Science and Technology Research Partnership for Sustainable Development (SATREPS)

SATREPS
- launched in 2008
- to contribute to the sustained research activities in developing countries by promoting capacity building
- operated by
  - JST (Japan Science and Technology Agency)
  - JICA (Japan International Cooperation Agency)

Targeted global issues
- environment/energy
- bioresources
- natural disaster prevention
- infectious diseases control

Ongoing SATREPS Projects:
49 Projects in 28 countries
Climate Variability Study and Societal Application through Indonesia-Japan “Maritime Continent COE” (SATREPS-MCCOE)

Manabu Yamanaka (Japan Agency for Marine-Earth Science and Technology)

Fadli Syamsudin (Agency for the Assessment and Application of Technology)
“SATREPS-MCCOE” Framework

Collaborative Research Agreement

Collaborative observations → Instructors → Policy proposals → Staffs

Capacity Building

Climate Variability Study and Societal Application through Indonesia-Japan “Maritime Continent COE”
(SATREPS-MCCOE)

Japan

Indonesia

JAMSTEC

Kyoto University

Agency for the Assessment and Application of Technology

Meteorological, Climatological and Geophysical Agency

National Institute of Aeronautics and Space

Other institutes/universities
“SATREPS-MCCOE” Outline

Observation Center Facility
- Ocean-Buoy Operations
- Radar Operations
- Contribution to GEOSS

Data Center Facility
- Temperature and salinity
- Rain cloud distributions
- Data network (NEONET)

“Maritime Continent COE”
- GEOSTECH/PUSPIPTEK (near Jakarta)

Research Center Facility
- Contribution to international scientific community / domestic policy
Capacity Building for Ocean-Buoy Observation System

Ocean-Buoy Manufacturing

- Slack line
- Nylon rope φ17
- Polypropylene rope φ19
- Glass floats
- Releaser
- Anchor 3.7t
- Wire rope 500m

Ocean-Buoy Operation

Data Management & Distribution
Capacity Building for Radar Operation and Research

Radar Operation

- Observing
  - Rainfall distribution and intensity
  - Wind

Research

★: Doppler Weather Radar
★: Wind Profiler
Prediction of Climate Variations and its Application in the Southern African Region

Toshio Yamagata
(Japan Agency for Marine-Earth Science and Technology)

S. G. H. Philander
(Applied Centre for Climate and Earth Systems Science)
Outline

• Capacity of seasonal climate prediction in South Africa will be enhanced, and
  • applied to management of environmental problems in the Southern African Region.
Capacity Building

Transfer of Modeling Capacity

Weather Research and Forecasting (WRF) model
- Installed at University of Pretoria in 2010
- to be used for regional climate prediction

University of Tokyo Coupled Model (UTCM)
- Installed at Council for Scientific and Industrial Research (CSIR) in 2010
- to be used for seasonal prediction

Lecture Series

- Lecture series on oceanography and meteorology
- every year at universities
- for graduate students and scientists

Schedule in 2011 winter:
- University of Cape Town: Feb. 23 - 25
- University of Pretoria & South African Weather Service (SAWS): Feb. 28 - Mar. 8