MALAYSIA
COUNTRY REPORT
of the
NATIONAL COMMITTEE FOR
MALAYSIA INTERNATIONAL HYDROLOGICAL PROGRAMME

21st SESSION OF IHP INTERGOVERNMENTAL COUNCIL MEETING
UNESCO, PARIS

[ACTIVITIES UNDERTAKEN FOR THE PERIOD OF JUNE 2012 – MAY 2014]
# NATIONAL REPORT ON IHP RELATED ACTIVITIES

## Report Format

<table>
<thead>
<tr>
<th>Name of the Centre</th>
<th>UNESCO - International Hydrological Programmes Malaysia</th>
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</thead>
<tbody>
<tr>
<td>Name of Chairman</td>
<td>Datuk Ir. Hj. Ahmad Husaini Sulaiman</td>
</tr>
<tr>
<td>Name and title of contact person (for cooperation)</td>
<td>Mr. Muhammad Al-Muzammil Chu Ahmad</td>
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<td>E-mail</td>
<td><a href="mailto:ihp@water.gov.my">ihp@water.gov.my</a> / <a href="mailto:muzammil@water.gov.my">muzammil@water.gov.my</a></td>
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<tr>
<td>Address</td>
<td>Water Resource and Hydrology Division, Dept. of Irrigation and Drainage Malaysia, KM 7 Jalan Ampang, 68000 Kuala Lumpur.</td>
</tr>
<tr>
<td>Website</td>
<td></td>
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<tr>
<td>Location of centre</td>
<td>city/town: Kuala Lumpur country: Malaysia</td>
</tr>
<tr>
<td>Geographic orientation *</td>
<td>global regional</td>
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<tr>
<td>Year of establishment</td>
<td>1975</td>
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</tbody>
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### Themes

- groundwater
- urban water
- arid / semi-arid zones
- humid tropics
- droughts and floods
- sediment transport and management
- water and environment
- ecohydrology
- water law and policy
- transboundary river basins/ aquifers
- IWRM
- global and climate change
- mathematical modelling
- social and cultural dimensions of water
- water education
- other: stormwater management,
- water hazard.

### Focal Areas

- vocational training
- postgraduate education
- continuing education
- research
- institutional capacity-building
- advising/ consulting
- software development
- other: (please specify)

### Support bodies 1

The Government of Malaysia

### Hosting organization 2

Department of Irrigation and Drainage Malaysia/ Ministry of Natural Resources and Environment

### Sources of financial support 3

The Government of Malaysia/ UNESCO
<table>
<thead>
<tr>
<th><strong>Existing networks and cooperation</strong></th>
<th>UNESCO/ICHARM/RCUWM/RSC for Southeast Asia and The Pasific/ Partner of the GWP/ IWA/ APAC Water-related Centre Category II/MyWP/Malaysian Stormwater Organization / AWGWRM</th>
</tr>
</thead>
</table>
| **Governance**                      | ☑ director and governing board  
  ☐ other:  
  Frequency of meetings:  twice every year(s)  
  ☐ Existence of UNESCO presence at meetings (UNESCO Jakarta Office) |
| **Institutional affiliation of director** | IWA/IAHS/Partner of the GWP/Malaysia Nuclear Agency/MyWP/ Board of Engineers Malaysia |
| **Number of staff and types of staff** | total number of staff (full-time, or equivalent) : 10 persons  
  number of staff who are water experts: 3 persons.  
  number of visiting scientists and postgraduate students: 1 person. |
| **Annual turnover budget in USD**    | Operational = USD 150,000.00  
  Programmes and Activities = USD 250,000.00 |

* check on appropriate box  
♦ check all that apply  
1 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  
2 if different from support bodies  
3 please specify sources of main budgetary and extrabudgetary funds to implement projects  
4 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
1. **ACTIVITIES UNDERTAKEN IN THE PERIOD JUNE 2010 – MAY 2012**

1.1 **Meetings of the IHP National Committee**

1.1.1 Decisions regarding the composition of the IHP National Committee

**NATIONAL COMMITTEE**

The Malaysia International Hydrological Programme is the National Programme Committee and UNESCO’s state member for international scientific cooperative programme in water research, water resources management education and programme.

Primary Objectives are:

- to act as a Member States for IHP, cooperating professional and scientific organizations and individual experts can upgrade their knowledge of the water cycle thereby increasing their capacity to better manage and develop their water resources
- to develop techniques, methodologies and approaches to better define hydrological phenomena
- to improve water resources management
- to act as a catalyst to stimulate cooperation and dialogue in water science and management
- to assess the sustainable development of vulnerable water resources
- to serve as a platform for increasing awareness of global water issues

**EXCO MEETING - MEETINGS OF THE IHP NATIONAL COMMITTEE**

The programme structure of the Malaysia National Committee for IHP consists of a Chairman, Secretaries, Vice Secretary, 8 Executive Committees and 3 Working Committees from various research institutes, universities and sectorial-departments. These programme EXCO consist of the Department of Irrigation and Drainage Malaysia (DID), UNESCO-Humid Tropics Centre Kuala Lumpur (HTC KL), National Commission of UNESCO Malaysia (Nat Com), Ministry of Science and Innovation (MoSTI), University of Technology Malaysia(UTM), National Hydraulic Research Institute Malaysia (NAHRIM), Department of Meteorology (MMD), of Mineral and Geoscience Department Malaysia (MGD), Malaysian Nuclear Agency (Nuclear Malaysia).

The Malaysia National Committee for IHP is on the threshold of restructuring its activities based on considerations:

i. Retuning the programme within the new path of IHP Programme Phase VII
ii. Obtaining better participation from key stakeholders.
The present composition of the National Committee:

Chairman : H.E Datuk Ir Hj Ahmad Husaini Sulaiman
Secretary : Dato Ir. Hj Hanapi Mohamad Noor
Vice Secretary: Mr. Muhammad Al-Muzammil Chu Ahmad

EXCO Members:

1. Dato' Nordin Hamdan
   - Department of Irrigation and Drainage Malaysia
2. Mr. Asmawar Samad
   - National Commission for UNESCO Malaysia
3. Prof. Nor Aieni Hj. Mokhtar
   - Ministry of Science, Technology and Innovation
4. Dr Mohamed Roseli Zainal Abidin
   - Humid Tropics Center Kuala Lumpur
5. Prof Nabsiah Abdul Wahid
   - University of Science Malaysia
6. Mrs. Rogayah Kadari
   - Ministry of Energy, Green Technology and Water
7. Dato Prof. Dr. Mazlin Mokhtar
   - National University of Malaysia
8. Dr Wan Zakaria Wan Mohd Tahir
   - Nuclear Agency Malaysia

The committee holds bi-monthly coordination meetings and in additional several technical meetings as needed for the planning and implementation of seminars and workshops organized under coordination of the committee. The committee routine meetings is attended by the Chairman of the Malaysia Committee for IHP. Members of the national committee through regular meetings distribute information gathered during the meeting as well as report to the meeting hydrological and related activities in their organizations.

EXCO MEETINGS : YEAR 2012 - 2014
- 28 Aug 2012 in Kuala Lumpur
- 4 July 2013 in Kuala Lumpur
- 25 April 2014 in Kuala Lumpur

ANNUAL GENERAL MEETING

The 39th AGM was held on 23 Jun 2010. Since then the AGM has been replaced with the bi-annual meeting (namely EXCO Meeting).

IHP MALAYSIA PARTNERSHIPS

To implement its programmes, the UNESCO IHP Malaysia collaborates with an extensive range of public and private partners, in particular with other intergovernmental agencies, practitioner and NGO's programmes.
The partners of UNESCO Malaysia water related and research institution from various government departments, universities and research institutions. Meetings were periodically held to discuss and implement programs and projects in line with the IHP—VII (2008-2013) UNESCO strategic plan. More projects related to IHP-VII themes are to be supported by Ministry of Natural Resources and Environment and Ministry of Science and Innovation through IHP National Committee.

STANDING COMMITTEE

UNESCO-IHP Malaysia plans its activities through its Committee and they are carried out by the three standing committees which are:

1. Committee on Research under the chairmanship of the Director of Humid Tropics Centre, Kuala Lumpur (HTC KL)
2. Committee on Education, Training and Public Information headed by the University of Technology Malaysia (UTM)
3. Committee on Standardization of Hydrological Practices headed by the Department of Irrigation and Drainage Malaysia (DID)

SECRETARIAT OF THE UNESCO-MALAYSIA NATIONAL COMMITTEE FOR IHP

The Secretariat provides information and facilities needed to perform the programme activities and daily responsibilities.

Mr. Muhammad Al-Muzammil Chu Ahmad

Secretariat Office
UNESCO-IHP Malaysia
Water Resources Management and Hydrology
Department of Irrigation and Drainage Malaysia
KM 7 Jalan Ampang
68000 Ampang
Kuala Lumpur, MALAYSIA

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1.1.2 Status of IHP-VII activities

Selected activities related to the IHP-VI programme are implemented by and in various departments, universities, and research institutions, members of the IHP National Committee. During the bi-monthly committee meeting, reports of activities from
each group were delivered for the knowledge and use by other members and for related IHP-VII activities.

1. A series of workshops on Review of the National Water Resources Study (2000-2050) and Formulation of National Water Resources Policy was held starting February 2010: This is a contribution for IHP VII Theme 2: Integrated Watershed and Aquifer Dynamics.

2. A program of Public Discourse has been successfully carried out in conjunction with the World Water Day 2014 theme: Water and Energy. This program discusses the relationship and the importance of water resources in generating energy for daily life.

3. IWRM : A contribution to IHP VII Theme 5: Water Education and Training: under the flag of the UNESCO-IHP Malaysia, consisting of stakeholders related to water have taken place in the annual World Water Day since year 1994. Its main objective is to conduct campaign through training, educating and dialogue, and seminar programmes to augment public participation.

1.2 Activities at national level in the framework of the IHP

1.2.1 National/local scientific and technical meetings

- Standing Committees of Science Meetings (under Ministry of Science, Technology & Innovation)
- IWRM Training for Government Officials:
  - Training Course On Developing The Capacity Of Government Officers For The Practical Implementation Of Integrated Water Resources Management In Malaysia | 2-3 Nov 2010, National University Malaysia
  - Training Course On Developing The Capacity Of Government Officers For The Practical Implementation Of Integrated Water Resources Management In Malaysia | 1-2 Dec 2010, Labuan, Sabah
- Malaysia IHP Strategic Planning Meetings (yearly)

1.2.2 Participation in IHP Steering Committees/Working Groups

- Participation of IHP Malaysia in the 21st Regional Steering Committee Meeting for Southeast Asia and the Pacific - UNESCO IHP, which was held in Gyeongju City, Republic of Korea, in conjunction with the International Water Forum on Water Cooperation and 7th World Water Forum of The 2nd Nakdong River International Water Week 2013 (Na-Ri IWW/IWF 2013).

1.2.3 Research/applied projects supported or sponsored
2014
- Data book Urban Eco Hydrology for Resilient Environment (UCOREN), Penchala River
- R&D Component, Upscaling Water Security to meet local, regional dan global challenges

2013
- Impact studies of Waste Trap and Solid Waste Management in Putrajaya
- Upscaling Of MSMA Eco-Hydrology At Catchment Level in Sg. Langat – Construction
- Retrofitting Green Roof System At Block A5-1, DID Headquarters

2011-2012
- Malaysia UNESCO Cooperative Programme (MUCP)
- Monitoring Of MSMA Eco-Hydrology At HTCKL
- Upscaling Of MSMA Eco-Hydrology At Catchment Level (Sg. Langat)
- Impact on Reservoir Sediment & Water Quality at Sembrong Dam & Study on Agricultural Non
- Erosion Risk Categorization Potential at Sg. Langat
- Monitoring Rainwater Harvesting Effectiveness in Pulau Perhentian
- Remediation of Pollution From Large Point Sources for Sg. Hiliran – MUWAREC

1.2.4 Collaboration with other national and international organizations and/or programmes

- UNESCO Jakarta Office
- Malaysian National Commission for UNESCO
- Humid Tropics Center Malaysia
- University of Science Malaysia
- National Hydraulic Research Institute Malaysia
- UNITEN Malaysia
- Universiti Institut Teknologi Malaysia
- National Oceanography Directives
- Putrajaya Corporation
- University of Technology Malaysia

1.2.5 Other initiatives

None

1.3 Educational and training courses

1.3.1 Contribution to IHP courses

- Malaysia IHP Technical Talks (3 sessions in 2010, 12 sessions in 2011, 12 sessions in 2012). The talks will cover topics on
hydrology, water resources, meteorology, agriculture, civil & structures etc.
- International Conference on Water Resource (ICWR) | 5-9 Nov 2012 , Langkawi Kedah, Malaysia
- Short course on Ecohydrology In River Basin Management from 2-14 Dec 2013 at Kyoto University, Japan.

1.3.2 Organization of specific courses
- National Water Watch Programme for Young Leaders (4 sessions yearly for each zone - north, south, east and Borneo)
- Short Course on Water Resources Management from 20-22 May 2014 in Kota Bharu, Malaysia.

1.3.3 Participation in IHP courses
(Courses/Seminars attended by IHP Malaysia & members)

2013
Mrs. Vasukey Palani
Short course on Ecohydrology In River Basin Management from 2-14 Dec 2013 at Kyoto University, Japan.

2012
Mr. Mohamad Radzi Abdul Talib
Training on Disaster Risk Management Technology on Volcanic Eruption, Debris Flow and Landslide
3 Jun - 23 Nov 2012
Japan
JICA

1.4 Cooperation with the UNESCO-IHE Institute for Water Education and/or international/regional water centres under the auspices of UNESCO
A number of Malaysian students are currently pursuing post-graduate studies at master’s and PhD levels at this institute.

1.5 Publications
- Monthly Updates of IHP activities
• Environmental Education For Sustainable Development (EEfSD) For Everyone Series (by Prof. Nabsiah Abdul Wahid, University of Science Malaysia):
  o Application of Simple and Effective Domestic Water Management for Household Consumers
  o Family Recreational Activity: Learning River Water Quality Estimation Using Biological Indicator

1.6 Participation in international scientific meetings

1.6.1 Meetings hosted by the country

1.6.2 Participation in meetings abroad
• Participation of IHP Malaysia in the 21st Regional Steering Committee Meeting for Southeast Asia and the Pacific - UNESCO IHP, which was held in Gyeongju City, Republic of Korea, in conjunction with the International Water Forum on Water Cooperation and 7th World Water Forum of The 2nd Nakdong River International Water Week 2013 (Na-Ri IWW/IWF 2013).

1.7 Other activities at regional level

1.7.1 Institutional relations/cooperation
• National World Water Day 2014 celebration at Putrajaya Corporation.
• Secretariat for AWARE 2014 Conference Kuala Lumpur in conjunction with "World Water Day" 18-19 Mar 2014
• Malaysia UNESCO Cooperative Programme (MUCP)
• World Water Day celebrations for 2012, 2013 and 2014
• Malaysia UNESCO Day, Nov 2013
• Putrajaya Lake and Wetland Explorace 2013 for university students
• Public Outreach Programme by National University Malaysia
• National Exhibition for World Water Day (yearly)
• Best Hydrology and Water Referees Thesis Award (Gold, Silver & Bronze medals)
• Water Watch Programme For Young Leaders (regional and National levels)
• Water Treatment Plants open day (nationwide) co-op with Water Supply Department & National Water Management Commission

1.7.2 Completed and ongoing scientific projects

Please refer 1.2.3
2. **FUTURE ACTIVITIES**

2.1 **Activities planned until December 2014**

- National Water Watch Programme For Young Leaders
- IHP Technical Talks (yearly)
- 13th IAHR/IWA International Conference on Urban Drainage (ICUD) 2014
- Workshop for ASEAN IWRM Country Strategy Guideline
- Position Paper by IHP Malaysia on Water-Energy Nexus in conjunction with World Water Day 2014.
- Preparing Guidelines of Quality Inspection for Hydrology Management
- Preparing Guidelines of hydrology data validation
- Preparing Guidelines of Water Balance Condition.
- Participation in IHP-RSC Meeting, Asian Pacific FRIEND and Catalogue of Rivers
- Participation in Training course in 2012 at Nagoya University
- Participation in programme at the International Center for Water-related hazards and risk management (ICHARM)
- International Water Resource Conference | 5-9 Nov 2012, Langkawi Kedah

2.2 **Activities foreseen for 2015-2016**

- Participation in IHP-RSC meeting Asian Pacific FRIEND and Catalogue of Rivers
- Cooperation between Universiti Kuala Lumpur (UNIKL) and IHP Malaysia to develop courses for higher learning in hydrology and water resources fields
- Participation in IHP-Training course at Nagoya University
- The On Job Training (OJT) IHP Training Course: "The Tank Model"
- Implementation of projects related to IHP-VIII.
- Implementation of Malaysia-UNESCO Cooperative Programme funding by Government of Malaysia for South-South Country and Small Island.
- Collaboration with UNESCO-IOC activities.
- The 3rd International Conference on Water Resource in 2014

2.3 **Activities envisaged in the long term**

- Long-term cooperation between The Regional Centre of Expertise on Education for Sustainable Development (RCEs) Penang and IHP Malaysia for Regional Sejahtera ESD Network (RSEN) and other activities
- Malaysia National committee for IHP will promote activities to public coordinate participations at national level to augment people's
awareness through, educations and trainings on hazards caused by global warming, as well as hazards caused by geological events. These include sea level rise, flood and drought hazard, debris control, tsunamis, water and food security, and access to save water. Area of priorities is mega cities, and coastal areas.

- Participation in IHP-VIII projects and RSC activities.
- Nagoya University IHP Training Courses.
- Information dissemination through a web page of the National Committee.
- Participation in IHP-RSC activities and IHP InterGovernmental Council meetings in Paris.
- Malaysia IHP commitment to IHP Phase VIII (2014-2019)
- Scientific Researches by Malaysia IHP Standing Committee
- Collaboration with many other agencies for the purpose of scientific researches and public outreach programmes.