marine protected areas, the following types of ANPs can be created: biosphere reserves, national parks, natural monuments, flora and fauna protected areas and sanctuaries. In these areas activities or exploitation will be governed by the LGEEPA, the Fisheries Law, the Federal Law of the Sea and international conventions. The authorizations, concessions or permits for the exploitation of natural resources, the transit of boats and the construction or use of infrastructure therein will be subject to the Management Program and the corresponding Declarations. The establishment, administration and oversight of ANPs in marine zones and the preparation of the Management Program should be coordinated by SEMARNAT and the Marine Ministry (LGEEPA, art. 51).

There are 155 ANPs covering 10% of Mexican territory, according to the PROFEPA website. Fifty-nine of those are coastal and marine which constitute 38.5% of the federal ANPs and represent 69% of the total area protected. This includes 19.5% of the surface area of its Territorial Sea, 10.4% of its continental platform and 1.3% of its Exclusive Economic Zone. Thirty-two percent of these areas are exclusively marine ecosystems and the remaining 68% are coastal ecosystems.⁹

All works and large scale commercial fishing activities in ANPs must submit an environmental impact assessment and be authorized by SEMARNAT (LGEEPA, art. 28 XI and XII). In the zones identified as nucleus zones of an ANP, the exploitation and use of wild flora and fauna is prohibited (LGEEPA,

⁹ *Política Ambiental Nacional para el Desarrollo Sustentable de Océanos y Costas de México. Estrategias para su Conservación y uso sustentable*, (SEMARNAT, 2006) p. 25.

art. 49 III). An authorization from SEMARNAT is necessary for the use and exploitation of the federal land maritime zone and for the exploitation of fishery resources in an ANP (Regulation LGEEPA of ANP, art. 88 VI).

The Regulation of LGEEPA in relation to ANPs establishes that the natural resources therein may only be exploited to the extent they generate benefits for the residents thereof and pursuant to sustainable development, the Declaration of the ANP, its Management Program, the Ecological Zoning Programs, the NOMs and other applicable laws. More specifically, the natural resources of the ANP may be exploited for activities and projects of sustainable management and use of wild life, as well as agricultural, livestock, forestry, fishery, aquaculture and mining activities, provided: a) new invasive wild species or transgenic species are not introduced; b) the plant coverage, structure and composition of the forest mass and the biodiversity is maintained; c) the hydrologic equilibrium of the area or relevant ecosystems for the ANP are not significantly affected; d) reproduction zones or endangered species are not affected; e) forest, fishing and mining exploitations have the respective authorization and an authorized environmental impact assessment; f) fishing activities do not involve the incidental capture of endangered species nor a volume of incidental capture greater than the volume of the species being exploited; and g) corals and rock materials are not removed from the coastal ecosystems (Regulation LGEEPA of ANP, art. 81)

The granting or issuance of permits, licenses, concessions or authorizations for the exploitation of resources in ANPs must observe the LGEEPA, the ANP's Declaration and its Management Program. Furthermore, SEMARNAT may request the competent authority to cancel or revoke any permit, license, concession or authorization if SEMARNAT's studies show that it may cause damage to the environment (LGEEPA, art. 64).

The National Fisheries Chart has a section on fishing in the ANPs which mentions the legal regulations applying to that activity and includes an entry for each ANP describing its characteristics and indicating the elements of the Management Program regarding fishing. For example, for the Biosphere Reserve of the Upper Gulf of California and the Colorado River Delta it specifies that fishing within the Nucleus Zone of such Reserve is prohibited (based on Art. 49 III of LGEEPA) and within the Mitigation Zone an environmental impact authorization is necessary. It also indicates more specific regulations for particular areas of the Mitigation Zone.¹⁰

Finally, the Declaration and the Management Program for each ANP, as well as any applicable Ecological Zoning Plan must be consulted to have a full understanding of the specific restrictions on activities and use of natural resources in that area.

VI. Shoreline development

¹⁰ La Carta Nacional Pesquera, www.sagarpa.gob.mx/conapesca/ordenamiento/carta_nacional_pesquera/cnp.htm

Development of coastal tourism is the joint responsibility of the Tourism Ministry (*Secretaría de Turismo* (SECTUR)) and SEMARNAT. Port areas and permits to construct wharfs and docks outside of port areas are under the jurisdiction of the Ministry of Communications and Transportation. Both types of developments do generally require a ZOFEMAT concession and an Environmental Impact Assessment.

In this regard, the LGEEPA establishes that real estate developments affecting coastal ecosystems; works and activities in wetlands, mangroves, lagoons, rivers, lakes and estuaries connected to the sea, as well as on the coasts or federal zones; works in federal protected areas; and fishing, aquaculture or farming activities that can endanger the preservation of one or more species or cause damages to ecosystems must submit an environment impact assessment and receive authorization from SEMARNAT (LGEEPA, art. 28).

Furthermore, a new amendment to the **General Wildlife Law (*Ley General de Vida Silvestre*)** “prohibits the removal, filling, transplanting, cutting or any other work or activity that affects the integrity of the hydrologic flow of the mangroves; of the ecosystem and its zone of influence; of its natural productivity; of the natural capacity of the ecosystem for tourist projects; of the zones of shelter, reproduction, refuge, feeding and stocking; or of the interactions between the mangrove, the rivers, the dunes, the adjacent maritime zone and the corals, or that provokes changes in the ecological characteristics and services” (art. 60 TER). It was also added that non-extractive works and activities carried out in mangroves will be subject to an environmental impact assessment (art. 99, second paragraph)

In addition there has also been a specific NOM in place since 2003 applicable to activities carried out in mangroves that establishes certain prohibitions and limitations on development and activities in mangrove areas, although an internal SEMARNAT resolution has softened those restrictions by allowing for compensatory measures.¹¹

There is also the Ecological Zoning Plan (*Ordenamientos Ecológicos*) which is a planning instrument whereby SEMARNAT signs a Coordination Agreement (*Convenio de Coordinación*) with a state or states in order to produce an ecological regulation program which seeks to find a balance between development and conservation. For example, SEMARNAT has signed a Marine Ecological Zoning Plan of the Gulf of California Coordination Agreement with the four states bordering on the Gulf of California. These agreements require that an environmental record (bitácora ambiental) or public registry be kept of the advances made with regard to the plan.¹² The Ecological Zoning Plan is governed under arts. 19-20 bis 7 of the LGEEPA and the Regulation of the

¹¹ *Norma Oficial Mexicana NOM-022-SEMARNAT-2003, Que establece las especificaciones para la preservación, conservación, aprovechamiento sustentable y restauración de los humedales costeros en zonas de manglar; Acuerdo que adiciona la especificación 4.43 a la Norma Oficial Mexicana NOM-022-SEMARNAT-2003.*

¹² (see SEMARNAT website:

www.semarnat.gob.mx/queessearnat/ordenamientoecologico/Pages/inicio.aspx

LGEEPA in relation to Ecological Zoning Plans (***Reglamento de la LGEEPA en Materia de Ordenamiento Ecologico***)

Furthermore, although the ZOFEMAT is federal jurisdiction, SEMARNAT can in general sign coordination agreements with coastal states and municipalities to share the management of those areas (LGBN, art. 120).

VII. Intertidal and Underwater lands

Intertidal lands are federal property over which SEMARNAT has jurisdiction and which are considered of common use and therefore may be freely transited by anyone, except for assets located within ports, or those used as dockyards, shipyards, naval repair docks, piers, and other installations referred to in the Law of Navigation and Maritime Commerce (*Ley de Navegación y Comercio Marítimos*), which is the jurisdiction of the Ministry of Communications and Transportation (*Secretaría de Comunicaciones y Transportes*).

Underwater lands in the ANPs are the jurisdiction of SEMARNAT, while the jurisdiction of underwater lands in non-ANP areas would depend on the activity to be engaged in.¹³

VIII. Aquaculture management

Aquaculture is defined as the cultivation of species of aquatic fauna and flora by the use of methods and techniques for its controlled development in all biological stages and aquatic environments (Regulation Fisheries Law, art. 101). It comes under the jurisdiction of SAGARPA and is regulated in the Regulation of the Fisheries Law. Commercial aquaculture requires a concession which can be granted to Mexican nationals and foreigners or to Mexican entities (Regulation Fisheries Law, art. 107). The application for the concession requires a technical and economic study and an environmental impact assessment, preventive report or authorization from the competent authority (Regulation Fisheries Law, art. 108). Before requesting a concession from SAGARPA, an Environmental Impact Assessment must be presented to SEMARNAT in order to obtain the respective authorization and in the case of use of ZOFEMAT land, the latter concession must also be requested from SEMARNAT (LGEEPA, art. 28X; Regulation of LGEEPA regarding Environmental Impact Assessment, art. 5U).

The aquaculture concession from SAGARPA is not required if the project is on private, *ejidal* or *comunal* land (Fisheries Law, art. 4 and Regulation Fisheries Law, art. 106)

Aquaculture facilities also require a concession from the National Water Commission (CNA), although if the aquaculture activities are carried out on floating systems that do not change the water flow or affect the water quality or

¹³ According to a telephone conversation with Ruben Jimenez Samano, Director of the Department of Contracts and Agreements of the Commission of Protected Natural Areas.

navigation a CNA concession is not required (National Waters Law, art. 82). Aquaculture facilities must also obtain a discharge permit from the CNA for wastewater discharges (National Waters Law, art. 88 and 88BIS) and meet the standards for maximum contaminant limits, as well as any specific standards established by the CNA in the permit. Furthermore, specific NOMs establish sanitary requirements for aquaculture (NOM-EM-006-PESC-2004 applicable to production and others applicable to sanitary handling of specific products).

Investigative aquaculture (*acuacultura de fomento*), as with investigative fishing, requires a permit which may be granted to scientists, technicians and scientific and teaching institutions, both national and foreign (art. 115).

As mentioned previously, much of the coastal area of Mexico is property of the *ejidos* and *comunidades* and until 1992 commercial fishing was restricted to such sectors and heavily regulated. As a result, aquaculture did not begin developing in Mexico until recently. The reforms allow transfer of common *ejido* lands to business associations in which the *ejido* or its members participate, and *ejido* lands may be contracted out temporarily to third parties.¹⁴ According to one study, 80% of shrimp farms are owned and operated by the social sector and they produce approximately 48% percent of cultivated shrimp, while the 20% of private sector farms produce 52%.¹⁵

2. Can private entities acquire legal rights (through fee or less-than fee interests, such as through ownership, leasing, licensing, concessions, permits, etc.) to protect, manage, conserve or restore lands and resources lying below and immediately adjacent to (on the upland side) the high water line of the ocean. Does the answer change if it is a foreign entity?

The following addresses possibilities for the acquisition and/or obtaining of legal rights over coastal lands and resources specifically for conservation purposes.

I. Overview

As described above, coastal resources are by and large under federal jurisdiction and only accessible to private parties by concession or permit, and such concessions or permits are envisioned for purposes of and give preference to the exploitation of the resources, not their conservation per se. The task of conservation of natural resources is generally entrusted to SEMARNAT, whose primary means of land and natural resource preservation has been through the use of the Protected Natural Areas (ANPs) and certain

¹⁴ See National Aquaculture Legislation Overview – Mexico, FAO. http://www.fao.org/fi/website/SwapLang.do?language=en&page=%2FFIRRetrieveAction.do%3Fdom%3Dlegalframework%26xml%3Dnalo_mexico.xml

¹⁵ Social and Environmental Aspects of Shrimp Aquaculture in Coastal Mexico, Billie R. DeWalt, p.6 (<http://www.pitt.edu/~brdewalt/shrimp-project/mexico.PDF>).

NOMs protecting specific species, and to the other federal agencies such as SAGARPA that are also responsible for promoting their sustainable exploitation (which can often lead to conflicts of interest within the agency itself).

Private land protection of natural resources is, however, contemplated within the legal concepts of UMAs found in the LGEEPA (explained below) and payments for environmental services (primarily preservation of watersheds) encompassed in the Forestry Law and presumably could be made use of by coastal private land owners (including *ejidos* and *comunidades*) beyond the ZOFEMAT. Furthermore, concessions over the ZOFEMAT can be requested for purposes of “Protection” of the concessioned area. The preferential order established in the law for granting concessions would have to be taken into account in case of multiple requests for the same area. Concessions or permits over marine flora and fauna contemplated in the Fisheries Law for purposes of protecting rather than exploiting such resources could be possible under the concept of “investigative fishing”. These possibilities will be discussed further below, but first it would be useful to briefly outline the rules governing coastal land ownership and possession in Mexico.

II. Coastal Land Ownership and Possession

Private Mexican individuals and entities can acquire fee simple title to coastal land beyond the ZOFEMAT (20 meters above the high water mark). Land within the ZOFEMAT can be used through a concession, permit or authorization, depending on the activity, and whether or not such concessions, permits or authorizations are available to foreigners also depends on the activity, as described in the previous section.

Under the Foreign Investment Law, real estate located within the so-called restricted zone, which is a strip of 100 kilometers along the borders and 50 kilometers along the beaches of Mexico, cannot be directly owned by foreigners. However, foreigners can acquire rights to the use and benefits of real estate located within the restricted zone through a trust with the permission of the Ministry of Foreign Relations (*Secretaria de Relaciones Exteriores*) (SRE). In this case, it is the credit institution that, as fiduciary, acquires rights over the real estate and the foreigner, as beneficiary, has the right of use and enjoyment thereof, including any fruits or products obtained and, in general, any proceeds resulting from any profit yielding operation or exploitation, through third parties or the fiduciary institution. The duration of these types of trusts is 50 years, which may be extended with the authorization of the SRE.

Real estate located outside of the restricted zone can be directly acquired by foreigners, whether individuals or entities, provided that prior to the acquisition a writ is presented to the SRE in which the foreigner agrees to be considered a Mexican national with respect to such property and not to invoke the protection of its/his/her government (“Calvo Clause”), and the SRE grants such permission.

III. Concessions

Specifically with regard to lands and resources lying below and immediately adjacent to the high water line of the ocean, all would lie under Federal jurisdiction. Therefore any activities related to such lands and resources would be through a concession, permit or authorization granted by SEMARNAT in the case of the ZOFEMAT or by SAGARPA in the case of marine flora and fauna.

Foreign individuals or entities seeking a concession, permit or authorization are subject to the requirements established by the Foreign Investment Law and its Regulation (RUAMAT art. 28) Although the law is unclear in this regard, according to an officer of SEMARNAT, this means that a foreign entity would have to request a ZOFEMAT concession or permit through a trust but there is no legal grounds for requiring an individual foreigner to do so, and therefore presumably a non-Mexican individual who complies with all other requirements could be issued a concession or permit. This would have to be confirmed, however. Foreigners are prohibited from engaging in certain activities under the Fisheries Law as indicated in the previous section.

Transfers of concessions and permits are allowed in regard to both the ZOFEMAT and marine flora and fauna, but in both cases the assumption is that the same use of the concession will be made unless authorization to change such use is given.

A. ZOFEMAT

Concessions and permits are apparently made for conservation purposes on the ZOFEMAT under the zoning classification of "Protection", which is defined in Annex A of the Concession Request Form as "To maintain the natural state of the surface and where activities for profit will not be carried out". The Note to this Annex further explains that according to section III and IV of article 233 of the Federal Fees Law, if the concessioned land is to be used for scientific investigation or if it is concessioned to non-profit organizations for conservation purposes ("to carry out actions for the preservation and restoration of the environment through reforestation with native species or vegetation such as mangroves, marsh vegetation, conifer forests, tropical forests, wetland vegetation...") such activities are exempt from the payment of the fee concession or permit fee. Annex B of the same request form states that in the case of a "Protection" use of the concession, it will not be necessary to present an environmental impact ruling as established in article 28 of the LGEEPA and articles 5 and 6 of its Regulation regarding Environmental Impact Assessment. As far as I have found, this classification of a concession for "Protection" of the concessioned area is not provided for in the law or even introduced on the SEMARNAT or PROFEPA websites, but it is apparently an administrative concept in use.

Transfers of ZOFEMAT concessions and permits are allowed with the prior authorization of SEMARNAT, provided that, among other things, the assignee meets the same requirements taken into account for granting the original concession (the provision is not clear on this, presumably it refers to the

particular requirements imposed on the concessionaire of that particular concession) and the permitted use is still consistent with federal master control plan for that zone (RUAMAT, art. 37). However, concessions and permits are subject to revocation if they are sub-assigned, leased, liened or if the rights are partially or wholly contracted out (RUAMAT, art. 47). This would seem to rule out the possibility of contracting with a concession holder to not exploit the resource covered by the concession. A concession or permit is also subject to revocation if activities or works not mentioned in the concession or permit are engaged in without the prior authorization of SEMARNAT. (LGBN, art. 76; RUAMAT, art. 47)

B. Fishing

Concessions or permits over marine flora and fauna for conservation purposes could be granted for Investigative Fishing as described below, but only in the case of resources not covered by the National Fisheries Chart.

Concessions or permits granted under the Fisheries Law may be transferred (the titleholders may be substituted) with the prior authorization of SAGARPA (Fisheries Law, art. 8) However, they cannot be sub-assigned, leased or subject to lien (Regulation of the Fisheries Law, art. 8). Although the law does not specifically state it, based on the above it can be assumed that they cannot be sold on the open market.

Since concessions or permits for commercial fishing are granted only to Mexican nationals and to boats or fishing units, a foreign association could not be granted such a concession, nor have such a concession assigned to it in order to thereby limit fishing. However, it may be possible to contract with the holder of the concession to limit the amount of fishing or to regulate the manner of fishing, as long as the terms of the contract do not establish conditions that would invalidate the conditions under which the concession was granted.

i) Investigative Fishing (*pesca de fomento*)

One concession that could be used for conservation purposes in the case of a resource not included in the National Fisheries Chart and that could be granted to a foreign association is a permit for Investigative Fishing (*Pesca de Fomento*). As mentioned in section 1.II above, *pesca de fomento* is defined in relevant part as “the study, scientific investigation, experimentation, exploration, prospecting, development, repopulation or conservation of the resources consisting of the aquatic flora and fauna and their habitat...” (Regulation Fisheries Law, art. 69). Foreign scientists, technicians and scientific investigation institutions may apply for a permit from CONAPESCA who will inform the Maritime Ministry (*Secretaria de Marina*) and the Ministry of Foreign Relations (Regulation Fisheries Law, arts. 71 and 73). Such individuals or institutions must evidence their scientific credentials (Regulation Fisheries Law, art. 72) and must submit a program, research or scientific investigation project (Regulation Fisheries Law, art. 74) and meet certain other requirements.

The same rules apply to transfers of concessions for Investigative Fishing as apply to all concessions and permits under the Fisheries Law.

ii) Aquaculture

Concessions for aquaculture may be granted for commercial aquaculture in federal waters to national or foreign individuals or Mexican entities.

Concessions for investigative aquaculture (*acuacultura de fomento*) may be granted to both national and foreign scientists and scientific and educational research institutions (Regulation Fisheries Law, art. 115).

With regard to aquaculture, there are examples of private foreign entities purchasing or leasing land from *ejidos* or cooperatives. Purchase of *ejido* land is now possible, but there are still a number of restrictions. Another option that has been used with regard to aquaculture is a type of joint venture with an *ejido*. The arrangement can take whatever form the parties agree to.¹⁶

The same rules apply to transfers of concessions for Investigative Fishing as apply to all concessions and permits under the Fisheries Law.

IV. Protected Natural Areas (ANPs)

Protected Natural Areas are declared by the Federal state or local governments and their management is overseen by such governments, however, they may remain in private hands although the activities that can be engaged in on such lands are restricted. NGOs, including foreign ones, can and do participate in the management of ANPs, although foreign associations cannot act as the actual administrators.

SEMARNAT has jurisdiction over the resources in the ANPs and since the purpose of the ANPs is conservation, concessions or permits for the purpose of conservation of resources within an ANP are not contemplated. The means by which non-governmental organizations can participate in conservation activities in the ANPs is through coordination agreements with the ANP administrators or donation of funds and similar activities.

Since land ownership does not change when a concession is granted or an ANP is created, essentially, the federal government is forcing private conservation on those private landowners. Mexican and international NGOs have stepped in giving a hand to the federal government and the private owners of ANP lands as well as private owners (including *ejidos* and *comunidades*) of non-ANP lands, and they are developing a number of legal tools for those purposes. This will be discussed further below,

V. Other Legal Figures being used for Conservation Purposes

¹⁶ See Social and Environmental Aspects of Shrimp Aquaculture in Coastal Mexico, by Billie R. DeWalt, *ibid.* note 6.

In fact, there are a growing number of NGOs working with *ejidos*, *comunidades* and private land owners to conserve land and biodiversity using a variety of legal tools. The Mexican NGO Pronatura, a partner of the Nature Conservancy, has been a pioneer in this regard and is continuously developing conservation tools. Among the tools they have successfully used under current Mexican law are the following.

- Article 59 of the LGEEPA and the related articles 126-136 of the Regulation of the LGEEPA in relation to ANPs establish the concept of productive areas dedicated to the public interest of the preservation, protection and restoration of ecosystems whereby private lands held by indigenous peoples or public or private social organizations or other interested persons may be voluntarily dedicated to such purposes.
- Wildlife Management and Conservation Units (Unidades de Manejo para la Conservacion de la Vida Silvestre) (arts 39-47 of the General Wildlife Law) as discussed above in section 1.III.
- Real property contracts (*derechos reales* in Spanish) such as conservation easements, conservation liens, usufruct, leases, use restrictions, as well as personal private contracts (*derechos personales* in Spanish) such as private regeneration gardens, private conservation reserves, civil and commercial associations, purchase of cutting rights, leases (*comodatos* in Spanish), ventures (*contratos de asociacion en participacion*), , and bequests.
- Tax benefits of conservation projects.

Furthermore, Pronatura is working on drafting and promoting legislation that would improve the effectiveness of land conservation efforts (see Pronatura web site, www.pronatura.org.mx).

3. What are the relevant land and sea tenure rights and issues to be aware related to the above questions.

I have not been able to find significant information regarding traditional land or sea tenure rights in Mexico. Nevertheless, the *ejido* land tenure system is unique to Mexico and given that around 70% of Mexico's forests are on *ejido* or *comunidad* lands and a significant portion of coastal lands are also *ejidal*, it may be useful to further analyze the legal regime applicable to them.

The use of the figure of the fishing cooperative in Mexico and some examples of coastal communities that have successfully organized and regulated their own fishing industry could also be further researched.

Conclusion

In summary, marine waters and their natural resources and coastal beaches are under federal jurisdiction. Beyond the ZOFEMAT land can be privately owned, but the Foreign Investment Law prohibits foreigners from owning land directly within the first 50 miles from the coast. They can have possession of coastal

lands, however, through a trust which gives them full use of the land and its products. Private use of the ZOFEMAT is granted through concessions and permits and concessions can be requested to protect the land and resources under the concession, although if it were a foreign entity the request for such concession presumably would have to be through a trust. Marine flora and fauna are also under federal jurisdiction and can be exploited through a concession. For conservation purposes the most probable avenue would be through a permit for investigative fishing (*pesca de fomento*) which can be granted to foreign individuals and entities, but only with regard to resources not included in the National Fisheries Chart. The holder of a concession or permit can be substituted under certain circumstances with the authorization of SAGARPA, but a concession or permit cannot be sub-assigned, leased or subject to lien, and although it is not stated specifically one can presume that they therefore cannot be sold.

Much of coastal land is property of *ejidos* and *comunidades* which, within the framework of the national legislation, are allowed to manage their own resources. They and other private land owners can be freely contracted with to establish land conservation elements such as conservation easements or use restrictions.