

## **NARBO Member's Annual Report 2007**

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Name of the editor: Tan Teow Soon

### **1. INTRODUCTION OF NAHRIM**

Name and postal address – National Hydraulic Research Institute of Malaysia (NAHRIM)

Lot 5377, Jalan Putra Permai  
43300 Seri Kembangan, Selangor  
Malaysia.

Representative – Ir. Dr. Salmah Zakaria, Director General.

#### **Purposes and roles of NAHRIM**

National Hydraulic Research Institute of Malaysia (NAHRIM) is a Malaysian government agency formed in September 1995. It is an agency under the Ministry of Natural Resources and Environment and is headed by a Director General. Presently the institute has seven (7) technical divisions and two supporting divisions. The technical divisions are Research Centre for River Management, Research Centre for Coastal Management, Research Centre for Water Resources, Research Centre for Geohydrology, Research Centre for Water Quality and Environment, Hydraulic and Instrumentation Division as well as the Communication and Information Technology Division. The supporting divisions are the Management Services Division and Planning and Evaluation Division. NAHRIM's vision is to be the premier hydraulic research institute in the ASEAN and Asia-Pacific Region by the year 2011. Its mission is to provide excellent hydraulic research services in contributing to the nation's overall progress, improve the quality of life and conservation of the environment.

NAHRIM aims to carry out research programs for sustainable national water resources development. Apart from carrying out applied research in hydraulic engineering, it also provide specialised consultancy services to both the public and private sectors in addressing hydraulic engineering problems arising from rapid development in the country. NAHRIM is also engaged in collaborative research with local universities and research institutions and act as the national focal point in hydraulic research by coordinating related national research and participating in multilateral international research, besides provide advisory services to the government on hydraulics and water resources related matter in line with national interests.

### **Outline of NAHRIM**

Until March 2008, the number of staff is 87. After April 2007, the approved staff strength has increased to 159.

The annual budget is categorized under the management and development budgets. For the year 2007, the management budget is RM 3,443,841.01 and the development budget is RM 7,566,015.42. Grand total annual budget in 2007 for NAHRIM is RM 11,009,856.43.

### **Organizational Chart**

Please refer to the appendix A.

### **Ongoing Projects**

The ongoing research projects are:-

1. Study on impact of minimal flow released from dams.
2. Nutrient response model in lakes.
3. Experimentation project on river purification methods.
4. Estimation of pollutant load for various land use.

5. Development of a coastal resources risk index (CORRI).
6. Desktop study on groundwater management in landfills site for Selangor.
7. Development of artificial reef in the conservation of natural marine resources.
8. Effect of development on coral reefs and marine habitats.
9. Development of real-time flood forecasting system for rivers.
10. Pollution loading estimation for Kuyoh River.
11. Water quality modeling study for Juru River.
12. Study on effectiveness of urban storm water drainage system for Kota Damansara.
13. Study on water quality modeling at Sri Serdang Lake.
14. Study of the impact of climate change on the hydrologic regime and water resources in Sabah & Sarawak
15. Rainwater Harvesting Project: XPSWMM Simulation at Taman Wangsa Melawati House
16. Desktop Study on River Buffer Zone in Malaysia: Policy, By Laws and Incentives
17. Preparation of NAHRIM Water Resources Design Guide (WGD) No.1 – Derivation of Probable Maximum Precipitation (PMP) for Design Flood in Malaysia
18. National coastal sediment transport study.
19. Morphological response of coastal profiles to oceanic forcing.
20. Characterization of surf zone dynamics using video camera Technology.
21. Near shore study of wave topping over coastal bunds during storm at high water.
22. Shoreline and coastal land use change detection using airborne remote sensing.
23. Hydraulic modeling for mangrove replanting at west coast of peninsular Malaysia.
24. Development of Integrated Shoreline Management Plan (ISMP) for Negeri Sembilan.

## **Main Events in 2007**

Events organized by NAHRIM:

1. Rainwater Utilization Colloquium
2. Colloquium on Lakes and Reservoirs Management: Status & Issues
3. Conference on Legislation & Institution Arrangement in IWRM
4. Training of Trainers (TOT) on Legislation & Institution Arrangement in IWRM

Events in 2007 that NAHRIM involved:

1. International Joint Workshop on Water and Climate : From Threats to Actions
2. International Conference on Climate Change
3. Rainwater Catchments System Conference & technical visit
4. SEA Water Forum
5. United Nations Climate Change Conference in Bali (COP 13 & CMP 3)
6. Technical Visit to Saraburi (Microbe Effective Research Center), University Chiangmai and Marine Research Center at Phuket.
7. Forum on cities and Climate Change: Adaptation and Planning Responses
8. International User Conference 2007, Wallingford Software.
9. River's 07 Conference
10. World Water Day 2007 Conference
11. East and Southeast Asia Regional Seminar on Flood Hazard Mapping
12. LFA Workshop on Development of Conceptual Framework for Lake Management
13. Technical Talk on Current and Future Challenges in Hydrology in Tropical Regions
14. Public Lecture on International Year of Planet Earth (IYPE)

## **2. NARBO ACTIVITY**

Contact person – Tan Teow Soon

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NAHRIM joined NARBO on 22 February 2008 and was officially admitted as NARBO members in the 3<sup>rd</sup> NARBO General Meeting. NAHRIM will participate actively in the activities planned for the incoming 2008-2009 sessions.

### **Resolution and expectation for NARBO activities in 2008**

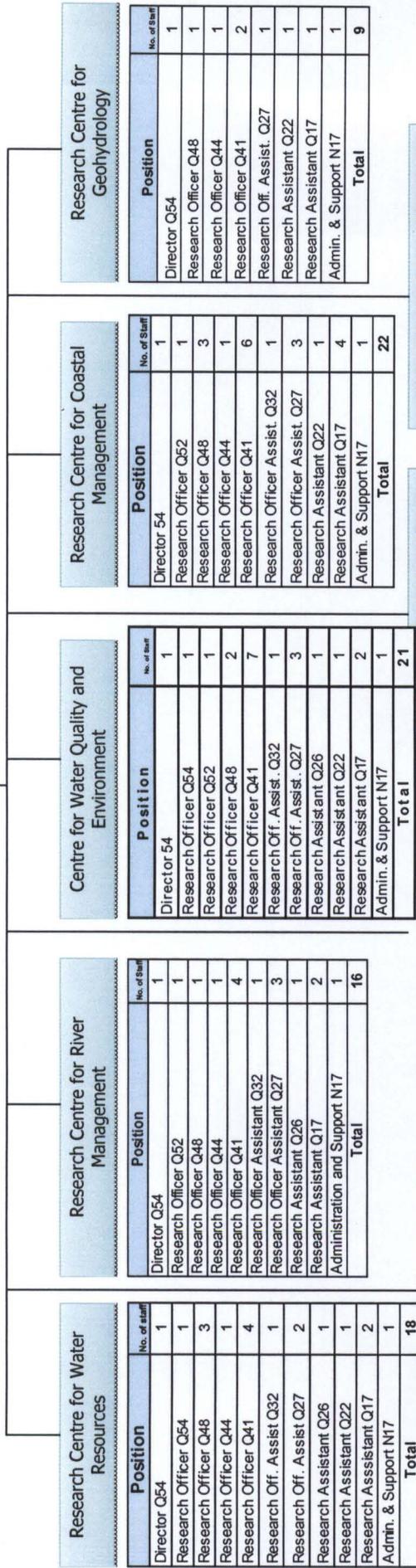
NAHRIM believes that NARBO will be a good a platform to develop our organization and broaden the networking among other River Basin Organization in Asia. The NARBO Action Plan 2008-2009 has planned activities that are categorized into three key result areas, advocacy, raising awareness and exchange of information and good practices on IWRM, capacity building in River Basin Organizations (RBOs) and network support. NAHRIM believes that these activities will be useful beneficial to the members.

NAHRIM will enhance the quality of research and will exchange and share information, knowledge and experiences with other river basin organization, associated water sector agencies and the knowledge partner organizations through the NARBO website and e-Newsletter. NAHRIM now is now developing the National Water Information Repository Centre which eventually will be able to be accessed by NARBO members through NAHRIM website.

Through active participating and involvement in NARBO activities such as IWRM training program, workshops, performance benchmarking and twinning programs, NAHRIM will be able to strengthen the capacity of its researchers.

# NAHRIM ORGANIZATION CHART

Director General's Office		
Position	No. of staff	
Director General VU7	1	
Admin. & Support N22	1	
<b>Total</b>	<b>2</b>	



Research Centre for Water Resources		
Position	No. of staff	
Director Q54	1	
Research Officer Q54	1	
Research Officer Q48	3	
Research Officer Q44	1	
Research Officer Q41	4	
Research Off. Assist Q32	1	
Research Off. Assist Q27	2	
Research Assistant Q26	1	
Research Assistant Q17	1	
Research Assistant Q22	1	
Research Assistant Q17	2	
Admin. & Support N17	1	
<b>Total</b>	<b>18</b>	

Research Centre for River Management		
Position	No. of staff	
Director Q54	1	
Research Officer Q52	1	
Research Officer Q48	1	
Research Officer Q44	1	
Research Officer Q41	4	
Research Officer Assistant Q32	1	
Research Officer Assistant Q27	3	
Research Assistant Q26	1	
Research Assistant Q17	2	
Administration and Support N17	1	
<b>Total</b>	<b>16</b>	

Centre for Water Quality and Environment		
Position	No. of staff	
Director 54	1	
Research Officer Q54	1	
Research Officer Q52	1	
Research Officer Q48	2	
Research Officer Q41	7	
Research Off. Assist. Q32	1	
Research Off. Assist. Q27	3	
Research Assistant Q26	1	
Research Assistant Q22	1	
Research Assistant Q17	2	
Admin. & Support N17	1	
<b>Total</b>	<b>21</b>	

Research Centre for Coastal Management		
Position	No. of Staff	
Director 54	1	
Research Officer Q52	1	
Research Officer Q48	3	
Research Officer Q44	1	
Research Officer Q41	6	
Research Officer Assist. Q32	1	
Research Officer Assist. Q27	3	
Research Assistant Q22	1	
Research Assistant Q17	4	
Admin. & Support N17	1	
<b>Total</b>	<b>22</b>	

Research Centre for Geohydrology		
Position	No. of Staff	
Director Q54	1	
Research Officer Q48	1	
Research Officer Q44	1	
Research Officer Q41	2	
Research Off. Assist. Q27	1	
Research Assistant Q22	1	
Research Assistant Q17	1	
Admin. & Support N17	1	
<b>Total</b>	<b>9</b>	

Management Services Division		
Position	No. of Staff	
Director M48	1	
Admin. & Dip. Officer M44	1	
Admin. & Dip. Officer M41	1	
Accountant W41	1	
Admin. & Support N27	2	
Admin N22	1	
Social Staffs S22	1	
Administration and Support N17	4	
Accounting Staff W17	2	
Administration and Support N17	2	
Social Staff S17	1	
Administration and Support N17	1	
Administration and Support N11	3	
Driver R3	3	
Administration and Support N1	3	
<b>Total</b>	<b>27</b>	

Planning and Evaluation Division		
Position	No. of Staff	
Director 52	1	
Research Officer Q48	1	
Research Officer Q44	2	
Admin. & Support N17	2	
<b>Total</b>	<b>6</b>	

Hydraulic and Instrumentation Laboratory		
Position	No. of Staff	
Director Q54	1	
Research Officer Q48	2	
Research Officer Q44	2	
Research Officer Assistant Q36	1	
Research Officer Assistant Q32	1	
Research Officer Assistant Q27	3	
Research Assistant Q22	3	
Research Assistant Q17	4	
Administration and Support N17	1	
Administration and Support N17	1	
Chargeman R17	1	
Skill workers K2, R11	2	
Skill workers K3, R9	2	
Plant Operator R3	1	
General worker R3	1	
General worker R1	3	
<b>Total</b>	<b>29</b>	

Communication and Information Technology Division		
Position	No. of Staff	
Director F48	1	
Research Officer Q41	1	
Information System Officer, F41	2	
Information System Officer Assistant, F32	1	
Information System Officer Assistant, F29	2	
Technician, FT17	2	
<b>Total</b>	<b>9</b>	