



Caribbean Community Climate Change Centre

Regional Climate Modeling

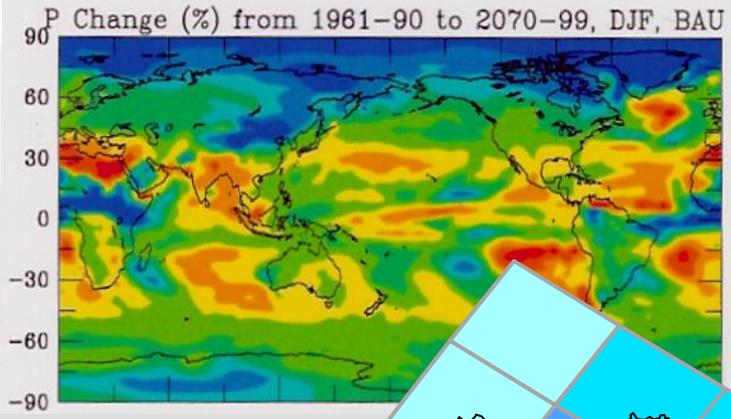
Carlos Fuller

International and Regional Liaison
Officer



Why we need downscaling

General Circulate Models supply...



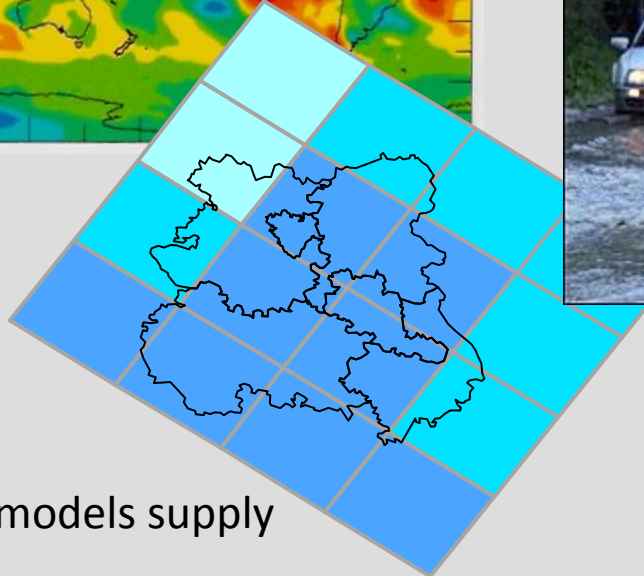
Impact models require ...

10km

1m



50km



Regional models supply

Point





Centre's Modeling Activities

- The Centre is collaborating with other institutions in the use of the PRECIS model (25 & 50 km resolutions) to look at future climate scenarios.
- Collaborating Institutions include:
 - Hadley Centre
 - University of the West Indies (Barbados and Jamaica)
 - INSMET in Cuba
 - CATHALAC in Panama

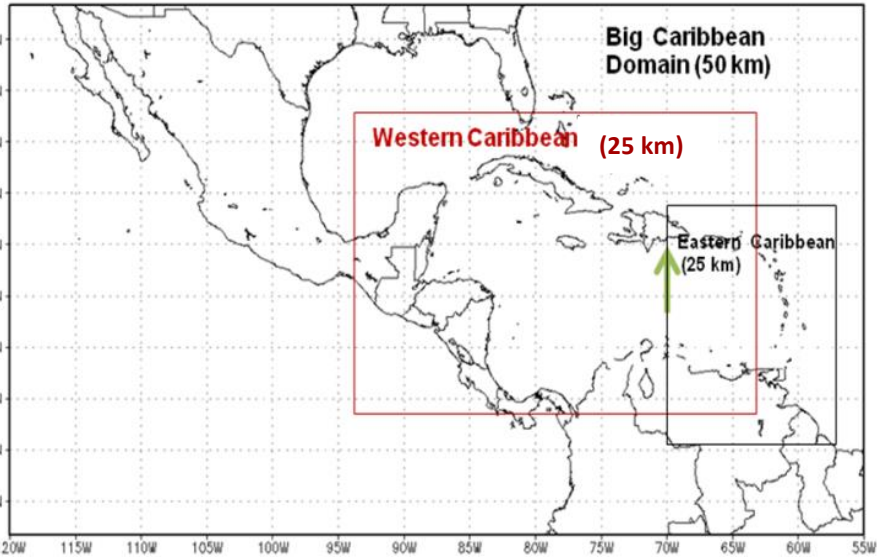
Belize: Sept 25-29, 2006



Cuba: Dec 4 – 10, 2006

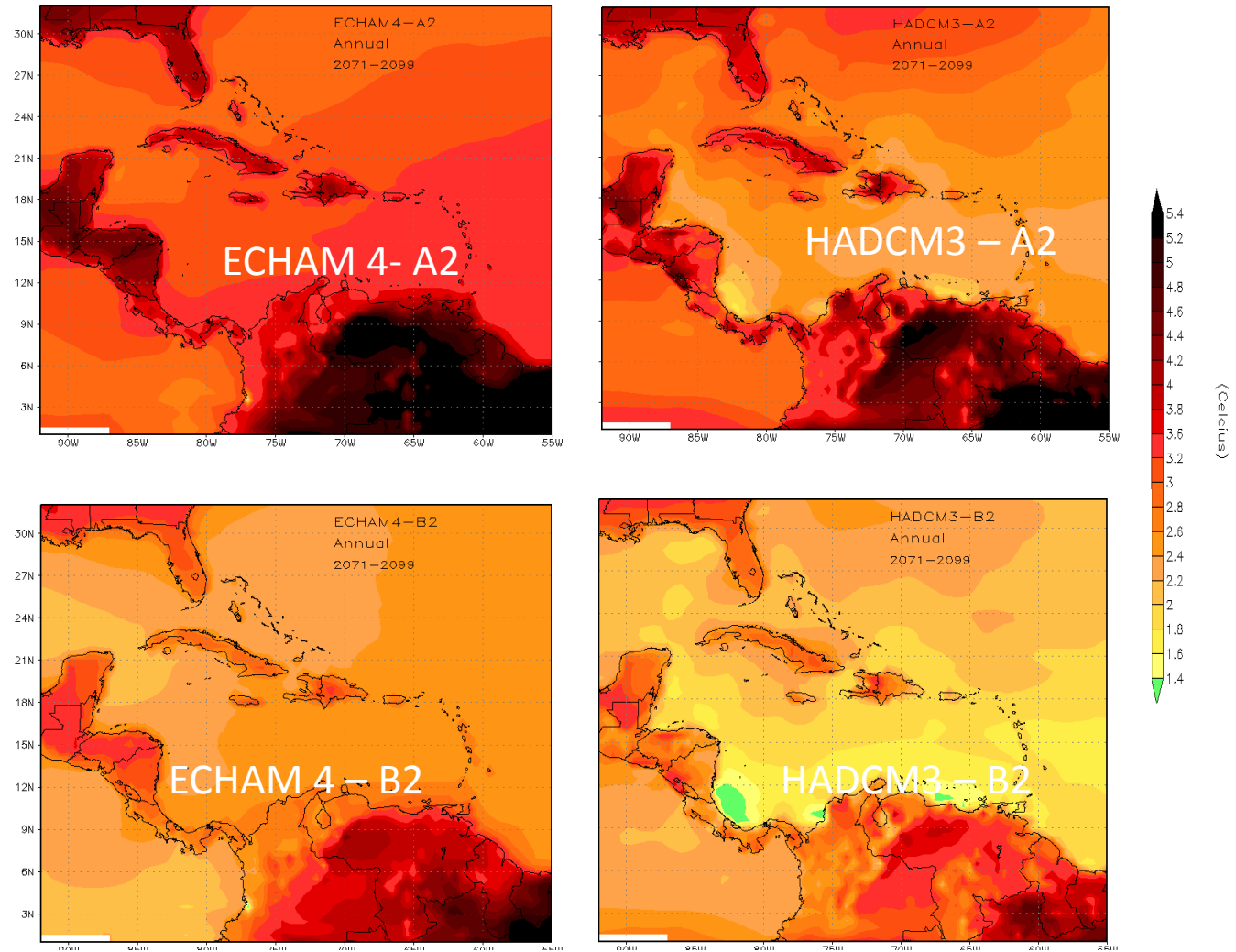


Experiments completed



No.	Driving conditions		Domain	Resolution	Period
	GHG Scenario	LBCs Data			
1		ERA15	Big Caribbean	50 km	1979-1983
2		ERA40	Big Caribbean	50 km	1979-1993
3		HadAM3_H	Big Caribbean	50 km	1961-1990
4	SRES A2	HadAM3_H	Big Caribbean	50 km	2071-2100
5	SRES B2	HadAM3_H	Big Caribbean	50 km	2071-2100
6	SRES A2	ECHAM4	Big Caribbean	50 km	1961-2100
7	SRES B2	ECHAM4	Big Caribbean	50 km	1961-2100
8	SRES A2	ECHAM4	Eastern Caribbean	25 km	1961-2100
9	SRES B2	ECHAM4	Eastern Caribbean	25 km	1961-2100
10	SRES A2	ECHAM4	Western Caribbean	25 km	1961-2100
11	SRES B2	ECHAM4	Western Caribbean	25 km	1961-2100

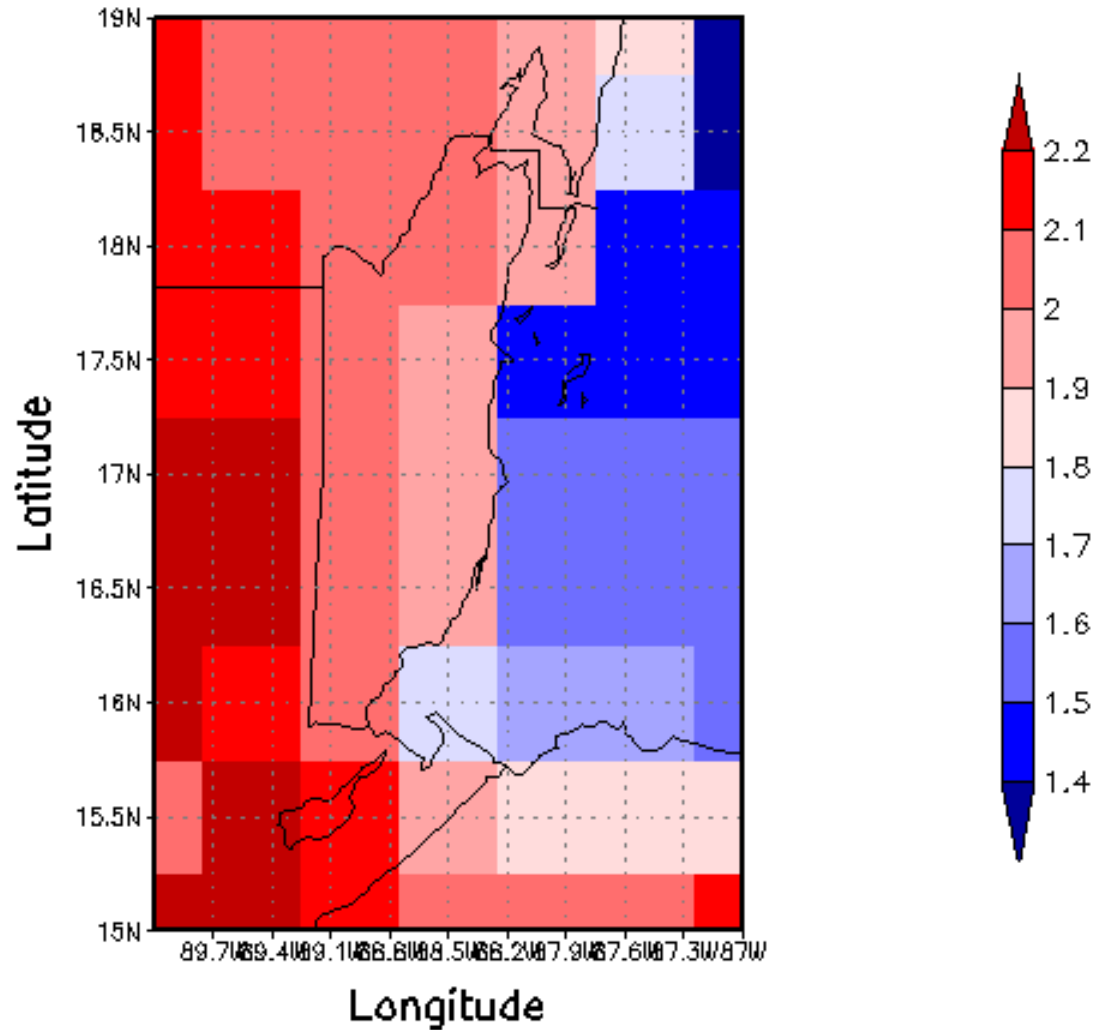
Mean changes in the annual surface temperature for 2071-2099 period



Change in Temperature at 1.5 meters (Celcius)

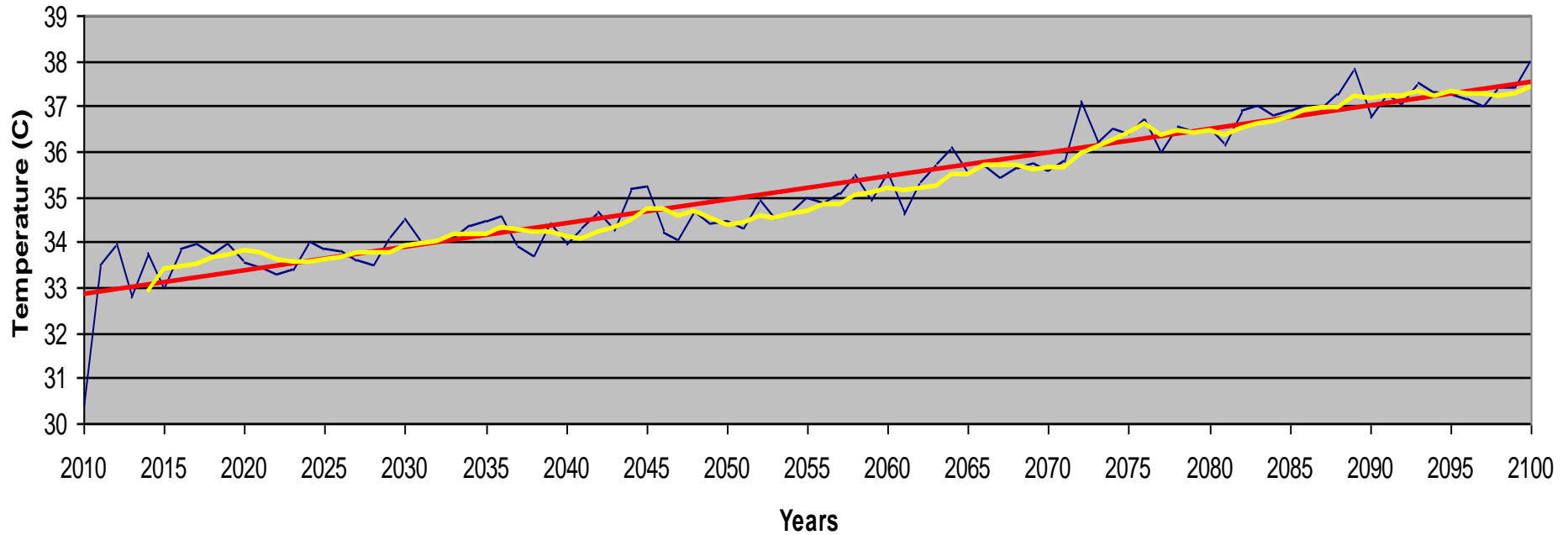
Period: 2050–2055 Annual Mean

Model: PRECIS–Echam GHG Scenario: SRESA2



Central Farm Scenario

Temperature Projections (Cent Farm)





CCCCC Website

Information By Country - Caribbean Community Climate Change Centre - Windows Internet Explorer

http://www.caribbeanclimate.bz/index.php?Itemid=88&option=com_wrapper&view=wrapper

BrotherSoft Extreme Customized Web Search

File Edit View Favorites Tools Help

Search

Go

Calif...

21°C

Information By Country - Caribbean Community Clima...

Regional Climate Model

EASY MODE

ADVANCED MODE

English | [Español](#)

Model:

Scenario:

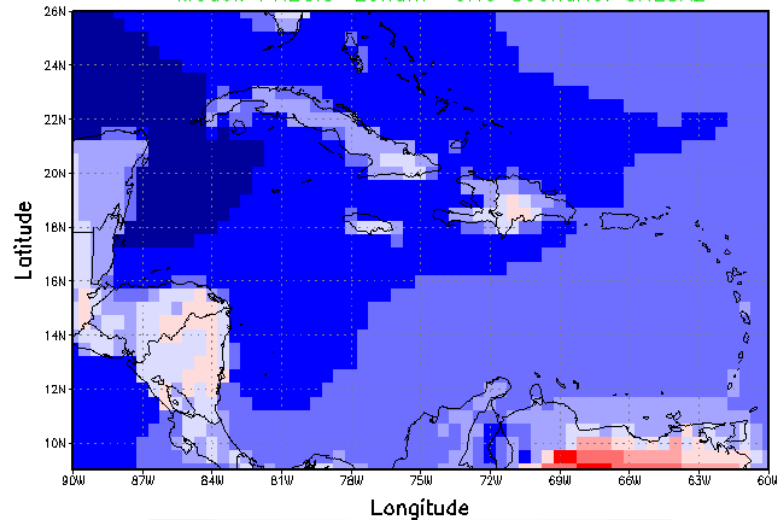
Time Range: - Variables:

SUBMIT

Change in Temperature at 1.5 meters (Celcius)

Period: 2050–2055 Annual Mean

Model: PRECIS–Echam GHG Scenario: SRESA2





CARIWIG

- Weather Generator
- Collaboration
 - Caribbean modeling community
 - Newcastle University
- Provides access to
 - Historical data
 - Future climate
 - Simulated data tools
- Map based interfaces for data location, visualization and selection
- Graphing and imaging tools
- Data downloads
 - Raw data, images, GIS files
 - Current views from portal
 - Graphs and charts



GoLoCarSec Project

- Global-Local Caribbean Climate Change Adaptation and Mitigation Scenarios Project
- Objective: Develop consistent regional scenarios/storylines for AR5 RCPs for impact studies
- Downscaling RCP 4.5 and RCP 8.5 to 10 km for 4 GCMs for selected Caribbean islands
- Will be expanded to Central and South America
- Collaboration: UWI, CCCCC, SEI



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We Are Social...



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