

Document: EB 2014/LOT/G.12  
Date: 7 November 2014  
Distribution: Public  
Original: English

**E**



Investing in rural people

**President's report on a proposed grant under the global/regional grant window to a CGIAR-supported international centre - International Center for Agricultural Research in the Dry Areas (ICARDA)**

**Note to Executive Board representatives**

Focal points:

Technical questions:

**Abdelkarim Sma**  
Lead Regional Economist  
Tel.: +39 06 5459 2500  
e-mail: a.sma@ifad.org

**Khalida Bouzar**  
Director  
Near East, North Africa and Europe Division  
Tel.: +39 06 5459 2321  
e-mail: k.bouzar@ifad.org

Dispatch of documentation:

**Deirdre McGrenra**  
Head, Governing Bodies Office  
Tel.: +39 06 5459 2374  
e-mail: gb\_office@ifad.org

---

**For: Approval**

## Contents

<b>Abbreviations and acronyms</b>	<b>i</b>
<b>Recommendation for approval</b>	<b>1</b>
<b>Part I – Introduction</b>	<b>1</b>
<b>Part II – Recommendation</b>	<b>2</b>

### Annex

International Center for Agricultural Research in the Dry Areas (ICARDA): Improving food security and sustainable natural resources management through enhanced integrated agricultural production systems in the Arabian Peninsula	3
---	---

### Appendix

Results-based logical framework

## Abbreviations and acronyms

AFESD	Arab Fund for Economic and Social Development
AWP/B	annual workplan and budget
CGIAR	Consultative Group on International Agricultural Research ICARDA International Center for Agricultural Research in the Dry Areas
IPPM	integrated production and protection management
R4D	research for development

## **Recommendation for approval**

The Executive Board is invited to approve the recommendation for a grant under the global/regional grants window to a CGIAR-supported international centre as contained in paragraph 7.

## **President's report on a proposed grant under the global/regional grants window to a CGIAR-supported international centre**

I submit the following report and recommendation on a proposed grant for agricultural research and training to a Consultative Group on International Agricultural Research (CGIAR)-supported international centre in the amount of US\$1.5 million.

### **Part I – Introduction**

1. This report recommends the provision of IFAD support for the research and training programmes of the following CGIAR-supported international centre: International Center for Agricultural Research in the Dry Areas (ICARDA)
2. The document of the grant for approval by the Executive Board is contained in the annex to this report:
 

International Center for Agricultural Research in the Dry Areas (ICARDA):  
Improving food security and sustainable natural resources management through enhanced integrated agricultural production systems in the Arabian Peninsula
3. The objectives and content of this applied research programme are in line with the evolving strategic objectives of IFAD and the Fund's policy for grant financing.
4. The overarching strategic goal that drives the Revised IFAD Policy for Grant Financing, which was approved by the Executive Board in December 2009, is to promote successful and/or innovative approaches and technologies, together with enabling policies and institutions, that will support agricultural and rural development, empowering poor rural women and men in developing countries to achieve higher incomes and improved food security.
5. The policy aims to achieve the following outputs: (a) innovative activities promoted and innovative technologies and approaches developed in support of IFAD's target group; (b) awareness, advocacy and policy dialogue on issues of importance to poor rural people promoted by, and on behalf of, this target group; (c) capacity of partner institutions strengthened to deliver a range of services in support of poor rural people; and (d) lesson learning, knowledge management and dissemination of information on issues related to rural poverty reduction promoted among stakeholders within and across regions.
6. The proposed programme, is in line with the goal and outputs of the revised IFAD grant policy, in particular the following: (i) innovative activities promoted and innovative technologies and approaches developed in support of IFAD target groups; (ii) capacity of partner institutions strengthened to deliver a range of services in support of poor rural people; (iii) lesson learning, knowledge management and dissemination of information on issues related to rural poverty reduction promoted among stakeholders within and across regions.

## **Part II – Recommendation**

7. I recommend that the Executive Board approve the proposed grant in terms of the following resolution:

RESOLVED: that the Fund, in order to finance, in part, the programme Improving food security and sustainable natural resources management through enhanced integrated agricultural production systems in the Arabian Peninsula, shall provide a grant not exceeding one million five hundred thousand United States dollars (US\$1,500,000) to the International Center for Agricultural Research in the Dry Areas (ICARDA) for a 48-month programme, upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board herein.

Kanayo F. Nwanze  
President

# **International Center for Agricultural Research in the Dry Areas (ICARDA): Improving food security and sustainable natural resources management through enhanced integrated agricultural production systems in the Arabian Peninsula**

## **I. Background**

1. The proposed programme is intended to foster the IFAD agenda on South-South cooperation in relation to agricultural research and development among the countries of the Arabian Peninsula. The Arabian Peninsula is one of the largest arid regions in the world, characterized by low and variable rainfall and limited renewable water resources.
2. Water shortage is the single most critical constraint on developing the agricultural sector and improving rural livelihoods in the region. Withdrawals in the region already exceed renewable supplies and desalinated water is increasingly expensive to produce. The population of the Arabian Peninsula is currently 65 million but in the next 10 years is expected to increase to 114 million. The issues of food security (exacerbated by the relatively high rate of population growth), water management, productivity, sustainability and environment are closely interconnected. If current inefficient practices continue, the rapid depletion of water resources, extinction of native species and inevitable environmental deterioration will be among the consequences.
3. Adopting innovative and sustainable technologies to maximize climate adaptation is a crucial first step, followed by the dissemination and transfer of these technologies in the whole region. This is especially true in poor countries such as Yemen, which have limited resources to conduct agricultural research and development activities.
4. The proposed grant will build on previous research and development efforts conducted by ICARDA, in close collaboration with the national agricultural research systems (NARS) of the Arabian Peninsula countries and partially funded by IFAD to develop innovative solutions to the challenges faced by the region. In December 2013, an independent evaluation of the previous phase of the programme was commissioned, to assess the results achieved and decide whether a subsequent phase was recommended. The evaluation found that, in order to enhance the impact of the results achieved using technologies generated by the programme, a follow-up phase consolidating adaptive technology and technology transfer was recommended. Therefore, the proposed funding and related cofinancing, which is substantial, are intended to scale up previous interventions to maximize impact and benefits accruing to target beneficiaries.

## **II. Rationale and relevance to IFAD**

5. IFAD's grant funding is meant to catalyse the countries' own investments in their fledgling NARS and to foster South-South cooperation and exchanges among all Arabian Peninsula countries, including the low-income country of Yemen. Notwithstanding the ability of most of these oil-rich countries to commit substantial resources to their own development needs, there remains a significant need for external expertise channelled through ICARDA, a CGIAR center with renowned expertise in dryland agricultural systems, to strengthen NARS and support their efforts to channel more resources into agricultural research and development.
6. The programme will leverage substantial domestic cofinancing from the region. IFAD grant resources representing nearly 11 percent of the total programme cost will catalyse approximately US\$13.9 million, representing both in-cash and in-kind

contributions. In particular, an estimated US\$7 million will be allocated by Gulf Cooperation Council (GCC) countries to the programme, in addition to the US\$2 million already secured from the Arab Fund for Economic and Social Development (AFESD), a partner of IFAD in the region since 1995. During the previous phases, 65 per cent of the financing was provided by national programmes. IFAD's partnership with AFESD, a prominent regional financial institution, will be instrumental in securing results related to policy influence and institutional capacity-building. In addition, the proposed programme will allow IFAD to remain involved in the Arabian Peninsula, a region where IFAD's traditional loan-based engagement is off limits for most of the resource-rich countries.

7. In addition, the programme will equally contribute and benefit from the ongoing CGIAR research programme (CRP) on dryland systems led by ICARDA. IFAD, being represented in the CRP 1.1 steering committee, is in a position to provide guidance and advice on ways to maximize synergies between the proposed programme and the wider CRP research agenda, and to capture and disseminate relevant dryland system research results throughout its investment portfolio in the Near East and North Africa region and beyond.
8. Increasing knowledge sharing, and creating a common and responsive strategy in the GCC countries and in other poor countries such as Yemen, would be a significant result considering the challenging context. To accomplish this, the programme will make use of the existing research facilities already in place in the GCC countries for developing, enhancing and simplifying technologies for use in other poor countries with limited infrastructure for R4D activities.

### **III. The proposed programme**

9. The overall goal of the programme is to contribute to improving food security, natural resource conservation and rural livelihoods in the Arabian Peninsula countries. The programme's objectives are to:
  - (i) Test, develop and enhance technology packages suitable for Arabian Peninsula environments to increase crop and livestock production while conserving natural resources;
  - (ii) Transfer and disseminate the improved technology packages to increase crop and livestock production and productivity, rationalize water use and conserve natural resources; and
  - (iii) Build the capacity of national extension programmes to promote the adoption of targeted technologies and enhanced communication among stakeholders.
10. The target group are resource-poor farmers engaged in cropping and animal husbandry and pastoralists in the Arabian Peninsula. The total number of direct beneficiaries for the entire programme is expected to be 6,000 people (1,200 rural households), and the total number of indirect beneficiaries is expected to be 27,500 people (5,500 households). However, as the targeted technologies have the potential to be expanded to cover all the countries in the region, the number of indirect beneficiaries could be significantly higher. For example, an estimated 8,000 greenhouses in Yemen could benefit from the targeted technologies.
11. The programme will be of four years duration and will comprise four main components:
  - Dissemination and adoption of technology packages for sustainable intensification of production systems;
  - Problem-solving and research to build resilience and enhance production systems and livelihoods;

- Capacity-building and socio-economic studies; and
- Programme monitoring, evaluation and impact assessment.

#### **IV. Expected outputs and benefits**

12. The expected outputs and benefits are the following:
  - Output 1: Problem-solving and research activities to build resilience and enhance production systems and livelihoods, resulting in the adoption of new technology packages to increase crop and animal production while conserving natural resources. The packages are intended to promote an integrated production system for irrigated indigenous forage and spineless cactus with high-efficiency water use for farmers, and promote production systems for irrigated forage using treated waste water and utilizing agricultural and agro-industrial products as alternative animal feed resources; participatory rangeland management and rehabilitation; improvements to cash crop production systems under protected agriculture using soilless production systems, renewable energy resources and integrated production and protection management (IPPM); introduction of forage production with hydroponics; and integrated animal husbandry production and management systems.
  - Output 2: Transfer and dissemination of improved technology packages, based on the establishment of pilot and demonstration sites to introduce the new technologies. The demonstrations will promote the high performance and safe use of technologies. Growers will be supported in establishing new production systems to enable them to tackle new emergencies.
  - Output 3: Capacity of national extension programmes and growers to promote and adopt the targeted technologies enhanced. The key activity will be to reinforce the capacity of NARS and end-users on targeted technologies. Main activities will include training courses, workshops, expert consultation meetings, publication and information dissemination, and awareness-raising on climate change impact.

#### **V. Implementation arrangements**

13. The programme will be managed and coordinated by ICARDA from its regional office in Dubai in collaboration with NARS. The programme will be governed by a steering committee. There will also be a regional steering committee consisting of national coordinators from Arabian Peninsula countries, ICARDA's Assistant Director General – International Cooperation and Communication, donor representatives and the ICARDA regional coordinator.
14. The ICARDA Arabian Peninsula Regional Programme regional coordinator will be responsible for programme activities in general, including reporting and financial aspects. However, for each programme component, specific ICARDA scientists will be assigned to work in close collaboration with designated scientists and NARS staff members. Also for each programme component, a focal point (technical coordinator) and programme implementation team will be appointed by NARS to carry out day-to-day programme activities in close collaboration with and under the supervision of ICARDA scientists.
15. An annual technical coordination meeting will be conducted to discuss and evaluate the year's activities and achievements and develop the proposed annual workplan and budget (AWP/B) for the next year. The steering committee will meet once a year in one of the Arabian Peninsula countries to review, amend and approve AWP/Bs.
16. A regional technical coordination meeting will be held annually in one of the participating Arabian Peninsula countries. During these meetings, the scientists,

extension agents and other end-users from participating national institutions and ICARDA will review the results of the past year and finalize the AWP/B for the coming season. AWP/Bs will be developed jointly by ICARDA scientists and NARS based on a proposed action plan during the regional technical coordination meeting. ICARDA will be responsible for reviewing the proposal and action plan and finalizing AWP/Bs. ICARDA will provide final documents for approval at the meetings.

17. ICARDA will submit semi-annual unaudited financial reports on the programme to IFAD and will ensure that the entire programme implementation period is covered by audits. ICARDA will have its institutional accounts audited every year by independent auditors in accordance with international audit standards and in compliance with CGIAR financial guidelines, and will deliver to IFAD a copy of its audited financial statements within six months after the end of each fiscal year. ICARDA will ensure that an audit opinion letter on statements of expenditure is prepared by its independent auditor and submitted to IFAD, disclosing the amount of funds from various sources received and spent under this operation. The annual audit report submitted to IFAD will cover both IFAD funds and any cofinancing and will include expenditures incurred by subgrantees, if any, which will be accountable for the use of subgrant funds and subject to normal audit oversight. Moreover, such audits will cover the full grant amount, including the 2 per cent paid to the World Bank as a contracted service provider.

## VI. Indicative programme costs and financing

18. IFAD will provide US\$1.5 million to the programme. The national programmes of the seven participating countries will contribute through the in-kind provision of their research and management staff. In the United Arab Emirates, this includes the provision of the regional office in Dubai. The estimated in-kind contributions of the seven Arabian Peninsula countries will be in excess of US\$7 million. Plans call for the programme to be financed by IFAD, AFESD and the OPEC Fund for International Development. AFESD has already approved a contribution of US\$2 million.
19. All funds will be channelled through the World Bank as Trustee of the CGIAR Fund upon signing of an implementation agreement between ICARDA and IFAD. Disbursements from IFAD to ICARDA will be based on AWPBs, with advances of up to 75 per cent of the approved budget for activities to be carried out.

Table 1.

**Summary of budget and financing plan**

<i>Number</i>	<i>Type of expenditure<sup>a</sup></i>	<i>IFAD</i>	<i>Cofinancing<sup>b</sup></i>
1	Consultancy	20 000	31 000
2	Equipment and materials	514 000	221 000
3	Goods, services and inputs	36 000	23 000
4	Operating costs	49 000	137 000
5	Salaries and allowances	400 000	1 093 000
6	Workshops	60 000	75 000
7	Training	216 000	88 000
8	Travel and allowances	6 000	7 000
	<b>Total direct cost</b>	<b>1 305 000</b>	<b>1 675 000</b>
9	Overheads ICARDA	169 000	325 000
10	Overheads World Bank (2% contracted service provider)	30 000	-
	<b>Total</b>	<b>1 500 000</b>	<b>2 000 000</b>

<sup>a</sup> Type of expenditure is indicative only and may be modified, as appropriate, to suit recipient accounting structures.

<sup>b</sup> In-cash contribution secured from AFESD.



Table 2.  
**Summary of budget by component**

	<i>Technology transfer</i>	<i>Problem-solving research</i>	<i>Capacity-building</i>	<i>IFAD overall budget</i>
Consultancy	8 000	16 000	0	24 000
Equipment and materials	349 000	165 000	0	514 000
Goods, services and inputs	0	36 000	0	36 000
Operating costs	16 000	16 000	17 000	49 000
Salaries and allowances	133 000	135 000	132 000	400 000
Workshops	20 000	22 000	18 000	60 000
Training	3 000	3 000	210 000	216 000
International travel and allowances	3 000	3 000	0	6 000
<b>Total direct cost</b>	<b>532 000</b>	<b>396 000</b>	<b>377 000</b>	<b>1 305 000</b>
ICARDA	69 000	51 000	49 000	169 000
CGIAR	11 000	8 000	7 000	26 000
<b>Total indirect cost</b>	<b>80 000</b>	<b>59 000</b>	<b>56 000</b>	<b>195 000</b>
<b>Total</b>	<b>612 000</b>	<b>455 000</b>	<b>433 000</b>	<b>1 500 000</b>

## Results-based logical framework

	Narrative Summary	Objective Verifiable Indicators	Means of Verifications	Important Assumptions
<b>Goal</b>	The project main goal is to contribute to Arabian Peninsula countries food security, natural resources conservation and improve the livelihood of rural communities.	<ol style="list-style-type: none"> <li>1 Increase agricultural and animal production</li> <li>2 Improved rural income</li> <li>3 Expand area of irrigated forage crops using TWW</li> <li>4 Improve water productivity</li> </ol>	<ol style="list-style-type: none"> <li>1 National Agricultural production statistics</li> <li>2 Development program report</li> <li>3 Other national and international agencies report and statistics</li> </ol>	Enabling national development strategies and policy environment
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1 Test, enhance and develop technology packages suitable for Arabian Peninsula environment to increase crop and animal production while conserving natural resources.</li> <li>2 Transfer and disseminate the improved technology packages to increase crop and livestock production and productivity, increase water use efficiency and conserve natural resources.</li> <li>3 Enhance the capacity of national and extension programs to promote the adoption the targeted technologies and enhanced communication among various stockholders.</li> </ol>	<ol style="list-style-type: none"> <li>1 Recommended technologies adopted by participating pilot farmers and end-users</li> <li>2 Strategies for wider dissemination of technologies included in national research and extension plans.</li> <li>3 Participatory and adaptive research approaches and further technical research on recommended options included in national research and extension plans.</li> <li>4 National scientists are actively sharing information and using information services</li> </ol>	<ol style="list-style-type: none"> <li>1 Program completion report</li> <li>2 Supervision reviews</li> <li>3 Impact assessments</li> <li>4 Program completion report</li> <li>5 Program monitoring and progress reports</li> <li>6 National program plans</li> </ol>	Continued national commitment to the Program
<b>Outputs 1</b>	<b>Technology packages suitable for Arabian Peninsula environment to increase crop and animal production while conserving natural resources tested enhanced and developed.</b>	<ol style="list-style-type: none"> <li>1 Save at least 25% of fresh water by using TWW in producing forage crops</li> <li>2 Improve water use efficiency of fodder production by 50% through using indigenous forage species.</li> <li>3 Save about 80% of irrigation water using soilless production systems for cash crop production.</li> <li>4 Increase the yield of high value vegetable crops under greenhouse conditions by 3-5 folds using soilless production systems and IPPM.</li> <li>5 Increased the animal productivity by 20% and reduce the input cost by 20% by using alternative feed resources and integrated production managements</li> <li>6 Project impact on pilot growers will be studied by the end of the project</li> <li>7 At least 5 scientific papers on project targeted technologies will be published by the end of the project</li> </ol>	<ol style="list-style-type: none"> <li>1 Impact assessment reports</li> <li>2 NARS reports</li> <li>3 Project progress reports</li> <li>4 MSc student theses</li> </ol>	

### Activities for Output 1

Key Activities	Sub activities	Inputs
Enhance the cash crop production systems under protected agriculture using soilless production systems, renewable energy resources and IPPM		1 Budget
Develop and enhance forage production under hydroponic conditions		2 Multi-disciplinary research team from ICARDA
Use treated wastewater for the production of perennial forage crops and spineless cactus		3 Collaboration of local researcher and extension agents
Improve the animal husbandry production and management systems		4 Vehicles
Enhance rangeland productivity through using proper management and appropriate		5 Field, office and Lab supplies and equipment
		6 Germplasm accessions

rehabilitation techniques				
Improve productivity and nutritive value of Irrigated indigenous forages and cactus				
Develop and introduce suitable alternative animal feed resources				
Monitor and assess the climate change impact on ground water, soil degradation, plant and animal production in AP				
	<b>Narrative Summary</b>	<b>Objective Verifiable Indicators</b>	<b>Means of Verifications</b>	<b>Important Assumptions</b>
<b>Output2</b>	<b>Improved technology packages to increase crop and livestock production and productivity, increase water use efficiency while conserving natural resources transferred to the end users</b>	1 About 360 pilot sites on project targeted technology will be developed by the end of the project 2 Pilot growers income will increase at least by 25% after adoption of the targeted technologies 3 Water productivity for high value crops and irrigated forages increased by minimum 50%	1 Impact assessment reports 2 NARS reports	3 Farmers and end-users are ready to adopt the project targeted technologies 4 Cooperation of local NARS staff
<b>Activities for Output 2</b>				
<b>Key Activities</b>	<b>Sub activities</b>			<b>Inputs</b>
Transfer and disseminate the improved technology packages to increase crop and livestock production and productivity, increase water use efficiency and conserve natural resources.				1 Budget 2 Multi-disciplinary research team from ICARDA 3 Collaboration of local researcher and extension agents 4 Vehicles 5 Field, office and Lab supplies and equipment 6 Germplasm accessions
	<b>Narrative Summary</b>	<b>Objective Verifiable Indicators</b>	<b>Means of Verifications</b>	<b>Important Assumptions</b>
<b>Output 3</b>	<b>capacity of national and extension programs as well as growers to promote and adopt the targeted technologies enhanced</b>	1 More than 500 extension agents, researchers, farmers and livestock herder, will be benefited by the project training program. 2 In addition, 7 motivated young men and women from AP countries will work alongside ICARDA's scientists as post-graduate students to earn MSc. 3 Number of hand outs and manuals related to project targeted technology will be published by the end of 3 <sup>rd</sup> year.	1 Impact assessment reports 2 NARS reports 3 Project progress reports 4 MSc student theses	
<b>Activities for Output 3</b>				
<b>Key Activities</b>	<b>Sub activities</b>			<b>Inputs</b>
Reinforce the capacity of the NARS and end-users on project targeted technologies				1 Budget 2 Multi-disciplinary research team from ICARDA 3 Collaboration of local researcher and extension agents 4 Vehicles
Conduct Socio-Economic and Impact Assessment Studies				

Due to the length of the Sub activities, these are listed only in the Large Grant Design Document.