

National Biodiversity Offset (NABiO) Program

Developing Concept for a National Level Scheme

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FONDO MEXICANO
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What is NABiO?

**Economic development
(built infrastructure)**

NABiO

**Costs and effective practice
of biodiversity conservation
(natural infrastructure)**

What is NABiO?

- ❖ A mean for securing strategic conservation benefits to compensate for inevitable biodiversity losses associated with certain types of essential development
- ❖ A transparent mechanism for private and public sector development to offset adverse impacts on an agreed national, prioritized conservation plan

Mitigation Hierarchy

- ❖ Industry's recognition of the best practice mitigation hierarchy:
 1. Avoidance of biodiversity impact
 2. Management and mitigation on site
 3. Offset for residual impact

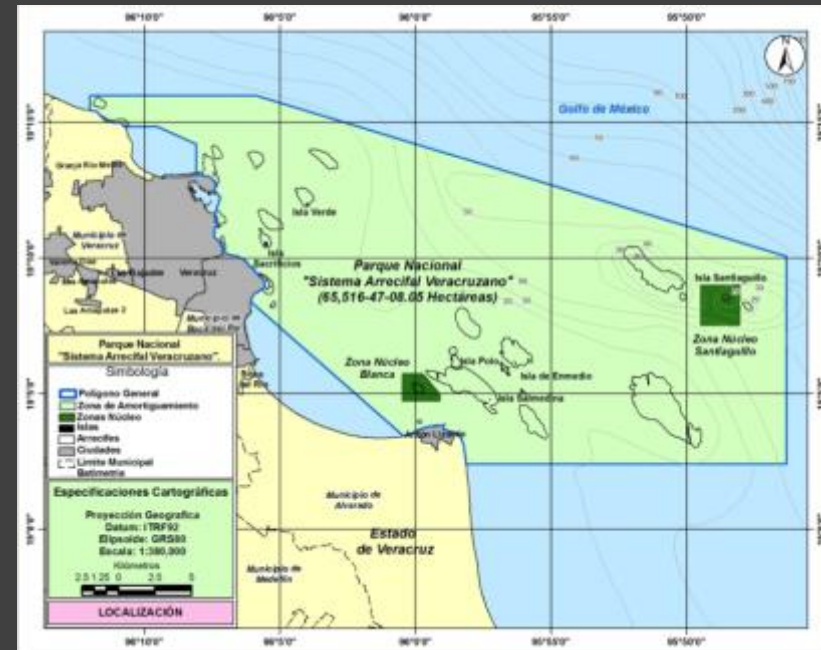
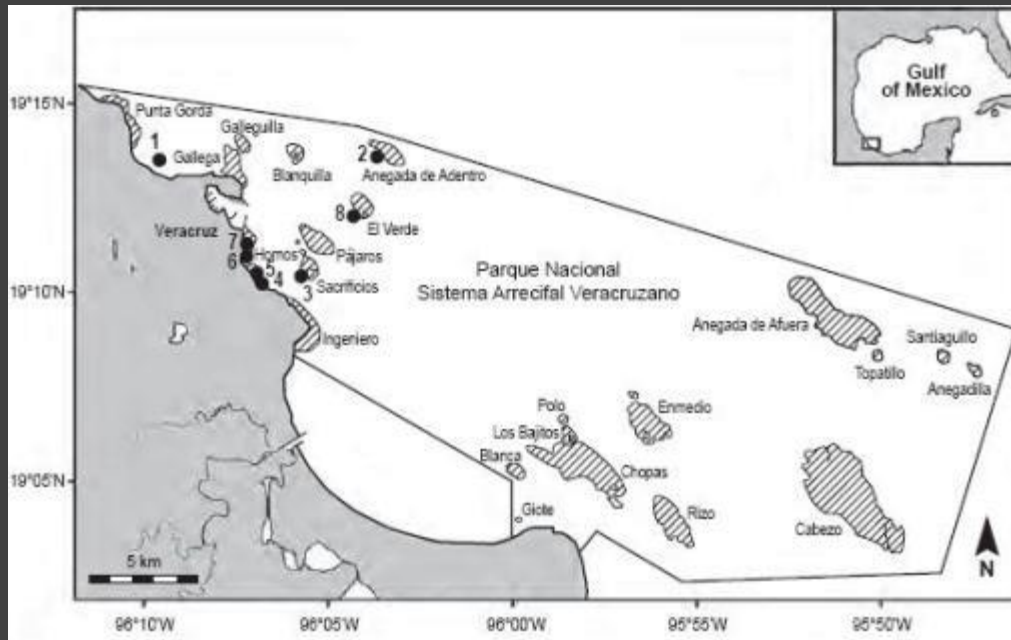
Impact and Value of NABiO

- ❖ Common and transparent methodology for calculation of impact equivalence
- ❖ Proceeds applied to secure biodiversity assets in a nationally coherent manner
- ❖ Design, implementation, monitoring, verification and long-term management of biodiversity by expert institutions (public, private, national and international)
- ❖ Conservation funding and impact increased at a substantial and meaningful scale
- ❖ Use of Paying for Performance Concept

Costing conservation at a national level in México, a few numbers:

- ❖ Between **US \$5,065** and **\$981 million** in carbon stock value for Mexico's mangroves (Adame et al, 2011; CONABIO, 2009)
- ❖ Value of mangrove hectare for fisheries **US \$37,500** (Aburto-Oropeza et al, 2008)
- ❖ **US \$400,000** during one whale watching season in three counties in Baja California in 2012 (Reforma, 2012)
- ❖ **US \$78 million** in PES distributed amongst **400,000** hectares each year
- ❖ **US \$1,300 million** per year for PA management (Bezaury et al, 2011)
- ❖ For every **\$1 peso** invested in PA protection, the economy received **\$52 pesos** in return

Example 1: Expansion of port infrastructure in Veracruz's National Park Reef System



- ❖ Change in the polygon of a marine park
- ❖ What is the overall cost of this development for the country?
- ❖ How can we measure public interest
- ❖ NABO= water treatment facilities for watershed draining into the reef?

Example 2: Gold mining in the Biosphere Reserve of Sierra la Laguna

❖ For each 1.2 ounces (31.1g) of gold:

- a) 132 tons of extracted rock (equivalent to 10 dump trucks)
- b) 24 tons of soil leached with a highly toxic cyanide solution
- c) 100,000 liters of fresh water (enough for 200 families/day)
- d) 1,300 kW-h of electricity consumed (enough to provide energy to 30 families /day)
- e) 450 liters /day of fossil fuel
- f) 3.2 tons of residual salt disposed to sea from the desalting process
- g) 650 tons CO₂ emitted, along with other GHG (SO₂ + NO_x)

Essential steps to develop a NABiO

- ❑ Leadership of the process to achieve it.
- ❑ Participatory processes to reach consensus among key stakeholders
- ❑ Government ownership of the vision

Essential steps to develop a NABiO

1. A strategic, prioritized, and costed plan for conservation nationwide
2. A mechanism to engage the private sector
3. A methodology to assess the biodiversity footprint of a development, calculate offset equivalence and derive the costs for securing an offset in perpetuity

Essential steps to develop a NABiO

4. An intermediary fiduciary agent to capture, invest, and disburse offset financing (e.g. FMCN, FUNBIO, Costa Rica Forever Fund, MAR-Fund)
5. Governance and Secretariat arrangements for allocation and use of fund proceeds by Government and other partners to implement the national conservation program
6. The policy and law needed to implement the scheme

Credits

1. Global Environment Coordination Unit
The World Bank, Washington DC.
2. Exequiel Ezcurra, COMEXUS, University of
California
3. Vanessa Valdez, Innovation and R&D, FMCN

Thank you!



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