



**CANADIAN INTERNATIONAL IRRIGATION
NEWSLETTER**

**COMPILED AND PREPARED BY
THE IRRIGATION AND WATER RESOURCES NETWORK**

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July 1994

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EDITORIAL

Summer is with us finally. We have it all in Canada: heat, humidity, and a plethora of summer activities, both work and recreational.

CIDA's people have been busy around the globe, and they managed to attend a few of the main conferences taking place this summer, including ASAE, ICID, CANCID, and CWRA. Significant things happened in those meetings that will affect the way we do our work.

Project development work has begun to increase a little this summer with some new initiatives getting slowly under way.

At CIDA, we have not had enough of "reorganization". It is still in vogue, while "re-engineering" and "management renewal" are creeping in slowly. We are becoming quite familiar with working under a sense of high uncertainty... and this might continue for some time longer!

If you are planning a summer vacation, enjoy it! If you are planning to work the summer through, then enjoy that! In either case, do not forget to prepare and send in your contribution for the next issue of this newsletter. The deadline is September 26, 1994; mark it on your calendar.

Aly M. Shady

CONFERENCE REPORTS

ICID - INTERNATIONAL EXECUTIVE COUNCIL

Varna, Bulgaria, May 17-21, 1994

The ICID held its 45th meeting in Varna concurrent with the 17th annual European Regional Conference.

The IEC was well attended by representatives from 46 countries including Canada. Canadian delegates included:

- Dr. Tom Anstey, Ottawa
- Dr. Harry Hill, PFRA, Regina
- Dr. Wally Nicholaichuk, Environment Canada, Saskatoon
- Aly Shady, CIDA
- Colin Lovegrove, CIDA
- Laurie Tollefson, PFRA, Outlook
- Dr. Chandra Madramootoo, McGill University, Montreal
- Louise Beer, Montreal Convention Centre, Montreal

The delegation participated in all meetings of Management Board, Office Bearers, committees, working groups, special sessions and conferences. The highlights are summarized below:

- Dr. Harry Hill chaired the Permanent Committee for Technical Activities, and Aly Shady chaired the Membership Committee, and both served as members of the ICID Management Board. Their terms ended in Varna, and replacements were nominated and approved by the IEC.
- Three new Vice Presidents were elected:
 - Dr. B. Maticic, Slovenia
 - Mr. H. Tardieu, France
 - Mr. Ramesh Chandra, India

Congratulations to all three, and welcome to the family of ICID.

- Two new countries, Macedonia and Uzbekistan, were admitted to the membership of ICID.

- CANCID was awarded the privilege to host the 18th Congress and the 53rd IEC in Montreal in 2002. Thanks go to all of the Canadian delegation and Mrs. Louise Beer of the Montreal Convention Centre for the excellent preparation of the submission.
- A number of future activities, meetings and conferences were also approved and are listed hereunder. (see Coming Events for contact details).
 - 9th Afro-Asian Conference
March 13-15, 1995
Algiers, Algeria
 - 46th International Executive Council
September 10-16, 1995
Rome, Italy
 - 6th International Drainage Workshop
April 21-27, 1996
Ljubljana, Slovenia
 - 47th International Executive Council
16th Congress
September 16-22, 1996
Cairo, Egypt
 - 48th International Executive Council
18th European Regional Conference
September 15-19, 1997
London (Oxford), United Kingdom
 - 49th International Executive Council
10th Afro-Asian Conference
July 6-12, 1998
Jakarta, Indonesia
 - 50th International Executive Council
17th Congress
September 12-25, 1999
Grenada, Spain
 - 51st International Executive Council - 2000
Location and date to be established
 - 52nd International Executive Council - 2001
Location and date to be established
 - 53rd International Executive Council
18th Congress
July 14-23, 2002
Montreal, Canada

- The Aral Sea, considered one of the largest environmental problems in the world, was given particular attention through a special session organized to address its problems. Aly Shady assisted the review panel. Several papers were presented and discussed. The meeting pointed to the need for concerted international effort to rectify the situation. The proceedings will be published by ICID in the near future.
- Africa Focus Group under the chairmanship of Dr. Safwat Abdel Dayem (Egypt) and Aly Shady (Canada) organized a special session to highlight the plight of Africa and its continued decline. Several papers from African countries were presented and these were followed by intensive discussion. A number of recommendations were made.

In general, the meeting concluded that irrigation development has a wide range of successes and failures without a homogeneous pattern throughout all of Africa.

Successes are observed in countries with long irrigation traditions, or in countries adopting advanced technologies. Failures appear to be predominantly encountered where large scale irrigation is being rapidly introduced under state control and management.

In general, food production in Africa is on the decline and population is increasing at high rates, resulting in widening the gap between food supply and demand. Irrigation can play a role in reversing this trend. The challenges are: water resources are limited; competitive water uses are rapidly growing; lack of skills; insufficient capital; and inadequate institutional arrangements. ICID should endeavour to assist in resolving some of the difficulties. An action plan is to be prepared for discussion in Algiers and Rome in 1995.

- An IPTRID special session was held to discuss the future of research in irrigation and drainage. Aly Shady, Colin Lovegrove and Chandra Madramootoo participated in the discussions. It was agreed that ICID will take the lead in reviewing IPTRID accomplishments, short term and long term plans, and will organize a Consultative Group meeting to draw up a future financing plan.
- The Permanent Committee on Technical Activities (TAC) undertook a number of reforms summarized as follows:
 - Formulation of new areas of concentration, focusing on policy, systems, on-farm, research and technology dissemination. Work of the committee will be directed to these priority areas.
 - Working groups will report directly to TAC.

- Establish a new working group on R&D to replace the old committee.
- Dissolve the committees on Practice and Construction.
- Reorganize working groups through mergers and changes to mandates to reflect new focus and creation of inter-group focus teams to deal with common issues.
- Change the name of the ICID Bulletin to the ICID Journal.
- Reaffirm the proposal for shorter IEC and Congress meetings.

Harry Hill (Canada) retired from the chairmanship of TAC and was replaced by Dr. M. Abu-Zeid (Egypt).

- The membership committee is composed of all present ICID Vice Presidents. It has made a number of proposals aimed at increasing the effectiveness of ICID. The highlights are:
 - Formulation of means to involve all VP's in the strategic planning of ICID.
 - Recognition of informal relationships with professionals from non-member countries.
 - Consideration for support of lowest income ICID member countries.
 - Encouragement of linkages between national committees sharing common interests.
 - Institutionalization of young professional membership by national committees.
 - Continuation of membership drives, and re-activation of inactive national committees.

Aly Shady (Canada) retired from the chairmanship of this committee and will be replaced by Dr. Safwat Abdel Dayam (Egypt).

- Canada presented to the Environment Working Group, the French translation of the Environmental Checklist. A computerized version in English is now available.

The group is going ahead to organize a special session on managing environmental changes due to irrigation and drainage. This session is to be a part of the ICID 16th Congress scheduled for Cairo, 1996. (See Coming Events). For other details, contact Dr. Chandra Madramootoo at (514) 398 7778.

- The Working Group on Drainage reviewed progress in a number of key areas: preparation of new publications, and implementation of Agenda 21. Colin Lovegrove was elected secretary of this working group.

It has also reviewed progress on the preparation for the 6th International Drainage Workshop (Slovenia, 1996), and for the 7th International Drainage Workshop (Malaysia, 1998).

The Working Group is sponsoring a special session on the "Evaluation of the Performance of Subsurface Drainage Systems" as part of the 16th Congress in Cairo, 1996.

Colin Lovegrove has been appointed to two sub-committees of the working group on Operation, Maintenance and Management of irrigation and drainage projects.

ASAE 1994 INTERNATIONAL SUMMER MEETING
Kansas City, Missouri, June 19-22, 1994

The 1994 International Summer Meeting of the ASAE (American Society of Agricultural Engineers), now re-named The Society for Engineering in Agricultural, Food, and Biological Systems, was held jointly with the American Society of Civil Engineers, Irrigation and Drainage Division.

The meeting opened with three keynote addresses by speakers from a variety of fields on the following topics:

- Industry, Technology, and the Environment: Competitive Challenges and Business Opportunity -- Rodney Sobin, Analyst, Office of Technology Assessment, Washington D.C.
- The Engineers Role in Sustainable Development -- Don V. Roberts, Vice President (retired) CH2M Hill, and President WEPSD (world Engineering Partnership for Sustainable Environment), Denver Colorado, USA.
- Creating Sustainable Communities -- Margot K. McDonald, Architecture Department, California Polytechnic State University, San Luis Obispo, California and Daniel L. Panetta, Associate Professor of Architecture, College of Architecture and Environmental Design, California Polytechnic State University.

About 1400 persons participated in the meeting, including several Canadians, among them were:

- Jim Townsend
- Abdel Ghaly

- Lal Kushwaha
- Ed Lake

Using a format of several concurrent sessions, about 500 technical papers were presented during the course of the meeting. A wide range of business and technical interests of the society were taken care of in about 300 committee meetings.

Highlights:

ASAE and the Chinese Society of Agricultural Engineers signed an agreement of cooperation at the meeting.

Vision 2007 "The Process of Change", which was started last August, was the subject of several workshops. Vision 2007 is a member-driven communication process that ensures that all members have an opportunity to engage in a dialogue with other persons about a subject of interest to them.

Vision 2007 Workshops, which were well received by members, covered a number of interesting topics, including:

- How to participate in or start a conversation
- Diversity
- Continuing education
- Energy
- Future validity of ASAE
- Image
- Engineering Professional Institute Implementation
- Information Technologies
- Non Food
- Standards
- Sustainable Development
- Worldwide Partnerships

Joint ASAE and Mexican Society of Agricultural Engineers will be holding a conference on Post Harvest Technology in Guanajuato, Mexico in February 1995.

CANCID NEWS

CANCID held its annual meeting concurrently with the CWRA annual meeting in Winnipeg, Manitoba on June 14-17, 1994.

Nine papers were presented covering current topics on irrigation and drainage development under the general theme of **Water: A resource in transition, striking new partnerships, perspectives, and approaches.**

Colin Lovegrove of CIDA assumed the position of CANCID president, and Dr. Sie-tan Chieng of UBC was elected Vice President. Congratulations, Colin and Sie-tan! Also, thanks go to outgoing president Al McPhail.

CANCID recognized six of its members for their contributions, and presented them with awards as follows:

- Al McPhail, for serving as CANCID president, 1991-94.
- Richard Powley, PFRA, for serving as CANCID secretary-treasurer, 1990-93.
- Sie-tan Chieng, UBC, for his outstanding contributions to water resources management.
- Chandra Madramootoo, McGill, for his outstanding contributions to sustainability of lands and water resources.
- Brent Paterson, Alberta Environment, for his outstanding contributions to land resources development.
- Aly M. Shady, CIDA, for his outstanding contributions to international development in land and water.

CANCID is planning a membership drive and special status for students.

The council reviewed Canada's contribution to the ICID - IEC held in Varna, Bulgaria in May 1994. It has noted with satisfaction, the contribution made by the Canadian delegation.

Vacant positions on some working groups will be filled with new nominations. If interested to join, contact Laurie Tollefson, CANCID Secretary-treasurer.

PEOPLE ON THE GO

Ed Lake participated in the ASAE summer meeting held on June 19-22, 1994, in Kansas City, Missouri. (See his report in the Conference Reports section).

Colin Lovegrove and Aly Shady participated in the ICID-IEC meeting in Varna, Bulgaria held on May 17-21, 1994. They also attended the annual meeting of CWRA-CANCID in Winnipeg, Manitoba on June 14-17, 1994.

Aly Shady visited Tanzania to assist with the planning of the upcoming Nile 2002 conference. (See details in the Future Conferences section).

Aly Shady, Brian Grover and Jean-Marcel Laferrière participated in the Environment Theme Planning for Egypt during April and May, 1994.

Brian Grover attended the Nile Basin workshops on the TECCONILE action plan and the Nile Basin Atlas.

Aly Shady was an external examiner for Ph.D. students at Concordia University in Montreal, Quebec.

INTERNATIONAL PROJECTS

THE NILE BASIN ACTION PLAN - Africa

CIDA is financing the preparation of an Action Plan for the Nile Basin countries, aiming at the development of the water resources of the Basin. Brian Grover of CIDA is leading this activity.

Al McPhail of WER-AGRA, Bert Lukey of PFRA, and I. Najjar of Hydrosult were engaged to carry out this project. They recently visited the region and organized a workshop for representatives of the Basin states. The workshop took place in Entebbe, Uganda on June 14-18, 1994. Successful results of the workshop were reported. This will be followed by another workshop, scheduled to take place in Cairo in November, 1994, concurrently with the IWRA Congress (see Coming Events).

NILE BASIN ATLAS - Africa

Spider International was contracted by CIDA to develop the second stage of the Nile Basin Atlas, following the successful completion of the demonstration version. The work in the current phase entails the transfer of techniques of data collection, processing and application of GIS techniques to produce electronic and hard copies of atlas materials.

A training workshop was held in Entebbe, Uganda in June, 1994 and was attended by representatives of TECCONILE and the Nile Basin countries. This will be followed by establishing a central node to prepare parts of the future atlas.

Greg Gillis conducted the initial training.

MID YANGTZE FLOOD CONTROL AND DRAINAGE IMPROVEMENT - China

WER-AGRA was awarded a contribution by CIDA's Industrial Cooperation Program to undertake a study to develop and prepare a proposal for a major flood control and drainage improvement project in China. The project is sponsored by the World Bank and is slated for future financing. The estimated cost is up to US\$ 600 million of which the World Bank may finance \$ 200 million.

The project is designed to support China's water management plan for the Yangtze River Basin. It includes improving flood control, provision of water for domestic and industrial use, completion and

rehabilitation of existing irrigation and drainage systems, and increased production of hydro-power.

The project is located in Hunan and Hubei provinces. Al McPhail, Les Sawatsky, Sie-tan Chieng and Dejiang Long have visited China to make the necessary arrangements for project implementation.

The study aims at the following tasks:

- Analyse the social and economic impacts of flooding and poor drainage and the proposed improvement measures in the study areas, and assess the existing water management practices.
- Develop better water management criteria.
- Review the capabilities of an existing water management model used in China and supply additional simulation capabilities in hydrology, hydraulics, and optimization.
- Use the model to assess various system improvement measures and to provide the most effective and efficient flood control, irrigation, and drainage systems.
- Optimize the design and operation of the flood control and drainage systems including various facilities (sluices, pumps, etc.) to achieve optimal social/gender impacts, optimum environmental impacts, and maximum economic benefits.
- Provide technical assistance and training to Chinese professionals in applying the new technology for water resources management, flood control, and forecasting. Special attention will be given to ensuring that women are appropriately represented.

ISAWIP - Egypt

The Integrated Soil and Water Improvement Project (ISAWIP) was drawn to a very successful conclusion with the Final Seminar held from April 18-21 1994 at Port Said, Egypt. Over 110 participants, primarily from the Government of Egypt (GOE), and also from Canada, U.S.A., the Netherlands, India, Malaysia, and Palestine. Several prominent international experts were present.

The objectives of the seminar were:

1. To present the achievements of the project, including the lessons learned with respect to the original project design and objectives; and with respect to the project's broader success in integrating activities in land and water development and management.

2. To consider the impact of the project on future activities in development of integrated land and water management projects in Egypt.

The seminar program included papers presented by the GOE, CIDA, and the Canadian Executing Agency. As well, guest speakers provided international perspectives on the subject. The execution of the project over the period 1987 to 1994 resulted in many lessons learned and it raised a number of important issues which were discussed by the participants who developed recommendations during workshop sessions at the seminar. The eight issues were:

1. The integrated approach.
2. Sustainability
3. Privatization
4. Community participation
5. Development communications
6. Environmental Impacts
7. Cost recovery
8. Monitoring and Management Information Systems

The papers presenting the GOE, CIDA, and international perspectives, and the issues and discussion group recommendations are contained in a Seminar Proceedings available through the project, or through CanAgro International. The Seminar Proceedings additionally contain appendices providing a list of participants, the seminar program, the discussion group participants, the seminar evaluation form, the english transcript of the farmer reactions video, and other information. Papers presented by the ISAWIP project staff are not included as the subject matter is dealt with comprehensively in the ISAWIP Final Report dated April 1994, also issued at the seminar. Additional copies of this report are available through CanAgro. (The Final Report was printed at the facilities of the Development Support Communications Centre in Dirkinis).

The seminar provided a unique opportunity to "show off" project achievements. The tour through the project area en route from Cairo to Port Said included the pipe plant at Aga, the soils laboratory and improvement equipment in Mansoura, the main canal automation and control system, the Development Support Communications Centre at Dirkinis, the Water User Associations and related mesqa improvements in the pilot area, and the subsurface drainage construction work in the field. At the seminar, a display was provided showing the Computer Aided Design and Drafting, and the Geographic Information Systems introduced by the project.

The opening session of the seminar was honoured by presentations of His Excellency Dr. Abdel Hady Rady, Minister of Public Works and Water Resources, Dr. Yassin Ossman, First Undersecretary of the Ministry of Agriculture and Land Reclamation, representing his

minister, His Excellency Mr. Jacques Simard, Canadian Ambassador to Egypt, and the Governors of Daqahliya and Port Said.

The seminar provided an opportunity to recognize the roles of key individuals over the years of implementation. Awards were presented to His Excellency Dr. Yousef Wally, Minister of Agriculture and Land Reclamation, His Excellency Dr. Abdel Hady Rady, Minister of Public Works and Water Resources, and to Mr. Aly Shady, of CIDA, the persons recognized for developing the original project concept over 10 years ago. Mrs. M. Cayer of CIDA, and Dr. Robert Broughton of Macdonald College of McGill University were recognized for their special roles in facilitating the project's execution. Over 40 men and women project engineers from both Ministries were recognized for their important contributions to project implementation.

Guest speakers added international perspectives to the seminar subject matter. Mr. Shahrizaila bin Abdulla, General Director Irrigation and Drainage of the Malaysian Ministry of Agriculture, and president of ICID, presented an international perspective on integrated land and water development, with examples from Malaysia. Mr. Brent Paterson of Alberta Agriculture offered Canadian perspectives on the subject.

Mr. Michael Lawrance of CIDA addressed the seminar and acknowledged the significant accomplishments of this very complex and difficult project. He offered CIDA's conclusion that all project outputs have been achieved generally and were even exceeded in several cases. He challenged the seminar participants from GOE to continue to demonstrate sustainability of the project inputs in the years following completion of CIDA's support.

The presentations reviewing ISAWIP achievements were made by Dr. Doug Cameron, Agronomist; Mr. Don Ramsey, former CTL; Eng. Ibrahim Gamal, DSCC Director; Dr. M. Gomaa, EALIP Advisor; Dr. M. Abu El-Magd, Deputy CTL; AND Eng. Abdel-Moneim Hamza, Drainage Director.

CIDA participants included M. Cayer, J.M. Laferrière, F. Marcoux, R. Fraser, J. Sinclair, E. Voigt and A. Shady.

The CEA was further supported by Mr. John Slater, Project Director, and Mr. Don McIntyre, former CTL.

CIDA support of ISAWIP activities was formally concluded last month, and at that time the Canadian Executing Agency demobilized its remaining field staff, Mr. John Metzger, and Dr. Mohamed Abu El-Magd.

The governments of Canada and Egypt continue discussions on how to best build for the future on the successful, though not always easy ISAWIP experiences of carrying out land and water development in an integrated manner.

RNPD II - Egypt

- The project completed preparation of the first annual work plan for 1994/95. This was reviewed and approved by the Project Executive Committee.
- A workshop was organized and conducted by the Strategic Research Unit to review the proposed research agenda and operation modality of this Unit. The workshop was very successful and several prominent individuals participated, including Dr. Mostafa Tolba, ex head of UNEP, Dr. El Kassas, and Dr. Asit K. Biswas.

Several CIDA officers also participated, including Evelyn Voigt, John Sinclair, Bob Fraser and Aly Shady.

The workshop was lead by Dr. M. Abu Zeid, and Dr. M.H. Amer, with full support provided by Patrice Pelletier and Dr. Hussam Fahmy.

The participants included a cross section of water resources leaders in Egypt.

- Missions from the project were organized to undertake the planning of the Central Environmental Water Quality project.

The mission included Dr. Tarek Tawfiq, Dr. Sania El Gindy, Dr. M.H. Amer, and Engineer Foad Mohamed. They visited leading water quality laboratories in Germany, the Netherlands, Canada, and the U.S.A. They were joined by Patrice Pelletier, Dr. Essam Farag, Zizi El Khashab and other experts. The team finalized the essential components of planning for the building. This is to be followed by conceptual and detailed architectural and engineering design.

- The first issue of the RNPD II Newsletter has been produced. For your copy, contact Dr. M.H. Amer at Fax +20 (2) 2183995.
- A one day workshop for the entire RNPD II staff was conducted on April 25, 1994. This was an orientation session organized to familiarize the staff with project management, expectations, and definition of their roles and contributions to the project.

BANK PROTECTION AND RIVERFRONT DEVELOPMENT - Egypt

A total length of 40 km for bank protection and 9 km for riverfront development underwent geotechnical investigation works design and issue of tender documents. Almost 80 per cent of the work was completed. Survey of an additional 8 km is presently being completed.

The NRI held a two-weeks advanced course on "River Morphology" for junior engineers during the first half of June, 1994. Another course was held for Nile directorate engineers for bank protection and waterfront works. Both courses were provided by experts from NRI, and from universities and other research institutes.

Preparations are under way to host the International Symposium on river waterfront development. This symposium is the first of its kind to take place in a developing world venue.

EEIS - Egypt

Project activities have been concentrated into three main elements: (1) Information gathering; (2) Use of Geographic Information System technology; and (3) Training. In order to develop the use of the GIS technology for data management, the first step was procurement, configuration and installation of necessary hardware and software. Two Canadian consultants, Dr. I. El-Shayal, and Mrs. S. Mantle, designed the hardware and software specifications, and the equipment was ordered and delivered to Egypt.

An eight-week hands-on training course in the use of the PC hardware and software was conducted covering the introductory GIS and ARC/INFO. The training included the use of the software and the full range of hardware to be utilized, including PC's, digitizing tables, laser printers, colour master printer, and plotter. Staff from EEAA, MOA, MPPWR and GOFI attended both courses.

CEMARP III - Egypt

Women's Advancement Special Fund (WASF)

WASF is one of the projects managed under CEMARP. The overall objective is to improve the status of professional Egyptian women and their role in Egyptian development by enhancing their professional skills. Under this program, thirty-three women currently enrolled in a Masters or Doctoral program in agriculture-related disciplines in Egypt, are studying at McGill University this summer.

The participants will attend McGill University Summer School for about seven weeks in a special program designed to increase their knowledge in English, and their expertise in statistical analysis, both as credit courses. The program will include many field trips to Canadian farms, agricultural industries, research stations and scientific laboratories. In addition, the candidates will have excellent opportunity to complete part of the research work for their degrees, as well as to consult with Canadian experts in their respective fields.

The Agriculture Research Strategy Project in Egypt is expanding its scope to cover all Faculties of Agriculture and all Research Centres across Egypt. In the past three months a task force from every discipline of Agriculture held many meetings to finalize the database and to formulate the first draft of the strategy. Dr. G. Hariri, ISNAR Project Facilitator, in cooperation with two Egyptian coordinators, are working during the summer heat in Cairo with the Ministry of Agriculture Task Force and the Universities to develop the strategy for Agriculture Research in Egypt. The first draft should be presented to the National Panel of Experts for discussion and modification within the next three months.

● Staff news:

- Dr. M. A. Faris has been awarded the Career Service Award by the NEBASA in recognition of his many distinguished contributions. Dr. Faris will receive the award at the Annual Meeting on July 12, 1994, which will be held at Macdonald Campus of McGill University. Congratulations, Dr. Faris!
- Dr. M.A. Faris, Canadian Project Manager, and Dr. M.H. Khan of Simon Fraser University finalized the last draft of their book entitled "Egyptian Women in Agricultural Development: An Annotated Bibliography". The book will be published by Lynne Rienner in July 1994.

Environment Theme Planning - Egypt

The programming of this theme is vigorously under way. A planning mission visited Egypt in April and May, 1994 to carry out this task. From CIDA, the mission included Evelyn Voigt, Brian Grover, Jean-Marcel Laferrière, Claire Miquet, and Aly Shady. Additional members were from Environment Canada, Dr. Atef Kassem; from Agriculture Canada, Dr. Om Danje and Dr. M. Brown; from the Canadian Embassy, J. Sinclair, and Bob Fraser. The mission members also included consultants Dmitri Kampouris and Dr. F. El-Gohary.

Following discussions with officials of GOE and various other organizations, priorities were agreed to include:

- Assistance in the comprehensive development of the Nile Basin, which involves all Nile Basin countries.
- Modernizing national water quality and availability programs.
- On-farm soil and water management.
- Support to national land use mapping and policy development.
- Biotechnology application for environmental protection.

- Innovative partnership development.

A number of missions are planned in order to reach definite conclusions on agreed aspects, and to prepare projects for future implementation.

RAJAD - India

The RAJAD project now has 10,000 ha of horizontal subsurface drainage design completed for tendering purposes (CON/1 contract). Gwalior Polypipe have made commitments to continue their momentum to complete the pipe manufacturing facility in Kota. The tender documents and the commitments of Gwalior Polypipe were reviewed and approved at a special Steering Committee meeting.

The RAJAD project welcomed Mr. G.S. Mehta, the incoming Project Manager of the Indian Executing Agency. The Project also acknowledged the contribution of Mr. T.P. Mathur, the Acting Project Manager.

Mr. Scott Diehl, accompanied by his wife Rene, has started his tenure in Kota. Scott will demonstrate the benefits of canal automation and gate control. This component of water management is a new technology for India.

Mr. Rockney Johnson, the Survey Manager, has completed his assignment in Kota. He has directed the on-going topographic surveys which were and are being carried out by the project team and by a private sector surveying sub-consultant. Surveys were conducted using state-of-the-art total station equipment.

Mr. Russell Merz, Drainage Engineer, has completed his term. Russell's unique contribution in undertaking drainage designs and directing and training the Indian Nationals on the various aspects of horizontal subsurface drainage design technology has been an invaluable asset to the project. The team wishes Russ all the best in his efforts to upgrade his academic qualifications at North Carolina University. Congratulations and Good Luck, Russ!!

Mr. Paul Simard, Mrs. Rita Ratnam, Dr, Anisha Bahel, Dr. Vijaylakshmi, and Mr. Vijendra Singh visited Kota and offered the RAJAD team valuable advice on project monitoring and review activities on behalf of CIDA.

Pilot sessions were organized in two villages to inform the farmers about the proposed subsurface drainage program installation. Later in the year, the lessons learned from this pilot program will be incorporated into campaigns planned in several villages of the CON/1 area.

Several milestone events have been achieved, and their associated technical reports completed, including: Design and Layout Criteria for CON/1; Information Package to Farmers; Social Baseline Report; Performance of Research Plots during the 1993 monsoon; Water Management Plan; Integrated Water Management Plan; Component Management Plan; Procurement Management Plan; and Annual Work Plan 1994-95.

The RAJAD research team has participated in the National Seminar on Reclamation and Management of Waterlogged Saline Soils, held at the Central Soil Salinity Research Institute, at Karnal, Haryana state, in April, 1994. The team presented a paper on "Performance of Drainage Systems in controlling Salinity and Waterlogging in Chambal Command, Rajasthan".

RAJAD has declared the year 1994-95 as the Integrated Water Management Year. Accordingly, three pilot scale demonstration projects have been initiated in the command of Chitawa distributary. Compared with a control area, the IWM1 entails water management measures in the absence of subsurface drainage; the IWM2 provided for water management measures that complement subsurface drainage; and the IWM3 demonstrates the benefits of water management on highly saline and presently unproductive land in which the subsurface drainage system is planned in accordance with the design criteria for the CON/1 contract.

Five candidates have been nominated by the Government of Rajasthan to undertake Masters degree programs in Water management and Control at the University of Calgary starting in the fall of 1994. Also nominated are candidates for Water Management training and international drainage course in Canada, and an International Study Tour.

NEW PUBLICATIONS

MODERN WATER CONTROL IN IRRIGATION - CONCEPTS, ISSUES AND APPLICATIONS

Hervé Plusquellec, Charles Burt, and Hans W. Wolter, 1994. World Bank Technical Paper Number 246, Irrigation and Drainage Series, ISBN 0-8213-2819-0. 98 pp.

This paper is a contribution to the debate on how to transfer modern irrigation concepts and technology to developing countries. In modern schemes, irrigation is provided as a service to users that should be as efficient and convenient as possible. The authors argue that modern irrigation design is a thought process that starts with the definition of a proper operational plan. Scheme layout and equipment selection should be done in light of the operational objectives and the requirements of the farming systems. The paper addresses technological aspects, but it is not a design manual. After an initial discussion of objectives and definitions, the paper reviews various elements of irrigation design and presents technological options. Additional design aspects related to maintenance, user participation, cost recovery, and sustainability are discussed. Finally, the debate on the new design approach is opened with a presentation of supporting and opposing views.

The authors present the most important performance criteria of irrigation schemes as seen from the perspectives of the farmer, the field operator, the project manager, and the country and evaluator. They then outline the essential components of an operation master plan as the first step in the design process. Parameters of climate, crops, and soils are considered in discussions of water delivery scheduling. Different water control strategies and types of hydraulic control equipment employed around the world are discussed, with some comment on advantages and disadvantages. Arguments against modernization are discussed.

Part II of the paper presents brief notes on modernized or rehabilitated irrigation schemes throughout the world, describing the characteristics and preliminary results of modernized schemes. An annex provides details of different water control methods. Some photos are attached to illustrate certain aspects of irrigation design.

This paper provides a good overview of modern irrigation design. It is sufficiently broadscope to appeal to project planners, and technical enough to be useful to design managers.

PREPARING NATIONAL REGULATIONS FOR WATER RESOURCES MANAGEMENT
Principles and Practice

Stefano Burchi, 1994. FAO Legislative Study 52.
Food and Agriculture Organization of the United Nations.
ISBN 92-5-103462-1. 391 pp.

In response to increasing pressures on essentially finite water resources, governments virtually everywhere are substituting themselves for individual landowners as the masters of, and the guardians of these resources.

This manual contributes to bridging the gap between policy and implementation in the field of water legislation. Its objective is to provide in a form easily accessible to a multidisciplinary audience, original analytical material on, and actual legislative examples of the kinds of legal machinery needed to operationalize the policies and principles enshrined in water resources management legislation.

Specific subject areas include allocation of water, prevention and control of water pollution, ground water, water resources development, provision of water to the public, irrigation water, drainage of lands and buildings, and charges for water. Each chapter deals chronologically with pertinent aspects of the chapter subject, such as permits, licences and applications, filing fees, review and decisions, and ensuring compliance with the law.

The prime concern of this manual is the "subsidiary" legislation, variously named as Regulations, Rules, Orders, Decrees, By-laws, and/or Schedules to the principal legislation. Such subsidiary legislation sets out the details of implementation of policies and principles. Recent-vintage English-language legislation of 24 countries from Australia to Zimbabwe is generously quoted throughout the document.

This is a useful reference document for those involved with planning the implementation of modifications to water resource management policies.

IRRIGATION IN INDIA'S AGRICULTURAL DEVELOPMENT

B.D. Dhawan, 1994. (First Edition 1988, Second Edition 1994.)
Commonwealth Publishers, New Delhi 110 002, India.
ISBN 81-7169-275-3. 283 pp.

Indian irrigation has undergone massive expansion, absorbing nearly 10 per cent of total public sector outlays since 1951. However, contrary to the planning and economic expectations and premises drawn from conventional wisdom, Indian agricultural output became significantly less stable, and critical questions arose about

impacts on crop yields and intensity of cropping. To address these questions, the author undertook a significant research project in the early 1980's aimed at assessing the impact of irrigation on the Indian farm economy. This book grew out of that research project.

The book opens with three chapters that lay the groundwork: a discussion of the conceptual problems in quantifying irrigation impact; prior expectations about the impact of irrigation on different attributes of a farm economy; and an outline of the methodologies adopted by the author in the conduct of his research. The next three chapters deal with productivity and income impacts of irrigation, then two chapters deal with stability issues, and one chapter deals with the question of equity of distribution of gains from irrigation. The final chapter summarizes the findings and their policy implications.

The book is clearly written, detailed, and well presented, but it is a demanding read. It is a useful reference for those involved with or requiring the results of applied research on the economics of irrigation in India.

FUTURE CONFERENCES AND CALLS FOR PAPERS

AIC '94 NATIONAL CONFERENCE - CHANGING LAND TENURE

July 10-14, 1994, Regina, Saskatchewan, Canada

This Agricultural Institute of Canada conference will be hosted by the Saskatchewan Institute of Agrologists. Pre-conference tours will commence on July 7, and in conjunction with Sunday registration and Monday plenary and professional development sessions, a trade show will be held exhibiting the most recent developments in scientific, research, and technical equipment from around the world.

Land tenure issues are emerging as important issues as the face of Canadian agriculture changes. Urbanization results in non-farmers owning land. Financial restructuring has converted lenders into landlords. World trade disputes lower commodity prices making inter-generational land transfers difficult. Treaty land entitlements change ownership. Increased environmental awareness and pressure to "green up". Vertically integrated multi-national corporations acquiring lands.

The plenary and professional development sessions will examine the concept of using land trusts to hold agricultural lands. Presentations will be made on Community based Land Trust Models for Saskatchewan. The government perspective will be discussed, and legal and environmental protection consequences and opportunities will be examined.

Ten associated Scientific Societies will conduct technical sessions, and symposia sessions will be held on sustainable cropping, and on swine housing.

For further information, contact:
AIC '94 Registration
P.O. Box 3863
Regina, Saskatchewan, Canada
S4P 3R8
Phone: +1 (306) 585 6181

FIFTH ANNUAL NORTHEAST AGRICULTURAL/BIOLOGICAL ENGINEERING CONFERENCE (NABEC-94)

July 25-28, 1994, Guelph, Ontario, Canada

American Society of Agricultural Engineers - Inter-Sectional Activities
Theme: Continuing Education for engineers.

Subjects to be covered at this conference will be diverse. They will include subsurface drainage, ground and surface water quality, nutrient, chemical and microbial transport in soils, modelling of water flow and water quality, environmental engineering and future regulations, marketing of engineers, food production systems, energy conservation systems, and waste management and utilization systems.

For further information, contact:
Mrs. Merie Hiskett
School of Engineering
University of Guelph
Guelph, Ontario, Canada
N1G 2W1

FIRST INTERNATIONAL CONFERENCE ON LAND DEVELOPMENT

July 27-29, 1994, Baton Rouge, Louisiana, U.S.A.

In recent years, farmers have been looking to manufacturers for assistance in the development of machinery and equipment in their quest for better land-levelling and irrigation management.

The most striking advances in this area have been with the introduction of laser technology as a tool for controlling equipment which levels the land and lays drainage and irrigation systems.

This conference focusses on the application of laser technology in land development. It highlights the benefits that can be obtained through the use of lasers. Additional technical information will be presented by internationally respected experts, covering a wide range of topics which support land development operations.

During the conference, delegates will be able to attend practical equipment demonstrations covering various aspects of land levelling and drainage operations. Classroom presentations will be an on-going feature of the conference. Delegates will be provided with technical information on all equipment demonstrations and offered advice on any concerns they may have in regard to land development issues.

Topics to be covered at the conference include:

- | | |
|-------------------------|---|
| 1. Land Development | 3. Procurement/Spare Parts/Warehousing |
| 2. Equipment Management | 4. Environmental Management and Control |

For further information contact: F.C. Schaffer & Associates, Inc.
International Training Services
1070 Florida Boulevard
Baton Rouge, Louisiana 70802

Phone: +1 (504) 343-9262
Telex: 586486

Fax: +1 (504) 343-0420

INTERNATIONAL SYMPOSIUM ON RIVER WATERFRONT DEVELOPMENT

September 15-17, 1994, Cairo, Egypt

The Nile Research Institute (NRI) in Egypt issued an invitation and call for papers for an international symposium on river waterfront development. This is the first large gathering of its type to be held in a developing world environment with a major river waterfront.

Objectives: The symposium will provide a forum for reporting the latest advancements, reviewing the state-of-the-art, exchanging ideas and experience in the field of waterfront development. The symposium is being planned to share and develop a holistic approach to the development of river waterfront and preservation of its natural quality for the enjoyment of the people and for the benefit of the community.

Theme: Love thy River: Waterfront for the people

Topics:

- Revitalization of urban/rural waterfront, criteria, needs and experience
- Environmental considerations for waterfront development
- Community participation in planning, design, implementation and management of waterfront
- Fluvial aspects of water front development
- Legal, organizational and institutional framework for waterfront development

For further information contact:

Ms. Karima Attia
Nile Research Institute
Water Research Centre Building
El Qanater, 13621
Egypt
Telephone: +20 (2) 218-4163
218-4229
Fax: +20 (2) 218-4113
778-298

INTERNATIONAL CONFERENCE ON IRRIGATION MANAGEMENT TRANSFER

September 20-24, 1994, Wuhan, China

The international conference on irrigation management transfer will be held September 20-24, 1994 at Wuhan University in Wuhan, China. The purpose of the Conference is to enhance the capacity of officials, managers and researchers to formulate, implement and assess management transfer policies and programs. This will be primarily done through providing a forum for discussion of issues

and ideas about IMT, including research needs, policy and implementation issues, costs, benefits and possible new approaches.

Two kinds of papers will be presented at the Conference; Research Papers and Discussion Papers. Research Papers normally will be more formal or systematic presentations of the processes and results of an IMT program. Discussion Papers will be shorter and less formal than Research Papers and will focus on implementation and policy issues associated with actual IMT programs.

Topics for Discussion Papers, discussion sessions and field trips may include:

- 1) water laws, institutions and policies;
- 2) IMT planning and implementation process;
- 3) farmer group formation and training;
- 4) financial viability of local management;
- 5) technological and operational changes related to IMT;
- 6) outcomes of IMT for productivity, profitability, efficiency, responsiveness, equity, sustainability, etc.; and,
- 7) bureaucratic reorientation and new support systems after IMT.

The conference will be held in Wuhan, the capital of Hubei Province. Wuhan, an ancient city of 5 million inhabitants, is the second largest city along the Yangtze River, after Shanghai. The Yangtze, along with the Hanshui River, cuts the city into three parts, which are linked together by the Jiangnan Bridge on the Hanshui and the Wuhan Yangtze River Bridge on the Yangtze.

Abstracts and correspondence should be directed to:

Drs. Sam H. Johnson III/Douglas L. Vermillion
Local Management Program
(Attention: China conference)
IIMI
PO Box 2075
Colombo 1, Sri Lanka
Telex: 22318 & 22907 IIMIHQ CE
E-Mail: IIMI 1 57:CGI129
Tel: +94 (1) 867404
Fax: +94 (1) 866854

The Conference is organized jointly by the:

International Irrigation Management Institute (IIMI)
Wuhan University of Hydraulic and Electrical Engineering (WUHEE)
Hubei Association of Science and Technology (HBAST)
Hubei Hydraulic Engineering Society (HBHES)
United Nations Food and Agriculture Organization (FAO)

Funding has been provided by the Ford Foundation, FAO, IIMI and the Canadian International Development Agency (CIDA).

NATIONAL SEMINAR ON SUBSURFACE DRAINAGE

Jaipur, Rajasthan, India, September 28-30, 1994

This seminar is organized by the Rajasthan Agricultural Drainage Research Project (RAJAD) and co-sponsored by the Government of Rajasthan, RAJAD, and the Indian National Committee for Irrigation and Drainage (INCID).

It will be held at the Conference Hall, Rajputana Palace Sheraton Hotel, located at the heart of Pink City, Jaipur, Rajasthan, India. Jaipur is accessible by air, rail and road. The venue offers many historic sites and museums and is without doubt, one of the best planned capital cities in India.

The theme of the conference is **Subsurface drainage for control of salinity and waterlogging of irrigated lands: Future application in India.**

Topics will include:

- Characterization of soil salinity and water logging in irrigated lands under monsoon climate: effect on crop yield, cultivability and productivity.
- Soil drainability determination: conductivity, porosity, and stability.
- Comprehensive drainage criteria development: integration of engineering, agronomic, socio-economic and environmental factors.
- Environmental and socio-economic impacts of drainage improvement: analysis, quantification and methodologies.
- Application of mathematical models and simulation in drainage: techniques, results and future outlooks.
- Application of GIS and CAD in drainage design, construction and management.
- Inspection, operation and maintenance of drainage systems.
- On-farm water management: Toward an integrated approach.
- Agronomic aspects, farming system approach, effective water management, seed technology, aquatic weed control and integrated pest management.
- Farmers participation: social, political, organizational, and institutional aspects.
- Technology transfer: for whom, by who. how, and to what extent, and applicability to local settings.

The official language for written and printed material is English.

Contact: Dr. S. Mundra
Seminar Secretariat
RAJAD Project
CAD Building Dadabari
Kota, 324 009
Rajasthan, India

Phone: +91 (744) 428704/428625/428608

Fax: +91 (744) 428609

Office Hours: 0800 - 1700 hrs (GMT +5.5 hrs)

VIII IWRA WORLD CONGRESS ON WATER RESOURCES
SATISFYING FUTURE NATIONAL AND GLOBAL WATER DEMANDS

Cairo, Egypt, November 21-25, 1994

Work is under way to complete preparations for the 8th World Congress of the IWRA.

The Congress will be attended by planners, developers, managers, scientists of many disciplines and specialists in development organizations who are dedicated to improve the availability of water to all citizens of the world.

CONGRESS TOPICS:

1. Water demands: agricultural, industrial, domestic, energy-related and other demands such as navigation, recreation, wildlife, etc.
2. Institutions for managing water demand.
3. Economic aspects of demand management (cost recovery and water pricing).
4. Environmental aspects of demand management.
5. Demand management for international water bodies.
6. Models for demand management.
7. Satisfying demands under water drought conditions.

TECHNICAL AND SPECIAL SESSIONS:

Three concurrent sessions will be arranged for presenting the technical papers related to the previous topics, in addition to the following five special sessions:

1. Institutional arrangements for international cooperation in water resources (CIDA/The World Bank);

2. Putting Dublin/Agenda 21 into practice - Lessons and new approaches in water and land management (SIDA/DANIDA);
3. Unconventional water practices and management to satisfy agricultural demands under Mediterranean arid climate (CIHEAM/IAM-Bari);
4. Environmental Impact Assessment of irrigation and drainage projects in developing countries (FAO/PEEM/AWRN);
5. Conflict resolution in water resources issues - International experience (UNESCO).

VENUE AND ACCOMMODATION

The Congress will be held at the magnificent 5-star Mariott Hotel in Cairo. This venue offers comprehensive assistance and amenities for the business traveller and at the same time provides a safe, pleasurable and relaxing environment. Easy access to the city and the international airport is an additional benefit.

CONTACT PERSONS AND ADDRESSES

Dr. Mahmoud Abu-Zeid
 Chairman, Water Research Centre
 & President, IWRA
 Water Research Centre
 22 El-Galaa Street
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 Phone: +20 (2) 760474/5742478
 Fax: +20 (2) 773678

Dr. Glenn Stout
 Executive Director
 & Vice President, IWRA
 University of Illinois
 1101 West Peabody Drive
 Urbana, ILL 61801-4723
 Tel: +1 (217) 333 6275
 Fax: +1 (217) 244 6633

ISMAILIA INTERNATIONAL WORKSHOP
COTTON PRODUCTION PROSPECTS FOR THE NEXT DECADE
 November 14-17, 1994, Ismailia, Egypt

This workshop will examine the factors contributing to differential performance of cotton industries through case studies of major cotton industries and will outline the present and future challenges and opportunities facing them. Particular attention will be given to the apparent influence of government policies on the strategic patterns of development and adoption of technology, farm-level productivity and the efficiency and effectiveness of processing and marketing operations (both for cotton lint and for cotton byproducts). The inter-relationship between the technical, institutional and policy factors in the context of cotton production and marketing will be examined. The research will also examine cases of successful technical or institutional innovations that have enhanced the competitiveness and profitability of cotton production and processing.

The case studies are of cotton industries in Brazil, China, Egypt, India, Mali, Mexico, Pakistan, Tanzania, and Uzbekistan.

Correspondence should be addressed as follows:

For Egypt and other Middle East countries:

Dr. M.A. Faris
Secretariat, Cotton Production Prospects Workshop
c/o CEMARP Office, P.O. Box 469
Dokki, Giza, Egypt
Telephone: +20 2 360 8710
Fax: +20 2 360 8709

For all other countries:

Dr. M.A. Faris
Secretariat, Cotton Production Prospects Workshop
c/o Macdonald Campus, CEMARP Office
21, 111 Lakeshore Road, P.O. Box 185
Ste. Anne-de-Bellevue, Quebec, Canada
H9X 3V9
Telephone: +1 (514) 398 7772
Fax: +1 (514) 457 4030

ASAE - 1994 INTERNATIONAL WINTER MEETING

December 13-16, Atlanta, U.S.A.

A call for papers is issued for the 1994 International Winter Meeting scheduled for December 13-16, 1994, in Atlanta, Georgia.

The theme of the conference is the application of engineering and technology. Please specify on the abstract form your preference for the presentation format most suitable for the technology you will discuss:

- 1) One-on-One Exhibit Presentations
- 2) Lecture Session Presentations
- 3) Preparation of Written Paper

If your proposal is accepted, your completed paper must be submitted to your session moderator by November 14, 1994.

TOPIC AREAS

1. Agricultural Field or Crop Production
2. Grain Storage and Processing
3. Agribusiness
4. Structures and Environment - Plant and Environment
5. Irrigation

6. Erosion Control/Conservation
7. Drainage
8. Biomass Energy and Alternative Products
9. Food Processing
10. Produce Handling
11. Animal Products Handling
12. Special Crops Handling
13. Information Technology
14. Electronics
15. Safety and Human Factors
16. Electric Power
17. Simulation
18. Machine Vision
19. Biological Engineering
20. Forest Engineering
21. Environmental Control
22. Sensors & Electronics
23. Agricultural Machinery
24. Education
25. Food Quality
26. Hydrology
27. Stray Voltage
28. Geographic Information Systems
29. Numerical Method
30. Structural Design & Construction
31. Animal Production Systems
32. Modelling & Engineering for Plants & Animals
33. Energy & Air Contaminants
34. Traction, Tractors & Soil Dynamics
35. Crop Production & Protection
36. Machinery & Systems

For further information for submission of a paper, contact:

ASAE
 2950 Niles Road
 St. Joseph, MI 49085-9659
 Telephone +1 (616) 429-0300

**NILE 2002 CONFERENCE - COMPREHENSIVE WATER RESOURCES DEVELOPMENT OF
 THE NILE BASIN - "TAKING OFF"**
 February 13-17, 1995

In 1993 the first of the Nile 2002 conferences was held in Aswan, Egypt, and it brought together a large gathering of those interested in the water resources issues facing the Nile Basin. This was followed successfully by the second conference held in Khartoum, Sudan in January, 1994. At the conclusion of the second conference, Tanzania accepted to host the third conference.

The objectives of this conference are:

- To bring together experts from the Nile Basin, international experts and External Support Agencies to present papers, discuss issues and find conclusions on specific topics related to the development of water resources of the Nile Basin.
- To allow participants to share and exchange information related to the subject.

The Nile 2002, 1995 conference theme is Comprehensive water resources development of the Nile Basin - "Taking-off"

Conference scope and topics:

- International aspects of water resources development of the Nile Basin:
 - Principles of sharing water resources in the basin;
 - Institutional and legal framework for sharing and managing the water resources in the basin;
 - Conflict resolution mechanisms and their application to the Nile Basin;
 - The role of External Support Agencies in developing and financing water resources development.
- Resources Management issues, including:
 - The application of management information systems for the development of basin wide water resources;
 - Quantifying the water supply and demand situation in all Basin states;
 - Optimization of main factors affecting water resources development, especially: efficiency of utilization, handling scarcity, economics of water, use of alternative water sources and re-use of water.
- Environmental sustainability of water resources, including:
 - Basin-wide water quality monitoring and assessment;
 - Water conservation, protection of natural habitat, and pollution abatement;
 - Aquatic weeds control and management.
- National Institutions for water resources in each Basin State, including:
 - Research and development;
 - Manpower training at the professional and technician levels; existing capabilities and needs for the future;
 - Engineering services in the public and private sector for planning, design, construction, supervision, operation, maintenance and monitoring;
 - Capacity building and Human Resources Development for technology transfer;
 - Formal and informal networking at national levels and basin-wide.

The conference will be held at the Arusha International Conference Centre (AICC), in the beautiful city of Arusha in the north of Tanzania, 120 km from the famous Mount Kilimanjaro, the highest peak in Africa. Arusha can be reached by air from Dar es Salaam-Tanzania; Entebbe-Uganda; Nairobi-Kenya; or directly by carriers serving the Arusha-Kilimanjaro International Airport, 35 km from Arusha.

This announcement is a **CALL FOR PAPERS** for this conference. Interested participants are invited to submit an extended abstract of no more than 250 words typed and double spaced, in English or French.

The abstract shall present the essential elements of the paper with indication of the topics and sub-topics to which it can be related. Submissions shall include the authors' name(s), title(s), affiliation(s), and contact address of the corresponding author with telephone and fax numbers.

Authors will be informed of the acceptance status of their papers by August 15, 1994.

MILESTONES

- Receipt of abstracts: July 15, 1994
- Acceptance of papers: August 15, 1994
- Submission of full papers: November, 1994
- Arrival at conference: February 12, 1994
- Conference: February 13-17, 1995

CONTACT ADDRESS

Nile 2002 Secretariat
Commissioner for Water Affairs Office
Ministry of Water, Energy and Minerals Building
Mkwepu Street/Sokoine Drive
P.O. Box 9153
Dar es Salaam
Tanzania

Phone: +255 (51) 28607 Fax: +255 (51) 35734
+255 (51) 31433 - 6 +255 (51) 37139
Telex: 41777 MAJI TZ

SECOND INTERNATIONAL CONFERENCE ON HYDRO-SCIENCE AND ENGINEERING
March 22-26, 1995, Beijing, China

The Conference is planned to provide a forum for reporting the latest advancements, reviewing the state of the art, exchanging ideas and experience in the field of hydro-science and engineering. Areas included are:

- . Planning and management of water conservancy works
- . Water-related environment and methodology of assessing impacts before and after implementation of large-scale projects
- . Water and land resources and their management
- . Impacts of large-scale inter-basin water transfers
- . Coastal and near-shore processes
- . Management of large reservoirs and lakes
- . Ground water and pollutant transport
- . River mechanics
- . Socio-economic problems related to water conservancy works
- . Information and decision support systems
- . Related computer methods

Correspondence should be addressed to:

Mr. Tan Ying
 Local Organizing Committee
 IRTCES
 P.O. Box 366, Beijing 100044, China

Phone: + 86 (1) 8413372
 Fax: + 86 (1) 8411174

**INTERNATIONAL CONFERENCE ON
WATER RESOURCES MANAGEMENT IN ARID COUNTRIES
 March 12-16, 1995, Muscat, Sultanate of Oman**

The objectives of this conference are to:

- . Present Oman's accomplishments in assessing, developing, and managing their water resources
- . Share information and expertise with other countries
- . Explore the state of the art of new developments, legislation and water resource management for arid regions
- . Encourage multi-disciplinary approaches to managing water resources

This announcement is a **CALL FOR PAPERS**. The topics invited are:

- . Assessment: flood and drought frequencies; well inventory; demand, net, and consumptive use; shallow and deep aquifers; recharge areas and rates; erosion and sedimentation factors; socio-political aspects of aflaj.
- . Development: artificial recharge; underground dams; interbasin transfers and retention structures; flood mitigation; central well fields; improved aflaj structures; water harvesting; problems of operation and maintenance of all developments.
- . Management: drought management under varying arid circumstances; technical, social and economic aspects of metering; sea water intrusion control; ground water mining policy; water pricing; water legislation for conservation of the resources; central well field protection and water users association and water guidance services.

- . Usages and conservation: prediction of water usage in different productive and services sectors; water conservation strategies; consumption reduction using modern technology and public awareness programs.
- . Unconventional processes: re-use of treated effluent water; desalinization of sea and brackish ground water; integrating waste and brackish water in irrigating saline-resistant crops; policies of mixing fresh and waste water for different uses.

This conference is organized by the Ministry of Water Resources (MWR) of the Sultanate of Oman and the International Water Resources Association (IWRA).

Sponsors of the conference are the Ministry of Water Resources (MWR) of the Sultanate of Oman, the World Meteorological Organization (WMO), Geneva, Switzerland, and other agencies and associations of water professionals.

Direct correspondence to: Acting Director General
 Water Resources Management, Ministry of Water Resources
 P.O. Box 2575
 Ruwi, 112
 Sultanate of Oman

ICID NINTH AFRO-ASIAN REGIONAL CONFERENCE ON IRRIGATION AND DRAINAGE

March 13-15, 1995, Algiers, Algeria

This conference will be held under the sponsorship of the Ministry of Agriculture. The conference theme is "The development of strategies for drought monitoring and flood control in the Afro-Asian region".

This conference will provide a large forum for the exchange of experience and ideas that will:

- contribute to a better knowledge of the phenomenae of droughts and floods;
- promote various but convergent initiatives with a view to solving the problems related to these phenomenae in a relevant and lasting way; and,
- extend the thinking on adapting water development and management policies.

Sub-topics to be dealt with include these:

- strategies for drought monitoring

- strategies for flood control
- policies and instruments for water development, management, and control

Aspects of these sub-topics to be dealt with include these:

- definitions and characterizations of drought as a climatic, hydrologic, and agronomic phenomenon
- natural and socio-economic causes and effects of drought
- means of forecasting, protecting against, and fighting drought
- strategies for flood control: structural and non-structural measures and protection objectives; conservation, improvement and management of water and soil resources
- policies and instruments of water development and management: assessment; bases for establishing; institutional set-up mechanisms; consultation and international cooperation

Deadlines for papers:

Despatch of résumés of reports
to the Organizing Committee March 31, 1994

Notification by the Organizing Committee
of the reports selected May 31, 1994

Despatch of final reports
to the Organizing Committee October 15, 1994

For further information, contact the Organizing Committee:

CONFID

ENHYD - 3, rue Mohammed ALLILET, Kouba, Alger, Algeria

Phone: +213 (2) 689202; 689203; 688800; 689301

Telex: 62579

Fax: +213 (2) 689300

INTERNATIONAL CONFERENCE ON DROUGHT IN THE CARPATHIANS' REGION

May 4-7, 1995, Budapest, Hungary

This conference is being convened for experts in the countries of Central Europe and for other researchers who are interested in the phenomenon of drought:

- Drought effects on plant production
- Drought effects on animal husbandry
- Drought effects on rural development

• Economic and social effects of drought

This announcement is a CALL FOR PAPERS. Authors are invited to submit abstracts of length not exceeding 300 words. The purpose, results and conclusions of the work should be stated clearly together with the full addresses of the authors.

Contact: Professor Dr. Istvan, IJJAS
President of the Hungarian National Committee, ICID
Technical University of Budapest
P.O. Box 91
H-1502 Budapest, Hungary
Tel/Fax: +36 (1) 1811754

MANAGING ENVIRONMENTAL CHANGES DUE TO IRRIGATION AND DRAINAGE
September 1996, Cairo, Egypt

A one-day workshop will be held during the 16th Congress of the International Committee on Irrigation and Drainage (ICID). The exact date of the workshop will be determined when the congress program is finalized.

This announcement is a CALL FOR PAPERS for the workshop.

The primary objective of the workshop is to learn from past experiences about monitoring and responding to environmental changes caused by irrigation and drainage, in order to improve future decision-making. The workshop will bring together specialists and practitioners involved in the environmental aspects of water, irrigation and drainage, to share data and experiences, discuss case studies, and make recommendations on improvements to the design and operation of irrigation and drainage systems. The emphasis will be on presenting case study data, and information from large scale irrigation and drainage projects.

The workshop encourages case studies on the following topics:

1. Impacts of irrigation and drainage on water quality and quantity.
2. Impacts of irrigation and drainage on ground water, human health, wetlands, aquatic habitat, forests, and other ecosystems.
3. Disposal and reuse of drainage water; evaporation ponds.
4. Control of sedimentation and aquatic weeds in irrigation reservoirs and canals.
5. Wastewater irrigation systems.

6. Ecological and socio-economic changes due to salinity control and reclamation projects.
7. Legal, institutional and policy issues related to environmental management of irrigation and drainage systems.

Abstracts of papers/case studies of 300-500 words should be submitted before January 15, 1995.

Successful authors will be notified by September 30, 1995, and accepted papers will be due by May 1, 1996. These will be published in a Proceedings.

For further information, contact:

C.A. Madramootoo, Agricultural Engineering Department
McGill University, Macdonald Campus
21, 111 Lakeshore Road
Ste. Anne-de-Bellevue
Québec, Canada
H9X 3V9

Phone: +1 (514) 398 7778

Fax: +1 (514) 398 8387

Email: CAM@AGRENG.LAN.MCGILL.CA

16TH INTERNATIONAL CONGRESS ON IRRIGATION AND DRAINAGE

September 15-22, 1996, Cairo, Egypt

The theme of this conference is Sustainability of irrigated agriculture. This Announcement is a CALL FOR PAPERS to address the following aspects of that theme:

- Farmers' participation towards sustainable irrigated agriculture
 - Management aspects: Different farmer groups and associations have an important role in setting appropriate plans towards the sustainability of irrigated agriculture, acceptance of new technologies, and improving water management.
 - Institutional and legal aspects: The success of farmers' participation depends on setting the proper institutional structures, clarifying relations with existing authorities and other farmers organizations and issuing the necessary legal regulations.
 - Socio-economic aspects: The integration of farmers organizations with the overall irrigation management system will assure its sustainability. However, the financial requirements to establish and run such organizations need to

be secured through cost recovery or other appropriate mechanisms.

- **Role of women:** Women have important roles to play in the improvement of system performance. Their roles vary around the world.
- **Training:** Farmers and farmers groups need to be trained in different aspects of system management. Effective training depends upon cultural and environmental circumstances.
- **Irrigation planning and management: Measures in harmony with the environment**
 - **Strategies to implement policies:** In setting irrigation strategies and policies, environmental issues have to be stressed. Among the useful policies are the conjunctive use of surface and ground waters, consideration of salt balances and use of multiplier indices.
 - **Environmental aspects of reuse of drainage water:** Drainage and treated waste water constitute an important water resource. In setting policies and plans for its use, directly or through mixing, appropriate environmental measures have to be considered.
 - **Environmental aspects:** Engineering and non-engineering management measures have proved successful in setting plans and designs of irrigation schemes. Short and long-term environmental impacts have to be assessed to overcome such impacts. Appropriate standards and regulations need to be adopted.
- **Special Session: The future of irrigation under increased demand from competitive uses of water and greater needs for food supply**

The purpose of this special session is to provide a forum for reviewing the details of various scenarios concerning the future of irrigation under increased demand from competitive uses of water and greater needs for food supply and the ways that these are being resolved.

Papers are invited under the following sub-topics:

- Present and future demands for water by different sectors
- Multipurpose water conveyance and distribution systems
- Fresh and non-conventional water resources allocation to different sectors

- Modern irrigation systems and their impacts on food supplies
- Countries' priorities and scenarios for satisfying food requirements
- Water saving techniques
- Effect of urbanization on water resources quality
- Water as an economic good
- Water pricing and the economic return of unit quantity of water for different uses
- **Symposium: Management information systems in irrigation and drainage**

Authors are requested to consider various aspects including the following:

- Institutional and organizational aspects of management information systems
- Information requirements of planners, implementing agencies, management agencies and water users
- Communication means for information dissemination
- Case studies of efficient management information systems

Details of submission requirements may be found in the CALL FOR PAPERS document issued by ICID.

Contact: International Commission on Irrigation and Drainage (ICID)
 48 Nyaya Marg, Chanakyapuri
 New Delhi 110 021, India
 Tel +91 (11) 3016837, 3015679
 Telex: 031 65920 ICID IN

Fax: +91 (11) 3015962
 Email: icid@sirnetd.ernet.in

COMING EVENTS - 1994

CSAE SUMMER MEETING with the AGRICULTURAL INSTITUTE OF CANADA (AIC)

July 10-14, 1994, Regina, Saskatchewan

Contact: AIC '94 Registration

P.O. Box 3863

Regina, Saskatchewan

S4P 3R8

Phone: +1 (306) 585 6181

15TH INTERNATIONAL CONGRESS ON SOIL SCIENCE

July 10-16, 1994, Acapulco, Guerrero, Mexico

Contact: XV ICSS Secretariat

Centro de Edafologia

Colegio de Postgraduados

P.O. Box 45

56230, Chapingo

Mexico

Fax: +52 (595) 457-23

IRWA CONFERENCE ON SUSTAINING THE ECOLOGICAL INTEGRITY OF LARGE FLOODPLAIN RIVERS: APPLICATION OF ECOLOGICAL KNOWLEDGE TO RIVER MANAGEMENT

July 12-15, 1994, LaCrosse, Wisconsin, USA

Dr. Kenneth S. Lubinski

US Fish and Wildlife Service

Environmental Management Technical Centre

575 Lester Avenue

Onlaska, Wisconsin 54650 USA

Phone: +1 (608) 783-7550

Fax: +1 (608) 783-8058

ASCE 2ND INTERNATIONAL SYMPOSIUM ON ARTIFICIAL RECHARGE OF GROUND WATER

July 17-22, 1994, Walt Disney World Swan Hotel, near Orlando, Florida

Contact: Ivan Johnson

SISAR Organizing Committee

A. Ivan Johnson Inc.

7474 Upham Court

Arvada, CO 80003

Phone & Fax: +1 (303) 425 5610

WORKSHOP ON RESTORING THE ECOLOGICAL INTEGRITY OF THE UPPER MISSISSIPPI RIVER SYSTEM

July 18-19, 1994, LaCrosse, Wisconsin, U.S.A.

Contact: Dr. Kenneth S. Lubinski

Phone: +1 (608) 783-7550

INTERNATIONAL CONFERENCE ON SOIL TILLAGE FOR CROP PRODUCTION AND PROTECTION OF THE ENVIRONMENT

July 24-29, 1994, Aalborg, Denmark

Dr. Soren A. Mikkelsen

Phone +45 88 99 16 00

FIFTH ANNUAL NORTHEAST AGRICULTURAL/BIOLOGICAL ENGINEERING CONFERENCE (NABEC-94)

July 25-28, 1994, Guelph, Ontario, Canada

Contact: Mrs. Merie Hiskett

School of Engineering

University of Guelph

Guelph, Ontario, Canada

N1G 2W1

SOIL AND WATER CONSERVATION SOCIETY (SWCS) ANNUAL CONFERENCE: CATCH THE CONSERVATION WAVE

August 7-10, 1994, Norfolk, Virginia, USA

Contact: SWCS

515 N.E. Ankeny Rd.,

Ankeny, IA 50021-9764

Phone: +1 (800) THE SOIL (+1 (800) 843 7645) or +1 (515) 289 2331

CLAY MINERALS SOCIETY Annual Meeting

August 14-19, 1994, Saskatoon, Saskatchewan, Canada

Patricia Jo Eberl

Phone: +1 (403) 444 6405

INTERNATIONAL CONFERENCE ON SOIL DYNAMICS

August 23-27, 1994, Silsoe College, Silsoe, Bedford, UK

INTERNATIONAL CONFERENCE ON LAND AND WATER RESOURCES IN THE MEDITERRANEAN REGION

September 4-8, 1994, Bari, Italy

Contact: Prof. Atef Hamdy - Director of Research

Instituto Agronomico Mediterraneo

via Ceglie 23

70010 - Valenzano-Bari, Italy

Phone: 39-(80)-7806-111

Fax: 39-(80)-7806-221

Telex: 810309 IAMBAR 1

XXV CONGRESS OF IAH: MANAGEMENT TO SUSTAIN SHALLOW GROUNDWATER SYSTEMS.

September 5-9, 1994, Adelaide, South Australia

Contact: Peter Dillon

Centre for Groundwater Studies

Private Bag no 2

Glen Osmond SA 5064

Australia

Phone: +61 (8) 274 9311

Fax: +61 (8) 338 2144

INTERNATIONAL CONGRESS ON WATER: ECOLOGY AND TECHNOLOGY
September 6-9, 1994, Moscow, Russia
Fax: +7 (095) 265 9844

INTERNATIONAL CONFERENCE ON INTEGRATED RIVER BASIN
DEVELOPMENT

September 13-16, 1994, Wallingford, U.K.
Contact: Ms. Jacqueline Watts
H.R. Wallingford Ltd.
Wallingford,
Oxfordshire OX10 8BA
U.K.
Phone: +44 491 835381

Fax: +44 491 826703

INTERNATIONAL SYMPOSIUM ON RIVER WATERFRONT DEVELOPMENT

September 15-17, 1994, Cairo, Egypt
Contact: Nile Research Institute
El Qanater, 13621, Egypt
Fax: +20 (2) 218-4113
+20 (2) 778-298

HYDROSOFT 94 - FIFTH INTERNATIONAL CONFERENCE ON HYDRAULIC
ENGINEERING SOFTWARE

September 21-23, 1994, Port Carras, Greece
Contact: Susi King
Wessex Institute of Technology
Ashurst Lodge
Ashurst, Southampton S04 2AA
UK

Phone: +44 (703) 293233
Email: CMI@uk.a.c.rl.ib

Fax: +44 (703) 292853

AQUATECH 1994 - LIVING WITH WATER

September 26-29, 1994, Amsterdam, The Netherlands
Contact: Conference Secretariat
Buerweg 51
1861 CH Bergen (NH)
The Netherlands
Phone: +31 (2208) 99062

Fax: +31 (2208) 99040

INTERNATIONAL CONFERENCE ON INTEGRATED WATER RESOURCES MANAGEMENT:
LIVING WITH WATER

September 26-30, 1994, RAI, Amsterdam
The Netherlands
Contact: Mr. P.H.A. Hoogweg
Rijkswaterstaat
Tidal Waters Division
P.O. Box 20907,
2500 EX The Hague
The Netherlands
Phone: +31 (70) 3745745

Fax: +31 (70) 3282059

INTERNATIONAL SYMPOSIUM ON FLASH FLOODS IN ARID AND SEMIARID ZONES
(IHP Project H-5.2)
September, 1994, Xi'an, China
The Director
Division of Water Sciences
UNESCO, 7 Place de Fontenoy, BP 3.07
75700 Paris, France
Phone: +33 (1) 456 84002 Fax: +33 (1) 456 75869
Telex: 204461

NATIONAL SUBSURFACE DRAINAGE SEMINAR
September 28-30, 1994, Jaipur, India
Contact: Dr. S. Mundra
Seminar Secretariat
RAJAD Project
CAD Building New Grain Mandi
Kota, 324 009
Rajasthan, India
Phone: +91 (744) 428704/428625/428608 Fax: +91 (744) 428609
Office Hours: 0800 - 1700 hrs (GMT +5.5 hrs)

INTERNATIONAL CONFERENCE ON HYDRODYNAMICS
October 30-November 3rd, 1994, Hubin Hotel, Wuxi, Jiangsu, China
Contact: Mr. Zhou Guo-jun
Secretary of the Organizing Committee of ICHD '94
China Ship Scientific Research Centre
PO Box 116, Wuxi, Jiangsu 214082, China
Phone: +86 (510) 668012 Fax: +86 (510) 601164
Telex: 362061 CSSRC CN

NATIONAL SYMPOSIA ON WATER QUALITY, ON THE FUTURE QUALITY OF THE
GREAT LAKES, AND ON NATIONAL WATER QUALITY ASSESSMENT
November 6-10, 1994, Fairmont Hotel, Chicago, IL, USA
Phone: +1 (301) 493 8600

18TH ICOLD CONGRESS
November 7-11, 1994, Durban, South Africa
Contact: Dr. C.P. Roberts, South Africa Committee on Large Dams
Dept. of Water Affairs
P.O.Box 3404, Pretoria
South Africa
Phone: +27 (12) 299 2030 Fax: +27 12 326 2630

ISMAILIA INTERNATIONAL WORKSHOP
COTTON PRODUCTION PROSPECTS FOR THE NEXT DECADE
November 14-17, 1994, Ismailia, Egypt
For Middle East countries, contact: Dr. M.A. Faris
Secretariat, Cotton Production Prospects Workshop
c/o CEMARP Office, P.O. Box 469
Dokki, Giza, Egypt
Telephone: +20 (2) 360 8710 Fax: +20 (2) 360 8709

For all other countries, contact: Dr. M.A. Faris
Secretariat, Cotton Production Prospects Workshop
c/o Macdonald Campus, CEMARP Office
21, 111 Lakeshore Road, P.O. Box 185
Ste. Anne-de-Bellevue, Quebec, Canada H9X 3V9
Telephone: +1(514) 398 7772 Fax: +1(514) 457 4030

VIII IWRA WORLD CONGRESS ON WATER RESOURCES
SATISFYING FUTURE NATIONAL AND GLOBAL WATER DEMANDS
November 21-25, 1994, Cairo, Egypt
Contact:

Dr. Mahmoud Abu-Zeid Chairman, Water Research Centre & President, IWRA Water Research Centre 22 El-Galaa Street Bulak, Cairo, Egypt Phone: +20 (2) 760474/5742478 Fax: +20 (2) 773678	Dr. Glenn Stout Executive Director & Vice President, IWRA University of Illinois 1101 West Peabody Drive Urbana, ILL 61801-4723 Tel: +1 (217) 333 6275 Fax: +1 (217) 244 6633
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INTERNATIONAL SOIL CONSERVATION ORGANIZATION CONFERENCE
December 4-8, 1995, New Delhi, India
Phone: +91 (11) 24213

INTERNATIONAL SYMPOSIUM ON VARIABILITY IN STREAM EROSION AND
SEDIMENT TRANSPORT
December 5-9, 1994, Canberra, Australia
Contact: Mr. Laurie J. Olive,
Dept. of Geography and Oceanography,
Australian Defence Force Academy
Campbell, ACT 2600, Australia
Phone: +61 (62) 2688294 Fax: +61 (62) 2688313
Telex: AA 62030

AMERICAN GEOPHYSICAL UNION Fall meetings
December 5-9, 1994, San Francisco, CA, USA
Phone: +1 (202) 939 3203

7TH INTERNATIONAL SYMPOSIUM ON INDIVIDUAL AND SMALL COMMUNITY
SEWAGE TREATMENT SYSTEMS
December 11-13, 1994, Atlanta, GA, USA
Contact: ASAE Meetings Dept.
2950 Niles Road
St. Joseph, MI 49085-9659 USA
Phone: +1 (616) 429 0300 Fax: +1 (616) 429 3852

ASAE WINTER MEETING
December 11-16, 1994, Atlanta, GA, USA
Contact: ASAE Meetings Dept.
2950 Niles Road
St Joseph, MI. 49085-9659
Phone: +1 (616) 429 0300 Fax: +1 (616) 429 3852

COMING EVENTS - 1995

6TH INTERNATIONAL SYMPOSIUM ON RIVER SEDIMENTATION

New Delhi, India
Contact: C.V.J. Varma
Central Board of Irrigation and Power
Malcha Marg
Chanakyapuri
New Delhi 110021
India
Phone: +91 (11) 301 5984

THE FIRST INTERNATIONAL CONFERENCE ON THE GEOLOGY OF THE NILE BASIN COUNTRIES

February 1-3, 1995, Asyut, Egypt
Contact: Dr. Hassen A. Soliman
Geology Dept. Faculty of Science
Asyut University, Asyut, Egypt
Telex: 92863 ASUNV Fax: +20 (88) 322564

NILE 2002 CONFERENCE - COMPREHENSIVE WATER RESOURCES DEVELOPMENT OF THE NILE BASIN - "TAKING OFF"

February 13-17, 1995, Arusha, Tanzania
Contact: Nile 2002 Secretariat
Commissioner for Water Affairs Office
Ministry of Water, Energy and Minerals Building
Mkwepu Street/Sokoine Drive
P.O. Box 9153
Dar es Salaam
Tanzania
Phone: +255 (51) 28607 Fax: +255 (51) 35734
+255 (51) 31433 - 6 +255 (51) 37139
Telex: 41777 MAJI TZ

HARVEST AND POST-HARVEST TECHNOLOGIES FOR FRESH FRUITS AND VEGETABLES CONFERENCE

February 20-24, 1995, Guanajuato, Mexico
Contact: ASAE Meetings Dept.
2950 Niles Road
St. Joseph, MI 49085-9659 USA
Phone: +1 (616) 429 0300 Fax: +1 (616) 429 3852

USDA WORKING GROUP ON WATER QUALITY NATIONAL USER'S GROUP MEETING: CLEAN WATER - CLEAN ENVIRONMENT - 21ST CENTURY

March 4-8, 1995, Kansas City, Missouri, USA
Contact: ASAE Meetings Dept.
2950 Niles Road
St. Joseph, MI 49085-9659 USA
Phone: +1 (616) 429 0300 Fax: +1 (616) 429 3852

INTERNATIONAL CONFERENCE ON WATER RESOURCES MANAGEMENT
IN ARID COUNTRIES

March 11-16, 1995, Muscat, Sultanate of Oman
Contact: Said bin Rashid Al Shaqsi
Ministry of Water Resources
P.O. Box 2575
Ruwi, 112, Sultanate of Oman
Fax: +968 799563

SECOND INTERNATIONAL CONFERENCE ON HYDRO-SCIENCE AND ENGINEERING

March 22-26, 1995, Beijing, China
Contact: Mr. Tan Ying
Local Organizing Committee, IRTCES
P.O. Box 366, Beijing 100044, China
Phone: +86 (1) 8413372 Fax: +86 (1) 8411174

NINTH AFRO-ASIAN REGIONAL CONFERENCE ON IRRIGATION AND DRAINAGE

March 13-15, 1995, Algiers, Algeria
Contact: CONFID, ENHYD
3, Rue Mohamed Allilet - Kouba
Algiers, Algeria
Phone: +213 (2) 58 27 37 Fax: +213 (2) 68 93 00

AWRA ANNUAL SPRING SYMPOSIUM - WATER CONSERVATION IN THE 21ST
CENTURY

Spring, 1995, Salt Lake City, Utah, USA
J. Paul Riley, Symposium General Chairperson
Utah State University
Logan, Utah 84322-4110, USA
Phone: +1 (801) 261-0090

THE INTERNATIONAL SYMPOSIUM ON WATER QUALITY MODELLING

April 2-5, 1995, Hyatt Orlando, Kissimmee, Florida
Contact: Carl E. Anderson
Department of Agr. and Biomass Engineering
Davidson Hall
Iowa State University
Ames, IA 50011-3080

MICRO IRRIGATION FOR A CHANGING WORLD: CONSERVING
RESOURCES/PRESERVING THE ENVIRONMENT

April 2-6, 1995, Hyatt Regency, Orlando, Florida
Contact: Allen Smajstrla, Co-Chair
University of Florida, Agr. Eng. Department
Gainesville Florida 32611, USA.
Phone: +1 (904) 392-9295 Fax: +1 (904) 392-4092
BITNET AGS@IFASGNV INTERNET AGS@AGEN.UFL.EDU

INTERNATIONAL SYMPOSIUM ON WEED AND CROP RESISTANCE TO HERBICIDES

April 3-6, 1995, University of Cordoba, Spain
Dr. Jesus Jorrin Phone: +57 218439

SYMPOSIUM ON WATER QUALITY MODELLING
April 9-12, 1995, Orlando, Florida, USA
Contact: ASAE Meetings Dept.
2950 Niles Road.,
St Joseph, MI. 49085-9659
Phone: +1 (616) 429-0300

INTERNATIONAL CONFERENCE ON DROUGHT IN THE CARPATHIANS' REGION
May 4-7, 1995, Budapest, Hungary
Contact: Dr. Istvan, Professor, IJJAS
President of the Hungarian National Committee, ICID
Technical University of Budapest
P.O. Box 91
H-1502 Budapest, Hungary
Tel/Fax: +36 1 1811754

INTERNATIONAL SYMPOSIUM ON ENVIRONMENTAL SOCIOECONOMIC CONSEQUENCES
OF WATER RESOURCES DEVELOPMENT AND MANAGEMENT
May 15-20, 1995, Moscow, Russia
Prof. G.V. Voropaev
Scientific Coordinative
Center "Caspian" of the Russian Academy of Science
1-Kadashevsky per. 10-1
Post box 27
Moscow 113035, Russia
Phone: +7 (095) 231 6800; 231 6841
Fax: +7 (095) 231 6841

AMERICAN GEOPHYSICAL UNION Spring Meetings
May 29-June 2, 1995, Baltimore, MD, USA
Phone: +1 (202) 939 3203

SOLUTIONS '95 A CONGRESS AND EXPOSITION ON MANAGING THE EFFECTS OF
MAN'S ACTIVITIES ON GROUNDWATER
June 4-10, 1995, Edmonton, Alberta, Canada
Contact: Dr. H. A. Kerr, Solutions '95
10769-99 Street Edmonton, AB, T5H 4H6 Canada
Phone: +1 (403) 429-1472
Fax: +1 (403) 424-5306

7TH INTERNATIONAL SYMPOSIUM ON AGRICULTURAL AND FOOD PROCESSING
WASTES
June 18-20, 1994, Chicago, Illinois, USA
and
ASAE INTERNATIONAL ANNUAL MEETING
June 18-23, 1994, Chicago, Illinois, USA
Contact: ASAE Meetings Dept.
2950 Niles Road
St. Joseph, MI 49085-9659 USA
Phone: +1 (616) 429 0300
Fax: +1 (616) 429 3852

AWRA ANNUAL SUMMER SYMPOSIUM - WATER RESOURCES IN THE PACIFIC RIM
(AN INTERNATIONAL SYMPOSIUM)

Summer, 1995, Hawaii
Contact: William Back
Symposium General Chairperson
USGS, Reston, VA 22092, USA
Phone: +1 (703) 648-5856

INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS GENERAL ASSEMBLY

July 3-14, 1995, Boulder, CO, USA
Phone: +1 (202) 939 3203

CSAE ANNUAL MEETING (with AIC)

July 9-13, 1995, Ottawa, Ontario

XXVI CONGRESS OF INTERNATIONAL SOCIETY OF THEORETICAL AND APPLIED
LIMNOLOGY: WATER AS A LIMITING RESOURCE

July 23-29, 1995, Brazil
Contact: Prof. J.G. Tundes
Centre for Water Resources and Ecology
University of Sao Paulo, CX Postal 359, CEP 13560
San Carlos, SP, Brazil
Phone: +55 (162) 726222 Fax: +55 (162) 715726

INTERNATIONAL SYMPOSIUM ON SOIL TESTING AND PLANT ANALYSIS

August 6-10, 1995, Netherlands
Wageningen Agricultural University
Netherlands
Phone: +31 (70) 6 546 0425

46TH IEC MEETING AND SPECIAL TECHNICAL SESSION

September 10-16, 1995, Rome, Italy
FAO Headquarters
Rome, Italy
Contact: ITAL-ICID, Ministero delle Resorse Agricole
Alimentari e Forestali, via Sallustiana, 10
00187 Roma, Italy
Phone +39 (6) 488 4728 Fax +39 (6) 488 4728

26TH IAHR BIENNIAL CONGRESS

September 11-15, 1995, London, UK
Contact: R. White
Hydraulics Research Ltd.
Wallingford, Oxfordshire OX10 8BA
UNITED KINGDOM

VERSATILITY OF WETLANDS IN THE AGRICULTURAL LANDSCAPE

September 16-21, 1995, Tampa, Florida, USA
Contact: ASAE Meetings Dept.
2950 Niles Road
St. Joseph, MI 49085-9659 USA
Phone: +1 (616) 429 0300 Fax: +1 (616) 429 3852

6TH INTERNATIONAL CONFERENCE ON THE CONSERVATION AND MANAGEMENT OF LAKES

October 22-27, 1995, Ibaraki, Japan

Contact: Lake Kasumigaura Water Pollution Control Division

Department of Civil Life and Environment

Ibaraki Prefectural Government

1-5-38 Sannomaru

Mito, Ibaraki 310

Japan

Phone +81 (292) 246905

Fax: +81 (292) 332351

COMING EVENTS - 1996

6TH INTERNATIONAL DRAINAGE WORKSHOP

April 21-27, 1996, Ljubljana, Slovenia

Contact: B. Maticic, Biotechnology Faculty

Jamnikarjeva 101, 61000

Slovenia

Phone +386 (61) 262690

Fax +386 (61) 317913

ASAE INTERNATIONAL ANNUAL MEETING

July 7-12, 1996, Phoenix, Arizona, USA

Contact: ASAE Meetings Dept.

2950 Niles Road

St. Joseph, MI 49085-9659 USA

Phone: +1 (616) 429 0300

Fax: +1 (616) 429 3852

CSAE ANNUAL MEETING

July 8-12, 1996, Lethbridge, Alberta

(with AIC)

16TH INTERNATIONAL CONGRESS ON IRRIGATION AND DRAINAGE

September 15-22, 1996, Cairo, Egypt

Contact: International Commission on Irrigation and Drainage (ICID)

48 Nyaya Marg, Chanakyapuri

New Delhi 110 021, India

Tel +91 (11) 3016837, 3015679

Fax: +91 (11) 3015962

~~Email: alexic@dsi5520dierdein~~ SUSTAINABILITY OF IRRIGATED AGRICULTURE

47TH IEC MEETING AND 16TH CONGRESS ON IRRIGATION AND DRAINAGE

September 16-22, 1996, Cairo, Egypt

Contact: Dr. Safwat Abdel Dayem

Drainage Research Institute, Water Research Centre

El Qanater, 13621

Egypt

Phone: +20 (2) 2189383-2185090

Fax: +20 (2) 2183326

+20 (2) 2189153

4TH PAN AMERICAN REGIONAL CONFERENCE (ICID)

Columbia, South America

COMING EVENTS - 1997

CSAE ANNUAL MEETING (with CSCE)
May, 1997, Sherbrooke, Quebec

48TH IEC MEETING AND 18TH EUROPEAN REGIONAL CONFERENCE (ICID)
September 15-19, 1997, London (Oxford), United Kingdom
Contact: Rachel Coninx
Thomas Telford Services
One Great George Street
London SW1 3AA
United Kingdom

COMING EVENTS - 1998

49TH IEC MEETING (ICID)
10TH AFRO-ASIAN REGIONAL CONFERENCE (ICID)
July 6-12, 1998, Jakarta, Indonesia
Contact: Indonesian National Committee
Direktrat Jenderal Pengairan, DPU
20, Jalan Patimura
P.O. Box 6739
Jakarta 12067
Indonesia
Phone: +62 (21) 739 6616 Fax: +62 (21) 739 1956

COMING EVENTS - 1999

50TH IEC MEETING AND 17TH CONGRESS ON IRRIGATION AND DRAINAGE
September 12-25, 1999, Grenada, Spain
Contact: Comité Español de Riegos y Drenajes
Ministerio de Obras Publicas, T. y M. Amb.
P.O. Castellano 67, 28071, Madrid, Spain
Phone: +34 (1) 533 2253 Fax: +34 (1) 597 8508

COMING EVENTS - 2002

53rd International Executive Council
18th Congress
July 14-23, 2002, Montreal, Canada
Contact: CANCID Secretary-treasurer
901 McKenzie Street South, P.O. Box 700
Outlook, Saskatchewan
S0L 2N0
Canada
Phone: +1 (306) 867 5404 Fax: +1 (306) 867 9656