
REFRESHER COURSE ON WATER MANAGEMENT FOR SUSTAINABLE
RURAL DEVELOPMENT AND NATURAL RESOURCES

Ha Noi, Vietnam
25 September – 6 October 2006

EVALUATION REPORT



VIETNAM INSTITUTE FOR WATER
RESOURCES RESEARCH (VIWRR)
HA NOI, VIETNAM



ALTERRA-ILRI
WAGENINGEN
THE NETHERLANDS



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1 BASIC DETAILS

1.1 Title: Refresher Course on Water Management for Sustainable Rural Development and Natural Resources

1.2 Organizing institute (Netherlands):
Alterra-ILRI. International Institute for Land Reclamation and Improvement.
Postbus 47, 6700 AA Wageningen.
Name of the contact person:
R.A.L. Kselik
Senior researcher
email address: rob.kselik@wur.nl.

1.3 Partner Organization:
Vietnam Institute for Water Resources Research (VIWRR)
171 Tay Son, Dong Da
Ha Noi, Vietnam
Name of the contact person:
Mr. Le Quang Ahn
Deputy Head of International Cooperation Department
email address: aba_anh@yahoo.com

1.4 Location of the course:
Thang Loi, Yen Phu Street
Ha Noi City
Vietnam

1.5 Date and duration:
The course was conducted from 25 September – 6 October 2006

2. IMPLEMENTATION OF COURSE ACTIVITIES

2.1 Course participants

The total number of participants in the course was 23, of whom 16 were NFP alumni. The participants were recruited from the following countries: Vietnam 8, Thailand 4, China 2, Philippines 1 and Malaysia 1 (the latter was an NFP eligible country at the time of the training of the participant in The Netherlands). The 7 non-NFP participants were direct colleagues of the Vietnamese NFP-alumni and staff members of the partner institute. The number of female participants was 8 (35%). Annex 1 presents the acquisition letter for the course. Details of all participants are presented in Annex 5.

2.2 Recruitment and selection of the participants

The target group was selected from NFP alumni, who attended ILRI's International Course on Land Drainage (ICLD) and NFP alumni from the UNESCO-IHE Institute for Water Education, Delft (with the same field of experience). The NFP alumni had their NFP-funded training / education in the period 1992 – 2002.

All participants had to apply for the course by sending a registration form (Annex 2) together with their CVs to the organizing institutes. The application forms and CVs were evaluated to ensure that the NFP alumni were employed in a profession to which the course made a relevant contribution and to ensure that all participants had a position that enabled them the introduction or application of the newly acquired skills and knowledge. The same procedure was applied to the 7 Vietnamese colleagues of the NFP alumni. Only non-NFP participants from the same organisations as the NFP-participants were accepted.

The selection was done jointly by the two organisations Alterra-ILRI and VIWRR. The participants were chosen such that there was a proper mix of experience in education, research and executive tasks with respect to water management. In the selection process priority was given to female participants.

2.3 Course objectives

Short term objectives:

- Present recent perceptions and developments in integrated water resources management. Special attention is paid to the participation of stakeholders and the need for sustainable rural development and sound ecosystems;
- Provide a thorough understanding of these new developments since they are related to agricultural water management in the Far East.
- Promote and exchange of knowledge and experience among the participants;
- Promote national and international co-operation between the various institutions;

- Prepare a regional action-research agenda on technical, operational and institutional aspects of water management for a sustainable agricultural production.

Long term objective:

- Contribute to Sustainable Rural Development in South East Asia, through increased capacity building and networking amongst professionals in the region.

2.4 Set-up of the course

Experts from The Netherlands presented an overview of the latest developments in agricultural water management, from a international and global perspective. Vietnamese experts focused on the latest developments and initiatives in the region and their implementation. As the exchange of knowledge, the formulation of mutual interests and discussion on priorities was an important objective of the refresher course, also time for presentations by participants and workshops was incorporated in the course. Participants were enabled to present any subject within the scope of the course and to discuss the relevant topics with their colleagues.

Vietnamese initiatives and achievements in (agricultural) water management were also shown during a 2-day technical excursion.

The inputs from the individual presentations and the lectures formed the basis of a concluding workshop on a regional action research agenda. The main objective of the workshop was to formulate a *research agenda* on technical, managerial and institutional aspects of water management for sustainable rural development and natural resources. In the workshop working groups were formed. The main issues in the field of (agricultural) water management in the Far-East subcontinent were identified, as well as the intended actions by participants to address these issues and to enhance regional co-operation.

The course materials consisted of selected books, a set of CD-ROMS with electronic reference materials and software. Moreover the participants had received a memory stick for the mutual exchange of information.

2.5 Justification

Since 1962, the International Institute for Land Reclamation and Improvement / ILRI (since 2001 Alterra-ILRI) organizes the annual International Course on Land Drainage (ICLD) in Wageningen, The Netherlands, for professionals engaged in the planning, design and management of agricultural land drainage or involved in research and training in these fields. More than one thousand professionals from all over the world have been trained in sustainable management of land and water resources for rural development through the International Course.

Recently, the ICLD has entirely been remodelled, according to the changing needs of the participants, donors and partner organisations. Triggered by

changing paradigms in land and water management, the ICLD has undergone an important shift from technical and mono-disciplinary approaches towards interdisciplinary solutions. Moreover, the content of the ICLD has been put in the perspective of integrated water resources management.

Another important aspect is the integration of the then organising institute ILRI in the Wageningen University and Research Centre (WUR), which has also contributed to a new, broader curriculum of the ICLD and new technologies and educational concepts having become accessible. The integration of ILRI in WUR, each having their own professional network, has also resulted in more synergy and better cooperation with partner institutes in the NFP countries. The refresher course will thus promote regional co-operation and enforce the ongoing process of increased involvement of partner educational institutes in joint courses.

The target group of the Refresher Course completed the ICLD between 1992 and 2002 (hence 4 to 14 years ago) and has not (fully) benefited from these latest developments. In addition does the ICLD serve a broad group of mid-career professionals from all over the world. Alumni of the 'Land and Water' course of the UNESCO-IHE Institute for Water Education (Delft) were also invited to participate. Although land and water issues in various climatic zones are addressed in the ICLD, there are limited possibilities for region-specific knowledge. Through the refresher course also a regional focus is assured, whilst using the (more general) knowledge acquired in the ICLD as the basis.

2.6 Description of activities

Lectures

There were two groups of lecturers who presented the subjects: Invited lecturers by VIWRR and Alterra-ILRI lecturers. The participants formed a third group to conduct presentations from their own field of work.

Lecturers Invited by VIWRR

- Stakeholder participation in the planning process and in operational water management (Nguyen Xuan Tiep);
- Irrigation water use in large rice basin irrigation systems in Viet Nam (Doan Doan Tuan);
- Performance assessment of irrigation and drainage – Case study in Vietnam (Doan Doan Tuan);
- Research on the effectiveness of drainage (participatory approach) (Le Quang Anh);
- GIS based database management systems in Vietnam (Nguyen Van Hanh);
- Improving water resources management of the Nam irrigation and drainage system in Thai Binh province (Do Nhu Hong);
- Overview of irrigation modernization concepts (Nguyen Tung Phong);
- Mrs. Trinh Ngoc Lan: Integrated water resources management in Vietnam;

ILRI-Alterra lecturers

- Integrated water resources management – concept evolution and international developments (Herco Jansen);

- Agricultural water management in the IWRM perspective (Herco Jansen);
- Integrated Water Resources Management – toolbox and cases (Herco Jansen);
- Geographical Information Systems – Introduction and applications in IWRM (Herco Jansen);
- Remote Sensing – Introduction and applications in land and water management (Herco Jansen);
- Integration of irrigation and drainage (Rob Kselik);
- Water requirements for irrigation / CRIWAR (Rob Kselik);
- Performance assessment of irrigation and drainage (Rob Kselik);

Presentations by course participants

Session (1)

- The modernization of water management system in Thailand.
Part 1: Noppadon Phaka: Introduction;
Part 2. Somsak Vivithkeyoonvong): Project description;
- Mrs. Shaoli Wang (China) Advancement of drainage work in China;
- Kanapoj Wandee: Integrated Water Resources Management in Thailand;
- To Viet Thang: The impact of development on water quality in the Bac Hung Hai irrigation system, Vietnam;
- Jamaludin bin Jaya (Malaysia): Tropical peat swamp research – current status and future challenges;

Session (2)

- Dao Viet Dung (Vietnam): GIS and Remote Sensing applications in irrigation system management – a case;
- Weeraphong Krusong: Water Resources education in Thailand;
- Mrs. Salome N. Layasan: Integrated irrigation water resource management in the Philippines / participatory approach;
- Ding Kunlun (China): Community based management on Rural Water Supply;

Session (3)

- Mrs. Vu Thi Thu Thuy: Modeling storm surge for Vietnam's coast;
- Mrs. Nguyen Thi Kim Dung: Soil and water conservation in sloping land in the northern Vietnam;
- Mrs. Doan Thu Ha: Water supply in Ha Noi;

Technical excursion

- Nam Thai Binh Irrigation Company
Introduction to the NTB irrigation system
Visit to tidal gates
Visit to Nam Cuong aquamarine ponds;
- Tien Hai Irrigation Management Enterprise
Visit to the pumping station

- Do Son_Hai Duong, largest irrigation and drainage system in Vietnam
Introduction on activities of the Provincial Irrigation Management Company
Visit of the Do Leo pumping station;

Detailed Course Programme

Date	Programme/Subject/Activity
Monday 25/9/2006	Morning: Inauguration of the Refresher Course and Personal Introduction Course overview Afternoon: Integrated water resources management – concept evolution and international developments (H. Jansen);
Tuesday 26/9/2006	Morning : Integrated Water Resources Management – toolbox and cases (H. Jansen); Afternoon: City tour
Wednesday 27/9/2006	Morning : Stakeholder participation in the planning process and in operational water management (Nguyen Xuan Tiep); Afternoon: Participants Presentations(1)
Thursday 28/9/2006	Morning : Integration of irrigation and drainage (R. Kselik); Afternoon: Participants Presentations(2)
Friday 29/9/2006	Technical Excursion
Saturday 30/9/2006	Technical Excursion
Sunday 01/10/2006	Free
Monday 2/10/2006	Morning : Water requirements for irrigation / CRIWAR (R. Kselik); Irrigation water use in large rice basin irrigation systems in Viet Nam (Doan Doan Tuan); Afternoon : Participants Presentations (3)
Tuesday 3/10/2006	Morning : Geographical Information Systems – Introduction and applications in IWRM (H. Jansen); Remote Sensing – Introduction and applications in land and water management (H. Jansen); Afternoon : GIS based database management systems in Vietnam (Nguyen Van Hanh); Evening: Water puppet show
Wednesday 4/10/2006	Morning : Mrs. Trinh Ngoc Lan: Integrated water resources management in Vietnam; Improving water resources management of the Nam irrigation and drainage system in Thai Binh province (Do Nhu Hong); Afternoon : Overview of irrigation modernization concepts (Nguyen Tung Phong);
Thursday 28/9/2006	Morning : Performance assessment of irrigation and drainage (R. Kselik); Afternoon : Performance assessment of irrigation and drainage – Case study in Vietnam (Doan Doan Tuan);
Friday 29/9/2006	Morning : Workshop: Research Agenda Afternoon: Refresher Course Evaluation and Closing Session

Background of lecturers

- H. Jansen and R. Kselik: Wageningen University & Research Centre, Alterra-ILRI, Wageningen
- Nguyen Xuan Tiep: Former Deputy Director of Water Resources Department – Ministry of Agricultural and Rural Development.
- Doan Doan Tuan: PIM Centre – Vietnam Institute for Water Resources Research.
- Nguyen Van Hanh: Center for Water Resources Software.
- Do Nhu Hong: Department of Water Resources and Hydraulic Works.
- Nguyen Tung Phong: International Cooperation Department (ICD) - Vietnam Institute for Water Resources Research.
- Mrs. Trinh Ngoc Lan: Vietnam Institute for Water Resources Research.

Regional research agenda

The last day of the course a research agenda was drafted by the participants. Six main topics were identified and for each topic a working group was established. The six topics were:

- Environmental degradation
- Flooding and waterlogging
- Human resources development
- Irrigation productivity
- Water quality
- Water shortage

An outline of the results is presented in Annex 6.

2.7 Responsibilities of the partner organization

The partner organization was responsible for:

- Invitation and approach of the participants
- Selection of the participants (together with Alterra-ILRI)
- Organization of the course:
 - Provide course facilities
 - Provide accommodation
 - Contract local lecturers
 - Organize the excursion
 - Carry out all logistics during the course

Details on the partner organization are presented in Annex 3.

3. EVALUATION

3.1 Participants' evaluation

Annex 4 gives an overview of the Participants' appreciation, the comments and recommendations on the various subjects and elements of the course. It shows that the course was highly appreciated by the participants for subjects related to integrated water resources management for rural development and that they consider sustainable land- and water development important for the region. The exchange of knowledge and experience among the participants as a basis for life long learning scored high in the evaluation, as well as the promotion of national and international co-operation between the various institutions and the contribution to a regional action-research agenda.

3.2 Course Management's evaluation

The ILRI-Alterra course management wishes to acknowledge the large contributions by the VIWRR course organizers, as well as the large contributions by the participants in the discussions, their presentations and the workshop. Largely as a result of their active participation and strong commitment to the success of the course, the Refresher Course can indeed be characterised as a regional seminar, in which professionals shared their knowledge and experiences, and established and enforced a valuable regional network.

3.3 Conclusions and recommendations

Both the participants and course management conclude that the Refresher Course is important for the region. Participants from the Philippines and China already volunteered to organise the next Refresher Course. It is, therefore, recommended, to continue -and where possible increase- the financing of such events.

4. FINANCIAL ADMINISTRATION

Budget Item:	Description:	Budgeted (euro)	Costs (euro)	Contribution NFP	Contribution Alterra-ILRI
<u>301/302</u>	Salaries NL/BL				
301.1.1	Selection NL	623,00			
301.1.2	Preparation NL	1246,00			
301.1.2	Preparation NL	2248,00			
301.1.3	Follow-up & Reporting NL	1246,00			
302.1.1	Preparation BL	964,00			
302.1.1	Preparation BL	870,00			
302.1.2	Conducting Course BL	5784,00			
302.1.2	Conducting Course BL	5220,00			
	Subtotal	18201,00	23600,00	17500,00	6100,00
<u>303</u>	Travel costs staff members				
303.1.2	Travel expenses	3600,00	2432,12	2432,12	
303.2.1	Lodging expenses	2772,00	2574,00	2574,00	
	Subtotal	6372,00	5006,12	5006,12	
<u>540/642</u>	Material costs				
540.0.0	Recruitment & selection	1000,00	1002,00	1002,00	
642.0.0	Course material	9800,00	10611,00	10611,00	
	Subtotal	10800,00	11613,00	11613,00	
<u>620</u>	Participant related costs				
622.0.0	Travel expenses outside Vietnam	3934,00	4749,00	4749,00	
622.0.0	Travel expenses inside Vietnam	896,00	429,00	429,00	
625.0.0	Lodging expenses	20790,00	21418,00	21418,00	
628.0.0	Insurance	1309,00			
	Subtotal	26929,00	26596,00	26596,00	
<u>640</u>	Costs counterpart				
641.1.1	Salary costs preparation	516,00	500,00	500,00	
641.1.2	Salary costs execution	3072,00	1608,00	1608,00	
643.1.1	Excursion	1020,00	1634,00	1634,00	
643.1.2	Logistics support	5542,00	3077,00	3077,00	
	Subtotal	10150,00	6819,00	6819,00	
800.0.0	Contingencies (5%)	3000,00			
	GRAND TOTAL	74751,00	73634,12	67534,12	6100,00
	NFP	70000,00	67534,12		
	Own contribution 301/302	5452,00	6100,00		
	Own contribution other	0,00	0,00		
	Exchange rate 1 USD = 0,78 €				
	Exchange rate 1 USD = 16.080 VND				

The requested contribution from NFP amounts to € 67534,12

ANNEX 1. ACQUISITION BROCHURE



VIETNAM INSTITUTE FOR WATER RESOURCES RESEARCH INTERNATIONAL COOPERATION DEPARTMENT

Hanoi, May, 2006

Dear Alumnus,

In 2005 the International Institute for Land Reclamation and Improvement Alterra-ILRI organized the 44th International Course on Land Drainage/ICLD in Wageningen, The Netherlands. You have attended this course several years ago. The Dutch Government, through the Department for Development Cooperation/DGIS, has created the opportunity for refresher courses to be held for alumni who attended the ICLD on a Netherlands fellowship. Since 1994, nine Refresher Courses on Land Drainage/RCLD have been held in respectively Egypt (2x), India(2x), Pakistan, Turkey, Malaysia, Mozambique and South Africa.

The Vietnam Institute for Water Resources Research (VIWRR) of the Ministry of Agriculture and Rural Development in Vietnam and Alterra-ILRI will jointly organize the 10th Refresher Course on Land Drainage in Hanoi, Vietnam, from 25 September to 6 October 2006. This Refresher Course is intended for alumni from Vietnam, Thailand, China, Malaysia and the Philippines who attended the ICLD in the period 1992- 2002.

The Vietnam Institute for Water Resources Research was established in 1959. The four main responsibilities are:

- To conduct research on issues in water resources development and management;
- To apply and transfer research results and technology, and implement pilot projects;
- To provide consulting services in the area of water resources, and hydroelectricity;
- To conduct post-graduated training.

The total staff has mounted to over 1000 (including 250 permanent cadres paid by State budget, 16 paid by VIWRR, 411 recruited based on long-term contracts and 323 on short-term contracts). There are 3 professors, 13 associate professors, 55 PhDs, 88 masters and most of remaining is engineers.

The title of the Refresher Course is: “*Refresher Course on Water Management for Sustainable Rural Development and Natural Resources*”. Leading experts from the region and the Netherlands will present the state of the art in water resources management and the integration of irrigation and drainage. Both lecturers and participants will present their regional experiences. Participants will be asked to deliver a 20-minute individual presentation related to their own experience.

The Refresher Course on Land Drainage will give you a good opportunity to update your knowledge on land drainage and to share your experiences in this field with alumni from other countries. If you are interested to participate in the course, you are kindly requested to fill the attached application form and send it by Fax or email together with your CV to the Course Organization in Hanoi, not later than 15st July 2006. We are happy to announce that the Netherlands Government will cover all expenses.

Unfortunately, only a limited number of participants can be selected (between 20 and 25). Participants will be selected in such a way that there will be a proper mix of experiences in research, design, implementation, and O&M of projects from the various countries in the region. After the selection, we will send you details of the course and the input we expect from you to make the course a success.

We hope to welcome you in Hanoi in September 2006,

Yours Sincerely

Dr. Nguyen The Quang
Deputy Director
Vietnam Institute for Water Resources Research

ANNEX 2. REGISTRATION FORM

REFRESHER COURSE ON WATER MANAGEMENT FOR SUSTAINABLE RURAL DEVELOPMENT AND NATURAL RESOURCES	
25 September – 6 October 2006, Ha Noi, Vietnam	
PARTICIPANT REGISTRATION FORM	
Name (full name):	M / F
Date of birth:	
Nationality:	
Alumni of the course: Organized in The Netherlands from to Sponsored by : NFP-fellowship / DGIS-project / Others, please specify:	
Occupation/Function:	
Employer (full name and address): Please indicate: Government / Public Organisation / Private Organisation / University / Training Institute	
Mailing address: E-mail: Phone: Fax:	
Remarks:	

ANNEX 3: INFORMATION COUNTERPART INSTITUTE*

The Vietnam Institute for Water Resources Research (VIWRR) is the leading institute for water resources research in Viet Nam. The institute was established in 1959. Over the past 47 years, the development of VIWRR has been always in tune with the development of the water sector in particular and the country in general. At present, VIWRR assumes four main functions including:

- Scientific research;
- Experimental and technological transfer;
- Consultancy and construction for small and medium-size hydraulic and hydro-power works;
- Post-graduate training.

The Institute is organized into 24 units:

- 5 divisions;
- 19 departments, centers and research stations and one company.

The total staff has mounted to over 1000 (including 250 permanent cadres paid by State budget, 16 paid by VIWRR, 411 recruited based on long-term contracts and 323 on short-term contracts). There are 3 professors, 13 associate professors, 55 PhDs, 88 masters and most of remaining is engineers.

Sectors of Scientific and Technological Research:

1. River training, coastal protection, flood control and natural disaster mitigation.
2. Water resources and water environment protection.
3. Irrigation, drainage, land reclamation and water supply.
4. Construction, upgrading and protection of hydraulic and hydroelectric works.
5. Water resources economy and policy
6. Specialized equipment, automatization and software technologies.

Every year, VIWRR has selected a lot of National, Ministerial and Provincial programs and projects, implementing a variety of technical economic contracts for clients from central level to local level, with domestic or international organizations. Many scientific products have been applied. A number of products have been issued for license, rewarded by the State and taken the Vietnamese prize for creation in science and technologies (VIFOTECH). Some has been initially exported. VIWRR highly appreciates the support and cooperation of various national and international organizations and individuals.

*Information from FAO and VIWRR brochure

ANNEX 4: EVALUATION FORM

REFRESHER COURSE ON WATER MANAGEMENT FOR SUSTAINABLE RURAL DEVELOPMENT AND NATURAL RESOURCES 25 September – 6 October, 2006, Ha Noi, Vietnam

EVALUATION FORM

Question	Score (1 = poor, 2 = fair, 3 = reasonable, 4 = good, 5 = excellent) / Comment
1. To what extent did the Course meet your expectations ?	Score: 4.2
2. Do you consider the mixture of lectures, participants' presentations, field trips, excursions, and workshop appropriate?	Score: 4.5
3. Which of the Course subjects were the most relevant for your own work?	All(2), IWRM(5), Integration of irrigation & drainage(1), participatory approach(1), irr. water requirements(3), GIS(3), performance assessment(3), environmental aspects(1), water resources education(1)
4. Which of the Course subjects do you consider least relevant for your work?	Stakeholder participation(1), case study in the region(1), IWRM(1), agriculture/fisheries(1), PIM(2), Performance assessment(1)
5. How do you rate the course documentation provided?	Score: 3.9
6. Do you feel that one or more subject(s) should have been treated in more detail (more in-depth)?	Yes (22)
7. If yes, which subject(s)?	Gis & Remote sensing(9), performance assessment(3), irr. Efficiency, drainage, water for irr. & reuse, stakeholder participation, toolbox, lessons learned, crop water requirements, IWRM
8. Do you feel that other subjects should have been included in the Course programme?	Yes (19)
9. If yes, which subject(s)?	See list below this table
<p>Please rate the extent to which each of the course objectives specified below has been achieved:</p> <p>10. To present the latest (conceptual) developments in agricultural water management, with special attention to the concept of</p>	Score: 4.2

Question	Score (1 = poor, 2 = fair, 3 = reasonable, 4 = good, 5 = excellent) / Comment
<p>integrated water resources management, the relation between water management and spatial planning, and the participation of stakeholders in water planning and operational water management.</p> <p>11. To present the participants a selection of the latest developments in water assessment tools, with emphasis on agricultural water management in relation to sustainable rural development and the safeguarding of natural resources and ecosystems</p> <p>12. To provide the participants with a thorough understanding of these developments, so that they can apply them in day-to-day work;</p> <p>13. To promote the exchange of knowledge and experience among the participants as a basis for life long learning;</p> <p>14. To promote national and international co-operation between the various institutions, and;</p> <p>15. To contribute to a regional action-research agenda on technical, managerial and institutional aspects of Water Management for Sustainable Rural Development and Natural Resources</p>	<p>Score: 4.1</p> <p>Score: 4.1</p> <p>Score: 4.7</p> <p>Score: 4.3</p> <p>Score: 4.4</p>
<p>16. Do you have any suggestions regarding a follow-up to this Refresher Course?</p>	<p>More case studies in IWRM(2) Cooperation research in the field Follow-up of the regional research agenda Another course (2)</p>
<p>Please give a mark to indicate your degree of appreciation for the sections of the Course programme:</p> <p>Week 1: <u>Monday 25/09/2006</u></p> <p>17. Opening, registration, personal introductions, course overview</p> <p>18. Integrated water resources management – concept evolution and international developments (Herco Jansen)</p> <p>19. Agricultural water management in the IWRM perspective (Herco Jansen)</p> <p><u>Tuesday 26/09/2006</u></p> <p>20. Integrated Water Resources Management – toolbox and cases (Herco Jansen)</p> <p>21. City tour</p> <p><u>Wednesday 27/09/2006</u></p> <p>22. Stakeholder participation in the planning process and in operational water management (Nguyen Xuan Tiep)</p>	<p>Score: 4.1</p> <p>Score: 4.4</p> <p>Score: 4.3</p> <p>Score: 4.4</p> <p>Score: 4.1</p> <p>Score: 4.3</p>

Question	Score (1 = poor, 2 = fair, 3 = reasonable, 4 = good, 5 = excellent) / Comment
Participants' presentations (1)	
The modernization of water management system in Thailand	
23. Part 1. Introduction (Noppadon Phaka)	Score: 3.9
24. Part 2. Project description (Somsak Vivithkeyoonvong)	Score: 4.0
25. Advancement of drainage work in China (Shaoli Wang)	Score: 3.9
26. Integrated Water Resources Management in Thailand (Kanapoj Wandee)	Score: 4.0
27. The impact of development on water quality in the Bac Hung Hai irrigation system, Vietnam (To Viet Thang)	Score: 4.0
28. Tropical peat swamp research – current status and future challenges (Jamaludin bin Jaya)	Score: 4.2
<u>Thursday 28/09/2006</u>	
29. Integration of irrigation and drainage (Rob Kselik)	Score: 4.2
Participants' presentations (2)	
30. GIS and Remote Sensing applications in irrigation system management – a case study (Dao Viet Dung)	Score: 4.1
31. Water Resources education in Thailand (Weeraphong Krusong)	Score: 4.0
32. Integrated irrigation water resource management in the Philippines / participatory approach (Salome N. Layasan)	Score: 4.0
33. Community based management on Rural Water Supply (Ding Kunlun)	Score: 4.0
<u>Friday / Saturday 29/09/2006 - 30/09/2006</u>	
34. Excursion	Score: 4.3
Week 2:	
<u>Monday 02/10/2006</u>	
35. Water requirements for irrigation / CRIWAR (Rob Kselik)	Score: 4.5
36. Irrigation water use in large rice basin irrigation systems in Viet Nam (Doan Doan Tuan)	Score: 4.3
37. Research on the effectiveness of drainage (participatory approach) (Le Quang Anh)	Score: 4.0
Participants' presentations (3)	
38. Modeling storm surge for Vietnam's coast (Vu Thi Thu Thuy)	Score: 4.1
39. Soil and water conservation in sloping land in the northern	Score: 3.7

Question	Score (1 = poor, 2 = fair, 3 = reasonable, 4 = good, 5 = excellent) / Comment
<p>Vietnam (Nguyen Thi Kim Dung)</p> <p>40. Water supply in Ha Noi (Doan Thu Ha)</p> <p><u>Tuesday 03/10/2006</u></p> <p>41. Geographical Information Systems – Introduction and applications in IWRM (Herco Jansen)</p> <p>42. Remote Sensing – Introduction and applications in land and water management (Herco Jansen)</p> <p>43. GIS based database management systems in Vietnam (Nguyen Van Hanh)</p> <p>44. Evening programme; water puppet theatre</p> <p><u>Wednesday 04/10/2006</u></p> <p>45. Integrated water resources management in Vietnam (Trinh Ngoc Lan)</p> <p>46. Improving water resources management of the Nam irrigation and drainage system in Thaing province (Do Nhu Hong)</p> <p>47. Overview of irrigation modernization concepts (Nguyen Tung Phong)</p> <p><u>Thursday 05/10/2006</u></p> <p>48. Performance assessment of irrigation and drainage (Rob Kselik)</p> <p>49. Performance assessment of irrigation and drainage – Case study in Vietnam (Doan Doan Tuan)</p> <p><u>Friday 06/10/2006</u></p> <p>50. Workshop: Research Agenda</p>	<p>Score: 3.9</p> <p>Score: 4.3</p> <p>Score: 4.3</p> <p>Score: 3.7</p> <p>Score: 4.6</p> <p>Score: 4.7</p> <p>Score: 3.9</p> <p>Score: 4.2</p> <p>Score: 4.3</p> <p>Score: 4.2</p> <p>Score: 4.3</p>
<p>Please rate logistical support</p> <p>51. Travel & transportation service</p> <p>52. Secretarial services</p> <p>53. Coffee breaks</p> <p>54. Lunches</p> <p>55. Computer facilities</p>	<p>Score: 4.6</p> <p>Score: 4.5</p> <p>Score: 4.7</p> <p>Score: 4.6</p> <p>Score: 3.8</p>

Question	Score (1 = poor, 2 = fair, 3 = reasonable, 4 = good, 5 = excellent) / Comment
56. Lecture room	Score: 4.3
57. Organization (general)	Score: 4.4

58. Any other comments?

- Well organized and professional course.
- Let participants be more active in case studies, where they can play the role of sector representative or farmer to solve problems in IWRM.

Detailed answers to question 9 (what other **subjects** should have been **included** in the course):

- Software in IWRM
- IHE models for IWRM
- Reservoir management
- IWRM in river basins (2)
- Model of rural development
- Environmental issues in rural areas (2)
- Rural drinking water supply
- Waterlogging
- Practical models (Mike SHE, Basins, SWAT)
- Successful case studies
- Soil + water conservation
- Water conservation in urban areas
- Water conservation in agriculture
- Integrated water use among different sectors
- Practical equipment for IWRM
- Irrigation methods for non-rice based crops in Vietnam
- Multi stakeholders platform

ANNEX 5: DETAILS OF PARTICIPANTS

VIETNAM (VN)

Sl. No.	Name	Organization	Address
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VN-15	Nguyen Hiep	Disaster Management Centre - Department of Dyke Management Flood and Storm Control	A4 No 2 Ngoc Ha street, Ba Dinh district, Ha Noi city, VietNam Tel: Email: nguyen.hiep.vn@gmail.com

THAILAND (TH)

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ANNEX 6: REGIONAL RESEARCH AGENDA

Group : Irrigation Productivity
Members : Le Thi Nguyen
Salome Layasan

Major Topic : The Gap Between the Service Area SA and Irrigated Area of the National Irrigation Systems (NIS) in the Philippines: Case Study: Libuganon River Irrigation System (LRIS)

Problem Definition: Actual irrigated area is less than the service area

Methodology : Identify the factors affecting the gap by doing a research on performance assessment of LRIS

Sources of Data:

Instrument used : Survey, actual discharge measurement, workshops

Respondents : Regional Irrigation Manager (IMC)

Irrigation Superintendents (Districts)

Provincial Irrigation Officer (Province)

Vietnam

WUAs officers

Irrigation

WUAs members and non-members

Partners: - Alterra-ILRI

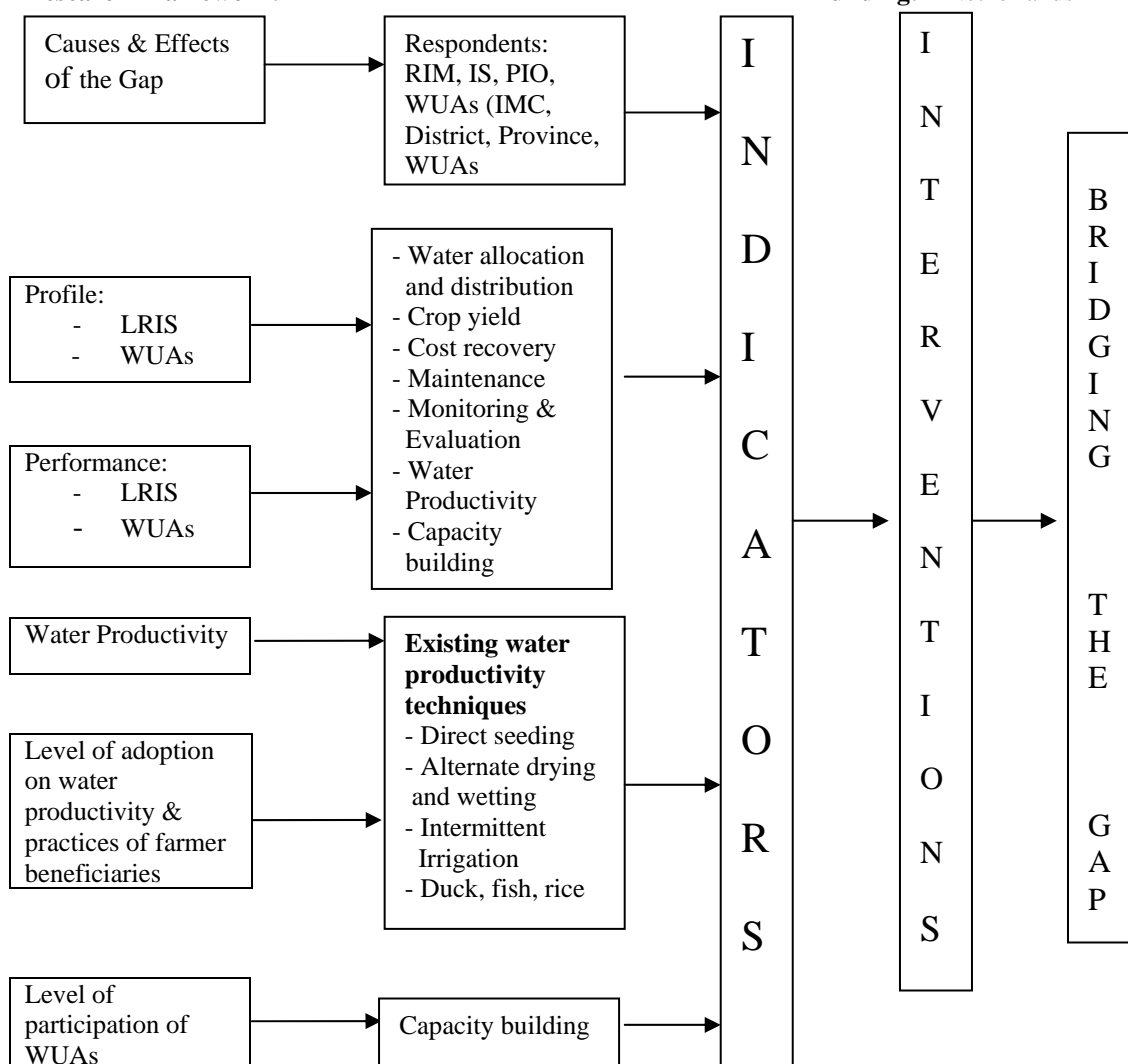
- Water Resources University,

- National

Administration Philippines

Netherlands

Research Framework:



Water quality (for irrigation)

Activities:

1. Identify causes of water quality degradation
2. Identify the locality of the problem
3. Identify the magnitude of the problem
4. Organized meeting and establish water quality standard among the partners
5. Establish research collaborations among affected countries
6. Organized regular workshop & find common solutions

Partner:

1. VIWRR (Eg Nguyen Hoang Anh)
2. MARDI (Ir Jamaludin bin Jaya)
3. Water Resources University (Eg Pham Bao Ngoc)

Finance:

1. Government
2. World Bank
3. ADB
4. NGO's
5. WUA

Action Plan to solve water shortage

1- Activities:

- Identify real problems (physical and management,) by evaluation assessment
- Identify partners
- increase storage : small dam, pond
- dry tolerant crops : alfalfa, pineapple
- changing cropping pattern : from rice to dry-footed crops
- apply water saving technology : pipeline, tank
- awareness/ farming extension programs
- Stakeholder participatory

2- Partners:

- Govt officers,
- International experts
- Local scientists
- Water users

3- Finances

- international donors
- Govt support
- Water users contribution

Ding, Dung, Lan

Environmental Degradation

(Strategic plan for controlling environmental degradation)

By: Wang Shao Li
To Viet Thang

Item	Solutions	People in charge	Time/duration
1	<p>Public awareness</p> <ul style="list-style-type: none"> * Training, international/national workshops * Public Talks * Participation 	<p>Educational institutes, media : TV, radio...</p> <p>all stakeholders</p> <p>all stakeholders</p>	Long term
2	<p>Regulation and policy</p> <p>a. Environmental legislation system at all levels</p> <ul style="list-style-type: none"> . Central . Provincial . Local <p>b. Enforcement</p> <ul style="list-style-type: none"> . Fine/penalty - subsidize <p>c. Monitoring system</p> <ul style="list-style-type: none"> . Water/ soil/ air quality monitoring systems . Flood monitoring systems . Ecological monitoring systems 	<p>Governments</p> <p>Ministries</p> <p>Local authorities</p>	Short term and middle term
	<p>Technological development and transfer</p> <ul style="list-style-type: none"> . Optimum use of chemicals (fertilizers, pesticides...) . Treatment technologies (water, solid wastes) . Soil, water, air conservation . Restoration technology for polluted water body 	<p>Researching institutions</p> <p>Farmers</p>	Long term

4	<p>Completed-clear control plans</p> <ul style="list-style-type: none"> . Land use . Water use: - surface, ground water . Soil, water, air, wetland, forest conservation 	<p>Governments Researching institutions</p>	<p>Short term and middle term</p>
5	<p>Strong financial support</p> <ul style="list-style-type: none"> . International . National . Local 	<p>WB, IMF, ADB Central government local authorities/organisations</p>	<p>Short term and long term</p>
6 7	<p>.....</p>		

Noppadon, Somsak, Wandee, Dung, Hong

Flooding and Water Logging

No.	Action Plan step by step	Short-term Plan 1-5 years	Mid-term Plan 5-10 years	Long-term Plan more than 10 years
1	Investigation	<ul style="list-style-type: none"> - Hydraulics structure - Water sources effecting flooding - Land use - Natural resources - Organization & Management - Meteorological data - Social & Economic Data - Topographic survey - Policy 	<ul style="list-style-type: none"> - Policy - Land use change - Improvement of Organization & Management - Meteorological data update - Social & Economic Data update 	<ul style="list-style-type: none"> - Policy - Land use change - Improvement of Organization & Management - Meteorological data update - Social & Economic Data update
2	Problem identification	<ul style="list-style-type: none"> - Data analysis - Priority list of problems 		
3	Setting Objectives	<ul style="list-style-type: none"> - Short-term target 	<ul style="list-style-type: none"> - Mid-term target 	<ul style="list-style-type: none"> - Long-term target
4	Feasibility Study	<ul style="list-style-type: none"> - Project identification - Mitigation measure - Technical support 	<ul style="list-style-type: none"> - Project identification - Mitigation measure - Technical support 	<ul style="list-style-type: none"> - Project identification - Mitigation measure - Technical support
5	Budgeting	<ul style="list-style-type: none"> - Cost estimation - Find funding sources - Cost allocation plan 	<ul style="list-style-type: none"> - Cost estimation - Find funding sources - Cost allocation plan 	<ul style="list-style-type: none"> - Cost estimation - Find funding sources - Cost allocation plan
6	Implementation	<ul style="list-style-type: none"> - Project documentation - People/organisation in charge - Contractor tendering - Construction & supervision 	<ul style="list-style-type: none"> - Project documentation - People/organisation in charge - Contractor tendering - Construction & supervision 	<ul style="list-style-type: none"> - Project documentation - People/organisation in charge - Contractor tendering - Construction & supervision
7	Evaluation	<ul style="list-style-type: none"> - Effects of actions - indicators - Objective satisfaction 	<ul style="list-style-type: none"> - Effects of actions - indicators - Objective satisfaction 	<ul style="list-style-type: none"> - Effects of actions - indicators - Objective satisfaction

Refresher Course on Water Management for Sustainable Rural Development and Natural Resources. Ha Noi, Vietnam. 25 September – 6 October 2006. Evaluation Report.

Human Resource Development (Ha, Thuy, Weeraphong)			
Problems	Causes	Solutions	Who is responsibility
■ Decreasing in enrolling students	entrance mark is high recently some study fields are not attractive	Diversity of education and training open new study fields (faculty, branch) open training courses open refresh courses	University, faculties, sections, lecturers
		Advertisement, marketing website development Poster Brochure, leaflet	University, faculties, sections, lecturers
■ Not update subjects, courses		Improve academic curriculums	University, faculties, sections, lecturers
■ Poor facilities		Planning facilities improvement	University, faculties
■ Lack of labs		Planning of Labs improvement	University, faculties, sections, lecturers
■ Poor teaching materials, lectures		Update the knowledge Update the lectures	Lecturers University, faculties, sections, lecturers
		Improving teaching method	Lecturers
■ Inadequate lecturers	Quantity: no right plan for recruit Quality: lack of experience lecturers	Guest lectures, exchange lecturers	University, faculties, sections, lecturers
■ Lack of cooperation with others		Develop cooperation exchange lecturers and students Guest lectures	University, faculties, sections, lecturers
■ Low lecturers salary		Increase lecturers salary, do projects	University
■ Unadequate standard in planing, design, management		Suggest for update VN standard in planing, design, managem	Rector, experts