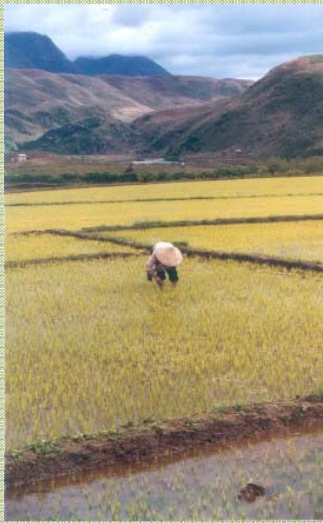


The Global Adaptation Atlas



Establishing Priorities for Research, Policy and Action on Adaptation

Ray Kopp – Senior Fellow and Director, Climate Policy Program

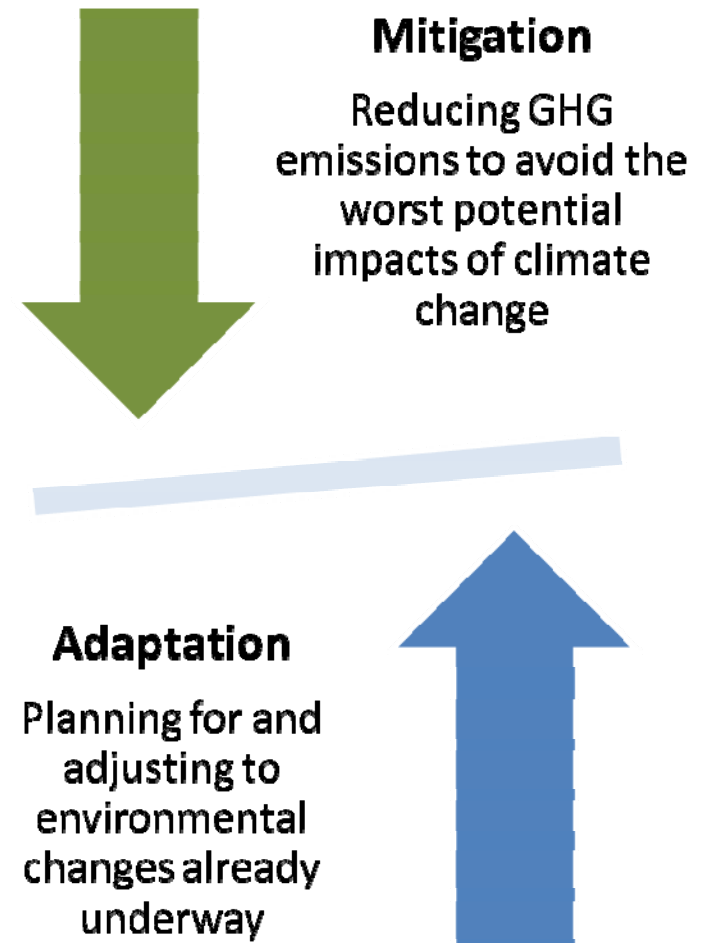
Nisha Krishnan – Project Manager, Atlas Team

ISeeT Kiosk Presentation- COP 15, Copenhagen – December 8, 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

Autumn/winter irrigation as an adaptive mechanism for efficient use of water resources in Southern Kazakhstan Details

Activity Type: Project
Status: Ongoing
Funding Source: UNDP & GEF
Location: Sadu Shakirov

Start Date: 1/3/2009
Total Funding: \$45,286
Duration (years): 2

Description: The project will implement new systems of irrigation – during the autumn and winter – in pilot sites, to demonstrate the effectiveness of this technique, and promote its replication by neighbouring ranchers. Essentially, irrigation in Autumn and Winter – the periods of the year with average temperatures below zero – replicates the same effect of snowfall, which is declining. Water delivered to pastures during these seasons melts and promotes grass growth during the spring thaw. In addition to benefits to the local community, the project will publish a short booklet, aimed at facilitating replication in areas facing similar challenges.

Project Website:
Contact Information: Mr. Stanislav Kim
67 Tole bi Str., Almaty, 480001.
Phone: +7-3272 582646/582643.
Fax: +7-3272 582645.
Email: stanislav.kim@undp.org

Save Project to My Atlas
About this dataset

Beta version is available at www.adaptationatlas.org

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

| 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 >

No values are selected by default.

Location

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

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)

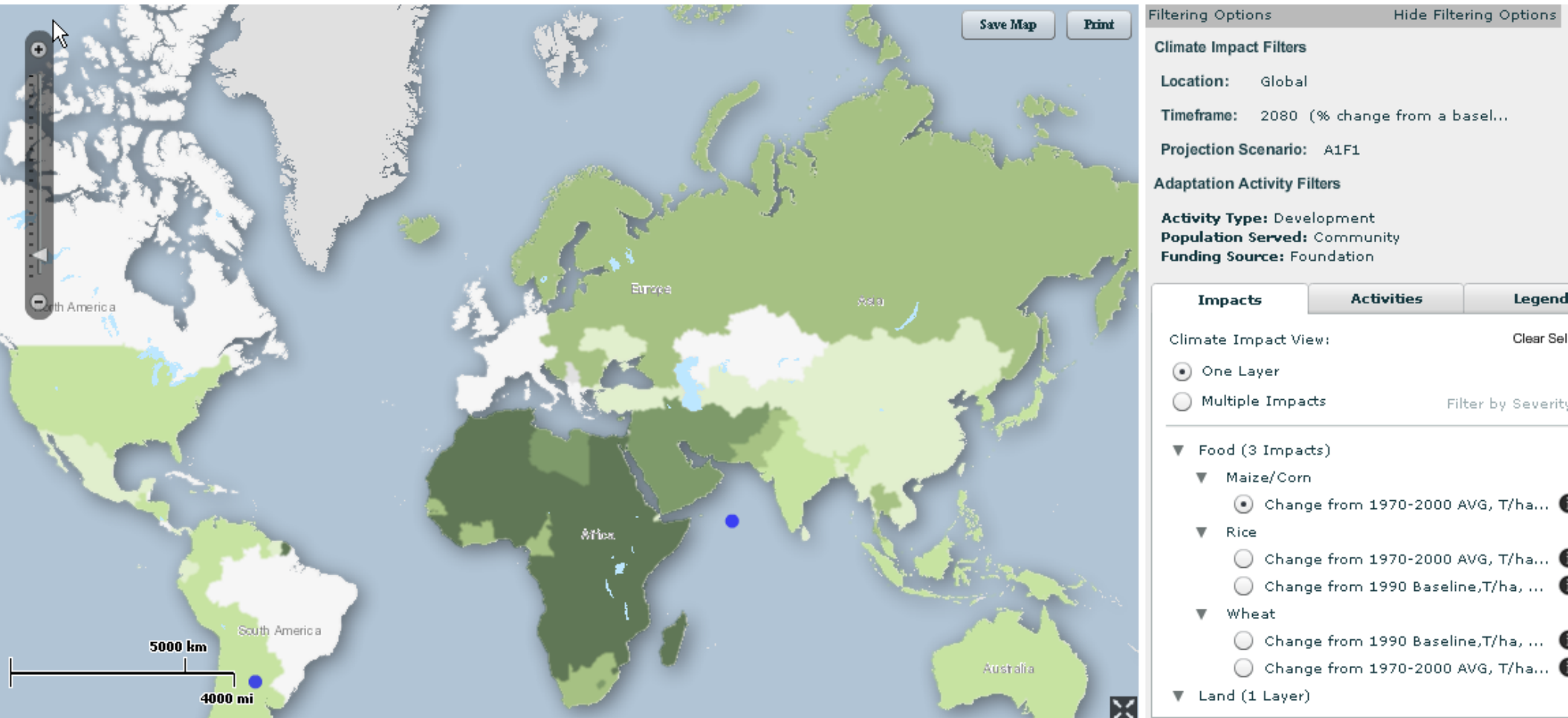
2080 (% Δ from a baseline)

2100 (% Δ from a baseline)

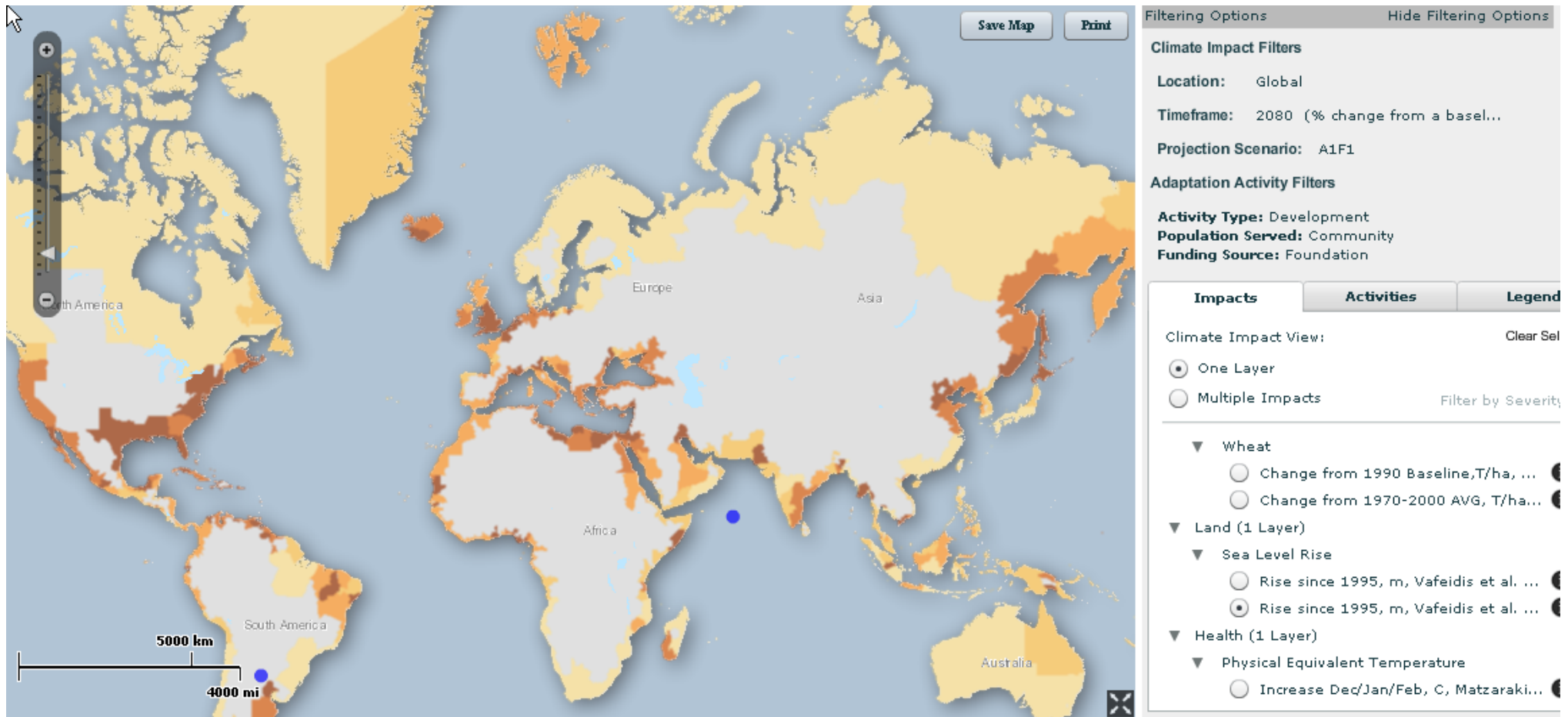
Grayed out items are not available.

Cancel < Back Next >

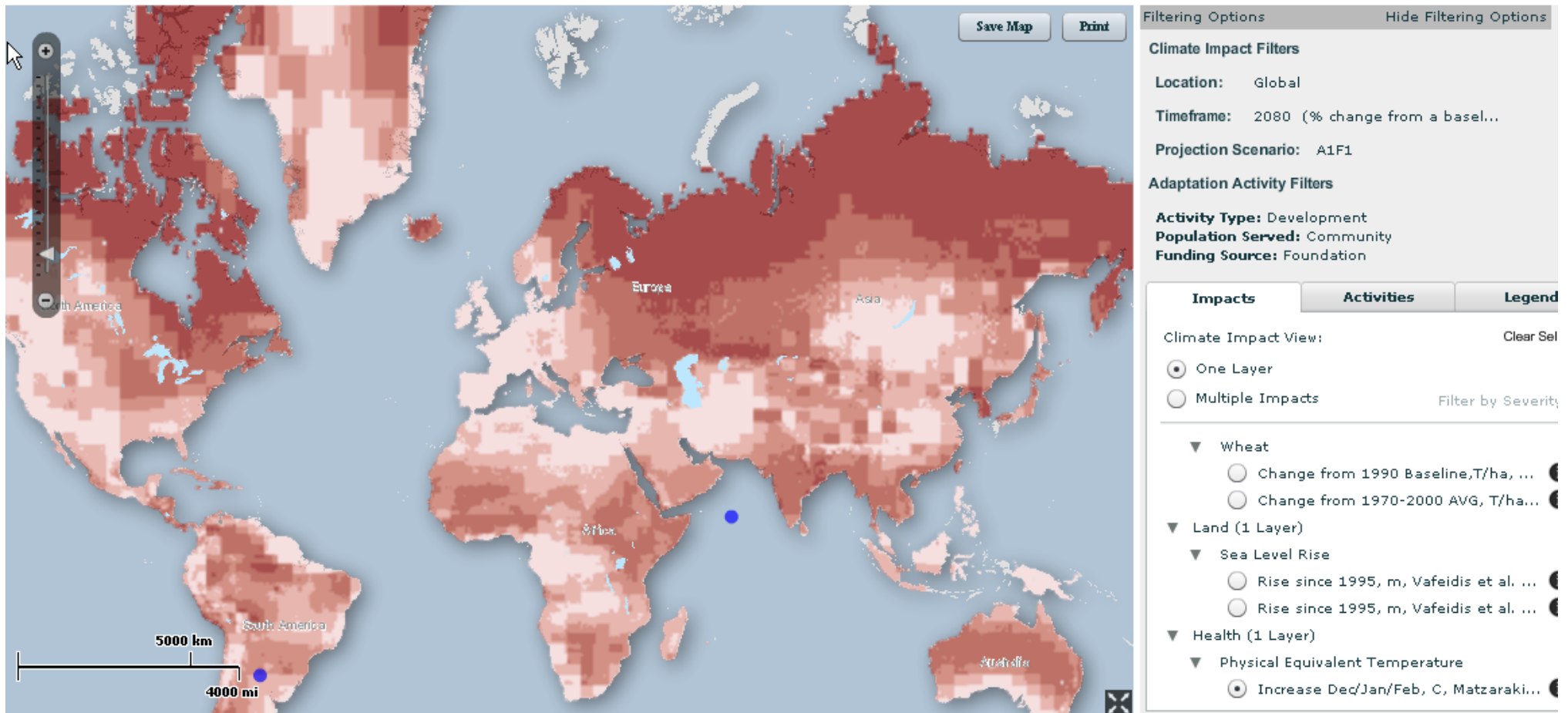
Projected Change in Maize Production by 2080



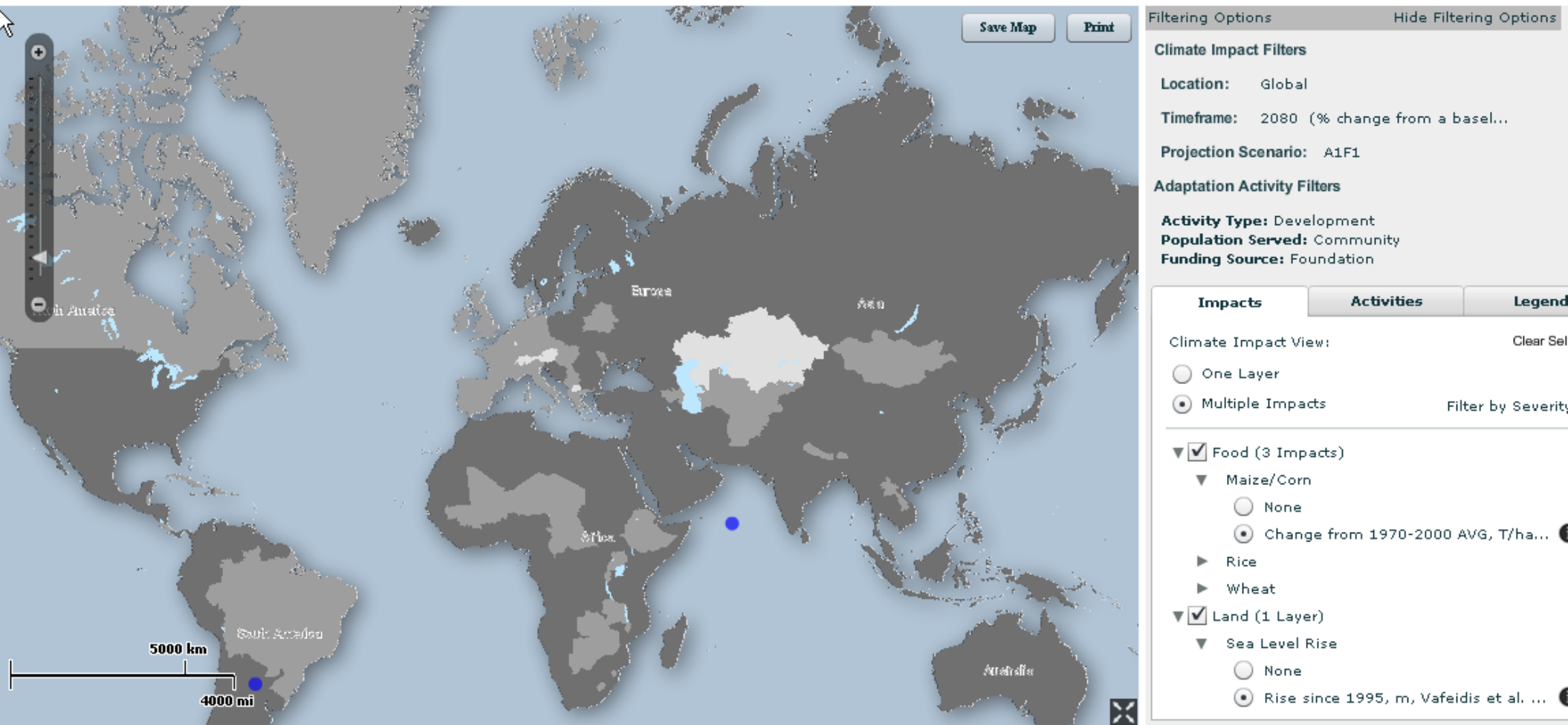
Projected Change in Sea Level Rise by 2080



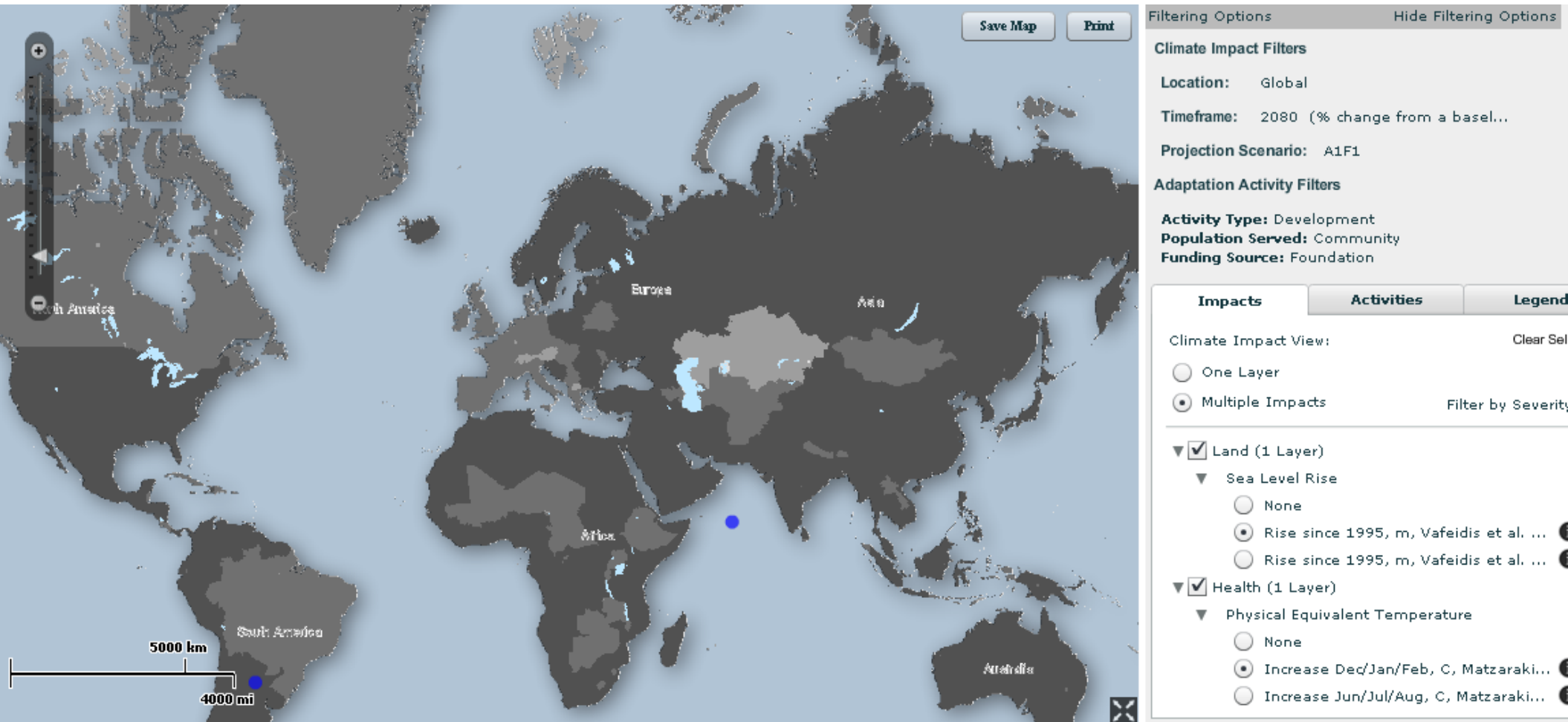
Projected Change in Physical Equivalent Temperature by 2080



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 image shows a web-based climate impact mapping interface. A map of South America is displayed with a blue dot indicating a selected location. A breakout map window is open, showing three panels: FOOD, LAND, and HEALTH. Each panel displays a map of the region with colored overlays representing climate impacts. The FOOD panel shows a green overlay, the LAND panel shows a brown overlay, and the HEALTH panel shows a red overlay. 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. ...
 - Rise since 1995, m, Vafeidis et al. ...
- Health (1 Layer)
 - Physical Equivalent Temperature
 - None
 - Increase Dec/Jan/Feb, C, Matzaraki...
 - Increase Jun/Jul/Aug, C, Matzaraki...

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:

Classification

Classification Method: **Quantile**
Classes: **5**

Data Exclusion: Exclusion ... Sampling ...

Columns: 100 Show Std. Dev. Show Mean

Classification Statistics:

| | |
|---------------------|------------|
| Count: | 1100 |
| Minimum: | -0.099036 |
| Maximum: | 0.853062 |
| Sum: | 424.666487 |
| Mean: | 0.386060 |
| Median: | 0.380884 |
| Standard Deviation: | 0.078859 |

Break Values %:

| |
|----------|
| 0.345430 |
| 0.372155 |
| 0.395997 |
| 0.431556 |
| 0.853062 |

Snap breaks to data values

OK Cancel

Climate Impact Layer Detail Page

Project Detail Page

Tunisia Com Project

Theme: Water
Country: Tunisia
State/Province:
City:
Type: Research
Population Served: Community
Funding Source: Foundation
Total Funding Amount: 160000.00
Start Date: Fri Jul 20 00:00:00 GMT-0400 2001
End Date:
Keywords:

water

Sample Thumbnail

[External Website Information](#)

Save Activity to My Atlas

Filtering Options

Climate Impact Filters

Location: Global
Timeframe: 2080 (% change from a basel...
Scenario: A1F1

Activity Filters

Development
Vulnerability: Community
Funding Source: Foundation

Activities Legend

Layer: Sea Level Rise
None
Rise since 1995, m, Vafeidis et al. ...
Rise since 1995, m, Vafeidis et al. ...
(1 Layer)

Physical Equivalent Temperature

None
Increase Dec/Jan/Feb, C, Matzarakis...
Increase Jun/Jul/Aug, C, Matzarakis...

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)

