

Understanding Global Water Resources

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More demand of water resources: unavoidable

Excessive irrigation, deforestation

Ex.: Decrease of runoff of Chao Praya River

Global warming -> unavoidable -> need assessment

Maybe more precipitation but with more variability

-> problem

Importance for human life in arid regions

Domestic (Japanese) big community on hydrology

Provide basis for river control and water resources
management

Local scale -> basin scale, continental scale,
global scale

Budget of water:

precipitation, soil moisture, evapotranspiration, etc.

GEWEX Asian Monsoon Experiment (GAME) project:

1996-2001 extended to 2003(?)

To understand variability of Asian monsoon and to improve prediction

Key: Water cycle with an emphasis on land-atmosphere interaction

Regional experiments

Siberia (Lena River region),

wet-China (Huaihe River basin),

Tibetan Plateau,

Tropical (Thailand, Chao Praya River basin)

Precipitation is the primary source of water

Contributions to and from TRMM

Post-GAME: Coordinated Enhanced Observation Period (CEOP) and others.

Asian-Australian Monsoon Experiment:

including ocean

CEOP: 2003-2004: satellite observation is the major key component

— Siberia, Mongolia, China (Tibet, Shanghai),

Western Pacific, Indonesia

-> good chance for preliminary study for GPM

Projects on the water cycle in arid zones: China, Mongolia, etc.

maybe 2002-2006