

## EVENTS

### **METHODOLOGIES FOR RISK ASSESSMENT OF WASTEWATER REUSE ON GROUNDWATER QUALITY (Sapporo, Japan)**

30 June – 11 July 2003

This symposium is part of the 33rd General Assembly of the International Union of Geodesy and Geophysics. Subjects include: threshold value of soil degradation under wastewater application, processes in the soil, crop production and quality, risk for human health.

More information: Mr Steenvoorden of ALTERRA, The Netherlands; e-mail: j.h.a.m.steenvoorden@alterra.wag-ur.nl

### **FIFTH MEETING ON ORGANIC AGRICULTURE (Havana, Cuba)**

27-30 May 2003

Organised by the ACTAF (Cuban Association of Agricultural and Forestry Engineers), this conference will discuss new experiences related to integrated systems of natural resource management, appropriate technologies, social and economic aspects, environmental aspects, and the contribution of (organic) urban agriculture to sustainable urban development. The conference language will be Spanish.

More information: Nilda Pérez Consuegra: nilda@isch.edu.cu

### **COURSE ON URBAN AGRICULTURE AND SUSTAINABLE DEVELOPMENT (Santa Maria, Brazil)**

May 2003

This course is being planned by the Research Group on Tourism and Development of Camobi. Email: [turodes@ccr.ufsm.br](mailto:turodes@ccr.ufsm.br) Or by mail: Grupo Turismo e Desenvolvimento; Caixa Postal 5042 – Camobi; CEP 97.111-970 - Santa Maria – RS, Brazil.

### **2ND INTERNATIONAL SYMPOSIUM ON ECOLOGICAL SANITATION “ECOSAN - CLOSING THE LOOP” (Lübeck, Germany)**

7-11 April 2003

Conventional forms of centralised sanitation are coming under increasing criticism. Especially because of the enormous investment involved, the huge operating and maintenance costs, high water consumption and other drawbacks, they are not suitable as a blanket solution for developing countries, particularly in arid climate zones. The GTZ sector project on ecosan has started in May 2001. The objective is to investigate ecosan systems, establish them in national and international guidelines and prepare them for dissemination. During this Symposium a conference on Sustainable Sanitation will be held.

[www.gtz.de/ecosan/english/symposium2.htm](http://www.gtz.de/ecosan/english/symposium2.htm)

### **WORLD WATER FORUM (Kyoto, Japan)**

16-23 March 2003

The Third World Water Forum will be held in Japan (Kyoto, Shiga and Osaka, who share the water resources of the Lake Biwa-Yodo River Basin). The forum is gathering submissions through a range of activities including Regional Conferences on individual themes in various regions around the world and the publishing of the World Water Action Report. The Virtual Water Forum is providing a discussion platform. The session can be accessed at the World Water Forum website

[www.worldwaterforum.org/for/en/fshow.393](http://www.worldwaterforum.org/for/en/fshow.393) You can enter this session as a guest or register as a participant, in which event the WWF will send you the necessary ID and password. More information: [www.worldwaterforum.org](http://www.worldwaterforum.org)

### **IDRC WATER DEMAND FORUM NO. 4 ON DECENTRALISATION OF WATER MANAGEMENT (Cairo, Egypt)**

3-5 February 2003

The International Development Research Centre is supporting the promotion of water-demand management strategies through the WDM Forum. A series of Water Demand Management Forums have been organised. Wastewater Reuse, Water Valuation, Public-Private partnerships and Decentralisation of water management. The Fourth Forum on *Decentralisation of water management* is aimed at decision-makers from the Middle East and North Africa. The First Water Demand Forum was held in **Rabat Morocco, 26-27 March 2002** and focused on Wastewater Reuse. The second forum focused on Valuation and was held in **Beirut Lebanon, 25-27 June 2002**, and the third on Public-Private Partnerships was held in Amman, Jordan 15-17 October. For more information please visit [www.idrc.ca/waterdemand/](http://www.idrc.ca/waterdemand/)

### **WATER, POVERTY, AND PRODUCTIVE USES OF WATER AT THE HOUSEHOLD LEVEL (Johannesburg, South Africa)**

21-23 January 2003

This International symposium will discuss practical experiences, new research, and policy implications, from innovative approaches to the provision and use of household water supplies. Please contact one of the symposium organisers: IRC International Water and Sanitation Centre, Delft, The Netherlands (Dr PB Moriarty : [moriarty@irc.nl](mailto:moriarty@irc.nl)); or the Department of Water Affairs and Forestry, South Africa (B Schreiner or D Versfeld).

### **WATER AND WASTEWATER: PERSPECTIVES OF DEVELOPING COUNTRIES (New Delhi, India)**

11-13 December 2002

This conference aimed to focus on the various inter-linked aspects of water availability to provide a forum for chalking out strategies that may be useful to the developing countries. For information, please contact: Prof. Rema Devi Organising Secretary WAPDEC [wapdec2002@yahoo.com](mailto:wapdec2002@yahoo.com) Their website is [www.iitd.ac.in/wapdec](http://www.iitd.ac.in/wapdec).

### **ENVIRONMENTAL AND PUBLIC HEALTH RISKS FROM URBAN, INDUSTRIAL AND NATURAL SOURCES IN SOUTH EAST ASIA (Hanoi, Vietnam)**

10-12 December 2002

This Seminar is organised jointly by UN-ESCAP, IWMI and the National Institute for Soils and Fertilisers (NISF). More information can be obtained from NISF ([ncvinh-nisf@ftp.vn](mailto:ncvinh-nisf@ftp.vn)) or UN-ESCAP ([wees.unescap@un.org](mailto:wees.unescap@un.org)).

### **WASTEWATER USE IN IRRIGATED AGRICULTURE: CONFRONTING THE LIVELIHOOD AND ENVIRONMENTAL REALITIES (Hyderabad, India)**

11-14 November 2002

See the report as well as the Hyderabad Declaration on page 4.

### **GREEN CITIES, SUSTAINABLE CITIES CONGRESS (Midrand - Johannesburg, South Africa)**

18-21 November 2002

The following subjects were discussed: Sustainable Urban Greening and Sustainable Development; Social Implications; Poverty Alleviation and Economics; Technical Aspects.

For more information, contact the Green Cities Congress Secretariat: Van der Walt & Co, Randburg, South Africa: Tel: +27 11 789-1384; Fax: +27 11 789-1385; e-mail [ierm@vdw.co.za](mailto:ierm@vdw.co.za); [www.ierm.org.za/greencities/](http://www.ierm.org.za/greencities/)

#### **ECOLABELS AND THE GREENING OF THE FOOD MARKET (Boston, Massachusetts, USA)**

*November 7-9, 2002*

This conference, organised by Tufts University and US Department of Agriculture, was a response to the rapidly growing use of ecolabels, which has raised several questions: How credible are they? More information: visit [www.nutrition.tufts.edu/conted/ecolabels](http://www.nutrition.tufts.edu/conted/ecolabels)

#### **EXCHANGE MEETING AND SEMINAR ON URBAN AGRICULTURE (Ath, Belgium)**

*23-26 September 2002*

This seminar was organised by the Haute École Provinciale du Hainaut Occidental (Ath), Institut de la Vie (Bruxelles), PRELUDE international (Bruxelles), Solidarité Socialiste/FCD/DTS (Bruxelles). This seminar brought together about 30 farmers and experts from East, Central and West Africa and from Europe with the intention to share experiences in urban agriculture, visit urban agriculture sites in Belgium and France, to discuss possibilities of promoting urban agriculture, find solutions such as building and consolidating partnerships and networks and to identify relevant research programmes. Case studies from both African and European participants were presented. The event ended with the formulation of recommendations and conclusions and the drafting of a common charter of Urban Agriculture. For more information (including the results), please contact: Prof Michel Ansay, Institut de la Vie, [mansay@ulg.ac.be](mailto:mansay@ulg.ac.be)

#### **WORKSHOP ON URBAN AGRICULTURE (Lima, Peru)**

*18-20 September 2002*

This workshop, organised by the Cities Feeding People (IDRC) Programme and hosted by ITDG, Peru, reviewed results, impacts and lessons learned from a second generation of urban agriculture projects in Latin America and the Caribbean. The proceedings of the workshop will be published in early 2003 and copies will be made available from the Cities Feeding People Programme.

#### **IFOAM ORGANIC WORLD CONGRESS (Victoria, Canada)**

*August 21st to 28th.*

Although it was planned for 800 participants, about 1,300 people from 92 countries participated in this 14<sup>th</sup> International IFOAM Organic World Congress. See for information: [www.cog.ca/ifoam2002/](http://www.cog.ca/ifoam2002/) to order the proceedings.

#### **STUDY VISIT/WORKSHOP: REUSE OF WASTEWATER IN URBAN AGRICULTURE, A CHALLENGE FOR MUNICIPALITIES IN WEST AFRICA (Ouagadougou, Burkina Faso)**

*3-7 June 2002*

Refer to page 13 or visit the RUAF website at [www.ruaf.org](http://www.ruaf.org).

#### **INTERNATIONAL FORUM RETHINKING THE CITY (Montreal, Canada)**

*27 June 2002*

This meeting gathered a large number of high-level policy-makers and business representatives from LAC, Canada and Italy. The event provided a good platform for speakers, mostly local governments and the private sector, to openly express and then illustrate their views regarding local governance, focusing on the interaction of public and private sectors.

More information: [www.ems-sema.org/eventos/montreal/index\\_i.html](http://www.ems-sema.org/eventos/montreal/index_i.html)

#### **URBAN POLICY IMPLICATIONS OF ENHANCING FOOD SECURITY IN AFRICAN CITIES (Nairobi, Kenya)**

*27-31 May 2002*

This workshop was organised by UNHCS in partnership with the FAO, IDRC and SIUPA (CIP-based Strategic Initiative on UPA). The minutes of the workshop are published. Contact: Urban and Regional Economy Unit, Urban Economy and Finance Branch, UNCHS (Habitat), P.O. Box 30030, Nairobi, Kenya.

Tel: +254 2 624521; Fax: +254 2 623080; e-mail: [rose.muraya@unchs.org](mailto:rose.muraya@unchs.org).

#### **FEEDING CITIES IN THE HORN OF AFRICA: DECLARATION OF ADDIS ABABA (Ethiopia)**

*7-10 May 2002*

The report of this three-day workshop "Feeding Cities in the Horn of Africa" is now available on cd-rom. For further information, please contact: Michael Wales, Horn of Africa Food Security Initiative, FAO Investment Centre, Rome; Tel: 0039-06-5705-5432; e-mail: [Michael.Wales@FAO.org](mailto:Michael.Wales@FAO.org).

## NETWORKING

#### **CITY CONSULTATION ON URBAN AGRICULTURE AND FOOD SECURITY IN QUITO, ECUADOR ON CD-ROM**

IPES, the Urban Management Programme - Regional Office for Latin America and the Caribbean (UMP-LAC/HABITAT) and the IDRC have produced a multi-media CD-ROM on the participatory process of dialogue, action planning and municipal intervention on urban agriculture in the city of Quito, Ecuador (from September 1999 until September 2001). The CD-Rom is only available in Spanish and can be ordered for US \$15 (excluding costs for postage). Please contact the Urban Management Programme in Quito (e-mail: [marid@pgu-ecu.org](mailto:marid@pgu-ecu.org) or Fax at +593.2.2282361 - ext 110-)

#### **URBAN AGRICULTURE POLICY ADVISORY TOOLS FOR LOCAL GOVERNMENTS IN LATIN AMERICA AND THE CARIBBEAN**

As part of its "closing the loop" activities, the Cities Feeding People programme initiative of the IDRC collaborates with UMP-LAC/UNCHS- HABITAT/UNDP, and its anchoring institute IPES to produce a set of Policy Briefs (see page 41). These briefs are known in Spanish as "*Directrices o lineamientos de Política*", and are intended for local governments in the LAC Region. The general content include arguments for better municipal policies on UA, examples of good municipal practice, practical planning and management guidelines, and resources. The Briefs will be disseminated in 20,000 copies (in both Spanish and English) to municipal urban governments throughout the Region. For more information: Please contact Marielle Dubbeling at the Urban Management Programme in Quito (email: [marid@pgu-ecu.org](mailto:marid@pgu-ecu.org) or Fax at +593.2.2282361 - ext 110-)

## AGROPOLIS INTERNATIONAL RESEARCH AWARDS IN URBAN AGRICULTURE

### Call for Applications

The AGROPOLIS International Graduate Research Awards Programme was launched by the International Development Research Centre (IDRC) in 1998 to support innovative Master's and Doctoral level research in urban agriculture. To date, the AGROPOLIS programme has helped 27 students carry out field research in developing countries. Their work covers a broad scope, from the impact of wastewater use in urban and periurban agriculture in Ghana, to trials of local feed resources to strengthen animal smallholdings in Vietnam, or an exploration of gender issues in commercial urban agriculture in Botswana. AGROPOLIS awardees are making significant contributions to the advancement of urban agriculture in many parts of the world.

Up to 14 awards will be granted annually, at least 5 of them at the Master's level. AGROPOLIS covers field research expenses up to CA \$20,000 a year, for periods ranging from 3 to 12 months. Applicants must be citizens or permanent residents of a developing country or of Canada: at least two-thirds of the awards will be made to researchers from developing countries. All applicants must be registered full-time at a university. Starting this year, the AGROPOLIS Program will also offer up to two post-doctoral awards to promising researchers who have obtained a Ph.D. in urban agriculture or a related field and who wish to specialise further.

### The deadline for applications is January 31, 2003.

*For more information:* AGROPOLIS International Graduate Research Awards in Urban Agriculture, IDRC, PO Box 8500, Ottawa, ON, Canada K1G 3H9, Tel: (613) 236-6163, ext. 2040; Fax: (613) 567-7749. Email: [agropolis@idrc.ca](mailto:agropolis@idrc.ca) Website: [www.idrc.ca/cfp](http://www.idrc.ca/cfp).

## RUAF USERS SURVEY

In total 53 people responded to the question "How do you locally apply the information provided by RUAF", that was raised by RUAF in an e-mail to all persons in the UA-contacts database having an e-mail address. The responses to our request came from all the corners of the world. The contributions varied in length between a short word of thanks to long essays and suggestions for improvement. The reactions are all very positive showing the wide use of information for inspiration, networking and sharing information, research, training and education or in local policy and programme development. These experiences and suggestions for improvement of the RUAF services will be discussed in the next RUAF partner meeting in February 2003 and will be taken into consideration in future work of RUAF.

On 1 October a random draw from the 53 entries took place and the three lucky winners were: Ysmary Trejo, Habitat from Venezuela, Ken Hargesheimer, Garden/Mini-Farms Network, from the United States and Almitra Patel, from India. The winners have been contacted and were given a choice between two packages of publications on Urban Agriculture. Congratulations to these winners!! RUAF would also like to thank all the other respondents for their contribution.

## Abbreviations and Definitions

- ❖ **BOD** Biochemical Oxygen Demand
- ❖ **COD** Chemical Oxygen Demand
- ❖ **TSS** Total Suspended Solids
- ❖ **TDS** Total Dissolved Solids
- ❖ **Grey water** (domestic) wastewater from kitchen and bathroom
- ❖ **Black water** wastewater with excreta, urine and associated sludge
- ❖ **Sludge** is the settled matter after stabilisation of organic matter in wastewater through some process. It may have an offensive odour and a mud-like appearance.
- ❖ **Faecal coliforms** are bacteria found in the faeces of warm blooded animals; the numbers found in water indicate the level of faecal or sewage pollution and the numbers found in treated wastewater indicate the effectiveness of wastewater treatment.
- ❖ **Intestinal Nematodes** the most common are round worms, hookworms, and whipworms which carry the highest risk of infection.
- ❖ **Guideline limits** indicate the maximum level of pollution at which persons would not be at risk of infection. For restricted irrigation, no more than one viable human intestinal nematode egg per litre is permissible, whereas for unrestricted irrigation additionally no more than one thousand faecal coliform bacteria per hundred millilitres are allowed.
- ❖ **Wastewater stabilisation ponds** comprise one or more series of anaerobic, facultative and maturation ponds. They consist of shallow, usually rectangular "lakes" into which wastewater continuously flows and from which a stabilised effluent is discharged. Anaerobic and facultative ponds are primarily for the removal of organic matter, although they are very effective in removing intestinal nematode eggs. Maturation ponds are used mainly for the removal of excreted bacteria and viruses.
- ❖ **Bioremediation** is accomplished through the use of plants and trees that uptake water and reduce nitrogen and host microbial organisms and some heavy metals in the water.
- ❖ Other **alternative methods** consist of gravel, reeds or vetiver grass which serve as filtration mechanisms as well as to reduce the amount of nitrogen in the water. These are sometimes combined with the use of water hyacinth or duckweed as bioremediators and with solar radiation aquatic ponds that kill pathogens.
- ❖ **Restricted irrigation** applies to water used for irrigating a restricted range of crops, for example, cereals, fodder crops, pasture, trees, and crops, which are processed before consumption.
- ❖ **Unrestricted irrigation** refers to water that can be used to grow any crops using any irrigation method without health risks including crops that can be eaten raw.
- ❖ **Diluted** Effluent mixed with other water before use in irrigation.
- ❖ **Undiluted** No significant dilution of the effluent in a river or other water body before use in irrigation.
- ❖ **Formal use** Use of wastewater with a certain level of permission or potential control by state agencies (also suggested are: Authorised and Planned use).
- ❖ **Informal use** Use of wastewater without permission and control by state agencies (also suggested are: Unauthorised and Unplanned use).