

APPENDIX XVIII [PCTA Item 8.3]

**AGENDA FOR 1ST MEETING OF THE
WORKING GROUP ON SUSTAINABLE ON-FARM IRRIGATION
SYSTEM DEVELOPMENT (WG-SON-FARM)**

10 November 2016, 13.30-15.00 hours (Session I) and 15.30-17.00 hours (Session II)
Chiang Mai, Thailand

Strategy Theme: On-Farm

Presented by the Chairman

Year of Establishment: 2015

Completion of the Mandate: 2021

Mandate: (a) On-farm irrigation structures and water distribution system networks are properly designed, installed, managed and maintained; (b) Soil moisture is monitored, technical and management measures for enhancing the water infiltration and retention capacities of soils are investigated and implemented; (c) Trade-offs among on-farm irrigation technologies, socio-economic and environmental benefits are optimized; (d) Innovative local institutional arrangements are developed and promoted for operation and maintenance; (e) Top-notch scientific and development relevant research is conducted and its results are translated into actionable recommendations.

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

WG-SON-FARM Agenda Item 1: Action taken report by Chair

1. During the last International Executive Council (IEC) all the workbodies were requested to make use of the video conferencing facilities now being made available by the Central Office which enables monitoring of the actions taken on the decision of the WG. A virtual meeting through video conference also provides opportunity of participating in the activities of the WG for those members of the WG who are unable to attend the meeting physically and to continue their membership. WG may please take note. The Chair will present report on the actions taken on the decisions and proposals of the working group at its last meeting held at Montpellier.

WG-SON-FARM Agenda Item 2: ICID Action Plan 2030 – Activities on sustainable on-farm irrigation

2. The 66th International Executive Council (IEC), vide Resolution IEC-4/66 has approved the new Vision, Mission and six Organizational goals of ICID. In order to develop action plan, the Consultative Group (CG) requested inputs from ICID Work Bodies in prescribed format in May 2016 to identify actions to achieve the Organizational Goals in their area of activities which would form part of ICID Action Plan for Vision 2030.

3. WG discussed and developed actions to be implemented by the WG during the Montpellier meeting in 2015 (**Annex 1**). Since there is no response was received from the WG, the Central Office has prepared a draft activity plan of the group (**Annex 2**) in consultation with WG Chair. The group will discuss the draft action plan and finalize it during the Chiang Mai meeting and provide its input to PCTA. The updated action plan incorporating all the comments will be submitted to the CG for incorporation in the ICID Action Plan for Vision 2030. WG Chair will provide further updates at the meeting.

4. As per the work plan prepared by the WG, it was proposed to prepare country paper, how-to-do thematic document and position papers on key issues. WG Chair is requested to apprise members about the way forward and further progress in the matter. It is also suggested that WG may finalize the contents outline for the country overview papers, how-to-do thematic document and position papers proposed to be prepare and finalize by the WG.

WG-SON-FARM Agenda Item 3: Collection and collation of micro and sprinkler data

5. A simplified version of the questionnaire “Survey of World-wide Usage of Sprinkler and Micro Irrigation” was circulated to all National Committees in 2007 (**Annex 3**). The WG is requested to review the questionnaire and make modifications as necessary and finalise the questionnaire for circulating to all NCs.

6. After the Montpellier meeting, the Central Office has followed up with the National Committees to update the datasheets pertaining to micro and sprinkler area. In response, the updated data were received from the National Committees of Estonia, Iraq, Japan, and Spain. The updated table of total micro and sprinkler area in descending order is available at <http://www.icid.org/ar_2015.pdf>. Members are requested to provide latest information in respect of their countries every year.

WG-SON-FARM Agenda Item 4: Proposals for 9th International Micro Irrigation Conference

7. At Montpellier meeting, International Executive Council (IEC) approved vide Resolution IEC-3/66 the proposal for renaming Micro Irrigation Symposium to Micro Irrigation Conference and also approved in-principle the proposal of the Indian National Committee on Surface Water (INCSW) for organizing 9th International Micro Irrigation Conference (IMIC) in 2019 or 2020. In August 2016, Central Office requested INCSW to make presentation highlighting the latest development/ progress before the IEC as well as in the Committee on Congresses/Conferences (C-CONGR) and in the Permanent Finance Committee (PFC) meeting (*about the financial aspects like registration fee etc.*). INCSW representative will provide further progress of IMIC at the WG meeting.

WG-SON-FARM Agenda Item 5: Publications of the working group

WG-SON-FARM Agenda Item 5.1: Article on “Improvement of the On-Farm Irrigation Systems Using Simple Water Control, Measuring and Application Devices”

8. At Montpellier, it was agreed that the article on “Improvement of the On-Farm Irrigation Systems Using Simple Water Control Measuring and Application Devices” would be finalized and submitted soon. In May 2016, the Central Office followed-up matter with the WG Chair. VPH Felix Reinders, WG Chair is requested to apprise further status on finalization of the article during the meeting.

WG-SON-FARM Agenda Item 5.2: Paper on “Micro irrigation for smallholders and greenhouses”

9. During Montpellier meeting, the group agreed that the report on “Micro irrigation for smallholders and greenhouses” provided by Prof. Yoshisuke Nakano (Japan) would be reviewed and finalized by the end of 2015 for publication. In May 2016, the Central Office followed-up matter with the WG Chair. VPH Felix Reinders, WG Chair is requested to apprise further status on finalization of the article during the meeting.

WG-SON-FARM Agenda Item 6: Dissemination of activities of WG – Website of the group

10. Members are requested for their active participation in the activities of the WG and facilitate exchange of information, knowledge and experience, as well as networking in order to keep themselves up-to-date with new developments, methods and innovative on-farm management practices. Members are also requested to provide information, papers, presentation made on topics related to scope of work of the WG to the ICID Central Office for uploading on the web site of the WG. Members will discuss and evolve methodology for sharing of information and updation of WG website. In order to ensure regular contribution of the members, WG is encouraged to make full use of Web-Ex platform for virtual meetings in between face to face meeting during IEC.

WG-SON-FARM Agenda Item 7: Updating Multilingual Technical Dictionary (MTD)

11. At the 65th IEC, it was decided that ICID Central Office will bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different NC in their respective languages, based on 2010 version of MTD. During Montpellier meeting in October 2015, the Permanent Committee for Technical Activities (PCTA), considering this as an important input for working towards SDGs, recommended setting up of new workbody to review/ update the existing MTD. Accordingly, a Task Force on MTD has been proposed to be set up with WG Chair/ nominee as members along with members from various expert international organizations (Refer PCTA Agenda Item 4, page 82).

12. Since PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities, the group will discuss this issue and nominate a suitable expert as a nodal person for reviewing the terms related to the activities of the group. To achieve this goal, it is proposed that WG undertake review of the concerned terms depending on their domain of expertise suggesting changes / modification and addition of new terms, along with contributing pictures, links and videos related to respective term. In May 2016, Central Office requested members to review the terms of MTD related to activities of the WG and provide their contributions towards updating/ modifications of the MTD in consultation with the Chair/ Secretary of the group. Chair will provide further updates at the meeting.

WG-SON-FARM Agenda Item 8: Presentation by the working group members

13. At the Montpellier meeting, it was proposed that Mr. Carl Walters (Australia), as an expert in the field of flood based irrigation systems, will make a presentation on the technologies that are in use in Australia in the next meeting of the WG in 2016. Similarly, it was also proposed that Dr. Abraham Mehari Haile (The Netherlands) will make a presentation in 2016. Accordingly, Central Office requested Dr. Haile and Mr. Carl Walters in May 2016 for making

presentation at the Chiang Mai meeting. In response, Mr. Carl Walters (Australia) has confirmed that he will make presentation on the technologies and adoption in Australia at Chiang Mai meeting.

WG-SON-FARM Agenda Item 9: Closure report of the working group

14. During Montpellier meeting of the WG, it was agreed that WG will prepare a closure report of the WG highlighting activities of the WG and how objective and mandate of the WG have been achieved including conclusions, recommendations and way forward. In this connection, ICID CO shared a brief outline format for preparation of closure report in May 2016. WG Chair will apprise members of the further updates and WG will submit finalized closure report to ICID CO after discussion in the meeting of the WG.

WG-SON-FARM Agenda Item 10: Review of the membership of the working group

15. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB had decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

16. National Committees were informed about the re-establishment of WG-SON-FARM vide notification no.11 of 2016 dated 4 March 2016 and nominations were invited from them. In response, nominations have been received from the National Committees of China, India, Korea, Sri Lanka, and South Africa.

SUPP: Iraq National Committee (IRQCID) vide their email of 18 October 2016 has nominated Suhad Jassim Obeed and Hussein Shanan Abid Al-Hussein (as Young Professional) for the membership of the group.

17. Accordingly, Chairman in consultation with Vice Chair, Secretary of the WG and the Central Office have updated membership of the WG as given at **Annex 4** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

18. **Election:** During the Montpellier meeting, it was recommended that the WG will elect a new Chair, Vice Chair and Secretary during the Chiang Mai meeting. In September 2016, SANCID has informed that VPH Felix Reinders would like to retire from the WG.

WG-SON-FARM Agenda Item 11: Any other business

SUPP:

WG-SON-FARM Agenda Item 11.1: Webinar/ web-based seminar

19. **Webinar/ web-based seminars are organized on web platform using video conferencing. This platform is used to organize workshop, seminar, presentations, etc. Many international organizations are using this platform to disseminate their knowledge. In order to share vast expertise available with ICID fraternity with Members of the NCs, it is proposed to organize on average about 2 webinars per month with the support of WG experts. WG will discuss and suggest 5-6 topics, based on the mandate of the WG, on which webinar can be considered along with name of the relevant experts who could be contacted to develop webinars.**



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Chiang Mai (Thailand) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 11 November 2016.

Work plan of the group

Activity	2014	2015	2016	2017	2018	2019	Actors
Mailing of draft Scoping Document to members of the drafting team, former members of the Working Group On-Farm, Central Office and selected individuals							Convener
Comments on Updated Scoping Document received							All consulted individuals
Scoping document finalized and sent to all who contributed to the drafting							Convener
Invitation to National Committees for nominations and information							Central Office
Submission of nominations & information							National Committees facilitated by Central office
1st Meeting Montpellier - scoping document and work plan discussed, modified as necessary, and adopted							Members and Permanent Observers
Exchange of information, knowledge, experience, networking							Members and Permanent Observers
Support the Central Office with updating of the data base on (micro) irrigation systems							Members and Permanent Observers
Prepare country overview papers (one square represents one paper)							Some members
How-To-Do Thematic documents ready (one square represents one document)							Some members
Organize international workshop, seminar or symposium							Some Members

Activity	2014	2015	2016	2017	2018	2019	Actors
2nd Meeting in Chenmai Including workshop. among other presentations, two country overview papers and two How-to-Do thematic documents discussed							Members and Permanent Observers
Prepare one overview paper and two research articles on state of the art for publication in <i>IRD</i> .							Some members
Draft Position paper on key issues on sustainable on-farm irrigation systems disseminated among members and permanent observers							Chairperson, Vice-Chair and Secretary
3rd Meeting in Mexico, including Workshop. Draft position paper along with two country overview papers, two How-To-Do Thematic documents and other papers discussed							Members and Permanent Observers
Position paper finalized - application for best performing Working Group submitted to Central Office							Chairperson, Vice-Chair and Secretary with input from members
4th meeting (Place not yet known) - one country overview paper and one How-To-Do thematic documents are presented. The renewal of the WG and its focus for the period 2019 to 2024 is discussed. Convener and members to draft scoping document nominated.							Members and Permanent Observers
5th meeting (place not yet known) - one country overview paper and one How-To-Do thematic document presented, Scoping document discussed, modified as necessary and adopted. New WG leadership assigned for 2020 to 2025							Members and Permanent Observers

ICID ACTION PLAN VISION 2030 – ACTIVITIES BY WORKBODIES

Name of the Chairman and members filling this questionnaire: VPH Felix B. Reinders (Chair), VPH Peter Kovalenko (Vice Chair), Dr. A.K. Randev (Secretary)

Date:

		Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal 1: Enable higher crop productivity with less water and energy	1.1 Prepare country overview papers	Papers	Prepare two country overview papers	Prepare one country overview paper	Prepare two country overview papers		
	1.2 Prepare how to do thematic documents ready	Document	Prepare one how-to-do document	Prepare one how-to-do document	Prepare one how-to-do document	Prepare one how-to-do document	Prepare one how-to-do document
	1.3 Draft Position paper on key issues on sustainable on-farm irrigation systems	Position paper	Prepare first draft paper	Finalize the position paper	Prepare second draft paper	Finalize the position paper	
Goal 2: Be a catalyst for change in policies and practices	WG Activity 2.1		Milestone 1	Milestone 2	Milestone 3	Milestone 4	Milestone 5
Goal 3: Facilitate exchange of information, knowledge and technology	3.1 Organize international workshop, seminar or symposium	Compilation of proceedings	First Workshop		Second workshop		Third workshop

	3.2 Research article on state of the art for publication in Irrigation and Drainage Journal	Articles	Prepare one article	Publication in Journal	Prepare one article	Publication in Journal	Prepare one article
	3.4 Database on sprinkler and micro irrigation in the world	Database	Updating database	Updating database	Updating database	Updating database	Updating database
Goal 4: Enable cross disciplinary and inter-sectoral engagement	WG Activity 4.1		Milestone 1	Milestone 2	Milestone 3	Milestone 4	Milestone 5
Goal 5: Encourage research and support development of tools to extend innovation into field practices	WG Activity 5.1		Milestone 1	Milestone 2	Milestone 3	Milestone 4	Milestone 5
Goal 6: Facilitate capacity development	WG Activity 6.1		Milestone 1	Milestone 2	Milestone 3	Milestone 4	Milestone 5

**QUESTIONNAIRE
(Revised Version)**

WORLDWIDE USAGE OF MICRO & SPRINKLER IRRIGATION

Working Group on Sustainable On- Farm Irrigation System Development (WG-SON-FARM)

TERMINOLOGY

- (a) **MIS:** Micro Irrigation systems
- (b) **SIS:** Sprinkler irrigation systems
- (c) **Microirrigation:** includes Drip/Trickle irrigation (2-24 lph), Micro-sprayer (20-150 lph) and Mini/Micro Sprinkler (35-250 lph)

1. GENERAL

- 1.1. Country _____
- 1.2. Name(s) and contact details of the person(s) completing this questionnaire: _____
- 1.3. Total net irrigated area _____ Mha (year_____)
- 1.4. Source wise irrigated land under various irrigation methods. (year_____)

Irrigation Method	Surface water (%)	Groundwater (%)
Surface (Basin, furrow, border)		
Sprinkler		
Micro irrigation		

2. DEVELOPMENTS

- 2.1. Growth of area under Sprinkler Irrigation Systems (SIS) & Micro Irrigation Systems (MIS)

Year	Sprinkler (ha)	Micro irrigation(ha)	Remarks, if any
1980			
1985			
1990			
1995			
2000			
2005			

2.2. Types of sprinkler and micro irrigation systems used in your country (year____)

A	SPRINKLER IRRIGATION	Area (ha)
1	Set systems:	
1.1	<i>Fixed systems: (solid set systems)</i>	
1.2	<i>Periodic-move systems (systems moved between irrigations)</i>	
	Hand-move (fully and semi-portable),	
	Mechanized move -End tow, Side roll laterals and Boom sprinklers.	
2.	Continuous-move systems (irrigation machines): the sprinklers operate while moving in either a circular or a straight path (i.e., travelling guns, enrouleurs, Center pivot, Linear move systems, LEPA, etc.)	
B	MICRO IRRIGATION (micro sprinkler, drip, etc.)	
1.	Drip irrigation	
2.	Subsurface drip irrigation(SSD)	
3.	Micro & mini sprinkler and bubbler, etc.	
4.	Bucket/Drum kit (Low cost-small holder systems)	

2.3. Major crops (top ten) irrigated in your country under sprinkler and micro irrigation (year____)

Crop	Sprinkler (ha)	Micro irrigation (ha)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

- 2.4. Water saving and yield increase for most common sprinkler and micro irrigated crops compared to previous methods.

Crop	Current method	Water savings %	Increase in yield%	Old method
1.	SIS/MIS			SIS/surface
2.	SIS/MIS			SIS/surface
3.	SIS/MIS			SIS/surface
4.	SIS/MIS			SIS/surface
5.	SIS/MIS			SIS/surface

- 2.5. Micro irrigation and greenhouses (year _____)

Total area under greenhouses (ha)	
Area irrigated by micro irrigation in green houses (ha)	

- 2.6. Sizes of sprinkler and micro irrigated farms

	Sprinkler	Micro irrigation
Large farm size (range)	...ha	...ha
Small farm size (range)	...ha	...ha
Average farm size (range)	...ha	...ha

- 2.7. Who designs and installs sprinkler and micro irrigation systems for farmers? (Please check)

Agency/Institution	Sprinkler		Micro irrigation	
	Design	Instal.	Design	Instal.
Government agency (extension agency/ irrigation advisory services/university)				
Representatives/authorised dealers or technicians of manufacturers				
Private Consulting firms/engineers				
Farmers themselves				
<i>Other (specify):</i>				

2.8. Subsidies for sprinkler and micro irrigation systems (year_____)

Particulars	SIS		MIS	
	YES	NO	YES	NO
Is there subsidy available for the purchase of SIS & MIS				
If YES who gives the subsidy?				
▪ Federal/Central government				
▪ State/Province government				
▪ Manufacturers/distributors				
▪ Farmers co-operatives				
▪ Voluntary organisation				
If YES what's the amount in US\$/ha?				
Details on the subsidy structure adopted for SIS & MIS in your country				

2.9 please provide information on typical or average range of initial capital cost for SIS & MIS in your country (year_____)

Type of crop	Spacing RxP (MxM)	Type of SIS	Type of MIS	Cost US \$ / ha	Actual *	Subsidized *
Trees/Orchards						
Grapevine						
Vegetables						
Flowers						

Type of crop	Spacing RxP (MxM)	Type of SIS	Type of MIS	Cost US \$ / ha	Actual *	Subsidized *
Field crops (Corn, wheat, Sugar beat, etc)						
Cotton						
Sugarcane						
Others(specify)						
Plastic/green houses						
RxR: Row to Row spacing PxP: Plant to Plant spacing						

2.9. Impacts of energy costs on expansion of area under the given irrigation system (Please check)

<i>Irrigation Method</i>	<i>Very high</i>	<i>High</i>	<i>Average</i>	<i>Low</i>	<i>Nil</i>
<i>Surface</i>					
<i>Micro</i>					
<i>Sprinkler:</i>					
<i>Set systems</i>					
<i>Irrigation machines</i>					

2.10. Is the energy cost for irrigation systems subsidised in your country?

YES

NO

Present Energy Cost: ----- US \$/ Kwh; Range of subsidy: _____ US \$ per Kwh

	SIS		MIS	
2.22. Is there any testing facility for evaluating performance of irrigation system components (e.g. sprinkler heads, emitters, filters, laterals, etc?)	YES	NO	YES	NO

2.30 Please provide feedback on the problems faced and lessons learned in adoption of SIS/MIS in your country, in respect of following;

(Please elaborate – in addition to above stated information)

- Planning, design and installation
- Availability of suitable pumpsets and system components
- Investment cost of the system
- Providing subsidy to the farmers
- Quality of various components
- Testing of equipments
- Water availability and quality
- Energy supply
- Operation and maintenance (O&M) aspects
- Scheduling of SIS/MIS
- Fertigation
- Chemigation
- Automation of SIS/MIS
- After sale services by manufacturers
- Damage from rodents, squirrels, insects, etc.
- Extension advisory services for farmers, especially for SIS/MIS
- Training of professionals, technicians and farmers
- Other:



A. Membership of the group

Sl. No.	Members	Member from (Year)	Remarks
1.	VPH Felix B. Reinders, Chairman (South Africa)	2015	
2.	VPH Prof. Peter Kovalenko, Vice Chairman (Ukraine)	2015	
3.	Dr. A.K. Randev, Secretary (India)	2015	
4.	VPH Dr. J.A. Ortiz (Spain)	2015	
5.	Dr. Graziano Ghinassi (Italy)	2015	
6.	Mr. Hassan Shantia (Iran)	2015	
7.	Dr. Abraham Mehari Haile (The Netherlands)	2015	
8.	Mr. Mohd Yazid bin Abdullah (Malaysia)	2015	
9.	Dr. Akira Iwamoto (Japan)	2015	
10.	Dr. Chen, Ching-Tien (Chinese Taipei)	2015	
11.	Mr. Suman Sijapati (Nepal)	2015	
12.	Dr. Dickson Ahagbuje (Nigeria)	2015	
13.	Mr. Bashu Dev Lohanee (Nepal)	2015	
14.	Dr. Hossein Dehghanisani (Iran)	2015	
15.	Mr. Carl Walters (Australia)	2015	
16.	Mr. Muhammad Tahir Anwar (Pakistan)	2015	Accepted as Provisional Member
17.	Mr. M.S. Sudhakar – Direct Member, Jain Irrigation Systems Limited – JISL (India)	2015	Accepted as Provisional Member
18.	Mr. S.P. Jadhav – Direct Member, JISL (India)	2015	Accepted as Provisional Member
19.	Mr. Abijit Joshi – Direct Member, JISL (India)	2015	Accepted as Provisional Member
20.	Secretary General, ICID		
Permanent observers			
(i)	Dr. Jano Anter (Germany)		
(ii)	Mr. Bruno Molle (ISO)		
(iii)	FAO Representative		

B. New nominations received from the National Committees

Sl. No.	Name	Country	Remarks
(1)	Mr. Yao Bin	China	Recommended, subject to his presence or else Provisional Member
(2)	Dr. Zhang Guohua as Young Professional	China	Recommended, subject to his presence or else Provisional Member
(3)	Mr. Sher Singh as Observer	India	Recommended, subject to his presence or else Provisional Observer
(4)	Prof. Chang Eon Park	Korea, Rep. of	Recommended, subject to his presence or else Provisional Member
(5)	Eng. S. Mohanarajah	Sri Lanka	Recommended, subject to his presence or else Provisional Member
(6)	Mr. Siboniso Phillip Mkhali in place of VPH Felix Reinders	South Africa	Recommended, subject to his presence or else Provisional Member
(7)	Suhad Jassim Obeed	Iraq	Recommended, subject to his presence or else Provisional Member
(8)	Hussein Shanan Abid Al-Hussein (as Young Professional)	Iraq	Recommended, subject to his presence or else Provisional Member



