



**Designing solutions for a resilient planet**

## About us

**AxisIMA® is an international consulting firm located in Mexico. Across 19 years, the firm has specialized in providing critical, integrated and innovative solutions for coastal engineering, environmental impact assessment, environmental management and renewable energy project development. AxisIMA® has developed more than 250 projects in North America, Central America and globally, including Mexico, Venezuela, Nicaragua, Peru, Belize, India and the United States.**



## How we do it

Through a holistic approach in focus of the needs of each project. We apply a rigorous work methodology where the experience of a team of highly qualified professionals and technological innovation is integrated, as well as the integration of sustainable approach.

## Sectors

- Port and coastal areas
- Real estate and industrial
- Tourism and commercial
- Oil & Gas
- Renewable energies
- Mining industry

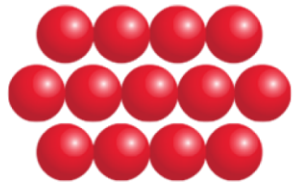
## Where we do it

From our offices in Yucatan, Mexico, We have developed and executed projects in:



📍 México 📍 Estados Unidos 📍 India 📍 Belice 📍 Nicaragua  
📍 Ecuador 📍 Venezuela 📍 Perú

**ALLIANCES**



**TERRE ARMEE**



**GEOQUEST**



**AQUOSMIC®**

# HOW DO WE WORK?

## PLANNING



- Advice and feasibility diagnosis.
- Project scheduling
- Project Budget.



## EXECUTION



- Studies.
- Permits and licenses.
- Detailed engineering.
- Design of solutions.
- Solution installation.
- ToR elaboration.



## SUPERVISION



- Environmental monitoring.
- Construction supervision.
- Video monitoring.



## FOLLOW-UP



- Environmental monitoring.
- Solution monitoring.
- Annual reports.





# Environmental Management

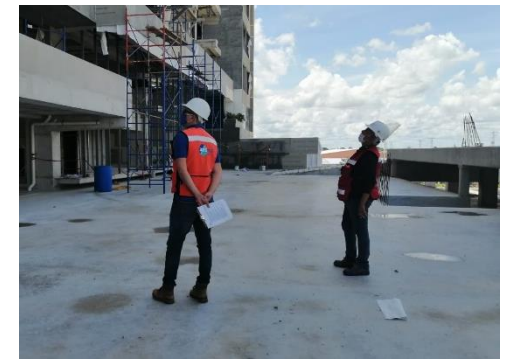
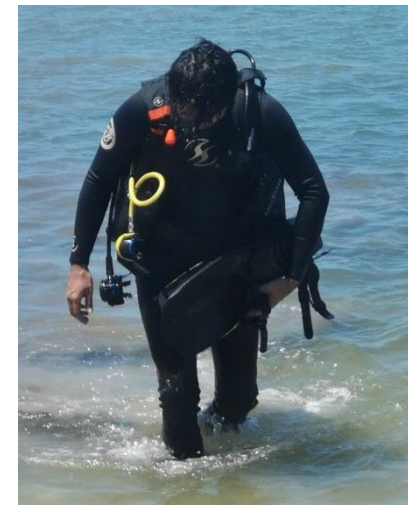


ENVIRONMENTAL  
MANAGEMENT

# ENVIRONMENTAL MANAGEMENT



- Analysis and evaluation of environmental and legal viability.
- Baseline studies.
- Climate change (diagnosis, adaptation and mitigation).
- Management of licenses and permits for project development.
- Environmental studies at the municipal, state and federal area.
- Environmental supervision.
- Monitoring of environmental conditions.
- Environmental audit.
- Environmental monitoring programs.
- Regularization of environmental compliance.
- ZOFEMAT concession.



# ENVIRONMENTAL REGULATION

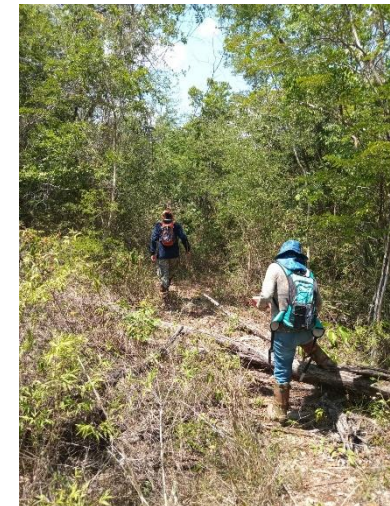


# ENVIRONMENTAL REGULATION

- Unique Environmental License (waste management)
- Registration as a Hazardous Waste Generator
- COA (State and Federal)
- Environmental compliance reports
- Diagnosis for farm regulation
- Waste management training (DC-3) certificates
- Legal-environmental consultancy
- Environmental damage assessment

## Only for industrial sector:

- Environmental diagnosis
- Environmental studies at the municipal, state and federal area.
- Environmental supervision.



# Urban Management

# Urban Management

## Services

### Evaluation

- Urban feasibility analysis.
- Feasibility of land use.
- Feasibility of water supply.
- Feasibility of electric power supply.
- Analysis of monumental quality before INAH.

### Construction

- Land use license.
- Urban impact study.
- Study of population density.
- Urban impact report.
- Civil protection risk analysis.
- Deliverance of INAH.
- Building license.
- Completion of work.
- Cadastral update.
- PCM signature.\*

### Operation

- Land use license for operation.
- Operating license.
- Safety and operation report.
- Various procedures before cadastre

\*Applicable only for the municipality of Mérida.



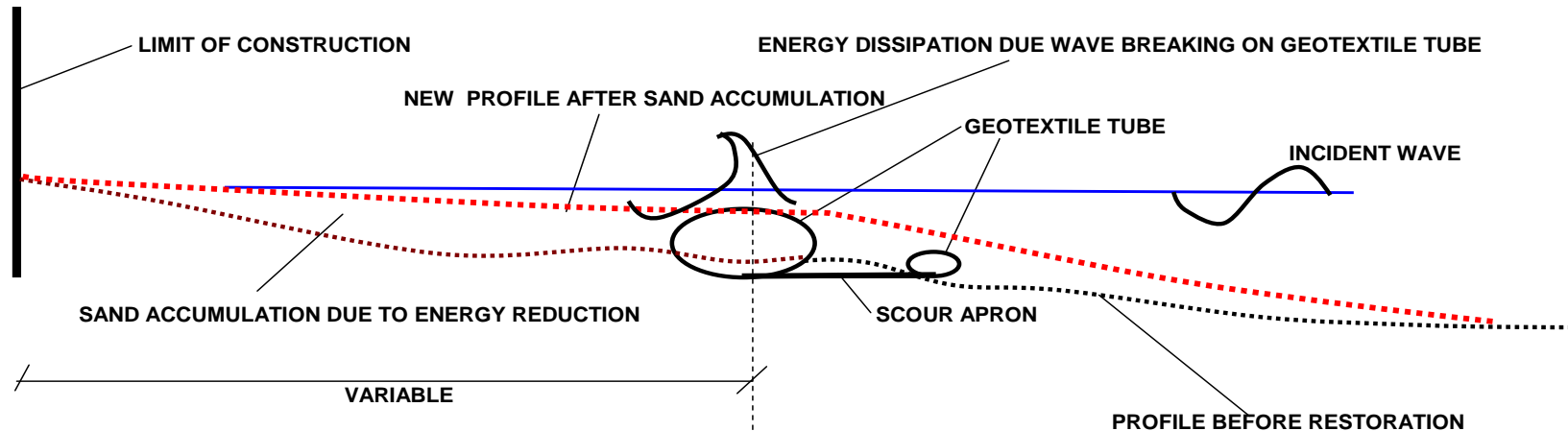


# Engineering

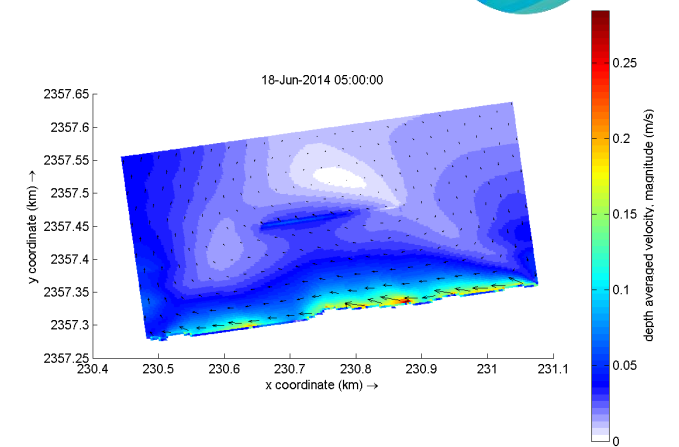
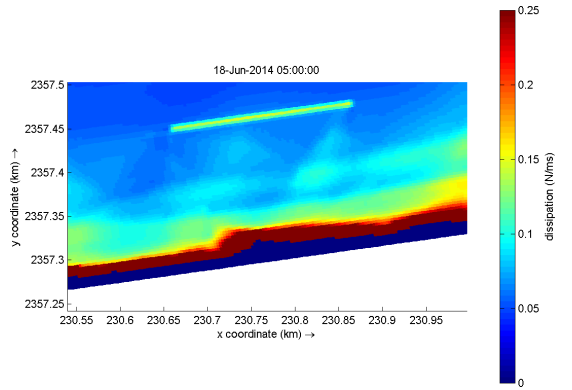
- Bathymetric survey, physical characterization and beach profiles.
- Design, engineering and supervision of beach rehabilitation and creation of artificial beaches.
- Design, engineering and supervision of coastal protection works and port infrastructure.
- Studies of environmental vulnerability, pollution and recovery of coastal ecosystems.
- Monitoring and comprehensive coastal management programs.
- Studies of physical oceanography and numerical modeling of hydrodynamics and coastal morphology.
- Qualified advice on clean beach certification applications.
- Licenses and permits before Urban Development and / or municipalities
- Topography: architectural survey, axis drawing, contour lines, polygonal survey, subdivision, among others.

## Description of the recovery system and generation of beaches

System based on the implementation of geotextile tubes (GT) that function as submerged breakwaters (SBW) for the mitigation and control of the energy of the waves incident on the beach to naturally favor the accumulation of sand in motion by the action of the waves.



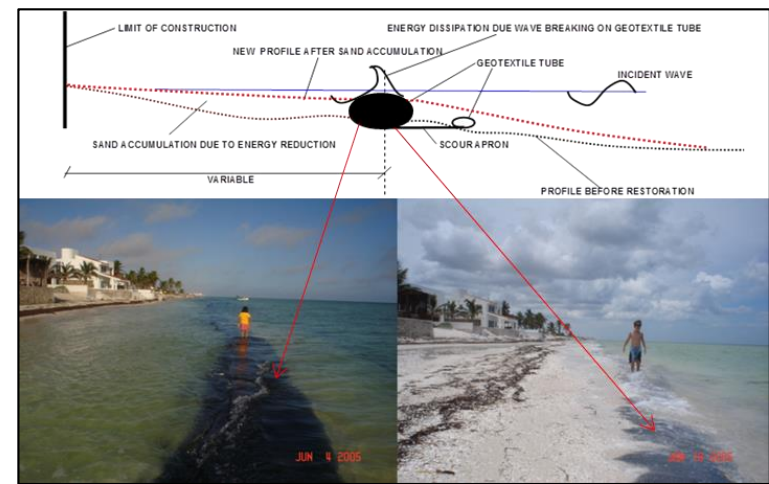
# Methodology



Variable oceanographic definition, field studies and numerical modelling

Laboratory modeling of wave energy mitigation by submerged breakwaters

Numerical modelling of beach behaviour by submerged breakwater effect



Results (case San Benito, Yucatan)

Operation and post-installation monitoring

Design and implementation

# EQUIPMENT

Correntometro Valeport:



Estacion total CX105 SOKIA (2)



Estacion total SET610(2)



GPS Leica 14



GPS Leica 15



Nivel automatico Sokkia



Ecosonda Valeport



Ecosonda Bathy 500



Toughbook



Drone DJI phantom 4 professional



System 3000 Digital Side Scan Sonar



Perfilador Edge Tech







### Management in Vía Montejo

It consisted of an Environmental Impact Assessment, Environmental Characterization, drone flights and special management waste management program for Vía Montejo in Merida, Yucatan, Mexico.



### Management in La Isla Cabo Norte

Environmental Impact Assessment and preparation of technical reports of environmental compliance for La Isla Cabo Norte shopping center in Mérida, Yucatán, Mexico.



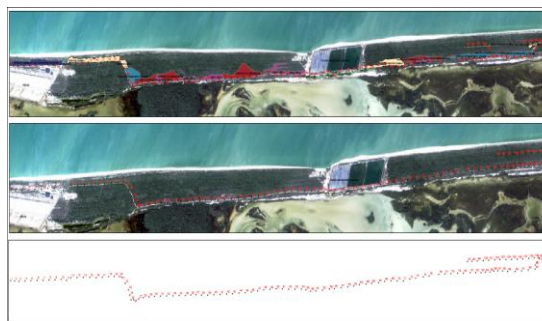
### MIA for reinforced dune in Las Coloradas

Environmental Impact Assessment for "Reinforced Dune III" project for salt industry in Las Coloradas, Yucatan, Mexico.



### Environmental characterization in the marine of Quintana Roo

The marine characterization of the cove of the CALICA company was carried out to determine the environmental status of the same, in the state of Quintana Roo.



### MIA and environmental supervision of power distribution line

Environmental Impact Assessment and environmental supervision of the electrical distribution line project in Sisal, Yucatán, Mexico.



### Diagnosis of the Alvarado wetland in Veracruz, Mexico

For the elaboration of a project in an area of 40 ha, it was required to know the environmental conditions (flora and fauna) present, in order to make a design according to the environment.



### Pilot beach in Belize

Pilot development project at Caye Chapel Beach, Belize. 230 meters long beach, filled with sand of 10,000m<sup>3</sup>.



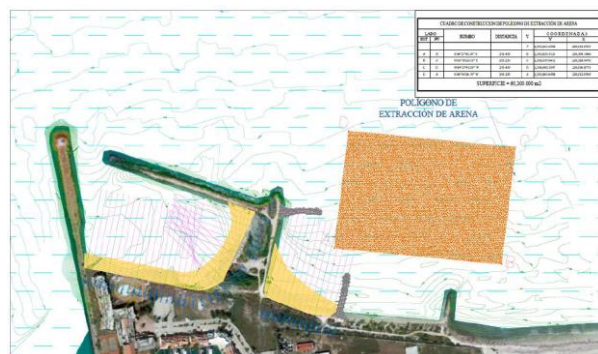
### Integral management of beaches in Yucatan

Analysis of alternatives, Engineering and execution of the beach recovery project. Permanent integral management of beach management in a stretch of 1,800m.



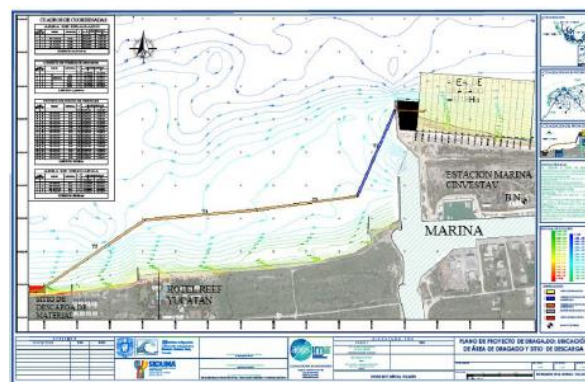
### Beach recovery in Chicxulub, Yucatan.

Beach recovery project in Chicxulub carried out since 2010.



### Artificial beach project in Marina Yucalpetén

Analysis of alternatives, Numerical modeling, Design, Detail engineering and terms of reference. Client: GRUPO SIMCA (2019)



### Coastal Engineering Consulting

Preliminary studies, analysis of alternatives, detailed engineering and Terms of Reference for the construction of port terminals and fishing refuges.



### Recovery of beaches in Cd. del Carmen

Club Petroleros de Pemex, Cd del Carmen. Campeche. Beach recovery by AXIS INGENIERIA (2010)



**Tel. 999 925 5264**

**Mail: [contacto@axisima.com](mailto:contacto@axisima.com)**

**Address: Calle 21 No. 161a Int. 1 x 38 y  
60 Col. Buenavista CP 97127, Merida,  
Yucatán**