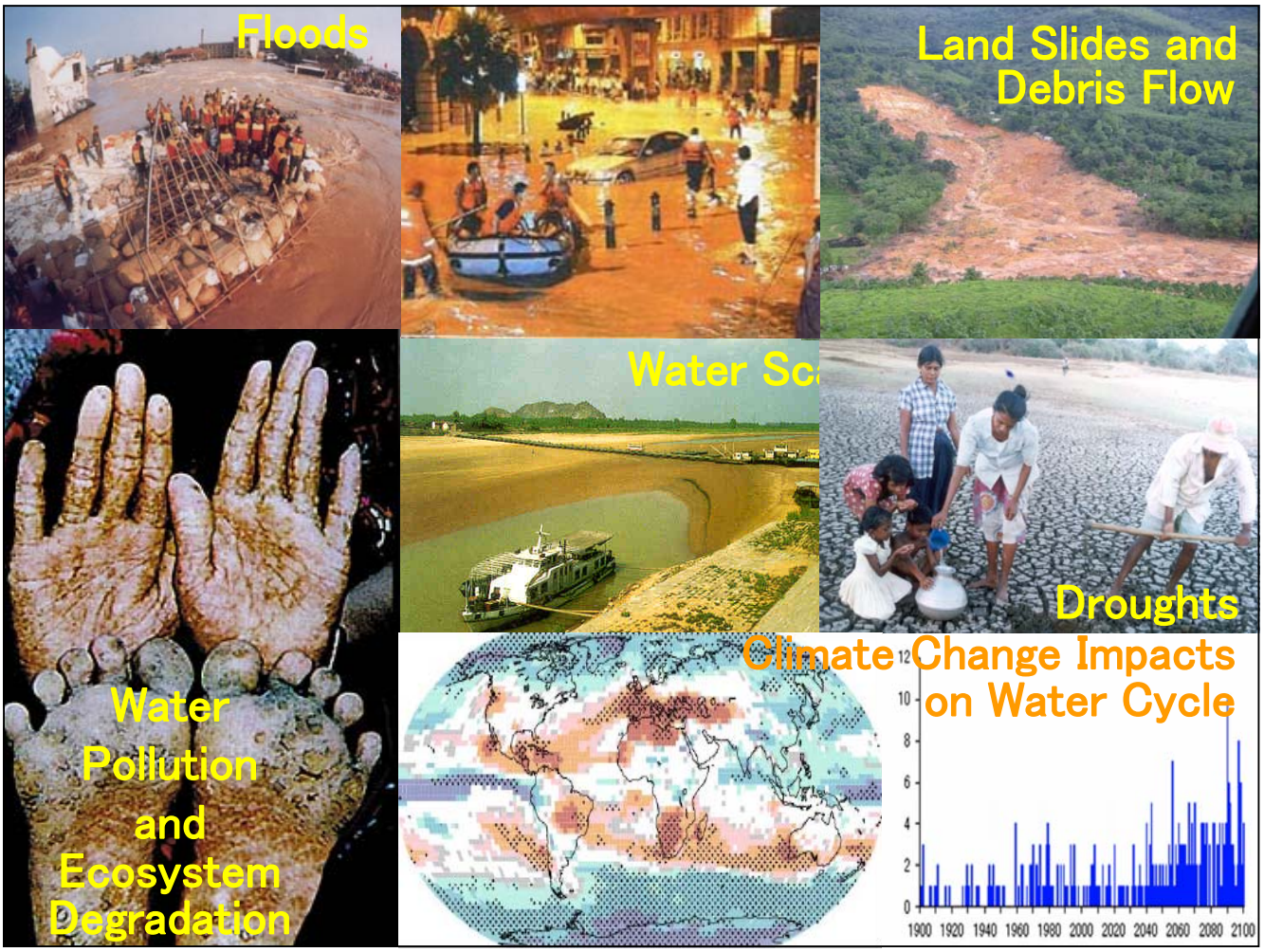
Floods
Land Slides and Debris Flow
Water Sca
Droughts
Water Pollution and Ecosystem Degradation
Climate Change Impacts on Water Cycle
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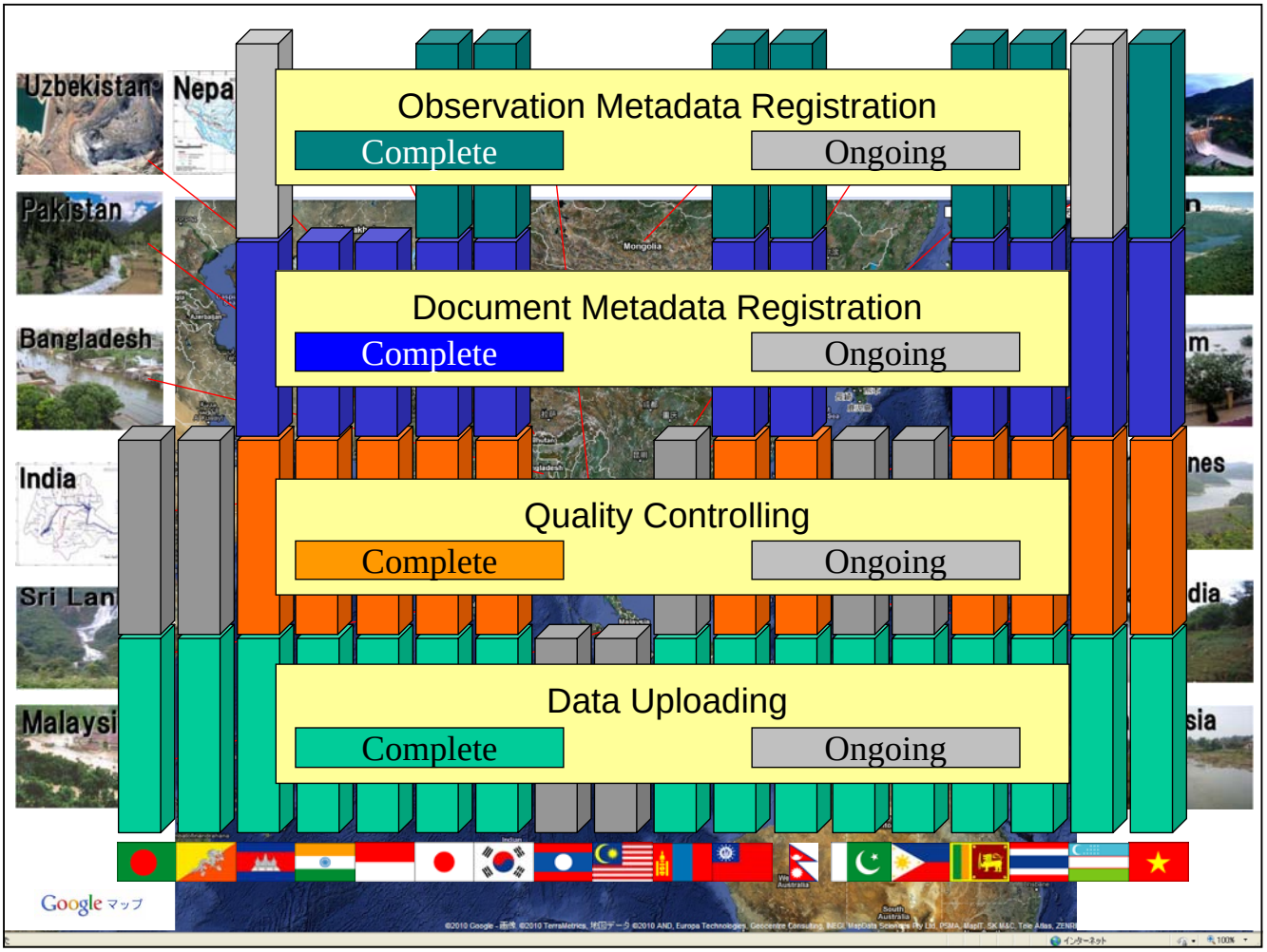
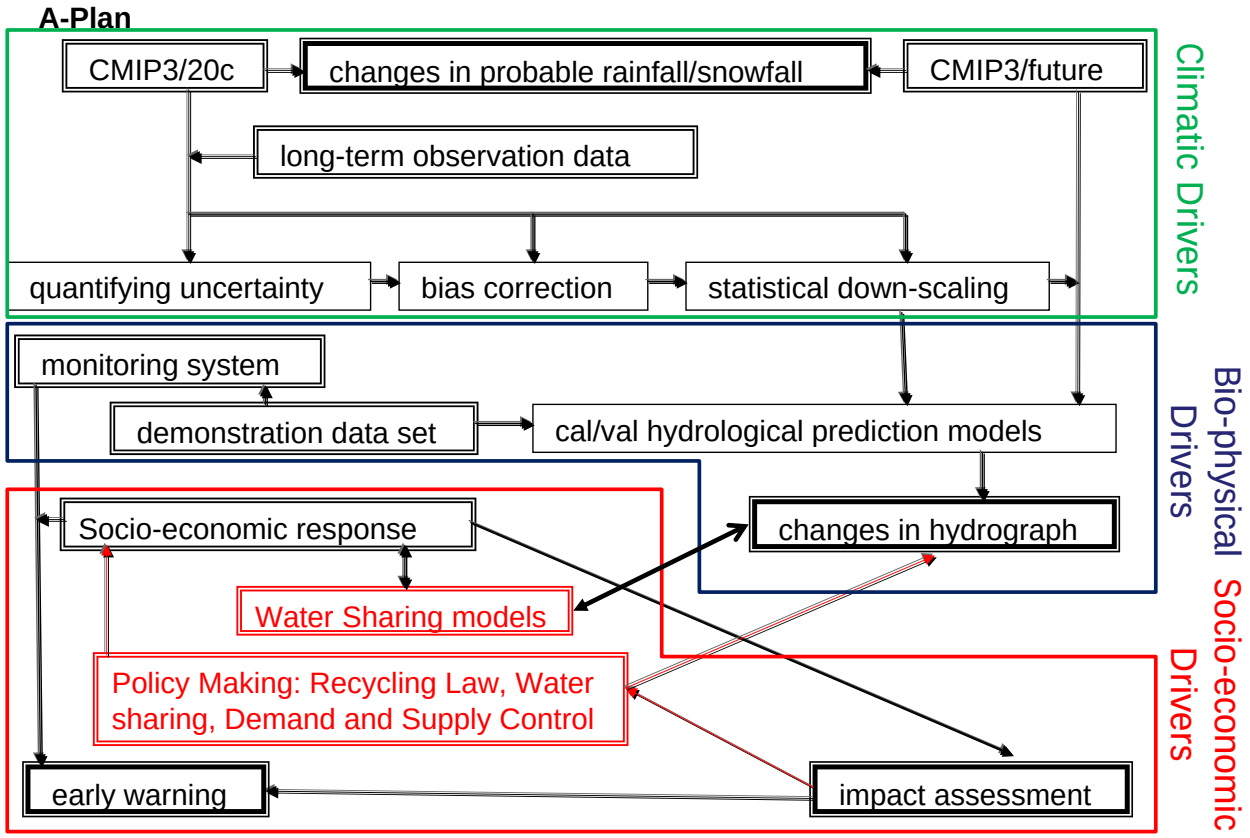
2
4
6
8
10
12
1900 1920 1940 1960 1980 2000 2020 2040 2060 2080 2100


Uzbekistan
Nepa
Pakistan
Bangladesh
India
Sri Lan
Malaysi
Observation Metadata Registration
Complete
Ongoing
Document Metadata Registration
Complete
Ongoing
Quality Controlling
Complete
Ongoing
Data Uploading
Complete
Ongoing
Google マップ

Data Integration and Analysis

Implementation Planning



AWCI Training Course
"Climate Change Assessment and Adaptation Study"

09:30 – 12:00	**2. Rainfall bias correction and downscaling methods by the University of Tokyo group**
09:30 – 10:00	2.1 Method introduction – lecture (Prof. Koike)
10:00 – 10:30	2.2 Climate Model Output Evaluation and Selection
10:30 – 11:00	2.3 Climate Model Output Download and gap-filling
11:00 – 11:15	Break
11:15 – 12:00	2.4 Rainfall Bias Correction
12:00 – 12:15	**Photo session (in front of the No. 1 Building)**
12:15 – 13:30	Lunch
13:30 – (14:30)	**2. Rainfall bias correction and downscaling methods by the University of Tokyo group – continue if necessary** If the session is completed earlier, the WEB-DHM part will begin earlier.
(14:30) – 18:00	**3. Hydrological model WEB-DHM (Water and Energy Budget Distributed Hydrological Model) use for the CCAA purposes by Dr. Lei Wang and the University of Tokyo team**
13:30 – 17:00	5. Multi-model Hydrological modeling in use for Climate Change assessment by Prof. Bae – Sejong University (including break)

Requirements for Climate Change Assessment and Adaptation

- Assessment of Changing Hazard
  usable information derived from climate projection models
- Assessment of Changing Hydrology
  integrated hydrological models with self-running capability
- Leading to Public Awareness and Effective Actions
  data integration for getting comprehensive knowledge

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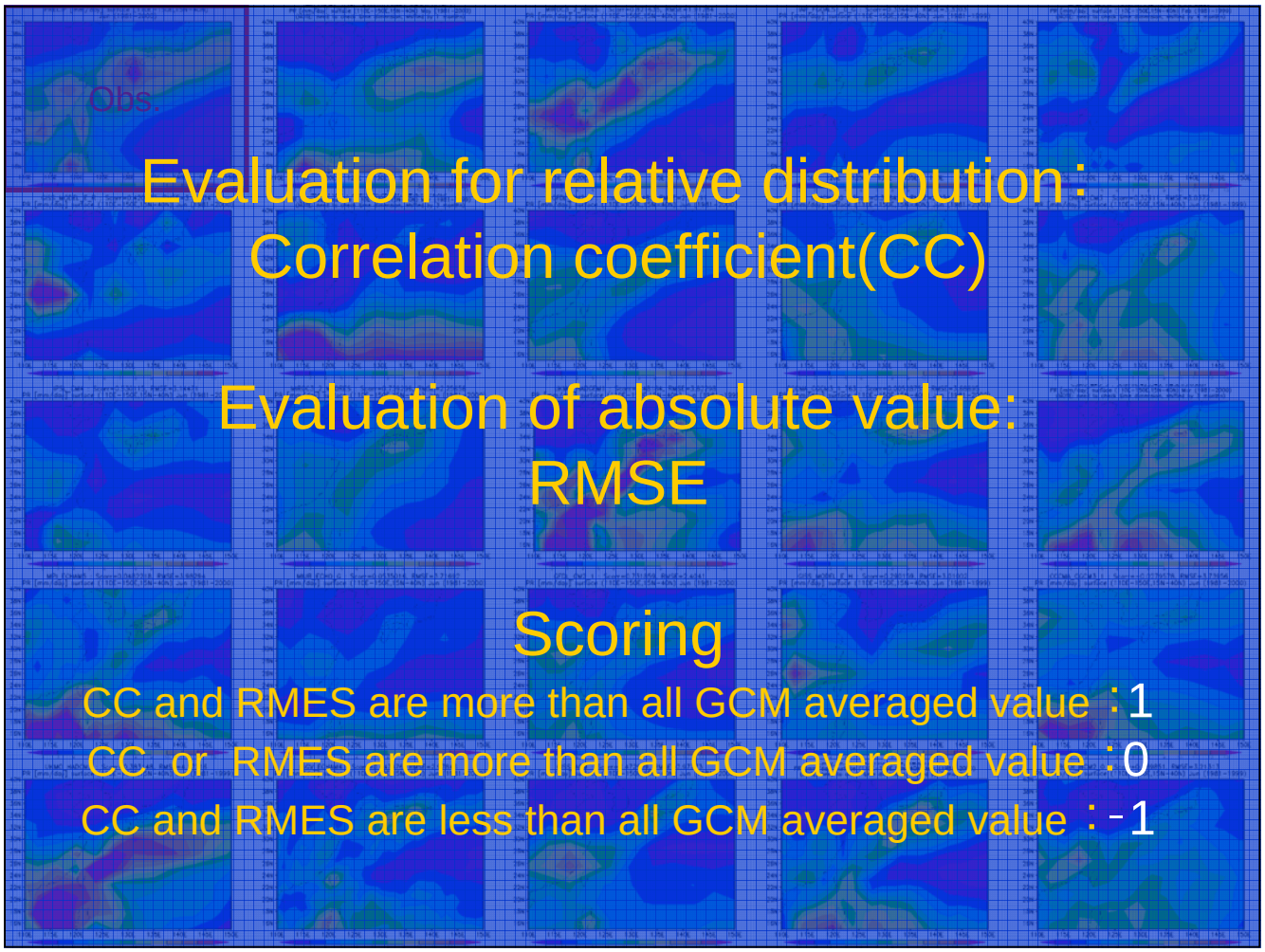

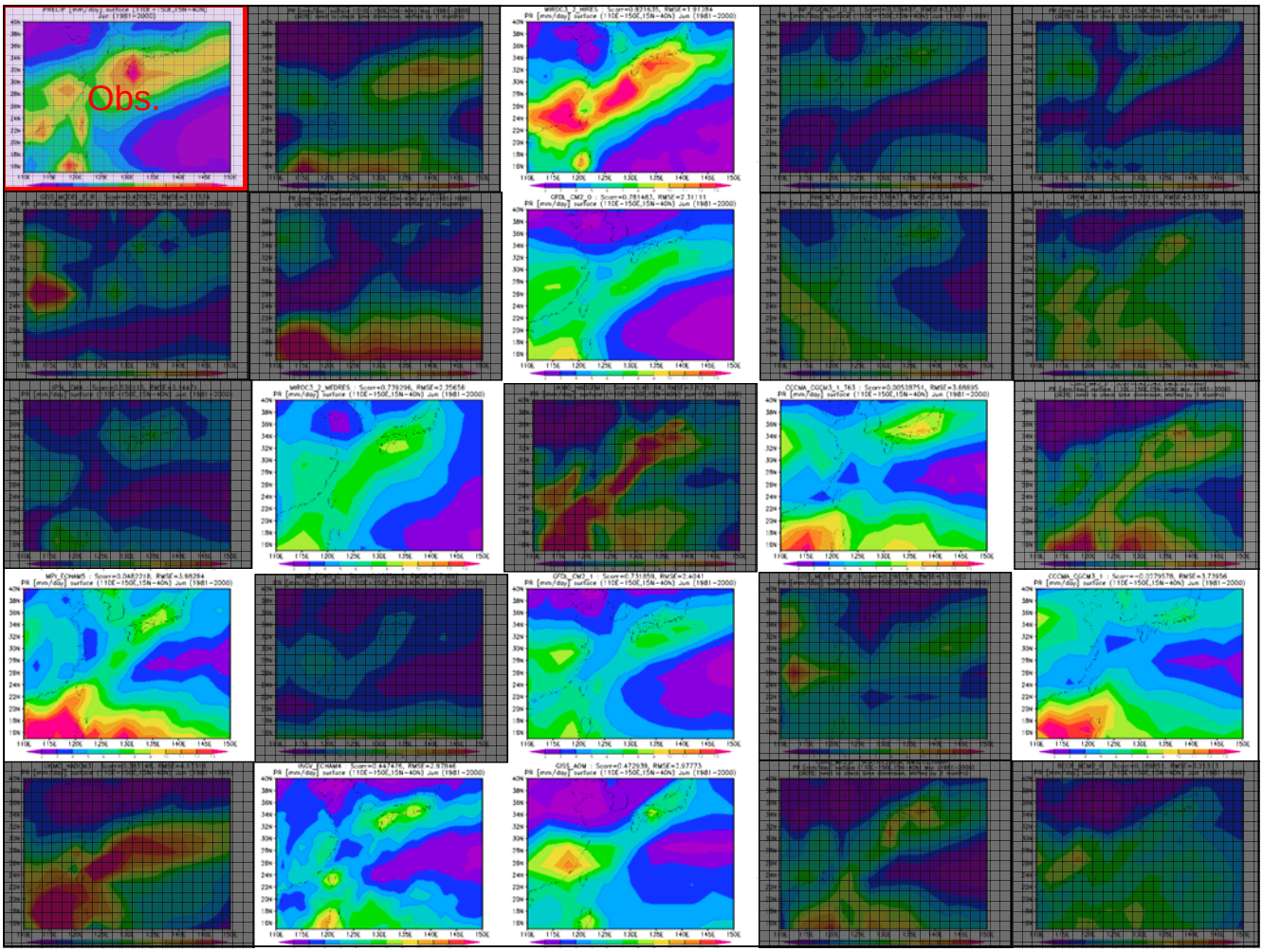

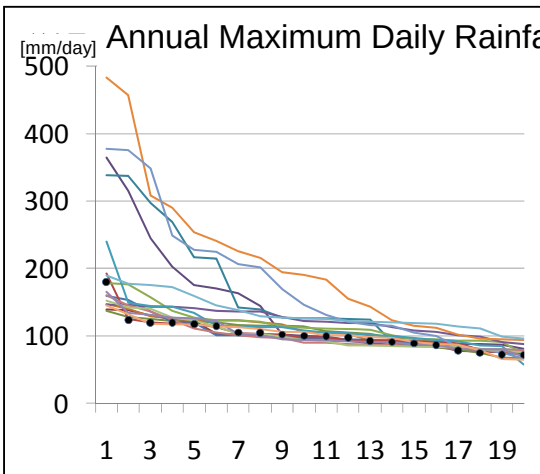

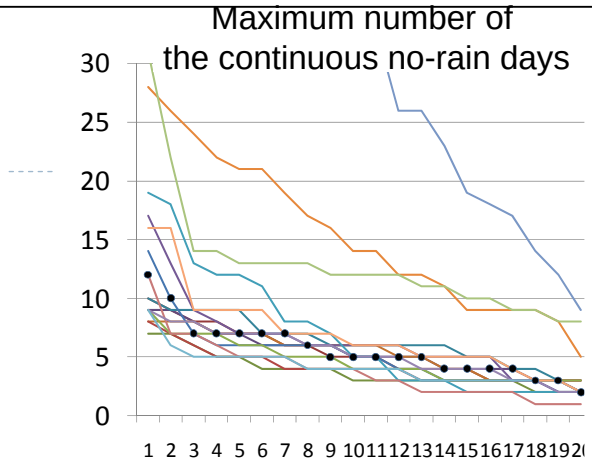

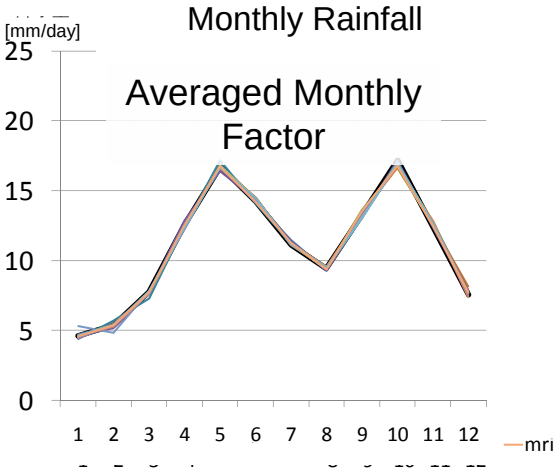

Main Problems with the GCM Outputs:

- Large Diversity
- Low Extreme Heavy Rainfall Rate
- Small Number of No Rainfall Day but Long Drizzle
- Low Seasonal Representation
- Low Spatial Distribution

→**Bias Correction, Downscaling, Multi-model Analysis Coupling with Hydrological Models**

Requirements for Climate Change Assessment and Adaptation

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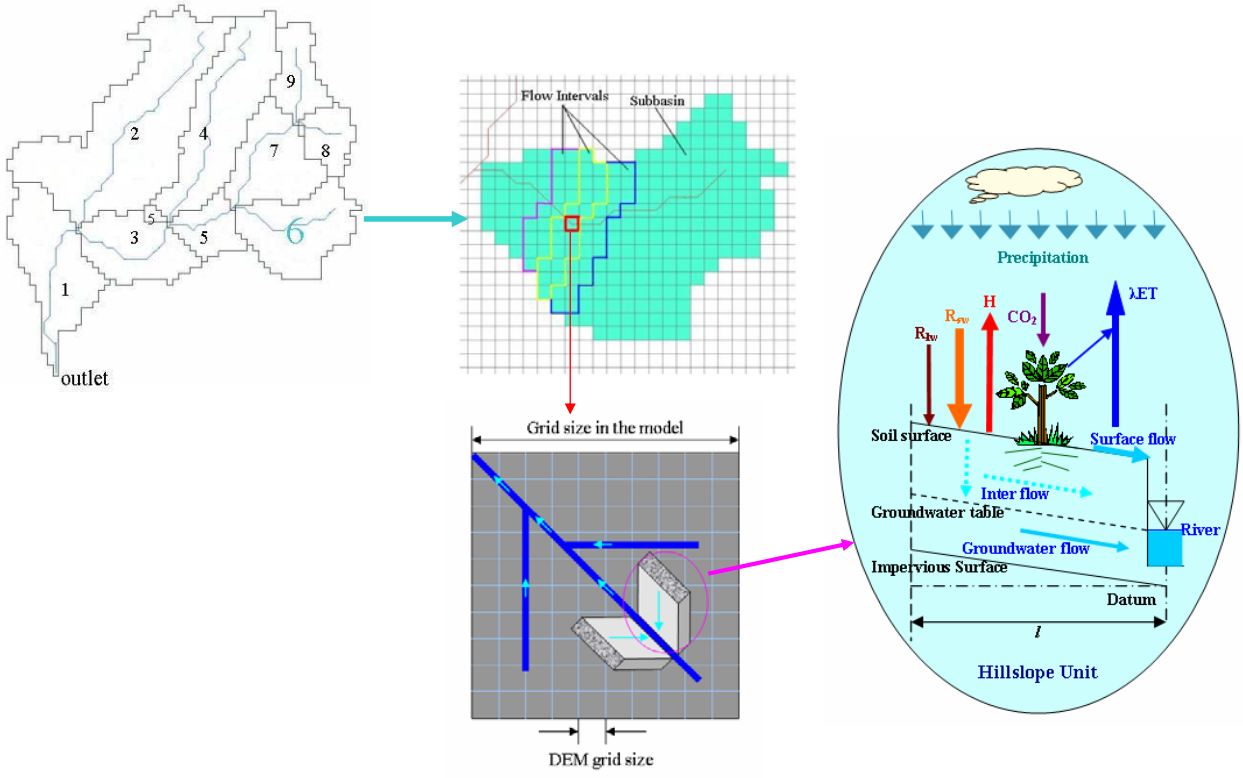
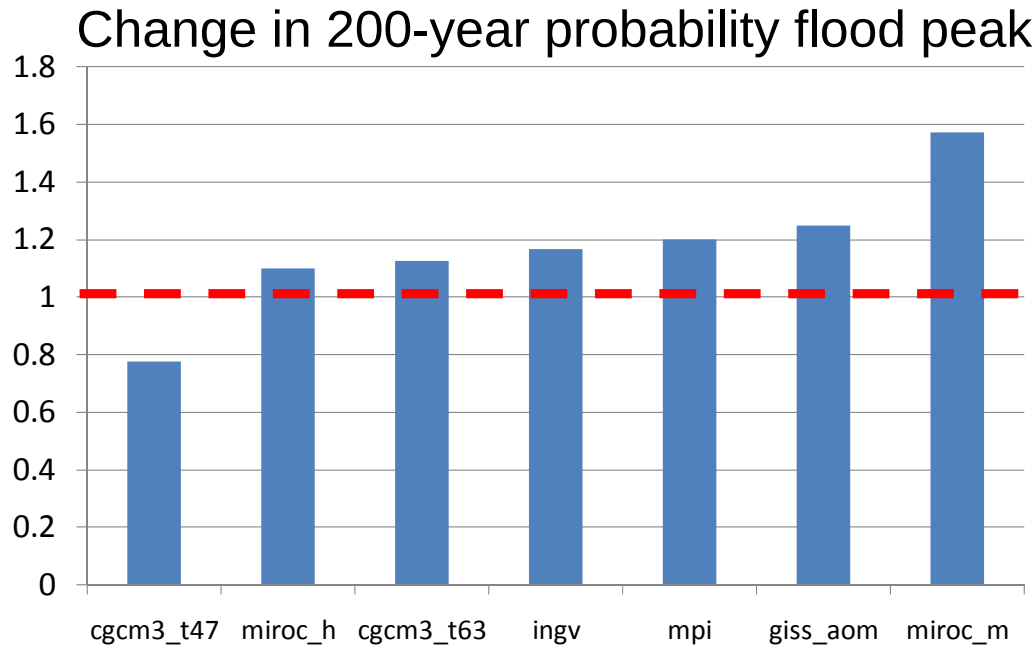
Wang, Koike et al. 2009

WEB-DHM
(Water and Energy Budget-based Distributed Hydrological Model)



Climate Change Impact Assessment



Climate Change Impact Assessment