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# FURTHER ADVANCING THE BLUE REVOLUTION INITIATIVE (FABRI)

## PROPOSAL PLANNING AND WRITING WORKSHOP

PRESENTED BY FABRI AND PARTNERSHIPS FOR ENHANCED  
ENGAGEMENT IN RESEARCH SCIENCE (PEER SCIENCE)  
7-10 OCTOBER 2012, MUSCAT, OMAN

### WORKSHOP REPORT



**31 OCTOBER 2012**

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## I. Introduction

The Proposal Planning and Writing Workshop, co-sponsored by MENA NWC and PEER Science, was convened at MERDC in Oman on October 7-9, 2012. The workshop included 35 participants from 29 institutions and 12 countries. The training and facilitation team included Ken Ludwa, P.E., Grant Program Manager, FABRI, Dr. Annica Wayman, Program Officer, Office of Science and Technology, USAID, Dr. Jagath Kaluarachchi, Senior Associate Dean, College of Engineering, Utah State University, Lina Sheqem, FABRI Technical Consultant, EcoConsult, Amman, Jordan and Jawara Lumumba, Senior Organizational Development Consultant, Training Resources Group.

The interrelated and reinforcing goals for the workshop were:

- Increase scientists' planning and grant writing skills, particularly in water and environmental research
- Help them become more competitive applicants for local and international sources of research funding, especially USAID-sponsored programs
- Facilitate a regional support network among the scientist participating in the workshop

At the outset of the Workshop the following expectations for the working norms were offered by the participants:

- Meet new teammates
- Develop proposal writing skills
- Learn how to assess proposals
- Learn how to develop guaranteed successful proposals
- Identify synergies among groups
- Identify priority topic selection for proposals
- Clarify calls for proposals, the requirements for different sections, the linkages to policy, etc.
- Strategies for how to share different research ideas
- Highlight success factors in the funders review process

Those expectations aligned compatibly with the established Workshop goals.

To help insure the most responsive and practical benefits from the session the participants identified potential research topics as a part of the pre-workshop preparation. The fundamental methodology for the workshop was a combination of interactive plenary sessions for presenting practical insights and participatory small working groups to facilitate the real-life application of those insights to initial work in developing a PEER Science or FABRI proposals. Within FABRI and PEER Science specific subgroups the participants shared their work outputs and received instructive feedback to validate favorable aspects and highlight suggestions for improvement. The training team served as mentoring resources in the application and feedback process.

The overall quality of the Workshop was evaluated as a 4.4 out of 5 on a scale of 1 being “very poor” and 5 being “excellent.” Also based on the evaluation feedback the aforementioned three goals were successfully achieved. The Workshop Agenda and the Participant List are contained in the Appendix Section. The complete evaluation data is presented in a second companion document.

## II. Day One

- Introduction to PEER Science and FABRI
- Identification of Regional Challenges, Brainstorming and Assessing Potential Solutions
- Overview presentation on proposal writing and the major element
- Presentation of Module One: Problem Formulation and Research Objectives

Dr. Jagath Kaluarachchi provided insightful and practical observations on both planning and writing competitive proposals. Dr. Annica Wayman and Mr. Ken Ludwa provided instructive overviews of PEER Sciences and FABRI. In turn they responded to questions from the participants. The participants were engaged in identifying priority regional challenges and potential responsive solutions following this overview session. The participants were randomly divided into four sub-groups to facilitate interdisciplinary interaction in this activity. The participants focused on one of the following four thematic areas:

- Water Use Efficiency and Productivity
- Groundwater
- Non-Conventional Water
- Food/Energy/Water Nexus

Within each thematic area, participants brainstormed to identify regional problems and gaps. After generating this list, each group then selected a problem and brainstormed research ideas to generate solutions.

For the selected solution the participants had an analytical discussion of:

- Trade-offs (pros/cons) of the selected solution
- Relevant factors that need to be considered and understood in order to achieve the selected solution

An illustrative example of the outputs from respective small group discussions is:

### **Non-conventional water**

Suggested solutions included:

- Trans-boundary water cooperation
- Desalination
- Use of brackish water
- Wastewater re-use,
- Water quality analysis and planning.

Selected solution:

Investigate how the use of treated wastewater could free up other freshwater resources for higher end-use. This would actually be a better fit for the area of integrated water resources management, but since it specifically focuses on the use of treated wastewater and other marginal sources, it could fit with non-conventional water, too. In considering the "cloud," the group suggested working with stakeholder

Dr. Kaluarachchi culminated Day One with an interactive lecturette on Problem Formulation and Research Objectives. The major take away messages for the participants from the collective Day One experience included:

- Think carefully about the a possible proposal before starting to write—what is the problem and what positive change will the proposed research produce
- A well-written abstract is an essential part of a successful proposal
- Read and give careful attention to proposal guidelines
- Make sure to clearly communicate the impact of the research
- Use visuals in your proposal—a picture can be worth a 1000 words
- Establish clear and focused goals and objectives
- Use concept paper and pre-proposal to get helpful feedback
- The grant process is inherently competitive not getting funded does not mean you submitted a poor proposal—ask for feedback
- Pay attention to the donor's interests and priorities
- Do the cloud analysis to address and analyze the context
- Show clear link between the goal, objectives and deliverables
- Be realistic on the scope and the budget—do not overly commit

### III. Day Two

- Application of Problem Formulation and Research Objectives guidance to PEER and FABRI solicitations
- Presentation of Module Two: Research Methodology
- Application of Research Methodology Guidance to PEER and FABRI solicitations

To maximize the learning outcomes from the Module I and II presentations by Dr. Kaluarachchi, the participants were divided into two subgroups based on the intention to submit either a PEER Science or FABRI proposal. Those subgroups were facilitated and mentored by two members of the training team. Mr. Ken Ludwa and Dr. Jagath Kaluarachchi worked with the FABRI subgroup and Dr. Annica Wayman and Mr. Jawara Lumumba supported the PEER Science subgroup. Applying the guidance on Problem Formulation and Research Objectives (Module I) and Research Methodology (Module II) the participants did initial work on either their PEER Science or FABRI research proposal. The draft products were shared within small 3 to 4 person peer groups for feedback. In addition a select number of the drafts were presented and further critiqued by all the participants within the larger FABRI or PEER subgroups. One by-product of this process was the creation of some institutional partnerships to jointly submit proposals.

#### IV. Day Three

- Presentation of Module III: Program Management
- Application of Program Management Guidance
- Application of Total Proposal Planning and Writing Guidance
- Presentation of PEER Science proposal and FABRI proposal to all participants with panel-like feedback process

As with Modules I and II, Dr. Kaluarachchi led an interactive discussion of practical strategies for successful Program Management and within FABRI and PEER Science-specific subgroups, the participants applied the insights to their respective research proposals. . This was followed by resumption of FABRI and PEER application and feedback subgroups. Subsequently the participants were given an opportunity to review their total draft proposal for further refinements. Two participants presented their refined drafts for plenary review and feedback critique. To focus that feedback process the participants and the Training Team were asked to determine:

##### Proposal Planning

- Does the proposal sufficiently address a regional water problem and consider relevant factors (outreach, policy, economics, etc.)?
- Are there any ways that the proposal can be strengthened in it's impact on the regional water issues?

##### Proposal Structure

- Is the research proposal clearly presented with the following:
  - Goals and Objectives?
  - Methodology?
  - Project Plan?
- If it is not clear, what could be done to improve the proposal?

This interaction validated the potential benefit for each potential research area, highlighted areas for enhancement and generated helpful suggestions for strengthening the proposals.

## V. Day Four

- Discussion of Outstanding Issues
- Documentation of Key Take Away Messages
- Completion of Program Evaluation
- Documentation of Further Support Needs

The Workshop was culminated with a plenary discussion of outstanding questions and issues as well as a documentation of lessons learnt to be used in developing final proposal submissions. The lessons learnt included:

- Think carefully before beginning to write.
- The summary is important -- identify the gaps and the impact. Proposal should be results-oriented.
- Clear objectives are important.
- Design project to meet the interests and priorities of the funder.
- Use the funder's keywords.
- Be direct and concise.
- Objectives should be linked to the deliverables.
- Design proposal and project to meet the needs of the community.
- Involve society.
- Reads the solicitation carefully and follow the instructions.
- Meet deadlines.
- Clear and realistic goal, objectives and work plan- should also have a correspondingly realistic budget.
- Design and write the proposal with the evaluation criteria in mind.
- Remember that grants are competitive. Even if proposal is well written, you are competing with other well-written proposals, too. Only a small fraction will get an award.
- Don't assume reviewers have the same tech knowledge you have. Write it so they can understand it.
- Work with women and young researchers.
- Identify the problem clearly. The problem statement should show a clear need.

These lessons reflected the major take away messages that the training team hoped would be heard and embraced.

In the evaluations the participants were asked about further support needs. Some of the identified areas included:

- Introductions to research partners. PEER and FABRI should help make introductions to U.S. scientists on behalf of the regional scientists.
- Provide feedback on concept notes or draft proposals before formal submission.
- More funds for equipment
- Allow buyout of teaching time
- Provide seed funds
- Inform ministries and other stakeholders of the work that FABRI and PEER are doing
- Make high-level contact with institution directors about the importance of the work that the researchers are doing
- Have future workshops with exposure to stakeholders
- Have future meetings to concentrate on interactions between researchers, esp. Gulf-Levant-North Africa
- Have a FAQ

These suggestions were duly noted and will be shared with and given serious consideration by FABRI and PEER leadership.

## **VI. Conclusion**

The workshop concluded with closing comments by the Training Team emphasizing appreciation for the diligent and productive investment of each participant in contributing to the workshops success. In addition the Team expressed a hopeful vision for receiving an abundance of quality competitive proposals from the region. A celebratory granting of certificates culminated the Workshop.

## Appendix A: Agenda

**PROPOSAL PLANNING AND WRITING WORKSHOP**  
**7-10 October 2012, Muscat, Oman**  
*presented by*  
**Further Advancing the Blue Revolution Initiative**  
**(FABRI)**  
*and*  
**Partnerships for Enhanced Engagement in Research --**  
**Science (PEER Science)**

### Day 1 (Sunday)

**Please be in the hotel lobby promptly at 8:15 to board the shuttle to MEDRC.**

<b>Start</b>	<b>End</b>		<b>Type of activity</b>
9:00	9:05	Workshop Welcome	Plenary
9:05	9:10	MEDRC Welcome	Plenary
9:10	9:55	Introductions of participants	Plenary
9:55	10:10	Purpose and goals of the workshop, review agenda, establish norms, participant expectations, and logistics	Plenary
10:10	11:10	Introduction to proposal development & writing (take home message)	Plenary
11:10	11:40	Break	
11:40	12:05	Introduction to PEER program and proposal request	Plenary
12:05	12:30	Introduction to FABRI program and proposal request	Plenary
12:30	12:45	Discussion of regional water issues in the context of FABRI & PEER	Plenary
12:45	14:15	Lunch	
14:15	16:15	Participant brainstorming exercise (identification of challenges, potential research ideas within those challenges)	PEER & FABRI Groups
16:15	16:45	Break	
<del>16:45</del>	<del>17:15</del>	Introduction to key elements of <b>Module I: Problem Formulation and Research Objectives</b>	Plenary
19:30	21:30	Dinner at Diplomatic Club	

## Day 2 (Monday)

**Please be in the hotel lobby promptly at 8:15 to board the shuttle to MEDRC.**

9:00	9:10	Recap and Introduce sub groups and tasks of Module I	Plenary
9:10	10:10	Work on individual elements of Module I and preparing required output as per description of Module I details given	Individual
10:10	10:40	(research questions and goals) for the purpose of knowing each other's research projects	Small Groups
10:40	11:10	Break	
11:10	11:40	Decide on the final project to be presented for small group	Small groups
11:40	13:00	Presentation and defense of Module I of 3 projects per PEER & FABRI programs	PEER & FABRI Group
13:00	14:30	Lunch	
<del>14:30</del>	<del>15:00</del>	Introduction to key elements of <b>Module II: Research Methodology</b>	Plenary
15:00	15:20	Discussion of past FABRI proposals as context for Module II	Plenary
15:20	15:40	Discussion of past PEER proposals as context for Module II	Plenary
15:40	16:10	Break	
16:10	16:15	Recap and Introduce sub groups and tasks of Module II	
16:15	17:00	Work on individual elements of Module II and prepare required output per instructions	Individual
17:00	17:45	Each participant in small group shares key elements of Module II (research methodology) for the purpose of knowing each other's research approaches	Small groups
19:30	21:30	Dinner at Hotel	

## Day 3 (Tuesday)

**Please be in the hotel lobby promptly at 8:15 to board the shuttle to MEDRC.**

Start	End		Type of activity
9:00	9:30	Decide on the final project to be presented per small group (need not be the same for Module I but needs to provide 5-minute introduction to the project research questions/goals)	Small groups

9:30	11:00	Present and defend Module II. 3 projects per PEER & FABRI.	Plenary
11:00	11:30	Break	
11:30	12:00	Recap Module I and II related activities and output (what we have achieved and where we are going)	
12:00	12:30	Introduce key elements of <b>Module III: Project Management</b>	Plenary
12:30	14:00	Lunch	
14:00	14:20	Discussion of past FABRI proposals as context for Module III	Plenary
14:20	14:40	Discussion of past PEER proposals as context for Module III	Plenary
14:40	14:45	Recap and introduce sub groups and tasks of Module III	Plenary
14:45	15:30	Work on individual elements of Module III and prepare required Output per instructions	
15:30	16:00	Break	
14:20	14:40	Each participant in small group shares key elements of Module II (project management elements) for the purpose of knowing each Other's approach	small groups
14:20	14:40	Deciding on the final project to be presented per sub-group of Five (need not be the same as Modules I and II)	small groups
19:30	21:30	Dinner at Restaurant	

#### Day 4 (Wednesday)

**Please be in the hotel lobby promptly at 8:15 to board the shuttle to MEDRC.**

9:00	10:30	Presentation and defense of one complete project per PEER & FABRI programs and critiquing by peers	Plenary
10:00	10:15	Break	
10:30	11:00	Lessons Learned From Peer review	Plenary
11:00	11:30	Session Recap and Q&A	Plenary
11:30	12:00	Participant feedback	Plenary
12:00	12:15	Concluding remarks	Plenary

## Appendix B: Participant List

First Name	Last Name	PEER/ FABRI	Institution	Proposal Topic	Country	Email address
Muna	Abu Dalo	FABRI	JUST	Biofouling-resistant (BRN) nanocomposite membranes	Jordan	[REDACTED]
Ahmad	Abu Saleem	FABRI	ACWUA	Developing and applying NRW reduction decision support criteria and tools	Jordan	[REDACTED]
Mohamed Said Desoky	Abuhashim	PEER	Zagazig University	Integrated chemical and biological assessment and modeling of water sources to evaluate the maximum water storage capacity each catchment areas under different land-use, land-management, and crops	Egypt	[REDACTED]
Ahmed	Al Busaidi	FABRI	SQU	Maximizing the Use of Treated Wastewater in Irrigation by Year-round Crop Rotation and Conjunctive Use of Groundwater	Oman	[REDACTED]
Saif	Al Khamisi	FABRI	SQU	Maximizing the Use of Treated Wastewater in Irrigation by Year-round Crop Rotation and Conjunctive Use of Groundwater	Oman	[REDACTED]
Luna	Al-Hadidi	FABRI	NCARE	Working with brackish water in rural areas using membrane technology (RO) with solar radiation	Jordan	[REDACTED]
Farouq	Al-Omari	FABRI	RSS	On-line service water monitoring system; ground water monitoring; reuse of treated waste water	Jordan	[REDACTED]

Izzat	Alsmadi	PEER	Yarmouk University	Using Data mining for water and climate reanalysis and forecasting in Jordan	Jordan	[REDACTED]
Khader	Atroosh	PEER	Agricultural Research & Extension Authority		Yemen	[REDACTED]
Hesham	Bekhit	PEER	Cairo University		Egypt	[REDACTED]
Makram	Belhaj Fraj	FABRI	ICBA	Maximizing the Use of Treated Wastewater in Irrigation by Year-round Crop Rotation and Conjunctive Use of Groundwater	UAE	[REDACTED]
Jean-Georges	Chatila	PEER	Lebanese American University	Water resources policies, planning and management; reuse of recycled wastewater and wastewater treatment technologies	Lebanon	[REDACTED]
Bassel	Daher	FABRI	QEERI	Studying and quantifying the existent interlinkages between water, energy and food, and the externalities that effect the nexus composed by these resources	Qatar	[REDACTED]
Rkia	Eddabra	PEER	Polytechnic School at Agadir	Environment and protection of natural resources; microbiological water quality and sustainable water reuse strategies	Morocco	[REDACTED]
Mohammed	El Azzouzi	PEER	University Mohammed V	The use of photocatalysis technology to reduce Nitrate and pesticides from drinking water	Morocco	[REDACTED]

Zuhair	El-Hafi	PEER	University of Tripoli	Groundwater related subjects, including aquifer hydraulics, numerical modeling of regional flow and contaminant transport, sea water intrusion and hydrogeochemistry	Libya	[REDACTED]
Mahmoud	Hafsi	FABRI	ONEP	Desalination and drinking water treatment	Morocco	[REDACTED]
Maha	Halalshah	PEER	University of Jordan		Jordan	[REDACTED]
Mokhtar	Jaait	FABRI	ONEP	Adapting water systems to climate change	Morocco	[REDACTED]
Farouk	Jaber	PEER	Lebanese Atomic Energy Commission	Utilization of natural and synthetic materials for the decontamination of water; monitoring of organic trace pollutants in water	Lebanon	[REDACTED]
Ouiam	Lahlou	FABRI	IAV	Water supply and climate change	Morocco	[REDACTED]
Naem	Mazahrih	FABRI	ICARDA	Irrigation Management Information System (IMIS) for Efficient Water Use in the Arabian Peninsula	UAE	[REDACTED]
Ziad	Mimi	PEER	Birsiet University	Climate change and its effects on farmers and the poor	Palestinian Territories	[REDACTED]
Zainab Ziad Ismail	Rasheed	PEER	Baghdad University	Reusing treated wastewater for irrigation	Iraq	[REDACTED]

Mohamed	Rouchdi	FABRI	IAV	Remote sensing and GIS	Morocco	[REDACTED]
Sameer	Shadeed	FABRI	An Najah	Halting Uncontrolled Agricultural Practices to Secure Groundwater Quality, the case of Faria catchment, Palestine	Palestinian Territories	[REDACTED]
Maisa'a	Shammout	FABRI	UJ	Integrated Water Resources Management by Understanding Moisture and Salt Dynamics	Jordan	[REDACTED]
Monia	Trad	FABRI	INRGREF	Simple treatment technologies to improve the quality of secondary effluents and allow their safe reuse in agriculture	Tunisia	[REDACTED]
Samir	Yacoubi	FABRI	INRGREF	Field evaluation and analysis of irrigation performances (irrigation uniformity, application efficiency, wind drift and evaporation losses) under various technical, meteorological and agronomical conditions	Tunisia	[REDACTED]
Feras	Ziadat	FABRI	ICARDA	Assessment of water and land resources to support planning under climate change	Jordan	[REDACTED]

### Training and Facilitation Team

- Ken Ludwa, P.E., Grant Program Manager, FABRI, [REDACTED]
- Dr. Annica Wayman, Program Officer, Office of Science and Technology, USAID, [REDACTED]

- Dr. Jagath Kaluarachchi, Senior Associate Dean , College of Engineering, Utah State University [REDACTED]
- Lina Sheqem, FABRI Technical Consultant, EcoConsult, Amman, Jordan , [REDACTED]
- Jawara Lumumba, Senior Organizational Development Consultant, Training Resources Group [REDACTED]