



INITIATIVE ON  
Fragility to Resilience in  
Central and West Asia



## Partner Consultation Meeting of F2R-CWANA Initiative

*WP3: Sustainable Farming Systems Intensification for Climate Resilient  
Decomposition of Yield Gaps*

**19-23 December 2022  
Hotel Safir, Cairo, Egypt**



Contributors: Mina Devkota, Krishna Devkota, Mohie el Din Omar, Samar Attaher, Rania Jamal, Vinay Nangia

## Background

*From Fragility to Resilience in Central and West Asia and North Africa (F2R-CWANA)* is a regional initiative of the OneCGIAR. The initiative aims at building resilient agrifood systems in the region, primed to withstand the effects of climate change and generate better livelihoods for rural communities. At its core, this Initiative will serve to provide options for climate change adaptation and mitigation that respond to, and are effective for, smallholder farmers in CWANA to scale-up and scale-out the best bet solutions. F2R-CWANA Work Package 3 is called *Sustainable farming systems intensification for climate resilient decomposition of yield gaps* and has a major objective of generating, mainstreaming, and linking locally adapted systemic and resilient (agronomic) bundled solutions at farm and landscapes scale to bridge yield gaps and increase income within planetary boundaries. In this context, in collaboration with the national partners, several activities including the establishment of G x E x M experiments have been initiated since the middle of year 2022 in different countries in the CWANA region. With the focus on WP3 activities, we had conducted a partner consultation meeting involving national scientists from eight different countries in the CWANA region (Egypt, Jordan, Lebanon, Morocco, Sudan, Syria, Turkey, and Uzbekistan).

## Consultation meeting Objective:

The objectives of the consultation meeting were

1. to familiarize partners about recently initiated joint research activities,
2. to assess research and scaling gaps and need for any course correction,
3. to identify major future activities identifying potential innovations for research and scaling-up especially in the areas of soil, water, and agronomy (SWA).
4. To develop bundled agronomic solution for the major crops grown in each country.
5. Additionally, it is to capture experiences, lessons learnt, any achievements and challenges faced, and help plan for 2023 and onwards.

## Session # 1

### Sharing of on-going collaborative works and available resources from each country (presentation from each country discussion)

To get update on ongoing collaborative research and available resources in each centre, representative from each country had presented based on the provided template.

1. Agriculture Research Center (ARC) Sudan - Dr. Amani Idris
2. Agriculture Research Center (ARC) Egypt - Dr. Rehab Abdalrhman
3. Lebanese Agriculture Research Institute (LARI) – Dr. Rola El Amil
4. Agronome INRA Meknès, Morocco - Dr. Daoui Khalid
5. Southern Agricultural Research Institute, Karshi, Uzbekistan - Dr. Diyor Juraev
6. Rabba Agricultural Research Center, Rabba, Jordan - Dr. Nasha't Bdairat

7. Transitional Zone Agr. Ens. (TAGEM), Eskişehir, Turkey - Dr. OĞUZ ÖNDER



According to plan activity G x E x M has been already established in Egypt, Uzbekistan, Lebanon, and Sudan under wheat-based system for this cropping season 2022/23.



*ICARDA - Southern Agricultural Research Institute (SARI) collaborative research on G x E x M experiment in KARSHI Research Station, Uzbekistan*





*ICARDA- ARC collaborative experimentation on G x E x M in SIDS Research station, Egypt*

## **Session # 2**

### **Research gap analyses and priority ranking for major cereal and food legume under major production environments [country-wise]**

In this session, partners were asked to list of technology/innovations related to soil water and agronomy which still need to address through experimentation for major agronomic crops grown in the country. Outcome of this exercise will help to bridge the research gaps in the country.

## **Session # 3**

### **Identification of the scaling ready technology and potential partners for scaling (Country-wise)**

In this session, partners were asked to list of technology/innovations related to soil water and agronomy which are ready to scaling and potential scaling partners in different production environment in the country.

## **Session # 4**

## Exercise on bundling of agronomic practices for major agronomic crops for specific production environment

In this session, partners from each country were asked to list package of agronomic practices for major agronomic crops for major production environment. In this exercise, we were able to bundle agronomic practices for 2-3 major crops in each country for specific production environment.

Major constraint	Crop	Production environment	Agronomic practice and bundles (top 5 determinants)
Soil, Water, Crop: causing low yield	Wheat	irrigated	<ul style="list-style-type: none"> <li>Improved seed of a released variety</li> <li>Sowing date 15-30<sup>th</sup> Nov.</li> <li>Land preparation (fine well leveled bed)</li> <li>Seed rate 120-140 kg/ha</li> <li>Fertilization 86:43 (N: P<sub>2</sub>O<sub>5</sub>)</li> <li>Light frequent irrigation (12-14 days interval up to heading and 10-12 days from heading to maturity)</li> <li>Weed control at 3-4 weeks from emergence. (Broad and narrow leaves)</li> <li>Timely harvest.</li> </ul>
	Sorghum	irrigated	<ul style="list-style-type: none"> <li>Improved seed of a released variety</li> <li>Sowing date 15 June-15 July.</li> <li>Land preparation (fine well levelled bed)</li> <li>Seed rate 7 kg/ha</li> <li>Fertilization 86 kg N/ha</li> <li>irrigation every 12-14 days when no rain or very light rain</li> <li>Weed control pre and post emergence herbicides.</li> <li>Partial mechanical harvest.</li> </ul>
	Sorghum	Rainfed	<ul style="list-style-type: none"> <li>Seeds of drought tolerant varieties (early maturing)</li> <li>Striga tolerant varieties</li> <li>No inputs</li> <li>Some recommendations of putting 9 g/hill (application for large scale)</li> </ul>
	Cotton	Irrigated	<ul style="list-style-type: none"> <li>Tolerant varieties for different insects and diseases (GMO)</li> <li>Late July – early August</li> <li>12-14 kg/ha</li> <li>86:43 kg N:P<sub>2</sub>O<sub>5</sub>/ha</li> <li>Pre and post emergence weed control measures</li> </ul>

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	Cotton	Rainfed	• Tolerant varieties for different insects and diseases (GMO) (RR)

## Way forward:

This consultation meeting not only guided to develop road map for research and scaling activities but also provided opportunity for cross learning among the different CWANA countries.

## Further information

[Amani Idris interview-.mp4 \(sharepoint.com\)](#)

[Rehab ARC.mp4 \(sharepoint.com\)](#)

[Rola interview.mp4 \(sharepoint.com\)](#)

[01-F2R WP3.mp4 \(sharepoint.com\)](#)

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## Annex-1

### Participant's list

SN	Name	Gender	Age	Centre and Country
1	Dr. Rola El Amil	Female	49	LARI, Lebanon
2	Dr. Randa Massaad	Female	47	LARI, Lebanon
3	Dr. Diyor Juraev	Male	42	KARSHI, Uzbekistan
4	Dr. Sherzod Dilmurodov	Male	36	KARSHI, Uzbekistan
5	Dr. Amani Idris	Female	56	ARC, Sudan
6	Dr. Maie Kabbashi	Female	52	ARC, Sudan
7	Dr. Mhd Manhal ZOUBI	Male	51	NARC, Syria
8	Dr. OĞUZ ÖNDER	Male	48	TAGEM, Turkey
9	Dr. Ouhemi Hanane	Female	33	INRA, Morocco
10	Dr. Daoui Khalid	Male	55	INRA, Morocco
11	Dr. Mokhtar Gaballah	Male	39	ARC, Egypt
12	Dr. Mahmoud Abotaleb	Male	40	ARC, Egypt
13	Dr. Rehab Abdalrhman	Female	45	ARC, Egypt
14	Dr. Nasha't Bdairat	Male	48	NARC, Jordan