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Enabling poor rural people  
to overcome poverty

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

### **Note to Executive Board representatives**

#### Focal points:

#### Technical questions:

**Shantanu Mathur**  
Head, Grants Secretariat  
Tel.: +39 06 5459 2515  
e-mail: s.mathur@ifad.org

#### Dispatch of documentation:

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

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**For: Approval**

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## Abbreviations and acronyms

CGIAR	Consultative Group on International Agricultural Research
COE	centre of excellence
FAO	Food and Agriculture Organization of the United Nations
ICRAF	World Agroforestry Centre
M&E	monitoring and evaluation
NRM	natural resource management
PPP	public/private partnership
SC	steering committee
UNEP	United Nations Environment Programme

## 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

In line with the provisions of the Proposal to streamline the Executive Board approval process for IFAD-funded projects and programmes (document EB 2009/98/R.15/Rev.1), at the request of the representative of the Bolivarian Republic of Venezuela, the proposal for a grant under the global/regional grants window to a Consultative Group on International Agricultural Research (CGIAR)-supported international centre, originally submitted to the Executive Board under document EB 2011/LOT/G.5, is resubmitted to the Executive Board for its consideration and approval during the 103<sup>rd</sup> session.

I therefore submit the following report and recommendation on a proposed grant for agricultural research and training to a CCGIAR-supported international centre in the amount of US\$2,5 million.

### Part I – Introduction

1. This report recommends the provision of IFAD support to the research and training programme of the following CGIAR-supported international centre: World Agroforestry Centre (ICRAF).
2. The document of the grant for approval by the Executive Board is contained in the annex to this report:
 

World Agroforestry Centre (ICRAF): Programme for the Development of Alternative Biofuel Crops
3. The objectives and content of this applied research programme are in line with IFAD's evolving strategic objectives and the IFAD 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 by 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: (1) innovative activities promoted and innovative technologies and approaches developed in support of IFAD's target group; (2) awareness, advocacy and policy dialogue on issues of importance to poor rural people promoted by, and on behalf of, this target group; (3) capacity of partner institutions strengthened to deliver a range of services in support of poor rural people; and (4) 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 above-mentioned goal and outputs. The goal of the Programme for the Development of Alternative Biofuel Crops is to

finance coordinated research on, and development of, non-food or multiple-use biofuel crops along the entire value chain in order to enhance food security. The crops developed will be competitive with, and even exceed the productivity of, cereal/food-based biofuel crops. The programme contributes directly to the achievement of outputs (1), (2) and (4) of the revised IFAD grant policy. It will also play a catalytic role in strengthening public/private partnerships (PPPs) and cooperation among international financial institutions (IFIs), development organizations, foundations and the private sector, thus fostering attainment of output (3).

## **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 for the Development of Alternative Biofuel Crops, shall make a grant not exceeding two million five hundred thousand United States dollars (US\$2,500,000) to the World Agroforestry Centre (ICRAF) for a four-year 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

# World Agroforestry Centre (ICRAF): Programme for the Development of Alternative Biofuel Crops

## I. Background

1. Biofuels are increasingly emerging as economically viable and environmentally friendly substitutes for fossil fuels. They can also provide local energy and other income-generating options to rural communities.
2. While biofuels are not new and the technology is well known for selected crops, such as sugar cane or some food-based crops, there is relatively less knowledge of the profitability of biofuel production from non-food biofuel crops (including *Jatropha* and *Pongamia* spp.) or indeed from those that can have multiple uses (food, animal feed and fuel), such as sweet sorghum, *Simarouba* spp. and cassava.

## II. Rationale and relevance to IFAD

3. The IFAD Strategic Framework (2007-2010) recognized the importance of biofuels as a major emerging market opportunity for poor people. In this context, IFAD is currently undertaking several activities to mainstream biofuel development in its operations. These include a large global grant and two regional grants in Asia.
4. In addition, three international consultations – on sweet sorghum, *Jatropha* spp. and cassava, promoted by IFAD and its partners in 2007, 2008 and 2010 respectively – and a round-table discussion on biofuels at the 2008 session of the IFAD Governing Council stressed that partnerships are needed between research institutions, United Nations agencies, IFIs, governments and the private sector in order to undertake a coordinated and commercially oriented research activity to promote pro-poor biofuel development along the entire value chain.
5. If small farmers are to adopt biofuel crop production, first their fundamental needs for food and feed have to be met. In this context, food, feed and energy security are intertwined. This grant attempts to address these needs and to effectively mainstream biofuels in IFAD's operations.

## III. The proposed programme

6. The overall goal is to finance coordinated research and development in non-food or multiple-use biofuel crops, along the value chain, that will be competitive with and even exceed the productivity of food-cereal-based biofuel crops. The aim is to enhance food security as cereal-based feedstocks become uncompetitive. The concept is to develop a market-ready product that will enable poor people, including women, to take advantage of this emerging opportunity. Research will explore the sustainable development of natural resources. The programme will also play a catalytic role in strengthening PPPs and in cooperation among IFIs, development organizations, foundations and the private sector.
7. The programme's objectives are to:
  - Conduct coordinated research in a time-bound action plan on non-food or multiple-use biofuel crops and crops that can be grown in saline conditions, along the entire value chain, through selected centres of excellence (COEs). This will ensure that products can be brought to market following sustainable natural resource management (NRM) practices, thus benefiting poor people without compromising food security.
  - Finance local energy provision and provide policy support to governments that would like to undertake biofuel production without compromising food security.

- Disseminate knowledge and attempt to mainstream biofuels in IFAD operations.
8. The project focuses on the target groups of IFAD-funded and other biofuel development projects working in rural poverty reduction.
  9. The four-year programme will involve three main components:

(i) **Research for development, supervision and M&E**

Research will be conducted by selected COEs with a focus on: (a) non-food and/or multi-use biofuel crops that can be grown under adverse agroecological conditions – such as *Jatropha curcas*, *Pongamia pinnata*, sweet sorghum, cassava, *Simarouba* spp. – and crops that can be grown in saline conditions – such as tropical sugar beet; (b) development of the biofuel value chain (breeding, agronomy, processing and post-harvest technologies/engineering, rural electrification, marketing); and (c) where it does not overlap with other research efforts or affect animal feed supply, research on second-generation technologies adapted to developing countries.

The approach will be to pre-qualify COEs, whether private or public, to conduct research on these crops. Each COE will be invited to submit a bid in response to the request for proposals (RFP) to conduct and lead research along the value chain. They will be responsible for identifying partners to conduct coordinated research along the chain to ensure the delivery of results within the framework of a time-bound action plan. Research will be conducted in first-generation technologies that can grow in marginal lands, and which can provide – depending on the crop – food, animal feed, fuel and/or value added by-products (such as fertilizer and repellents). In addition, research will focus on introducing crop rotation with crops developed by the private sector (tropical sugar beet by Syngenta, non-edible safflower promoted by Praj Industries Ltd) to improve the efficiency of the value chain. This will include post-harvest value addition at the community level, both to create employment and to avoid oversupply during peak production periods.

(ii) **Local energy provision to enhance food security**

This initiative will develop seven pilot projects to reduce poverty through enhanced food security by providing local energy in rural areas. This will be achieved by financing rural energy schemes from biofuel crop production, and other approaches such as agricultural and urban waste. The projects will test and compare alternative models for local energy provision and conduct research to increase the efficiency of the most promising technologies. The energy produced will be used to meet household needs, local-level processing and power for irrigation. This will not only increase food security but also be beneficial to the environment and to women, who will no longer travel long distances to collect firewood (not an environmentally sound practice) or water. Fuel for domestic use will also be cleaner, leading to improved family health.

(iii) **Knowledge-sharing, capacity-building, policy studies and advocacy, and an information and awareness campaign**

Workshops for knowledge-sharing and dissemination of research results will be organized in each year of programme implementation, possibly in different countries and regions, with the participation of various stakeholders and other research partners. Information and communication materials and technical reports on research findings will be produced and disseminated on the websites of the United Nations

Environment Programme (UNEP), FAO and IFAD. The documents will also be translated into diverse languages if required.

Policy advice on the development of a suitable renewable energy policy is also foreseen. The objective is to assist the governments of Member States in developing suitable policies that strike an acceptable balance between land use, food security and fuel self-sufficiency – or reduction in fuel imports to an acceptable level – and that rationalize the division of water resources between food and fuel crops, while ensuring a pro-poor focus. As and when requests are received from Member States, the Secretariat will seek to mobilize funds from potential donors to finance the relevant studies. Special allocations for the funding of policy studies in Africa will be mobilized as and when requested by Member States.

10. The three components outlined will have a global impact, with beneficiary countries including Brazil, Colombia, Egypt, India, Mali, Nicaragua, the Philippines and Zambia, to name a few. Crops will be selected on the basis of the agroclimatic conditions prevalent in each country.

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

11. These are the following:

##### **1.1 Research for development**

- A list of pre-qualified COEs developed, to the extent possible, in different countries and regions;
- Research contracted to COEs for projects approved by the steering committee (SC);
- Seeds of promising varieties identified and supplied to approved entities for onward multiplication and distribution;
- Models for rural electrification using *Jatropha* and *Pongamia* (or other non-edible) oil developed, tested and validated.

##### **1.2 Supervision, M&E**

- Senior, highly qualified experts contracted for this purpose to monitor the projects at different stages;
- Sustainability indicators monitored for agricultural production and processing;
- Supervision and M&E reports prepared and distributed to SC members and posted on the websites.

##### **2.1 Community organization and capacity-building**

- Local NGOs selected;
- Village communities mobilized;
- Community organizations formed;
- Needs assessed;
- Capacity-building activities implemented;
- Operations and maintenance training implemented;
- Technical support delivered.

##### **2.2 Investment in infrastructure and equipment**

- Energy systems tested and validated;
- Nurseries and demonstration plots established;

- Land identified;
- Processing plants procured and installed;
- Water-harvesting infrastructure established;
- Operations and maintenance system established.

### **2.3 Project management and M&E**

- Baseline surveys conducted;
- Monitoring carried out;
- Annual evaluation completed;
- Final project evaluation completed.

### **3.1 Knowledge-sharing (technology dissemination) and capacity-building**

- One workshop per year organized by the Secretariat in collaboration with COEs;
- Annual technical progress reports prepared by the COE; workshop proceedings; toolkits/agronomic handbooks to inform and train small farmers and producers as well as extension agents and government officials; a website created on or linked to the Bioenergy wiki website ([www.bioenergywiki.net/](http://www.bioenergywiki.net/)), and developed in cooperation with FAO and UNEP, to disseminate information on selected biofuel crops and research activities and results, including a space for the information and awareness campaign.

### **3.2 Policy studies and project cofinancing**

- Policy studies conducted in partnership with FAO and focusing on multiple-use crops to ensure that no adverse impact on food prices occurs – especially in cases in which products (sorghum and cassava) are also used as food crops,
- Projects cofinanced by IFAD.

### **3.3 Information and awareness campaign**

- Fact sheets/information materials provide basic information on biofuels and their potential for poverty reduction. The information could be in the form of reports, question-and-answer leaflets (especially on the most debated and controversial issues), and examples of successful stories and experiences;
- Information includes transfer of appropriate technology;
- An ad-hoc space created in the website for posting campaign materials and extending messages pertaining to sound NRM practices;
- All reports made available to Member States and partners, posted on IFAD and FAO websites, and provided on request.

## **V. Implementation arrangements**

12. The programme will be implemented through a donor SC composed of the recipient and all donors contributing to the programme. Implementation will begin on receipt of funding. A Secretariat will also be established to carry out operational aspects of the programme. Implementation will commence as soon as the SC is constituted and the Secretariat supporting it has been approved by IFAD.
13. ICRAF will be accountable to the donors, including IFAD.



## VI. Indicative programme costs and financing

14. The programme will cost US\$12.0 million over four years: US\$5.0 million for phase I (first 20 months) and US\$7.0 million for phase II (remaining 28 months). IFAD would finance US\$2.5 million under phase I.
15. Cofinanciers already committed to participating in the programme include Praj Industries Ltd, the Syngenta Foundation for Sustainable Agriculture and the United Nations Industrial Development Organization (UNIDO). In addition, the African Development Bank (AfDB), OPEC Fund for International Development (OFID) and Nandan Biomatrix Ltd. have expressed an interest in participation. Other opportunities for cofinancing are being explored.

### Summary of budget and financing plan

(Thousands of United States dollars)

<i>Number</i>	<i>Type of expenditure</i>	<i>IFAD</i>	<i>Cofinancing</i>
1	Personnel (including subcontractors)	357	1 355
2	Professional services/consultancies	832	3 164
3	Travel costs	100	380
4	Equipment	771	2 929
5	Operational costs, reporting and publications	147	559
6	Training/capacity-building	168	638
7	Overhead	125	475
	<b>Total</b>	<b>2 500</b>	<b>9 500</b>

## Results-based logical framework

	Objectives-hierarchy	Objectively verifiable indicators	Means of verification	Assumptions
<b>Goal</b>	Finance coordinated research for development on non-food or multiple-use biofuel crops along the entire value chain to develop a market ready product	Number of research grants financed through COEs	Supervision reports	
<b>Objectives</b>	<ul style="list-style-type: none"> <li>Conduct coordinated research in a time-bound action plan on no more than seven crops</li> <li>Finance local energy provision for food security</li> <li>Provide policy support to Governments to undertake biofuel production without compromising food security</li> <li>Disseminate knowledge</li> <li>Mainstream biofuels in IFAD operations</li> <li>Facilitate partnerships, including PPPs</li> </ul>	<ul style="list-style-type: none"> <li># of suitable crops identified</li> <li>Suitability of feedstock and technology assessed</li> <li># of information and communication materials and technical reports on research findings produced for the dissemination of results</li> <li>Amount of loans and grants financed focusing on biofuels</li> <li># of private companies engaged in the programme</li> </ul>	<ul style="list-style-type: none"> <li>Work plans, budgets, progress reports, audit reports provided by the COEs</li> <li>NGO reports and field visits</li> <li>Documents resulting from the related workshops</li> <li>IFAD and partners' websites and their publications related to biofuels</li> <li>IFAD's project portfolio database</li> </ul>	<ul style="list-style-type: none"> <li>Qualified COEs/NGOs are capable of implementing the programme.</li> <li>Government and target groups remain supportive of the project</li> <li>Agreement on policies between various ministries.</li> <li>Private companies willing to engage in the programme.</li> </ul>
<b>Outputs</b>	<ul style="list-style-type: none"> <li>Seeds of promising varieties of crops identified and supplied to approved entities for onward multiplication and distribution</li> <li>Models for rural electrification developed, tested and validated</li> <li>Monitoring sustainability indicators developed</li> <li>Policy studies conducted</li> <li>One workshop organized per year and information material produced</li> </ul>	<ul style="list-style-type: none"> <li># of new varieties of biofuel crops and other technologies developed by the COEs</li> <li># of models validated</li> <li># of indicators developed</li> <li># of IFAD's reports and publications focusing on biofuels for poverty alleviation</li> <li># workshops organized</li> </ul>	<ul style="list-style-type: none"> <li>Work plans, budgets, progress reports, audit reports provided by the COEs</li> <li>NGO reports and field visits</li> <li>Documents resulting from the related workshops</li> <li>IFAD and partners' websites and their publications related to biofuels</li> <li>IFAD's project portfolio database</li> </ul>	<ul style="list-style-type: none"> <li>New technologies and seed varieties to be developed are relevant and economically viable</li> <li>The Governments make timely decision on requesting studies.</li> <li>Annual progress and audit reports do not show major problems or difficulties within the programme</li> </ul>
<b>Key Activities</b>	1.1) Research for Development 1.2) Supervision, M&E 2.1) Community organization and capacity building 2.2) Investment in infrastructure and equipment 2.3) Project management and M&E 3.1) Knowledge-sharing (technology dissemination) and capacity building 3.2) Policy studies and project co-financing 3.3) Information and awareness campaign	<ul style="list-style-type: none"> <li># of new varieties of biofuel crops and other technologies developed</li> <li>Suitability of feedstock and technology assessed</li> <li># of information and communication materials produced</li> <li># workshops organized</li> <li># of IFAD projects focusing on biofuels</li> </ul>	<ul style="list-style-type: none"> <li>Work plans, budgets, progress reports, audit reports provided by the COEs</li> <li>NGO reports and field visits</li> <li>Documents resulting from the related workshops</li> <li>IFAD and partners' websites and their publications related to biofuels</li> <li>IFAD's project portfolio database</li> </ul>	The selected crops: <ul style="list-style-type: none"> <li>meet the Governments concerns regarding food security</li> <li>Can easily fit the farming systems</li> <li>Are water efficient</li> <li>The COSOPs focus on energy provision to alleviate poverty.</li> </ul>