Objective of Project

The purpose of this project is to support Mexico’s recovery strategy for the vaquita (Phocoena sinus) by facilitating implementation of the CEC’s North American Conservation Action Plan (NACAP) for this species. Implementation of the NACAP by CEC partners will support Mexico’s recovery efforts, forge a regional alliance to effectively eliminate vaquita bycatch, and promote sustainable livelihoods in the region.

Background

Project History and Foundation

Although the vaquita is found only in Mexican waters, it is listed by the CEC as a species of common conservation concern in North America. In 2007, the CEC Council1 instructed its Secretariat to initiate collaborative actions to support Mexico’s efforts to recover the vaquita and promote sustainable local livelihoods.

The vaquita is regarded as the most critically endangered of all of the world’s small cetacean species. Its current distribution is the most limited of all cetaceans and its total population is estimated to number only about 150. It has been scientifically demonstrated that the vaquita is in critical danger of extinction, primarily as a result of incidental mortality in entangling nets used to catch fish and shrimp. North American cooperation, both technical and economic, is urgently needed to deal with incidental bycatch and prevent the vaquita’s extinction.

The vaquita has been identified by Mexico as a high priority for conservation and multiple agencies [e.g., the Secretariat of Agriculture and Fisheries (Sagarpa), the Secretariat of Environment and Natural Resources (Semarnat), and local governments] are working to address the threats facing the species while ensuring the well-being of local fishermen.

Where such conservation needs exist, it is useful to utilize regional expertise and well-established relationships so that conservation goals and objectives may be achieved as efficiently as possible. The CEC is well placed to support the recovery program and to address the main threat to the vaquita, by: i) harnessing the expertise and lessons learned from Canada and the United States in species recovery and the development of new technologies, and ii) increasing the availability and use of alternative fishing gear that does not cause vaquita bycatch.

By engaging the other two North American countries, through the CEC, Mexican wildlife and fisheries agencies2 will take advantage of their established know-how in the recovery of species, elimination of bycatch, and new technological developments, enhancing the effectiveness of the recovery actions that the Mexican government has begun to implement.

Important milestones of CEC engagement include:

- In May 2007, the Biodiversity Conservation Working Group (BCWG) analyzed Mexico’s proposal to develop a trinational initiative in support of the Mexican strategy to conserve the vaquita.
- In May 2007, the Mexican government and Alto Golfo Sustentable (AGS) hosted a meeting in Mexicali, Baja California, with local stakeholders and members of the BCWG, to scope the potential of developing a NACAP for the vaquita.

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2 Conanp, Inapesca, Dirección de Vida Silvestre.
In June 2007, the CEC Council (under Resolution 07-13) instructed the Secretariat to initiate collaborative actions to recover the vaquita and promote sustainable livelihoods.

In June 2007, Sagarpa and Semarnat announced a multi-stakeholder, integrated plan to recover the vaquita and to ensure the management and sustainable use of marine resources in the Upper Gulf of California.

In July 2007, a trinational vaquita task force was established to guide the implementation of the Council Resolution and develop a North American Conservation Action Plan for the recovery of the vaquita, which would identify trinational conservation priority actions and targets.

In February 2008, the CEC completed the development of the vaquita NACAP.

In March 2008 the BCWG recommended the CEC act as a catalyst for the sharing of information, explore new market opportunities for vaquita-friendly fisheries and services and support capacity building activities in the region.

In October 2008, the CEC published the vaquita NACAP and held a trinational experts meeting to develop an implementation map of the NACAP, considering CEC’s phase-out of this project by the end of 2009.

Pursuant to the 2008 Operational Plan, the CEC initiated implementation of NACAP activities, in particular the experimental evaluation of alternative fishing gear.

In October 2008, a trinational team of scientists³ participated in the largest effort ever held to test acoustic equipment for monitoring the presence of vaquitas and assess the species’ population status.

The CEC’s 2008 Vaquita NACAP⁴ provides a trinational outlook on the species. It gives an updated account of the species and its current situation, identifies the main risk factors causing the species to suffer an unsustainable level of mortality, and summarizes the current management and actions taken in each country, as well as public and commercial perception of the species and the threats it faces. Against this background, it then offers a list of key trinational collaborative conservation actions, priorities and targets to be considered for adoption by the three countries. The actions identified address the following main objectives: i) threats prevention, control and mitigation; ii) use of innovative approaches to developing sustainable livelihoods in the communities; iii) research, monitoring and evaluation on the state of the vaquita population; and iv) increasing awareness of the vaquita, its plight, and importance within its ecosystem.

**Key Stakeholders, Resource Leveraging, Partnerships**

Implementation of this project will continue to be in partnership:

- **Government partners:** Comisión Nacional de Áreas Naturales Protegidas (Conanp), Comisión Nacional de Acuacultura y Pesca (Conapesca); Instituto Nacional de Ecología (INE); Dirección General de Vida Silvestre (DGVS), Procuraduría Federal de Protección al Ambiente (Profepa), Reserva de la Biosfera del Alto Golfo de California, NOAA /NMFS, Department of Fisheries and Oceans Canada (DFO).

- **NGO partners:** Iniciativa Alto Golfo Sustentable (AGS); Noroeste Sustentable (Nos), WWF México, The Nature Conservancy, Pronatura; Vaquita.org, Conservation International (CI), Natural Resources Defense Council (NRDC), among others.

- **Academics/Scientists:** CIRVA; Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE), Departamento de Investigaciones Científicas y Tecnológicas de la Universidad de Sonora (DICTUS-UNISON), Scripps Institution of Oceanography, IUCN SSC.

- **Industry:** Ocean Garden; Marine Stewardship Council.

- **Others:** Órgano de Evaluación y Seguimiento del Programa de Protección de la Vaquita, a consultative forum officially constituted to advise the federal government on the implementation of the recovery plan for the vaquita.

**Advisory Groups Related to This Project**

Biodiversity Conservation Working Group (BCWG); and the vaquita NACAP ad hoc technical and scientific team.

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³ NOAA’s Star Jordan scientific cruise engages scientists from the three CEC Parties.

⁴ The vaquita NACAP was officially launched in Mexicali, Mexico, on 28 October 2008.
Rationale

The designation by the CEC of North American species of common conservation concern (SCCC) was determined by considering and weighing various criteria, such as level of risk of extinction, common threats in the three countries, and the need for collaboration among Canada, US, and Mexico. Not all SCCCs need be migratory or transboundary to meet these criteria and to be considered species of continental concern. The vaquita is one of the most endangered marine mammals in the world. It is listed as one of the CEC’s 33 North American SCCC, with a limited habitat range that falls within CEC’s Priority Conservation Area 25—the Upper Gulf of California. The CEC has served as a catalyst for concerted, strategic action through the development of a North American Conservation Action Plan for the vaquita. This complements efforts being made by the Mexican government and other stakeholders to protect and promote the recovery of this critically endangered species. International cooperation among Canada, Mexico, and the United States has played a major role in the recovery of other marine mammals (such as gray whales) and more recently in dealing with incidental bycatch. With this in mind, the primary role of this project is to address the need and opportunity to enhance—through coordination—the effectiveness of measures undertaken to conserve this species of shared continental concern.

Fulfillment of Strategic Objectives

- Strengthening capacity, establishing a framework, and filling information gaps, for North American decision-makers to understand ways to promote sustainable development activities for the region, by the use of the Upper Gulf scorecard, as well as by exploring alternative “vaquita friendly” fishing gear and practices (Objective 7).
- Training activities for fishermen, as outlined in the vaquita NACAP, which will promote alternative and sustainable fishing gear and practices in the Upper Gulf of California (Objective 6).
- Sharing of scientific information and expertise on porpoises in order to support and increase knowledge about the vaquita and its habitat, as well as on the use of new technologies that allow for sustainable fishing practices and/or help prevent and reduce incidental bycatch, particularly of porpoises (Objective 4).
- Exploring new vocational opportunities for local fisheries, incorporating sustainable-use approaches which minimize impact on vaquita populations (Objective 9).

In 2008, the BCWG—with the support of the Secretariat—reviewed the progress and outcomes of all initiatives carried out under this and other biodiversity related projects. The resulting assessment will inform future consideration by the CEC Council concerning emerging biodiversity issues, as well as on other ecologically significant regions and species on which to focus its cooperative work.

CEC Niche and Value Added

The CEC Council in 2007 directed the Secretariat to prepare a North American Action Plan to assist Mexico’s efforts to recover the Vaquita. Since that time the highest levels of the Government of Mexico have expressed an interest in CEC involvement in this issue. As noted during the 2007 Council meeting, the CEC is a unique venue where the environment and fisheries authorities of the three countries cooperate on tangible conservation-driven projects. The CEC’s catalytic role and value-added contribution is founded on the need to share the expertise and scientific knowledge acquired in Canada and the United States on marine mammal incidental bycatch, and on the practical implementation of sustainable fishing gear and practices, as well as on examples of compensation and buy-out schemes in fishing communities across North America.

The DFO in Canada and NOAA in the US, have a wealth of experience in dealing with incidental bycatch, development of smart gear, technological transfers, fishery regulations, and economic incentives to artisanal fishers. These agencies have worked under CEC’s auspices on a number of marine initiatives that include the reduction of incidental bycatch, fisheries management and marine mammal conservation. NAMPAN and the three marine NACAPs

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6 NAMPAN and the three marine NACAPs
This exchange of experiences and information will be achieved through expert workshops, fishermen exchanges and short-time visits to the local communities.

**North American Scope**

The vaquita is one of the most endangered marine mammals in the world, with a limited habitat range that falls (only) within CEC’s Priority Conservation Area 25—the Upper Gulf of California (one of 10 MPAs of the NAMPAN pilot initiative).

**Linkages with Other CEC Projects**
- Conserving Marine Species and Spaces of Common Concern: habitat conservation (link to the Upper Gulf of California Biosphere Reserve which is member of the B2B NAMPAN network), sustainable fishing practices, and fisher training.

**Activities and Outputs**

Activities in 2009, the final year of the current CEC Strategic Plan and Biodiversity Strategy, are important to the phasing out of CEC’s engagement on this and other NACAP species.

Activities under this project are guided by the vaquita NACAP, in particular its capacity-building, and information and technology sharing components. All aspects of this project are focused on and designed to be completed in 2009. Specific activities include:
- Support the trilateral exchange of information on matters such as, but not limited to: best fishing practices and alternative fishing gear to eliminate bycatch, acoustic monitoring of small mammals, and the potential use of economic instruments (switch-out, buyouts and compensation schemes).
- Facilitate the trilateral exchange of researchers, including resource and fishery economists, which will help in assessing the vaquita population health and status through scientific and acoustic monitoring surveys, as well as in having a better understanding of the intensity and trends of key socio-economic stressors affecting the vaquita and its habitat.
- Support the development and testing of alternative fishing gear to reduce incidental bycatch incorporating potential technological and knowledge transfers from successful case studies in Canada and the United States.
- Increase awareness: Highlight need for continued international support for the vaquita recovery strategy; create waterproof information poster and/or brochures for tour boats, owners, crew and passengers in all three countries; promote the vaquita as a national cause célèbre; conduct workshops involving scientists and fishermen in communities; conduct workshops for training in use of alternative gear (scientists, fishermen, government representatives to talk about experiences).
- The Secretariat will document, in a working paper (in-house), the process and lessons learned (that can be applied elsewhere) from this international collaboration on the conservation of marine biodiversity and engagement of local communities in sustainable practices.7

**Target Groups**

The main targets of this project are local fishing communities (in particular, those in the Gulf of Santa Clara, San Felipe and Puerto Peñasco); local fishery authorities; local and state governments; industry representatives and MPA managers.

**Partners, Stakeholders**

For the main partners in the implementation of this project see Key Stakeholders, Resource Leveraging, Partnerships above.

The Task Force comprises the following government agencies: Conanp, Conabio and INE from Mexico; NOAA-NMFS from the United States; and DFO from Canada.

**Leveraging**

Financial and in-kind contributions in support of the vaquita NACAP implementation are from:
- Conanap
- Conabio

7 This activity will be done in house by the program manager at no expense to the project.
Inapesca
Profepa
NOAA and NMFS
DFO

**Associated outputs/products**
- Development and testing of alternative fishing gear.
- US and Canadian participation in the design and implementation of monitoring cruises.
- Workshops pertaining to the implementation of the capacity-building component of the NACAP, in particular:
  - Training workshops on the use of alternative fishing gear and other sustainable fishing practices.
- Working paper: Lessons learned from international collaboration on the conservation of marine biodiversity and engagement of local communities in sustainable practices.

**Anticipated Outcomes and Performance Indicators**
The desired outcomes of the project include:

**Direct Outcomes**
- Increased knowledge and information about the health and status of the vaquita population;
- Increased knowledge of the ecological condition within the Upper Gulf of California Biosphere Reserve through the implementation of the scorecard methodology;
- Improved trinational collaboration on the prevention and reduction of incidental bycatch; and,
- Knowledge on the potential use of enabling approaches to conserve the vaquita, and promote sustainable livelihoods.

**Intermediate Outcomes**
- Implementation and adoption of strategies to eliminate incidental bycatch by relevant stakeholders.
- Increased participation of local communities in the use of sustainable fishing gear.

- Improved trinational collaboration on the assessment and monitoring of the vaquita population and its stressors.

**Final Outcomes**
- Reduction of bycatch to zero vaquitas.
- Recovery and conservation of the vaquita and its habitat.
- Effective incentives for local fishermen to eliminate the use of unsustainable fishing gear.
- Effective incentives for stakeholders to support and maintain zero bycatch efforts.
- Working paper: Case study on lessons learned from international collaboration on the conservation of marine biodiversity and engagement of local communities in sustainable practices.

**Performance Indicators**
- Development and testing of alternative fishing gear.
- Use of new alternative gear and best practices
- No more vaquitas death detected by incidental bycatch.
- Implementation of monitoring cruises in the Upper Gulf.
- Number of fisherman participating in sustainable fishing practices.
- Frequency with which the Upper Gulf of California Biosphere Reserve and other MPAs report using the NAMPAN monitoring indicators and protocols.

**Timetable, Project Completion and Sustainability Beyond**

**Culminating Steps in Achievement of Program Objectives**
- In 2009, all CEC NACAP-related activities will be concluded.
- In October 2008, the vaquita ad hoc technical experts group will meet to define a tactical plan to implement the NACAP, and maintain the trinational interest and cooperation beyond CEC’s involvement.

**Target End Date for CEC Involvement**
2009
**Sustainability Beyond**

The year 2009 represents the conclusion of all marine NACAPs under the auspices of the CEC. It is expected that the lessons learned by the implementation of this and other marine NACAPs will allow the Parties and other relevant stakeholders to continue working together and using the vaquita NACAP as a framework for targeted collaborative actions.

**Communications**

The target audiences of this project are: local fishing communities (in particular, those in the Gulf of Santa Clara, Puerto Peñasco and San Felipe), fisheries authorities, fishing industry stakeholders; local and state governments, conservation organizations, the general public in the communities cited above, and public audiences throughout North America with an interest in the conservation of endangered species.
Implementation Plan

**PROJECT 16 – Recovering the Vaquita and Promoting Sustainable Local Livelihoods**

**Strategic Objectives:**
- Strengthen capacities to conserve species and habitat of common concern by building stakeholder capacity for planning, monitoring and management.
- Enhance North American trade in green products and services, with a view to improving environmental protection, promoting sustainable use of biodiversity, removing trade barriers and utilizing market-based approaches.

<table>
<thead>
<tr>
<th>2009 Tasks</th>
<th>Key Outputs</th>
<th>Timing</th>
<th>Expected Outcomes</th>
<th>Beneficiaries (Reach)</th>
<th>Budget (C$)</th>
<th>Future Activities</th>
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<tbody>
<tr>
<td>1. Meeting of the Alternative Fishing Gear Working Group to: 1) analyze results of 2008–2009 pilot testing of gear; 2) propose gear for testing and experimentation for the 2009 season. Field visits of the working groups, in particular the Alternative Fishing Gear Working Group. Lessons learned report on the NACAP development and implementation process.</td>
<td>Support the trilateral exchange and scoping of information on: best fishing practices and alternative fishing gear, monitoring of small mammals.</td>
<td>Summer-fall 2009</td>
<td>An assessment of the environmental and capture effectiveness of tested gear. Increased sharing of scientific data, and information on the conservation status of the vaquita and its habitat.</td>
<td>Secretariat working paper: lessons learned from international collaboration on the conservation of marine biodiversity and engagement of Government agencies of the three NAFTA countries, local fishing communities (in particular those in the Gulf of Santa Clara, Puerto Peñasco, and San Felipe), Reserve authorities, local and regional NGOs (TNC, WWF, AGS, NOS EDC, NRDC, Pronatura).</td>
<td>$50,000</td>
<td>NA</td>
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8 Trinational group established at the Vaquita NACAP experts meeting in Mexicali, Mexico. October 2008. The group is led by the director of Inapesca and includes officials from DFO, NOAA, and other organizations.

9 The report will be produced by the program manager with the co-authorship of the vaquita ad hoc team members at no expense to the project budget.
### PROJECT 16 – Recovering the Vaquita and Promoting Sustainable Local Livelihoods

#### Strategic Objectives:
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<td>local communities in sustainable practices (including, but not limited to, compensation mechanisms, community engagement, gear development). [Note: This activity will be done in-house by the program manager at no expense to the project.]</td>
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<td>endangered species from small artisanal fisheries.</td>
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<td>2. Development and testing of alternative fishing gear for shrimp (e.g., suripers, chango nets, trawls, traps) and finfish (e.g., longlines, handlines, pots).</td>
<td>Based on existing fisheries research and field experience from CAN and US, facilitate the development and testing of alternative fishing gear, with the possibility of conducting</td>
<td>Fall 2009</td>
<td>Local fishermen and authorities adopting strategies (gear and practices) to address vaquita bycatch.</td>
<td>Local fishing communities (in particular those in the Gulf of Santa Clara, Puerto Peñasco, and San Felipe); Reserve authorities.</td>
<td>$75,000</td>
<td>NA</td>
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## PROJECT 16 – Recovering the Vaquita and Promoting Sustainable Local Livelihoods

**Strategic Objectives:**
- Strengthen capacities to conserve species and habitat of common concern by building stakeholder capacity for planning, monitoring and management.
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<tr>
<td>Fisher-to-fisher exchanges to test, and experiment on smart fishing gear.</td>
<td>comparative fishing gear trials.</td>
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<td>Share lessons learned (bycatch and shifting gear) from Canadian and American local artisanal fisheries.</td>
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<td>Assessments of capture effectiveness and comparative analysis of gear.</td>
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<td>Testing of potential gear at flume tank of the Marine Research Institute, Memorial University, Newfoundland, Canada.</td>
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Total Cost: $125,000
### Performance Measurement Indicators:
- Development and testing of alternative fishing gear
- Use of new alternative gear and best practices
- No vaquitas in bycatch nets
- Monitoring cruises implemented in the Upper Gulf
- Number of fisherman participating in sustainable fishing practices
- Frequency with which the Upper Gulf of California Biosphere Reserve and other MPAs report using the NAMPAN monitoring indicators and protocols

### Key Partners:
**Government partners:** Comisión Nacional de Áreas Naturales Protegidas (Conanp); Comisión Nacional de Acuacultura y Pesca (Conapesca); Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (Conabio); Instituto Nacional de Ecología (INE); Reserva de la Biosfera del Alto Golfo de California; Profepa; NOAA /NMFS; Department of Fisheries and Oceans Canada (DFO).

**NGO partners:** Iniciativa Alto Golfo Sustentable (AGS); Noroeste Sustentable (Nos); WWF México; The Nature Conservancy, Pronatura; Vaquita.org; Conservation International (CI), among others.

**Academics/Scientists:** CIRVA; Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE); Departamento de Investigaciones Científicas y Tecnológicas de la Universidad de Sonora (Dictus-Unison); Scripps Institution of Oceanography, IUCN SSC.

**Industry:** Ocean Garden; Marine Stewardship Council.