

IPTRID

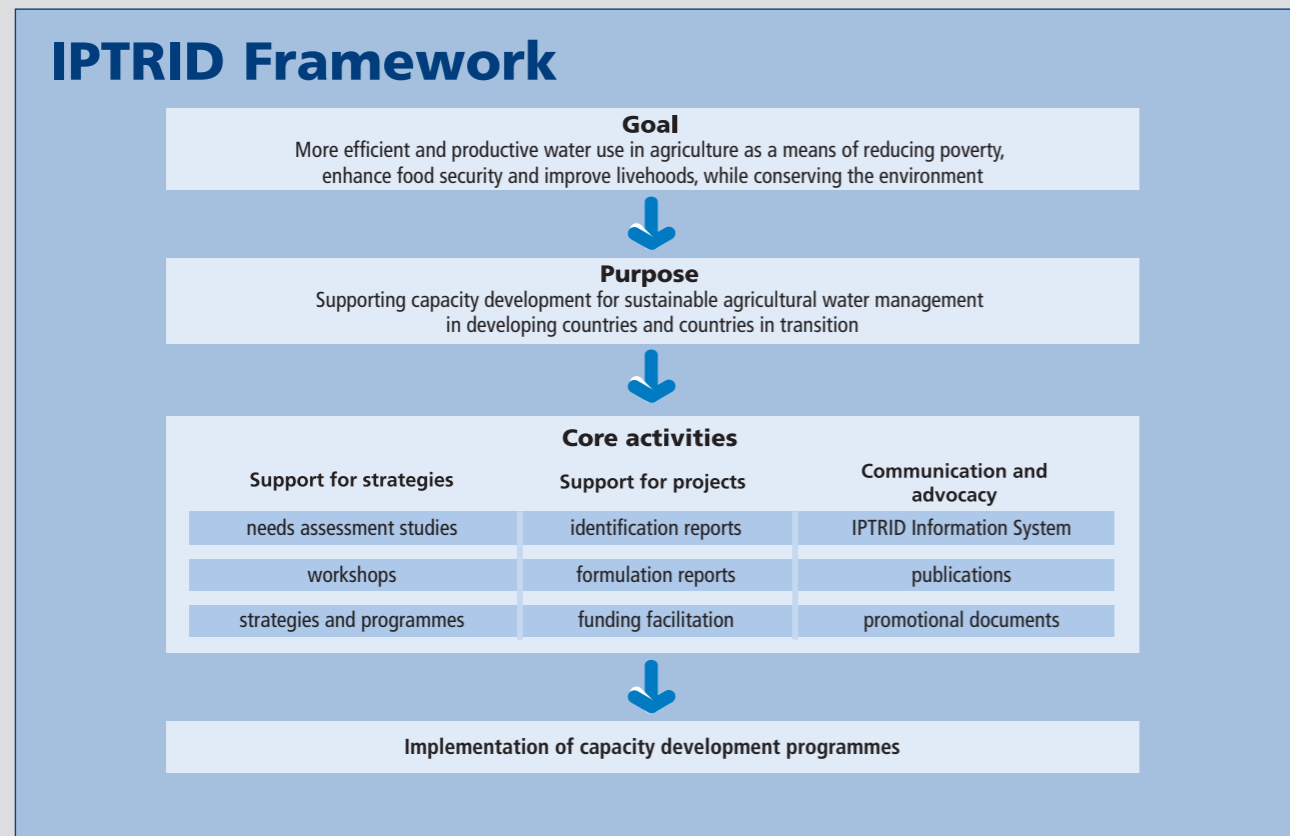
Supporting capacity development for sustainable agricultural water management

IPTRID is an international multi-donor trust fund programme of FAO, co-managed with its partner institutions. The programme is implemented by the IPTRID Secretariat, hosted in the Land and Water Development Division of FAO and drawing on a worldwide network of leading centres of excellence in the field of irrigation, drainage and water resources management.

The programme aims at supporting capacity development for sustainable agricultural water management to reduce poverty, enhance food security and improve livelihoods, while conserving the environment. IPTRID provides advisory services and technical assistance to governments and funding institutions to stimulate increased and more effective investment, assisting them in formulating and implementing capacity development strategies and programmes.

IPTRID was created in 1990 by the World Bank and the United Nations Development Programme (UNDP) in collaboration with the International Commission on Irrigation and Drainage (ICID). First located at the World Bank in Washington, the IPTRID Secretariat was transferred in 1998 to the FAO in Rome. The present programme is co-financed by FAO, France, The United Kingdom, The Netherlands, Spain, The World Bank, The International Fund for Agricultural Development (IFAD) and The European Commission.

IPTRID is developing partnership with an increasing number of funding institutions and governments. During the last ten years, it has been supported by more than 20 international organizations and government agencies, and has cooperated with more than 60 partners in about 40 developing countries and countries in transition.

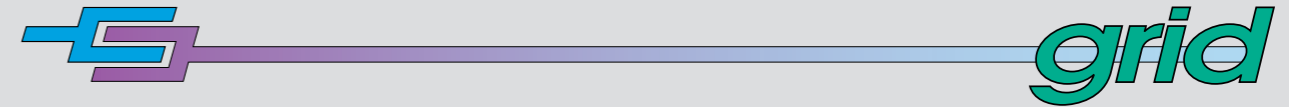


IPTRID Network of centres of excellence

FAO	IAM-Bari, Italy
ICID	USBR, United States
IWMI	INRGREF, Tunisia
HR-Wallingford, UK	NWRC, Egypt
Alterra-ILRI, The Netherlands	ICWC, Aral Sea Basin
Cemagref, France	EIER-ETSHER, West Africa
DGDR-MAPA, Spain	

IPTRID Secretariat

FAO/AGL – Room B713
 Viale delle Terme di Caracalla
 00100 Rome, Italy
 Tel. : +39 06 570 52068/56847
 Fax : +39 06 570 56275
 Email : iptrid@fao.org
 www.fao.org/iptrid



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IPTRID
International Programme for Technology and Research in Irrigation and Drainage

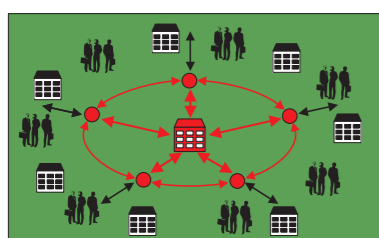
Issue 21, November 2003
Published twice yearly

GRID IPTRID Magazine

Aim and scope

GRID is published to assist communication between researchers and professionals in the spheres of irrigation and drainage. It informs readers about IPTRID activities, and about research and development in irrigation and drainage with a view to stimulating international debate on these issues.

GRID is produced for professionals working, or having an interest in irrigation and drainage projects in developing countries. It covers all relevant disciplines including engineering, agriculture and the social sciences.



Submission of material

GRID invites short written contributions, principally for the Diary and Forum sections. They may include photographs or drawings, which must be of high quality and suitable for reproduction at reduced size. Contributions should be sent to GRID Newsletter, HR Wallingford, Howbery Park, Wallingford, Oxfordshire OX10 8BA, UK.

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Geoff Pearce
Jean Verdier
Maru Martinez

Publishers

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IPTRID Secretariat, Rome

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Date for submission of material for Issue 22 is January 31st 2004

CONFERENCES AND SYMPOSIA

Details of events listed in this section are based on information provided by the respective organisers and from information gathered elsewhere. We welcome any information about future events for inclusion in subsequent issues. A more comprehensive listing of forthcoming events can be obtained from the editors of GRID, who can be contacted at the address shown on the inside front cover or by using the following e-mail address: www.iptrid@hrwallingford.co.uk

October 13-15, 2003
Shijiazhuang, Hebei Province, China.
International Symposium on Integrated Water Resources Management
Contact: Dr. Dajun Shen
Global Water Partnership, c/o Dept. of Water Resources, China Institute of Water Resources and Hydropower Research, Beijing 100044, China
Tel: +86-13910329775 (mobile), 86-10-68415522 ext. 3702
Fax: +86-10-68483367
E-mail: shendj@iwhr.com
Web: <http://www.gwpforum.org/serviet/PSP?NodelD=127>

October 19-21, 2003
Shepparton Victoria, Australia
50th National Irrigation Conference – Australian National Committee on Irrigation and Drainage
Contact: ANCID 2003 Conference Secretariat
Professional Conference Services, 137 Gardenvale Road, GARDENVALE VIC 3185
Tel: +03 9530 6777
Fax: +03 9530 6526
Email: services@profconferences.com
Website: www.ancid.org.au

November 10-12, 2003
Ouagadougou, Burkina Faso
Third General assembly of RAID (Regional Association for Irrigation and Drainage), International Conference on "Practical experiences of smallholder irrigation in Sub-Saharan Africa"
Contact: ARID (Association Regionale pour l'Irrigation et le Drainage en Afrique de l'Ouest)
Web: www.eieretsher.org/aid; www.eieretsher.org/aid
Mail: arid@eieretsher.org; arid@eieretsher.org
Tel: +226 36 14 27 Fax: +226 31 27 24

November 12-14, 2003
Mexico City, Mexico
4th International Symposium on Wastewater Reclamation and Reuse
Contact: Alma C. Chavez Mejia
Instituto de Ingenieria, UNAM, Apartado Postal 70-472, Ciudad, Universitaria, 04510, Mexico, D.F.
Fax: +525 622-3433
Email: acm@pumas.iingen.unam.mx
Web: <http://www.iingen.unam.mx/isw/index1.html>

November 10-12, 2003
Taipei, Taiwan
ICID Asian Regional Workshop - Sustainable water resources development and Management and operation of participatory irrigation organizations
Contact: Prof. Yi-Chi Tan
Secretary General of Chinese Taipei Committee, Secretary General, ICID Chinese Taipei Committee, Dept. of Bio-environmental System Engineering, National Taiwan University, 1 Roosevelt Road, Sec. 4, Taipei 106, Taiwan
Tel: +886-2-2369-2630
Fax: +886-2-2363-9557
E-mail: yctan@ccms.ntu.edu.tw or kuosf@mail.leader.edu.tw (Dr. Kuo, Sheng-Geng),
Web: <http://www.water.tku.edu.tw/icid2003>

November 17-21, 2003
Chiang Mai, Thailand.
First Southeast Asia Water Forum – Strengthening regional capacity through best practices in integrated water resources management (IWRM)
Contact: Southeast Asia Regional Water Forum Secretariat c/o GWP SEATAC, WR 104 WEM/SCE, Asian Institute of Technology, P.O. Box 4, Klong Luang, Pathumthani, 12120 Thailand
Tel. (+66 2) 524 6067, 524 5558
Fax (+66 2) 524 5550
Email: gwp_seatac@ait.ac.th
Web: www.gwpseatac.org

November 18-20, 2003
San Diego, USA
24th Annual International Irrigation Show
Contact: The Irrigation Association
6540 Arlington Boulevard, Falls Church, VA 22042, USA
Tel: +1 703 536 7080
Fax: +1 703 536 7019
E-mail: webmaster@irrigation.org
Web: <http://www.irrigation.org>

November 24-26, 2003
Chiang Mai, Thailand
Workshop on "Gaining Public Acceptance"
Contact: Dr. Khin Ni Ni Thein
Senior Advisor, United Nations Environment Programme - Dams and Development Project (UNEP-DDP), PO Box 30552, Nairobi, Kenya
Tel: +254-2-624517
Fax: +254-2-623545
E-mail: knn.thein@unep.org
Web: www.unep-dams.org

15 to 18 December 2003
BHOPAL, MADHYA PRADESH (M.P.), India
International Conference on Water and Environment
Contact: Dr. R.N. Yadava
Regional Research Laboratory, Bhopal 462026, INDIA
Tel: +91-0755-2589343
Fax: +91-0755-2587042
E-mail: dryadava@yahoo.com, conference@rrlbp-we2003.com, secretary@rrlbp-we2003.com
Website: <http://www.rrlbp-we2003.com/committee.htm>

March 14-17, 2004
Echuca, Australia
2nd ICID Asian Regional Conference - Irrigation in the total catchment management.
Contact: Mr. John Mapson
Secretary/Treasurer, Australian National Committee, ICID (ANCID), Manager Water Services, Goulburn-Murray Water, P.O. Box 165, Tutura Vic 3616,
Tel: +61 3 5833 5515
Fax: +61 3 5833 5502,
E-Mail: johnmap@g-mwater.com.au,
Web: <http://www.icid2004.com>

March 22-27, 2004
Lahore, Pakistan
International Training Workshop on "HydroSalinity Abatement and Advanced Techniques for Sustainable Irrigated Agriculture"
Contact: Dr. M. Mazhar Saeed, Workshop Secretariate
Centre of Excellence in Water Resources Engineering (CEWRE), UET-Lahore, Pakistan
Email: mazhar_cevre@yahoo.com (Dr. M. Mazhar Saeed) or smahmoodpk@yahoo.com (Eng. Sajid Mahmood Azeemi, Co-Secretary) or center@xcess.net.pk

May 30 – June 3, 2004
Amman, Jordan
International Water Demand Management Conference
Contact: Ms. Hala Dahlan, Conference Manager, The Water Efficiency and Public Information for Action (WEPIA), P.O.Box: 850561 Amman 11185 Jordan
Tel: +962 6 5527893/5
Fax: +962 6 5527894
E-mail: hdahlan@go.com.jo
Web: <http://www.wdm2004.org/>

June 21-24, 2004
Singapore
Sixth International Conference on Hydroinformatics
Contact: Integrated Meetings Specialist Pte Ltd
1122A Serangoon Road, Singapore 328206
Tel: +65 6295 5790
Fax: +65 6295 5792
E-mail: HIC2004@inmeet.com.sg
Web: www.eng.nus.edu.sg/civil/conf/HIC2004

June 23-25, 2004
Naples, Italy
Second International Conference on Fluvial Hydraulics
Contact: River Flow 2004
Dipartimento di Ingegneria Idraulica ed Ambientale "Giralamo Ippolito", Università di Napoli Federico II, Via Claudio, 21, 80125, Naples, Italy
Tel: +39-081-7683427
Fax: +39-081-5938936
E-mail: riverflow2004@riverflow2004.unina.it
Web: www.riverflow2004.unina.it

July 26-31, 2004
Changchun, Jilin Province, P.R. China
International Conference on Water Security for Future Generations
Contact: Professor Zhang Bai, Secretariat

Email: icwsvfg@mail.neigae.ac.cn
Web: http://www.neigae.ac.cn/conference/20030227.htm#General_Information

September 7, 2004
Moscow, Russia
International Workshop on Water Harvesting and Sustainable Agriculture
Contact: Mr. S. Nairizi
No. 24, Shahrsaz Lane. Kargozar St., Zafar Avenue. Tehran, Iran.
Tel: +982 1 2257348
Fax: +982 1 2272285
E-mail: s.nairizi@tooss-ab.com

September 1-8, 2004
Moscow, Russia
Inter-Regional Conference on Food Production and Water: Social and Economic Issues of Irrigation and Drainage
Contact: Dr. M.G. Chuelov
Secretary General, Russian National Committee on Irrigation and Drainage, Russian National Committee on Irrigation and Drainage, C/o Ministry of Agriculture and Food of the Russian Federation, 1/11, Orlikov per., Moscow 107139, Russia.
Fax: (7095) 207-8522
E-mail: bubera@wm.west-call.com.

September, 2004
Cairo, Egypt
1st African Regional Conference: Integrated water resources management towards poverty alleviation
Contact: Eng. Hussien El-Atfy
Secretary, Egyptian National Committee on Irrigation and Drainage (ENCID), Ministry of Public Works and Water Resources, El-Shawatie Building, P.O. Box 86, Shoubra El-Khaima, Postal Code 13411, Cairo, Egypt
Tel: +20 2 312 3275
Fax: +20 2 310 9591
E-mail: encid@link.com.eg

September 1-8, 2004
Moscow, Russia
55th ICID IEC meeting
Contact: Dr. M.G. Chuelov
Secretary General, Russian National Committee on Irrigation and Drainage, Russian National Committee on Irrigation and Drainage, C/o Ministry of Agriculture and Food of the Russian Federation, 1/11, Orlikov per., Moscow 107139, Russia.
Fax: (7095) 207-8522
E-mail: moscowconfer2004@mail.ru
Website: <http://www.vniigim.ru/conf/55/prospect.pdf>

September 12-17, 2004
Madrid, Spain
Fifth International Symposium on Ecohydraulics
– Aquatic habitats: analysis and restoration
Contact: Prof. Dr. Diego Garcia de jalon
Escuela de Ingenieros de Montes, Universidad Politecnica de Madrid, 28040, Madrid, Spain
Tel: +34 91 3366385
Fax: +34 91 3366386
E-mail: ecohydraulics@montes.upm.es
Web: www.tilesa.es/ecohydraulics

September 19-24, 2004
Marrakech, Morocco
World Water Congress and Exhibition
Contact: International Water Association
Alliance House, 12 Caxton Street, London SW1H0Qs, United Kingdom
Tel: +44 (0)20 7654 5500
Fax: +44 (0)20 7654 5555
Email: water@iawahq.org.uk
Web: www.iawahq.org.uk

October 18-21, 2004
Yichang, China
Ninth International Symposium on River Sedimentation
Contact: Dr. Hu Chunhong
IRTCES, 20 Chegongzhuang Xilu, Beijing 100044, China
Tel: +86 10 68413372
Fax: +86 10 68411174
E-mail: irtces@public.bta.net.cn
Web: irtces@95777.com

CENTER¹ – IPTRID's new partner from Spain



Irrigation pivots

Agriculture in Spain fundamentally relies on irrigation due to the arid weather conditions and constraints in water distribution. Furthermore, there are growing public demands to limit the use of water in farming, and to apply it more efficiently.

Spain's National Irrigation Plan (PNR) was drafted for the Ministry of Agriculture, Fisheries and Food (MAPA) as a means to develop solutions. The PNR went into immediate operation in April 2002, and will run to 2008. It takes into account water resources, soil and climatic limitations, demographic, social and economic aspects and policy. Although Spain's irrigated area (about 3.8 million hectares) is unlikely to increase greatly, there is a need to achieve greater efficiency in the transport, application and management of water. The National Centre for Irrigation Technology (CENTER) is involved in the modernisation plan through, for example, providing advice on improving irrigation systems.

CENTER is located on a 106 ha site near Madrid, and it is part of MAPA's Directorate General for Rural Development. It has teaching facilities for just under 100 long-term trainees, and maintains various irrigation system facilities, including:



Parshall flume

- Measuring and filtering equipment - prior to use by the sprinkler, pivot and local irrigation systems, water passes through volumetric measuring equipment and automatic self cleaning filtering systems.
- Gravity irrigation - a total of 16 ha of land is irrigated by furrows and checks.
- Sprinkler irrigation - the main irrigation system (67 ha) comprises:- stationery blocks - 19 ha, mobile blocks - 19 ha, mobile lines - 7 ha, pivot - 17 ha, and lateral irrigation - 5 ha. Sprinklers are also used on 7ha as support of other irrigation systems.
- Localized irrigation - 6 ha of greenhouses and other crops such as fruit trees.
- Telemetered lysimeter
- Telemetered weather stations (2)
- Fertigation - Two automatic fertilizer injection stations.
- Drainage - a subsurface drainage system of 3 ha with automatic pumps.
- Remote monitoring and control for irrigation system.

CENTER's work plan

The state-owned company TRAGSA is responsible for running the centre under the

supervision of MAPA. The main content of CENTER's work is:

Technology transfer

- International Master's Degree in Irrigation and Drainage – 6 month course on planning and design.
- International Course (with AEI) in Irrigation Techniques and Management for Latin - American engineers.
- Short Courses (with AEI) for Middle Eastern and Maghreb participants.
- National Seminars or short courses for technicians from Spanish and Portuguese public authorities on new products and technical advances.
- Short courses for farmers on management and organisation.

Irrigation materials and equipment testing

Continuous field tests are being carried out to assess the performance of various systems and equipment, and to support the task of standardisation. A new central laboratory will open shortly.

Assessment of irrigated zones

CENTER's assessment of irrigated zones in Spain (as part of the National Irrigation Plan) involves monitoring certain areas turned over to irrigation or modernised with economic aid from the Government.

Standardization

CENTER works on the standardisation of equipment and materials for the irrigation sector. This involves drafting, reviewing and interpreting standards. This is done for three standardisation agencies: ISO (International Organization for Standardization) at an international level; CEN (European Committee for Standardization) at a European level; and AENOR (Spanish Association for Standardization and Certification) at a national level. CENTER provides technical support for AENOR, and is responsible for standardisation of localised irrigation systems in order to define the trial characteristics and compliance standards, for drafting a standard on the architecture, functionality and trial methods for a remote-control system.

International scope

CENTER represents the Spanish Irrigation Technology sector through these, and several other activities. These include partnership with international organisations working in the irrigation field, such as IPTRID, ICID, ENTAM and with many other national organisations in countries such as France, Portugal, Mexico, Chile, etc.

IPTRID's new partnership programme launched

by Olivier Cogels¹

The 2003-2005 programme for IPTRID aims at supporting Capacity Development for Sustainable Agricultural Water Management. It was launched at the recent IPTRID Consultative Group held during the ICID International Conference at Montpellier in September 2003. The challenge for IPTRID is to support increased investment in human and institutional capacity through:

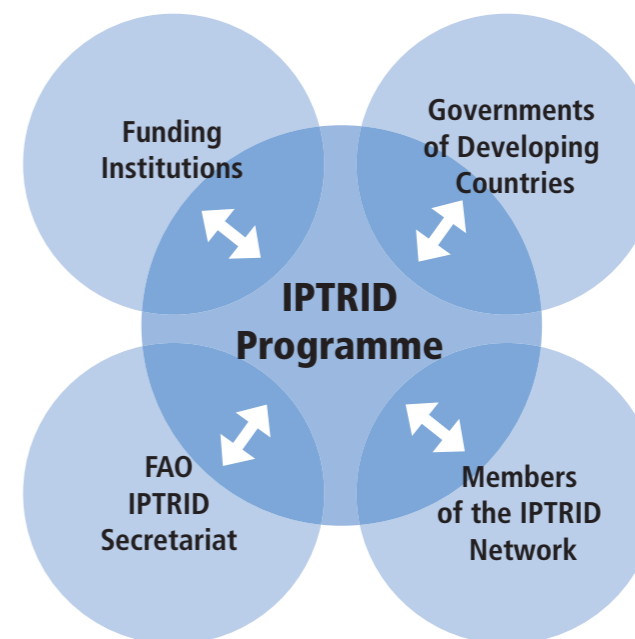
- assisting developing countries in assessing priority needs and in formulating sustainable agricultural water management strategies
- facilitating funding and implementation of capacity development programmes and projects.

Why IPTRID

World irrigation has grown from 8 Mha in 1800, to 275 Mha today, and now produces over 40% of the world's food and fibre needs and 60% of world's cereals. World population is expected to grow by a further 30% in the next 25 years, mainly in the developing world where water is in short supply. More than 1.3 billion people do not have access to enough food at household level and the problem is growing. Many live in dry and drought prone areas where the main livelihood depends on water and agriculture. The case for continuing support for irrigated agriculture is a very strong one and the current consensus among policy makers in the developing world is that irrigated agriculture has a major role to play in meeting the Millennium goals. Although there is no doubt that irrigation and drainage will thus continue to play a major role in food production and poverty alleviation, this is not without serious risks and difficulties. Unfortunately, water in agriculture is indeed too often misused and mismanaged due to lack of know-how of people and weakness of institutions. The consequences include: lack of maintenance, groundwater depletion, intrusion of saline water in coastal aquifers, land salinization, poor water productivity, conflicts, etc.

To improve the efficiency of water use

in agriculture and to avoid further environmental setbacks, it is clear that human and institutional factors have to be taken much more into account in development programmes and investment strategies of donors and governments. There is a need for more investment in capacity development at all levels - from farmers to government. Capacity development must be seen as an integrated concept that goes well beyond training. In view



of these problems, investment in capacity development for agricultural water management is urgently needed:

1. to strengthen knowledge through
 - enhancing research capacities,
 - enhancing experimentation and demonstration capacities,

- developing information and knowledge dissemination systems,

2. to strengthen skills and know-how through
 - developing training and education programmes,
 - organizing exchanges of experience,
 - producing field guides and training material,

3. to strengthen institutions through
 - organizing water user associations and support services (private and public),
 - developing monitoring and decision-support systems,
 - strengthening planning capacities,

4. to strengthen legislation through
 - developing laws and regulations,

5. to increase awareness through
 - building up awareness and understanding of stakeholders and decision makers.

The amount needed is difficult to estimate, but is in the range of US\$1 billion per year. Such investments and development actions need substantial technical assistance in project preparation, funding facilitation and assistance for project implementation. And that's where IPTRID comes in.

The IPTRID Programme

IPTRID is an international multi-donor trust fund programme of FAO, co-managed with its contributing partners such as France, United Kingdom, The Netherlands, Spain, World Bank, IFAD, European Commission.

The 2003-2005 partnership programme for IPTRID was officially approved at the recent IPTRID Consultative Group held during the ICID International Executive Council at Montpellier in September 2003.

New publication

Technology innovation and promotion in practice: pumps, channels and wells

Despite the fact that groundwater exploitation is important to farmers across large parts of the world, little work has gone into updating the technologies that are used. There are more than 10 million pump sets currently being utilised in South Asia, but the sector has remained somewhat of a blind spot. In fact, large improvements are possible in fuel efficiency, convenience and social impacts. This recent publication discusses possible improvements in pump-sets in both manually-operated and diesel-operated - as well as in well technology and water conveyance. A strong message from the book is that the development of the technology that farmers need is in actuality a social process in for instance finding ways to introduce and promote changes can be as important. For instance the stone-hammer technique for manual drilling developed as an alternative to dug-well technology in Terai region of North Bengal.

The book focuses in turn on diesel pump sets, manual pump-sets, tube-wells, stone-hammer shallow well installation, alternative water conveyance techniques, dissemination appropriate to reach potential users, and rural marketing. The aim of the book is to bring together practical work done in improving the fuel efficiency of low-lift irrigation systems. This is not a marginal topic in countries such as India where there are up to 10 million diesel operated tube-wells in operation, almost all private, and most run by small farmers.

The book is published by the Tata Energy Research Institute (TERI) Habitat Place, Lodhi Rd., New Delhi 110 003 (ISBN 81-7993-009-2), and can be ordered through outreach@teri.res.in (Rs 250 in India and US\$20 outside).

¹ CENTER, Camino de la Vega s/n. 28830 San Fernando de Henares, Madrid, Spain

¹ Programme Manager, IPTRID, FAO, Rome