PECC International Project 2007-2009: Issues related to water management in island territories, coastal regions and isolated communities

#### The Global Water Issues

Mick Saito, Ph.D, P.E.(Env)















#### Question to be addressed

 The Global Water Issues: How can multilateral and domestic policies prevent or mitigate the negative impacts of changes in global water cycles on water availability and its quality?















### Multilateral Policies

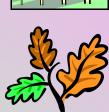
- Agenda 21
- Millennium Development Goals
- Johannesburg Plan of Implementation
- International Decade for Action 2005 2015: "Water for Life"
- Asia-Pacific Water Summit: December 2007













#### **UN-Water**

- Inter-agency mechanism for follow-up of the WSSD water-related decisions and the MDGs concerning water
  - Coordinate UN system, inter-agency information exchange, communication and collaboration with civil and private sectors
- Endorsed: 2003
- UN member organizations (24) and non-UN partner organizations















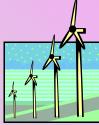
# UN Secretary-General's Advisory Board on Water & Sanitation

- Established: 2004
- Adoption of "Hashimoto Action Plan (HAP)": 2006
  - Water Operators Partnership, Financing,
    Sanitation, Monitoring, Integrated Water
    Resource Management, Water & Disaster
- Asian Dialogue: May 2007













## Climate Change (CC) Issues

- Implication to water issues
  - Change rainfall pattern
  - Increase tropical cyclone/typhoon
  - Decrease snowfall, snow melting
  - Sea water intrusion
  - Stagnant drainage, backwater
  - Expand water-related diseases
  - etc.















## Regulatory Framework

- Intergovernmental Panel on Climate Change (IPCC): 1988
- United Nations Framework Convention on Climate Change (UNFCCC): 1992
- Kyoto Protocol: 1997, effective: 2005
  - Reduction of Green House Gas (GHG) Emission
  - Kyoto Mechanism (Emissions Trading, Clean Development Mechanism, Joint Implementation Mechanism)













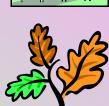
#### Financial Framework

- Kyoto Mechanism
  - ET, CDM, JI
- Global Environment Facility (GEF)
  - Climate Change, Biodiversity, International Water,
    Land Degradation, POPs, Ozone Depletion
  - Special Climate Change Fund (SCCF),
    Adaptation Fund (AF), Least Developed Countries
    Fund (LDCF), National Adaptation Plan of Action (NAPA)
  - Integrated Water Resource Management (IWRM)





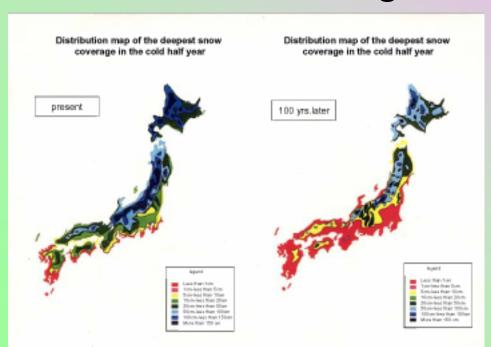






## Japanese Context of CC

- Less snowfall -> less water reserve
- More rainfall -> higher flush flood risk



Source: K. Takemura: Climate change and water cycle management in Japan





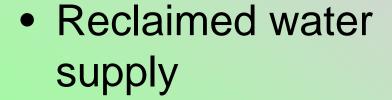






## Infrastructural Development

Bank raising of existing dams



Rainwater harvesting





















## Innovative Approach

- Team Minus 6%
  - A national movement that encourages the reduction of GHG emission in domestic sector
- CoolBiz campaign
  - A proposal of new business fashion that is comfortable in warm office (28°C)

















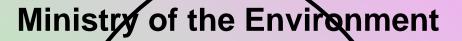




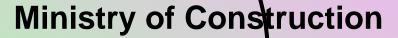




Water



Ministry of/Trade & Industry



Ministry of Foreign Affairs Ministry of Health & Welfare

Property Agency

Ministry of Agriculture & Fisher

Meteorological Agency

Japan Water Works Association







#### Pacific Context of CC

- Mitigation
  - Renewable energy including minihydropower generation
  - Reforestation
  - Improvement of dump site (CH<sub>4</sub> removal)
- Adaptation
  - Coastal erosion (sea wall erection)
  - Salt water intrusion (salt tolerant crops)
  - Frequent cyclone (early warning network)















## Suggestion

- "Water" is everybody's business involvement strategy
- Emphasis on Climate Change mitigation for industrialized countries and adaptation for small island countries
- Strengthening public-private partnership













