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President's report

Proposed grant under the global/regional  
window to the

Food and Agriculture Organization of the  
United Nations

Increasing Water Productivity for Sustainable  
Nutrition-sensitive Agricultural Production  
and Improved Food Security

Note to Executive Board representatives

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For: Approval

## Recommendation for approval

The Executive Board is invited to approve the recommendation for the proposed grant as contained in paragraph 15.

### I. Background and compliance with the IFAD Policy on Grant Financing

1. Agriculture is by far the biggest water user, accounting for approximately 70 per cent of freshwater withdrawals globally. With increasing water scarcity, amplified by growing intersectoral competition and climate change, water stress is fast becoming the most significant constraint to agricultural production, adversely impacting rural smallholder livelihoods and food security at various scales. Notwithstanding, freshwater withdrawals for the agriculture sector are expected to increase by an estimated 14 per cent to satisfy the greater demand for food, while competition with other sectors increases.
2. The Sustainable Development Goals (SDGs) have prioritized the sustainable management of water and nutrition-sensitive agricultural production, with efficient and timely use of water and other inputs (irrigation, fertilizers and improved seeds). Given the broad SDG agenda and to meet food security and nutrition targets, there is an urgent need to harmonize the different aspirations of the SDGs, such as efficiency in water use (SDG target 6.4), and boost the agricultural productivity and income of smallholder farmers and eliminate hunger and all forms of malnutrition (SDG 2). Achieving SDG 2 will require concerted efforts to address the issue of efficiency and productivity in water use with a nutrition lens.
3. The programme aims to expand the concept of nutritional water productivity (NWP), developed by Renault and Wallender (2000), to integrate the aspects of crop nutrient content, dietary diversity and farmers' economic opportunities, i.e. moving beyond the traditional approach of "more crop per drop" to a more integrated approach of "more nutrients and better economic prospects per drop"; and to use the results to inform country policy on how scarce water resources can be employed more productively for better food and nutrition security<sup>1</sup> and greater economic opportunities for farmers to produce and market these crops. The latter is a prerequisite for incentivizing smallholder farmers to switch to and/or intensify the production of such foods (dietary diversity).
4. The grant will build on the results of the ongoing work of the Food and Agriculture Organization of the United Nations (FAO) in nutrition-sensitive agriculture to complement the existing methodology for determining the nutrient content of soils with the equivalent one for water. The results obtained will be used to fuel national and global policy dialogues.
5. The programme is fully aligned with IFAD's vision and Strategic Framework 2016–2025 and will contribute to the achievement of corporate goals, objectives and outcomes. More specifically, the programme will contribute to IFAD's strategic objective (SO) 1 (Increase poor rural people's productive capacities) and SO3 (Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities). The programme will also contribute to the achievement of IFAD's outcomes, specifically to increase levels of investment in the rural sector. Implementation of the programme activities and knowledge generated will be used to inform the future design and implementation of investment programmes and projects (financed by IFAD and others) with a nutrition lens,

<sup>1</sup> Through crop diversification and quality enhancement in terms of the production of crops with high nutrition density (smart crops).

thereby contributing to implementation of the Mainstreaming Nutrition in IFAD Action Plan 2019-2025.

6. The proposed programme is aligned with the goal and objectives of the IFAD Policy on Grant Financing (2015)<sup>2</sup> in (i) promoting innovative pro-poor approaches and technologies with the potential for scaling up for greater impact, and (ii) generating and sharing knowledge for development impact. With a heavy emphasis on knowledge generation and dissemination, the programme will contribute to IFAD's corporate objective of enabling effective knowledge exchange and advocacy for sustainable nutrition-sensitive agricultural practices to benefit the rural poor, particularly in arid and semi-arid regions. The knowledge generated by the programme's activities on sustainable nutrition-sensitive agriculture and lessons disseminated will inform the policies, programmes and projects of governments, development actors (IFAD included) and other stakeholders, ultimately benefiting the poorest and most vulnerable smallholder farmers. FAO was directly selected after IFAD conducted a stocktaking assessment of the strengths and weaknesses of other institutions working in water management and nutrition and concluded that FAO would be best positioned to carry out the proposed activities.

## II. The proposed programme

7. The overall goal of the programme is to strengthen the capacities of smallholder farmers to adopt sustainable water management and nutrition-sensitive agricultural practices, which, in turn, will increase their productivity (yields), incomes and nutritional outcomes. The objectives are to: (i) expand the NWP methodology to a more integrated approach of more nutrients and better economic prospects per drop; (ii) pilot the new nutrition-sensitive agricultural water productivity (NsWP) methodology in five countries and generate knowledge and lessons on supporting farmers to change cropping patterns, and share these results in Egypt as well; (iii) strengthen capacities at local and national levels to promote farmers' adoption of new farming practices; (iv) promote intersectoral coordination on the management of water for nutrition-sensitive agricultural production at national and global levels through the development of global guidelines on NWP; (v) catalyse partnerships that will support addressing the constraints encountered by smallholder farmers in sustainably accessing remunerative markets.
8. The direct target group will consist of 600–1,000 smallholder farmers in their dual capacity as key resources in the development of the methodologies and as beneficiaries. In addition, 200–300 extension officers, field supervisors, policymakers and a selected number of technical project staff will also benefit from capacity-building on the use of the programme's methodological framework. Women will be the main targets of the nutrition-focused interventions, particularly the dietary assessments. Indirect beneficiaries of the expanded NWP methodology are estimated at around 10,000 farmers.
9. The programme will be implemented over three years in six countries: Benin, Egypt, Jordan, Mozambique, Niger and Rwanda. It will have the following components: Component 1 – Expansion of the NWP methodological approach to estimate how the choice of crops, water management and farm practices can be modified to ensure more nutrition-sensitive agricultural water productivity; Component 2 – Implementation of the NWP methodology to strengthen capacities for improved water productivity, yields, nutrition and economic outcomes; and Component 3 – Contribution to increased coordination in the management of water for agriculture in sustainable intensification through learning and sharing of the knowledge generated.

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<sup>2</sup> See EB 2015/114/R.2/Rev.1.

### III. Expected outcomes/outputs

10. The programme is expected to have the following outcomes: (i) generation of tools and guidelines to facilitate the dissemination, adoption and implementation of the NWP methodological approach; (ii) capacities for implementing the NWP approach strengthened at local and national levels; (iii) smallholder farmers' behavioural change with the adoption of NsWP principles that can lead to the adoption of crop varieties with high nutrient content/value (smart crops) in specific agroecological conditions; and (iv) increased coordination at policy, programme and project levels across water use efficiency in agricultural production, nutrition and the economics involved.

### IV. Implementation arrangements

11. The FAO Land and Water Division (CBL) will be responsible for overall programme management and implementation of the activities described above, with technical support from that organization's Nutrition and Food Systems Division (ESN), Plant Production and Protection Division (AGP) and Agricultural Development Economics Division (ESA). Furthermore, the activities described in this document will be implemented in collaboration with local and global implementation partners in each of the pilot countries, i.e. local research institutes, farmers' organizations and other relevant partners working in the areas of water and nutrition-sensitive agriculture. Local implementation partners will be selected through a stakeholder identification and consultation process at programme start-up, facilitated by the IFAD and FAO country offices. The programme will also partner with the World Food Programme at country level to provide market opportunities for participating farmers through the school feeding programme, and the Purchase for Progress initiative. Finally, the programme will partner with the Stockholm International Water Institute and the Water and Nutrition Working Group of the FAO-hosted Global Framework on Water Scarcity in Agriculture (WASAG).
12. Because the proposed programme is a new and innovative work area for both IFAD and FAO, the programme will have a secretariat comprised of a general coordinator (CBL deputy director), who will offer strategic guidance to the programme, and a full-time programme manager, who will manage programme activities under the direct supervision of the CBL deputy director. The main responsibility of the programme manager will be to ensure that outputs are delivered on time and adhere to a high quality standard and to liaise with the IFAD grant task manager and country directors or country programme managers in the pilot countries.
13. FAO will administer the grant in accordance with its regulations, rules and directives. Specifically, it will submit financial reports (a statement of expenditure [SOE]) to IFAD every six months and a final SOE by the grant closing date. The grant will be subject to the internal and external audit procedures provided for in FAO's financial regulations, rules and directives.

### V. Indicative programme costs and financing

14. The estimated total programme cost is US\$2.4 million. The amount requested from IFAD to finance implementation of the programme, dissemination of lessons learned and policy dialogue is US\$2 million. FAO-CBL will contribute approximately US\$400,000 in in-kind contributions (staff time) through technical expertise. Synergies will be fostered with the IFAD portfolio in these countries and with FAO projects such as the (i) Sustainable Soil Management for Nutrition-Sensitive Agriculture in sub-Saharan Africa and Central America Project, (ii) the Water Productivity Open-access Portal, and (iii) the Water and Nutrition Working Group of the FAO-hosted WASAG. Other in-kind contributions of 10–15 per cent of their time are expected from three FAO technical units (AGP, ESA, ESN) and country offices but are not reflected in the present budget. Approximately 80 per cent of the workshop budget will be allocated to in-country activities supported by local

institutions to support the dissemination of lessons learned for potential scaling up, replication and global visibility, while the remaining 20 per cent will be allocated to global or regional institutions.

Table 1  
**Costs by component and financier**  
(Thousands of United States dollars)

<i>Components</i>	<i>IFAD</i>	<i>FAO</i>	<i>Total</i>
1. Development (expansion) of the NWP methodological approach to ensure more nutrition-sensitive agricultural water productivity	523	104	627
2. Deployment/implementation of the NWP methodology to strengthen capacities	971	218	1 189
3. Learning and sharing of knowledge generated	375	78	453
<b>Total direct costs</b>	<b>1 869</b>	<b>400</b>	<b>-</b>
4. Overhead (7%)	131	-	131
<b>Total</b>	<b>2 000</b>	<b>400</b>	<b>2 400</b>

Table 2  
**Costs by expenditure category and financier**  
(United States dollars)

<i>Expense category</i>	<i>IFAD</i>	<i>FAO</i>	<i>Total</i>
1. Professional salaries	519 665	320 000	639 669
2. General service salaries	59 625	50 000	109 625
3. Consultants	245 177	30 000	275 177
4. Contracts	624 800	-	624 800
5. Locally contracted labour	5 000	-	5 000
6. Travel	168 352	-	168 352
7. Training	39 922	-	39 922
8. Expendable procurement	4 632	-	4 632
9. Non-expendable procurement	4 088	-	4 088
10. Technical support services	72 595	-	72 595
11. General operating expenses	62 495	-	62 495
12. Direct support costs – other central support services	62 808	-	62 808
<b>Subtotal</b>	<b>1 869 159</b>	<b>400 000</b>	<b>2 269 159</b>
Indirect support costs (7%)	130 841	-	130 841
<b>Total</b>	<b>2 000 000</b>	<b>400 000</b>	<b>2 400 000</b>

## VI. Recommendation

15. 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, Increasing Water Productivity for Sustainable Nutrition-sensitive Agricultural Production and Improved Food Security, shall provide a grant in the amount of two million United States dollars (US\$2,000,000) to the Food and Agriculture Organization of the United Nations for a three-year programme, upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board herein.

Gilbert F. Hougbo  
President

# Results-based logical framework

## Annex 1: Results-based Logical Framework

	Objectives-hierarchy	Objectively verifiable indicators	Means of verification	Assumptions
<b>Goal</b>	Increase smallholder farmers productivity (yields), incomes and nutritional outcomes.	Number of smallholder farmers who have increased their productivity, income and nutritional outcomes due to the adoption of the project methodological framework/tool (target being between 600 to 1,000 farmers)	<ul style="list-style-type: none"> <li>• Project M&amp;E</li> <li>• Project progress reports</li> <li>• IFAD/FAO supervision mission reports</li> </ul>	<ul style="list-style-type: none"> <li>• Political stability and no major natural disasters (droughts/floods).</li> <li>• Smallholder farmer's willingness to adopt sustainable water management and nutrition-sensitive agriculture practices.</li> </ul>
<b>Objectives</b>	Expand the NWP methodological approach to a more integrated approach of "more nutrients and better economic prospects per drop". Including piloting the NWP methodology to strengthen capacities of project beneficiaries and promote inter-sectorial coordination on water for agricultural production and nutrition.	<ul style="list-style-type: none"> <li>• At least 50 per cent (out of 1,200 farmers) of smallholder farmers participating in the project have adopted the NsWP methodology.</li> <li>• At least 30 per cent (out of 1,200 farmers) of project beneficiaries have introduced new variates and/or modify their production patterns towards the production of "smart crops".</li> </ul>	<ul style="list-style-type: none"> <li>• Project M&amp;E</li> <li>• Project progress reports</li> <li>• Interview and focus groups</li> </ul>	<ul style="list-style-type: none"> <li>• Smallholder farmer's willingness to participate in the project.</li> <li>• No major economic/political instability and natural disasters (droughts and heavy rains) that can affect the implementation of the project.</li> </ul>
<b>Outcomes</b>	Generation of tools and guidelines to facilitate the dissemination, adoption and implementation of the NsWP methodological approach; that will contribute to (i) smallholder farmers behavioural change with the adoption of NWP principles; and (ii) increased coordination at policy, programme and project levels across water-use efficiency and nutrition.	<ul style="list-style-type: none"> <li>• Number of stakeholders (e.g., farmers, IFAD and FAO projects) who have adopted the NsWP methodology.</li> <li>• Number of project beneficiaries who have changed their production patterns towards more nutritious and drought resilient crops.</li> </ul>	<ul style="list-style-type: none"> <li>• Project M&amp;E</li> <li>• Project progress reports</li> <li>• Supervision mission reports</li> <li>• Surveys and secondary data sources.</li> </ul>	<ul style="list-style-type: none"> <li>• Provided consultants (technical experts) with the capacity to carry out the assignments are available in the pilot countries.</li> <li>• Availability of qualified in-country implementation partners to support the implementation of the project.</li> <li>• Existence of adequate political and institutional environment</li> </ul>
<b>Outputs</b>	A set of guidelines, training material, M&E framework, country case studies (project reports, policy briefs and factsheets) and the project methodological framework (NsWP) that will contribute to strengthen capacities on sustainable water management and nutrition-sensitive agriculture production in the target areas.	<ul style="list-style-type: none"> <li>• NsWP methodological framework document is available and operational.</li> <li>• Training material/modules and guidelines for selection of crop variates are available.</li> <li>• Project M&amp;E framework and project database are available.</li> <li>• Number of smallholder farmers participating in the project who have adopted the NsWP and health diets.</li> </ul>	<ul style="list-style-type: none"> <li>• Project M&amp;E</li> <li>• Project website and project progress reports</li> </ul>	<ul style="list-style-type: none"> <li>• Interest of local authorities to facilitate the implementation of the initiative (conducive institutional/business environment).</li> <li>• Existence of local capacity to adopt, adapt and implement the new methodology in the pilot countries.</li> </ul>

	<b>Objectives-hierarchy</b>	<b>Objectively verifiable indicators</b>	<b>Means of verification</b>	<b>Assumptions</b>
<b>Activities – Component 1</b>	<ul style="list-style-type: none"> <li>• Inception missions to the five pilot countries to officially introduce the project through the organization of stakeholders’ consultation meetings.</li> <li>• Selection of project beneficiaries and assessment of local farming/production practices.</li> <li>• Development of the project methodological framework.</li> <li>• Development of the project M&amp;E framework including design of survey instruments.</li> </ul>	<ul style="list-style-type: none"> <li>• At least one inception meeting per country is conducted.</li> <li>• Project methodological framework and M&amp;E framework document is available.</li> <li>• Guidelines for the project implementation are available.</li> </ul>	<ul style="list-style-type: none"> <li>• Project supervision and mission reports</li> <li>• Project M&amp;E</li> <li>• Government and local implementation partners reports</li> <li>• Interaction with project beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>• Farmers’ commitment to participate in the project.</li> <li>• Availability of relevant information from project partners.</li> </ul>
<b>Activities – Component 2</b>	<ul style="list-style-type: none"> <li>• Capacity building/training of project beneficiaries, project technical staff, policy-makers and extension officers.</li> <li>• Pre-testing and deployment of the NsWP methodology.</li> <li>• M&amp;E related activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of project beneficiaries, extension officers, etc. trained</li> <li>• Baseline and final round of data and reports are available.</li> <li>• Project M&amp;E framework document and survey instruments are available</li> </ul>	<ul style="list-style-type: none"> <li>• Project supervision and workshop reports</li> <li>• Project M&amp;E</li> <li>• Government and local implementation partners reports</li> <li>• Interaction with project beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>• Farmers commitment to participate in the project</li> <li>• Availability of relevant information/data from project partners.</li> <li>• Existence of local expertise to support the implementation of the project.</li> </ul>
<b>Activities – Component 3</b>	<ul style="list-style-type: none"> <li>• Drafting of country reports, policy briefs and impact assessment report of the project</li> <li>• Dissemination workshops (national, regional and global).</li> <li>• Convening national policy dialogue.</li> <li>• Final workshop in each of the countries and one international workshop organized in IFAD HQ.</li> </ul>	<ul style="list-style-type: none"> <li>• Country reports, policy briefs and factsheets available</li> <li>• Number of local, regional and global workshops organized</li> <li>• Number of policy dialogue initiatives organized.</li> </ul>	<ul style="list-style-type: none"> <li>• Project M&amp;E</li> <li>• Project progress reports</li> <li>• Interaction with project beneficiaries during supervision missions</li> <li>• Interaction with local policy makers from the target areas</li> </ul>	<ul style="list-style-type: none"> <li>• Effective commitment and interest of national stakeholders and partners to collaborate.</li> <li>• Availability of funds for the implementation of the project activities.</li> <li>• Government willingness to support the initiative.</li> </ul>