

Agenda for the Fourteenth Meeting of the  
**WORKING GROUP ON ON-FARM IRRIGATION SYSTEMS (WG-ON-FARM)**  
 Tehran, Iran  
 17 October 2011: 13.30-17.00 hours  
*Strategy Theme: On-Farm*

**Year of Establishment: 1998**

**Completion of the Mandate: 2014**

**Mandate:**

- To promote on-farm irrigation as part of integrated water resources management, and
- To promote sustainable efficient approaches for on-farm irrigation.

**Members:** (1) VPH Felix B. Reinders, Chairman, 2004 (South Africa, 1998); (2) VPH Prof. Peter Kovalenko, Vice Chairman, 2005 (Ukraine, 2001); (3) Dr. A.K. Randev, Secretary (2009) (India 2005); (4) VPH Prof. F. Ligetvari (Hungary, 1998); (5) Dr. Kim Sun-Joo (Korea, 1999); (6) Mr. Yeh Shu-Shr (Chinese Taipei, 1999); (7) Mr. P. Ruelle (France, 1999); (8) Mr. J. Dunn (UK, 2002); (9) Mr. Yan Guanyu (China, 2002); (10) VPH Dr. J.A. Ortiz (Spain, 2003); (11) Mr. Graziano Ghinassi (Italy, 2004); (12) Mr. Hassan Shantia (Iran, 2006); (13) Mr. Mohan Reddy Junna (USA, 2007); (14) Dr. Abraham Mehari Haile (The Netherlands, 2008); (15) Dr. Makoto Yokozawa (Japan, 2009); (16) Prof. Dr. Rai Niaz Ahmed (Pakistan, 2009); (17) Mrs. Mira Edelbeher (Slovenia, 2009); (18) Mr. François Chrétien (Canada, 2010); (19) Mr. Jeremy Cape (Australia, 2010); and (20) Secretary General, ICID.

**Permanent observers:** (i) Mr. Bruno Molle (ISO); and (ii) FAO Representative

**Website:** <<http://www.wg-on-farm.icidonline.org>>

**Item 1 : Confirmation of the minutes of the 13th meeting of the Working Group**

The minutes of the 13th meeting of the Working Group held at Yogyakarta in October 2010 will be confirmed.

**Item 2 : Review of membership of the Working Group**

**2.1 New nomination**

The German National Committee (GECID) has nominated Dipl. Ing (FH) Jano Anter (Germany) for the membership of the Working Group. CV of Dipl. Ing. Jano Anter is awaited. The group may like to consider the nomination at Tehran meeting.

Attendance of members at the meetings held in 2009 and 2010 will be tabled at the meeting.

**2.2 Election of new Chairman**

VPH Felix Reinders has desired to step-down from the chairmanship of the WG due to his new role as Chairman of Permanent Committee for Technical Activities (PCTA). The WG may like to nominate a new successor at the meeting.

**A. CONTINUING ITEMS**

**Item 3 : To review the progress in preparation of documents**

**3.1 Paper on "Improvement of the On-Farm Irrigation Systems Using Simple Water Control, Measuring and Application Devices"**

At Yogyakarta meeting, VPH Felix Reinders, Dr. A. Mehari Haile and Mr. Jeremy Cape had volunteered to prepare a draft paper on "Improvement of the On-Farm Irrigation Systems using Simple Water Control, Measuring and

Application Devices". In March/ July 2011, the Central Office contacted these professionals and requested to prepare a draft paper so that it can be presented at Tehran meeting for discussion. Response is awaited.

Chairman may like to apprise further status on the above at the meeting.

### **3.2 Paper on "Micro Irrigation for Smallholders and Greenhouses"**

At Yogyakarta meeting, Chairman VPH Felix Reinders volunteered to review the final version of the paper "Micro irrigation for smallholders and greenhouses" in consultation with Prof. Y. Nakano (Japan) for its submission to ICID Journal. The Central Office in March 2011 requested VPH Reinders to expedite reviewing the paper so that it can be submitted to ICID Journal well in time. Response is awaited.

Chairman may apprise further status to the members at the meeting.

#### **Item 4 : Liaison with the ISO/TC23/SC18**

- **29th meeting of ISO/TC23/SC18, Adelaide, October 2010**

The 29th of ISO/TC23/SC18 was held on 18-23 October 2010 in Adelaide, Australia. Mr. Jeremy Cape (Australia) represented WG-ON-FARM/ ICID at the meeting. In January 2011, the Central Office circulated the summary of actions items emanated during the 29th meeting of TC23/SC18 (including the resolutions 364 and 373 related to ICID), to all members of the Working Group for their perusal.

- **Next (30th) meeting of the ISO/TC23/SC18, Tel-Aviv, November 2011**

The next (30th) meeting of the ISO/TC23/SC18 will be held in the City Hotel in Tel-Aviv, Israel from 14-18 November 2011 succeeding the 62nd IEC and 21st Congress from 15-23 October 2011 at Tehran. In consultation with Chairman VPH Reinders, the Central Office requested Mr. Bruno Molle to represent ICID at the TC23/SC18 meeting in November 2011. Response from Mr. Molle is awaited. Possibility of participation of an Israel National Committee representative may also be explored.

Chairman will provide further updates at the meeting. The Group may like to take a view in bringing out the ISO-ICID document on 'Irrigation Equipments Standards'.

#### **Item 5 : World-wide Usage of Micro and Sprinkler Irrigation**

##### **5.1 Datasheet on Sprinkler and Micro Irrigated Areas in ICID Network Countries**

At Yogyakarta, the group noted the latest statistical information compiled by the Central Office and requested all National Committees to check for any omissions/ corrections and update their information. As suggested by the group, the Central Office once again circulated the datasheet (in March 2011) to all National Committees and requested to confirm the data and send the updated information. In response, the ICID Central Office has received responses from the National Committees of Czech Rep., Lithuania, South Africa, and Spain.

The updated statistical information compiled by the Central Office pertaining the micro and sprinkler irrigated areas in ICID member countries is shown in **Annex 1**.

All members are requested to go through the data sheet and offer their observations or amendments, if any.

##### **5.2 Survey of 'World-wide Usage of Sprinkler and Micro irrigation'**

The WG need to finalize the survey questionnaire as it is pending since long. During the previous meeting it was proposed to include an item on the source of energy and energy consumption levels in the questionnaire and also statistical information on low pressure irrigation. Mr. E. Farahani (Iran) had volunteered to contribute to this item. No feedback has been received from him so far.

In March/ July 2011, the Central Office requested the group members to make a presentation on some interesting topic related to WG activities at the Tehran meeting. Response is awaited.

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**Item 6 : Website of the Workbody**

The WG website <<http://www.wg-on-farm.icidonline.org/>> is fully active. All members are requested to visit the website and provide relevant information viz. books, manuals, technical papers, interesting pictures, new software, useful links etc. to the Chairman/ Central Office for posting on the website.

**Item 7 : 8th International Micro Irrigation Congress (8IMIC), Tehran, 2011**

The 8th International Micro Irrigation Congress (8IMIC) will be held in Tehran during 19-23 October 2011 along with the 21st International Congress on Irrigation and Drainage. The theme of the 8IMIC is "*Innovation in Technology and Management of Micro-irrigation for crop Production Enhancement*". The call for papers were widely circulated among all National Committees/ Office Bearers and also posted on the website <<http://www.icid2011.org>>.

IRNCID has received 96 papers (comprising 55 oral and 41 poster presentations) for the 8IMIC. All the papers were reviewed by a team of experts. President Prof. Chandra Madramootoo will be the Keynote Speaker at the Opening Ceremony of the 8IMIC. VPH Felix Reinders has kindly agreed to act as the General Reporter for the 8IMIC. All the members are encouraged to attend the IMIC.

IRNCID representative will provide further updates at the meeting.

**Item 8 : Work plan of the Group**

The work plan of the Working Group for the year 2010 to 2012 is shown as **Annex 2**. The group may like to discuss and decide the work plan up to year 2014.

**Item 9 : Upgrading/ modernization of surface irrigation systems**

The group at its 13th meeting (Yogyakarta, 2010) noted that Prof. Mohan Reddy Junna (USA) volunteered to prepare a comprehensive book on "Soil and Water Management in Surface Irrigation Systems". During the meeting, the group proposed that one of the chapters of the book could be devoted to modernization aspects. Since Dr. Reddy was not present at the meeting no discussion took place.

The Central Office in March/ July 2011 contacted Prof. Mohan Reddy Junna and requested to form a team amongst the members of the WG in consultation with Chair VPH Reinders. In response, Prof. Mohan Reddy Junna informed the Central Office that in spite of his busy schedule in IWMI he is ready to write the book titled "Modernization of surface irrigation systems". He also informed that he prepared the draft outlines of the proposed chapters and most likely a draft version of the one of the chapters from the book.

Chairman/ Prof. Reddy will apprise further progress in preparation of the document at the meeting.

**Item 10 : Nomination of WG for the 3rd Best Performing Workbody Award (BPWA)**

As decided at the Yogyakarta meeting, VPH Felix Reinders submitted the nomination of the WG-ON-FARM for the 3rd '*Best Performing Workbody Award*' (BPWA). The Central Office has sent the proposal along with others to an International Panel of Judges, appointed by the President ICID for evaluation.

Chairman will apprise the group further details at the meeting.

**Item 11 : Any other business**

**Irrigation efficiency in the countries having major irrigated area**

Central Office has received a draft compilation of the irrigation efficiencies of the major irrigation countries in the world from VPH Gao Zhanyi, CNCID. The objective of the compilation was to compare the range of irrigation efficiencies achieved in major irrigation countries in the world. An irrigation efficiency of a country is a weighted average of efficiencies of surface (gravity), sprinkler and micro irrigated areas. The compilation as received is shown as **Annex 3**. In order to compare the efficiencies the data should belong to more or less same year. Since this is of interest to ICID, the WG may like to discuss and provide its recommendation as how to proceed.

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**WORKING GROUP ON ON-FARM IRRIGATION SYSTEMS (WG-ON-FARM)****Sprinkler and micro irrigated area in member countries***(Arranged in descending order of the total sprinkler and micro irrigated area)**(Data provided by National Committees)*

Sl. No.	Country	Total irrigated area (Million hectares)	Sprinkler irrigation	Micro Irrigation	Total sprinkler and micro irrigation	Percentage of total irrigated area	Year of reporting
			Hectares				
1	USA	24.7	12,348,178.14	1,639,676.11	13,987,854.25	56.5	2009
2	India	60.9	3,044,940.00	1,897,280.00	4,942,220.00	8.1	2010
3	China	59.3	2,926,710.00	1,669,270.00	4,595,980.00	7.8	2009
4	Russia	4.5	3,500,000.00	20,000.00	3,520,000.00	78.2	2008
5	Brazil	4.45	2,413,008.00	327,866.00	2,740,874.00	61.6	2006
6	Spain	3.41	732,925.00	1,628,705.00	2,361,630.00	69.3	2010
7	Italy	2.67	981,163.00	570,568.00	1,551,731.00	58.1	2010
8	France	2.9	1,379,800.00	103,300.00	1,483,100.00	51.1	2011
9	South Africa	1.67	920,059.00	365,342.00	1,285,401.00	77.0	2007
10	Saudi Arabia	1.62	716,000.00	198,000.00	914,000.00	56.4	2004
11	Iran	8.7	460,000.00	270,000.00	730,000.00	8.4	2009
12	Australia	2.545	524,480.00	190,720.00	715,200.00	28.1	2000
13	Canada	0.87	683,029.00	6,034.00	689,063.00	79.2	2004
14	Ukraine	2.18	618,000.00	48,000.00	666,000.00	30.6	2010
15	Mexico	6.2	400,000.00	200,000.00	600,000.00	9.7	1999
16	Korea	1.010	200,000.00	400,000.00	600,000.00	59.4	2009
17	Egypt	3.42	450,000.00	104,000.00	554,000.00	16.2	2000
18	Germany	0.54	525,000.00	5,000.00	530,000.00	98.1	2005
19	Japan	2.50	430,000.00	60,000.00	490,000.00	19.6	2010
20	Romania	1.5	448,000.00	4,000.00	452,000.00	30.1	2008
21	Slovak Rep.	0.313	310,000.00	2,650.00	312,650.00	99.9	2000
22	Israel	0.231	60,000.00	170,000.00	230,000.00	99.6	2000
23	Morocco	1.65	189,750.00	8,250.00	198,000.00	12.0	2003
24	Hungary	0.22	185,000.00	7,000.00	192,000.00	87.3	2008
25	Syria	1.28	93,000.00	62,000.00	155,000.00	12.1	2000
26	Turkey	5.34	110,000.00	26,000.00	136,000.00	2.5	2009
27	UK	0.11	105,000.00	6,000.00	111,000.00	100.9	2005

Sl. No.	Country	Total irrigated area (Million hectares)	Sprinkler irrigation	Micro Irrigation	Total sprinkler and micro irrigation	Percentage of total irrigated area	Year of reporting
			Hectares				
28	Finland	0.086	79,000.00	1,000.00	80,000.00	93.0	2009
29	Portugal	0.63	40,000.00	25,000.00	65,000.00	10.3	1999
30	Kazakhstan Rep.	2.13	57,355.00	-	57,355.00	2.7	2006
31	Malawi	0.055	43,193.00	5,450.00	48,643.00	88.4	2000
32	Chile	1.09	16,000.00	23,000.00	39,000.00	3.6	2006
33	Chinese Taipei	0.38	18,850.00	8,750.00	27,600.00	7.3	2009
34	Bulgaria	0.588	21,000.00	3,000.00	24,000.00	4.1	2008
35	Czech Rep.	0.153	11,000.00	5,000.00	16,000.00	10.5	2007
36	Philippines	1.52	7,175.00	6,635.00	13,810.00	0.9	2004
37	Poland	0.1	5,000.00	8,000.00	13,000.00	13.0	2008
38	Slovenia	0.0073	8,072.00	733.00	8,805.00	121.0	2009
39	Malaysia	0.38	2,000.00	5,000.00	7,000.00	1.8	2009
40	Macedonia	0.055	5,000.00	1,000.00	6,000.00	10.9	2008
41	Lithuania	0.0044	4,463.00	-	4,463.00	101.4	2010
42	Estonia	0.001	500.00	500.00	1,000.00	100.0	2010
	<b>Total</b>	<b>211.8918</b>	<b>35,072,650.1</b>	<b>10,082,729.1</b>	<b>45,155,379.3</b>	<b>21.3</b>	

**WORKING GROUP ON ON-FARM IRRIGATION SYSTEMS (WG-ON-FARM)****WORK PLAN**

2010	2011	2012
<ul style="list-style-type: none"> <li>Publish paper on "Micro irrigation for smallholders and greenhouses"</li> </ul>	<ul style="list-style-type: none"> <li>8th International Micro irrigation Congress (IMIC) in Tehran, Iran.</li> </ul>	<ul style="list-style-type: none"> <li>Continue updating datasheet on "Sprinkler and micro irrigated areas in ICID member countries"</li> </ul>
<ul style="list-style-type: none"> <li>Finalize the revised questionnaire on "Survey of world-wide usage of sprinkler and micro irrigation" and circulate to NCs</li> </ul>	<ul style="list-style-type: none"> <li>Continue updating datasheet on "Sprinkler and micro irrigated areas in ICID member countries"</li> </ul>	
<ul style="list-style-type: none"> <li>Update datasheet on "Sprinkler and micro irrigated areas in ICID member countries"</li> </ul>	<ul style="list-style-type: none"> <li>Publish Manual "Performance evaluation of sprinkler and drip irrigation systems" in the Persian language by the IRNCID</li> </ul>	
<ul style="list-style-type: none"> <li>Prepare paper on "Field Water Management and Soil water Conservation under Spate Irrigation"</li> </ul>		

**WORKING GROUP ON ON-FARM IRRIGATION SYSTEMS (WG-ON-FARM)****Irrigated area and irrigation efficiency**

Countries	Irrigated area (Mha)	Sprinkler Irrigation area	Micro irrigation area	Sprinkler and micro irrigation area	Ratio of Sprinkler and micro irrigation (%)	Surface irrigation area (Mha)	Ration of surface irrigation (%)	Sprinkler irrigation efficiency (%)	Micro irrigation efficiency (%)	Surface irrigation efficiency (%)	Average irrigation efficiency (%)	Year of reporting
		ha										
India	57.000	1,634,997	589,251	2,224,248	3.90	54.776	96.10	73.00	82.00	39.00	40.42	2008
China	58.472	2,821,180	1,249,620	4,070,800	6.96	54.401	93.04	73.00	83.00	45.40	47.54	2008
USA	23.007	12,496,000	1,520,000	14,016,000	60.92	8.991	39.08	74.00	90.00	67.00	72.32	2008
Iran	8.050	199,075	53,717	252,792	3.14	7.797	96.86	75.00	85.00	50.00	50.85	2000
Mexico	6.200	400000	200000	600,000	9.68	5.600	90.32	75.00	85.00	40.00	43.71	1999
Russia	4.450	3560000	200000	3,760,000	84.49	0.690	15.51	75.00	85.00	50.00	71.57	
Turkey	4.300	115,000	8,000	123,000	2.86	4.177	97.14	75.00	85.00	50.00	50.73	2002
Egypt	3.300	450,000	104,000	554,000	16.79	2.746	83.21	75.00	85.00	45.00	50.35	
Spain	3.315	905,319	913,946	1,819,265	54.87	1.496	45.13	75.00	85.00	60.00	70.99	1999
Italy	2.535	1,047,680	366,019	1,413,699	55.77	1.121	44.23	75.00	85.00	60.00	69.81	2002
Japan	2.570	243,000	55,000	298,000	11.60	2.272	88.40	75.00	85.00	60.00	61.95	
Australia	2.384	524,480	190,720	715,200	30.00	1.669	70.00	75.00	85.00	60.00	65.30	2000
France	1.575	1,379,800	103,300	1,483,100	94.17	0.092	5.83	75.00	85.00	65.00	75.07	2000
South Africa	1.300	255,000	220,000	475,000	36.54	0.825	63.46	75.00	85.00	60.00	67.17	2000
Canada	0.870	683,029	6,034	689,063	79.20	0.181	20.80	75.00	85.00	65.00	72.99	
Germany	0.532	525,000	5,000	530,000	99.62	0.002	0.38	75.00	85.00	65.00	75.06	2002
Israel	0.231	60,000	170,000	230,000	99.57	0.001	0.43	75.00	90.00	65.00	86.00	2008
UK	0.150	140,000	10,000	150,000	100.00	0.000	0.00	75.00	85.00	65.00	75.67	2001