

## **Annex I: Agenda of ICARDA-APRP RSCM, Muscat, Oman, 17 Feb 2005**

- Item 1 Adoption of the Agenda
- Item 2 Adoption of the Minutes of last RSCM
- Item 3 Matters arising from the Minutes
- Item 4 Review of the APRP Activities
  - Rangeland and Water  
*Dr Ahmed E. Osman, ICARDA-APRP Rangeland and Pasture Specialists*
  - Protected Agriculture & Water  
*Dr Ahmed T. Moustafa, ICARDA-APRP Regional Coordinator and Protected Agriculture Specialists*
  - Information Technology and Networking  
*Eng Arash Nejatian, ICARDA-APRP Information Management Aide*
  - Experience of Omani Growers with Soilless Culture under PA.  
*Eng. Abdullah Al Farsi, Omani Grower*
- Item 5 Outcome of RTCM
- Item 6 Financial Report & APRP Budget
- Item 7 Workplan for 2004/05
- Item 8 Date and Place for next RTCM and RSCM
- Item 9 Any Other Business
- Item 10 Closing Remarks

## Annex II: List of Participants, ICARDA-APRP RSCM, Muscat, Oman 17 Feburay 2005

	Name	Country	Organization	Position
1	Dr Magdy Medkour		ICARDA	ADG, International Cooperation
2	Dr. Ahmed Moustafa		ICARDA- APRP	Regional Coordinator & Protected Agriculture Specialists
3	Dr. Ahmed Osman		ICARDA- APRP	Pasture Forage & Range Ecologist
4	Dr Ahmed Al Bakri	Oman	Ministry of Agriculture and Fisheries	ADG of Agriculture for Research & Extension
5	Eng Abdul Aziz Al Harthi	Oman	Ministry of Agriculture and Fisheries	Director of Agricultural Production Research Center
6	Dr. Mohamed Bin Zaid Al Julaifi	Saudi	National Central for Agricultural research	Director General & National Coordinator
7	Dr. Abdullah H. Aboudi	U.A.E	Ministry of Agriculture & Fisheries	Director Research and Plant Production Dept.
9	Mr. Khaled Nasser Al Thany	Kuwait	Authority Public for Agriculture & Fisheries	Head Section
10	Mr. Saad Naby Al Rashidi	Kuwait	Authority Public for Agriculture & Fisheries	Agriculture Services Supervisor
11	Sheikh Abdul Wahab Khalifa	Bahrain	Ministry of Municipalities Affairs & Agriculture	Director, Plant Wealth
12	Mr. Abdullah Jassin Al Boainin	Qatar	Ministry of Municipal Affairs & Agriculture	Head, Agric. Research Dept.
13	Dr. Ismail Muharram	Yemen	Agricultural Research Authority	Chairman , ARA
14	Dr. Khadir Atroosh	Yemen	Agricultural Research Authority	Head of Water Research Section NC of PARD

## Annex III: List of Participants in ICARDA-APRP Regional Technical Coordination Meeting

### AP Countries

Eng. Ahmed Mubarrak Al Saad  
Head of Plant Research at Plant Production  
Minsitry of Agriculture & Fisheries  
Bahrain  
Tel: 973 39936330 Fax: 973691721  
am2255@batelco.com.bh

Eng. Abdul Aziz Salim Al Harthy  
Director, Crop Production Research Center  
Minsitry of Agriculture & Fisheries  
Oman  
Tel: 967 26893096 Fax: 968 26 893097  
omar95@yahoo.com

Eng. Hussein Jawad AL Laith  
Head of Soiland Fertilizer Section  
Minsitry of Agriculture & Fisheries  
Bahrain  
Tel: 973176967 Fax: 97317695734  
hussai45@batelco.com.bh

Eng. Ahmed Mohammed Al Mantheri  
Researcher  
Minsitry of Agriculture & Fisheries  
Oman  
Tel: 968 26 893096 Fax: 968 26 893097  
research@omantel.net.om

Dr. Abdullah H Aboudi  
Director Research and Plant Production  
Dept.  
Minsitry of Agriculture & Fisheries  
Emirates  
Tel: 971 4 2958116 Fax: 971 4 2957766  
ahussain45@hotmail.com

Eng. Yousuf Mohammed Al Raeesy  
Director Assistant Crop Protection  
Research Center  
Minsitry of Agriculture & Fisheries  
Oman  
Tel: 968 26 893096 Fax: 968 26 893097  
research@omantel.net.om

Eng. Mohamed Makawi  
Agriculture Engineer  
Minsitry of Agriculture & Fisheries  
Emirates  
Tel: 971 6 882228 Fax: 971 6 8822777  
mamakk\_20@yahoo.com

Eng. Khair T Al Al Busaidi  
Head, Horticulture Lab  
Minsitry of Agriculture & Fisheries  
Oman  
Tel: 968 99374383 Fax: 968 26 893097  
albusaidikhair@hotmail.com

Mr. Farhan Namy Al Azamy  
Section Head  
PAAF  
Kuwait  
Tel: 9654762111 Fax: 9654762333

Eng. Muthir Saleh Said Al Rawahy  
Vegetable Researcher  
Minsitry of Agriculture & Fisheries  
Oman  
Tel: 968 9428036 Fax: 968 26 893097  
muthir64@hotmail.com

Mr. Khaled Nasser Al Thany  
Head Section  
Authority Public for Agriculture &  
Fisheries  
Kuwait  
Tel: 9659726519/ 4741903 Fax:  
965418964/ 4724997  
agextension@paaf.gov.kui

Eng. Fatma Shamrid Mahmood Al Raisy  
Vegetable Researcher  
Minsitry of Agriculture & Fisheries  
Oman  
Tel: 9689263363 Fax: 968 26 893097  
kfm93@hotmail.com

Mr. Saad Naby Al Rashidi  
Agriculture Services Supervisor  
PAAF  
Kuwait  
Tel: 9654762111 Fax: 9654762333

Eng. Salem Mohammed Al Makhmari  
Vegetable Researcher  
Minsitry of Agriculture & Fisheries  
Oman  
Tel: 96899444249 Fax: 968 26 893097  
sa938@hotmail.com

Eng. Najma Mahmood Sumar Al Zidjali  
 Researcher  
 Ministry of Agriculture & Fisheries  
 Oman  
 Tel: 968 26 893096 Fax: 968 26 893097  
 research@omantel.net.om

Eng. Safaa Mohammed Naser Al Farsi  
 Head of Seed & Plant Genetic Resources  
 Lab  
 Ministry of Agriculture & Fisheries  
 Oman  
 Tel: 968 99342950 Fax: 968 26 893097  
 research@omantel.net.om

Eng. Saleh Ali Said Al Hiani  
 Plant Genetic Resources Researcher  
 Ministry of Agriculture & Fisheries  
 Oman  
 Tel: 968 99418943 Fax: 968 26 893097  
 saleh120@hotmail.com

Eng. Rashid Hamdan Saif Al Shidi  
 Researcher  
 Ministry of Agriculture & Fisheries  
 Oman  
 Tel: 968 26 893096 Fax: 968 26 893097  
 shidi\_rashid@yahoo.com

Eng. Muzna Suleiman Al Hinai  
 Nematologist  
 Ministry of Agriculture & Fisheries  
 Oman  
 Tel: 968 26 893096 Fax: 968 26 893097  
 research@omantel.net.om

Mr. Hamad Eid Al Enzi  
 Agriculture Researcher  
 Dep of Agricultural & Water Research  
 Administration  
 Qatar  
 Tel: 974 4419742 Fax: 9744410526  
 hamadqtv@hotmail.com

Mr. Mohamed Ali Hassan  
 Range & Fodder Crops Specialist  
 Ministry of Municipal Affairs &  
 Agriculture  
 Qatar  
 Tel: 9744417662 Fax: 9744410526

Mr. Khalid Mohamed Amir  
 Agricultural Engineer  
 Ministry of Municipal Affairs &  
 Agriculture  
 Qatar  
 Tel: 9744492751 Fax: 9744410526

Dr. Mohamed Z Al Julaifi  
 DG of National Research Center  
 Ministry of Agriculture & Fisheries  
 Saudi Arabia  
 Tel: 96614576780 Fax: 96614584979  
 mandn1405@yahoo.com

Mr. Abdullah M Al Hajooj  
 Range Management Department Head  
 Ministry of Agriculture & Fisheries  
 Saudi Arabia  
 Tel: 96646331348 Fax: 96646331088  
 alhajoj@hotmail.com

Eng. Khalid Abdullah Al zair  
 Agricultural Specialists  
 Ministry of Agriculture & Fisheries  
 Saudi Arabia  
 Tel: 96614576780 Fax: 96614584979  
 alzeirk@yahoo.com

Eng. Faisal AM Alyaeesh  
 Plant Production Section Head  
 Ministry of Agriculture & Fisheries  
 Saudi Arabia  
 Tel: 9661 4576780 Fax: 96614584979  
 jaljel24@yahoo.com

Dr. Ismail Muharram  
 Chairmain , ARA  
 ARA  
 Yemen  
 Tel: 967 6 509413 Fax: 967 6 509414  
 area@yemen.net.yr

Dr. Khader Balem Atroosh  
 Head of Water Research Section NC of  
 PARD  
 ARA  
 Yemen  
 Tel: 96773742669 Fax: 9676519426  
 kbatroosh@hotmail.com

Eng. Mohsin Abdul Al Rahman Bazara  
 Agriculture researcher  
 ARA  
 Yemen  
 Tel: 02 240386 Fax:

Eng. Ahmed Salim Bataher  
 Associate Researcher  
 ARA  
 Yemen  
 Tel: 05 403187 Fax: 5403187

## Invited Experts

Dr. Ahmed Al Masoum  
Associate Professor of Horticulture  
United Arab Emirates University  
Tel: 971 3 7637833 ext451 Fax: 971 3  
7614430  
almasoum@uaeu.ac.ae

Mr. Fawzi A Taher  
Regional Crop Production Officer  
FAO Regional Office for the Near East,  
Cairo  
Tel: 20233160/3316134 Fax: 2027495981  
fawzi.taher@fao.org

Mr. Wilfried Baudoin  
Senior Officer Horticultural Crops Group  
FAO Rome  
Tel: (39) 0657054658 Fax: (39)  
0657056347  
wilfried.Baudoin@fao.org

Dr. Abdul Wahed Mukred  
Vice Chairman /Area  
ARA  
Tel: (967) 6 519422 Fax: (967) 6 519422  
mukred@y.net.ye

## ICARDA

Dr. Magdy Madkour  
Director, International Cooperation  
ICARDA-Aleppo  
Tel: 96321 2213433 Fax: 963213490  
m.madkour@CGIAR.ORG

Dr. Adel Abou El Nagga  
Senior Advisor - ICARDA  
ICARDA-Aleppo  
Tel: 96321 2213433 Fax: 963213490  
a.abouelnaga@cgiar.org

Dr. Ahmed Moustafa  
Regional Coordinator - APRP  
ICARDA- APRP  
Tel: 971 4 2957338 Fax: 971 4 2958216  
icdub@emirates.net.ae

Dr. Ahmed Osman  
Pasture Forage & Range Ecologist  
ICARDA- APRP  
Tel: 971 4 2957338 Fax: 971 4 2958216  
icdub@emirates.net.ae

Eng. Arash Nejatin  
Information Management Aide  
ICARDA- APRP  
Tel: 971 4 2957338 Fax: 971 4 2958216  
icdub@emirates.net.ae

Ms. Robelinda Pervez  
Accountant  
ICARDA- APRP  
Tel: 971 4 2957338 Fax: 971 4 2958216  
icdub@emirates.net.ae

## **Annex IV: Outcome of APRP-Regional Technical Coordination Meeting**

### ***SWOT Analysis***

#### *Range/Forage*

##### **Strength**

1. Progress made in germplasm collection by AP countries
2. Potential forages identified in some AP countries
3. Progress in seed technology of native range/forage species in AP

##### **Weakness**

1. Seed Multiplication (STU/in vitro)
2. Range/Forage/livestock integration
3. Rehabilitation of the degraded rangeland
4. Technology transfer to farming community
5. Continuations of the collection mission, characterization, classification and evaluation
6. Cactus initiative for land degradation and livestock feeding
7. Socio-economic studies
8. Exchange of germplasm
9. Range/Forage/Water Management

##### **Opportunities**

1. Worldwide concern over the degradation of natural resources

##### **Threat**

1. Funds
2. Human Resources
3. Infrastructure

#### *Protected Agriculture*

##### **Strength**

1. Introduced new tech. Such as Hydroponics & IPPM
2. Transfer of Technology to farmers
3. Dissemination of IPPM
4. Crop Diversification

##### **Weakness**

1. More study on water requirement
2. More on Transfer of Technology
3. More in improving Green House (GH) Design & Materials
4. More on diversification on Crop
5. Nutrient Solution
6. More Economic study
7. More eco-friendly and biological pesticide
8. Post harvest handling and product quality

### **Opportunities**

1. WB New Strategy
2. Rural Development
3. Cash Crops to elevate farmers income
4. Good Agricultural Practice + IPPM
5. To be consider for Urbanization
6. Established specialized working group

### **Threat**

1. Funds
2. Human resources
3. Infra Structure

### *Information Technology & Networking*

#### **Strength**

1. Full information of the project and publication on internet
2. Buildup a network between researcher and NARS in AP countries
3. Expert system on Cucumber and irrigation in GH
4. Good number of publication (Books, report, leaflets, handouts, posters and technical notes)
5. Expert consultation meetings

#### **Weaknesses**

1. Expert system are not covering other high value cash crops
2. Not enough publication on Good Agricultural Practices (GAP)
3. Direct contact between experts of different discipline related to APRP need more attention
4. Weather station network is not completed and connected to internet
5. new methods for dissemination of technology to end users needs more attention

#### **Opportunities**

1. AP countries polices and attention to promote Information Technology
2. Memorandum of understanding between ICARDA & CLAC and ICARDA & CLAES
3. Good and practical knowledge and information developed by ICARDA-APRP's different component to be transferred to end users
4. Interests of all AP countries to support IT and networking

#### **Threat**

5. Funds
6. Human resources
7. Infra Structure

#### **Proposed Activities**

1. Develop and complete the expert system for high value crops
2. Leaf let and publication on GAP
3. Database for experts on different disciplinary related to the APRP components
4. Expand on weather station networking
5. dissemination of knowledge and information within APRP
6. Expanding and updating the APRP website
7. Promoting networking

## ***Invited Expert Recommendation***

*Dr Wilfred Baudoin, Senior Officer Horticultural Crops Group, FAO*  
Strengthening of cooperation with FAO  
Draft for Discussions

Establishment of regional (working) group (network) on Greenhouse Crops production in the Arabian Peninsula. (The terminology is open for discussion)

*Goal: To institutionalize the regional cooperation on Research and Development in Protected Agriculture (Greenhouse Crop Production) and promote the ownership of the programme for the NARS and stakeholders (producers' unions)*

This could be proposed as an objective for the next phase.

The process has to be initiated progressively and established on the basis of a participatory consultation with the target member countries. A consultative meeting (discussion forum) could be convened this year taking the advantage of the current momentum of the project.

The justification is that the countries the member countries need to take a commitment and define a mechanism of regional cooperation with a related funding mechanism (own funding plus matching funds provided by donors). This initiative would allow ICARDA and FAO to continue act as facilitators including to liaise with the donor community for more support to selected project activities monitored by the regional working group.

It is suggested to explore the option of establishing an AP-Greenhouse Development Fund. The fund would be created by a single payment by the member countries. This would be the illustration of the countries commitment to the R&D related to Greenhouse Crop Sector (Protected Agriculture) and would be a premise for seeking further donor support either as a contribution to the fund (matching payments) or in terms of individual projects.

The participation of the private sector as stake holder and target beneficiary group (growers' union) has to be considered.

The formal establishment of a regional working group (network) would require the formulation of statutes.

(i) Regional training workshop on the use of HORTIVAR and the IPP card system (2 tools for transfer of technology and dissemination of information) and promote (facilitate) the use of these tools by establishing a direct link to HORTIVAR in the APRP website

(ii) Regional workshop crop diversification options in the APR (e.g. floriculture, ornamental and medicinal plants)

(iii) National workshop to debate on a "Strategy and technologies for "Small scale horticulture in urban and peri-urban areas in Yemen" (To follow-up on the request of the Mayor of Sana'a). It would enable to review the problems encountered with the design and management of greenhouses structures on the terraces.

(iv) Regional training workshop for advanced (specialized) technical and hands-on capacity building on soilless culture management

NB. No commitment is made for direct financial support that will depend on the available budget resources already overcommitted for 2005. However, support can be considered in terms of headquarters and regional office staff time as well as technical backstopping missions and eventually the sponsoring of selected resources persons, specialized scientists,

as consultant. It would exemplify the liaison (cooperation) between FAO and ICARDA as a CG centre.

*Dr Ahmed Al Masoum, Associate Professor of Horticulture, UAE University*

Summary of Recommendations for APRP Annual Regional Technical Meeting Muscat, Sultanate of Oman , from Feb.13-16, 2005

The Arabian Peninsula is faced with the challenges of developing more sustainable land and water use, preserving its environment and heritage, and sustaining its population. Addressing these challenges will require innovative research in a number of areas, including:

1. Improvement of on-farm water management and water use efficiency
2. Development and use of alternative water sources.
3. Restoring the productivity and arresting the degradation of rangelands.
4. Developing protected agriculture.
5. Re-evaluating traditional practices and indigenous knowledge.

The objectives of this year's meeting were:

1. To bring together AP researchers and scientists with international and regional experts for exchange of information and ideas on sustainable development for the Arabian Peninsula.
2. To discuss and review ongoing research activities and experiences on range, irrigated fodders, water use efficiency, and protected agriculture.
3. To review and evaluate the outcomes of APRP activities which were carried out in the past and come up with ideas for the future.
4. Recommend activities for next season and develop detailed work plan for the assigned activities for each country.

Achievement that APRP should be proud of:

1. Bringing together researchers, scientists and team leaders from the member countries either in annual meetings or through seminars, workshop and training courses.
2. There has been a tremendous progress in green house activities, such as hydroponics and NFT, which are considered to be, partially, new to the area.
3. Technology transfer to the farmers such as in Sultanate of Oman and Yemen
4. Expansion of the concept in G/H from classic IPM to the new terminology IPPM and hopefully to organic agriculture.
5. Progress in presenting the work end results (presentation) by the researchers (report that contain all scientific elements)
6. Making a tremendous amount of information available such as publication.....etc

Despite all of these achievements, it is recommended that:

1. Continuous performance of SWOT Analysis , transparently and frankly, at each member country to reveal all analysis components
2. More interaction are needed among the researchers
3. Additional training courses in order to increase their scientific backgrounds and knowledge (don't give me the fish but teach me how to fish.
4. Introduction of Organic Farming for the new research priorities in ICARDA.
5. Introduction of new technologies is needed for the next phase of the program including organic farming, forage plant propagation in vitro to alleviate low germination % and viability.
6. Introduction of germplasm, local or indigenous forage crops with attributes and potential for utilization (a) in rangeland restoration or rehabilitation, and (b) as alternative forage crops including Cacti (Opuntia spp.)
7. Publication of good quality research papers in refereed journals for better information

dissemination.

8. Establishment of refereed journal with international editorial board to publish high quality papers generated in ICARDA HQ or by other regional programs.

I would like to express my thanks and gratitude to Dr. Ahmed Moustafa for his dedication, motivation and hard working. This lead to a great success of this program compared to other programs that I am aware of. Thanks are also extended to his associates in Dubai office for their enthusiasm and cooperation.

*Dr Abdul Wahed Mukred, Vice Chatman, Agricultural Research Authority (ARA), Yemen*

The interaction in the different meetings and working groups was very stimulating and rewarding. Being the last workshop, the annual meeting was particularly important. As you correctly mentioned, APRP is in a crossroad and we need to strictly define the next steps. It was quite clear, despite the limited participation from the Kuwaiti and the UAE team as well as the Qatari team, that national programs has gone quite a distance in improving the content and the presentation of their outputs. This was evident in the significant number of presentations covering nearly all the APRP components.

Nevertheless, there are still several issues that need to be taken care of. I am positive that you must have thought of them. These issues can be summarized as follows:

1. The structures of plastic houses and the cover material needs due attention. This is mainly because; the durability of plastic houses under farmer's conditions could become a limiting factor in the future expansion of this industry. We need to identify the shortcomings. We need also to search for alternatives. Eng Isam Moustafa from Bahrain is a good person to be part of a "think tank" in APRP on this issue.
2. The issue of transfer of technology needs more attention. This is important to convince donor agencies on the impact of interventions. On station research is good but should not become a goal by itself. We need to create a rapid impact under real life conditions.
3. On station research is important when we talk about testing new technologies. Jumping to farmer's fields to test new technologies can be harmful and the credibility of research might be at stake if the tested technology failed.
4. Biotechnology research is still not reflected in the national programs. APRP will be a good forum for exchange of ideas on how to integrate Biotechnology in our national programs. The lessons from "IRAN CONFERENCE ON RESOURCE MANAGEMENT" should be embarked on. The interesting work of Dr Ali Kharbotly in Oman can become a solid ground for initial training of staff. Can APRP prepare a brochure on the applications of biotechnology in agriculture and the basic requirements to launch biotechnology research. This brochure might be distributed to member countries to create awareness among researchers and either concerned parties on the concept.
5. The range component in APRP is of vital importance. In this component the impact can serve a wide range of households in rural areas. Efforts are still rotating around on station research or at the seed multiplication stage. We need to push further the efforts of dissemination of seeds to local communities and to rehabilitate natural rangelands with the multiplied seeds in pilot areas as part of dissemination of seeds. The Omani achievements were significant few years ago. However, currently, there appeared to be a slow progress in this domain. I hope I am wrong on this. Saudi Arabia national program can be relied on in the launching of any range programs in AP countries. The experiences of Saudi Arabia and the Sultanate of Oman can be combined together in drawing lessons.
6. The introduction of cactus to APRP program is interesting and could become a significant intervention. Attention, at this stage, should be on the introduction of genotypes that are likely to be adopted to AP conditions ( Arid tropics in coastal areas and arid subtropics in the highlands areas). Introduced material should be tested in multi locations in both coastal and high elevated areas.