

Intelligence for decision making on the Natural Capital of Mexico



CONABIO

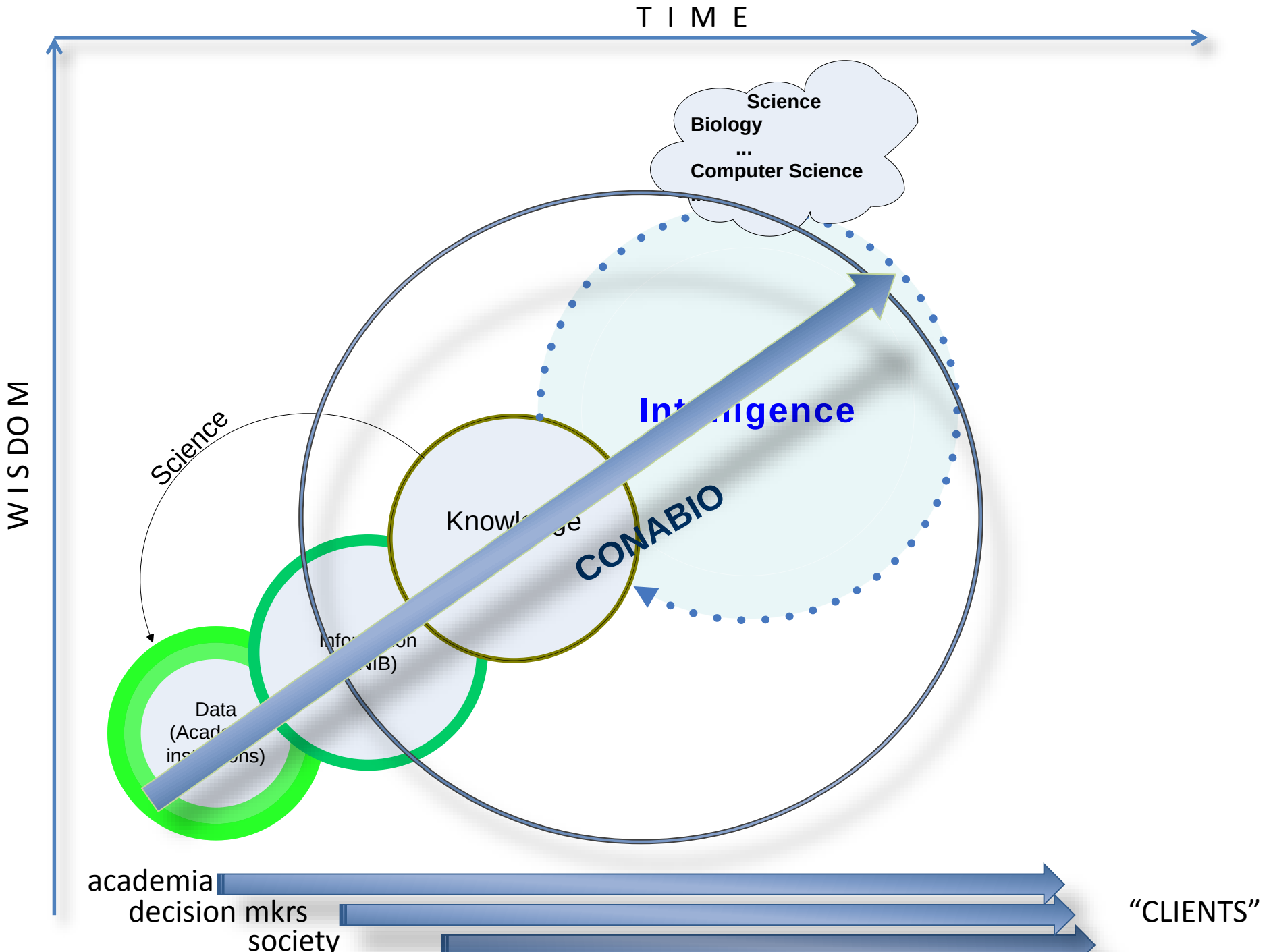
November, 2017

National Commission for the Knowledge and Use of Biodiversity

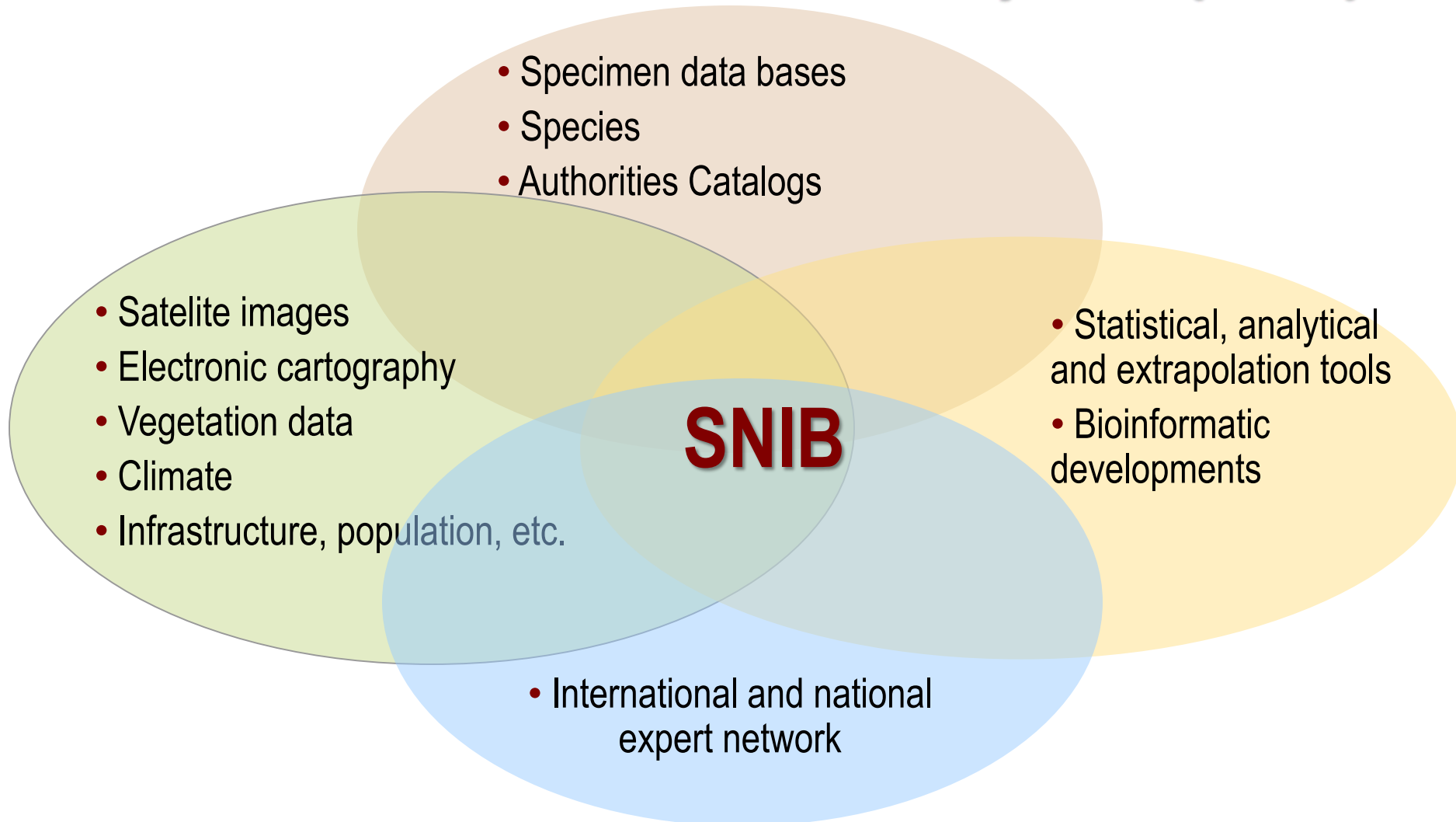
- Interministerial Commission
- Created in 1992 by Presidential decree to:
 - promote and coordinate actions towards the **knowledge and sustainable use** of Mexico's biological richness
 - **obtain, organize, analyze and make accessible** biodiversity information to society
 - act as a **bridging institution** between academia, the government and civil society

CONABIO's philosophy

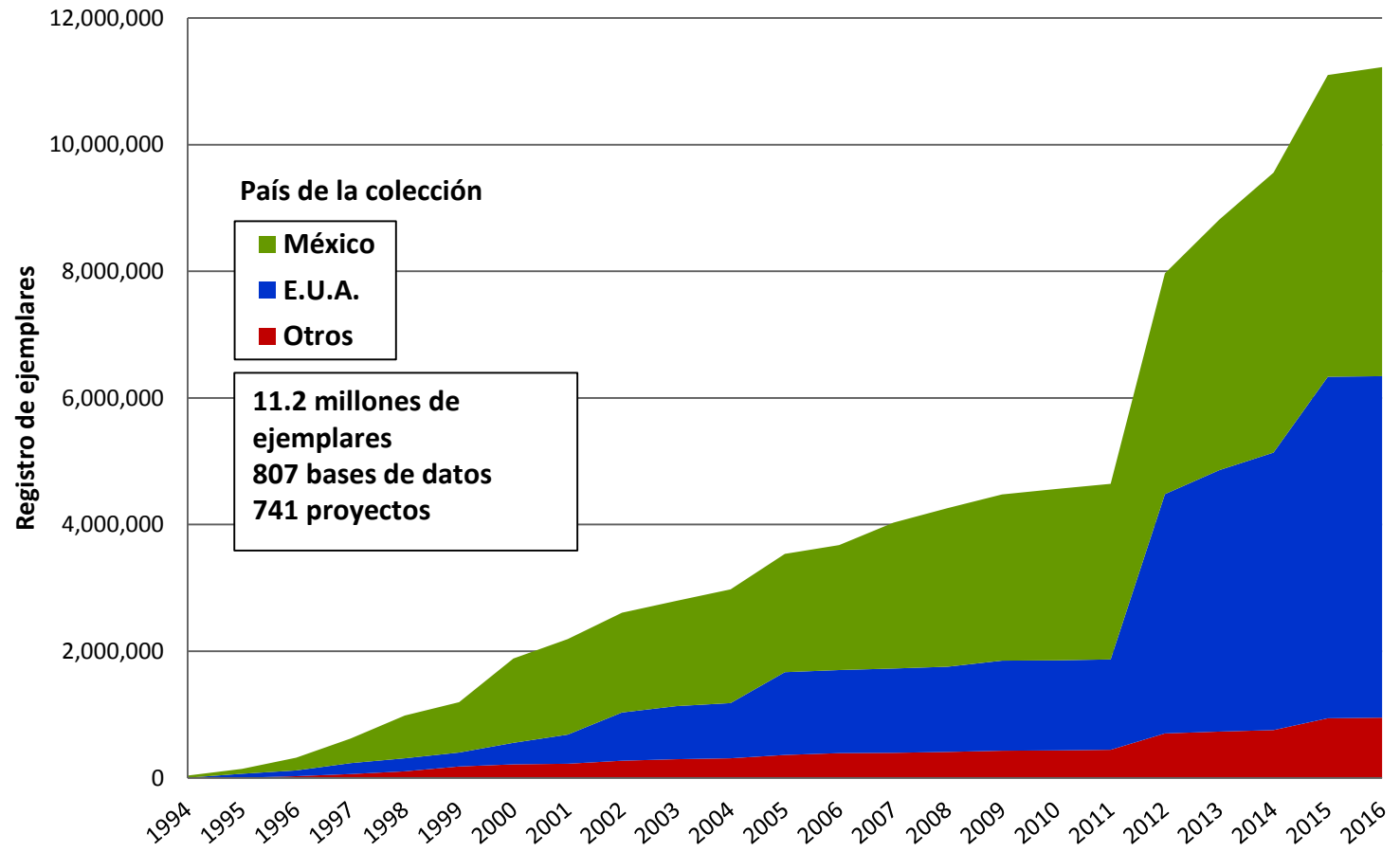
- A demand-driven research institution, but also promoter of basic research in academic institutions
- Generate **knowledge and intelligence at the national scale** to help conserve and sustainably manage Mexico's natural capital
- The central actors in conservation and sustainable management efforts should be the **owners** of the natural capital of the country,
- Become a world class institution in developing bioinformatics
- To be a public resource of information and knowledge on the biodiversity of the country for all levels of society



National Biodiversity Information System (SNIB)

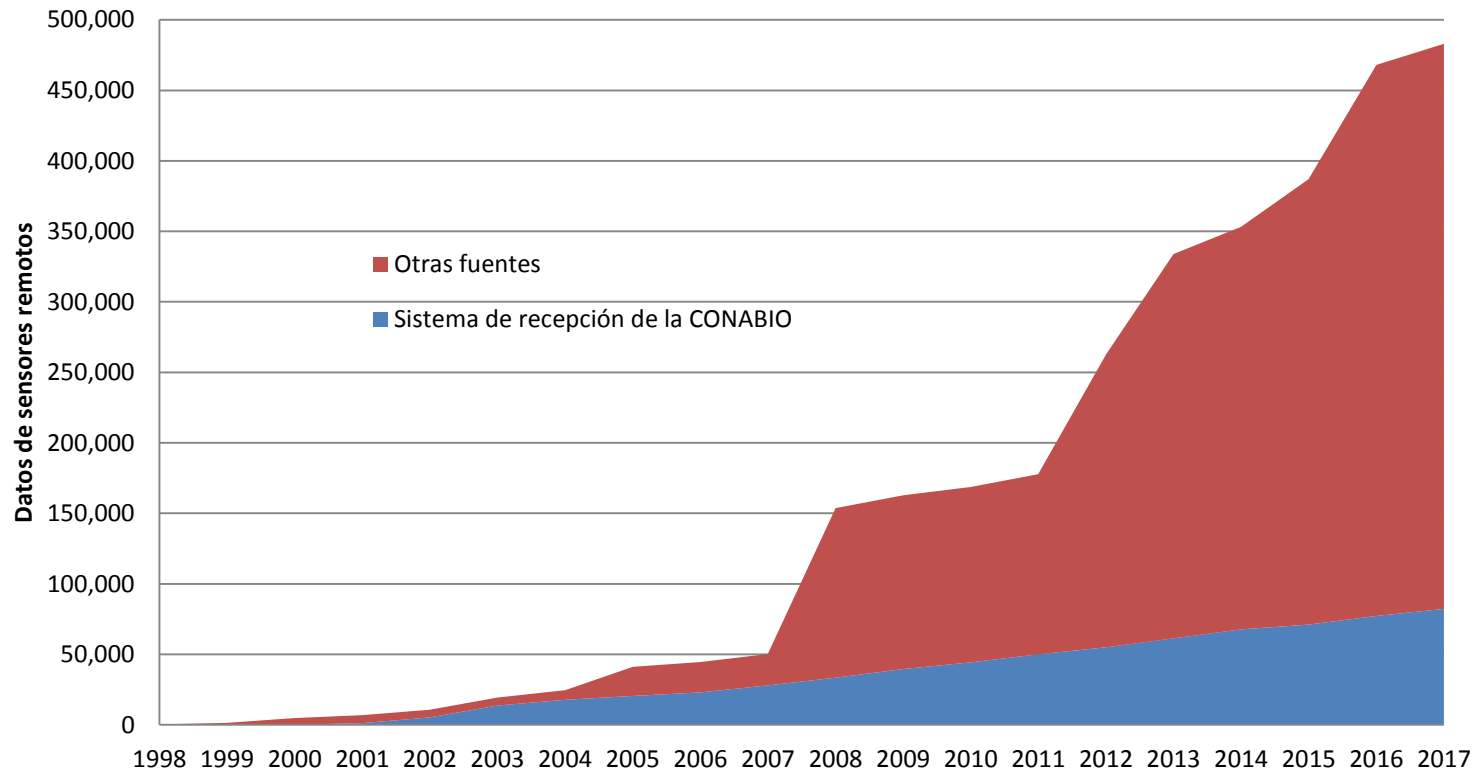


Data base growth



Remote sensing data base

@ september 2017



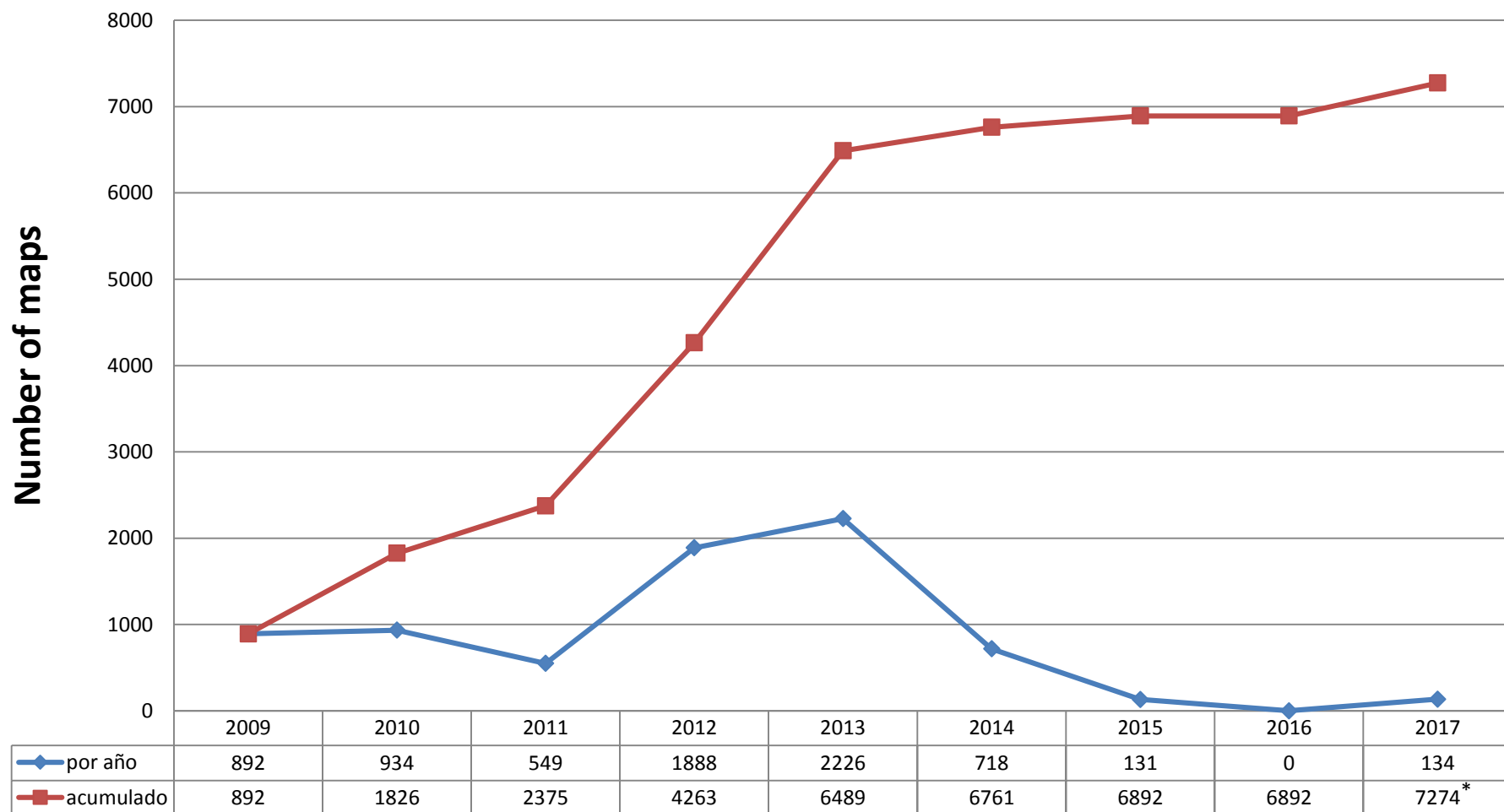
Data types:

- Optical images
- Analo photo images
- Digital aerial photography
- Orthophotos
- Hemispheric photography
- RADAR Images
- Lidar data

Data received at CONABIO's antenna

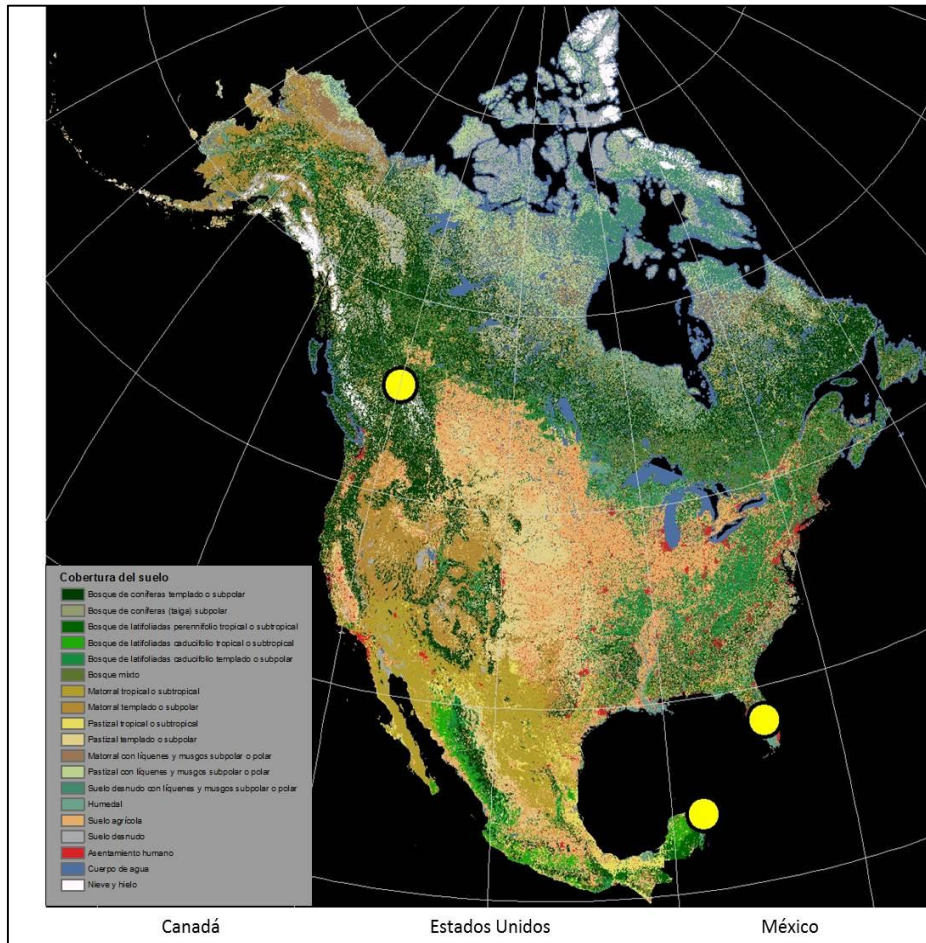
Optical images::
AVHRR
MODIS
VIIRS

CONABIO's map collection



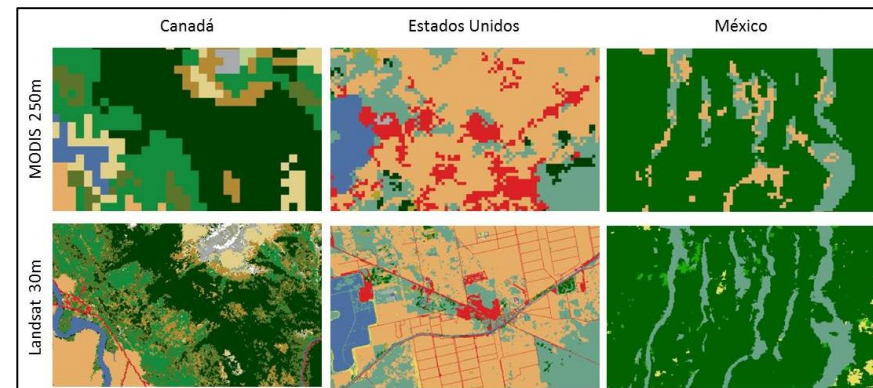
* Aprox. 2244 mapas de uso restringido

North America 30m resolution



The final map at 30 m resolution is a significant improvement on the previous one at a 250 meters.

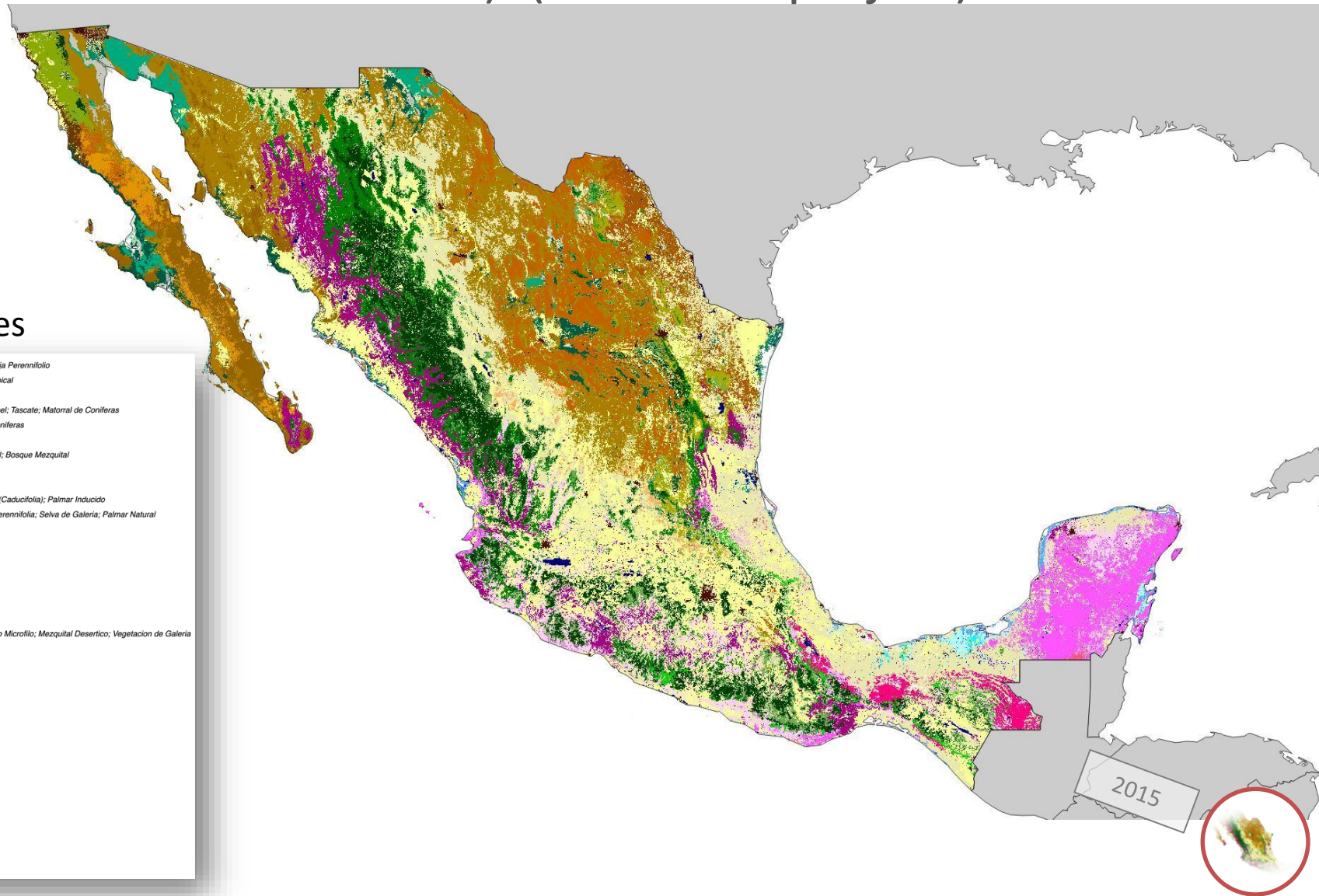
It maintains the consistency in the distribution of classes in most of North America.



Land cover at 1:20,000 (5.8m resolution) (Mad-Mex project)

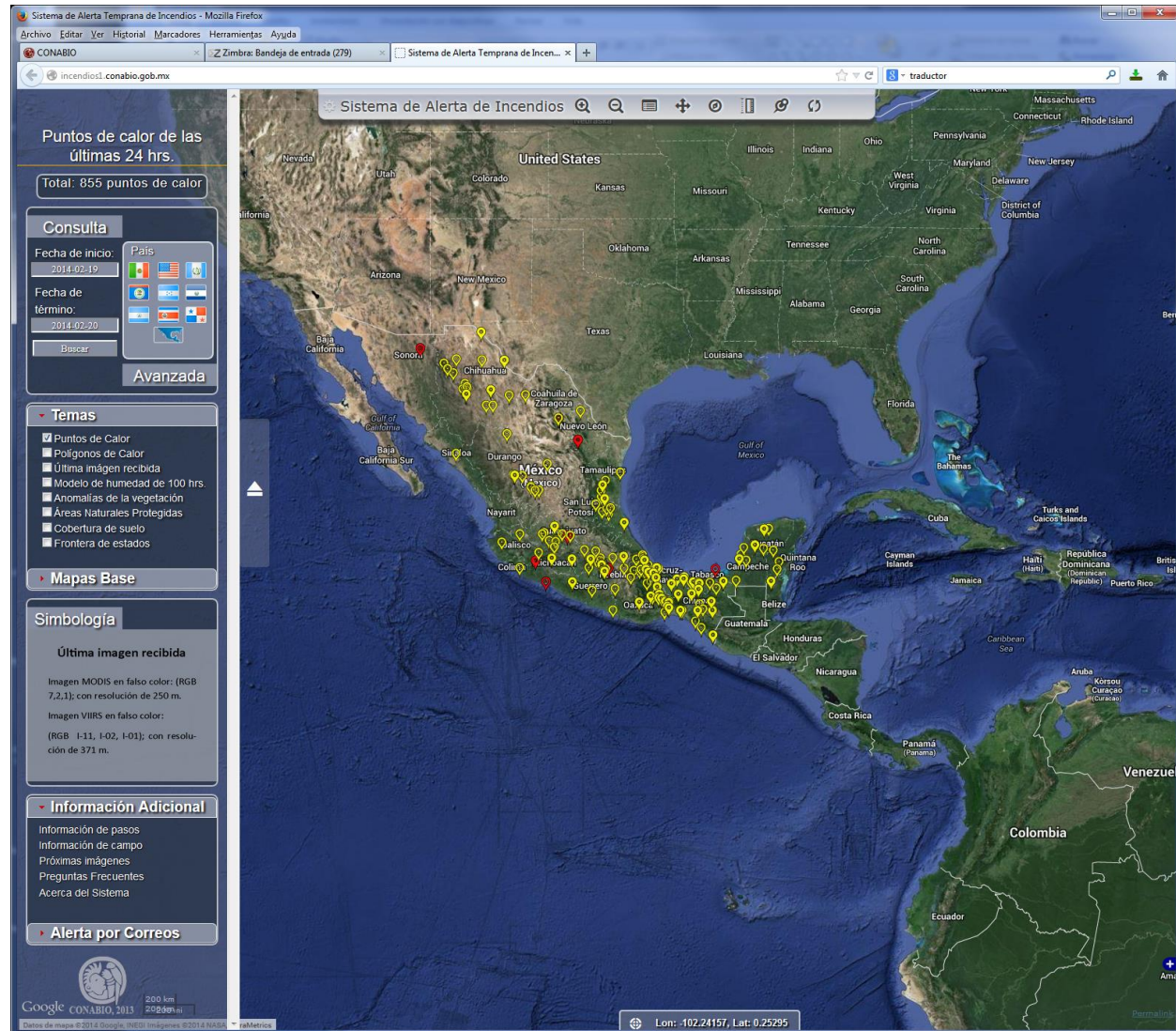
32 classes

- Bosque Mesófilo de Montana; Selva Baja Perennifolia
- Bosque Encino(-Pino); Matorral Subtropical
- Bosque de Ajarín; Cedro
- Bosque de Pino (-Encino); Abies; Oyamel; Tascate; Matorral de Coníferas
- Bosque de Pino-Encino; Matorral de Coníferas
- Bosque Inducido; Cultivado; de Galería
- Matorral Submontano; Mezquite Tropical; Bosque Mezquite
- Chaparral
- Bosque secundario
- Selva Baja (Sub)Caducifolia; Espinosa (Caducifolia); Palmar Inducido
- Selva Baja y Mediana (Espinosa) Subperennifolia; Selva de Galería; Palmar Natural
- Selva Alta Subperennifolia
- Selva Alta y Mediana Perennifolia
- Selva Mediana (Sub) Caducifolia
- Selva secundaria
- Manglar; Vegetación de Petén
- Tular
- Popal
- Bosque de Mezquite; Matorral Desértico Microfillo; Mezquite Desértico; Vegetación de Galería
- Matorral Crasicaule
- Matorral Sarco-Crasicaule
- Matorral Sarco-Crasicaule de Neblina
- Matorral Sarcocaule
- Matorral Desértico Rosetifolia
- Matorral Espinosa Tamaulipeco
- Matorral Rosetifolia Costero
- Vegetación de Dunas Costeras
- Vegetación de Desiertos Arenos
- Vegetación Halofila Hidrofila
- Vegetación Gipsófila Halofila Xerofila
- Pastizal y Sabana
- Agricultura
- Agua
- Urbana
- Sin y Desprovisto de Vegetación



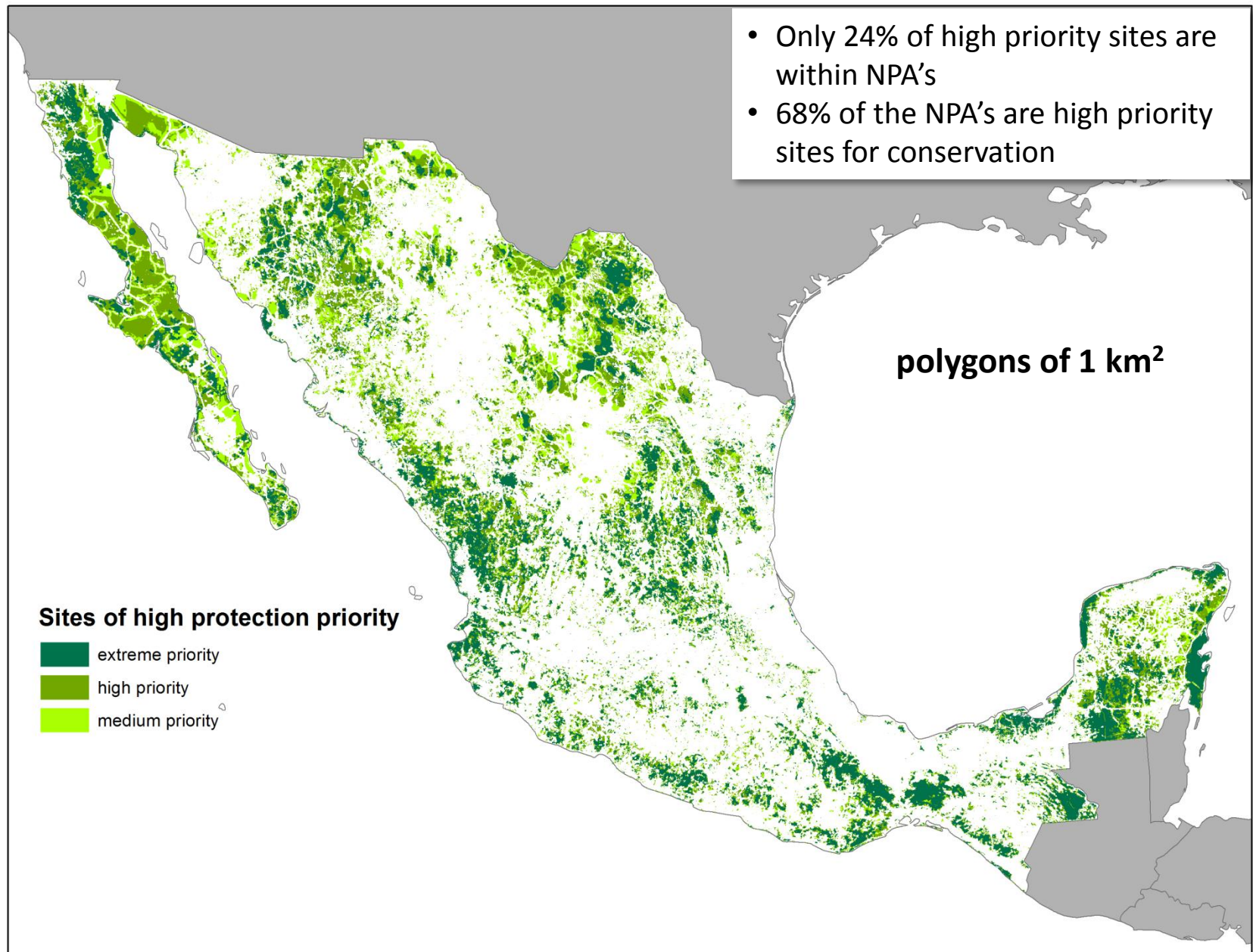
Daily web-page of forest fires

- ✓ Include hot-points detected with MODIS & VIIRS
- ✓ Presented in a dynamic map mode
- ✓ It shows hot points of the last 24 hrs
- ✓ Information for each hot point (time of day and historic information)
- ✓ A model of moisture of burning material

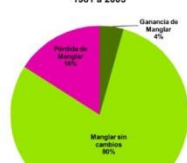
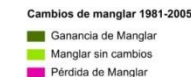


<http://incendios.conabio.gob.mx/>

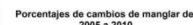
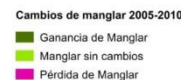
Biodiversity conservation Gap-analysis



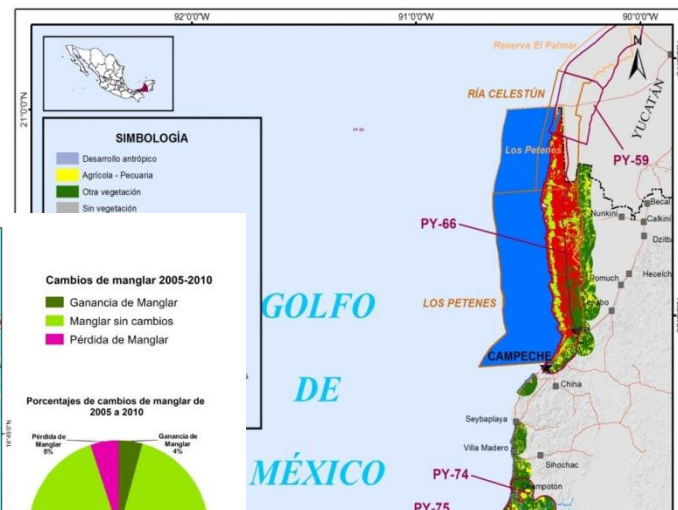
Change map and drivers of change: 1980 - 2005



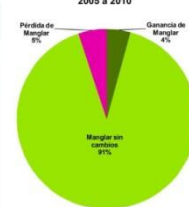
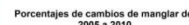
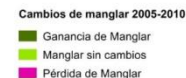
Change map and drivers of change: 2005 - 2010



National mangrove maps (1:50,000) for:
1970/80 – 2005 – 2010 - 2015



Change map and drivers of change: 2010 - 2015

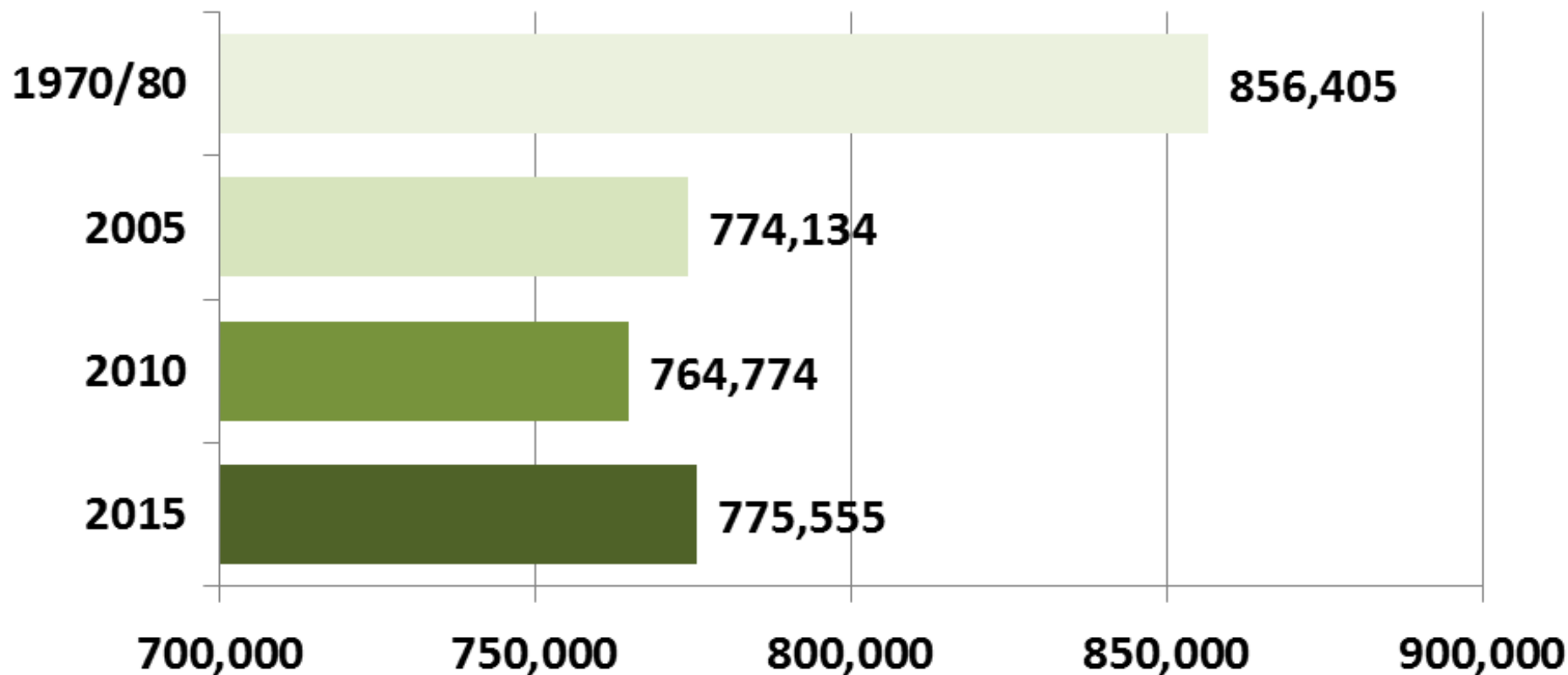


Fuente:
- Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO). 2013. Cambios de la superficie de los manglares en México (2005-2010). Escala 1:50,000. CONABIO, México.
- Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO). 2009. Sitios de manglar con relevancia biológica y con necesidades de rehabilitación ecológica. CONABIO, México, D.F.
- <http://www.conabio.gob.mx/difusion/555>

Mexican Mangrove Monitoring System

National statistics

Manglar





CONABIO
COMISIÓN NACIONAL PARA EL
CONOCIMIENTO Y USO DE LA BIODIVERSIDAD

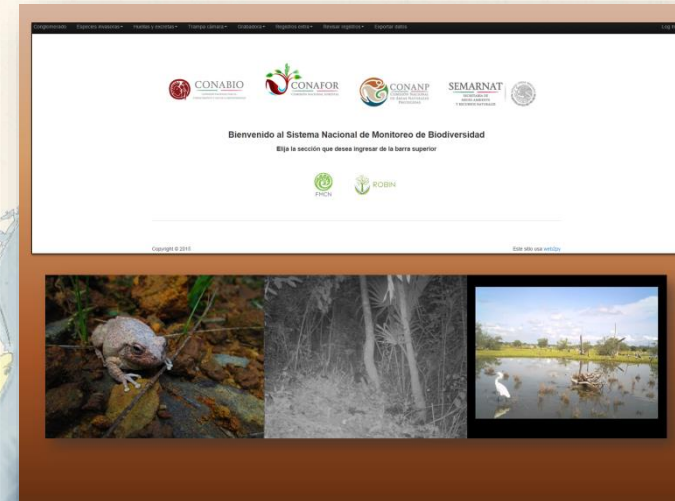
More than 100,000 aerial photos

34,464 panorama and 69,133 vertical views

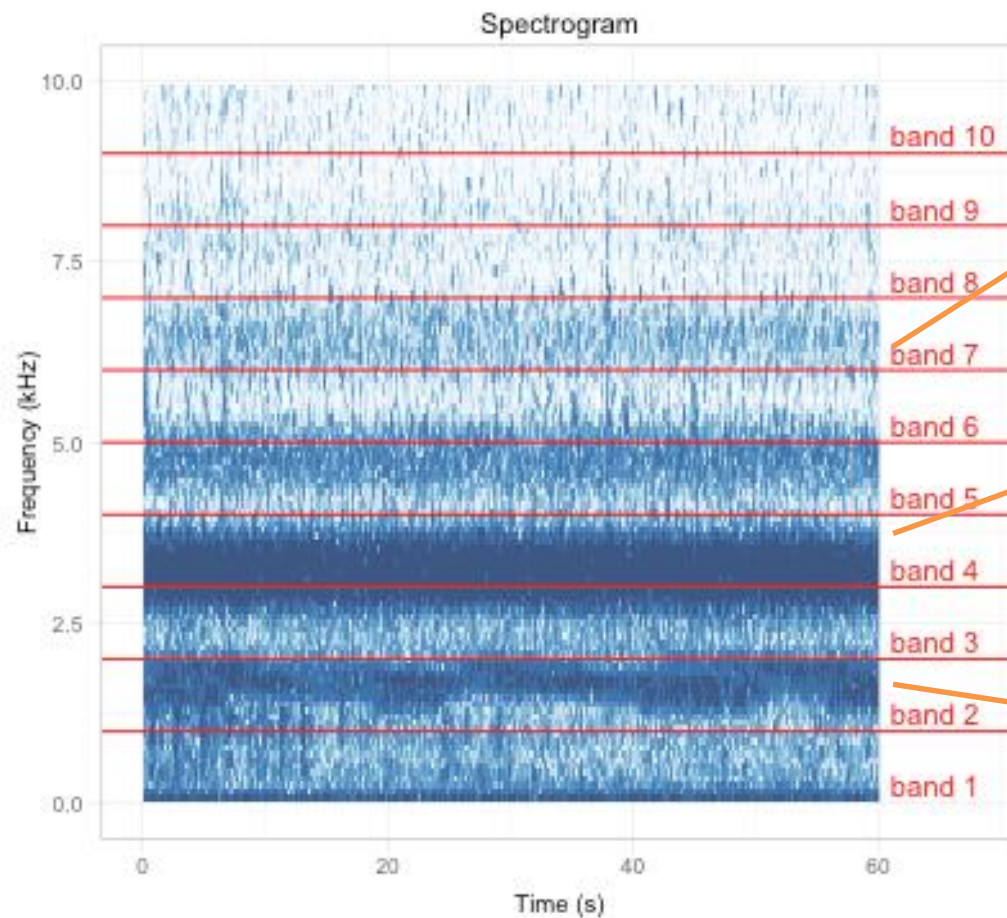


Tampico Alto – Veracruz de Ignacio de la Llave

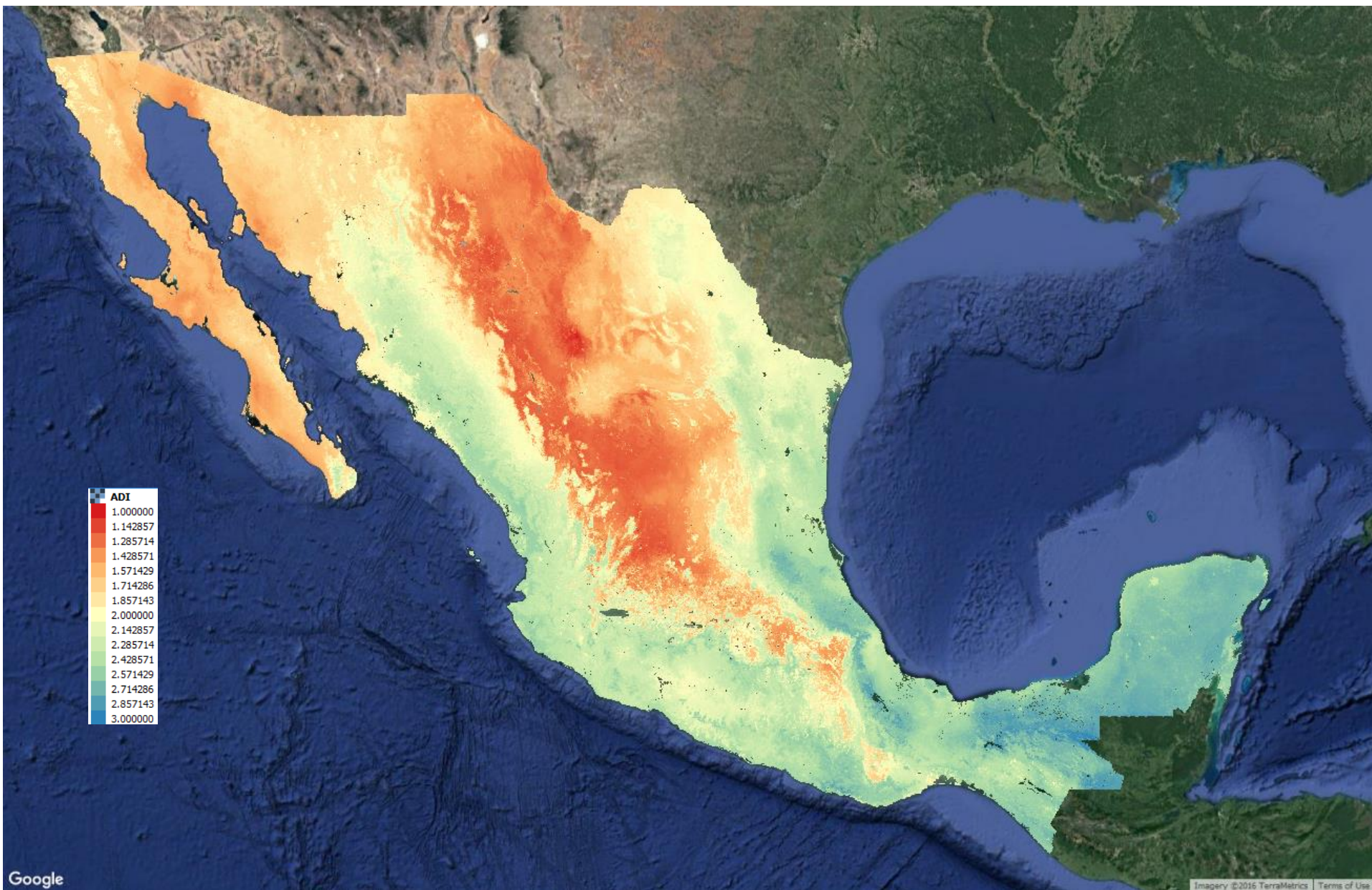
Sistema Nacional del Monitoreo de la Biodiversidad (SNMB)



Spectrogram analysis



Índice de Diversidad Acústica Diurna



Índice de Diversidad Acústica- Nocturna

