

## **KEY RESULT AREA 1: DEVELOPING KNOWLEDGE AND LESSONS**

The Asia and Pacific region is by far the most populated region in the world, accounting for some 58% of the world's total population. However, an estimated 678 million people in Asia do not have access to safe drinking water and over 1.9 billion people in the region live without access to modern sanitation. Despite progress made over the last few years, several countries still have some way to go in meeting the Millennium Development Goals.

2 While the Asia Pacific region is one of great cultural, economic and environmental diversity, it is clear that there is a set of water-related challenges that are common across the entire Asia-Pacific region. Having faced water related challenges for many years, countries in the region have rich and diverse experiences which can be tapped and shared.

### **Objective: Knowledge Hubs**

3 Key Result Area (KRA) 1 of the Asia Pacific Water Forum (APWF) is Developing Knowledge and Lessons. Through the sharing of experiences and the building up of a network of water knowledge hubs and strengthening existing networks (e.g. UNESCO water related centers – see Box1), we can improve coordination on capacity development programmes and provide better guidance on water policy issues.

4 It is envisaged that knowledge hubs (KH) will deliver knowledge-based products and services that meet the practical needs of water organizations, and also serve as a focal point for strategic policy issues on proper water management. The target for these knowledge products and services are governments, private sector, civil society and water sector organizations to allow better project planning and implementation.

5 The World Water Assessment Programme (WWAP), the UN wide programme under the lead of UNESCO which has the monitoring role for MDGs and other targets, has already produced two issues of the triennial World Water Development Report (WWDR) in 2003 and 2006. One of major activities of WWAP is development of case studies in each region, at basin and country level in cooperation with partner agencies and experts. WWAP has developed four case studies in Asia Pacific region. Sharing challenges and lessons learned from each case study is significant for all countries in the region.

6 The UNESCO International Hydrological Programme (IHP) is an intergovernmental scientific cooperative programme in water resources. In the Asia and Pacific region, IHP has a strong network, including IHP National Committees in most countries and UNESCO field offices with water specialists in Jakarta (Regional Office for Science and Technology), New Delhi and Beijing. In addition, there are five newly established water related centers under the auspices of UNESCO. This network can make a substantial contribute considerably to the knowledge hub as provider and/or coordinator. The UNESCO-IHE Institute for Water Education (Delft, The Netherlands), devoted to graduate level education, has considerable experience in Asia, and nearly half of its 14,000 alumni come from the Asia Pacific Region. In this regard, IHE also contribute much to KRA1 in capacity building.

### **WaterHub: Proposed Knowledge Hub**

5 As lead agency for KRA 1, PUB proposes that WaterHub in Singapore serve as a KH for the APWF. WaterHub is a PUB facility which brings technology, learning and networking under one roof for the water industry. Through each of the core thrusts, it aims to support the water industry, break new ground with advanced technologies and research and development (R&D) work, build industry capabilities as well as provide opportunities for industry players to network locally and internationally.

6 The cornerstone of WaterHub's R&D arm is the Centre for Advanced Water Technology (CAWT). CAWT is an applied water research organization under Singapore Utilities International (SUI), which is a subsidiary of PUB. Through CAWT, WaterHub hopes to develop the best available water and wastewater technologies and solutions cost effectively.

7 WaterHub is also a venue where PUB works with local and overseas partners, industry bodies and academia to develop and deliver a range of structured training programmes to raise the professionalism of the workforce in the water industry. WaterHub plays host to courses, talks, seminars and organises study visits to PUB and industry partners' installations. WaterHub's existing collaborations include external agencies such as South East Asia Water Utilities Network (SEAWUN), the Asian Productivity Organisation (APO) and also ties up with the United States AID (US-AID) on training.

### **Proposed Workplan for KRA1**

8 It is proposed that we leverage on WaterHub to deliver capacity building workshops under KRA1 to share and exchange strategies for water resources management, water services, policies and best practices. Already, WaterHub is scheduled to organise the following training courses in 2007

#### Funded by Singapore

- (a) Senior Management Workshop in Integrated Water Resources Management – The Singapore Experience. Duration is 5 days for 20 persons. Target audience is senior management.
- (b) 24/7 Water Supply and Distribution Management. Duration is 5 days for 25 persons. Target audience is managers/engineers.
- (c) Used Water Management. Duration is 5 days for 25 persons. Target audience is managers/engineers.
- (d) Integrated Water and Wastewater Management Programme. Duration is 10 days for 30 persons. Target audience is senior management/engineers.

These courses are sponsored by the Singapore Ministry of Foreign Affairs under the Singapore Cooperation Programme. The dates for the courses are being confirmed.

#### Joint funding between Singapore and ADB under ATRIUM (Asia Training Research Initiative for Urban Management)

- (d) Singapore-ADB Urban Management Forum for Chinese Policy Makers in March 2007.
- (e) Singapore-ADB Forum on Urban Management for Indian Policy Makers in April 2007.

9 If further external funding can be made available, WaterHub will be able to organise additional capacity building programmes to share and exchange strategies (e.g. water resource management, water services, policies and best practices). This could take the form of workshops and possible topics could be Integrated Water resources Management (e.g. high-tech low cost solutions) and Public-Private Partnerships. WaterHub and UNESCO could also organise a case study workshop to share challenges and lessons learned from previous WWAP case studies in the region and to facilitate case study development which is significant for capacity building of each country in the region. This case study workshop could be held in conjunction with other workshop. A write-up on the proposed workshops is attached. PUB also welcomes collaboration with other parties interested in contributing to KRA 1. Possible partners include the Southeast Asian Water Utilities Network (SEAWUN).

## **Conclusion**

10 The output for KRA1 is to build up the knowledge base of the region through the setting up of KHS. This is a collective effort. As lead agency for KRA 1, Singapore is offering WaterHub as a KH to share best practices with the region and beyond. Already, WaterHub will be conducting several training programmes to share experiences and expertise. If additional funding support is available, WaterHub will also be able to conduct capacity building workshops.

11 UNESCO is offering support to KHS by sharing WWAP case studies and facilitating the linkage with IHP regional network and exploring the possibilities of cooperation of UNESCO-IHE. Through WaterHub and other potential KHS, we will be able to achieve the vision of building up a network to hubs to allow the region to better manage their water resources.

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## **WORKSHOP OUTLINE**

### **Capacity Building Workshop**

#### **Option 1**

**Workshop Title:** **Experiences in IWRM:**  
Knowledge sharing in Effective Water Resource Management & Capacity-Building – High tech, low cost solutions

**Duration, numbers:** 2-day workshop, 50 participants

**Description/ Theme:** Today, it is widely recognized that our water resources needs to be managed holistically for the benefit of all. This calls for delicate balancing of diverse and sometimes conflicting needs, conserving limited resources and dealing with natural variability of water resources by putting in place integrated and appropriate management systems.

This initiative on a IWRM workshop aims to bring to the forefront the principles and best practices in Integrated Water and Resources Management to participants.

Through a sharing of the region's best practices, the workshop is designed to address and develop capacity of national water agencies, and other waters operators to meet short-term and long-term needs in water services and water resource management.

The main focus areas include:

- Integrated Water Resource Management in Urban context: Managing demand and supply
- Water Conservation practices & Effective Implementation
- Tackling Unaccounted-For-Water (UFW)
- Water Pricing & Tariffs structures

The workshop will include expert speakers from ADB, JWP, GWP, PUB and other leading water professionals, and serve as a platform for facilitating discussions amongst the participating members.

## Option 2

**Workshop Title:** **Public-Private Partnerships (PPP):**

Collaborations to create value

**Duration, numbers:** 2-day workshop, 50 participants

**Description/ Theme:** The building up of water infrastructure to meet the needs of people is a long-term and capital-intensive investment project. Governments in different countries have varying abilities to finance such heavy outlay, as well as varying access to water financing options.

This workshop explores the PPP model to bring together the expertise, efficiency and resources of the private sector to water projects, which have traditionally been seen as the role of the state.

The workshop focuses on sharing the benefits of this partnership with successful case studies, while at the same time highlighting the potential pitfalls.

The main focus areas include:

- PPP Model
- How to build & sustain a PPP relationship
- Public Education
- Creating Ownership
- Specific International case studies/ Examples

The speakers from ADB, PUB and other parties who have carried out successful PPP projects will offer their experience and guidance on challenges and solution for Water Resource Management by effective use of PPP.

**Workshop title:** **Case study:**

(To be considered as joint activity with Option 1)

**Duration, numbers:** 2-day workshop, 50 participants

**Description/Theme:** Under the framework of WWAP, 4 case studies were implemented in Asia Pacific region.

One of the key objectives of the World Water Assessment Programme (WWAP) is to help countries improve their self-assessment capability by building on existing strengths and experiences. WWAP fulfils this mission by assisting in the preparation of case studies in countries around the world in order to highlight the state of water resources where different physical, climatic and socio-economic conditions prevail. In this regard, case studies show the diversity of circumstances and different human needs.

The second purpose of the case studies is to highlight the challenges that need to be addressed in the water resources sector. In the process, the skills and experience of both local water professionals and policy-makers are engaged and enhanced. The lessons learned, from both successes and failures, may be shared with other countries interested in addressing such issues.

In this context, the workshop aims to share challenges and lessons learned from case studies and to facilitate case study development in the future.

The main focus areas include:

- Challenges and Lessons learned from case studies of WWAP Phase1 and Phase2 in Asia Pacific region
- Common issues from case studies among participant countries
- Future cooperation through case study development in Asia Pacific region

The workshop will include expert speakers from ADB, JWF, GWP, WWAP and other leading water professionals, and serve as a platform for facilitating discussions amongst the participating members.

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## **PROPOSED BUDGET**

PUB is proposing the following funding requirement to carry out the proposed workshop for KRA 1:

<b><u>Programme</u></b>	<b><u>Total Funds Needed</u></b>	<b><u>Break-down</u></b>
Stock-taking and Capacity Building Workshops (50 participants per workshop)	<u>US\$ 150,000 per Workshop</u>	Accommodation: US\$22,500 @ US\$150 per participant per day (3 nights for 2 day workshop)  Travel & Air-Fare: US\$50,000 @ US\$1,000 per participant  Travel, Air-fare & Accommodation for speakers: US \$22,500  Meeting Venue, Training facilities and meals @ US\$ 40,000  Allowances & Incidental expenses @ \$15,000

PUB will bear a portion of this cost through in-kind contributions.

WWAP is proposing the following funding requirement to carry out the proposed work programme for KRA1. (The cost could be reduced if other workshop(s) proposed by Singapore PUB is jointly held.)

<b><u>Programme</u></b>	<b><u>Total Funds Needed</u></b>	<b><u>Break-down</u></b>
Case study Workshop for Sharing Lessons and Future Cooperation (50 participants per workshop)	<u>US\$ 87,500</u>	Accommodation: US\$22,500 @ US\$150 per participant per day (3 nights for 2 day workshop)  Travel & Air-Fare: US\$50,000 @ US\$1,000 per participant  Travel, Air-fare & Accommodation for WWAP Experts: US \$5,000  Meeting Venue, Training facilities @ US\$ 5,000  Allowances & Incidental expenses @ \$5,000



Box1

**Water -Related Centres under the auspices of UNESCO in Asia Pacific**

Regional Humid Tropics Hydrology and Water Resources Centre for South-East Asia and the Pacific (HTC Kuala Lumpur, Malaysia),
Regional Centre on Urban Water Management (RCUWM), Tehran, Iran
International Centre for Water Hazard and Risk Management (ICHARM), Tsukuba, Japan
International Center on Qanats and Historic Hydraulic Structures (ICQHHS), Yazd, Iran
International Research and Training Center on Erosion and Sedimentation (IRTCES), Beijing, China

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