

ASIAN-SMALL ISLAND STATE GROUP

Countries:

Mongolia (AS06)

Thailand and Indo China (AS07)

Sri Lanka (AS12)

Philippines, Indonesia (AS21)

China (AS25)

Fiji Islands (SIS09)

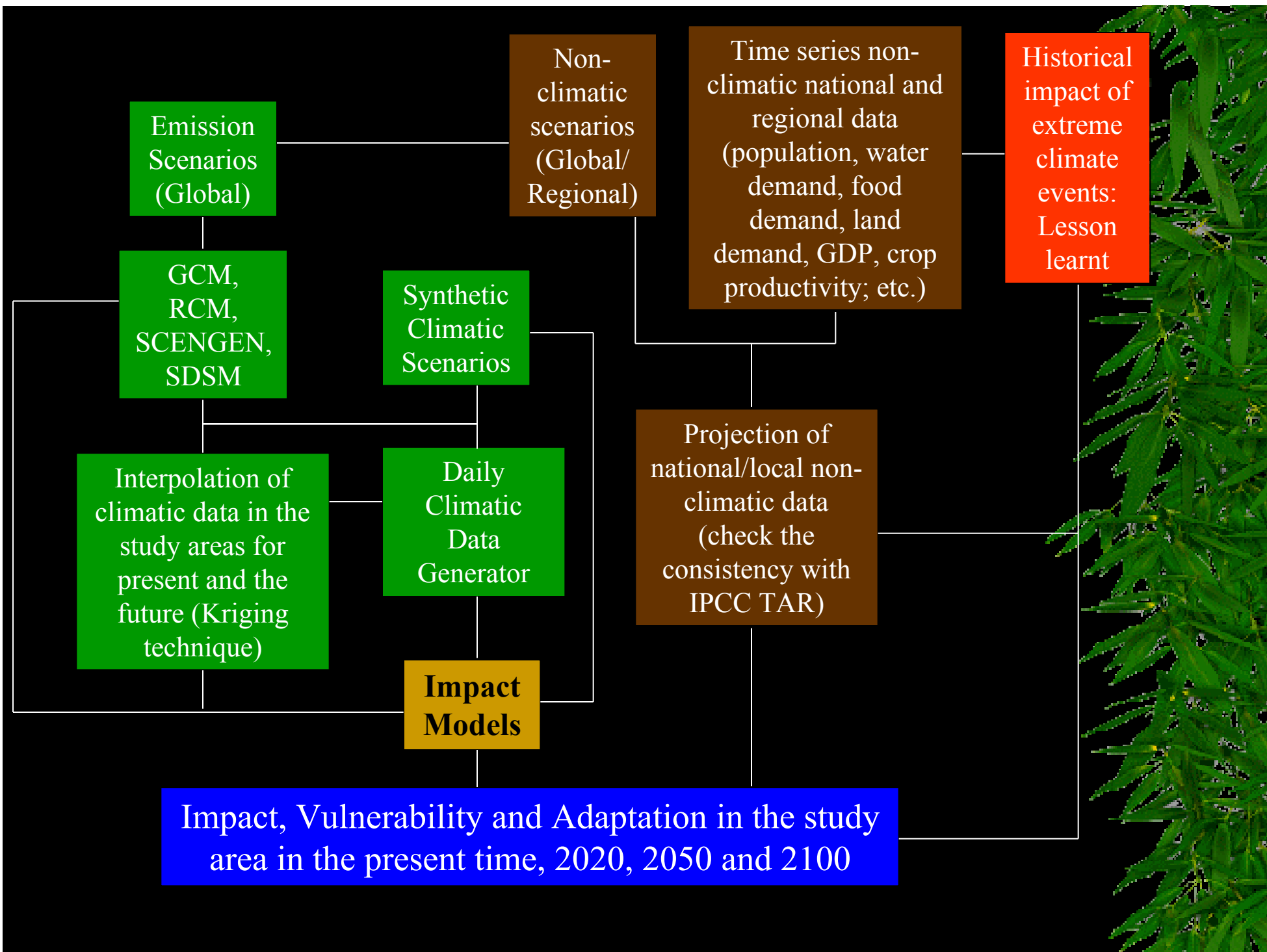
Bangladesh, India, Pakistan (APN2002-12)



Themes

- ★ Sri Lanka: Tea and Coconut Plantation
- ★ Mongolia: Grassland Ecosystem and Livestock
- ★ Thailand, Indo China: Water Resources and Extreme Hydrological Events
- ★ Philippines and Indonesia: Forest and Water Resources
- ★ China: Desertification, food security, water resources
- ★ Fiji Islands: Coastal resources, agriculture, water resources and infra-structure
- ★ Pakistan, India, Bangladesh: Agriculture, hidrology





Emission Scenarios (Global)

GCM, RCM, SCENGEN, SDSM

Interpolation of climatic data in the study areas for present and the future (Kriging technique)

Synthetic Climatic Scenarios

Daily Climatic Data Generator

Impact Models

Impact, Vulnerability and Adaptation in the study area in the present time, 2020, 2050 and 2100

Non-climatic scenarios (Global/Regional)

Time series non-climatic national and regional data (population, water demand, food demand, land demand, GDP, crop productivity; etc.)

Historical impact of extreme climate events: Lesson learnt

Projection of national/local non-climatic data (check the consistency with IPCC TAR)

Obstacles

CLIMATE MODELS

* MAGICC-SCENGEN

- Resolution
- Area coverage
- Monthly data (limited climatic variables)

* SDSM

- Availability of good quality observed daily climatic data
- Availability of predictors data from NCEP, ECMWF (1961-1990)

* GCM

- Resolution
- In most cases only monthly data available

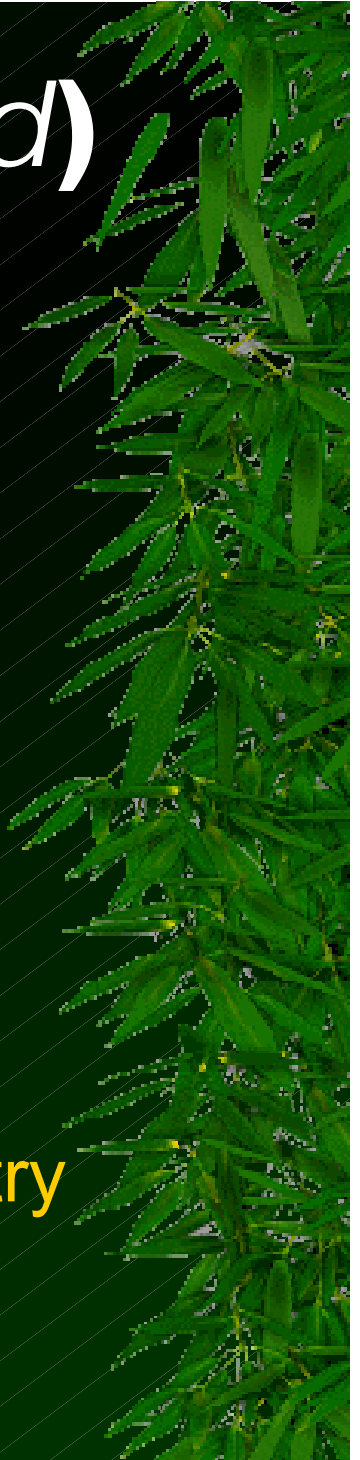
* RCM

- Time consuming and computer intensive
- It may need further training for running the models
- Monthly/daily



Obstacles (Continued)

- ★ Models for evaluating impact:
 - Crop Models: Coconut (Sri Lanka) etc.
 - Hydrology models
- ★ Data:
 - Sparse climate/weather stations network
 - Data quality ~ quality control techniques
- ★ Literatures:
 - Limited number of literatures in the country



Specific Actions

★ Climate Models

- New version of MAGICC-SCENGEN should be made available for the team
 - ★ Extended region coverage (include SEA)
 - ★ Add more climatic variables
 - ★ Add regional non-climatic data (population, GDP etc)
- Some countries may collaborate to run RCM (or request Tyndall Centre, Hadley Centre, CSIRO)
 - ★ e.g. PRECIS-RCM or GCM-CSIRO-Mx2 double nesting run in super computer for a number of regions ~ AS07, AS12, AS21
- Provide written guideline for accessing and downloading climatic data from DDC and other sites
 - ★ Project may assigned someone to compile relevant data from DDC and distribute to country team



Specific Actions

- ★ Hands on training based on specific needs of the countries
 - e.g. Training for running RCM (PRECIS)
- ★ Provide team with relevant impact models (CERES, APSIM, FORESTGAP etc.)
- ★ Allow each country team to visit other country for learning and sharing experiences in addressing the common problems
 - Applying interpolation techniques, generating daily climatic data from monthly means, crop modelling, hydrology model (AS07 and AS21) etc.



Specific Actions

- ✦ Allow Mentors to visit countries for trouble shooting
- ✦ Develop a system which allow the team to communicate with other team or mentors for solving the problems (communication system)
- ✦ Provide site in the project web where the team could access and download references and relevant papers/articles or materials for the projects



Useful on-Going Inputs

- ★ Helping team in addressing some common problems (e.g. downscaling problem, addressing uncertainties, developing climate scenarios, accessing data and information etc)
- ★ Keep the team inform about the progress of climate change science (exposing to tools) and international events (related workshops or trainings)
- ★ AIACC allow the team to access to limited sources/fund for a collaboration in the region, or to attend short trainings or workshops relevant for the projects (e.g. AS07 and AS21)
- ★ Mentors assist the team for producing papers or articles for international journals
 - As reviewers, editors, co-author)

