

## *Climate Modelling Data Availability*

### THE CARIBBEAN REGIONAL TRACK OF THE PILOT PROGRAMME FOR CLIMATE RESILIENCE (PPCR)

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July 12, 2017



### Objectives of the PPCR Regional Track



1. To improve regional processes to acquire, store, analyse, access and disseminate climate relevant information
2. To pilot and scale up innovative climate resilient initiatives in the region



# Objective 1



Objective: To improve availability of downscaled future climate projections to support adaptation planning, decision making, sectoral modelling & projections.

- ▶ **Improve technological capacity to analyse existing regional climate modelling outputs & generate & assess new outputs**
- ▶ **Establish framework linking regional & sectoral climate models for adaptation planning in 4 sectors**
- ▶ **Develop a Regional Coastal Zone Integrated Info. Management System**



## Regional Climate Models



RegCM4.6 and RegCM4.3

- Hydrostatic and Non-Hydrostatic Core
- Convective Schemes
  - Using Emmanuel Convective Schemes
  - Using Mixed Convective Schemes
- Fully Compliant LAC Cordex Domain
- Output
  - 3 hour intervals
  - Daily Statistics
  - RCPS





# Regional Climate Models



## PRECIS 2.0 , 1.8 and 1.5

- Blackbox model
- Smaller LAC Domain
- Output
  - Daily, monthly, yearly time step
  - Over 360 ATM and Surface Variables
  - SRES and RCP

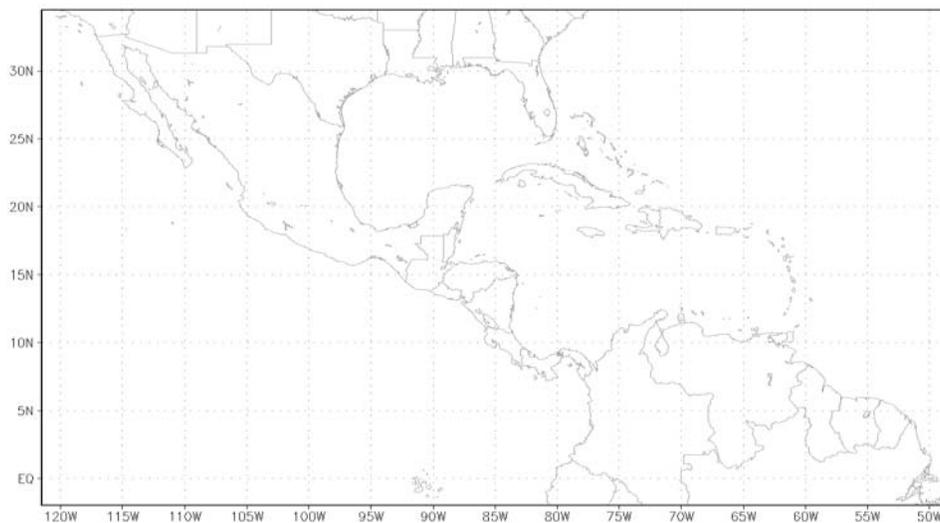


# Data Availability



## PRECIS 1.8 and 1.5

- SRES A2, B2 and A1B





# Data Availability



## PRECIS 1.5 and 1.8

- SRES A2, B2 and A1B

PRECIS-1.5	ECHAM4 SRES A2	1960-2100	50km
PRECIS-1.5	ECHAM4 SRES B2	1960-2100	50km
PRECIS-1.5	HadAM3P SRES A2	1960-1990	50km
PRECIS-1.5	HadAM3P SRES B2	1960-1990	50km
PRECIS-1.5	HadAM3P SRES A2	2070-2100	50km
PRECIS-1.5	HadAM3P SRES B2	2070-2100	50km
PRECIS-1.8	HadCM3 Q0 SRES A1B	1960-2100	25km
PRECIS-1.8	HadCM3 Q3 SRES A1B	1960-2100	25km
PRECIS-1.8	HadCM3 Q4 SRES A1B	1960-2100	25km
PRECIS-1.8	HadCM3 Q10 SRES A1B	1960-2100	25km
PRECIS-1.8	HadCM3 Q11 SRES A1B	1960-2100	25km
PRECIS-1.8	HadCM3 Q14 SRES A1B	1960-2100	25km
PRECIS-1.8	ECHAM5 Q14 SRES A1B	1960-2100	25km



# Data Availability



## PRECIS 2.0

- RCP 2.6, 4.5 and 8.5
  - Some experiments completed
  - Analysis and experiments ongoing
  - Will be available for sharing soon

PRECIS-2.0	HADGEM-ES RCP2.6	1960-2100	25km
PRECIS-2.0	HADGEM-ES RCP4.5	1960-2100	25km
PRECIS-2.0	HADGEM-ES RCP8.5	1960-1990	25km



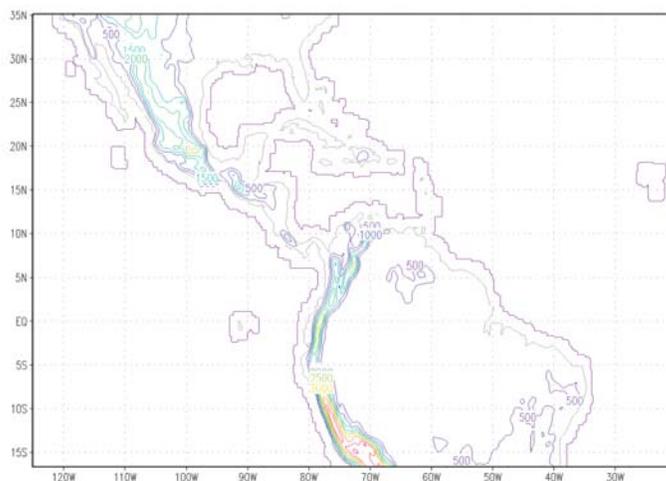


# Data Availability



RegCM 4.3 and 4.6

- RCP 2.6, 4.5 and 8.5,

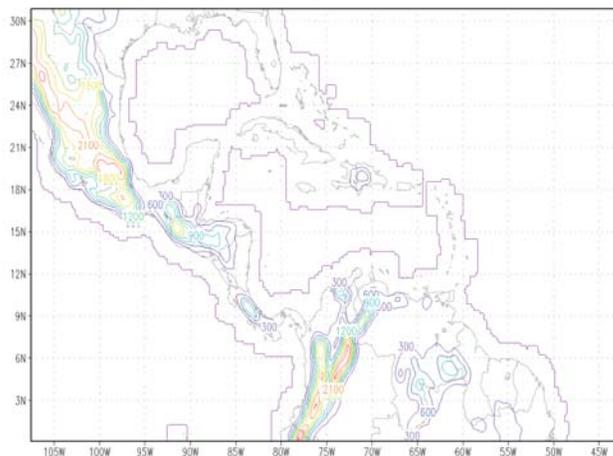


# Data Availability



RegCM 4.3 and 4.6

- RCP 2.6, 4.5 and 8.5,





# Data Availability



## RegCM 4.3 and 4.6

- RCP 2.6, 4.5 and 8.5,

RegCM4	Had-GEM2-ES-Historical	1960-2005	50 km, 20 km
RegCM4	Had-GEM2-ES-RCP4.5	2020-2100	50 km, 20 km
RegCM4	CNRM-CM5-Historical	1960-2005	50 km, 20 km
RegCM4	CNRM-CM5-RCP4.5	2020-2100	50 km, 20 km
RegCM4	CNRM-CM5-Historical	1960-2005	50 km
RegCM4	CNRM-CM5-RCP8.5	2020-2100	50 km
RegCM4	MPI-ESM-MR-Historical	1960-2005	50 km



# Ongoing and Upcoming Experiments



## RegCM 4.6

GCM	RCP2.6	RCP4.5	RCP8.5	Historical	Reanalysis
EC-EARTH		X	X	X	
CNRM-CM5		X	X	X	
HADGEM2	X	X	X	X	
MPI-ESM-MR	X	X	X	X	
GFDL-ESM2M	X	X	X	X	
IPSL-CM5A-LR		X	X	X	
CanESM2		X	X	X	
CSIRO-MK36		X	X	X	
EIN75					X
EIN15					X
NNRP1					X
NNRP2					X
ERA40					X





# Data Requests



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