



NEWSLETTER of The Regional Humid Tropics Hydrology and Water Resources Centre for Southeast Asia and the Pacific

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1. Message from the Chairman of Co-ordination Committee



Dear colleagues,

Since the release of our first newsletter, a number of important events have taken place at the Regional Centre, which will be highlighted in this 2nd issue. I am pleased to note that the Regional Centre has now managed to establish good rapport with relevant national and

international organisations, which will greatly help implement its planned activities. The Regional Centre also played host to the Regional Steering Committee for IHP Southeast Asia and the Pacific, UNESCO, and the 1st Asian Pacific FRIEND workshop on "Data Archive and the Scientific Methods for Comparative Hydrology (20-24 March 1998)." The workshop was sponsored by Monbusho of Japan and the Governments of Malaysia and Indonesia. In conjunction with the Asian Pacific FRIEND project, an Internet based Water Data Archive system and mailing list were established for future data exchange. I am sure, with such systems in place, the Regional Centre will be able to carry out its functions more efficiently, thus benefitting participating countries.

The Regional Centre is currently formulating a collaborative program with Compagnie Générale des Eaux of France (CGE) which will undertake water resources research, education and information dissemination. The program, was on the initiative of UNESCO Paris.

The Regional Centre is also collaborating with CGE and other local organisations to disseminate a French educational material known as "Water Box" to selected schools throughout Malaysia. The "Water Box" consists of chemical solution and printed procedures which enable school children to carry out simple experiments on water and its interaction with the environment.

We all know that our water resources is being increasingly threatened by development and population increase. Stormwater management in particular, is one aspect of water resources which has been getting much attention. Consequently, there has been a proliferation of novel techniques and practices in stormwater management, all trying to address a myriad of problems. Long term solution, however, will take into account provision of sound technical background and skills especially among professionals and decision makers.

As a priority action, the Regional Centre will be organising an "Advanced Course on Stormwater Modelling, (27-31 July 1998)" to enhance understanding and skills in this particular field.

Finally, I would like to thank contributors and readers for your support towards improving the contents of our newsletter.

Thank you.

Warmest regards,

Ir. Hj. Keizrul bin Abdullah

Chairman of Co-ordination Committee

The Regional Humid Tropics Hydrology and Water Resources Centre for Southeast Asia and the Pacific

2. Activities carried out by the Regional Centre

Workshop

The 'First Asian Pacific FRIEND (Flow Regimes form International Experimental and Network Data Sets) Workshop on Data Archive and Scientific Methods for Comparative Hydrology and Water Resources' was held at the Regional Centre, 20-23 March 1998 followed by field trips to Johor and Asahan river basin in Indonesia, 24-27 March 1998. This is the first international workshop of the Asian Pacific (AP) FRIEND for the region, as well as the first major contribution of the

Regional Centre for the international collaboration. The Workshop firmly established the scientific direction of the Asian Pacific FRIEND project. In general, the workshop was successful in meeting its objectives as could be seen from the numerous discussions and active participation. The workshop came out with an implementation plan for a project which will be further endorsed at the upcoming 6th RSC meeting. As an immediate follow-up, five working groups have been established to work on drafting of project proposals submitted by interested researchers.

Important conclusions and recommendations are summarised below:

- There is an urgent need for the development of Water Data Archive which the Regional Centre, Yamanashi University, Japan and Australia acting as mirror sites
- The respective National Nodes can follow later based on the proposed networking
- Further development of a "Catalogue of Rivers" for Southeast Asia and the Pacific is desired. This will include an inventory of large river basins with key features included
- A data format manageable by all should be drafted first
- Data should be continually supplied to the repository sites to help update the Data Archive
- The AP FRIEND project is open to all researchers from participating countries
- KOWIS (Korean Water Information System) can be used as an example for data information system
- Every organisation needs to convince their government that the project on data archive and comparative hydrology and water resources can bring tangible benefits to their organisations
- The type of assistance needed by less developed countries was discussed in principle. However, countries themselves must be committed
- Thailand's representative proposed five steps to be undertaken to make the programme successful
- Member countries are invited to submit proposals to RSC to overcome missing data problem
- AP FRIEND project needs to establish direction for the future on 1) Water Data Archive and 2) flood and low flow studies
- Identification of key researchers is suggested for the whole project. Preliminary working group leaders were identified and agreed upon in principle

- It is recommended that all member countries establish an Internet connection to facilitate communication
- While finance is a major problem faced by many countries, their active participation and contribution can offset this to make the project successful
- Papua New Guinea will be able to supply data to the AP FRIEND project while Vietnam can supply data in text format only. Cambodia requested assistance from RSC to run its newly formed hydrological activities

Following this workshop, a circular by UNESCO Jakarta was sent to all IHP National Committees throughout the region requesting research proposals for various AP FRIEND's sub-groups by 30th August 1998. Proposals will be compiled and further discussed at the next RSC meeting in Korea, November 1998.



Prof. Soontak Lee, Chairman RSC, delivering his speech



Ir. Hj. Keizrul bin Abdullah delivering the opening speech

Water Data Archive

As a spin-off of the above-mentioned workshop, The Regional Centre has established an Internet based water data archive system which will be one of the central data repositories besides Japan and Australia. Its web site is <http://agrolink.moa.my/htropics/welfriend.html>.

However, it still needs refinement when data becomes fully available. At the moment, only five categories of data are being considered namely rainfall, streamflow, land use, water level and climatic data. Details of data format are yet to be discussed among regional participating countries. For a start, the River Catalogue data has been archived which can be requested via the URL mentioned.

Along with it is the creation of a mailing list which will assist researchers involved in AP FRIEND's projects to contact each other, enabling quick exchange of information. The email address is apfriend@warga.moa.my and you are all encouraged to subscribe as long as you are part of the research groups.

3. International collaboration

UNESCO, Department of Irrigation and Drainage Malaysia (DID) and Compagnie Générale des Eaux (CGE) of France are keen to establish a collaboration within the framework of water resources in general. Programs for collaboration will be spearheaded through the Regional Centre. This is the first collaboration of its kind in this region involving a non-governmental organisation who is heavily involved in servicing public water consumption and other needs. Scope of the collaboration covers research, education and training and information dissemination. A memorandum of understanding (MoU) is being finalised

The said collaboration addresses problems of managing surface water quality and quantity at catchment scale. As a long term strategy, it will focus more on training and public awareness programs to help meet future expectations. Two full time researchers have started gathering basic catchment data for a GIS in anticipation of a future study.



Some of the participants of 1st AP FRIEND workshop

4. CALENDAR OF EVENTS

Meeting

1. Joint handing-over ceremony and launching of the educational "water box" contributed by the CGE under the framework of the collaboration, 4 July 1998, The Regional Centre.
2. 2nd International Steering Committee Meeting (ISC), November 1998. Date and venue are yet to be fixed.
3. 2nd Co-ordination Committee Meeting of The Regional Centre, November 1998. Date and venue are yet to be fixed.

Workshop/conference/seminar/training

4. Advanced course on stormwater modelling, 27-31 July 1998 at the Regional Centre. Invited speakers from Canada, France, Singapore and Malaysia. The course will introduce advanced methods of extreme rainfall estimation for input to urban drainage system study, appropriate modelling techniques to achieve integrated urban development by incorporating source control, pollution alleviation measures, pollution transport in rivers and travel time prediction in cases of accidental point pollution.
5. International Conference on Hydrology and Water Resources of the Humid Tropics: The Challenge of Sustainable Development, November 1998, Pangkor Island, Perak, Malaysia.
6. National seminar on "water: forestry and land use perspective", 30-31 March 1999, FRIM.
7. Groundwater contamination course April 1999, The Regional Centre.
8. Workshop on flood forecasting for the humid tropics, 6 -10 April 1999, The Regional Centre.

6. News around the region

Report of RSC of IHP Southeast Asia and the Pacific

The 13th IHP Inter-Governmental Council was held in UNESCO Head Quarters, Paris from June 8 to 13, 1998. Delegates came from 68 countries including 33 Council members and various UNO's, GO's and NGO's. From Southeast Asia and the Pacific region, all Council member countries, Australia, China, Indonesia, Japan, Malaysia and Thailand attended. Professor K. Takeuchi (Japan), Secretary of Regional Steering Committee for Southeast Asia and the Pacific was elected chairperson of the Council for 1998-2000 period. He was nominated by Indonesian delegate, Dr. Peter Hehanussa and seconded by as many as 15 countries in the Council. Professor Liu Xinren (China), Ir. Hj. Keizrul bin Abdullah (Malaysia), Mr. Pramote Maiklad (Thailand) were elected members of the Resolution Committee, Finance Committee and Adhoc Committee on Governing Mechanism respectively.

In the Council, the various regional activities of the Southeast Asia and the Pacific were reported including the publication of Catalogue of Rivers for Southeast Asia and the Pacific, vol. 2 and the successful start of Asian Pacific FRIEND project. The Catalogues were distributed to all participating countries.

5. Message from the Director

This is the second volume and first issue of 1998 of The Regional Centre's newsletter covering activities undertaken from January to June 1998 and foreseen until April 1999. Over the period, several important activities have taken place. I hope the Regional Centre will continue to get more support from organisations involved in hydrology and water resources activities.

I would like to thank you all for the invaluable support and trust given to implement those activities. I am sure we will continue to progress as long as the spirit of collaboration is prevailed.

We also appreciate more contribution of articles from you in future in order to make our newsletter more interesting and international.

I would like to take this opportunity to congratulate Prof. Takeuchi Kuniyoshi (Japan) Ir. Hj. Keizrul bin Abdullah (Malaysia), Prof. Liu Xinren (China) and Mr. Pramote Maiklad (Thailand) for their appointments in conjunction with the 13th IHP Inter-Governmental Council Meeting held recently. Thank you.

Warmest regards,

Dr. Mohd Nor bin Mohd Desa

The Malaysian delegate reported the establishment of the Regional Humid Tropics Hydrology and Water Resources Center for Southeast Asia and the Pacific and the various activities that took place in the Regional Center. The regional members dined together on the evening of June 12.

It was well observed at the Council that Water is now the focus area of all UN agencies and UNESCO IHP is key to all water programs. The regional activities are the bases of the IHP and the activities of Southeast Asia and the Pacific region is highly evaluated in the global IHP community and is expected to be successful. It was reported that the program of IHP 6th phase (2002-2007) is now under preparation by the task force headed by Prof. Ashim Das Gupta of AIT, Bangkok. The umbrella title and five themes under discussion are Water Interactions: Systems at Risk and Social Challenges - Global change and water resources, Integrated watershed dynamics, Regional perspectives, Water and society and knowledge, Information and technology transfer. All the countries are requested to submit project proposals under these themes. Let us actively participate to the planning stage of the program.

By Prof. Takeuchi Kuniyoshi

Report of IHP Malaysia

As Member of the Finance Committee of the IHP Intergovernmental Council

In 1996, IHP Finance Committee was established for the intersessional period of the IHP Intergovernmental Council to act on behalf of the IHP in assessing financial state and needs of the Programme, in undertaking initiatives conducive to secure adequate funding for the Programme and in overseeing the financial execution of the Programme.

In the thirteenth session of the Intergovernmental Council of the IHP that recently took place at UNESCO Headquarters (Paris, 8-13 June 1998), the Chairman of IHP Malaysia, Ir. Hj. Keizrul bin Abdullah, was elected to the IHP Finance Committee.

The newly elected IHP Finance Committee had its inaugural meeting during that session of the Council, whereby Ir. Hj. Keizrul bin Abdullah was represented by the Secretary of IHP Malaysia, Mr. Phuah Kim Heng. The Committee discussed the IHP Regular Budget 1998 - 1999 and also held a meeting with the member of Task Force on IHP-VI, Ms. M.C. Donoso, on establishing the mechanism for financial planning of IHP-VI.

IHP Malaysia therefore, would like to take this opportunity to express its sincere appreciation to all members of the Council from Southeast Asia and the Pacific for their support in nominating IHP Malaysia to the Finance Committee.

By Mr. Phuah Kim Heng

On the subject of Rainfall data collection: What should be the standard approach?

By Dr. Mohd Nor bin Mohd Desa

Accurate measurement of rainfall is indeed difficult. It has been acknowledged that a uniform standard of hydrological data collection, especially rainfall is of paramount importance particularly with respect to the type of raingauge used, installation procedure, resolution of tipping bucket, network density, etc. These can introduce systematic measurement errors in data collected. Furthermore, raingauges installed are representations (i.e. samples) of rainfall distribution in space: the closer they are, the more accurate the rainfall estimates obtained and vice versa. Thus a question arises, is our sample representative of the parent population?

All these have to be clearly addressed and corrected as far as possible because rainfall input contributes a lot to the accuracy of hydrologic design. On special applications such as the study of rainfall cell characteristics and their movement, the rainfall pattern can be looked at from two perspectives, i.e., the Eulerian (static raingauge) and Lagrangian (moving raingauge). The former yields space variation, movement and development and decay while the later yields only development and decay of rainfall cells.

The irony is that even in a national perspective, different organisations tend to use different type of raingauges and procedures of data collection, let alone at regional level. Concerned about this state of practice, the Malaysian IHP research committee is establishing a task group to look into current methods of rainfall data collection, processing and errors quantification in Malaysia. The aim is to agree upon common standards in line with international practice.

This novel effort is expected to be a big task to implement. As a start, the experience of regional countries will provide insight into needs for a uniform standard throughout the region eventually. This subject has been chosen for an international workshop by the Expert Group in Urban Rainfall (GUR) set up under the wing of IAWQ/IAHR specialist group on Urban Storm Drainage.

Feedback from regional countries pertaining to this is most appreciated. Issues to highlight can cover, instrumentation, resolution and network density, installation procedures, data processing and error detection algorithm, etc.

Your feedback can be sent to the address below:



Address for correspondence:

Director,
The Regional Humid Tropics Hydrology
and Water Resources Centre for Southeast
Asia and the Pacific,
c/o Department of Irrigation and Drainage Malaysia
Km. 7, Ampang Road,
68000 Ampang, Kuala Lumpur,
MALAYSIA.

phone: + 60 3 4561894 or 4562657 or 4566852
Fax: + 60 3 4561894 and E-mail: jps33@pop.moa.my
HP: <http://agrolink.moa.my/jps/regcent/regcent.html>
<http://agrolink.moa.my/htropics/welfriend.html>

This newsletter is produced by the staff of The Regional Humid Tropics Hydrology and Water Resources Centre for Southeast Asia and the Pacific.

Advisor: Ir. Hj. Keizrul bin Abdullah
(Chairman of Co-ordination Committee)

Editorial board: Ir. Ahmad Fuad bin Embi
Dr. Mohd Nor bin Mohd Desa
Mr. Zulkefle bin Ghazali
Mrs. Sarvamudthy

