

**Reports by UNESCO's Water-related Centres (category 1 and 2) on activities related to the IHP in the period July 2006 – May 2008**

**1. Basic information on the centre**

Name of the Centre		HTC Kuala Lumpur
Name of Director		Ir. Dr. Hj. Mohd Nor b. Hj. Mohd Desa
Name and title of contact person (for cooperation)		1. Norazizah bt. Abdul Kadir 2. Hezrin Haslinda bt. Hashim
E-mail		<a href="mailto:norazizah@water.gov.my">norazizah@water.gov.my</a> / <a href="mailto:hezrin@water.gov.my">hezrin@water.gov.my</a>
Address		No. 2, Jalan Ledang, Off Jalan Duta, 50480 Kuala Lumpur, Malaysia.
Website		<a href="http://htckl.org.my">http://htckl.org.my</a>
Location of centre		city/town : <u>Kuala Lumpur</u> country : <u>Malaysia</u>
Geographic orientation *		<input type="checkbox"/> global <input checked="" type="checkbox"/> regional
Year of establishment		1999
Themes	Focal Areas ♦	<input type="checkbox"/> groundwater <input checked="" type="checkbox"/> urban water <input type="checkbox"/> arid / semi-arid zones <input checked="" type="checkbox"/> humid tropics <input type="checkbox"/> droughts and floods <input type="checkbox"/> sediment transport and management <input checked="" type="checkbox"/> water and environment <input checked="" type="checkbox"/> ecohydrology <input type="checkbox"/> water law and policy <input type="checkbox"/> transboundary river basins/ aquifers <input checked="" type="checkbox"/> IWRM <input type="checkbox"/> global and climate change <input type="checkbox"/> mathematical modelling <input type="checkbox"/> social and cultural dimensions of water <input type="checkbox"/> water education <input type="checkbox"/> other: <u>stormwater management, water hazard.</u>
	Scope of Activities ♦	<input type="checkbox"/> vocational training <input checked="" type="checkbox"/> postgraduate education <input type="checkbox"/> continuing education <input checked="" type="checkbox"/> research <input type="checkbox"/> institutional capacity-building <input checked="" type="checkbox"/> advising/ consulting <input type="checkbox"/> software development <input type="checkbox"/> other: (please specify) _____
Support bodies <sup>1</sup>		Department of Irrigation and Drainage Malaysia/ The Government of Malaysia
Hosting organization <sup>2</sup>		-
Sources of financial support <sup>3</sup>		The Government of Malaysia/ UNESCO
Existing networks and cooperation <sup>4</sup>		UNESCO/ICHARM/RSC for Southeast Asia and The Pacific/ Partner of the GWP/ IWA/ APAC Water-related Centre Category II

\* check on appropriate box

♦ check all that apply

<sup>1</sup> please specify bodies that cover the operational costs of the centre, and other essential costs such as salaries and utility bills, and that provide institutional support to ensure centre's sustainability

<sup>2</sup> if different from support bodies

<sup>3</sup> please specify sources of main budgetary and extrabudgetary funds to implement projects

<sup>4</sup> please write international networks, consortiums or projects that the centre is part of, or any other close links that the centre has with international organizations or programmes, which are not already mentioned above

Governance	<input checked="" type="checkbox"/> director and governing board (Coordination Committee) <input type="checkbox"/> other: (please specify) _____ Link to election of board members to the IHP IGC and hosting country IHP National Committee _____ Frequency of meetings: once every <u>1</u> year(s) <input checked="" type="checkbox"/> Existence of UNESCO presence at meetings (UNESCO Jakarta Office)
Institutional affiliation of director	IWA/IAHS/Partner of the GWP
Number of staff and types of staff	total number of staff (full-time, or equivalent) : <u>10 persons</u> number of staff who are water experts: <u>1 person</u> number of visiting scientists and postgraduate students: <u>1 person</u>
Annual turnover budget in USD	Operational = USD 150,000.00 Programmes and Activities = USD 300,000.00

## 2. Activities undertaken in the framework of IHP in the period July 2006 – May 2008

- 2.1 Educational activities (i.e., those with accreditation) that directly contributed to the IHP-VI and WWAP  
*Please include here those activities which led to accreditation of degrees, or those held in formal school settings.*
- Advisory to Open University Malaysia (OUM) for postgraduate programme
- 2.2 Research activities that directly contributed to the IHP-VI and activities by WWAP  
*Please include research/applied projects outputs such as publications that directly contributed to the IHP-VI and WWAP objectives*
- National Level
    - Development of Temporal Pattern of Urban Areas and PMP Derivation for Peninsular Malaysia.
    - Development of Runoff Characteristics.
    - Detailed Hydrological Balance Study of Wetlands.
    - Development of Runoff Generation and Catchment Responses in Forested and Agricultural Sites.
    - Water Sensitive Urban Drainage Design – Local Scale
  - Regional Level
    - Integrated and Multidisciplinary Research On Flood Hazard Assessment In Johor Malaysia.  
(HTCKL/ ICHARM-Japan)
    - Regional consultation on water education and training in Asia - development of a strategic framework (education)  
(HTC KL/ ICHARM-Japan/AIT-Thailand/ APCE-Indonesia)
    - Flood Forecasting and warning system for tropical regions (research)  
(HTC KL/ ICHARM-Japan/ APCE-Indonesia)
    - Compilation of major flood events in the region (outreach)  
(HTC KL/ ICHARM-Japan/ AIT-Thailand/ APCE-Indonesia)

2.3 Training activities that directly contributed to the IHP-VI and WWAP objectives

- International Seminar On Climate Variability, Change and Extreme Weather Events, National University of Malaysia, Bangi, Malaysia, February 2008.
- 2<sup>nd</sup> International Conference On Managing Rivers In the 21<sup>st</sup> Century : Solutions Towards Sustainable River Basin, Kuching Sarawak, 6<sup>th</sup> - 8<sup>th</sup> June 2007.
- The Regional Short Training Course on Stormwater Management , KL December 2007.
- Malaysia World Water Day 2007, Kuala Terengganu, Terengganu, Malaysia, 11-16 April 2007.
- National Conference on Water for Sustainable Development Towards a Developed Nation by 2020, Port Dickson, Negeri Sembilan, Malaysia, July 2006.

**3. Collaboration and linkages**

3.1 Participation in major international networks, programmes, partnerships with other UN or other International Agencies, media and professional bodies

- Networking/ Partnerships
  - UNESCO
  - ICHARM-Japan
  - RCUWM-Tehran
  - RCTWS-Egypt
  - AIT-Bangkok
  - UNESCO Jakarta Office
  - UNESCO Water Centers
  - Partner of the GWP
  - International Water Association (IWA)
  - Joint Committee on Urban Drainage (JCUD)
  - CapNet
- Trainings
  - 3<sup>rd</sup> SEA Water Forum, PWTC Kuala Lumpur, Malaysia, 22<sup>nd</sup> -27<sup>th</sup> October 2007.
  - East and Southeast Asia Regional Seminar on Flood Hazard Mapping, Kuala Lumpur, Malaysia, 7<sup>th</sup> - 9<sup>th</sup> February 2007

3.2 Participation in meetings related to the IHP and UNESCO (e.g., the UNESCO General Conference, the UNESCO Executive Board, the IHP Intergovernmental Council and/or other meetings organized by IHP)

- International/ Regional
  - Asia Pacific Category II Water-related Centres Meeting, 26<sup>th</sup>-27<sup>th</sup> September 2007, Bangkok, Thailand.
  - Directors of UNESCO's Water-related Centres Meeting, 11<sup>th</sup>-12<sup>th</sup> June 2007, Delft, the Netherlands.
  - IHP Regional Steering Committee Meeting for Southeast Asia and Pacific, 22-23 November 2007, Manila, Philippines.
  - Co-ordination Committee Meeting, 22 November 2007, Manila, Philippines.
  - AP FRIEND Meeting, 22 November 2007, Manila, Philippines.
- National
  - UNESCO Workshop; Proposed Positions and Strategic Planning by Ministry of Science, Technology and Innovation, Malaysia, 4-7 May 2008.

- Malaysia National Committee for International Hydrological Programme Meeting (MIHP), 2007.
- 3.3 Collaboration and networking with other UNESCO category 1 or 2 institutes/ centres
  - 3.3.1 cross-appointment of directors of the category 1 or 2 institutes or centres on the governing board
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  - 3.3.2 exchange of information on activities such as training/educational materials, and funding opportunities
    - Proceedings
      - National Conference on Water for Sustainable Development Towards a Developed Nation by 2020, Port Dickson, Negeri Sembilan, Malaysia, July 2006
      - The Regional Short Training Course on Stormwater Management (PP Grant – 2006/7), Kuala Lumpur, Dec 2007
    - Publications/ Reports
      - Mohd Nor M.D. and P.R. Rakhecha (2006). Deriving the highest persisting monthly 24-hour dew points in Malaysia for the estimation of PMP. *Climate Variability and Change: Hydrological Impacts* (Proceeding of the Fifth FRIEND World Conference held at Havana, Cuba, November 2006), IAHS Publ. 308, 2006.
      - M.N. Desa M. and P.R. Rakhecha (2007). Probable Maximum Precipitation for 24-hr duration over and equatorial region : Part 2 - Johor, Malaysia. *Jour. Atmospheric Research* 84 (2007) 84-90.
      - Mohd. Nor, M. D. (2007). The reality of Integrated Flood Management : What needs to be done? *Proceedings 3<sup>rd</sup> SEA Water Forum 2007*.
      - Mohd Nor Mohd Desa (2008). Final Report, Development of Temporal Pattern of Urban Areas and PMP Derivation for Peninsular Malaysia submitted to Ministry of Science, Technology and Innovation, Malaysia, PN: 02-03-08-0002-EA002.
      - M.N. Desa M. and P.R. Rakhecha (2008). On Secular Changes In The Extreme Rainfalls Over Humid Tropical Region of Peninsular Malaysia submitted to *Journal of Hydrologic Environment, International Hydrologic Environmental Society*, 15 April 2008.
    - Published activities conducted through HTC Kuala Lumpur website (<http://htckl.org.my>)
  - 3.3.3 exchange of staff, most notably professionals and students
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  - 3.3.4 implementation of joint activities, such as workshops, conferences, training programmes, joint projects, field visits, software and data sharing, knowledge exchange and publications
    - Research
      - Integrated and Multidisciplinary Research On Flood Hazard Assessment In Johor Malaysia. (*HTCKL/ ICHARM-Japan*).
      - Regional consultation on water education and training in Asia
        - development of a strategic framework (education) (*HTC KL/ ICHARM-Japan/AIT-Thailand/ APCE-Indonesia*).
      - Flood Forecasting and warning system for tropical regions (research) (*HTC KL/ ICHARM-Japan/ APCE-Indonesia*).

- Compilation of major flood events in the region (outreach) (*HTC KL/ ICHARM-Japan*).
  - Data Archive
    - Asia Pacific FRIEND - Asian Pacific Water Archive  
- Central Node : HTC KL  
(<http://htckl.org.my/apfriend/wa/index.shtml>)
  - Trainings
    - The Regional Short Training Course on Stormwater Management, Kuala Lumpur, Dec 2007 - (HTC KL/ UNESCO Jakarta Office).
- 3.4 Relationships with the UNESCO field office whose jurisdiction covers the country of location
- Good relationship with UNESCO Jakarta Office
- 3.5 Relationship with the UNESCO National Commission and the IHP National Committee in the country of location
- Good relationship with:
    - Malaysian National Commission for UNESCO
    - Malaysia National Committee for International Hydrological Programme (MIHP)
- 3.6 Relationship with other UNESCO-related networks, such as UNESCO Clubs, ASPnet, and UNESCO chairs
- Intergovernmental Oceanographic Commission of UNESCO (IOC) through the Ministry of Science, Technology and Innovation, Malaysia
  - National Oceanography Directorate (NOD) Malaysia through the Ministry of Science, Technology and Innovation, Malaysia
  - International Science, Technology, Innovation Centre (ISTIC) for South-South Corporation, under the Auspices of UNESCO, Category II UNESCO Centre hosted by the Ministry of Science, Technology and Innovation, Malaysia
  - National Point Contact Representative (NPCR) Man and Biosphere (MAB), National University of Malaysia

#### 4. Communication

- 4.1 Communication and knowledge dissemination activities undertaken in the framework of IHP
- Trainings
    - National Conference on Water for Sustainable Development Towards a Developed Nation by 2020, Port Dickson, Negeri Sembilan, Malaysia, July 2006
    - East and Southeast Asia Regional Seminar on Flood Hazard Mapping, Kuala Lumpur, Malaysia, 7<sup>th</sup> - 9<sup>th</sup> February 2007.
    - 2<sup>nd</sup> International Conference On Managing Rivers In the 21<sup>st</sup> Century : Solutions Towards Sustainable River Basin, Kuching Sarawak, 6<sup>th</sup> - 8<sup>th</sup> June 2007.
    - 3<sup>rd</sup> SEA Water Forum, PWTC Kuala Lumpur, Malaysia, 22<sup>nd</sup> - 27<sup>th</sup> October 2007.
    - The Regional Short Training Course on Stormwater Management, Kuala Lumpur, 3<sup>rd</sup> – 7<sup>th</sup> December 2007 - (HTC KL/ UNESCO Jakarta Office).
    - International Seminar On Climate Variability, Change and Extreme Weather Events, National University of Malaysia, Bangi, Malaysia, 26<sup>th</sup> – 27<sup>th</sup> February 2008.

- Proceedings
  - National Conference on Water for Sustainable Development Towards a Developed Nation by 2020, Port Dickson, Negeri Sembilan, Malaysia, July 2006
  - The Regional Short Training Course on Stormwater Management (PP Grant – 2006/7), Kuala Lumpur Dec 2007
- Publications/ Reports
  - Mohd Nor M.D. and P.R. Rakhecha (2006). Deriving the highest persisting monthly 24-hour dew points in Malaysia for the estimation of PMP. *Climate Variability and Change: Hydrological Impacts* (Proceeding of the Fifth FRIEND World Conference held at Havana, Cuba, November 2006), IAHS Publ. 308,2006.
  - M.N. Desa M. and P.R. Rakhecha (2007). Probable Maximum Precipitation for 24-hr duration over and equatorial region : Part 2 - Johor, Malaysia. *Jour. Atmospheric Research* 84 (2007) 84-90.
  - Mohd. Nor, M. D. (2007). The reality of Integrated Flood Management : What needs to be done? *Proceedings 3<sup>rd</sup> SEA Water Forum 2007*.
  - Mohd Nor Mohd Desa (2008). Final Report, Development of Temporal Pattern of Urban Areas and PMP Derivation for Peninsular Malaysia submitted to Ministry of Science, Technology and Innovation, Malaysia, PN: 02-03-08-0002-EA002.
  - M.N. Desa M. and P.R. Rakhecha (2008). On Secular Changes In The Extreme Rainfalls Over Humid Tropical Region of Peninsular Malaysia submitted to *Journal of Hydrologic Environment*, International Hydrologic Environmental Society, 15 April 2008.
- Published activities conducted through HTC Kuala Lumpur website (<http://htckl.org.my>)

#### 4.2 Policy documents and advice

- UNESCO Workshop; Proposed Positions and Strategic Planning by Ministry of Science, Technology and Innovation, Malaysia, 4-7 May 2008.

### 5. Update on Centre Operations

#### 5.1 Membership of the Board of Governors during designated period

- IHP National Committee Chairman of Southeast Asia and Pacific
- Co-ordination Committee

#### 5.2 Key decisions made (attach minutes of meetings)

- Meeting Report - Meeting of UNESCO's Asia-Pacific Category II Water-related Centres, Bangkok, Thailand, 26-27 September 2007 (Refer Attachment)
- Minute of Meeting - 11<sup>th</sup> Co-Ordination Committee Meeting of the Regional Humid Tropics Hydrology and Water Resources Centre for Southeast Asia and the Pacific, Intercontinental, Manila, Philippines, 22 November 2007 (Refer Attachment)

### 6. Assessment of the Centre's Impacts

#### 6.1 Science Impacts (Major contributions to the science, technology, education, and regional and/or international cooperation in the field of water)

#### 6.2 Knowledge Transfer Impacts (Major achievements in the dissemination of knowledge and technology transfer)

- 6.3 Policy Impacts (advice sought by government and other bodies and evidence of inputs into policy arena)
- No evaluation has been conducted so far but there is a plan for future.

## 7. Future activities that will contribute directly to IHP and/or to WWAP

### 7.1 Operational Plan (2008-2009) (attach operational plan for 2008-09 if available)

- Research (Regional)
  - Integrated and Multidisciplinary Research On Flood Hazard Assessment In Johor Malaysia. (*HTCKL/ ICHARM-Japan*).
  - Regional consultation on water education and training in Asia - development of a strategic framework (education) (*HTC KL/ ICHARM-Japan/AIT-Thailand/ APCE-Indonesia*).
  - Flood Forecasting and warning system for tropical regions (research) (*HTC KL/ ICHARM-Japan/ APCE-Indonesia*).
  - Compilation of major flood events in the region (outreach) (*HTC KL/ ICHARM-Japan*).
- Research (National)
  - Leachate Problem in Landfills Area – Drainage System of Landfill
  - Roles of Constructed Wetlands for Stormwater Management
  - Threshold of Stormwater Parameters on Hillside Drainage System - Development of Mudflows Warning System
  - Event Mean Concentration (EMC)
  - Effectiveness of Erosion and Sediment Control Measures
  - Bio-Remediation Media for Stormwater Management
  - The Application of X-Moz Controlled Released Block In Drainage System Against Mosquito Breeding
- Data Archive
  - Asia Pacific FRIEND - Asian Pacific Water Archive  
- Central Node : HTC KL  
(<http://htckl.org.my/apfriend/wa/index.shtml>)

### 7.2 Strategic Plan linked with IHP-VII (attach strategic plan for 2008-11 if available)

To be formulated in the near future.

## 8. Annexes

### 8.1 List of publications released by the centre (there can be overlap with those listed in 2.2 above)

- Proceedings
  - National Conference on Water for Sustainable Development Towards a Developed Nation by 2020, Port Dickson, Negeri Sembilan, Malaysia, July 2006
  - The Regional Short Training Course on Stormwater Management (PP Grant – 2006/7), Kuala Lumpur, Dec 2007
- Publications/ Reports
  - Mohd Nor M.D. and P.R. Rakhecha (2006). Deriving the highest persisting monthly 24-hour dew points in Malaysia for the estimation of PMP. *Climate Variability and Change: Hydrological Impacts* (Proceeding of the Fifth FRIEND World Conference held at Havana, Cuba, November 2006), IAHS Publ. 308,2006.

- M.N. Desa M. and P.R. Rakhecha (2007). Probable Maximum Precipitation for 24-hr duration over and equatorial region : Part 2 - Johor, Malaysia. Jour. Atmospheric Research 84 (2007) 84-90.
- Mohd. Nor, M. D. (2007). The reality of Integrated Flood Management : What needs to be done? Proceedings 3<sup>rd</sup> SEA Water Forum 2007.
- Mohd Nor Mohd Desa (2008). Final Report, Development of Temporal Pattern of Urban Areas and PMP Derivation for Peninsular Malaysia submitted to Ministry of Science, Technology and Innovation, Malaysia, PN: 02-03-08-0002-EA002.
- M.N. Desa M. and P.R. Rakhecha (2008). On Secular Changes In The Extreme Rainfalls Over Humid Tropical Region of Peninsular Malaysia submitted to Journal of Hydrologic Environment, International Hydrologic Environmental Society, 15 April 2008.

8.2 List of training courses conducted (there can be overlap with those listed in 2.3 above)

- International Seminar On Climate Variability, Change and Extreme Weather Events, National University of Malaysia, Bangi, Malaysia, February 2008.
- 2<sup>nd</sup> International Conference On Managing Rivers In the 21<sup>st</sup> Century : Solutions Towards Sustainable River Basin, Kuching Sarawak, 6<sup>th</sup> - 8<sup>th</sup> June 2007.
- The Regional Short Training Course on Stormwater Management , KL December 2007.
- Malaysia World Water Day 2007, Kuala Terengganu, Terengganu, Malaysia, 11-16 April 2007.
- National Conference on Water for Sustainable Development Towards a Developed Nation by 2020, Port Dickson, Negeri Sembilan, Malaysia, July 2006.



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## **MEETING REPORT**

**Meeting of UNESCO's Asia-Pacific Category II Water-Related Centres  
Bangkok, Thailand, 26-27 September 2007**

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## INTRODUCTION

The Meeting of Asia-Pacific Category II Water-Related Centers was held at UNESCO Bangkok Office, Thailand, from 26 to 27 September 2007. The aim of the meeting was to consider the role of category II centers and to enhance cooperation among UNESCO Category II water-related Centres in the Asian and Pacific Region.

The meeting was attended by twenty-five participants both from ASPAC Centres and ASPAC UNESCO Field Offices.

The UNESCO Category II Centres were represented by:

- Humid Tropics Centre (HTC), Malaysia,
- International Centre for Water Hazard and Risk Management (ICHARM), Japan,
- International Centre on Qanats & Historic Hydraulic Structures (ICQHS), Yazd, Iran, and the
- International Research and Training Centre on Erosion and Sedimentation (IRTCES), China.

The Regional Centre on Urban Water Management (RCUWM), Tehran could not attend but its activities were reported by UNESCO Tehran Office.

The establishing Asian Pacific Centre for Ecohydrology (APCE), Indonesia, and the International Centre of Water for Food Security (IC-WATER) Australia also attended as did delegates from WEM-AIT Bangkok (Water Engineering & Management, Asian Institute of Technology).

UNESCO Field Offices were represented by Apia, Beijing, Jakarta, New Delhi and Tehran. (Please see Annex III for complete list of participants).

The Japan Water Forum Secretariat was also invited to attend the meeting and to report on its activities.



## SUMMARY

During the first day presentations were provided by representatives from the different centres and UNESCO Field Offices (FOs) including:

- a brief presentation of Mr. Mohammed Nor on the “Results of the meeting of the Directors of UNESCO’s Water Related Centres”, held in June 2007 in Delft,
- presentations of each centre on its activities and fields of application,
- presentations of FOs describing the activities implemented together with water centres,
- a report from the Japan Water Forum Secretariat, and
- a presentation by Mr. H. Gijzen on a possible SWITCH Asia project as an example for cooperation between centres and FOs.

Participants then agreed to increase cooperation and linkages between the Asia-Pacific Category II Water-Related Centers by addressing the priority follow-up actions decided at the global meeting held at IHE, Delft, the Netherlands, in June 2007.

Several participants recommended that the Directors of the centres should serve in the IHP National Committees in the countries where they are located, thereby strengthening the institutional ties between the centres and the IHP programme.

The meeting recognized the need to both link centres with each other, while also strengthening the connection between the centres and UNESCO Field Offices in the region.

As a major premise for effective cooperation and coordination, participants agreed to develop a joint mission statement and an effective communication strategy.

It was further decided not to primarily concern with sorting out the specific modalities of cooperation and communication, but rather focus on developing activities and project ideas and themes from which the cooperation modalities could then be worked out.

Participants agreed that activities and projects suggestions should not aim to include participation of all centres, but rather be designed for cooperation between two or more centres with focus on topics of particular thematic or geographical interests.

To further improve coordination and communication among the centres and between the centres and UNESCO Field Offices the importance to prepare for each centre a list of contact points, a ‘roster of expertise’ and a list of events was stressed.

For a better presentation of the “consortium” of centres it was recommended to develop a matrix of centre capacities to identify and showcase the centres capacities as well as to develop a shared, coherent package of training and capacity building courses offered by the same centres.



To efficiently discuss how cooperation among Category II water-related Centres as well as between the Centres and UNESCO should be designed, three clusters of discussion were agreed upon:

- 1<sup>st</sup> Cluster: Clarification of the contexts and conditions for cooperation
- 2<sup>nd</sup> Cluster: Identification and initiation of small-scale practically achievable cooperation projects/programmes
- 3<sup>rd</sup> Cluster: Identification of fields of broad centre-centre-UNESCO cooperation and cooperation modalities

### **1<sup>st</sup> CLUSTER: Clarification of the contexts and conditions for cooperation**

1. Development of a joint mission statement
2. Development of a joint communication strategy
3. Development of a mechanism for cooperation between centers (and between centers and UNESCO) including identification of points of contact and matrix of capacities
4. Development of a joint roster of center capacities (which will include a list of expertise, trainings, events) for dissemination to donors and other partners
5. Identification of linkages and cooperative modalities between UNESCO field offices and centers (for 34C/5 work planning, communication, etc.)

Participants declared the joint mission statement as follows:

*“To provide leadership and promote excellence in research, education and training in Integrated Water Resources Management in the hearts, minds and action of the people”.*

The name for what had been called “the consortium” of Centres in Asia-Pacific will be

*“Partnership for Sustainable Water Solutions for the Asia-Pacific Region”.*

As a basis to further develop the communication strategy, a document compiling all results of the questionnaires prepared by the ASPAC Centres in early 2007 will be circulated.

It was agreed to establish mechanisms for cooperation between centres as well as between centers and UNESCO Field Offices including nomination of points of contacts, matrix of capacities, list of expertise and trainings offered, and a calendar of events.

Participants highlighted already existing and ongoing cooperation activities between UNESCO field offices and centres. The importance of keeping a flexible and not too formal approach of cooperation was stressed.



## **2<sup>nd</sup> CLUSTER: Identification and initiation of small-scale practically achievable cooperation projects/programmes**

1. Center-to-center exchanges (such as now exists between HTC and ICHARM)
2. Develop joint web presence (joint website or coordinated web links between center websites)
3. Define areas of common interest and synergy between a limited number of centers based on capacities and geographical coverage (rainwater harvesting, groundwater for emergencies, erosion & sedimentation relating to natural hazards) as a basis for cooperation projects.

The following projects were identified as cooperative activities between centres as well as between centres and UNESCO field offices:

- a. Transboundary groundwater resources (research). Partners: UNESCO (Beijing, Jakarta, New Delhi)/AIT/IC-WATER
- b. Regional consultation on water education and training in Asia - development of a strategic framework (education). Partners: AIT/IRTCS/HTC
- c. Flexible learning programme – e-learning (education). Partners: UNESCO-IHE, AIT/IC-WATER
- d. Flood forecasting & warning system for tropical regions (research). Partners: HTC/ICHARM-APCE. Beneficiary countries: Malaysia, Philippines, Thailand, Indonesia, Vietnam
- e. Integrated and multi-disciplinary research on flood hazard assessment (research). Partners: HTC/ICHARM
- f. Climate change impacts at river basin scale - surface and ground water (research). Partners: AIT/UNESCO New Delhi/IC-WATER
- g. Compilation of major flood events in the region (outreach). Partners: ICHARM/AIT/APCE/HTC

The importance to define timelines, prepare more detailed descriptions and identify champions to transfer the ideas into action was stressed.

With regard to item f) above, the UNESCO New Delhi Office invited participants to a respective meeting and to the International Groundwater Conference on Groundwater Dynamics and Global Change, 11-14 March 2008, Jaipur, India.

Based on a common agreement, a one-page introductory webpage will be developed displaying a clear corporate identity of the “*Partnership for Sustainable Water Solutions for the Asia-Pacific Region*”. This webpage will be included in all relevant Centre and UNESCO websites and will contain the mission statement, logo and linkages to all participating centres and their respective contact persons.



### **3<sup>rd</sup> CLUSTER: Identification of fields of broad center-center-UNESCO cooperation and cooperation modalities**

1. Agree on concepts and discuss project development on thematic areas for cooperation such as climate change, water & culture, disasters, water education, and the MDGs
2. Outline 3-4 project concepts (along the lines of SWITCH project)

For further detailed discussion and development of a possible joint programme of all UNESCO Category II Water-Related Centres and the UNESCO Field Offices in the region, it was agreed to develop a two-page concept paper of a possible *SWITCH Asia Project "Cities of the future"*. First ideas for pilot cities included Bandung and Surabaya, both in Indonesia. Further, the possibility to link the programme with HELP Basins was stressed, as those could provide crucial data and information. The meeting agreed that this project idea could be proposed to different donors and developed gradually over 3-4 years. The centres were suggested to consider their roles in such a project, as well as the IHP National committees in the region. To get further input ideas and start circulating the concepts among countries the two page concept paper on SWITCH Asia was proposed to be presented at the next 15<sup>th</sup> RSC Meeting in Manila, 22 and 23 November 2007.

Participants considered cross-cutting themes that the centres might seek to address through a common strategy – “water and climate change” and “water and culture” were raised as such possible themes both considering the topic of food security.

A brief statement draft specifically acknowledging the efforts made to develop and strengthen networking among Centers in the Asia-Pacific Region will be submitted to SC/HYD through DIR/JAK for inclusion in Mr. Matsuura speech at the Asia-Pacific Water Forum in Japan in December 2008.

Finally, participants agreed to utilize future IHP-related events in the region to discuss and advance the items above. The forthcoming Southeast Asia and the Pacific IHP Regional Steering Committee meeting in Manila in November 2007 would be the first opportunity.

An Action Plan was prepared compiling all follow-up tasks to be worked out after the meeting (see Annex I).

It was agreed to prepare and provide a meeting report including the Action Plan to all participants and that this report shall be made available on all centre websites.



## ANNEX I: ACTION PLAN

ACTION ITEMS	BY WHOM
1. HTC will take responsibility for the development of a one-page website to embody the corporate id entity of the Centers Consortium	Mohd Nor Humid Tropics Centre (HTC), Malaysia
2. Prepare and circulate to all centres a two-page concept paper on SWITCH Asia	Hubert Gijzen UNESCO Office, Jakarta
3. Draft a brief statement specifically acknowledging the efforts made to develop and strengthen the networking among Centers in Asia-Pacific to be submitted to SC/HYD DIR/JAK for inclusion in Mr. Matsuura's speech at the Asia Pacific Water Forum in Japan in December 2008	Bhanu Neupane UNESCO Office, Delhi
4. Develop mechanisms for cooperation between centers as well as between centers and UNESCO including identification of points of contact and matrix of capacities	R. Jayakumar UNESCO Office, Beijing
5. Development of a joint roster of center capacities (list of expertise, trainings, calendar of events) for dissemination to donors and other partners.	Han Qunli UNESCO Office, Tehran
6. Send an overall version of the questionnaire compiled by the ASPAC Centres.	Giuseppe Arduino UNESCO Office, Jakarta
7. Report on the meeting and derived action points at the forthcoming RSC meeting. Provide final meeting report at UNESCO Jakarta's website and to all centres.	Giuseppe Arduino UNESCO Office, Jakarta



## ANNEX II: MEETING AGENDA

<b>Day 1, Wednesday 26 September 2007</b>	
09:00-09:20	Introduction to the meeting by Mr. Hubert Gijzen, DIR UNESCO Office, Jakarta
09:20-09:25	Election of a chairperson, vice-chairperson and rapporteur of the meeting
09:25-09:35	Adoption of the Agenda
09:35-09:45	Results of the Meeting of the Directors of UNESCO's Water related Centres, Delft, 11-12 June 2007, HTC Kuala Lumpur, Mr. Mohd Nor
09:45-10:45	Presentation by the centres (12 minutes each): IRTCES China, HTC Malaysia, ICQHHS, Iran, ICHARM, Japan, RCUWM Iran (UNESCO Tehran Office)
10:45-11:00	Presentation by the Japan Water Forum
11:00-11:20	<i>Coffee break</i>
11:20-11:45	Presentation by the centres (12 minutes each): APCE Indonesia, SWEM Thailand, IHE the Netherlands (H. Gijzen)
11:45-12:30	Presentation of IHP activities in UNESCO Field Offices: Jakarta, Apia, Beijing, New Delhi, Teheran
12:30-14:00	<i>Lunch break</i>
14:00-14:05	Welcome address by Mr. Sheldon Schaeffer, DIR UNESCO Office, Bangkok
14:05-14:15	IHP Phase VII (2008-2013) and 34 C/5 priorities (2008-2009) Main Line of Action 1: "Water dependencies: systems under stress and societal responses", UNESCO Jakarta
14:15-14:45	SWITCH Asia Initiative (Sustainable Water Management Improves Tomorrow's Cities Health): an example of joint initiative between Water Centres and UNESCO field Offices, by Mr. Hubert Gijzen, DIR UNESCO Office, Jakarta
14:45-16:00	Discussion on "Recommendations and follow-up" from the Delft meeting; relations between water centres and UNESCO field offices workplans, opportunities for collaboration.
16:00-16:20	<i>Coffee break</i>
16:20-17:30	Continuation of the discussion
19:30-21:00	Dinner hosted by UNESCO



<b>Day 2, Thursday 27 September 2007</b>	
09:00-09:15	IC-WATER Australia
09:15-10:30	Workshop Session: define concrete opportunities for model projects to be developed in partnership with Category I and Category II Water Centres plus other partners
10:30-11:00	<i>Coffee break</i>
11:00-12:30	Plenary Session: define roles for each centre in such multidisciplinary projects
12:30-13:30	<i>Lunch</i>
13:30-15:00	Conclusions: plan of action and follow-up



### ANNEX III: LIST OF PARTICIPANTS

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# 11<sup>th</sup> CO-ORDINATION COMMITTEE MEETING OF THE REGIONAL HUMID TROPICS HYDROLOGY AND WATER RESOURCES CENTRE FOR SOUTHEAST ASIA AND THE PACIFIC

**Intercontinental Manila  
Manila, Philippines, 22<sup>nd</sup> November 2007**

## Minutes

### Participants

<b>NAME</b>	<b>COUNTRY</b>
Ross JAMES	AUSTRALIA
Trevor DANIELL	AUSTRALIA
Monichoth So Im	CAMBODIA
Van-Thanh_Van NGUYEN	CANADA
ZHU Xiaoyuan	CHINA
LIU Heng	CHINA
Zongxue XU	CHINA
Hery HARJONO	INDONESIA
Hidayat PAWITAN	INDONESIA
Kaoru TAKARA	JAPAN
Yasuto TACHIKAWA	JAPAN
Hidetaka CHIKAMORI	JAPAN
Ali CHAVOSHBAN	JAPAN
A.W. JAYAWARDENA	JAPAN
Taboia METUTERA	KIRIBATIS (Pacific Islands)
Soontak LEE	Republic of KOREA
Vinliam BOUNLOM	LAO PDR
Dato Paduka Ir. Hj KEIZRUL Abdullah	MALAYSIA
Ir. Dr. Mohd Nor b. Mohd Desa	MALAYSIA
Norazizah bt Abdul Kadir	MALAYSIA
Muhammad Al Muzammil	MALAYSIA
D BASANDORJ	MONGOLIA
Gombo DAVAA	MONGOLIA
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Richard IBBITT	NEW ZEALAND
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Leonardo LIONGSON	PHILIPPINES
Guillermo TABIOS	PHILIPPINES
Supranee RUNGHIRUNVIROS	THAILAND
TRAN Thuc	VIETNAM
Giuseppe ARDUINO	UNESCO - JAKARTA
Hans THULSTRUP	UNESCO - APIA
R JAYAKUMAR	UNESCO - BEIJING

## 1. Opening by the Chairperson

The Chairman Mr Keizrul Abdullah opened the meeting at 8:45am, welcomed the participants and referred the meeting participants to the Provisional Agenda in the booklet of documents distributed before the meeting.

## 2. Election of Rapporteur

Mr James was elected Rapporteur for the meeting.

## 3. Report of the 10<sup>th</sup> Coordination Committee meeting

The Chairman referred the meeting to the Minutes of the 9<sup>th</sup> Co-ordination Committee Meeting held in Bali, Indonesia reproduced in the booklet of documents and inquired if there were any comments or objections. No comments or objections were raised.

Mr Nor, Director of the HTC, informed the meeting of progress with the Action Items as follows.

10 <sup>th</sup> CC Meeting Action Item	Status
1. Countries to identify any projects in 'Flood Forecasting' and 'Capacity Building in IWRM' that the HTC may be able to collaborate on or provide some support for and to submit project proposals to the HTC. (Was 9 <sup>th</sup> Meeting recommendations 2 and 3)	No projects were received.
2. HTC to redistribute the latest IHP VII Strategic Plan and countries to respond by identifying Themes that are considered relevant to them.	The Strategic Plan was distributed and responses have been received from China and Malaysia. Still awaiting responses from other countries.
3. HTC to identify common Themes and request and/or propose collaborative activities.	After other country responses have been received activities will be planned and funding sources identified.
4. Countries provide feedback to the HTC on any issues to be raised at the meeting of Category II Centre Directors.	The details of the meeting is reported on in the Directors Report (Agenda Item 4).
5. Check how many river basins have data included in the Water Archive.	The introduction of a new server has resulted in a number of technical problems with the Water Archive. Some files need to be updated and this is in progress.

## 4. Report by the Director of HTC

The Chairman invited Mr Nor to present his report. Mr Nor highlighted a number of items contained in the report included in the meeting booklet during his presentation.

Support from UNESCO Jakarta was acknowledged which enabled participation and presentation of a paper at the 5<sup>th</sup> FRIEND conference in Havana, Cuba.

The discussions at the meeting of the Directors of UNESCO Water-related Centres in Delft (June 2007) and the follow-up meeting of the Asia Pacific Category II Water-related Centres held in Bangkok (September 2007) were summarised and the meeting was informed that the reports of these meeting were included in the meeting booklet. Mr Nor felt that both these meetings were successful and emphasised the UNESCO plan to review all Category II Centres on a 6 yearly cycle. He believes that HTC may be the first Centre to be reviewed.

Mr Nor described a range of research projects under the 8<sup>th</sup> Malaysian National Plan undertaken over the period 2005-2007. These projects were funded by the Malaysian government. Projects included in the 9<sup>th</sup> Malaysian National Plan were presented.

A table of future HTC activities was presented along with a brief description of the current status of some of the activities. Limits on funding will restrict attendance at the short training course on Urban Stormwater Management in December 2007. A number of activities include collaboration with ICHARM in Japan. The project to compile details of major flood events was an outcome of the meeting of regional Category II Centres held in Bangkok.

The problems with the operation of the Water Archive resulting from the introduction of a new server at the HTC were briefly described. The problems are being identified by a software consultant and changes will be made so the Water Archive is functional. Mr Nor referred to the possible need to design a “friendlier” system.

*ACTION: HTC to ensure the Water Archive is functional on the new server.*

The financial accounts for the last year were briefly presented along with a summary of staffing changes. The Chairman highlighted the improving gender balance with the Deputy Director and Assistant Director positions now being filled by women.

## **5. Future direction of HTC Kuala Lumpur**

The importance of input from countries in the region to the future planning of the HTC was emphasised, in particular the need for responses to the Strategic Plan for IHP VII. The meeting of Category II Centres in Bangkok identified a program of activities and HTC will be seeking support from countries to progress this.

*ACTION: Countries to advise HTC of IHP VII Themes that are relevant to them.*

The Chairman reminded the meeting that HTC was set up as a result of a request from members of the RSC and requested that responses and requests can be sent to the HTC Director. Two areas in which the HTC will be increasingly active will be collaboration with other Category II Centres and in the Centre review process.

## **6. Other matters**

Mr Takara strongly supported the collaboration between ICHARM and HTC as it will strengthen both Centres and requested that ICHARM be included in the regional consultation on water education and training. (Item 5 in Table 2 of the Directors report).

*ACTION: HTC to include ICHARM in the activity:  
Regional consultation on water education and training in Asia – development of a strategic framework (education)*

## **7. Closure of the meeting**

The Chairman thanked the meeting participants for their input and closed the meeting at 9:25 am.

## **8. Action Items**

<b>Action</b>	<b>By whom</b>
1. Ensure the Water Archive is functional on the new server.	HTC
2. Countries to advise HTC of IHP VII Themes that are relevant to them	Each country
3. HTC to include ICHARM in the activity: Regional consultation on water education and training in Asia – development of a strategic framework (education)	HTC