

ENVIRONMENTAL AND SOCIAL STRATEGY
MANZANILLO CONTAINER PORT AND LOGISTICS FACILITY

I. BACKGROUND

- 1.1 The Bank has been requested by Contecon Manzanillo S.A. de C.V. to evaluate potential IDB financing for the construction, operation and maintenance of the first of three phases of a private container terminal (the “Terminal”) within the Port of Manzanillo (“the Port”) in the state of Colima, Mexico.¹ This first phase of development (hereafter referred to as the “Project”) is currently under construction; major works are scheduled to be completed during the summer of 2013, with overall construction expected to be completed by mid-2014. The Project will allow the Terminal a yearly handling capacity of 650,000 twenty-foot equivalents (TEUs).²
- 1.2 The Project was awarded to International Container Terminal Services, Inc. (“ICTSI” or the “Sponsor”) of the Philippines pursuant to an open, international bidding process which closed in 2010 under the auspices of the Administracion Portuaria Integral de Manzanillo S.A. de C.V. (“APIMAN”) acting on behalf of the Secretaria de Comunicaciones y Transporte (“SCT”). Soon thereafter, ICTSI created Contecon Manzanillo S.A. de C.V. (the “Borrower” or “CMSA”) pursuant to the terms and conditions of the documentation with APIMAN and SCT. Construction is being performed under a lump-sum turnkey EPC Contract with China Harbour Engineering Company, Ltd. (“CHEC”) for the civil construction, while the ship-to-shore cranes and other major equipment shall be provided by CargoTec Finland. The Terminal will be developed and operated under a 34-year concession agreement.
- 1.3 In fulfillment of the 2000-2010 and 2012-2017 Port of Manzanillo Master Plans, APIMAN is taking the Port—which started operations in the early 1970s and is already the largest container port in the country—through a major expansion, particularly in its Northern sector. The centerpiece of this expansion is the development of the CMSA Container Terminal. Other primary works included in this expansion process and managed either directly by APIMAN or by its parent entity, SCT, include the widening and deepening of the harbor to accommodate ship traffic to the Terminal, the construction of a new customs facility, and the undertaking of an ambitious program to improve road and rail access to the Port and to facilitate the movement of goods within the Port.
- 1.4 The IDB team is working with APIMAN to structure ways in which the port complex (as a whole) can improve its performance in terms of environmental and social sustainability.

¹ CMSA is a project company established and wholly owned by International Container Terminal Services, Inc.

² After three phases of development the handling capacity is expected to be two million TEUs per year.

II. PROJECT DESCRIPTION

- 2.1 **Site Location.** The Project is being constructed within the existing Port of Manzanillo, located on the central Pacific coast of Mexico, approximately 800 km from Mexico City and 300 km from Guadalajara. The 28.5 hectare footprint of the first stage of the Project occupies the northwestern portion of the Port's 98 hectare expansion zone, also known as Potential Expansion Area 2 or APD2. The remainder of this zone will eventually be occupied by a new multiple-use terminal and a new Port customs facility. The Port is located on a body of water known as Laguna de San Pedrito. To the west, the Project is separated from the Pacific Ocean by the community of Las Brisas. To the north, a short causeway separates the Project site from the mangrove lake known as Laguna Valle de las Garzas. The Project will share the port complex with three other existing private sector operators: (i) SSA Mexico; (ii) TIMSA; and (iii) Ocupa.

Existing Site Conditions. Prior to granting the concession to CMSA, APIMAN cleared most of the vegetation from the 98 hectare Port expansion zone. Native vegetation still occurs in the following locations: a 60 meter-wide border of mangrove habitat referred to as the "ecological band" forming the western perimeter of the site (9.34 total hectares); and a 5 hectare patch of mangrove habitat in the far northwest corner of the site being conserved as a seed-bank. An enclosed culvert, referred to as an "ecological channel" runs perpendicular from about the midpoint of the mangrove border to the Port's harbor, hydrologically connecting the mangrove border to the sea. A second channel, known as the "intra-lake channel" has been opened through the northern part of the site to maintain hydrologic connectivity between the harbor and the Laguna Valle de Las Garzas to the north. The channel is 55 meters wide, 700 meters long and 2 meters deep. It is reported that API and SEMAR have been conducting water sampling in the Laguna de San Pedrito, although the Bank is not currently in possession of the results of this sampling.

- 2.2 **Project Components and Facilities.** The Project involves the construction of a two-berth, 720 meter-long deep water quay deck to accommodate a wide range of vessels, including Super Post Panamax ships (175,000 deadweight tonnage) up to 390meters in length, a paved container stacking area, truck entrance/exits, rail intermodal yard, approximately 3.3km of roads within the Port, and all related services and buildings. Equipment installed includes: four Super Post Panamax quay cranes, ten rubber tired gantry cranes, three reach stackers, and five empty handlers.

- 2.3 **Associated Facilities and Works.** A suite of associated facilities and works is currently being built, undertaken, or planned by APIMAN or SCT. These facilities and works will be further defined and analyzed during the Bank's due diligence, and will likely be comprised primarily of the following: (i) a new customs facility in the northern expansion zone, to be built specifically to service Terminal traffic; (ii) an internal road network, currently under construction, to facilitate movement between the Terminal and the rest of the Port; (iii) the nearly completed construction of new access roads to the Port; (iv) a rail intermodal yard and associated access spurs to be built to service the Terminal; (v) the planned digging of a railway tunnel underpass through the city of Manzanillo; and (vi)

harbor dredging to establish and maintain the depth of 16 meters required by the Terminal.

- 2.4 **Project Activities.** The construction of the Project consists of five main activities: (i) *Dredging.* 435,000 cubic meters of material was dredged by the Project to allow for construction of and ship-access to the quay deck. The harbor floor was dredged to a depth of 16 meters. (ii) *Fill and construction of patio area.* The patio area, where containers will be stacked and stored, was filled using a combination of dredge spoils from the Project and materials sourced off-site. The area has been surfaced with 105,000 cubic meters of paving stones overlaid on a sand base. The patio is being equipped with storm water drains, ducts for housing underground electrical installations, and lighting towers. (iii) *Construction of quay deck.* The quay deck was constructed primarily from pre-cast, armored concrete sections. Construction involved driving 672 metal support piles. (iv) *Construction of additions to the internal road network.* Paved additions to the Port's internal road network will be constructed to improve access to and within the northern zone of the port. (v) *Construction of intermodal rail yard.* 2.9 km of rail lines are being installed.
- 2.5 **Project Workforce.** At the peak of construction, between October 2012 and April 2013, the workforce consisted of a total of 2,195 workers. Of these, 2,076 were of Mexican nationality and the rest were Chinese nationals.
- 2.6 **Project Cost.** Total project cost is estimated at US\$350 million. Due to the financial crisis, ICTSI funded the early stages of the Project with equity and bridge loans. As such, the first disbursement of the Bank will be to repay the sponsor bridge loan that has been used to fund construction. The IDB would provide an A Loan of US\$75mm for up to 13-15 years with a corresponding contribution from the newly-created China Infrastructure Fund for up to an additional US\$50 million. The additional financing could be provided by the International Financial Corporation (IFC) or two-to-three commercial lenders for approximately US\$75mm.
- 2.7 **Project Alternatives.** During the Project identification mission, the Project Team learned that as an alternative to expanding the existing Laguna de San Pedrito Port, APIMAN considered developing a new facility within the Laguna de Cuyutlán, a series of mangrove lakes just to the south of the Port. It seems it was determined, however, that the expansion of the existing facility would be less damaging to the environment than developing the Cuyutlán site, which is considered by the Mexican government to be a "Priority Mangrove Site."³ Confirmation and documentation of this decision process and of other analyses of Project-related alternatives is not currently available, but will be sought and reviewed during due diligence.

³ See http://www.biodiversidad.gob.mx/v_ingles/ecosystems/mangroves/sitioPacCentro.html, accessed on 8/26/2013.

III. INSTITUTIONAL AND REGULATORY CONTEXT

- 3.1 **Institutions.** The *Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT)* is the Government of Mexico's environmental authority responsible for reviewing environmental assessments relevant to the Project and issuing associated permits. Monitoring and enforcement of the conditions and other requirements set forth in these permits is the responsibility of the *Procuraduria Federal de Proteccion al Ambiente (PROFEPA)*, part of SEMARNAT. The *Secretaria de Marina (SEMAR)* issues permits for activities with potential impacts on the marine environment (e.g., dredge material disposal). The *Administracion Portuaria Integral de Manzanillo S.A. de C.V. (APIMAN)*, under the *Secretaria de Comunicaciones y Transporte (SCT)* is responsible for the management of the Port of Manzanillo, including its land, dredging activities, infrastructure and overarching environmental and social matters. API is self-financing from the revenues of the Port complex and is staffed with professionals from the port and maritime sectors.
- 3.2 **Relevant Legislation.** The General Law of Ecological Balance and Environmental Protection, and its associated regulations, lays out the rules regarding the conduct and authorization of environmental impact evaluations (known as Environmental Impact Manifests, or MIAs). The same law also establishes SEMARNAT as the entity responsible for reviewing and authorizing MIAs. The specifics of how this law applies to the current Project are detailed in the MIA for the 2000-2010 Port of Manzanillo Master Plan (the "Master Plan"), as this plan includes the activities being carried out for the Project. The MIA, also describes the ways in which the following additional laws apply to the Project: the General Law of Sustainable Forestry Development; the General Law of Wildlife; and The Federal Law of the Sea.
- 3.3 **Environmental Authorizations.** Several environmental authorizations have been granted to APIMAN for the works included in the Port's 2000-2010 Master Plan, including those works related to the Project.
- 3.3.1 In December of 2003, APIMAN submitted to SEMARNAT a request for a "change of land use in forested areas" related to the Master Plan. The request was authorized by SEMARNAT on September 8, 2004 (Oficio No. SGPARN-1914/04).
- 3.3.2 Later that same month, APIMAN submitted to SEMARNAT for authorization the MIA for the Master Plan. On October 13, 2004, a summary of the MIA was published in *Diario de Colima*, a widely distributed newspaper. A public consultation event took place on November 11, 2004 in Manzanillo, the details of which (including the individual public comments and responses from SEMARNAT) are recorded in the authorization of the MIA, which was issued by SEMARNAT on November 22, 2005 (Oficio No. S.G.P.A./DGIRA.DDT.1383.05).
- 3.3.3 In May of 2009, APIMAN re-submitted the MIA to SEMARNAT, updated to account for some relatively minor changes in the Project design. These changes included: (i) an increase in the amount of material to be dredged, from the originally anticipated

4,743,600 to 7,743,600 cubic meters; (ii) an increase in the width of the mangrove border between the Project and the community of Las Brisas from 10 m to 60 m; (iii) the construction of four channels to improve hydrological flow to this border; (iv) the construction of a channel between the Valle de las Garzas and San Pedrito lakes; (v) the construction of a noise barrier between the patio and Las Brisas and a fence surrounding the Port. This MIA was authorized by SEMARNAT on June 12, 2009 (Oficio No. S.G.P.A./DGIRA/DG/3467/09).

- 3.3.4 This authorization, its predecessor, and the authorization for the change of land use contain extensive conditions, including several which detail requirements for the mitigation and compensation of impacts to mangrove habitat in the Port. APIMAN has presented to the IDB copies of the plans and reports it has submitted to SEMARNAT to meet these conditions.⁴ These plans and reports provide preliminary evidence that the activities related to the 2000-2010 Master Plan which have taken place to date have been in compliance with the SEMARNAT authorizations. Notwithstanding, the bulk of the mangrove compensation work required by these authorizations – namely the creation of 55 hectares of mangrove islands in the Laguna de Cuyutlán or at another similarly propitious location – has not yet begun.⁵ The Project's compliance with SEMARNAT authorizations and Bank safeguard policies will be fully evaluated during due diligence.
- 3.3.5 For disposal of dredge material at sea, a series of four authorizations was granted to HKD Mexico S. de R.L. de C.V. by SEMAR in 2012 (Oficios No. 290/2012, No. 419/2012, No. 579/2012, and No. 1749/2012).
- 3.3.6 Construction of the Project has been subject to the aforementioned authorizations, which describe in general terms the Project's principal activities and potential environmental impacts, and which impose a series of requirements on APIMAN for mitigating such impacts. Because the Project was licensed as part of several works being conducted as part of the Port Expansion Program, no Project-specific environmental assessments have been conducted and no environmental authorizations have been granted directly from SEMARNAT to CMSA.
- 3.4 **Environmental Management.** CHEC, the Project's EPC contractor, has developed and is adhering to an Environmental Management Plan (EMP), dated February 13, 2012, to ensure that the Project's construction activities do not contravene the requirements of the authorizations cited in the preceding paragraphs. CHEC has on staff a full time environmental supervisor overseeing the implementation of the EMP. In addition, CMSA has contracted Consultec, an independent environmental consulting firm, to supervise the environmental aspects of the overall operation.

⁴ APIMAN presented copies of the following documents to the IDB on May xx, 2013: 2012 Annual Report on compliance with conditions of the S.G.P.A./DGIRA.DDT.1383.05 permit and its updates; December 2012 "Final Report" on compliance with the conditions of the SGPARN-1914/04 permit; and a letter from PROFEPA confirming that this authority has no unresolved administrative proceedings with the Borrower.

⁵ According to the 2012 Annual Report on compliance with the S.G.P.A./DGIRA.DDT.1383.05 permit, APIMAN has postponed this work pending the completion of a liquid natural gas terminal in the Laguna de Cuyutlán which will impact the hydrology of the water body and thus influence the design of the restoration measures.

IV. ENVIRONMENTAL, SOCIAL, AND HEALTH AND SAFETY IMPACTS AND RISKS

- 4.1 Most of the 98 hectare Port expansion zone, which consisted of a mangrove and thorn-scrub ecosystem, has been cleared and filled.⁶⁶ This conversion was undertaken primarily to site the Project and its associated facilities. In addition to the direct habitat loss already occasioned, there is a risk that the conversion could negatively impact the remaining mangrove habitat in the Project area, including that found in the adjacent Laguna Valle de las Garzas to the north. This impact could result from potentially altered hydrology; whereas tidal waters previously flowed across the mangrove system in the Project area to reach the Laguna Valle de las Garzas, waters now reach the lake through a channel dredged for this purpose. The channel connects to the lake by passing through a series of culverts beneath a narrow strip of land separating the Project site from the lake. The ultimate configuration of this passage section has not yet been determined, and may include a closeable gate to allow for regulation of the flow into and out of the lake.
- 4.2 Further potential environmental, social and health and safety impacts related to Project *construction* – past and present – include the following: (i) potential re-suspension of contaminants during dredging activities; (ii) use of potentially contaminated dredge material for project-related fill material;⁷ (iii) impacts to marine life from dredging and from disposal of dredge material at sea; (iv) air emissions, noise and dust generation from construction activities and operation of trucks and heavy machinery; (v) workforce-related solid waste and wastewater generation; (vi) impacts related to operation of raw materials borrow pits, quarries, and asphalt and concrete plants; (vii) health and safety risk associated with construction work and operation of heavy machinery; and (viii) safety risks to the local community from construction vehicle traffic passing through the city of Manzanillo.
- 4.3 Potential environmental, social and health and safety impacts related to project *operation* include: (i) increased truck and railroad traffic, with resulting increases in air pollution, noise and traffic safety incidents; (ii) impacts stemming from additional project-related dredging activities; (iii) wastewater discharge from port facilities; (iv) wastewater and ballast discharges from ships;⁸ (v) storage and handling of hazardous substances (e.g., fuel, lubricants, etc.); (vi) risks of accidents and spills during Port-related ground transportation activities; (vii) health and safety risks associated with operation of heavy machinery.
- 4.4 The associated facilities and activities described in paragraph 2.4 present additional, potential impacts and risks. Those associated with the railway tunnel in particular are distinct, and include: (i) worker health and safety risks from tunneling activities; (ii) involuntary resettlement of approximately 150 properties due to construction and

⁶⁶ Studies conducted as part of the permitting process determined that mangroves comprised 25 hectares of this overall area.

⁷ Dredge material was tested and found not to exceed allowable thresholds of any contaminants tested. The testing protocols and results will be reviewed as part of the due diligence process.

⁸ Due diligence will confirm that such discharges are disallowed by APIMAN, which would minimize this risk.

operation of the tunnel and the new rail line running to and from it; (iii) environmental impacts associated with the disposal of tunneling spoils.

- 4.5 **Environmental Impact Categorization.** Considering primarily the location of the Project within a coastal system where mangroves are present, together with the scale of the civil works to be undertaken within this system, the Project is classified as a Category “A” according to the IDB Environment and Safeguards Compliance Policy (OP-703), Directive B.3. Other Directives which apply to the Project are the following: B.1 (Bank Policies); B.2 (Country Laws and Regulations); B.4 (Other Risks); B.5 (Environmental Assessment Requirements); B.6 (Consultations); B.7 (Supervision and Compliance); B.9 (Natural Habitats and Cultural Sites); and B.12 (Project Under Construction). Other applicable Bank Policies include: Involuntary Resettlement Policy (OP-710) and Access to Information Policy.

V. ENVIRONMENTAL AND SOCIAL STRATEGY FOR DUE DILIGENCE

- 5.1 This is Category “A” operation primarily because of, among other factors, the potential impacts on natural habitats from the clearing of approximately 25 hectares of mangroves as part of the preparation of the Project site, the increase in maritime and land operations as a result of the Project, and the risks presented by associated facilities and other works being or to be conducted as part of the Port Expansion Program. A further important risk factor is the structure of the environmental permitting process, in which APIMAN – as opposed to the Borrower – is responsible for implementing many of the environmental and social mitigation measures and programs directly and indirectly related to the Project (e.g., the mitigation and compensation program for impacts on mangroves, infrastructure improvements to reduce vehicular traffic congestion, etc.). The Bank’s due diligence will therefore require effective coordination with both the Borrower and APIMAN. A particular emphasis will be placed on developing options for ensuring compliance with Bank safeguard policies in this multi-actor context.
- 5.2 In May 2013 the IDB conducted a site visit to get a better sense of the characteristics of the area where the Project is being developed. IDB representatives also met with APIMAN to gain a preliminary understanding of the level of compliance with current environmental and social requirements. The Bank’s due diligence will deepen this audit-like approach, with the principal aim being to confirm that environmental and social impacts have been adequately identified and that control, mitigation and compensation measures have been defined and implemented in a manner satisfactory to the Bank over the past three years.
- 5.3 The Bank will conduct an environmental and social due diligence to verify that the environmental and social impacts and risks related to the project have been identified and that adequate avoidance, mitigation, and compensation plans and procedures are defined and are in compliance with the Bank’s Safeguard Policies. The specific aspects to be analyzed during the Bank’s environmental and social due diligence include the following:

- a. An evaluation of facilities and works associated with the Project, irrespective of the source of financing or the responsible parties, to determine which facilities and works qualify as “associated facilities” as defined in IDB OP-703.
- b. An evaluation of the status of compliance of the Project, and any associated facilities, with applicable country (national, provincial, municipal, local) environmental, social, and health and safety regulatory requirements (e.g., laws, regulations, standards, permits, authorizations, applicable international treaties/conventions,⁹ etc.), project-specific legal requirements (e.g., concession contract, etc.), and any applicable Bank environmental and social policies and guidelines. Particular attention will be paid to evaluating in this regard the activities related to the compensation for mangrove habitat removed in order to prepare the Project site, and other requirements and conditions relevant to the Project, which appear in the SEMARNAT and SEMAR authorizations.
- c. An evaluation to confirm that the direct and indirect environmental and social impacts of the Project and of its associated facilities have been properly identified and assessed, particularly: (i) the use of dredge spoils for fill material; (ii) confirmation that disposal sites were selected with due consideration of environmental and social aspects and are properly engineered and managed; (iii) affectation of vehicular traffic during and after the construction phase; (iv) a cumulative impact assessment, including a description of the incremental impacts associated with the increased number of ships; (v) assessment of social aspects, including uses of the near coastal resources outside the Project and potential impacts on livelihoods; (vi) employment opportunities for locals, skills training, etc.; (vii) evaluation of potential GHG emission reductions associated with the Project and exploration with the Borrower of the possibilities to apply for carbon reduction credits; (viii) verification that the Project includes sufficient measures with respect to the prevention and mitigation of natural disaster risks.
- d. An evaluation to ensure the adequacy of active and planned environmental and social mitigation measures and monitoring procedures for the Project and any associated facilities. Special emphasis will be placed on the adequacy of the mitigation and compensation measures to address: (i) ecological impacts on mangroves and near coastal coral reefs; (ii) potential socio-economic impacts to any artisanal fishing on the adjacent coast; (iii) contaminant re-suspension from dredging activities; (iv) wastewater discharges from port facilities and ship discharges (e.g., sanitary and process wastewater, garbage maintenance waste, oily ballast clean up waste between loads, etc.); (v) stormwater management; and (vi) the appropriate handling of hazardous substances. Adequacy will be assessed in terms of completeness, sufficiency of detail, feasibility, budget, definition of responsibility, timing, and degree of quality control.

⁹ Including but not necessarily limited to: (i) the 1972 London Convention and the Basel Convention, which refer to trans-boundary transportation, storage and disposal of hazardous materials; and (ii) the 1973 and 1978 International Conventions for the Prevention and Management of Pollution from Ships (MARPOL 73/78).

- e. An evaluation to ensure adequacy of health and safety plans and procedures, including their technical adequacy given the potential Project-specific health and safety risks in terms of technical quality, level of training to be performed, and quantity of resources to be made available to ensure implementation.
- f. An evaluation to confirm adequate contingency plans (e.g., emergency and spill plans), including confirmation that all relevant project-specific environmental risks have been identified, proper procedures have been developed, and sufficient resources will be made available to ensure implementation.
- g. An evaluation of the Project's compliance with the labor conventions and treaties which have been ratified by Mexico; a review of how worker influx has been handled and proposed plans and procedures for managing employment expectations for the operational phase.
- h. Possible climate adaptation planning and design processes covering construction and operation modifications that include anticipating aspects such as sea level rise and higher and stronger wind and sea surges from Hurricanes and how the design follows the government of Mexico's climate change strategies. Some appropriate initiatives to explore might include: clean shipping, shore power, port emissions, use of renewable energy, and a methodology for measuring the Port's carbon footprint.
- i. An evaluation of project-related information disclosure and public consultation activities performed related to the Project and any associated facilities, and the proposed future actions to provide adequate ongoing information disclosure and public consultation with the local population.
- j. An evaluation, and further development as necessary, of Project monitoring/supervision procedures, as defined in the Loan Agreement, to ensure proper implementation of environmental, social, and health and safety actions and requirements.
- k. An evaluation of environmental, social and health and safety terms and conditions in relevant project legal documents (e.g., concession contract, construction contracts, operations and maintenance contracts, etc.), in terms of sufficiency, potential risks or liabilities.
- l. An evaluation of potential existing and future environmental, social, or health and safety financial/credit risks and liabilities associated with the Project, any associated facilities, the Project site, and CMSA.

5.4 Following completion of the due diligence, the Project Team will prepare the Environmental and Social Management Report (ESMR) for the operation which will summarize the key impacts and risks and the environmental and social management plans, provide a final assessment of the Project's compliance with IDB safeguard requirements, and highlight any environmental and social additionality. The ESMR will indicate how the environmental and social management measures are expected to be

covered by the Borrower commitments in the Loan Agreement and other contractual documents, and how the Bank will supervise their implementation.



Figure 1. Port of Manzanillo, showing the CMSA Project area in the lower left quadrant