

**1st Meeting of the NARBO Technical Advisory Committee
Singapore, 5 April 2008**

Meeting Report

I. Background

1. The Network of Asian River Basin Organizations (NARBO) is keen to improve the quality and credibility of its annual training program on integrated water resources management (IWRM) to the level of a prestigious regional flagship program. At NARBO's 3rd General Meeting in Indonesia last February 2008, NARBO agreed to establish the Technical Advisory Committee (TAC) who will review and advise NARBO's leadership and secretariat in revamping the training program, based on experience gained by NARBO over the past four years and taking into account approaches and experiences by other training providers.

2. NARBO held its 1st TAC Meeting in Singapore¹ last 5 April 2008, back-to-back with the meeting of the regional water knowledge hubs. Selected experts from the regional water knowledge hubs meeting were invited to join the NARBO leadership and secretariat team (See Annex 1 List of Participants). The Director General of the National Hydraulic Research Institute of Malaysia (NAHRIM) was invited to chair the meeting.

II. Highlights

3. A welcome dinner on 4 April was hosted by NARBO, and took benefit of the presence of representatives from K-Water who gave a presentation on K-Water's experience from hosting and organizing NARBO's 3rd training program on IWRM held in Daejeon, Korea in 2005. The dinner also featured an introduction and overview from ADB's Wouter Lincklaen Arriens. In the morning session of 5 April, four organizations (Japan Water Agency, UNESCO-IHE, International Water Centre (IWC, Australia), and NAHRIM) shared their respective experiences in offering training courses on IWRM; while in the afternoon session, the TAC discussed (i) ways to revamp the NARBO IWRM Training Program, and (ii) next steps.

K-Water

4. Dr. Ko shared K-Water's experience in organizing the 3rd NARBO Training on IWRM held in Daejeon, Korea in November 2005. Dr. Ko offered the following advice: (i) the training topic of 'technology for IWRM' had been appropriate and timely considering that IWRM concepts were introduced in previous NARBO training courses; (ii) the IWRM tools introduced in the training are applicable to help implement IWRM in other river basins in the region; (iii) follow-up courses or assistance after the training may be necessary in order to assist member organizations to adequately apply the tools demonstrated; (iv) planning the training in advance is important to achieve desired outcomes; and (v) hands-on activities are important aspect of the training.

¹ The meeting was held at the Singapore WaterHub, 80 Toh Guan Road East, 608575
(http://www.pub.gov.sg/waterhub/Vtour/Contact_Us.htm)

Japan Water Agency / NARBO

5. JWA's Akira Nishimura shared details² on the four completed NARBO training courses on IWRM held in (i) Bangkok and Chiang Mai, Thailand (July 2004); (ii) Negombo, Sri Lanka (April 2005); (iii) Daejeon, Korea (November 2005); and (iv) Colombo, Sri Lanka (November 2006).

UNESCO-IHE

6. Carel Keuls introduced UNESCO-IHE's educational program (including vision, mission, objectives, core activities, staffing, and main IWRM program options). The IWRM program offers short courses³ which (i) are tailor-made⁴ for client with a minimum of 10 students; (ii) make use of MSc program modules (3 weeks); and (iii) on-line (3 months). For short training courses, he recommended an optimal duration of 8 days (5 minimum days up to 15 maximum days) taking into consideration saturation and absorption. UNESCO-IHE's methods of learning include: (i) internet-based modules and reference books; (ii) classroom/mentoring/coaching; (iii) hands-on laboratories; and (iv) certification.

International Water Center

7. Mark Pascoe introduced IWC's new approach to teaching IWRM: (i) problem-based case study approach; (ii) explicit integration of disciplines; (iii) multicultural; (iv) real data, real problems; (v) non-technical management skills; and (vi) negotiating curriculum. Mr. Pascoe advised that: (i) higher education courses in IWRM take an interdisciplinary, problem-solving approach; (ii) more innovative approaches are needed to ensure higher order skills development; (iii) a high degree of collaboration is essential; (iv) approach requires flexibility: must adapt to the student cohort; and (v) curriculum design and delivery is likely to be more time consuming.

AguaJaring (successor to SEACapNet)

8. Dr. Salmah Zakaria introduced AguaJaring, its scope of program, target participants, governance (resource person, certification, course director), and work plan for the period 2008-2010. AguaJaring's capacity building program on IWRM focuses on (i) knowledge management; and (ii) enhancing networking among water practitioners. AguaJaring develops new training materials; and through its website (<http://www.aguajaring.org/>), keeps a database of capacity building institutions and resource persons, archives training materials, and advertises training courses/job opportunities.

² Details include: date, host organization, course director, theme, contents, participants (qualification, number, countries represented), lecture topics, resource speakers, and resource organizations.

³ Course/training components include: (i) introduction IWRM; (ii) water governance; (iii) decentralization and RBOs; (iv) transboundary rivers; (v) conflict resolution; (vi) water allocation and water rights; (vii) water valuation and water pricing; (viii) international aspects; (ix) role play decision making; (x) water resources systems (hydrology); (xi) decision support systems; (xii) demand management; (xiii) modeling; and (xiv) role play river basin management

⁴ For a 2-week tailor-made course on IWRM, the cost per participant is around 4,000 euros.

III. Findings and Recommendations

9. At the outset, the meeting recognized the need for capacity development in RBOs and water resources agencies in the region to implement IWRM in river basins. The meeting demonstrated (i) a keen interest to advise NARBO in improving the quality and credibility of its training program on IWRM; and (ii) the availability of valuable experiences and approaches in conducting IWRM training courses which can be useful references for NARBO.

10. The experts had productive discussions with the NARBO leadership and secretariat on ways in which NARBO could improve its IWRM training course, starting with the 5th course scheduled for November 2008. Specifically, the recommendations from the experts were for NARBO to

- (i) explore opportunities to complement face-to-face training courses with available on-line training programs, recognizing that the latter can be a convenient, efficient, practical and cost-effective means of learning;
- (ii) continue targeting NARBO's international face-to-face training course, including course modules on effective presentation and facilitation skills, to mid-level management professionals in RBOs;
- (iii) add short executive training opportunities for RBO executives;
- (iv) focus course content on developing and implementing inter-disciplinary solutions to IWRM challenges, with the help of case studies, team work, and role plays, and support by qualified faculty/resource persons;
- (v) strengthen course content on water governance;
- (vi) invite resource speakers with excellent communication skills and inter-disciplinary experience;
- (vii) maintain registration fees at \$200 per person per course to stimulate partial cost recovery, recognizing that such fees could be sponsored from a variety of sources on the initiative of the participants;
- (viii) consider promoting and marketing its training program using the following strategies:
 - identify an influential patron or champion who will promote the program;
 - tap the services of media;
 - improve the quality of packaging the program; and
 - advertise in relevant websites through web links.
- (ix) consider follow-up activities for training participants.

Towards a broader framework of IWRM certification of water professionals and RBO practitioners

11. The experts recommended that NARBO take a broader view to support the development of certified programs of continuous learning for staff working in RBOs, from entry level to senior management, and beyond that for regional experts. In promoting continuous and certified learning paths, the experts suggested that NARBO might target four levels of certification of IWRM proficiency and competence: (i) basic entry (IWRM advocate); (ii) middle

management (IWRM facilitator); (iii) senior RBO management (IWRM leader); and (iv) regional IWRM adviser (IWRM master or counselor).

12. The basic entry level would be targeted broadly to junior RBO staff as well as to those doing research work or interested in a particular IWRM element. NARBO could provide access to books, manuals, guidelines, links to relevant websites, online training courses, and other reference materials on IWRM. Such assistance would be available to all NARBO members for free, and NARBO might consider charging a fee to non-members.

13. The middle-management level would be targeted mainly to senior mid-career water professionals to enhance their expertise in water resources management for improved inputs to decision-making. NARBO assistance through training courses would be targeted to member organizations only, and participants would be charged a registration fee to help finance the costs.

14. The senior RBO management and regional IWRM adviser levels would be targeted to RBO leaders, for whom NARBO would provide more advanced and specialized training courses; and would charge a registration fee.

15. To help professionals in progressively attaining these four levels of proficiency, the experts recommended that NARBO consider to develop a credit-based process of accreditation involving both formal training (face-to-face and on-line) as well as supervised on-the-job learning opportunities, thereby offering professionals the flexibility to design their own personal development plan for IWRM proficiency. Certification could also be earned through participation in workshops, or through heavy involvement and valuable contribution to NARBO activities.

Next Steps

16. The recommendations by the experts will allow NARBO's secretariat team to formulate a proposal for revamping the IWRM training course and to explore NARBO activities to help realize this broader program of continuous learning for IWRM practitioners in the region. A discussion paper will be jointly prepared by JWA, ADB and ADBI staff.

Annex I List of Participants

1. **Dr. Mochamad Amron**, Ministry of Public Works, Indonesia; and NARBO Chairperson (Indonesia)
2. **Ivan de Silva**, Mahaweli Authority of Sri Lanka; and NARBO Vice-Chairperson (Sri Lanka)
3. **Wouter Lincklaen Arriens**, Asian Development Bank; and NARBO Vice Secretary-General (The Netherlands)
4. **Michio Ota**, Japan Water Agency; and NARBO Vice Secretary-General (Japan)
5. **Dr. Takeyoshi Sadahiro**, Japan Water Agency (Japan)
6. **Akira Terakawa**, International Centre for Water Hazard and Risk Management (Japan)
7. **Dr. Salmah Zakaria**, National Hydraulic Research Institute of Malaysia
8. **Sun Yangbo**, Yellow River Conservation Committee (Peoples' Republic of China)
9. **Mark Pascoe**, International Water Centre (Australia)
10. **Carel Keuls**, UNESCO-IHE Institute for Water Education (The Netherlands)
11. **Dr. Ed Araral**, Lee Kuan Yew School of Public Policy (Singapore)
12. **Wu Xun**, Lee Kuan Yew School of Public Policy (Singapore)
13. **Eddy Djajadiredja**, Ministry of Public Works (Indonesia)
14. **Fahmi Hidayat**, Perum Jasa Tirta I (Indonesia)
15. **Dr. Ick Hwan Ko**, K-Water (Korea) – gave a presentation during the welcome dinner on 4 April (Republic of Korea)
16. **Dr. Jeongkon Kim**, K-Water (Korea) – gave a presentation during the welcome dinner on 4 April (Republic of Korea)
17. **Dennis Von Custodio**, Asian Development Bank (Philippines)
18. **Michitaro Nakai**, Japan Water Agency (Japan)
19. **Akira Nishimura**, Japan Water Agency (Japan)
20. **Kawasaki Tadashige**, ADB Institute (Japan)