

WaterLinks

Planning for Climate Change Impacts in Manila (Philippines) through Partnership

2nd High Level Seminar on Environmentally Sustainable Cities
Kitakyushu, Japan
March 15, 2011

By Arie Istandar, WATSAN Team Leader ECO-Asia



about WATERLINKS

- Regional partnership network to facilitate water operator partnerships (WOPs) in Asia
- Founded by ADB, IWA and USAID in August 2008
- Environmental Cooperation – Asia (ECO-Asia) serves as WaterLinks secretariat and implements activities for USAID



about WATERLINKS

- Aims to coordinate, develop and implement joint WOPs support programs to help achieve the MDG targets
- Promote scale-up and replication of good practices
- To date, facilitated over 30 WOPs to help improve and expand safe water and sustainable sanitation access to more than 600,000 people



wop BACKGROUND

- Adapting to the impacts of climate change is a priority worldwide and in the Philippines
- Philippines has issued a National Framework on Climate Change for 2010-2022 with focus on reducing greenhouse gas emissions and adapting to the impacts of climate change
- Water resources remain vulnerable and water services providers face significant challenges in understanding and planning for possible climate impacts



wop BACKGROUND

- Coastal Metro Manila cities suffer from climate-related events
- Both Manila Water and Maynilad Water are located in Quezon City (ASEAN ESC member) and seek to:
 - Better understand the potential impacts of climate change in operations
 - Identify new approaches for integrating climate change related risks into planning process



wop BACKGROUND

- Palm Beach Water Utility Department (U.S.)
 - Implemented an approach to incorporate climate change considerations into strategic planning process including capital improvement plans
 - Included application of Water Evaluation and Planning System (WEAP) software and Multi-Criteria Decision Analysis
 - Willing and interested to share its practices and experiences
- USAID ECO-Asia is linking both Manila Water and Maynilad with Palm Beach to support knowledge transfer
- USAID ECO-Asia will engage additional technical support for WEAP training and climate-related risks assessments



wop
OBJECTIVE

- Increase awareness and/or understanding of climate change adaptation measures within both Maynilad and Manila Water
- Build capacity of both Maynilad and Manila Water to integrate climate change-related risks and factors into their planning processes
- Develop water resource analytical tools and methods (including WEAP) for Maynilad and Manila Water



wop
PLANNED ACTIVITIES

- Training for Manila Water and Maynilad on analytical tools application such as WEAP, risk management, XLRM framework
- Knowledge sharing by Palm Beach on its processes and methodologies that can be adopted by Manila Water and Maynilad
- Remote consultations and discussions between partners
- Preparation of a case study or toolkit demonstrating the process for preparing for climate change impacts for water service providers based on the WOP (and potentially others in ASEAN)



training topic
PLANNING PROCESS

- Acquire and/or develop data about the link between potential future climate conditions and risk (Risk Identification)
- Modify analytical frameworks to assess the impact of different climate regimes on desired system outcomes (Risk Assessment)
- Adopt a decision analytic framework that can evaluate adaptation strategies against climate-related risks (Risk Management)
- Incorporates the XLRM framework, WEAP, decision-making tools



training topic
XLRM FRAMEWORK

- Considerations for climate change risk identification, assessment and management
- Technical support in WOP to support framework application

Uncertainties (X)	Management Strategies (L)
<ul style="list-style-type: none"> • Climatic conditions • Hydrologic response to climate conditions • Demographic factors • Institutional and regulatory environment 	<ul style="list-style-type: none"> • Current management • Near-term investments, programs, pricing strategies • Signposts that trigger management changes or new investments • Deferred management changes and/or new investments
Models (R)	Outcomes (M)
<ul style="list-style-type: none"> • Climate models • Climate downscaling methods • Rainfall-runoff models • Water system and management models • Water quality models 	<ul style="list-style-type: none"> • Water demand • Supply reliability • Water quality • Environmental and recreational objectives • Cost (to agency and customers)



training topic
WEAP

- Integrated water resources planning tool to support decision-making and planning
- Can be used to
 - Represent current water resource and supply conditions in a given area
 - Explore various demand and supply options for balancing environment and development objectives
- <http://weap21.org>
- Palm Beach to share software application and results analysis in planning



next
STEPS

- Initiate WOP in April/May to develop joint program
- Implement WOP activities in next 9-2 months
- Prepare case study or toolkit in 2012
- Additional considerations:
 - Other methodologies used to analyze impact of climate change to water supply provision within ASEAN
 - Climate change adaptation platforms in ASEAN region



THANK YOU