MAHASRI

(Monsoon Asian Hydro-Atmosphere Scientific Research and Prediction Initiative)

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- Data Management
- Water and Energy Budget Studies
- Worldwide Integrated Study of Extremes
- Stable Water Isotope Intercomparison Group
- Transferability
- Water Resource Applications Project

GLOBAL PRECIPITATION CLIMATOLOGY CENTRE

GRDC

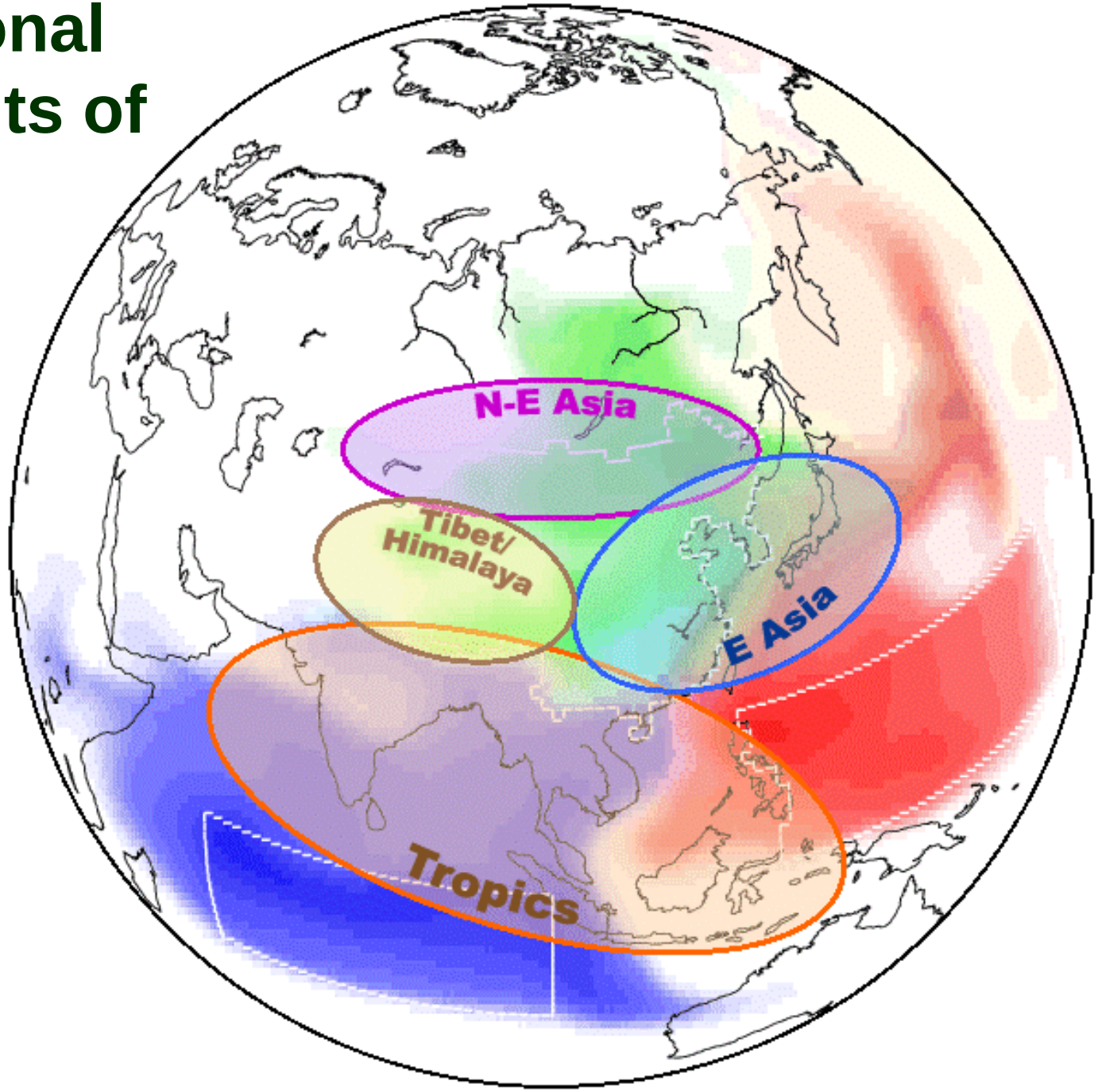
GSCP

CEOP

IAHS AISH

IAEA

Four Regional Components of MAHASRI



MAHASRI Objective

"To establish hydro-meteorological prediction system, particularly up to seasonal time-scale, through better scientific understanding of Asian monsoon variability".

Key Science Issues (1)

- Atmosphere-ocean-land interactions in the Asian monsoon system
- Role of orography on monsoon rainfall
- Scale-interactions among diurnal, synoptic, intraseasonal and seasonal variability of Asian monsoon
- Interactions of surface and boundary layer processes with convective cloud system
- Comparisons of hydro-meteorological characteristics among regional monsoon sub-systems

Key Science Issues (2)

- Effect of human influences (i.e., aerosols, land-use change, and greenhouse-gas increase) on hydro-meteorological variations in Asian monsoon regions
- Down-scaling and up-scaling for/with regional hydro-meteorological modeling and forecast
- Transferability of land-surface hydrological models and parameters for prediction of ungauged basins
- Incorporation of new technologies for observation and computation

International cooperation strategies

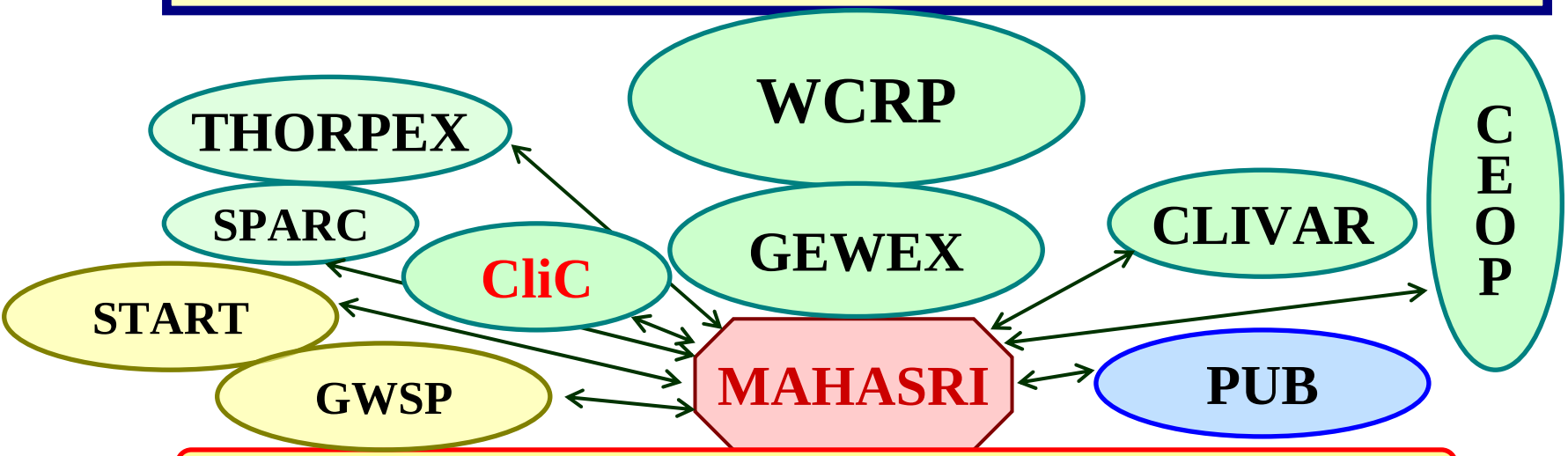
- Facilitate and/or improve hydro-meteorological observations in Asian monsoon countries in conjunction with GEOSS
- Cooperate with CEOP-II by observations, data and hydrometeorelogical studies in Asian monsoon
- Contribute IPY by conducting intensive observations in Asian monsoon region
- Capacity building for observation, analysis, data-integration and modeling
- Data exchange to establish an integrated database

Differences from GAME?

- More concrete collaboration with Asian hydrometeorological agencies and research institutes

  → Present proto-type model for the hydrometeorological prediction system
- Expansion the target field not only air-land interaction but also air-land-sea interaction, thus closer collaboration with CLIVAR community
- Expansion of the target area over the Maritime Continent, Western Pacific, and India, while retreat from Siberia
- Targeting also winter monsoon
- Main time-scale: weekly to seasonal for prediction, year-to-year variability for research including long-term data rescue

Framework

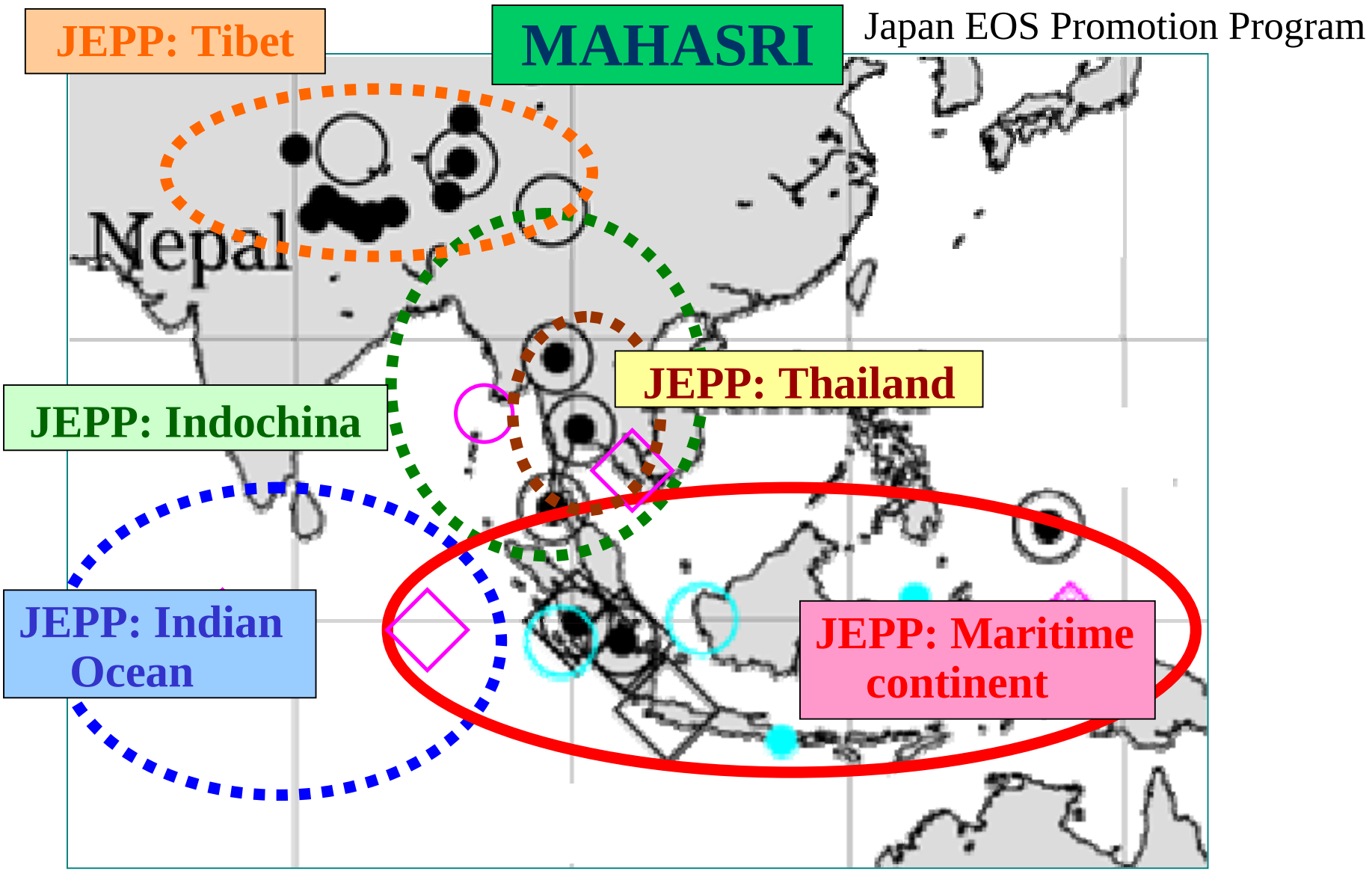


MAHASRI International Science Committee (MISC)

National Committee for MAHASRI

Project

MAHASRI and related Japanese Projects (JEPP)



Time Schedule

Research phases:

- September, 2005-September, 2006: Planning and preparation phase
- September, 2006-March, 2010: Research phase I (2006-07: Build-up new observation systems)
- 2008-09: IOP-year in conjunction with IPY (?)
- 2011-2015: Research phase II