



**International Commission of Agricultural and  
Biosystems Engineering (CIGR)**

# **CIGR**

## **2011 Report Section I: Land and Water**

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## International Commission of Agricultural and Biosystems Engineering Section 1: Land and Water

### 1. INTRODUCTION: THE CIGR

The International Commission of Agricultural and Biosystems Engineering (CIGR) was set up by a Constituent Assembly on the occasion of the first International Congress of Agricultural Engineering, held in Liege, Belgium in 1930. It is an international, non-governmental, non-profit organisation regrouping, as a networking system, Regional and National Societies of Agricultural Engineering as well as private and public companies and individuals all over the world.

The mission statement of CIGR is:

"...to serve - on a world-wide basis and through its members - the needs of humanity by fostering mutual understanding, improvement and rationalisation of sustainable biological production systems while protecting nature and environment and managing landscape through the advancement of engineering and allied sciences..."

The main aims of CIGR are to:

- stimulate the development of science and technology in the field of Agricultural Engineering,
- encourage education, training and mobility of young professionals,
- encourage interregional mobility,
- facilitate the exchange of research results and technology,
- represent the profession at a world-wide level,
- work towards the establishment of new associations, both at national and regional level, and to the strengthening of existing ones, and to
- perform any other activity that will help to develop Agricultural Engineering and allied sciences.

CIGR contains a number of Technical Sections, each active in one particular field of Agricultural Engineering. Each section is governed by an International Section Board and presided by a section Chairperson.

The Technical Sections are:

- SECTION I: LAND AND WATER
- SECTION II: STRUCTURES AND ENVIRONMENT
- SECTION III: PLANT PRODUCTION
- SECTION IV: ENERGY IN AGRICULTURE
- SECTION V: SYSTEM MANAGEMENT
- SECTION VI: BIOPROCESSES
- SECTION VII: INFORMATION TECHNOLOGY

For further information, see the CIGR website: <http://www.cigr.org/>



## **2. CIGR-SECTION I: LAND AND WATER**

### **2.1 Mission statement**

The mission statement of CIGR Section 1: Land and Water is:

“... to promote the advance of the engineering science in the area of land and water use in agriculture and in rural areas, giving special attention to the conservation of resources, the preservation and re-establishment of environmental balances, and the social and economic impacts of applications in order to realize sustainable development for both urban and rural societies ...”

### **2.2 Objectives**

The mission statement of Section I implies a range of objectives that contribute to the promotion of engineering science in land and water use in agriculture. These are:

- Improving the knowledge on processes leading to or affecting the quality of land and water resources;
- Developing and applying technologies for land use planning, including forecasting land use changes, and assessing land use impacts;
- Improving the knowledge of hydrological processes as affected by land use and agricultural practices;
- Enhancing knowledge of water contamination by fertilizers and agro-chemicals, and other agricultural sources, as well as assessing control measures;
- Improving technologies for higher performances in irrigation and drainage;
- Assessing environmental impacts of land and water use in agriculture;
- Developing technologies, standards and monitoring systems for wastewater treatment and reuse, and use of low quality water in agriculture.

### **2.3 Scope**

Considering the objectives defined as above, the scope of CIGR-Section I refers to the following main subject areas:

- Soil management and soil technologies;
- Soil and water conservation and soil erosion assessment;
- Agricultural and rural watershed hydrology;



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- Land use planning and management;
- Rural roads and related supporting infrastructures;
- Irrigation scheduling and on-farm irrigation systems;
- Surface and sub-surface drainage systems;
- Irrigation water supply, conveyance and distribution systems;
- Non-point and point source contamination assessment and control;
- Integrated soil and water use planning;
- Integrated impact assessment of land and water development projects;
- Modern technologies in land and water engineering, including modelling, information systems, remote sensing, decision support and expert systems.

The Section co-operates with three Working Groups:

- the Working Group on “Sustainable Land Use and Landscape Planning”, chaired by Gerrit J. Carsjens;
- the Working Group on “Water Management and Information Systems”, chaired by José Fernando Ortega;
- the Working Group on “Earth Observation for Land and Water Engineering”, chaired by Guido D’Urso.

### **2.4 Activities**

To achieve the objectives, several activities shall be developed by CIGR-Section I. These comprise:

- Organisation, sponsoring and co-sponsoring of seminars, workshops and conferences oriented to the objectives and scope of CIGR-Section I;
- Co-organisation of thematic special sessions, workshops or seminars on occasions of CIGR congresses;
- Collaboration in scientific committees of general themes of CIGR Congresses;
- Contributing to the e-journal of CIGR, both with papers and paper reviews, as well as to other publications of CIGR;
- Supporting the specialised working groups of CIGR of which themes fall in the domain of the Section, the respective Chair Persons becoming members of the Section Board;
- Establishing special relationships with other international societies of which field is common to that of Section I, namely the International Commission on Irrigation and Drainage and the European Society for Soil Conservation, of which representatives are ex-office members of the Board of Section I;



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- Developing relations with the regional Agricultural Engineering Societies for implementing common actions; at present one Vice-President of EurAgEng is ex-office member of the Board of Section I;
- Implementing inter-sections activities;
- Promoting exchanges of scientific information with professionals, such as through the FAO Agricultural Engineering sites.

All activities referred above require improved effectiveness from contributions of the Board members but some need particular inputs from the CIGR Bureau. This is the case for:

- Better clarification of relationships between Congress organizing and scientific committees and the CIGR-Section Boards for more effectively achieving common objectives and improving the quality of Congress papers and publications;
- Re-examining the contributions of CIGR Sections to the E-journal of CIGR, probably considering specialized editorial boards relative to each Section domain, such as for the Transactions of ASAE;
- Providing better information and diffusion of the e-journal of CIGR to increase its circulation and its recognition by the scientific and engineering community;
- Promoting the links of the regional Agricultural Engineering Societies with the CIGR Sections; a representative of each of these societies should become either member or ex-office member of each Section Board for improved co-operation;

## **2.5 Relationships with other Societies in the fields of Land and Water**

### **1. Co-operation with ESSC (European Society for Soil Conservation)**

A closer co-operation between the European Society for Soil Conservation (ESSC) and CIGR has been agreed on. The President of ESSC, Dr. Jose L. Rubio, is invited to participate in the CIGR Section I Board.

### **2. Relationships between CIGR and EurAgEng on “Land and Water”**

There has been a good communication between the two organisations. Prof. D. de Wrachien, Honorary Chairman of the Special Interest Group SW20 “Soil and Water” of EurAgEng, is ex-office member of the Board of CIGR Section I. Prof. A. Musy, former Vice-Chairperson of CIGR Section I, is still the representative of Section I in the Special Interest Group SW20 “Soil and Water” of EurAgEng.

From 2007-2010, Prof. Nunzio Romano represented the EurAgEng as permanent observer in CIGR Section I Board. It is desirable that such collaboration will be continued.



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### **3. Collaboration with ICID**

It has been agreed in the past that Dr. R. Ragab, Chairperson of the ICID Committee on “Sustainable Use of Natural Resources for Crop Production”, and a Chairperson of this Section Board will be mutually ex-officio members of the counterpart working bodies. Prof. H. van Lier, represented CIGR Section I in that Committee until 2010.

Until 2010 Prof. H. van Lier has also been the representative member of CIGR in the ICID Working Group on “Integrated Land and Water Resources Management”, so to exchange information and develop co-operative activities.

### **4. Relationships between CIGR and NOWRA**

Prof. Dr. Ted L. Loudon represents the U.S. based National Onsite Wastewater Recycling Association (NOWRA) with the aim of promoting the onsite wastewater treatment and recycling industry through education, training, communication and quality tools to support excellence in performance.

### **5. Relationships between CIGR and PIARC**

Prof. Dr. C. F. Jaarsma represents the World Road Association (PIARC), dealing with road infrastructure planning, design, construction, maintenance and operation.

### **6. Relationships between CIGR and PAWEES**

Before 2007, Prof. Dr. Yohei Sato represented the International Society of Paddy and Water Environment Engineering (PAWEES). PAWEES’ mission is to dedicate to the advancement of science and technology of land and water environmental disciplines in paddy-farming, considering the paddy rice-culture (which is quite different in its nature from the upland farming) as the most important agricultural practice, especially in Asia-monsoon climate regions, in-terms of socio-economic, cultural, political and natural environment as well as symbolizing the image of harmonization of water and soil environment including many external intangible benefits ignored often in the past. PAWEES’ establishment is to recognize the importance of the uniqueness of rice cultivation, the multifunctionality of rice ecosystems, efficient utilization of soil and water, and related environmental issues.

From 2007-2010, Prof. Dr. Yoshisuke Nakano represented PAWEES as permanent observer in CIGR Section I Board.

### **7. Relationships between CIGR and EIER-ETSHER**

Prof. Dr. Amadou Hama Maiga represented the International Institute of Water and Environmental engineering (2iE), Group EIER-ETSHER (Groupe des Ecoles Inter Etats des Ingenieurs et des Techniciens Superieurs). This initiative is at the heart of a global effort to promote development and economic growth in Africa. The formation, in Africa and by Africans, of high level scientists and engineers, in keeping with the private sector and the realities of the continent, aims to supply Africa with its future scientific elite and future leaders capable both of installing economic dynamism and of bringing concrete solutions to the problems which afflict Sub-Saharan Africa.

For the period 2007-2010, Prof. Dr. Hamma Yacouba represented EIER-ETSHER as permanent observer in CIGR Section I Board.



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### **8. Relationships with the Presidium of CIGR**

Prof. Dr. Luis Santos Pereira, Honorary Chairperson of Section I was Past President of CIGR for the period 2005-2006. During his mandate a closer cooperation was carried out in terms of coordination among all CIGR sections.

### **9. Relationships between CIGR and WWC**

The World Water Council is the International Water Policy Think-Tank dedicated to strengthening the world water movement for an improved management of the world's water resources and water services. Its mission is "to promote awareness, build political commitment and trigger action on critical water issues at all levels, including the highest decision-making level to facilitate the efficient conservation, protection, development, planning, management and use of water in all its dimensions on an environmentally sustainable basis for the benefit of all life on earth".

Prof. Dr. Luis Santos Pereira, honorary President of CIGR, committed himself to invite WWC to participate in the Board of CIGR Section-I with one ex-office member representing the World Water Council.

### **10. Relationships between CIGR and ISOMUL**

The International Study group Of Multiple Uses of Land (ISOMUL) was founded in 1974 and has been set up as a platform for discussions and publications on topics related to multiple use of land. Initially, these discussions and publications were aimed at problems concerning planning for multiple land uses in western society. Today it is well understood that most of these problems are of a world wide nature.

Through the years the mission of ISOMUL has been extended, in response of an integration of new topics in planning for multiple land uses. The planning for a sustainable countryside, the relation between urban and rural areas, the restoration of nature and ecosystems and the safeguarding of our natural resources are but a few of these topics.

Prof. Pat Taylor is chairman of ISOMUL and Dr Gerrit J. Carsjens is the secretary of ISOMUL. Both are a member of CIGR Section-I Board, and express their support to strengthen links between both organisations.

## **2.6 Inter-Regional Conferences on “Environment-Water”**

### **\* Past Conferences**

- 1<sup>st</sup> Inter-Regional Conference on: “Water and the Environment: Innovative Issues in Irrigation and Drainage”, September 1998, Lisbon, Portugal.
- 2<sup>nd</sup> Inter-Regional Conference on “Emerging Technologies for Sustainable Land Use and Water Management”, September 1999, Lausanne, Switzerland.
- 3<sup>rd</sup> Inter-Regional Conference on “Water Resources Management in the 21st Century, Particular Reference to Europe”, June 1-3, 2000, Budapest, Hungary.





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- 4<sup>th</sup> Inter-Regional Conference on “Competitive Use and Conservation Strategies for Water and Natural Resources”, August 27-30, 2001, Fortaleza, Brazil.
  - 5<sup>th</sup> Inter-Regional Conference on “Sustainable Water Recourses Management: Health and Productivity in Hot Climates”, November 5-8, 2002, Ouagadougou, Burkina Faso.
  - 6<sup>th</sup> Inter-Regional on “Land and Water Use, Planning and Management”, September 3-5, 2003, Albacete, Spain.
  - 7<sup>th</sup> Inter-Regional Conference on “Land and Water Management: Decision Tools and Practice”, on the occasion of the 2004 CIGR International Conference, October 11-14, 2004, Beijing, China.
  - 8<sup>th</sup> Inter-Regional Conference on “Environmental Quality through Collaboration and Design”, June 27-29 2005, Arlington, Texas, USA.
  - 9<sup>th</sup> Inter-Regional Conference on “Concepts for Water Management and Multifunctional Land-Uses in Low-land Regions”, May 17-19, 2006, Delft, The Netherlands.
  - 10<sup>th</sup> Conference on “Ensuring Water and Environment for Posterity”, in New Delhi, India, organised by the Indian Society of Water Management, in collaboration with the Indian Society of Agricultural Engineering and CIGR, at the Indian Agricultural Research Institute in New Delhi, India, October 17-20, 2007.
  - 11<sup>th</sup> Inter-Regional Conference on Environment-Water, in Iguassu Falls City, Paraná State, Brazil, August 31-September 5, 2008, on the occasion of the CIGR World Congress.
  - 12<sup>th</sup> Inter-Regional Conference on Environment-Water, in Marrakech, Morocco, November 11-13, 2009
  - 13<sup>th</sup> Inter-Regional Conference on Environment-Water, in Quebec City, Canada, June 13-17, 2010, on the occasion of the XVIIth World Congress of CIGR
  - 14<sup>th</sup> Inter-Regional Conference in CIGR International Symposium 2011 on "Sustainable Bioproduction - Water, Energy, and Food", September 19-23, 2011 Tokyo, JAPAN.
- \* Forthcoming Inter-regional Conferences on Environment-Water**
- 15<sup>th</sup> Inter-Regional Conference in CIGR-EurAgEng joint Congress on Agricultural Engineering 2012 Valencia Spain.
  - 16<sup>th</sup> Inter-Regional Conference in Tunisia or Italy (Bari), 2013
  - 17<sup>th</sup> Inter-Regional Conference in CIGR World Congress will be held in China, 2014
  - 18<sup>th</sup> Inter-Regional Conference may be held in Montevideo, Uruguay, 2015.



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### 2.7 Sponsored and/or Co-sponsored activities

#### \* Sponsored and/or Co-sponsored Conferences and Workshops in 1999

- International Workshop on “Modelling of Transport Processes in Soil at Various Scales in Time and Space”, held at Leuven, Belgium, November 24-26, 1999, organised by the Institute of Land and Water Management of the Katholieke Universiteit of Leuven.

#### \* Sponsored and/or Co-sponsored Conferences and Workshops in 2000

- International Conference on “Micro and Sprinkler Irrigation Systems”, New Delhi, India, February 8-10, 2000, organised by the Indian Central Board of Irrigation and Power.
- 4th International Conference on Soil Dynamics (ICSD-IV), held 26-30 March 2000, Adelaide, Australia, regarding to soil characterisation, soil-machine interaction and soil-biological and environmental interaction (co-sponsored by CIGR).
- Conference on “Fragmentation and Land Use Planning: Analysis and Beyond”, held in Wageningen, The Netherlands, June 19-21, 2000, co-organized by CIGR and ISOMUL
- 8th International Workshop on “Drainage”, held in New Delhi, India, February 1-4, 2000 co-sponsored by CIGR).
- 15th ISTRO Conference on “Tillage at the Threshold of the 21st Century: Looking Ahead”, held at Fort Worth, Texas, United States, July 2-7, 2000, organised by the International Soil Tillage Research Organization (ISTRO) and Texas A&M University.
- International Workshop on “Control of Adverse Impacts of Fertilisers and Agrochemicals”, held 25-26 October, 2000, Cape Town, South Africa, co-sponsored by CIGR.
- 6th International Micro-irrigation Congress, Cape Town, South Africa, held October 22-27, 2000, organised by the South African National Committee on Irrigation and Drainage (SANCID) and the South African Institute of Agricultural Engineers (SAIAE).
- Special Technical Session on "Paddy Field Agriculture", Held during the XIV Memorial CIGR World Congress 2000, Tsukuba, November 29, 2000, co-organized by CIGR Section I and the Japanese Organising Committee.

#### \* Sponsored and/or Co-sponsored Conferences and Workshops in 2001

- 9th European Regional Conference on "Sustainable Use of Land and Water", held 4-8 June 2001, Brno and Prague, Czech Republic, organised by the ICID in co-operation with CIGR-Section I, and EurAgEng: Soil and Water Group.
- International Conference on “Sustainable Soil Management for Environmental Protection – Soil Physical Aspects”, held 2-7 July 2001, at Florence, Italy, organised by the Istituto Sperimentale per lo Studio e la Difesa del Suolo and co-organised by CIGR Section I.



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- International Symposium on Land Use Cover Change. Contribution to the Asian Environmental Programme, Tokyo, Japan, December 13-14, 2001, organised by the University of Tokyo.

### \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2002**

- ICID-CIID International Conference on “Drought Mitigation and Prevention of Land Desertification”, Bled, Slovenia, April 21-24, 2002, dealing with climate change, drought as a complex phenomenon, national strategies and action programmes and international cooperation.
- Workshop on “Land-use Planning and Management in Densely Populated Areas”, held at the Washington State University, United States, June 2002 (main convenor is Hubert van Lier).
- ISOMUL (International Study-group On Multiple Use of Land) Workshop on "Collaborative Planning for the Metropolitan Landscape", Bellingham, Washington, USA, June 20-22, 2002, dealing with applying sustainable land-use planning principles to the metropolitan landscape.
- Sessions on "Decision and Expert Systems for Land and Water Management and Engineering" and “Land Use Planning and Natural Resources Management in Peri-Urban Areas”, to be held on a occasion of the XV CIGR Congress, Chicago 2002, proposed to be organised jointly by ASAE and CIGR Section I.
- International Workshop on “Crop Water Management for Food Production under Limited Water Supplies”, Montreal, Canada, July 2002, during the 53<sup>rd</sup> meeting of the International Executive Council of the ICID.
- International Conference on "Soils under Global Change. A Challenge for the 21st Century", Constanta, Romania, September 3-6, 2002, dealing with problems of soil degradation, desertification, drought and global climatic changes.
- International Colloquium on "Land Use Management, Erosion, and Carbon Sequestration", Montpellier, France, September 24-28, 2002, dealing with the biological approach to soil and water and soil erosion and carbon sequestration.

### \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2003**

- Sessions on “Historical Perspective on Water Community in Monsoon Asia”, “Water Productivity in Agriculture and Positive/Negative Externalities of Irrigation”, “Ecological Diversity Sustained by Rural Water and Conservation of Water Quality” and “Expansion of the Scope of International Water Discussion based on Diversity and Multi-functional Roles of Irrigation” , to be held on a occasion of the 3<sup>rd</sup> World Water Forum, Kyoto, Shiga and Osaka, Japan, March 16-23, 2003.
- International Conference on "Land Reclamation and Water Resources Development" Mantua, 27-29 May 2003. The Conference, organized by the Lombardia Region and the Italian Association of Land Irrigation and Reclamation Agencies, with the co-sponsorship of CIGR, EurAgEng, ICID and WWC, dealt with the sustainable drainage and land reclamation development in the European Mediterranean Environment.



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- 8th International Conference on “Low Volume Roads”, Reno, Nevada, USA, June 22-25, 2003, dealing with low-volume road problems and their solutions.
- 1<sup>st</sup> Spanish Symposium on Control of Erosion and Soil Degradation, Madrid, Spain, July 9-11, 2003.
- 9th International Drainage Workshop on “Drainage for a Secure Environment and Food Supply”, Utrecht, The Netherlands, September 10-13, 2003, dealing with the role of drainage in integrated water resource management in agriculture.
- Workshop on “Improved Irrigation Technologies and Methods: Research, Development and Testing”, Montpellier, France, September 18-19, 2003, dealing with the state of art and the perspectives of new technologies and methods in irrigation, and two parallel sessions on surface and pressurized irrigation.
- Symposium '25 years of Assessment of Erosion', Ghent, Belgium, September 22-26, 2003, dealing with techniques, technologies and methods for assessing the different parameters and processes governing erosion by water, and review what has been in the last 25 years.
- International Congress on Irrigation and Drainage, Cuba-Irrigation 2003, Havana, Cuba, October 20-24, 2003.

### \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2004**

- ISCO 2004: 13<sup>th</sup> International Soil Conservation Organization Conference, organised by Australian Soil Science Society Inc. (ASSSI) and the International Erosion Control Association (IECA) and co-sponsored by CIGR-Section I, this conference will be held at Brisbane, Queensland, Australia from 4 to 9 July 2004.
- Inter-Regional Conference on “Food Production and Water: Social and Economic Issues of Irrigation and Drainage”, Moscow, Russia, September 2004.
- AgEng 2004, Leuven, Belgium, 12-16 September 2004, organised by EurAgEng and CIGR-Section I co-sponsoring the session on “Basic Natural Resource Engineering”. The conference aims at engineering issues related to the future of agriculture, the environment, biological systems and related industries in order to serve society and all people.

### \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2005**

- International Conference on "Water, Land and Food Security in Arid and Semi-Arid Regions" - Sept. 6 - 11, 2005 Bari Institute, Italy.
- PAWEES 2005 International Conference on Management of Paddy and Water Environment for Sustainable Rice Production, Kyoto, Japan, September 7 – 8, 2005.
- IUSS Conference on Salinization, September 19-22, 2005, Budapest, Hungary.
- XXXI CIOSTA-CIGR V Congress “Increasing Work Efficiency in Agriculture, Horticulture and Forestry”, University of Hohenheim, Stuttgart, Germany, September 19-21, 2005.



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- III World Congress on Conservation Agriculture (WCCA), October 3-7 2005, Nairobi, Kenya.
- International Congress on Irrigation and Drainage, CUBA-IRRIGATION 2005, October 25-28, 2005 Havana, Cuba.
- International Seminar on Sustainable Access and Local Resource Solutions, organized by the World Road Association (PIARC), November 2005, Cambodia.

### \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2006**

- International Symposium on Water and Land Management for Sustainable Irrigated Agriculture, Adana, Turkey, 4 - 8 April, 2006.
- Multi-scale Modelling of Flow and Transport in Porous Media, Monte Verita, Switzerland, April 7–12, 2006.
- Workshop on Maintenance of Rural Roads - Stakes and Perspectives -, Rabat, Morocco, April 20-21, 2006.
- III International Symposium on Transboundary Waters Management, Ciudad Real, Spain, May 30–June 2, 2006.
- III International Conference on Waste Management and the Environment, Malta, June 21-23, 2006.
- 17th Triennial Conference of the International Soil Tillage Research Organization (ISTRO) on “Sustainability – its Impact on Soil Management and Environment”, Kiel, Germany, August 28 – September 3, 2006.
- CIGR World Congress “Agricultural Engineering for a Better World”, Bonn, Germany, September 3–7 2006.
- International Conference "From Invention and Development to Product; From Research Institutes to the Water Industry", Sede Boqer Campus, Israel, 21-23 November 2006.

### \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2007**

- International Conference on Water Saving in Mediterranean Agriculture & Future Research Needs, CIHEAM, Mediterranean Agronomic Institute of Bari, Italy, February 14-17, 2007.
- Iberian Congress on Agricultural Engineering, Albacete, Spain, September 3-6 2007.
- International symposium “21st Century Watershed Technology: Improving Water Quality and Environment”, March 29-April 3, 2008 Concepcion, Chile

### \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2008**

- CIGR World Congress in Iguassu Falls City, Paraná State, Brazil, September 1-7, 2008.



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- Co-sponsor on International symposium on “Efficient Irrigation Technology and Management for developing countries”, Beijing, China, Sept. 8-27, 2008,
  - Co-sponsor on National Conference on “Agricultural Water and Land Engineering”, Shihezi City, Xingjiang Autonomous, China, July 31-August 1, 2008
  - International symposium “21st Century Watershed Technology: Improving Water Quality and Environment”, March 29-April 3, 2008 Concepcion, Chile.  
(<http://www.asabe.org/meetings/water2008/index.htm> )
  - Master in “Irrigation problems in developing countries. March 31 – November 30, 2008. Istituto Agronomico per l’Oltremare, Florence, Italy. ([iao@iao.florence.it](mailto:iao@iao.florence.it))
  - Co-sponsor on the International symposium on “Efficient Irrigation Technology and Management” for developing countries, which is planned to be held on Sept. 8- 27, 2008, Beijing, China
- \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2009**
- Co-sponsor on the International Conference on “Modelling, Simulation and Optimization in Engineering” was held on December 27- 28, 2009, Beijing, China
  - Co-sponsor on the International Training Program on “Efficient Irrigation Technology and Management” for developing countries, which was held on Oct. 13- 31, 2009, Beijing, China
  - Co-sponsor on the V Congreso Nacional y II Congreso Ibérico de Agron Ingeniería, which was held on Sept. 28-30, 2009. Lugo, Spain
- \* **Sponsored and/or Co-sponsored Conferences and Workshops in 2010**
- Co-sponsor on the International Conference on “Landscape Architecture and Planning between Art and Science”, Maastricht, the Netherlands, May 12-14, 2010
  - Co-sponsor on the International Conference on “XVIIth World Congress of CIGR”, Quebec City, Canada, June 13-17, 2010.
  - Co-sponsor on the International Conference on “International Conference on Engineering Computation” (ICEC2010), Beijing, Sept. 18-19, 2010, ([www.icec-meeting.org](http://www.icec-meeting.org))
  - Co-sponsor on the International Training Program on “Efficient Irrigation Technology and Management” for developing countries, June 18- July 7, 2010, Beijing, China
  - Co-sponsor on National Conference on “Agricultural Water and Land Engineering”, Kunming City, Yunnan Province, China, August 6-8, 2010
  - Co-sponsor on the 3<sup>rd</sup> International Conference on “Modelling, Simulation and Optimization in Engineering” was held on Dece. 26- 27, 2010, Beijing, China



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### **\* Sponsored and/or Co-sponsored Conferences and Workshops in 2011**

- Co-sponsor on 14<sup>th</sup> Inter-Regional Conference in CIGR International Symposium 2011 on "Sustainable Bioproduction - Water, Energy, and Food", September 19-23, 2011 Tokyo, JAPAN.
- Co-sponsor on VIth Congreso Iberico de Agroingeniería, September 5-7, 2011 Evora, Portugal.
- Co-sponsor of XXIV PIARC World Road Congress, Mexico City, Mexico, 26-30 September 2011, where the report of Technical Committee A.4 "Rural Road Systems and Accessibility to Rural Road" was presented.

### **\* Forthcoming Sponsored and/or Co-sponsored Conferences**

- CIGR International Conference of Agricultural Engineering CIGR-AgEng2012, Valencia, 8-12 July 2012, Valencia, Spain.
- The first Inter-Regional Conference on Land and Water Challenges, Bari, Italy, 10-14 September 2013.

## **2.8 CIGR-FAO Global Network on Agricultural Engineering**

Activities of the Section I: Land and Water can be joined by participating in the workshops or, by subscribing to the CIGR-FAO Global Network on Agricultural Engineering. This global network is a joint activity of the International Commission of Agricultural and Biosystems Engineering (CIGR) and the Agricultural Engineering Branch (AGSE) of the Food and Agriculture Organisation of the United Nations (FAO). The network consists of six e-mail discussion groups corresponding to the six sections of CIGR.

The e-mail discussion groups of CIGR-FAO-LanWat-L, covers the technical area of the CIGR Section I, "Land and Water Engineering", which is in particular Agricultural Engineering as applied to soil and water management such as: soil protection, improvement and conservation, drainage and irrigation systems; to land improvement and land reclamation, to rural planning and management and to rural roads and infrastructure. Contributions about new activities, workshops, information exchange, Question-and-Answer-Services, etc. are welcome.

If you want to subscribe to the list, send a message to [mailserv@mailserv.fao.org](mailto:mailserv@mailserv.fao.org) leaving the subject blank and entering the one-line message:

SUBSCRIBE CIGR-FAO-LanWat-L.



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### 2.9 Agricultural Engineering International: CIGR E-journal

Publication of research results and exchange of information is central to any discipline. Agricultural engineers have the opportunity to publish in several journals dedicated to the profession and also in numerous peripheral journals, serving other disciplines. As CIGR expands its horizons to more and more countries around the world, it serves the international membership by providing a low cost, widely available journal. The journal has applied for inclusion in the ISI / SCI database and its application is being reviewed.

Recent advances in electronic publishing provide a suitable mechanism for widespread dissemination of information. Thousands of journals are now being published electronically and are available on the World Wide Web (www). The technology to publish on the www is moving ahead rapidly. CIGR now has a peer reviewed technical journal operating on the www. There is no cost to the user to read or publish manuscripts in the E-journal.

The official title of the CIGR electronic Journal is "Agricultural Engineering International", sub title: "The CIGR E-journal". Its ISSN number is 1682-1130, and was included in the Cornell University digital data base (all holdings go into Google). Although the Journal is growing fast, the ISI application is not finished yet.

In 2010, the editorial office moved from USA to China. The Editor-in-chief is Prof. Zhang Lanfang, CSAE/CAAE and CSAM/CAAMS. Room C203, No.31, New Office Building of CAAMS, Chinese Academy of Agricultural Mechanization Sciences(CAAMS), No.1, Beishatan, Deshengmenwai, Chaoyang District, Beijing 100083, China

In 2011, three issues were published, including 32 papers. In total 138 papers were submitted, and 38 papers were peer reviewed. In total 66% were accepted, 13 declined, and 7% needed to be re-submitted.

The Section I Board representative is Dr. Jose Manuel Monteiro Gonçalves, who is an Associate Editor of CIGR E- journal on behalf of the Section I. Dr. Antonio Brasa Ramos supports Jose Manuel Monteiro Gonçalves on behalf of the Section I.

### 2.10 Board meetings

- \* 1994: August 29, XII CIGR World Congress, Milan, Italy.
- \* 1995: September 14, 1995, Rome, Italy.
- \* 1996: September 5, Gødöllò, Hungary.
- \* 1997: June 2, Albacete, Spain.
- \* 1998: February 1, XIII CIGR World Congress, Rabat, Morocco.
- \* 1999: September 16, Granada, Spain.
- \* 2000: November 28, XIV World congress, Tsukuba, Japan.
- \* 2001: July 3, Florence, Italy.
- \* 2002: July 29, XV World Congress, Chicago, USA.





## International Commission of Agricultural and Biosystems Engineering Section 1: Land and Water

- \* 2003: September 2, Albacete, Spain, 6<sup>th</sup> ENVIROWATER Conference.
- \* 2004: October 10, Beijing, China, 7<sup>th</sup> ENVIROWATER Conference.
- \* 2005: July 1, Arlington, Texas, USA, 8<sup>th</sup> ENVIROWATER Conference.
- \* 2006: (1) May 16, Delft, The Netherlands, 9<sup>th</sup> ENVIROWATER Conference.  
(2) September 3, Bonn, Germany, CIGR World Congress.
- \* 2007: October 18, New Delhi, India, 10<sup>th</sup> ENVIROWATER Conference.
- \* 2008: August 31, Iguassu Falls City, Paraná State, Brazil, CIGR World Congress
- \* 2009: November 8, Marrakech, Morocco, 12<sup>th</sup> ENVIROWATER Conference
- \* 2010: June 13, Quebec, Canada, XVII CIGR World Congress
- \* Forthcoming: 2012: July 8, Valencia, Spain, XVIII CIGR World Congress

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