



**AAAS – ACC Reunión Profesional:  
Envejecimiento y manejo de desastres**

**DESAFÍOS Y OPORTUNIDADES  
COMPARTIDOS EN MATERIA  
DE ENVEJECIMIENTO Y GESTIÓN  
DE DESASTRES: POTENCIAL PARA  
LA COLABORACIÓN CIENTÍFICA  
ENTRE ESTADOS UNIDOS Y CUBA**

# **Gestión de desastres en el Golfo de México**

## **Derrames de hidrocarburos**



# Role of the Ministry of Science, Technology and Environment

## Supporting

- Remote and aerial surveillance
- The preparation of press releases and other actions to inform the public

## Assessment

- Environmental damage
- The effectiveness of response operations
- Safety requirements for interim facilities for waste disposal

## Prognosis

- Modeling of trajectory of oil slicks resulting from subsea oil spills.
- Prognosis of the consequences

## Conducting

- Authorization and supervision of the use of dispersants and in-situ burning operations
- Application of bio-remediation techniques
- Follow-up of incident escalation
- Supervision of implementation of countermeasures to protect the environment
- Enforcement actions in the framework of the environmental regulations

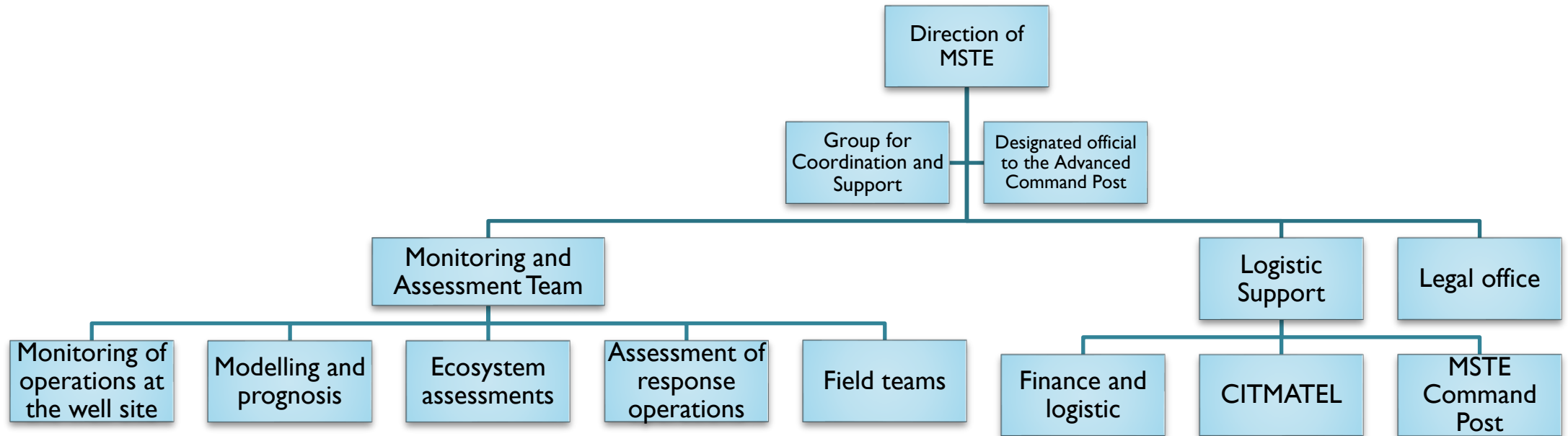


# Main participating organizations

- Office for Environmental Regulation and Safety (ORSA)
- Institute of Meteorology (INSMET)
- Institute of Marine Sciences (ICIMAR)
- Center for Environmental Studies of Cienfuegos (CEAC)
- General Environmental Directorate (DMA)
- Environment Agency (AMA)
- Institute of Ecology and Systematics (IES)
- National Center for Protected Areas (CNAP)
- Legal Office (DJ)



# Emergency management organizational chart



# Other response countermeasures

- Protection of responders
- Providing scientific and technical support to local governments in affected provinces
- Supporting the authorities in preparing warnings and instructions to the public
- Supporting the National Civil Defense General Staff in preparing information to the public
- Assisting local authorities to plan and carry out restoring operations





# Opportunities for scientific cooperation

- Modeling of trajectory of oil slicks resulting from off-shore oil spills.
- Prognosis of the consequences



# Opportunities for scientific cooperation

- **Application of bio-remediation techniques**
  - Development of deployable-in-the-field technology for production of products for bioremediation
  - Development of technology for bioremediation application in sea-surface, coastal zones, rivers and lakes



# Opportunities for scientific cooperation

- Performance indicators for measuring the effectiveness of response operations

