

The Global Adaptation Atlas



Establishing Priorities for Research, Policy and Action on Adaptation

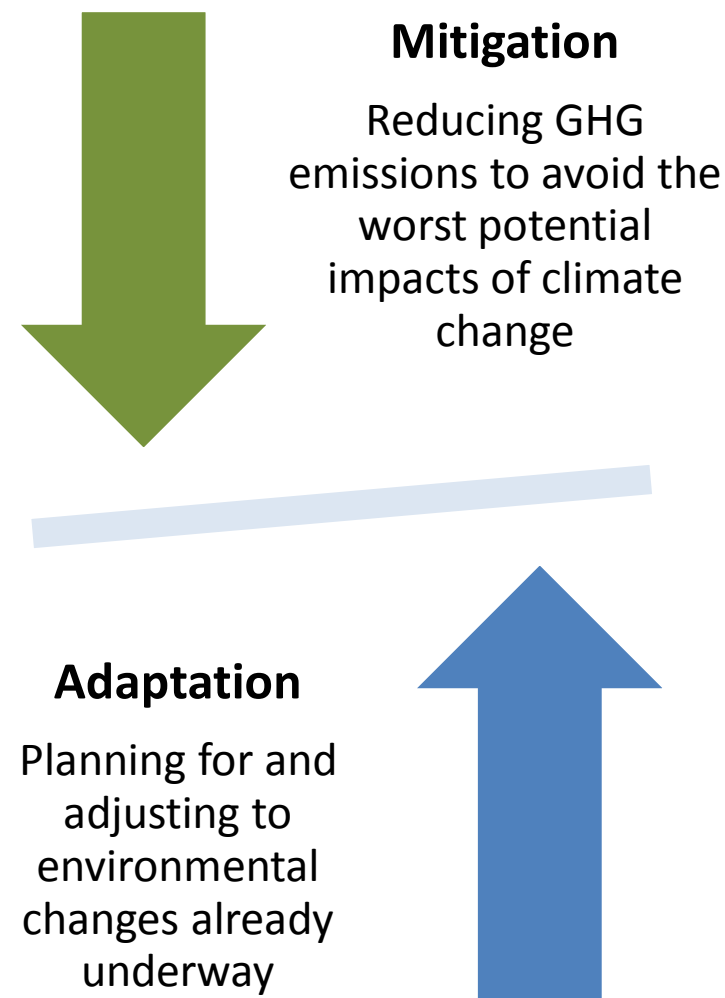
Ray Kopp – Senior Fellow and Director, Climate Policy Program

Nisha Krishnan – Project Manager, Atlas Team

Illustrated Summary – November 19, 2009

The Challenge of Adapting Well

- Adaptation is gaining prominence in the research, policy and development fields.
- Emissions reductions anywhere “count” everywhere, but adaptations must be locally relevant *and* broadly coordinated
 - Complementary, not competing objectives
 - Growing push to set priorities for adaptation funding



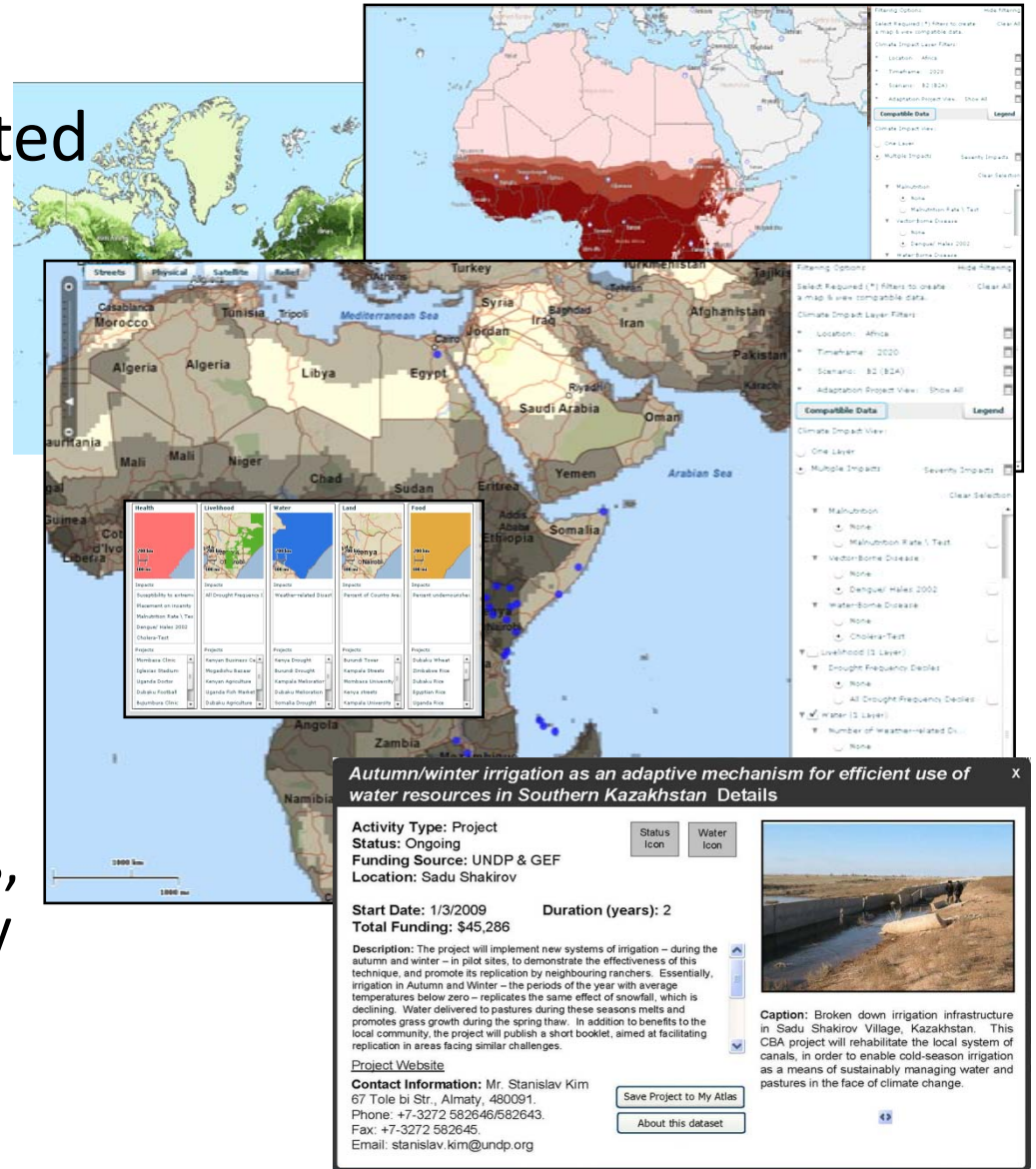
Mapping is the Missing Link

- **Geography and spatial information are common threads connecting impact science and policy**
 - Climate impacts are site and population-specific
 - Populations in greatest need are often least able to adapt
- **Need for coordination of scientific research, policy and on-the-ground activity**
 - Maps showing current and projected climate impacts and adaptation activity can help in setting strategy for interventions and investments.
 - This is the aim of the Adaptation Atlas.

What is the Adaptation Atlas?

- Web-based application enables user driven, dynamically generated maps of climate impacts and adaptation activities:

- Database of impacts from peer reviewed climate studies
- Repository of adaptation projects
- Data available for download and uploads of new data supported
- User can select different locations, timeframes, scenarios and overlay resulting data across sectors



Who Will Use the Atlas and for what purpose?

Policymakers & Leaders: Visualize impacts affecting their regions, view portfolios of projects underway, and identify gaps that need to be filled

Policymakers

Ministers and Agency
Directors

Philanthropic
Foundations

Multi-lateral donors

United Nations

International climate
negotiators

Scientists: Enter new impact data, download data and develop finer-grained integrated models and new data, further multidisciplinary collaboration

Natural
Scientists

Social
Scientists

Citizens: Learn and contribute

Enable civil society leaders, advocates, corporations, and others to identify impacts, adaptation options being implemented by others in the area, & opportunities for coordination

Building Blocks

1 Consolidating science on impacts

- Identify gaps in science across disciplines, regions, scales
- Highlight areas for new integrated analysis

2 Mapping on-the-ground adaptations

- Facilitate continuous data collection on adaptation funding
- Create a comprehensive, searchable project database

3 Creating a tailored outreach vehicle

- Create key user profiles and provide recommendations
- Collect and exchange local lessons and global best practices

4 Sustaining long-term evaluation

- Develop a spatial data archive on impacts and activities
- Track changes in projected impacts & adaptations over time

Creating maps: Three mouse clicks to find data!

Filtering Options (Hide Filtering ▲ ⓘ)

Standard | Advanced

Follow this wizard to view compatible data and create a map.

Select Filters | Clear All

Location:
Timeframe:
Scenario:
Adaptation Project View:

Compatible Data ⓘ | Legend

User can show/hide the filtering options panel. See filtering options hidden wireframe for details.

See "Filtering Options - Advanced" wireframe for details on this tab.

Initial: All fields are empty. Users click the Select Filters button to start the wizard. They cannot edit the fields below by clicking on a field.

Clear All is inactive.

No values are selected by default.

Scenario ⓘ x

No values are selected by default.

Scenario	Temperature Change (°C at 2090-2099 relative to 1980-1990)		Description
	Best Estimate	Likely Range	
<input type="radio"/> B1	1.8	1.1-2.9	View Description
<input type="radio"/> A1T	2.4	1.4-2.8	View Description
<input type="radio"/> B2 (B2A)	2.4	1.4-3.8	View Description
<input type="radio"/> B2B	2.4	1.4-3.8	View Description
<input type="radio"/> B2C	2.4	1.4-3.8	View Description
<input type="radio"/> A1B	2.8	1.7-4.4	View Description
<input type="radio"/> A2 (A2A)	3.4	2.0-5.5	View Description
<input type="radio"/> A2B	3.4	2.0-5.5	View Description
<input type="radio"/> A2C	3.4	2.0-5.5	View Description
<input type="radio"/> A1F1	4	2.4-6.4	View Description

Cancel | < Back | Next >

Location ⓘ x

Select Region or Country:

Global Only

Africa

- Eastern Africa
 - Burundi
 - Eritrea
 - Madagascar
 - Mayotte
 - Rwanda
 - Uganda
 - Zimbabwe
- Middle Africa
- Northern Africa
- Southern Africa
- Western Africa
- Comoros
- Ethiopia
- Malawi
- Mozambique
- Seychelles
- United
- Djibouti
- Kenya
- Mauritius
- Reunion
- Somalia
- Zambia

Grayed out items are not available.

Cancel | Next >

Data is grayed out if it is not available.

Grayed out till one location is selected.

Timeframe ⓘ x

Baseline data for:

- 1960-1990

Current Data/Observations for:

- 1990 to present

Projected future climate impacts in:

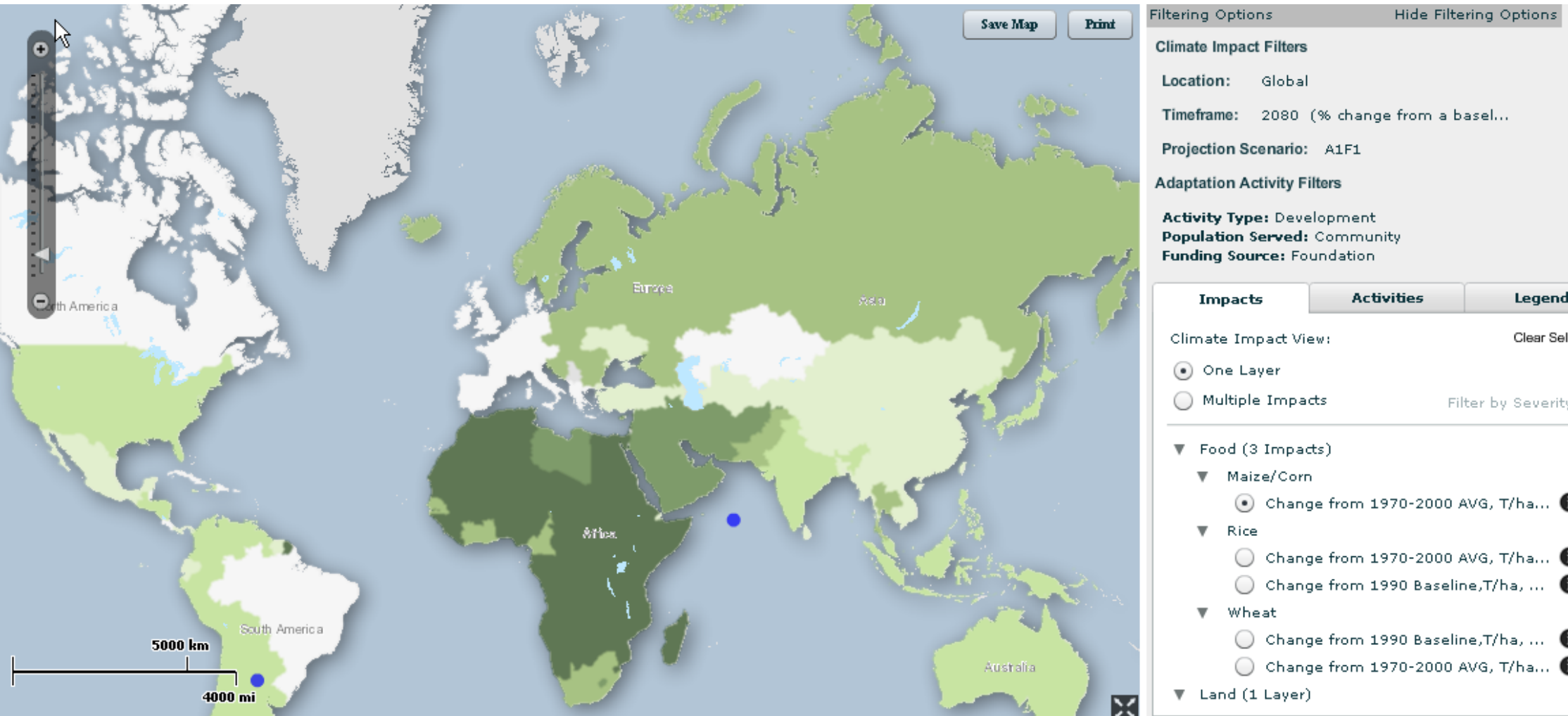
- 2020
- 2030
- 2050
- 2080
- 2100

Projected impacts (% change from a baseline) in:

- 2020 (% Δ from a baseline)
- 2030 (% Δ from a baseline)
- 2050 (% Δ from a baseline)
- 2080 (% Δ from a baseline)
- 2100 (% Δ from a baseline)

Cancel | < Back | Next >

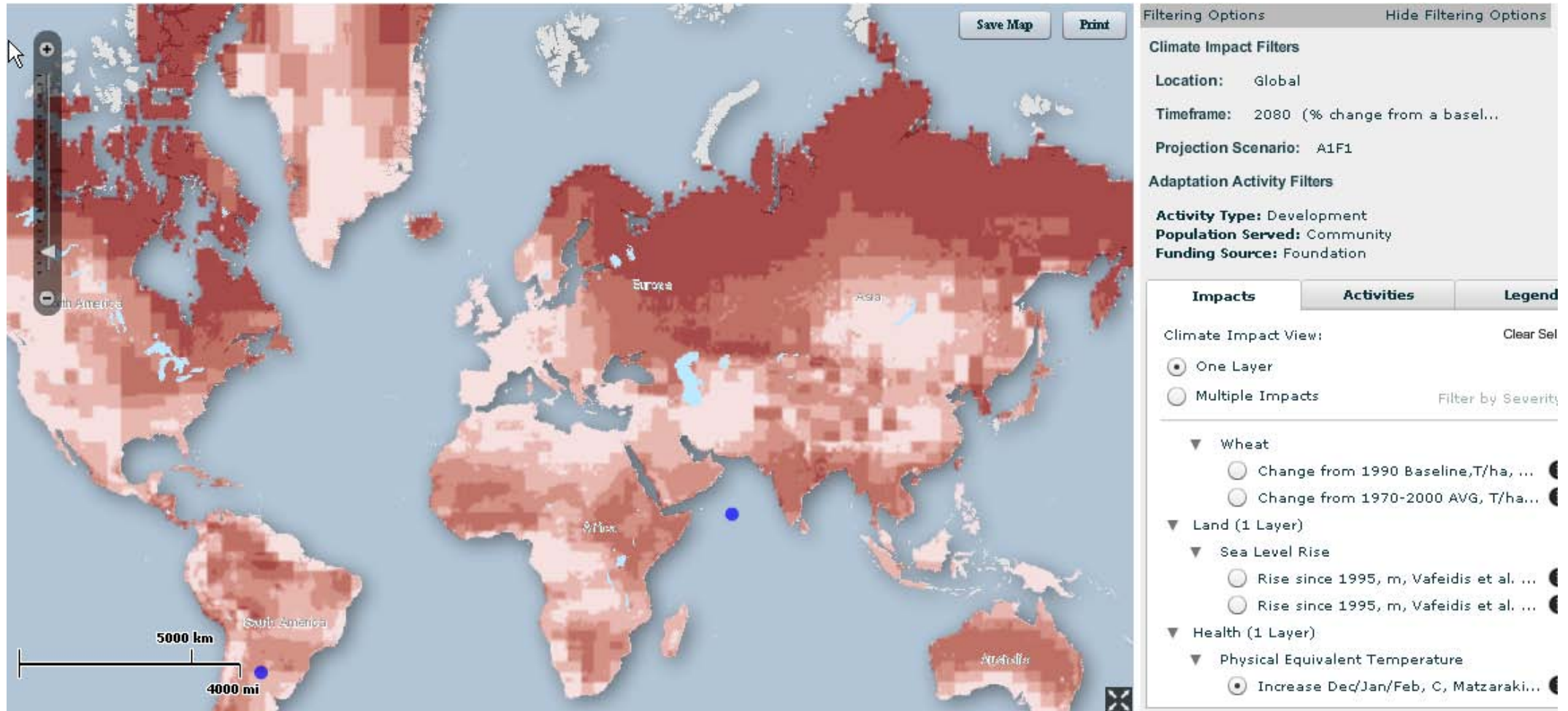
Projected Change in Maize Production by 2080



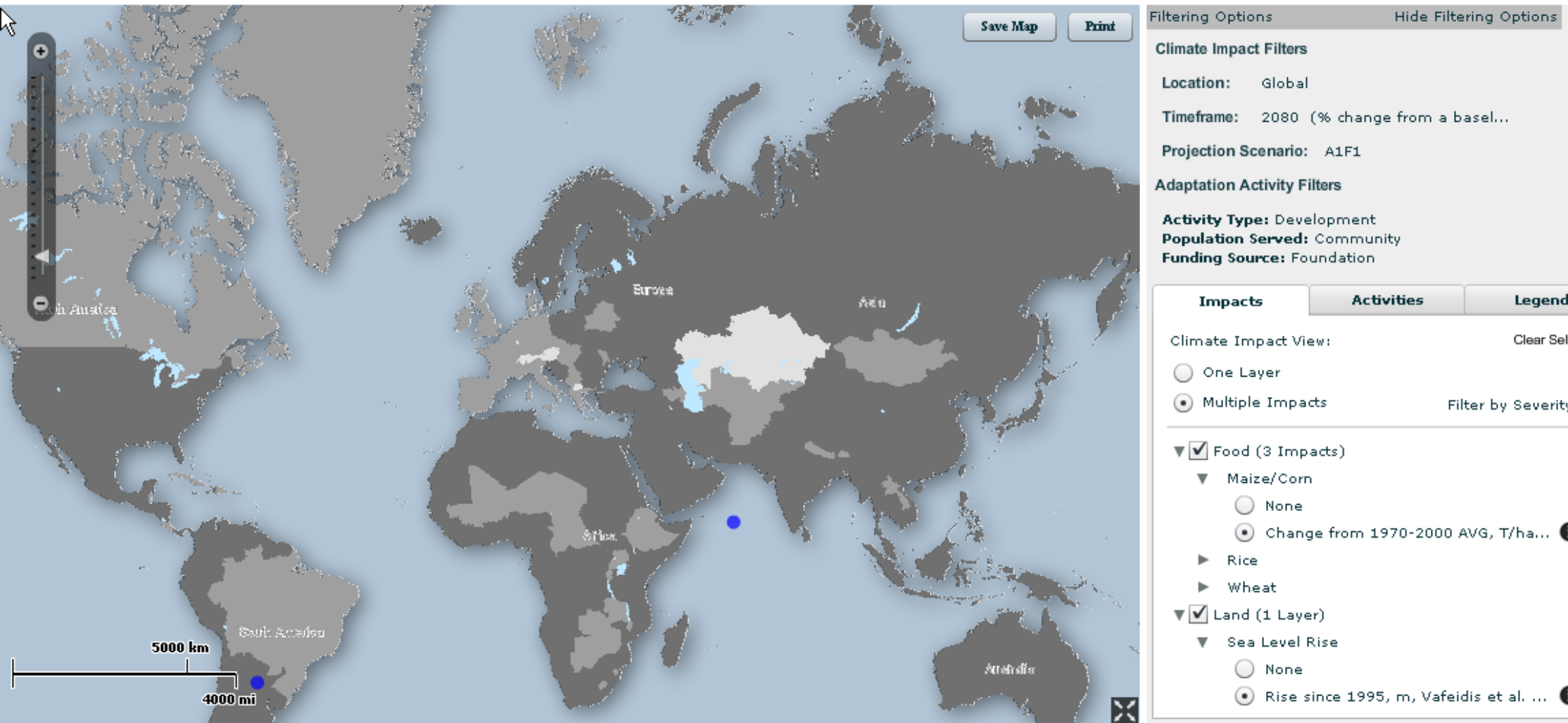
Projected Change in Sea Level Rise by 2080



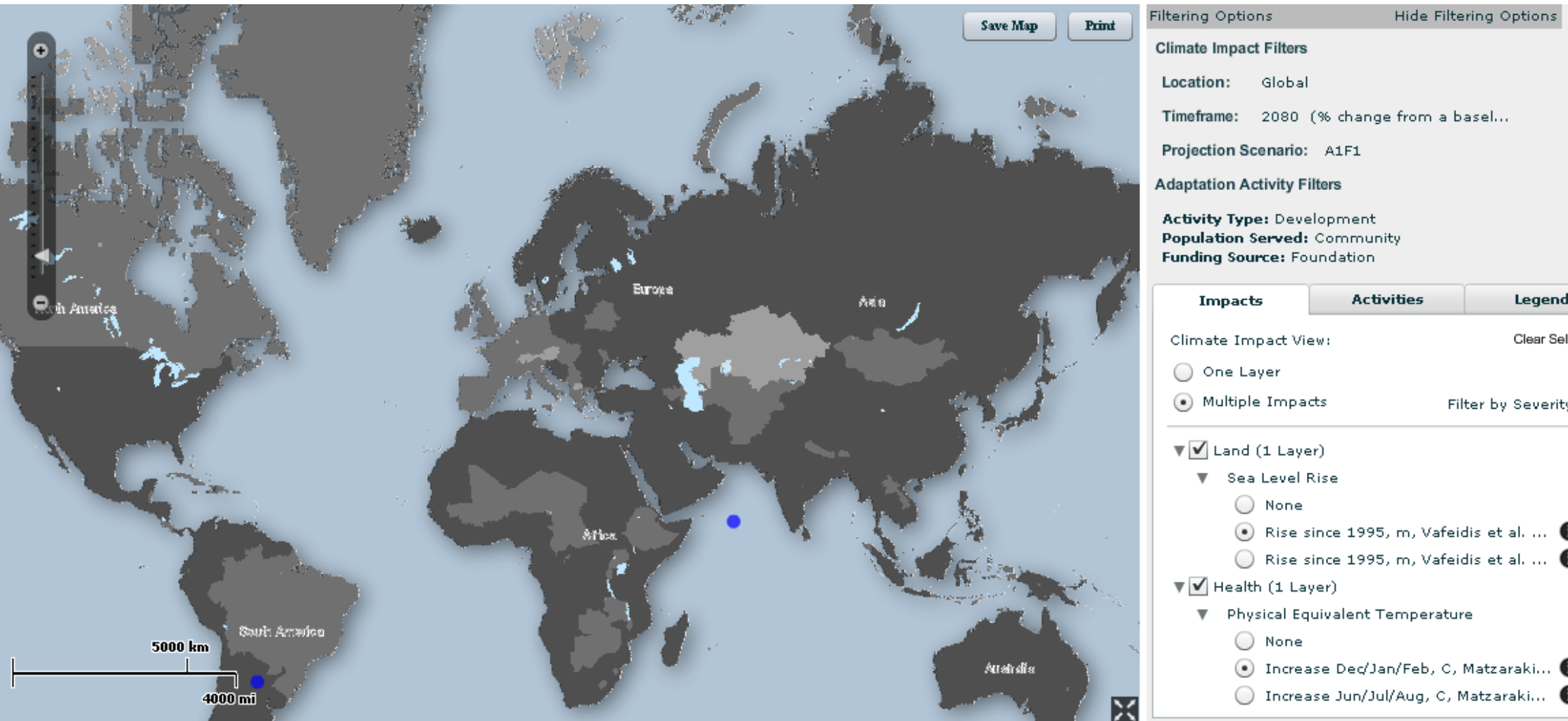
Projected Change in Physical Equivalent Temperature by 2080



Overlay of Projected Changes in Maize and Sea Level Rise



Overlay of Projected Changes in Maize, Sea Level Rise and Physical Equivalent Temperature



Clicking on a point on the map will display a detailed breakout map

The interface displays a world map with a blue dot indicating a location in South America. A breakout map window is open, showing detailed maps for three categories: FOOD, LAND, and HEALTH. The FOOD map shows a green area, the LAND map shows a brown area, and the HEALTH map shows a red area. Below each map, there is a summary of climate impacts and activities.

Location Summary

FOOD	LAND	HEALTH
Climate Impacts (1) Change from 1970-2000 AVG, T/h:	Climate Impacts (1) Rise since 1995, m, Vafeidis et al.	Climate Impacts (1) Increase Jun/Jul/Aug, C, Matzaraki
Activities (0)	Activities (0)	Activities (0)

Filtering Options Hide Filtering Options

Climate Impact Filters Clear All

Location: Global

Timeframe: 2080 (% change from a basel...

Projection Scenario: A1F1

Adaptation Activity Filters

Activity Type: Development

Population Served: Community

Funding Source: Foundation

Impacts **Activities** **Legend**

Climate Impact View: Clear Selection

One Layer

Multiple Impacts Filter by Severity

Land (1 Layer)

- Sea Level Rise
 - None
 - Rise since 1995, m, Vafeidis et al. ... **i**
 - Rise since 1995, m, Vafeidis et al. ... **i**

Health (1 Layer)

- Physical Equivalent Temperature
 - None
 - Increase Dec/Jan/Feb, C, Matzaraki... **i**
 - Increase Jun/Jul/Aug, C, Matzaraki... **i**

5000 km
3000 mi

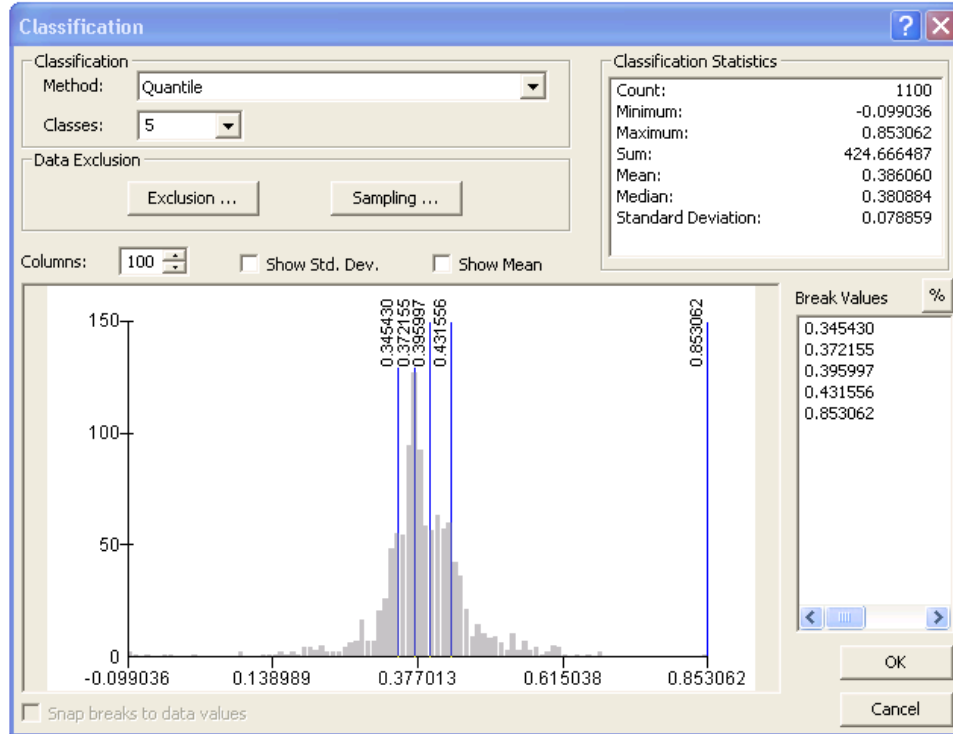
13

Location: Global
Timeframe: 2080 (% change from a baseline)
Projection Scenario: A1F1
Theme: Land
Category: [what is category?]
SubTheme: Sea Level Rise
Data Source: DINAS_COAST

land

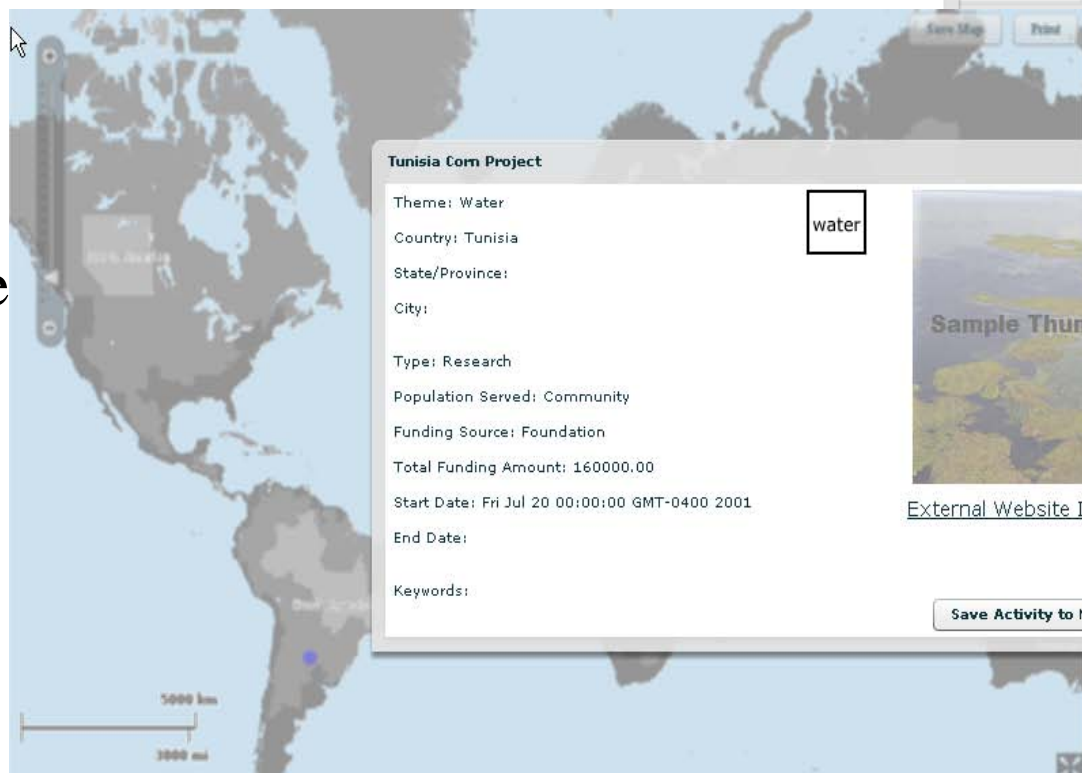
Citation: Vafeidis, A.T. "A New Global Coastal Database for Impact and Vulnerability Analysis to Sea-Level Rise." Journal of Coastal Research 24, 4 (2008)

Abstract:



Climate Impact Layer Detail Page

Project Detail Page



water

Partners

- **Advisory Board Spanning Science, Policy & Practice**
 - Climate Institute, UNF, WRI, Rockefeller, RFF, ESRI, SEI
- **Collaborative Partners**
 - UNFCCC, UNDP, WRI, College of William & Mary, UNITAR, RMSI
- **Funding Sources**
 - RFF
 - Clipore (MISTRA - Swedish Foundation for Strategic Environmental Research)
 - UN Foundation
 - Goldman Sachs (through seconding of 1 FTE for FY09)
 - ESRI (mapping software)

