

# 16th Lme

Meeting with  
Coastal Partners

Paris (FR) 8 - 11 July 2014



## Interactive platform for enhanced LME outreach – Working with Google Earth Layers

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Institution: **IUCN**

Session: **Session 2. Knowledge and best governance  
practices: Tools data and information**

Day of presentation: **Wednesday 9 July 2014**



# *Growing the Community and Communicating LME results*



Google™



NATIONAL  
GEOGRAPHIC



**Better information**

**Better decision making**

**A public good**



# Objectives

Making ecosystem management understandable through LMEs with practical example:

- Visibility – getting it ‘out there’
- Coherence – experience across sites
- Leverage – of existing investment
- Connectivity – with MPAs, ICZM, other content
- Integration – with other content and their traffic
  - Inspiration – growing engagement
- Inter-LME learning – optimise enabling conditions





Google



B44

Lobby



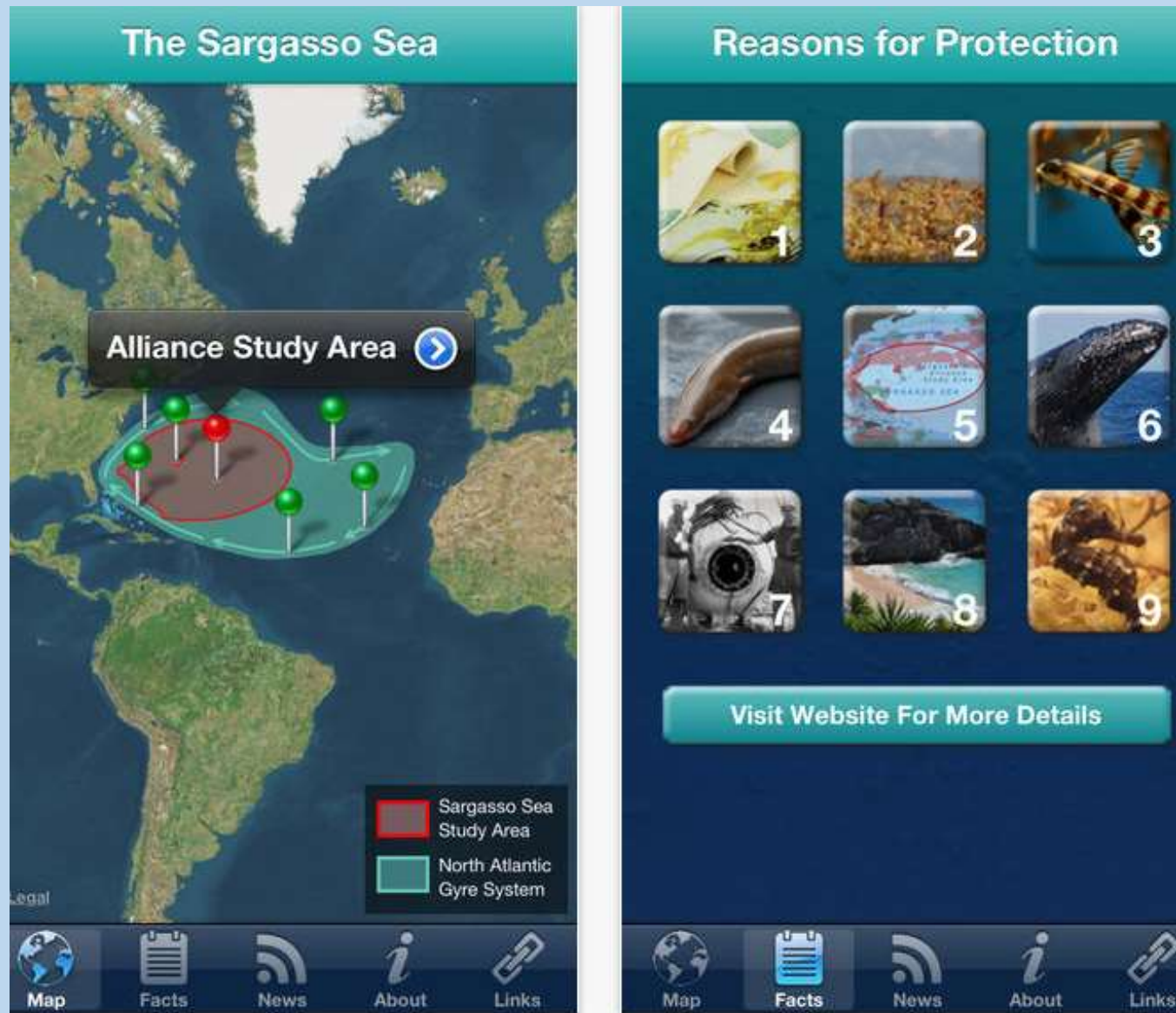
Courtesy USGS/NASA





MPA layer, partner content, pop-up technology





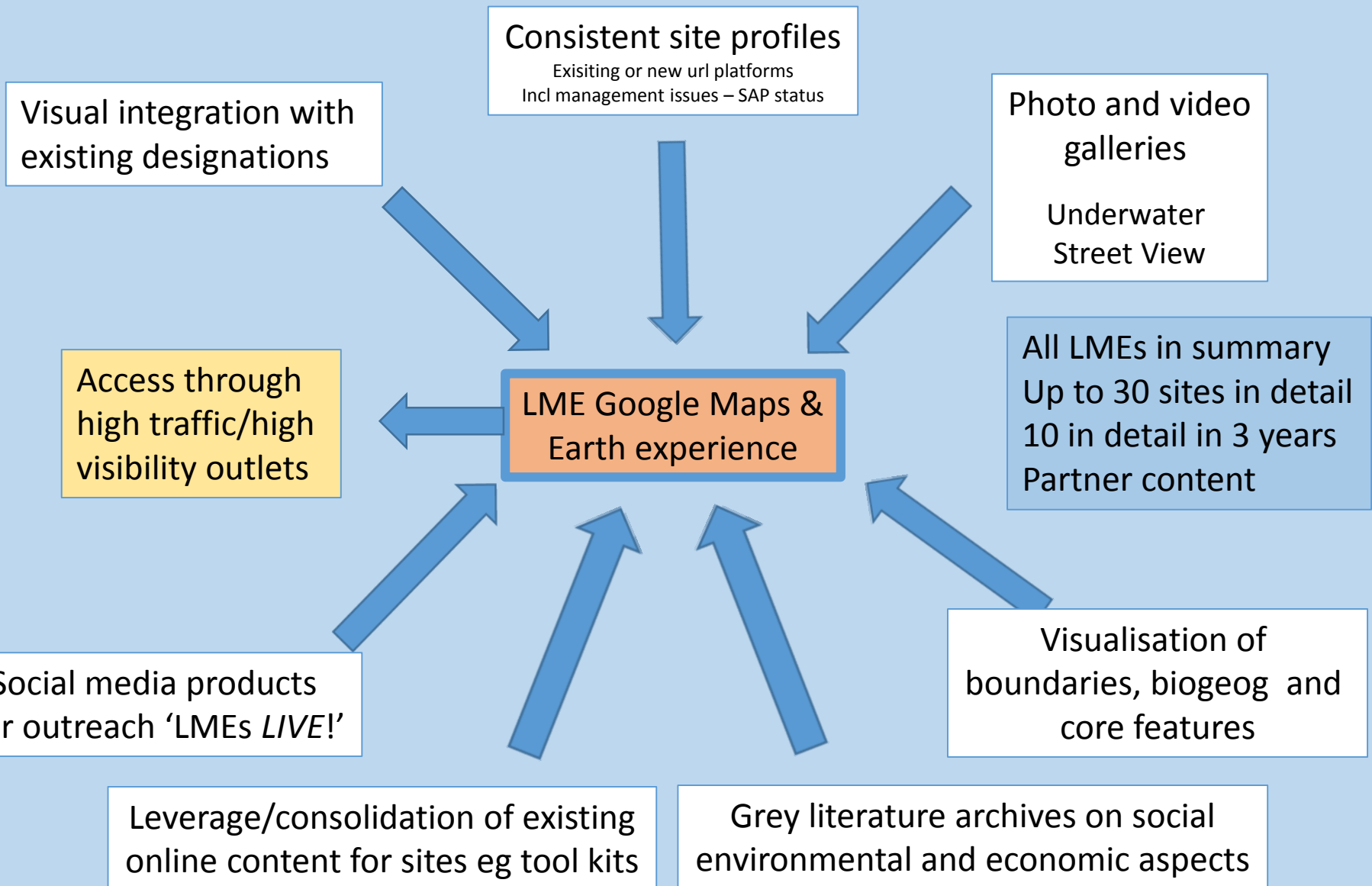
To download for free type 'Conserving the Sargasso Sea' in the iTunes/Android App stores



# Key consideration

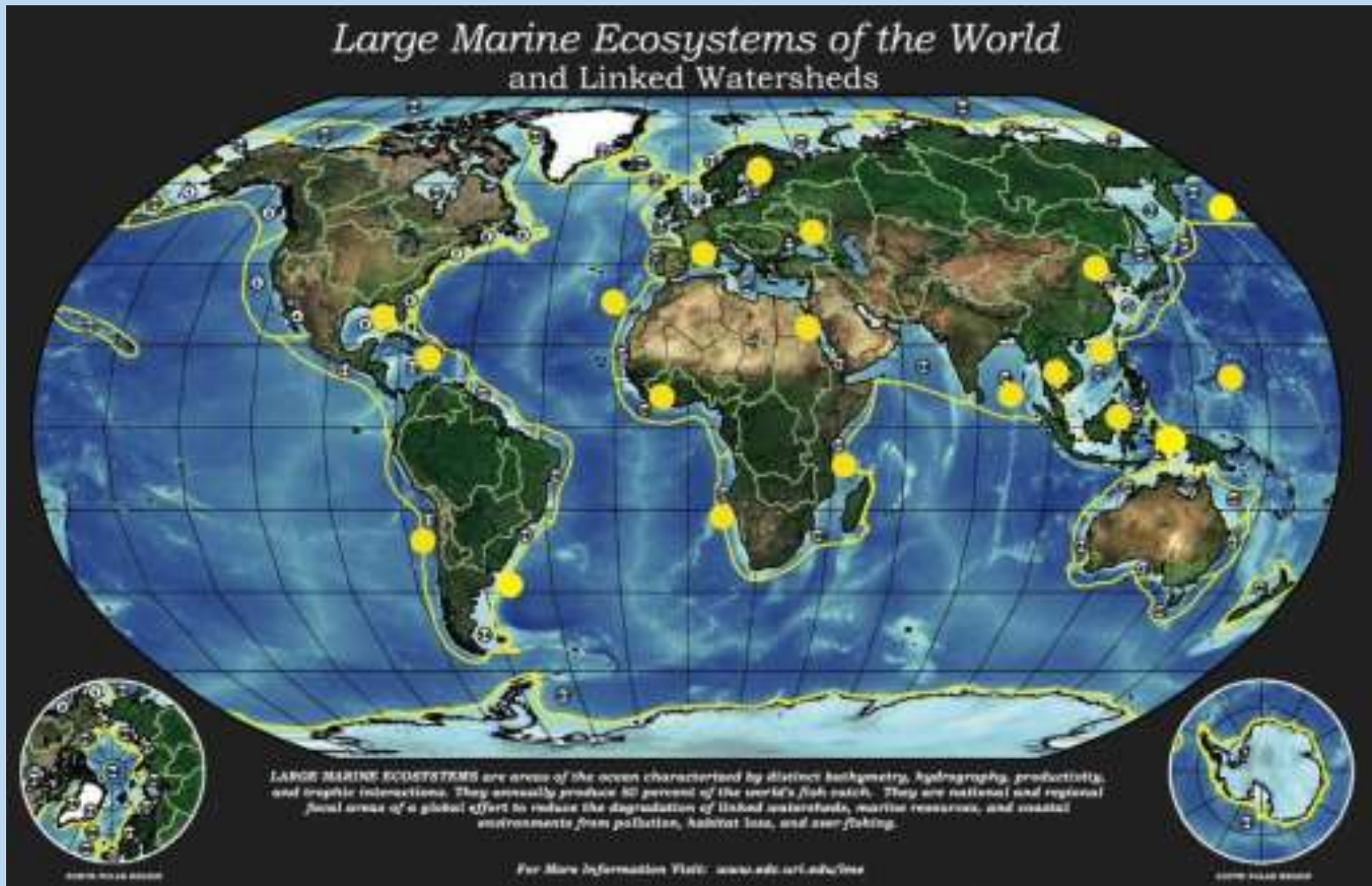
- Web is evolving – Google Earth and Maps
  - “Layer” = higher level content and coupled user experience
  - online/offline will be seamless through new caching technology
  - Google Maps Engine – critical to support new capabilities
  - Not what you have but what little you need to share
- Key opportunity – shape approaches and positioning through IUCN/Google/Mission Blue partnership
- Produce good user experience online – languages important
- Interlinking with other products from programme components and enabling wider visibility, access, use and learning – underpin the wider programme as a whole
- Integrating partner content available to animate experience and achieve traffic through e.g. Catlin Underwater Seaview – Underwater Street View and Global Coral Reef Record

# Main proposed components of IUCN LME outreach and communication product on Google Earth and Maps



# Prioritisation of action

Draw from 22 sites that have received funding but achieve a consistent result and ensure benefit is felt by all



# Other aspects

- Helping to communicate financial needs and achieve visibility for plans re future investment
- Highlighting governance challenges and opportunities within the LME framework
- Providing a platform of exchange for ecosystem management research



# Partnership arrangements

- IW Learn – building on structures and accomplishments - content and advice
- Google Earth and Maps – partnership with IUCN
- Catlin Seaview – MOU with IUCN
- Mission Blue and leveraging Hope Spot content
- NOAA & USA Government – advice/access to content
- Individual featured LME communities
- National Geographic – visuals and media
- Solertium – web platform enabling

# East Bering Sea Large Marine Ecosystem

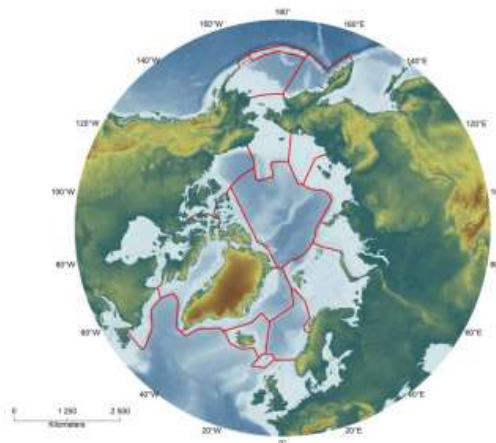
## Sustaining the World:

Large Marine Ecosystems (LME) are regions of ocean space of 200,000 km<sup>2</sup> or greater, that encompass coastal areas from river basins and estuaries to the outer margins of a continental shelf or seaward extent of a predominant coastal current. LME are defined by ecological criteria, including bathymetry, hydrography, productivity and trophically linked populations.

<http://www.lme.noaa.gov/>

<http://www.thegef.org/gef/sites/thegef.org/files/publication/LME00%20SYN%20Final.pdf>

<https://mapsengine.google.com/07142770996945720391-18293353045783740819-4/mapview/?authuser=0>



## About East Bering Sea LME:

East Bering Sea is one of the 17 Large Marine Ecosystems of the Arctic Region.

## Management Status of the LME

In 1991, the Arctic Council signed the Environmental Protection Strategy to face major environmental crisis due to human activities as oil and gas pollution and Arctic shipping and to face climate change. Under the 1991 AEPS, was established the Protection of the Arctic Marine Environment Working Group (PAME) to focus on the sustainable use of the Arctic marine environment. Based on an ecosystem approach and LMEs guidelines, PAME formed a PAME LME expert group in 2007. Pollution has been the major module concerned in terms of both land-based (sewage and rivers inputs) and ocean activities (oil and gas exploitation) as conservation of biodiversity and resources. In 2013, PAME revised the Arctic

## East Bering Sea LME Details:

Website: <http://westberingsea.iwlearn.org/>

Contacts: William J. Wiseman, Jr : [wwiseman@nsf.gov](mailto:wwiseman@nsf.gov)

## Description:

LME Area : 1193601 km<sup>2</sup>

Shelf Area : km<sup>2</sup>

Climate : Sub Arctic

Population : 65,000 native indians

Country : Alaska

**IUCN - Large Marine Ecosystems**

Overview map of the (66) defined LMEs.  
Click on each area for basic details about that LME.

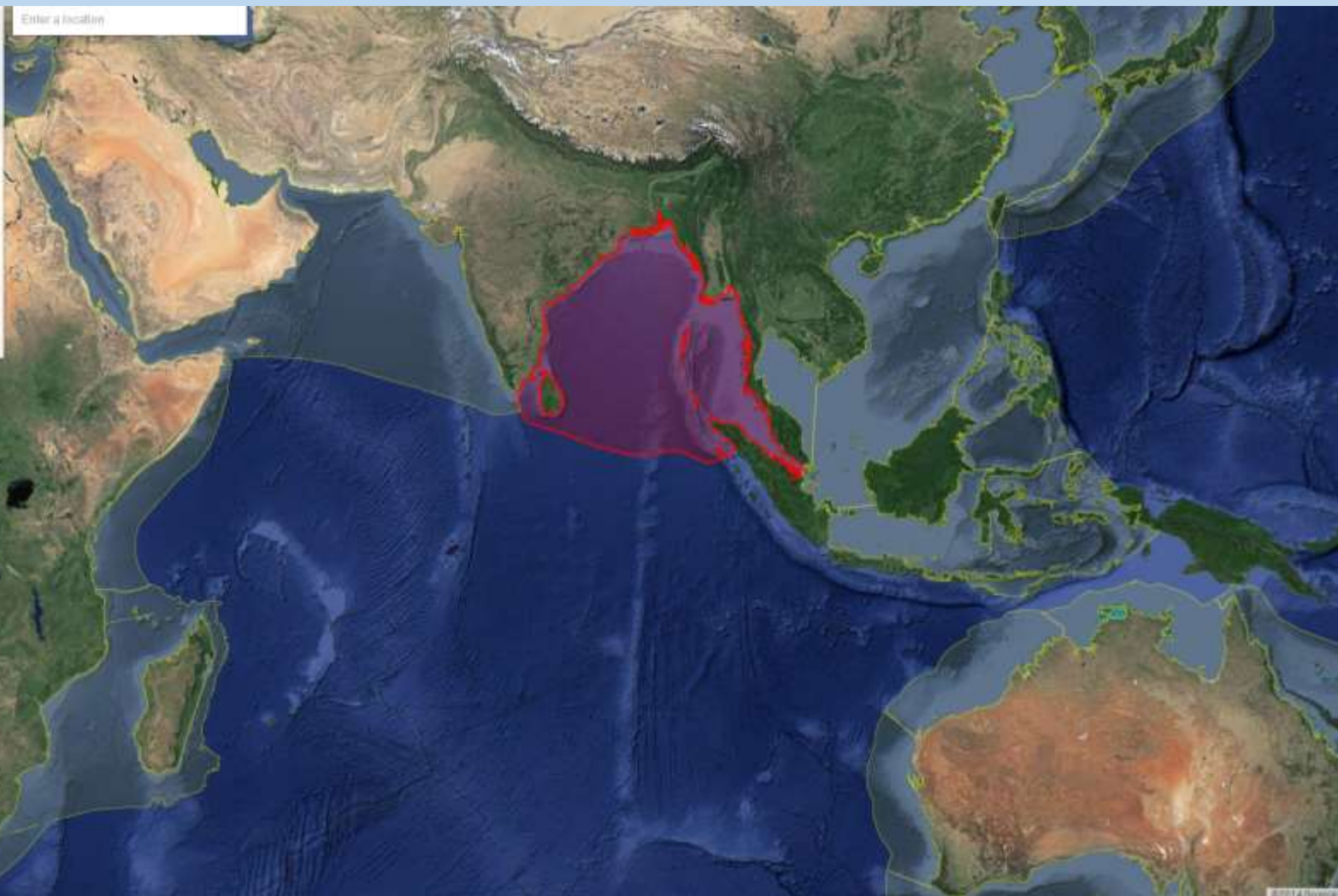
Data Source: NOAA LME portal website

Reset view

- ☐ LMEs - Map Overlay
- ☐ LMEs - Satellite Overlay
- ☒ Highlighted LME(s)

Zoom to area

- ☐ MEOW Regions
- ☐ Marine World Heritage Sites (59)
- ☐ LMEs with MWH







## Florida Keys National Marine Sanctuary

Third longest barrier coral reef in the world

Videos **Photos** Stories Facts Add



Credit: (Photo: NOAA Office of National Marine Sanctuaries)  
Florida Keys National Marine Sanctuary



[See all photos \(1\)](#) - [Add Photos](#)

[Why Marine Protected Areas? - Protect Your Ocean](#)



Florida

Nassau  
The Bahamas

Villa Clara

Ciego de Avila

Isla de Cozumel

Tour Guide



Florida

National Capital Buil...

Tampa

Fort Lauderdale

Fort Myers

Key West

© 2013 INHS  
Orlando

Englewood

Key Largo

Melbourne

Pinar del Rio

Matanzas





 Tubbataha Reefs Natural Park, Philippines - A World Heritage Marine Site



Tubbataha Reefs Natural Park, Philippines - A World



Heron Island, Great Barrier Reef



Sian Ka'an, Mexico



Lady Elliot Island, Great Barrier R



Wilson Island, Great



Hanalei Bay, Hawaii



Molokini Crater, Ha



Whale Sharks at Isla Contoy, Me



Tio Underwater Ma



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Google







# Some next steps.....

- Finalise partnership working and MOUs for delivery
- Agree fine-detail priority objectives for Google work
- Design online experience, web infra-structure, analytics
- Deciding on common content v regional priorities
- Deciding on discretionary content – eg social media
- Identify first featured LMEs
- Obtaining LME content
- Cross match to other content (+new) for user experience
- Trial on 3 LMEs
- User testing
- Roll out across other participating LME sites over 3 years