InterAmerican Development Bank (IDB) Decision Support Platform for Environmental Impact Assessment of Development Projects

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IAIA Washington DC Chapter Meeting

October 17, 2012

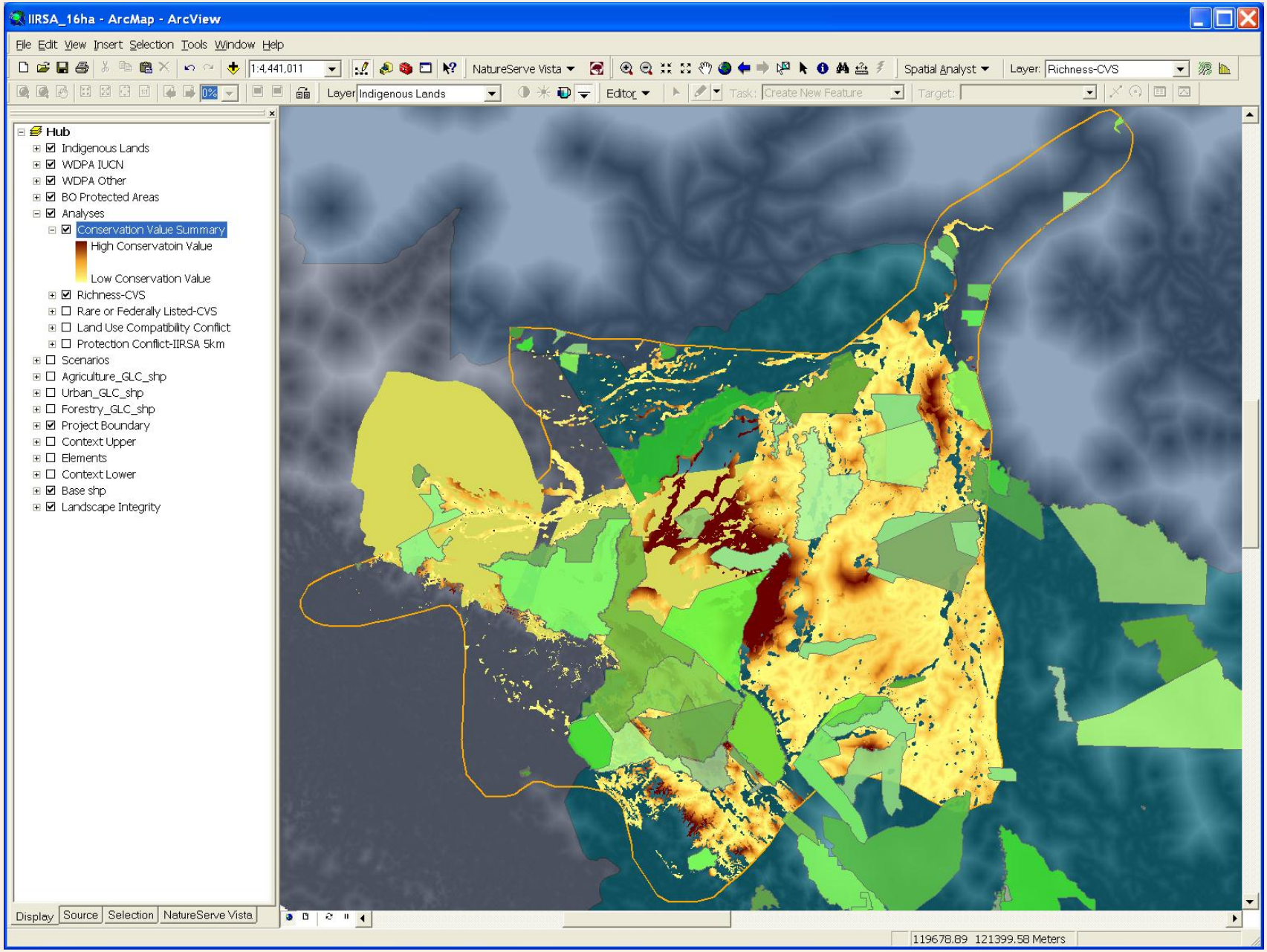
Projects

IIRSA Project Portfolio
Projects by Country
Projects by Hub
Projects by Sector
Implementation Agenda Based Consensus
Project Data Base

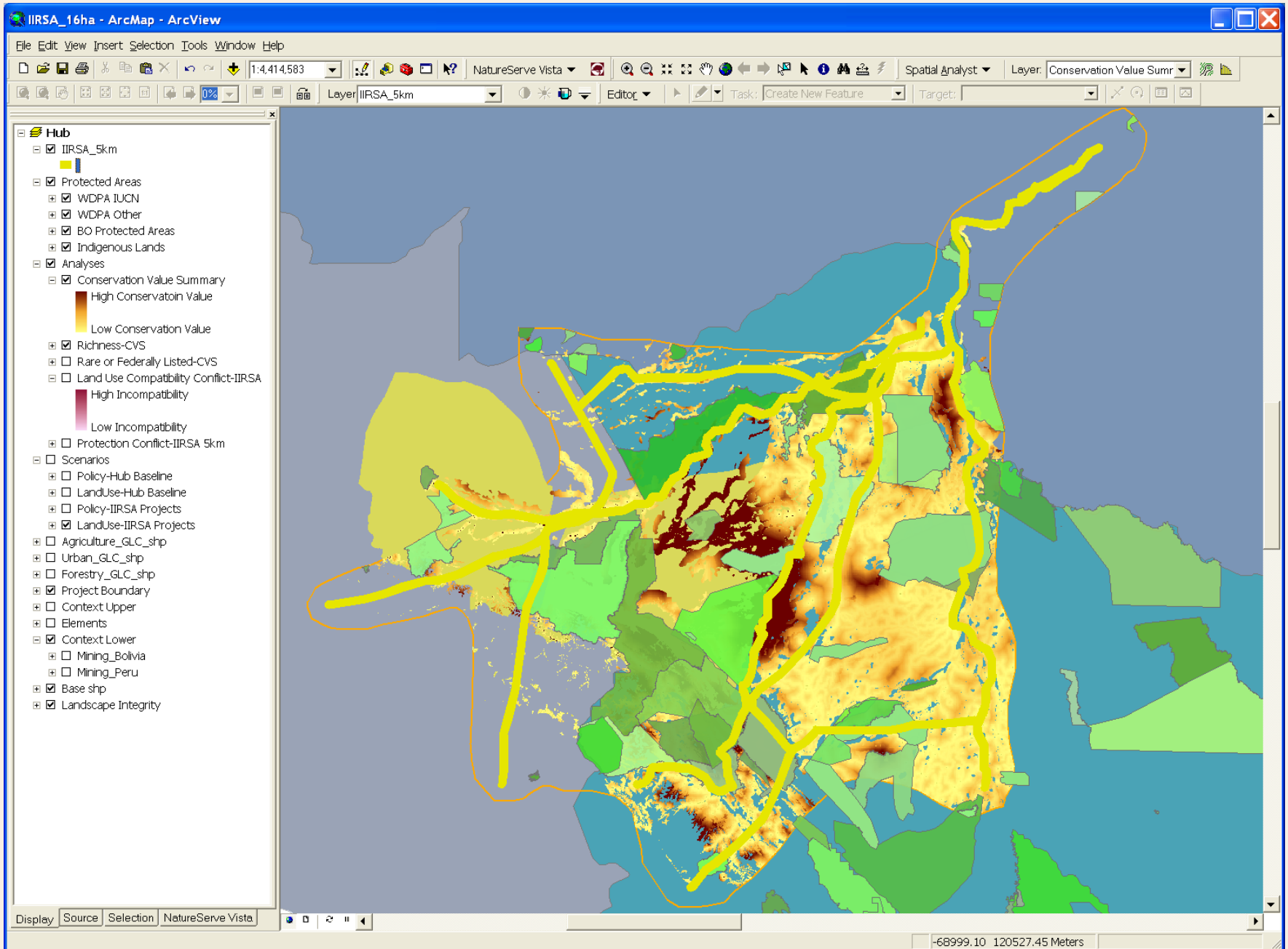
IIRSA - IMPLEMENTATION AGENDA BASED ON CONSENSUS 2005-2010

See enlarged map (1 Mb)

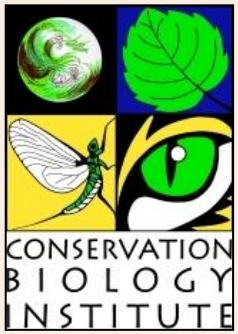
Current Protection of High Value Areas



Proposed Corridor Activities



NGO Working Group for Infrastructure



- Provide guidance on status of environmental / conservation methods, data, tools and services
- Integrate Latin America and Caribbean conservation information
- Create decision support tools for IDB

IDB Environmental Safeguard Policy Section B.9

The Bank will not support operations that, in its opinion, significantly convert or degrade critical natural habitats or natural habitats

IDB Environmental Safeguards Section B9

Critical Natural Habitat definition:

- Existing and proposed protected areas
- Unprotected areas of known high conservation value that are:
  - Highly suitable for biodiversity conservation
  - Crucial for critically endangered, endangered, vulnerable or near threatened species
  - Critical for the viability of migratory species.

IDB Environmental Safeguards Section B9

Natural Habitat definition:

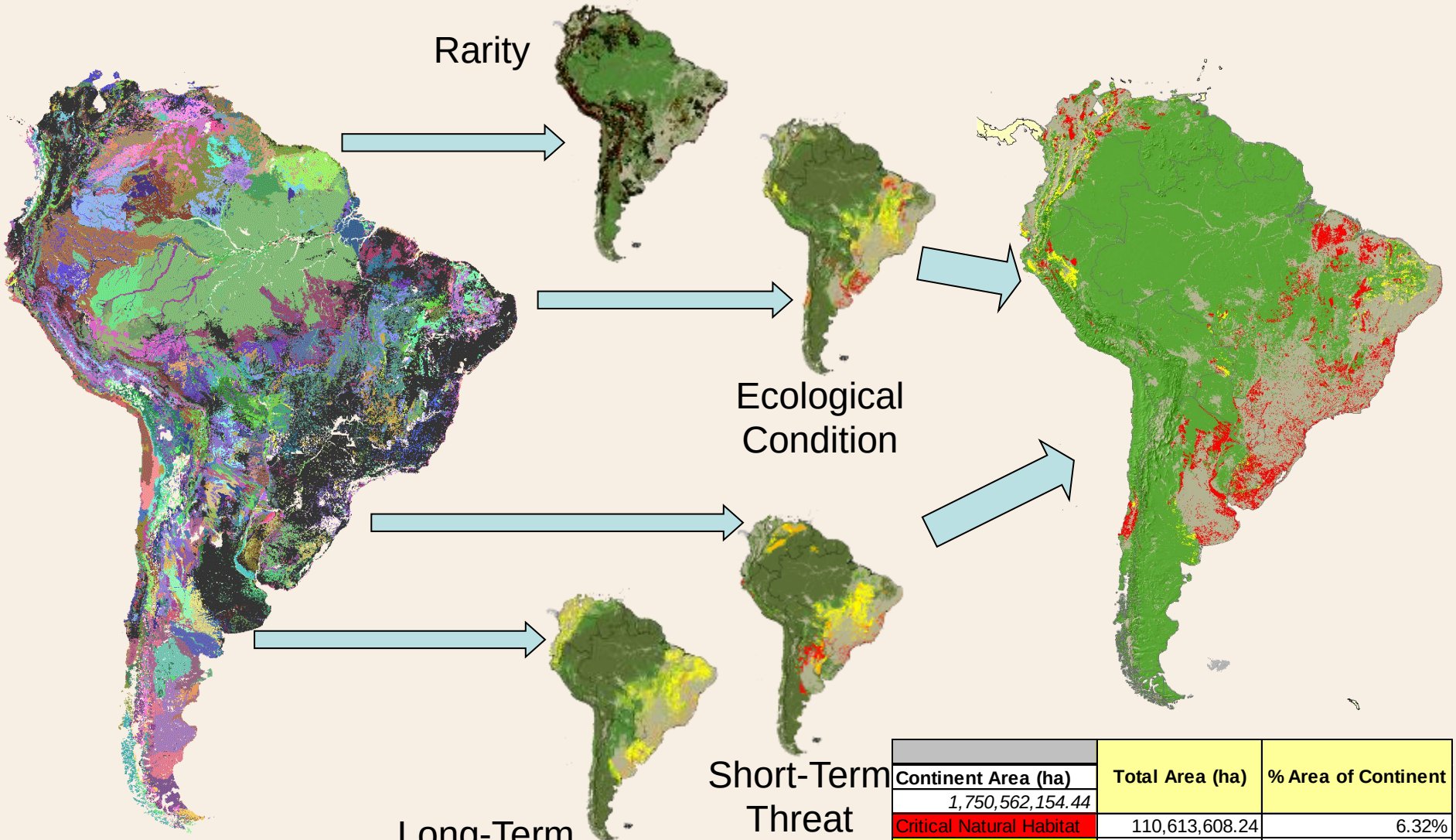
- Biological communities
  - that are still dominated by native plant and animal species;
  - where human activity has not essentially modified the area's primary ecological functions
- Sites that provide critical ecological services required for sustainable human development
- Sites that are vital to ensure the functional integrity of ecosystems (e.g., biological corridors, natural springs);
- Sites that contain high levels of endemism

Data

Standardization and Integration

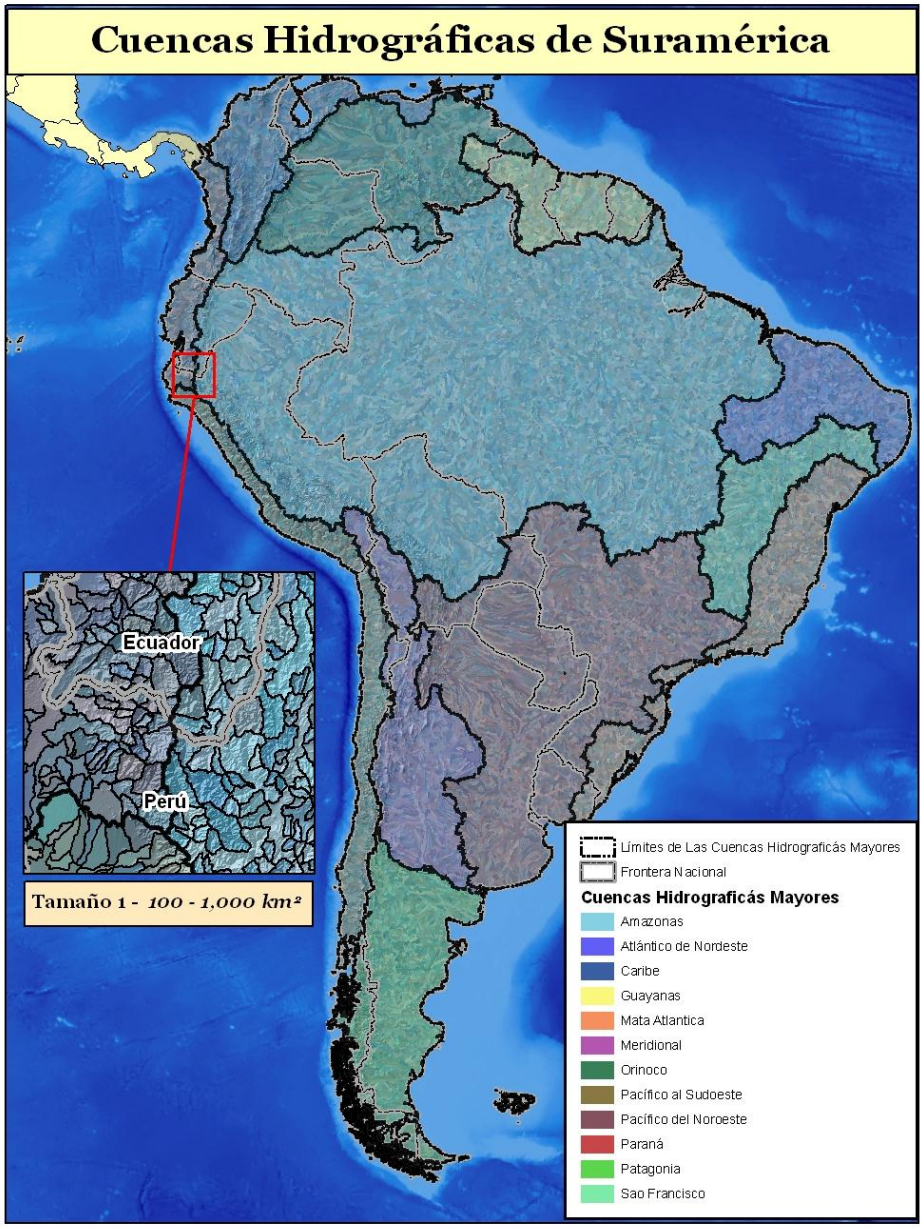
Data: Protected Areas

Data: Terrestrial Ecosystems



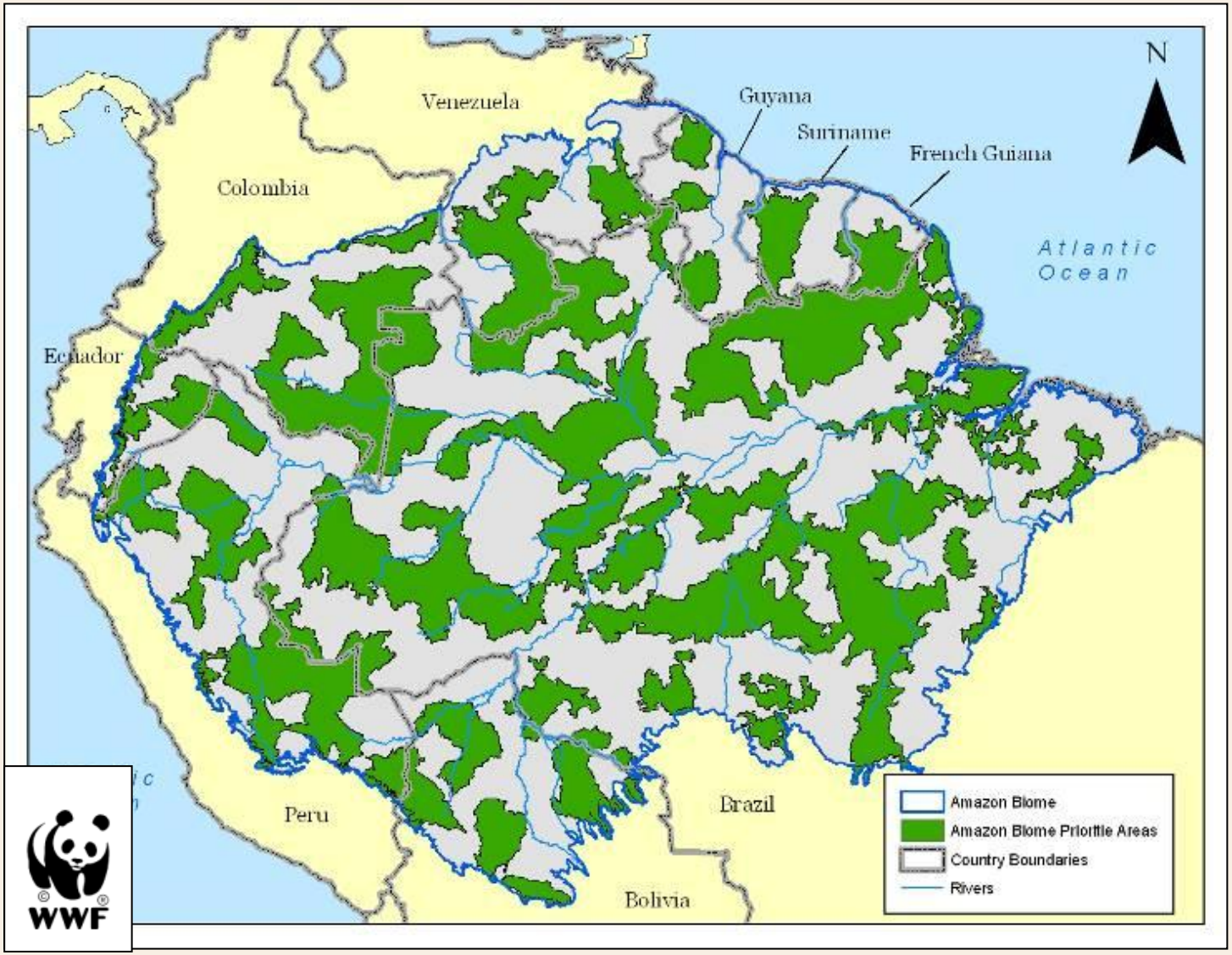
Continent Area (ha)	Total Area (ha)	% Area of Continent
1,750,562,154.44		
Critical Natural Habitat	110,613,608.24	6.32%
Natural Habitat - High Importance	23,819,061.51	1.36%
Natural Habitat Baseline	1,151,292,444.43	65.77%
Total	*1,285,725,114.18*	*73.45%*

Data: Freshwater Ecosystems



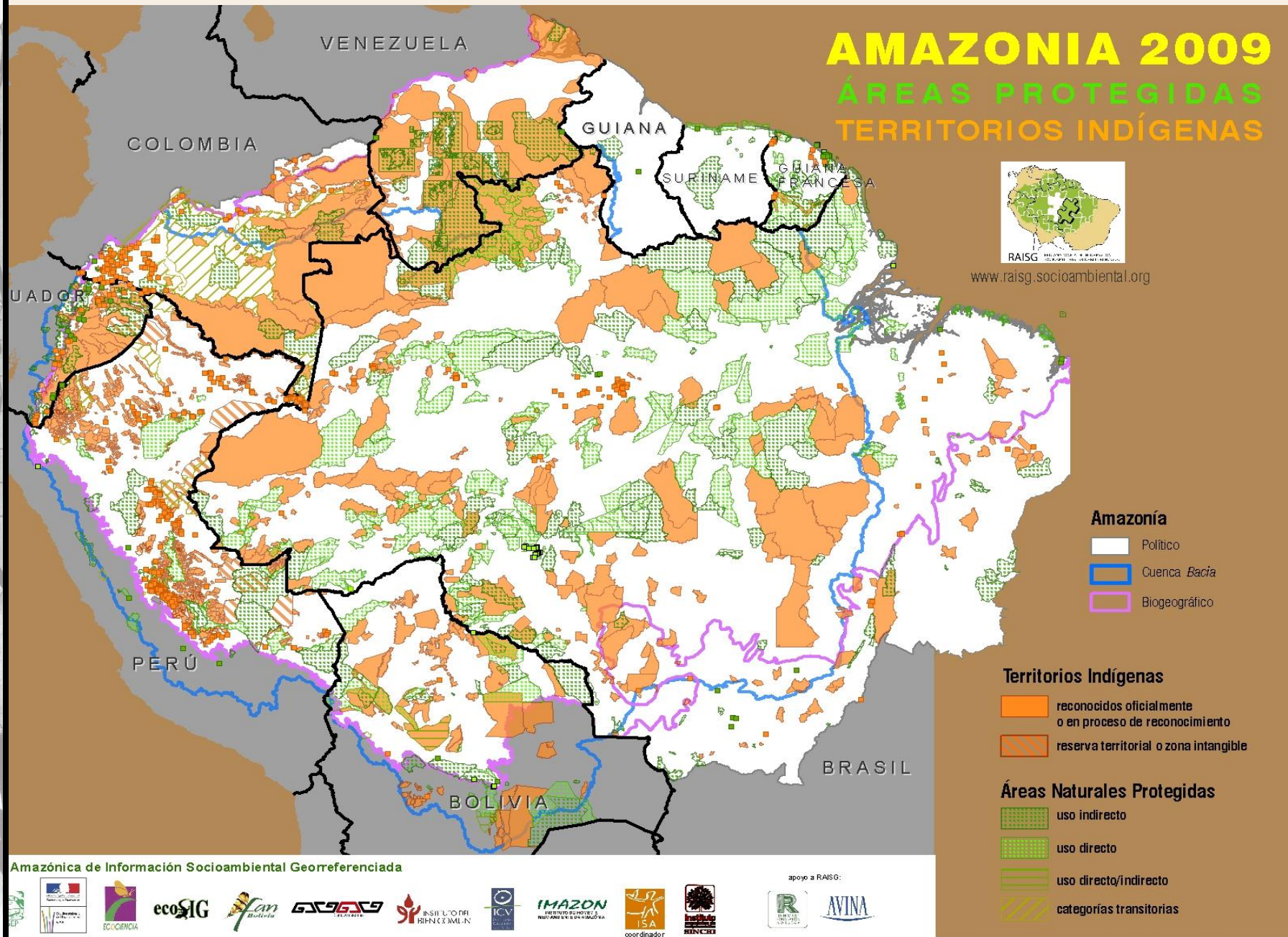
Data: Species – IBAs, KBAs, AZEs

Data: Recognized Conservation Priority Sites



WWF Amazon Priority Sites

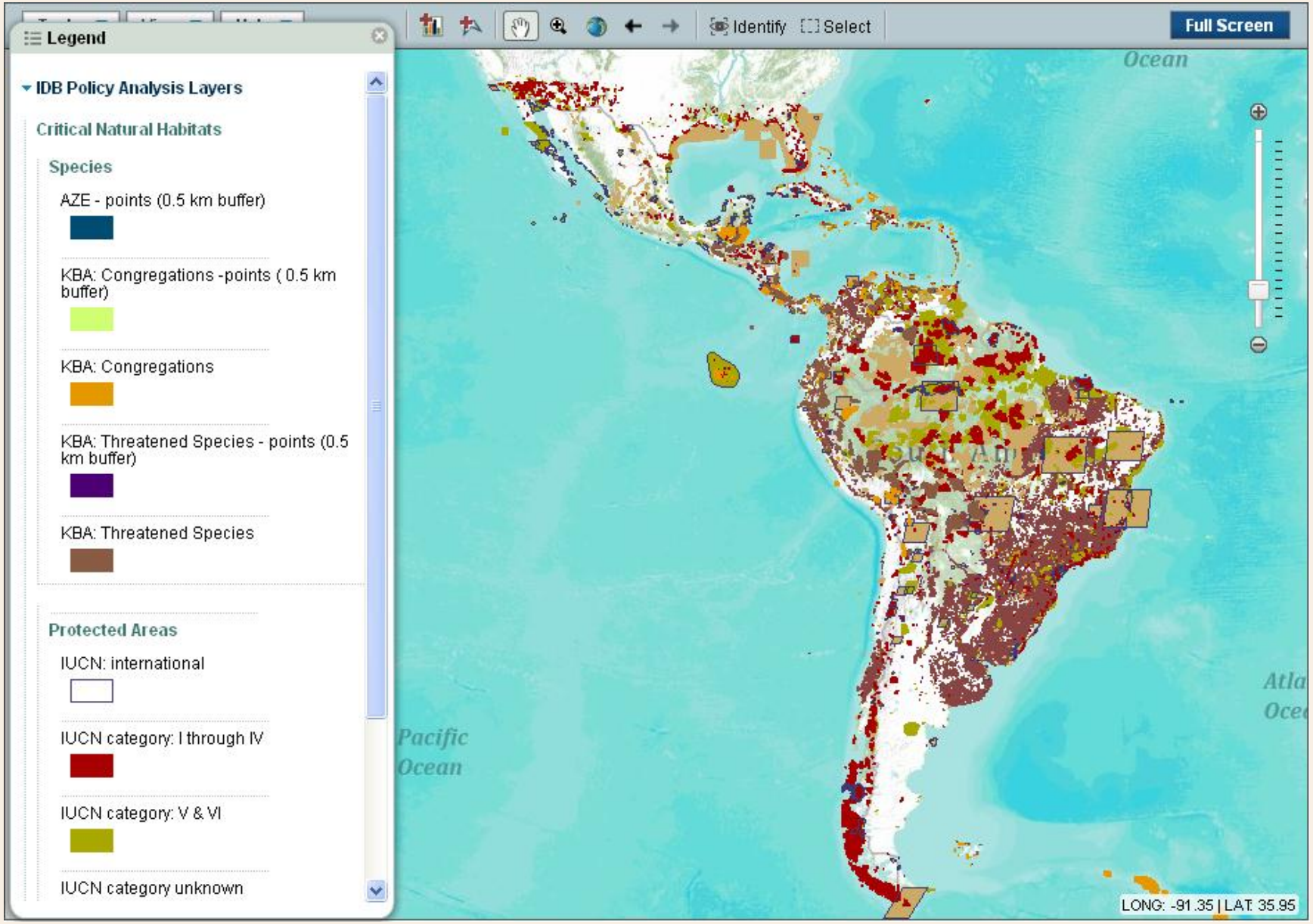
Data: Indigenous Lands of the Amazon Basin



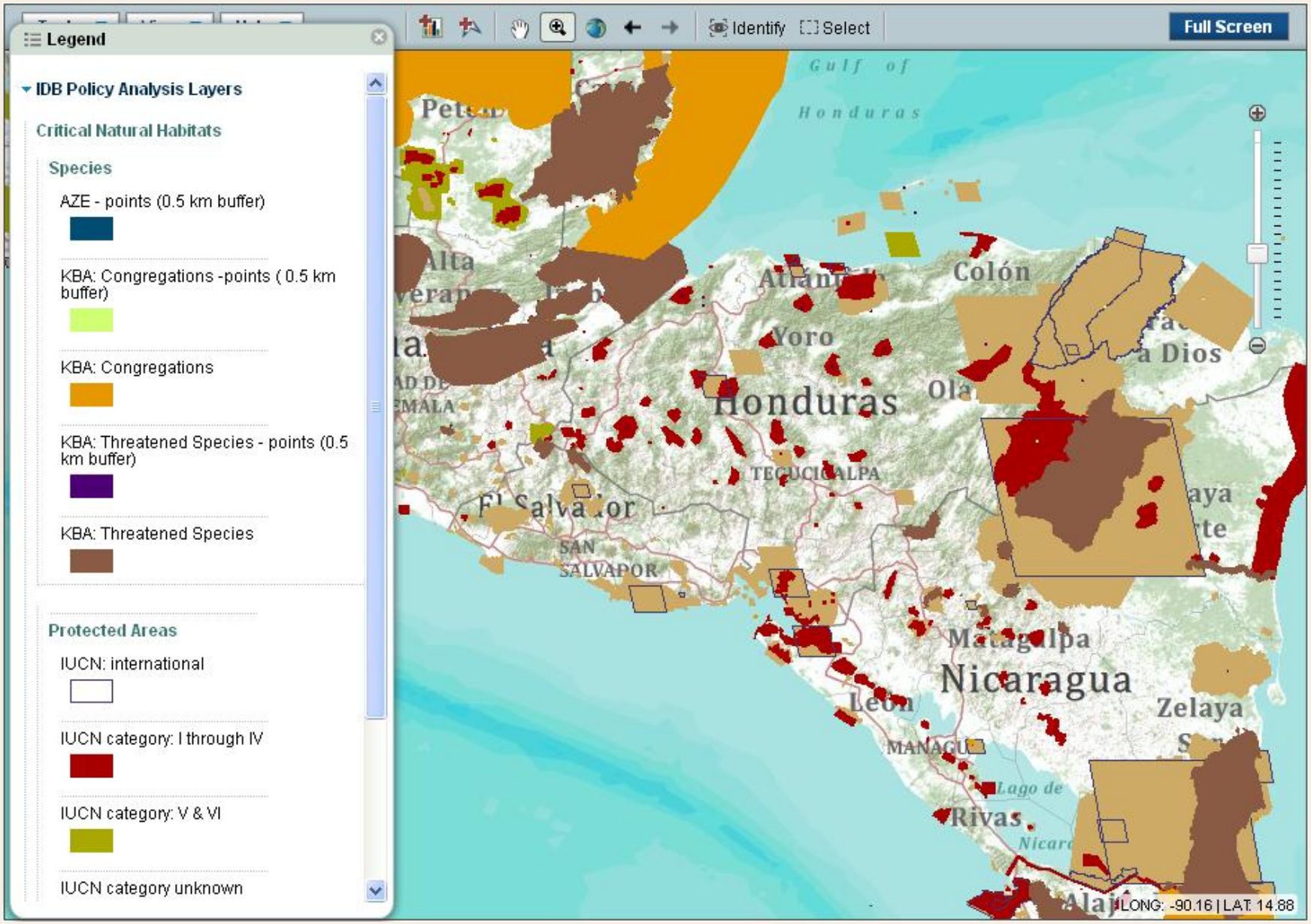
First Integrated Spatial Presentation of CNH and NH:

A Critical Advance for Impact Analysis

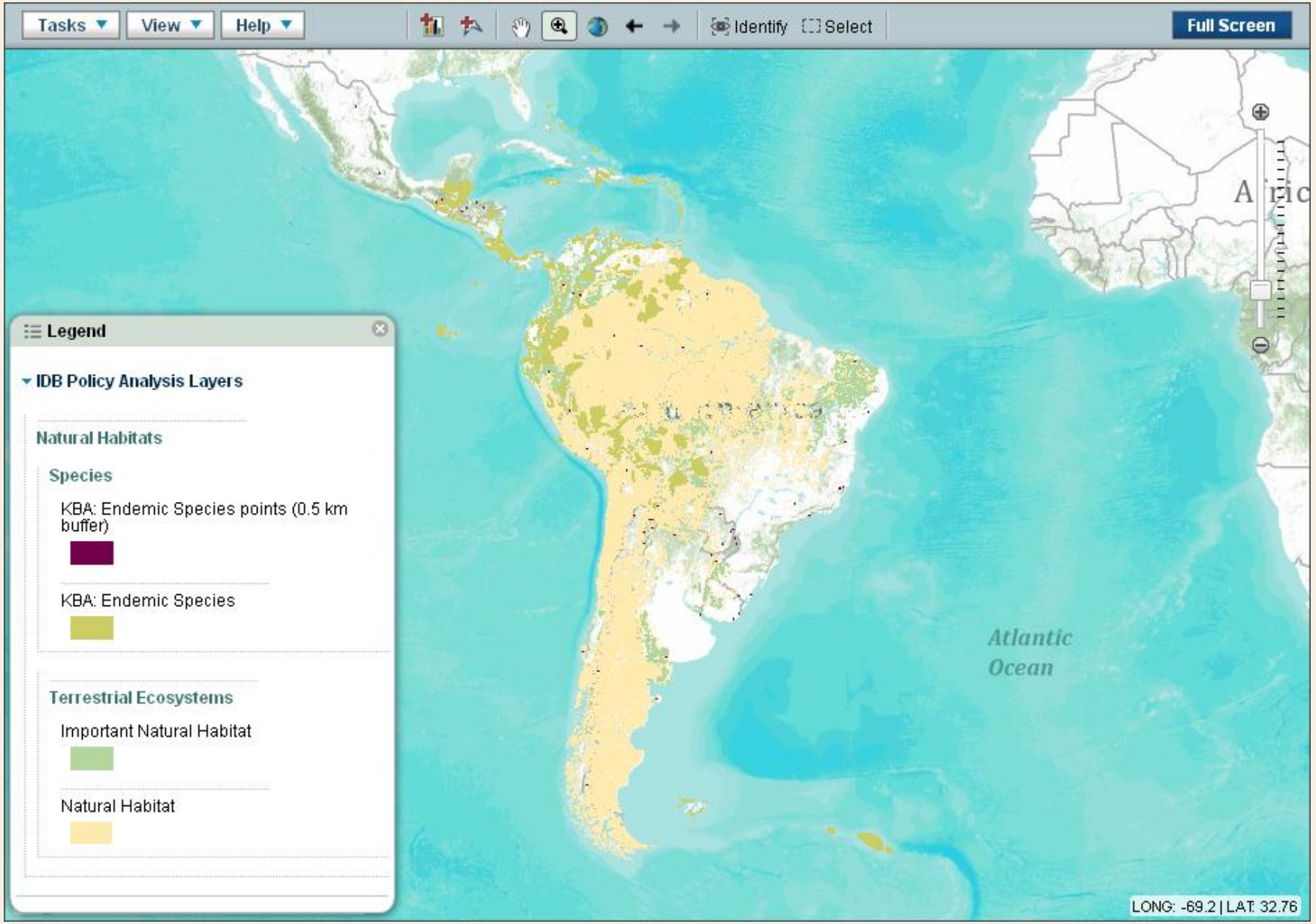
Critical Natural Habitat



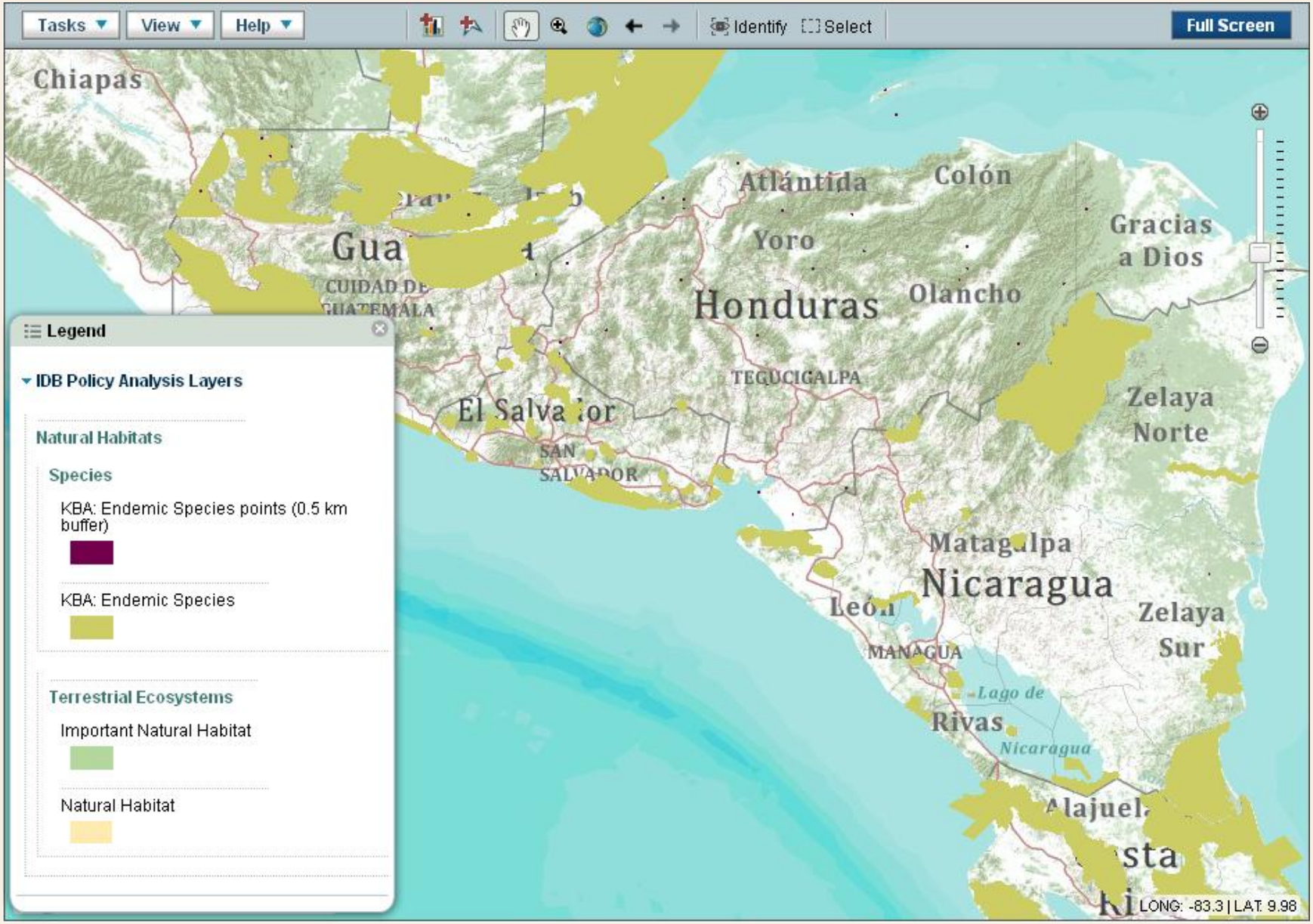
Critical Natural Habitat



Natural Habitat



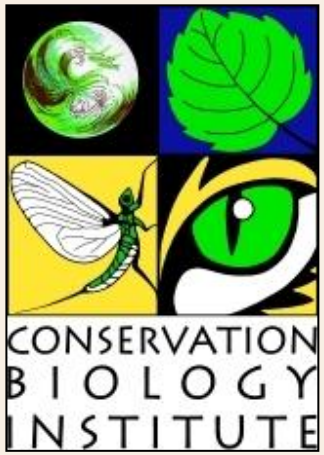
Natural Habitat



DATA BASIN

www.databasin.org

Providing Access to Spatial Data, Tools, People, and Solutions



IDB - Environmental Safeguards Group

Group Home
Group Profile
Group Bookmarks
Group Projects
Group Members

IDB - Environmental Safeguards Group

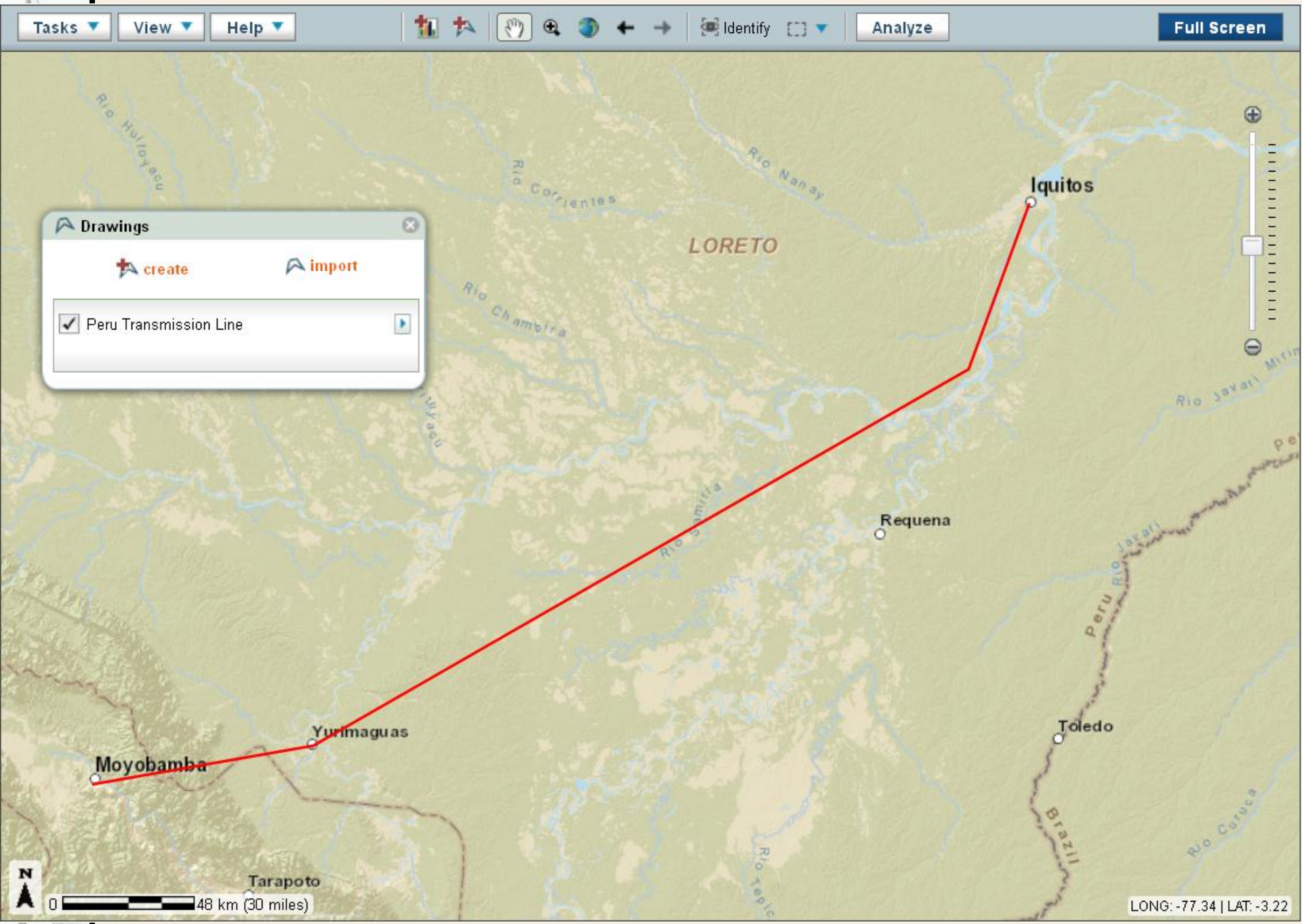
Edit Group Home
Edit Profile
View Public Profile

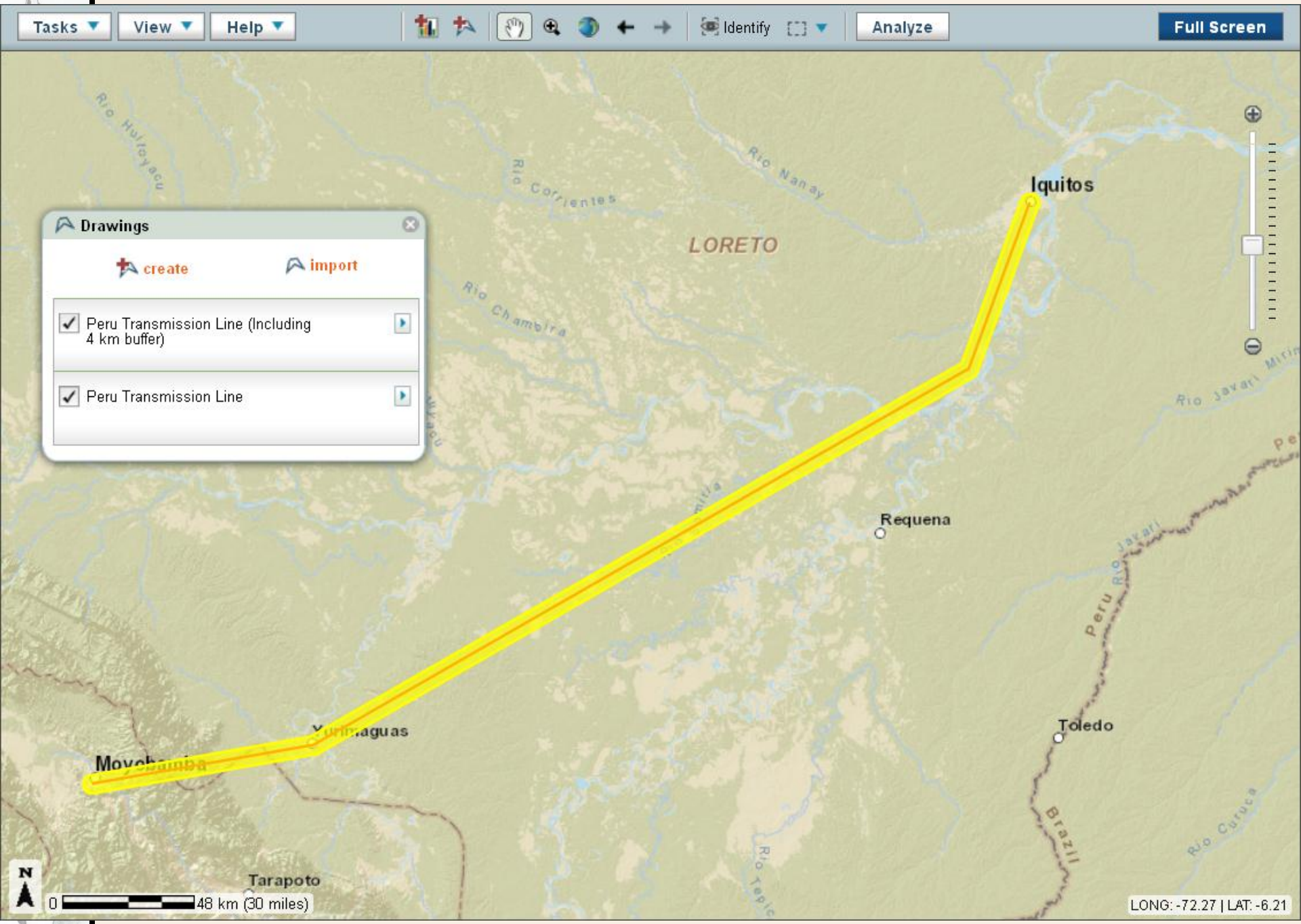
How Do I...

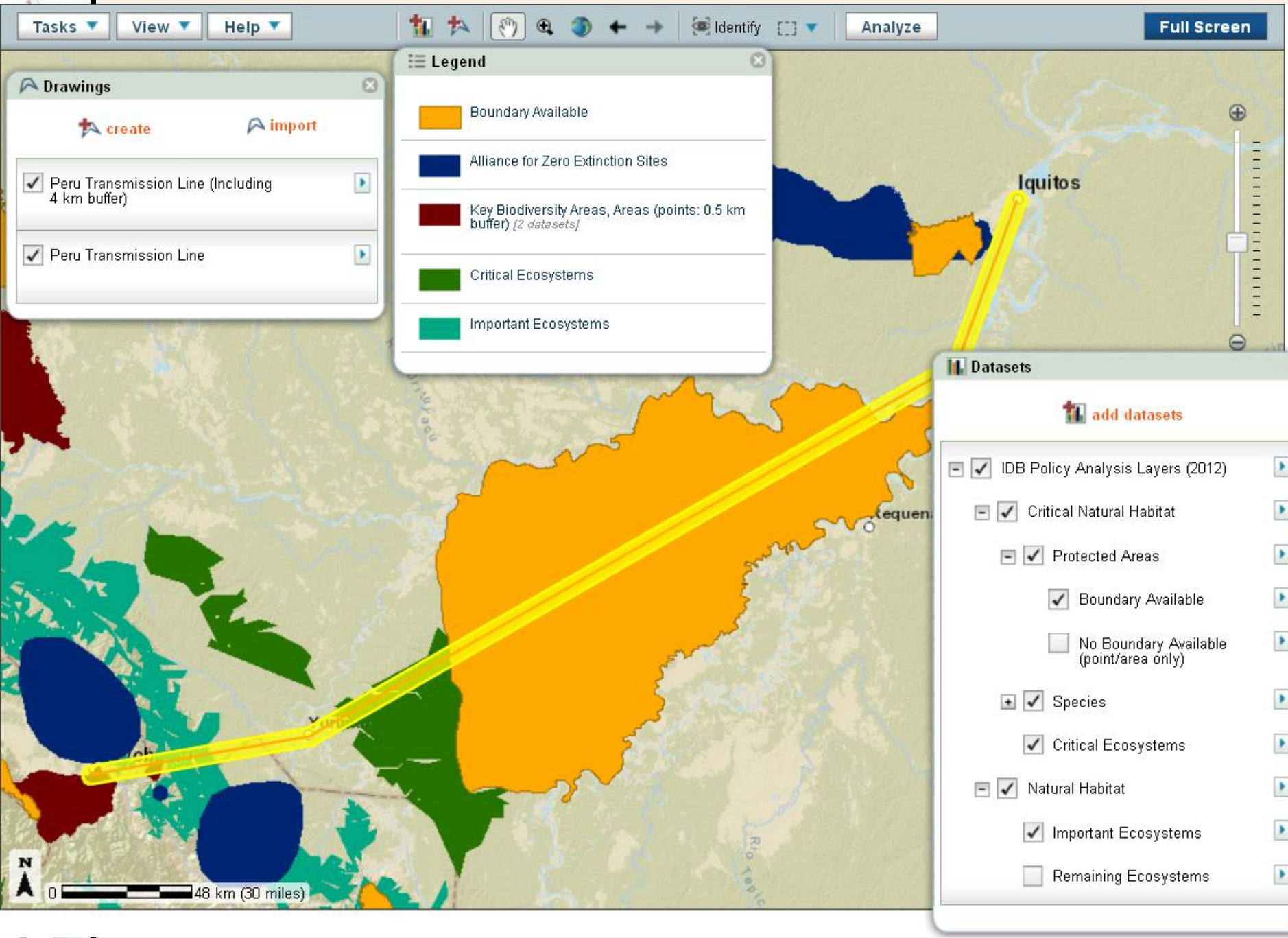
IDB – DSS

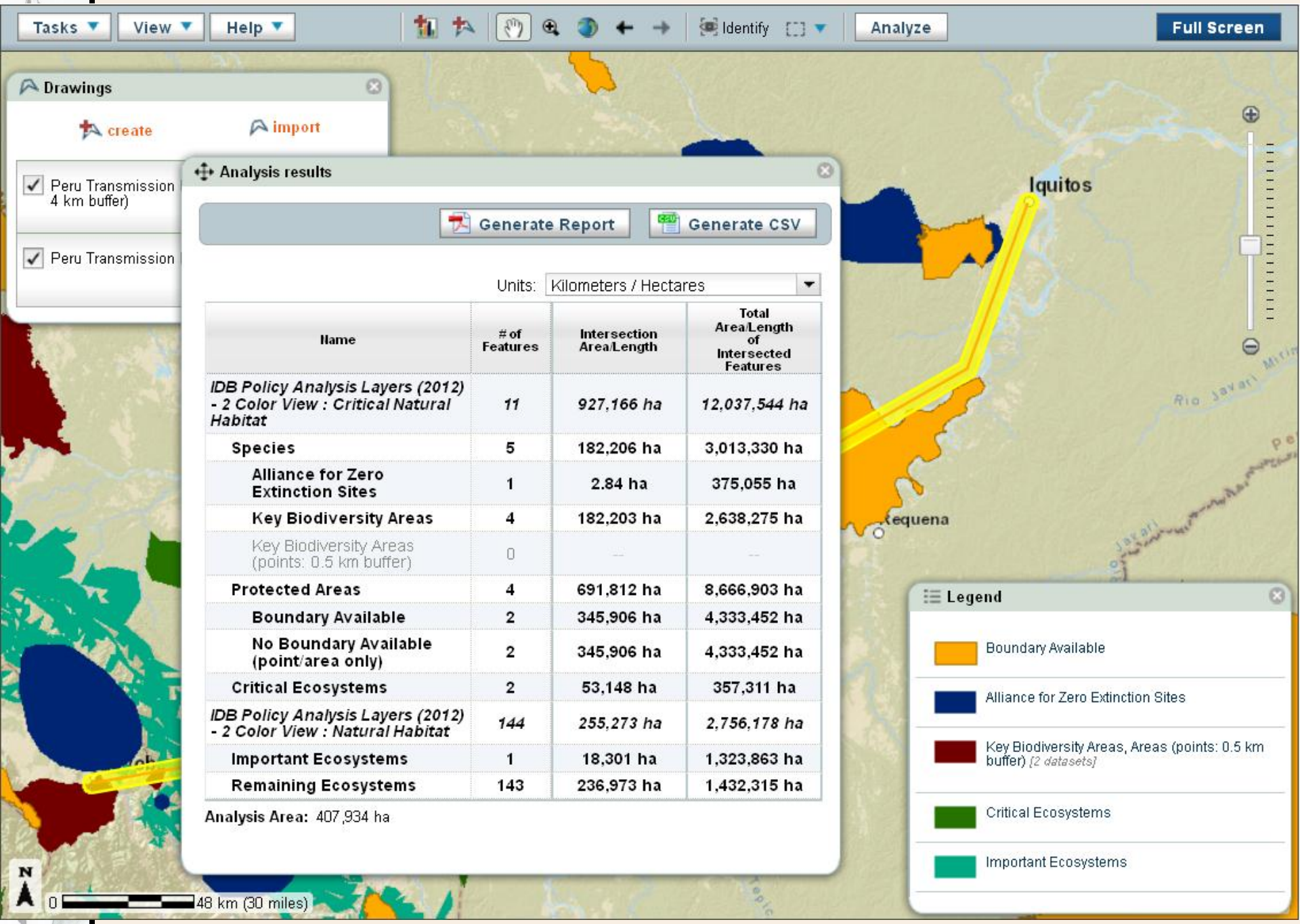
Example of Project Environmental Assessment and Reporting

Línea de Transmisión 220 kV Moyobamba-Iquitos y Subestaciones Asociadas


Tasks
View
Help
Identify
Analyze
Full Screen
Drawings
create
import
Peru Transmission Line
Iquitos
LORETO
Requena
Yurimaguas
Moyobamba
Tarapoto
Toledo
Brazil
Peru
Rio Huallaga
Rio Corrientes
Rio Nanay
Rio Chambira
Rio Javari
Rio Curuca
0
48 km (30 miles)
LONG: -77.34 | LAT: -3.22


Tasks
View
Help
Identify
Analyze
Full Screen
Drawings
create
import
Peru Transmission Line (Including 4 km buffer)
Peru Transmission Line
Iquitos
LORETO
Requena
Toledo
Tarapoto
Rio Huallaga
Rio Corrientes
Rio Nanay
Rio Chambira
Rio Javari
Peru
Brazil
Rio Curuca
0
48 km (30 miles)
LONG: -72.27 | LAT: -6.21


Tasks
View
Help
Identify
Analyze
Full Screen
Drawings
create
import
Peru Transmission Line (Including 4 km buffer)
Peru Transmission Line
Legend
Boundary Available
Alliance for Zero Extinction Sites
Key Biodiversity Areas, Areas (points: 0.5 km buffer) [2 datasets]
Critical Ecosystems
Important Ecosystems
Iquitos
Datasets
add datasets
IDB Policy Analysis Layers (2012)
Critical Natural Habitat
Protected Areas
Boundary Available
No Boundary Available (point/area only)
Species
Critical Ecosystems
Natural Habitat
Important Ecosystems
Remaining Ecosystems
N
0
48 km (30 miles)



Name	# of Features	Intersection Area/Length	Total Area/Length of Intersected Features
IDB Policy Analysis Layers (2012) - 2 Color View : Critical Natural Habitat	*11*	*927,166 ha*	*12,037,544 ha*
Species	5	182,206 ha	3,013,330 ha
Alliance for Zero Extinction Sites	1	2.84 ha	375,055 ha
Key Biodiversity Areas	4	182,203 ha	2,638,275 ha
Key Biodiversity Areas (points: 0.5 km buffer)	0	--	--
Protected Areas	4	691,812 ha	8,666,903 ha
Boundary Available	2	345,906 ha	4,333,452 ha
No Boundary Available (point/area only)	2	345,906 ha	4,333,452 ha
Critical Ecosystems	2	53,148 ha	357,311 ha
IDB Policy Analysis Layers (2012) - 2 Color View : Natural Habitat	*144*	*255,273 ha*	*2,756,178 ha*
Important Ecosystems	1	18,301 ha	1,323,863 ha
Remaining Ecosystems	143	236,973 ha	1,432,315 ha

Analysis Area: 407,934 ha

Project Name: Moyobamba - Iquitos Transmission line

Project Number: 1

Description:

Proposed Transmission Line from Moyobamba to Iquitos in Peru

Date of Intersection Analysis: May 14, 2012

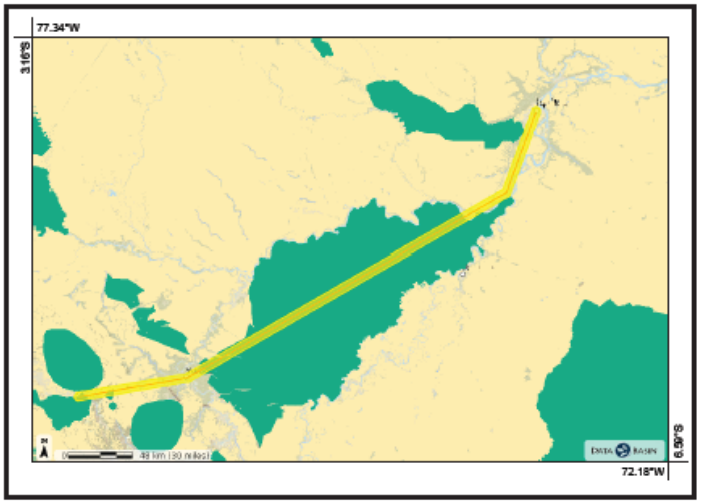
Analyst: Dennis Grossman

Project Intersection Analysis - Summary:

Probability of Significant Impact

IDB Policy Analysis Layers (2012) - 2 Color View : Critical Natural Habitat	**Yes**
IDB Policy Analysis Layers (2012) - 2 Color View : Natural Habitat	**Yes**

Map



Project Extent:

Project Area: 508 km

Buffer Size: 4 km

Total Area of Intersection Analysis (Project and Buffer):

407,934 ha

Legend:

- Critical Natural Habitat
- Natural Habitat
- Project Area
- Buffer Area

Project Intersection Analysis - Detailed

IDB Policy Analysis Layers (2012) - 2 Color View : Critical Natural Habitat:

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Species	5	182,206 ha	3,013,330 ha
Alliance for Zero Extinction Sites	1	2.84 ha	375,055 ha
Cuenca Ro Nanay	1	2.84 ha	375,055 ha
Key Biodiversity Areas	4	182,203 ha	2,638,275 ha
Moyobamba	1	5,773 ha	91,527 ha
Jess del Monte	1	3,475 ha	4,966 ha
Cuenca Ro Nanay	1	2.84 ha	375,055 ha
Reserva Nacional Pacaya Samiria	1	172,953 ha	2,166,726 ha
Key Biodiversity Areas (points: 0.5 km buffer)	0	--	--
Protected Areas	4	691,812 ha	8,666,903 ha
Boundary Available	2	345,906 ha	4,333,452 ha
Pacaya Samiria	2	345,906 ha	4,333,452 ha
No Boundary Available (point/area only)	2	345,906 ha	4,333,452 ha
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Critical Ecosystems	2	53,148 ha	357,311 ha
Bosque Siempreverde Subandino del Oeste de la Amazona	2	53,148 ha	357,311 ha

IDB Policy Analysis Layers (2012) - 2 Color View : Natural Habitat:

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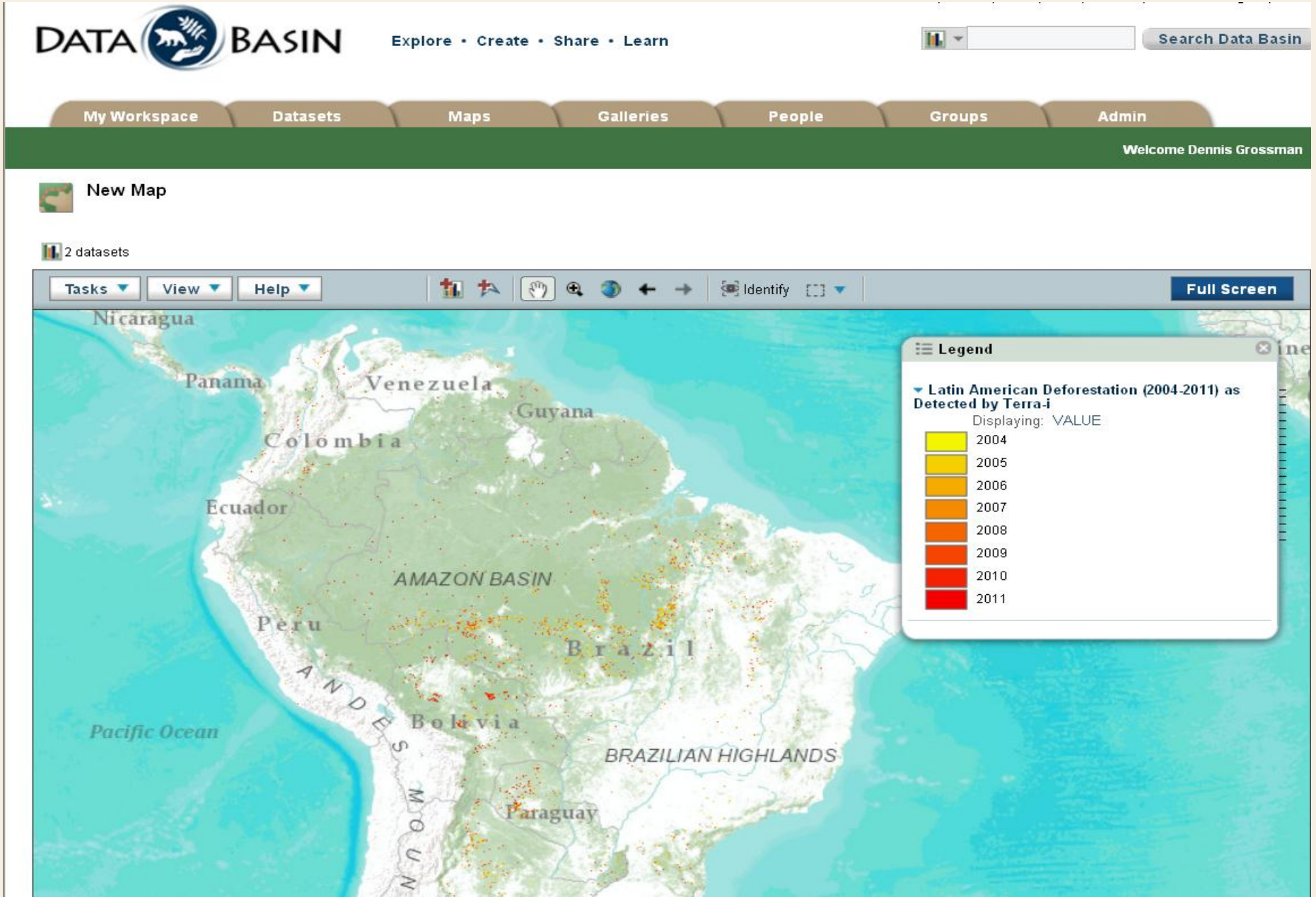
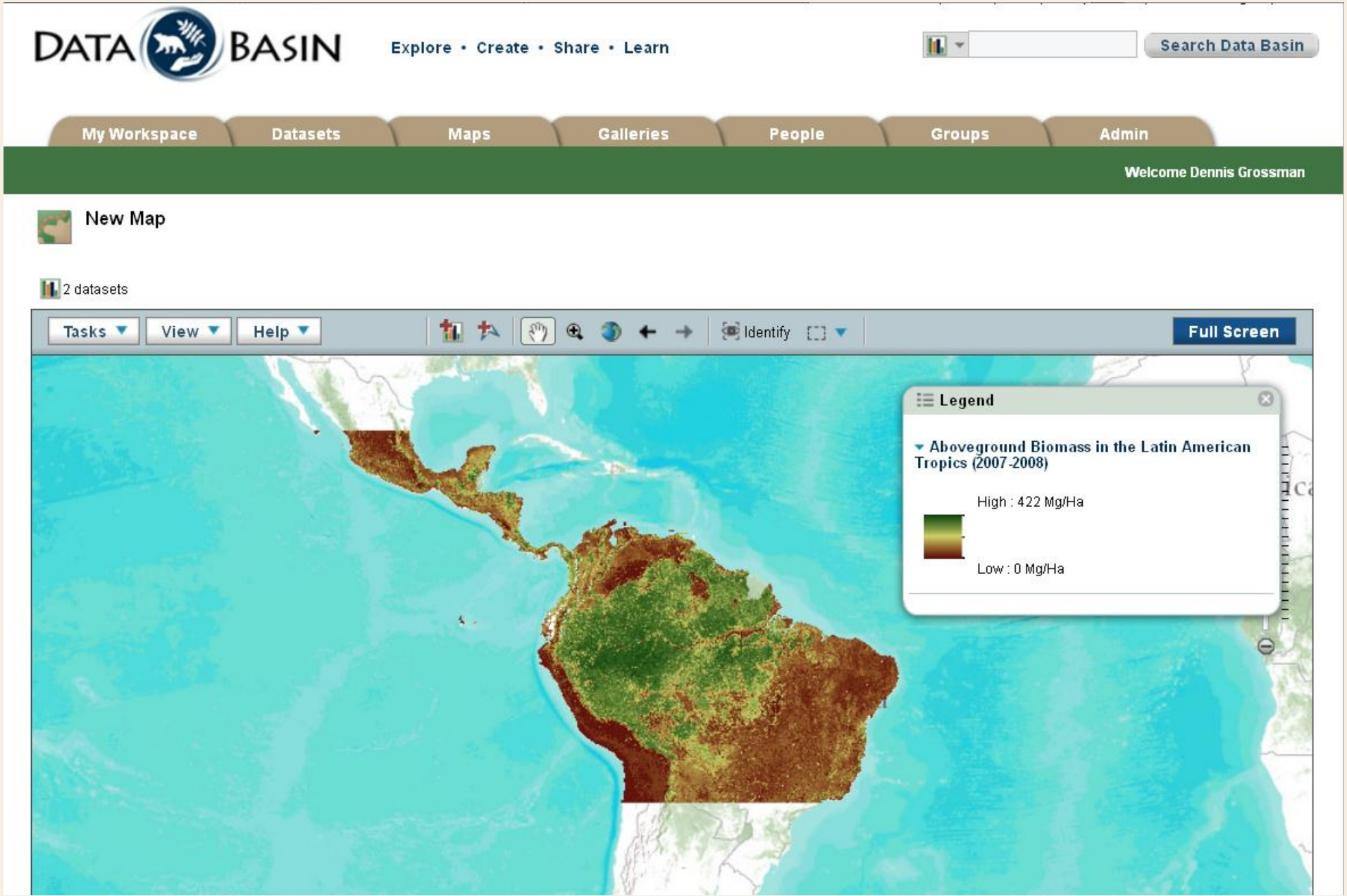
Bosque Siempreverde Subandino del Oeste de la Amazona	1	18,301 ha	1,323,863 ha
Remaining Ecosystems	143	236,973 ha	1,432,315 ha
Bosque Pantanoso de la Llanura Aluvial del Oeste de la Amazonia	11	16,766 ha	74,296 ha
Bosque inundable de la llanura aluvial de rios de aguas negras del oeste de la Amazonia	19	39,231 ha	275,115 ha
Bosque del Piedemonte del Oeste de la Amazona	6	16,485 ha	138,338 ha
Bosque Siempreverde Subandino del Oeste de la Amazona	15	3,088 ha	11,070 ha
Bosque inundable de la llanura aluvial de rios de aguas blancas de oeste de la Amazonia	3	2,088 ha	5,109 ha
Bosques y palmares yunguenos pluviales basimontanos	42	15,094 ha	56,914 ha
Complejo de bosques sucesionales inundables de aguas blancas de la Amazona	6	11,404 ha	82,693 ha
Bosque de la planicie sedimentaria del oeste de la Amazonia	10	36,172 ha	421,788 ha
Complejo de vegetacion sucesional ripario de aguas blancas de la Amazonia	6	1,254 ha	2,136 ha
Herbazal pantanoso de la llanura aluvial del oeste de la Amazonia	4	1,917 ha	2,023 ha
Bosque pantanoso de palmas de la llanura aluvial de la Amazonia	18	93,445 ha	362,807 ha
Palmar pantanoso de la Cordillera Azul	1	10.5 ha	10.5 ha

Integration of New Data Sets and Functionality

Data: Deforestation Events

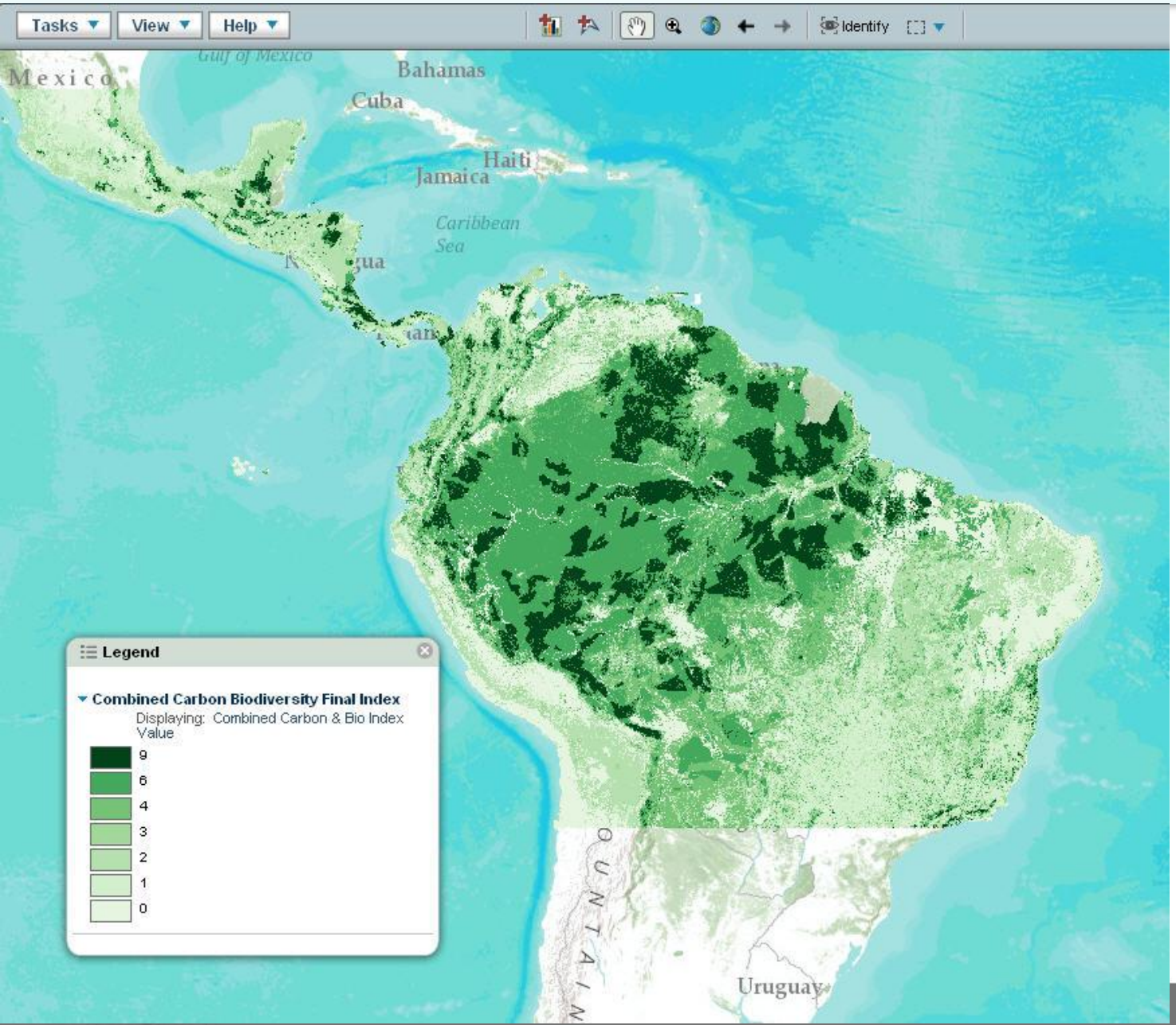


Data: Carbon Stock

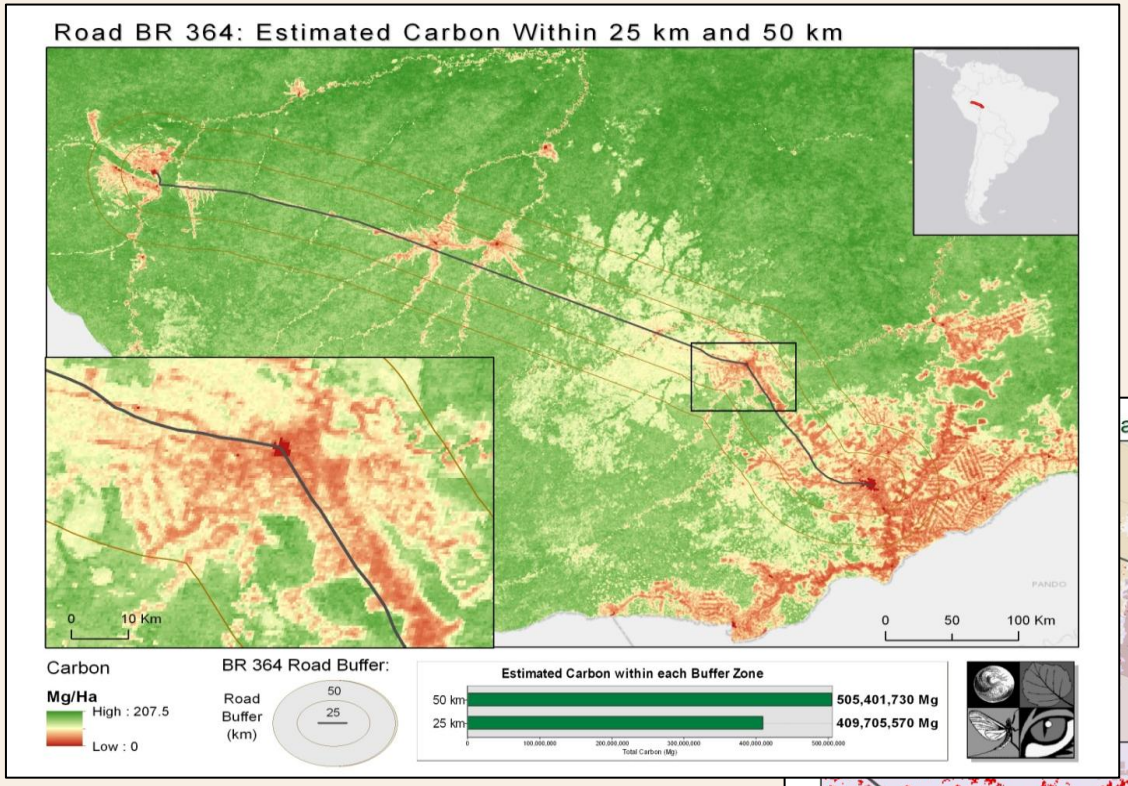


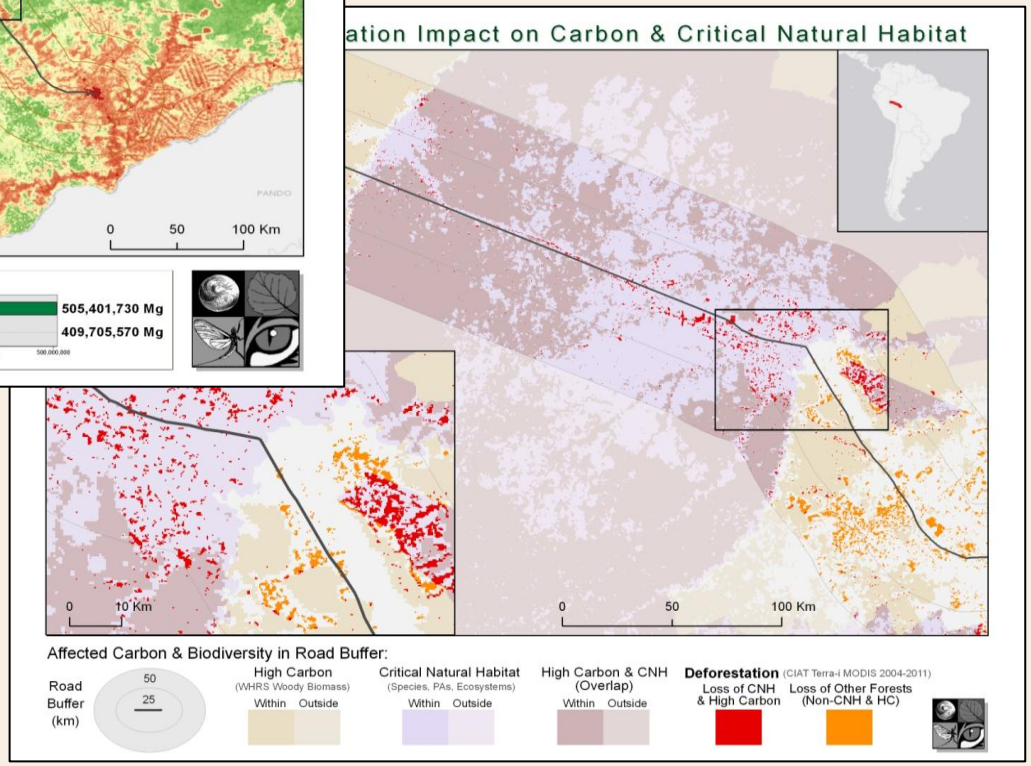
Interface between Carbon and Conservation Values

Carbon-Conservation value interface

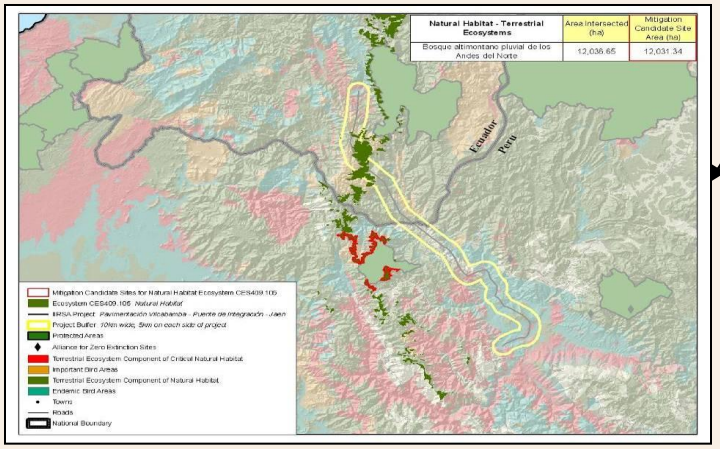


Potential Road Impacts to Carbon and Biodiversity

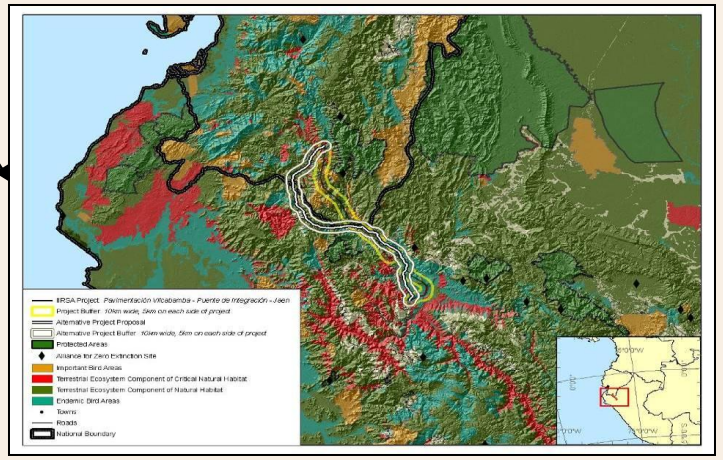




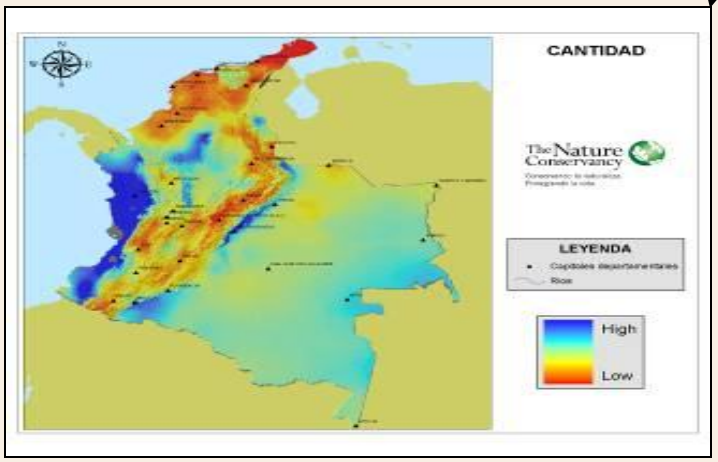
Support for Advanced Spatial Analyses



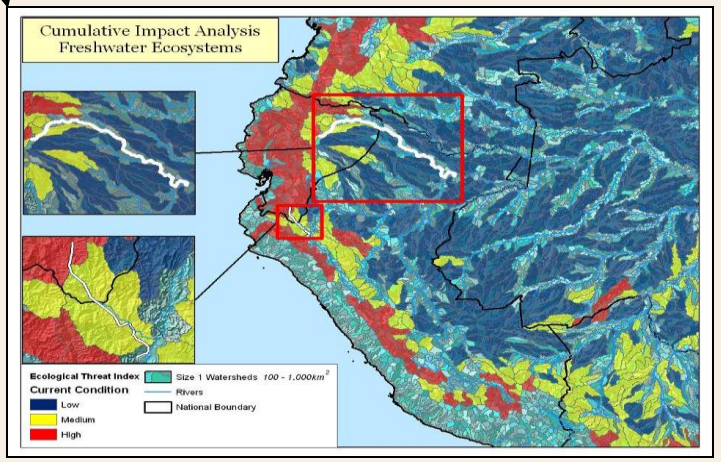
Offset and Mitigation Analysis



Alternative Scenario Evaluation



Ecosystem Services Valuation



Cumulative Impact Assessment

Poster presented at

IAIA Porto Conference

Inter-American Development Bank Decision Support Platform for Project Environmental Assessments

SUPPORT FOR INFRASTRUCTURE DEVELOPMENT PLANNING

- Early warning system to alert project developers if implementation plans could result in significant impacts to recognized sites of conservation interest
- Project evaluation system to support project environmental review by planning agencies and environmental impact specialists
- Ability to draw projects, create zones of direct and indirect impact, and generate custom impact reports that identify specific areas of environmental concern

LATIN AMERICA CONSERVATION DATABASE

- Most comprehensive compilation of conservation planning data for Latin America
- Developed through Partnership with Conservation International, Birdlife International, The Nature Conservancy, UNEP World Conservation Monitoring Centre, NatureServe and the Conservation Biology Institute
- Data sharing approach with GBIF, IABIN and GeoSUR
- Critical Information on Protected Areas, Species of Concern and Ecosystems of Concern

DATA BASIN BASICS

- Cutting edge web-based technology
- Supports upload, download and sharing of spatial conservation information
- Facilitates generation of maps and spatial analysis
- Currently populated with over 6000 public global conservation datasets
- Ability to upload and download datasets and maps
- Ability to make customized maps within the system
- Over 4,000 people are currently registered users of the system
- Over 200 working groups are using the platform for their work

STEP 1

Identify Project site and Area of Influence

STEP 2

Select Sites of Environmental and Social Significance in the Project Area of Influence

STEP 3

Analyze and Report Potential Project Impacts to Identified Areas of Environmental and Social Significance

www.databasin.org

For more information contact:

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Heidi Hausman

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hhausman@iadb.org