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Investing in rural people

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

International Centre of Insect Physiology and Ecology

Note to Executive Board representatives

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Results-based logical framework

Abbreviations and acronyms

| | |
|-------|---|
| AWP/B | annual workplan and budget |
| CGIAR | Consultative Group on International Agricultural Research |
| ICIPE | International Centre of Insect Physiology and Ecology |
| NARS | national agriculture research system |
| SOE | statement of expenditure |

Recommendation for approval

The Executive Board is invited to approve the recommendation for a grant under the global/regional grants window to a non-CGIAR-supported international centre, as contained in paragraph 8.

President's report on a proposed grant under the global/regional grants window to a non-CGIAR-supported international centre: International Centre of Insect Physiology and Ecology

I submit the following report and recommendation on a proposed grant for agricultural research and training to a non-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 to the research and training project of the following non-CGIAR-supported international centre: the International Centre of Insect Physiology and Ecology (ICIPE).
2. The document of the grant for approval by the Executive Board is contained in the annex to this report:

International Centre of Insect Physiology and Ecology: Alternative Livelihoods for Food and Income Security in Four Indian Ocean Island Nations and in Zanzibar, United Republic of Tanzania
3. The objectives and content of this applied research and training project are in line with the evolving strategic objectives of IFAD, the revised IFAD Policy for Grant Financing (EB 2009/98/R.9/Rev.1) and the Fund's approach in Small Island Developing States.
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 project is in line with the goal and outputs of the revised IFAD grant policy in the following three areas:
 - (a) **Innovative activities, technologies and approaches promoted:** The project will promote the adoption of improved beekeeping technologies (including improved beehives, queen rearing and colony management,

stingless bees, bee health, and production of new generation high-value hive products – royal jelly, propolis) and bee pollination services among smallholder farmers for improved crop yields; and introduce an innovative marketplace model for value addition, and organic certification and branding of beehive products for increased profitability and market access.

- (b) **Capacity of partner institutions strengthened:** The project will build the capacity of key partner institutions (including national ministries responsible for agriculture and livestock, national beekeeping stations, IFAD country programmes, and beekeepers' associations) to understand, and take measures to prevent the introduction and spread of, bee pests and diseases, which are threatening the collapse of bee colonies in the four targeted island nations (the Comoros, Madagascar, Mauritius and Seychelles) and in Zanzibar, United Republic of Tanzania; and to adopt supportive policies for sustainable development of the bee industry, which put bee health and pollination services for biodiversity conservation at the centre.
- (c) **Lesson learning, knowledge management and dissemination of information promoted:** Because this is a pilot project designed to introduce and adapt innovative technologies for adoption by smallholder farmers and for wider replication, one of its central pillars will be lesson learning, knowledge management and the dissemination of information. The project will focus, in particular, on dissemination of improved beekeeping technologies; new-generation beehive products; bee health; bee pollination services and biodiversity conservation; value addition; organic certification and branding of beehive products; and organization and capacity-building of smallholder beekeeper groups.
7. The grant is part of IFAD's delivery in the Small Island Developing States strategy. The project will contribute to strengthening resilience to environmental and climate change, and create attractive alternative livelihood opportunities for the social and economic development of rural communities. It is based on South-South cooperation, making the link with the small islands by disseminating and sharing knowledge and building on lessons learned from agricultural research results under IFAD's previous grant to ICIPE on Scaling Up Beekeeping and Other Livelihood Options to Strengthen Farming Systems in the Near East and North Africa (NENA), and East Africa, which successfully piloted adoption of improved beekeeping technologies among poor communities in Ethiopia, Kenya, South Sudan, the Sudan, Uganda and Yemen.

Part II – Recommendation

8. 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 project for Alternative Livelihoods for Food and Income Security in Four Indian Ocean Island Nations and in Zanzibar, United Republic of Tanzania, shall provide a grant not exceeding one million five hundred thousand United States dollars (US\$1,500,000) to the International Centre of Insect Physiology and Ecology (ICIPE) for a two-year project 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 Centre of Insect Physiology and Ecology: Alternative Livelihoods for Food and Income Security in Four Indian Ocean Island Nations and in Zanzibar, United Republic of Tanzania

I. Background

1. Climate change has affected the economic development and threatened the livelihoods and the agro-biodiversity resource base of rural poor people in the four targeted Indian Ocean island nations – the Comoros, Madagascar, Mauritius and Seychelles – and in Zanzibar, United Republic of Tanzania. The loss of pollinator species has considerably reduced crop production, and thus compromised these countries' and Zanzibar's food security situation. This state of affairs has been compounded by the occurrence of cyclones and the effects of volcanic ash on island agriculture. Research by various institutions, including the International Centre of Insect Physiology and Ecology (ICIPE), has shown the value of the sustainable use of commercial insects (especially honeybees) in helping to create sustainable livelihoods, as an alternative source of income for affected communities and mitigating the negative effects of weather variability and climate change.
2. The beekeeping industry in the four island nations and in Zanzibar is generally underdeveloped and characterized by low-productivity, traditional beekeeping practices within an environment that does not safeguard bee health. This has resulted in the introduction and spread of bee pests and diseases, and has led to the near total collapse of bee colonies in a number of regions. In Madagascar, for instance, in 2012 alone, the Varroa mite, a parasitic bee pest, invested a quarter of the country's 102,833 hives leading to a 90 per cent drop in honey production in the affected communities and the collapse in bee colonies in the areas concerned.
3. Even with the deforestation witnessed in the last decade, the targeted island nations and Zanzibar still have a significant portion of their land area covered by forests, and beekeeping continues to be an important source of livelihood for many communities. These island nations and Zanzibar present an excellent environment for the production of branded honey and beehive products for highly profitable niche markets – clove honey from Pemba, Zanzibar; vanilla honey from Madagascar; etc. In addition, development of the beekeeping industry in the targeted project areas can complement efforts towards environmental conservation arising from the bee pollination services, which are important in forest rejuvenation, while also providing an incentive to local communities who will see immediate economic benefits including increased incomes from the sale of honey and other hive products, and higher farm yields arising from improved crop pollination.

II. Rationale and relevance to IFAD

4. This proposed project will enhance the development impact of selected IFAD-funded projects in the four island nations and in Zanzibar by promoting modern beekeeping enterprises among targeted smallholder farmers in order to improve crop yields from bee pollination services and provide an alternative source of livelihood, thereby reducing the vulnerability of poor households in these increasingly fragile ecosystems. The grant will be used mainly for the development of appropriate infrastructure, training and business-focused capacity-building of beekeepers/farmers who are participating in ongoing IFAD-funded projects.
5. In line with the Revised IFAD Policy for Grant Financing, the project will enable the dissemination and adoption of new pro-poor agricultural technologies that introduce innovation and learning for a better response to sustainable development issues

confronting poor communities in the project areas. The project responds to three of the outputs of IFAD's grants policy: (i) it will transfer innovative technologies on improved beekeeping and promote an innovative marketplace model for value addition; (ii) it will build the capacity of partner institutions to understand and take measures to prevent the introduction and spread of bee pests and diseases, and to adopt supportive policies for the sustainable development of the bee industry; and (iii) it will ensure lesson learning, knowledge management and the dissemination of information related to innovative modern beekeeping technologies and practices to spur growth of the sector.

III. The proposed project

6. The goal of the project is to contribute to increased food and income security of smallholder farmers in the five project areas through the introduction of improved beekeeping technologies and pollination services for alternative livelihood sources, improved crop yields and biodiversity conservation among communities targeted by IFAD country programmes.
7. The project's main objectives are to:
 - (a) Transfer successfully pilot-tested technologies in improved beekeeping and pollination services for adoption by smallholder farmers for increased production of honey and other hive products, improved crop yields, and biodiversity conservation in the face of climate change;
 - (b) Introduce an innovative marketplace model developed by ICIPE for value addition and improved market access of honey and other hive products produced by smallholder farmers; and
 - (c) Build the capacity of key partner institutions in the five project areas on key issues, thematic areas and approaches for consideration in the formulation and implementation of policies for bee health and the sustainable development of the beekeeping industry.
8. The target groups of the project consist primarily of resource-poor rural community members who are mostly traditional beekeepers/subsistence farmers and honey hunters. The project will directly target 1,250 smallholder farmers from different households in the four island nations and Zanzibar. With an average of five persons per household, the direct project beneficiaries are estimated to reach 6,250 persons. To complement IFAD country programmes in the project areas, the project will target communities in areas covered by IFAD-supported projects, namely: in the Comoros, the National Programme for Sustainable Human Development; in Madagascar, the Support Programme for Rural Microenterprise Poles and Regional Economies (PROSPERER); in Mauritius, the just-completed Marine and Agricultural Resources Support (MARS) Programme; in Seychelles, the Competitive Local Innovations for Small-scale Agriculture Project; and in Zanzibar, the Tanzania Agricultural Sector Development Programme. The project will have a special focus on women (30 per cent of the target group) and youth (20 per cent).
9. The project will run for two years and will comprise three main components:
 - (a) **Technology transfer:** The project will, among other activities, train smallholder farmers on beekeeping technologies and practices in pollination services; supply improved (Langstrothe) beehives locally to farmers; establish demonstration apiaries for the training of farmers; and provide ongoing extension support to farmers for the adoption of introduced technologies in improved beekeeping.
 - (b) **Development of marketplaces:** It will establish processing and market outlet infrastructure for value addition and improved market access of honey and other hive products; promote the organic certification of honey and other

hive products; and support participating farmers' organizations in establishing profitable business partnerships with buyers.

- (c) **Capacity-building of partner institutions:** It will train key officials of partner institutions on issues related to the formulation and implementation of policies on bee health and the sustainable development of the beekeeping industry; strengthen existing beekeeping resource centres to provide up-to-date information on market requirements and statutory standards of the national and importing country; and prepare and disseminate awareness-creating materials on bee health and other important issues in the development of a modern beekeeping industry.

IV. Expected outputs and benefits

10. The expected benefits of the project include:
- A 15-20 per cent increase in incomes of targeted smallholder households from honey and hive products as an alternative source of income;
 - A 20-25 per cent increase in productivity of crops cultivated by targeted smallholder farmers; and
 - Improved awareness and capacity of partner institutions on issues, thematic areas and approaches for consideration in the formulation and implementation of required policies for bee health and the sustainable growth of the beekeeping industry.

V. Implementation arrangements

11. ICIPE will be the lead agency in implementation of the project. Within ICIPE, the project will be managed by a project coordinator assisted by a team of technical experts.
12. At each of the five project areas, the lead partner agency will be the host government's ministry of agriculture from which a project focal point will be appointed to coordinate activities on the island. Other key implementing partners will be institutes in the national agriculture research system (NARS) relevant to the beekeeping industry, IFAD country programmes and farmers' associations.
13. A national project steering committee comprised of key stakeholders in the beekeeping industry will be constituted in each project area to provide oversight and policy guidance. This committee will meet at project inception and once each year to review progress and to approve the annual workplan and budget (AWP/B).
14. At the start of the project and at each subsequent year, ICIPE will prepare an AWP/B to be approved by IFAD. The grant proceeds will be transferred to ICIPE through duly certified disbursement requests to a certified account in a commercial bank acceptable to the Fund. All incurred expenditures will be recorded in ICIPE's accounting software in accordance with internationally accepted accounting standards.
15. ICIPE will issue semi-annual financial progress reports in a format acceptable to IFAD, including incurred expenditures by category for the reporting period and cumulative using a statement of expenditure (SOE). The whole project and the total grant amount will be subject to an external audit in accordance with IFAD standard procedures outlined in the grant agreement; the auditor will also issue a separate opinion on the SOE, specifying the use of the grant proceeds by category of expenditure as per schedule 2 of the grant agreement. The annual audited financial statements of ICIPE will include a detail review of the financial statements with reference to each source of financing.

16. All unused funds at the end of the grant closing date will be returned to IFAD with the grant account reconciled against the actual eligible project expenditures in accordance with schedule 2 of the grant agreement.

VI. Indicative project costs and financing

17. The total project cost is US\$2.8 million. Of this, US\$1.5 million will be financed by an IFAD grant, and US\$1.3 million by ICIPE, the European Union, NARs and the private sector (tables 1 and 2). IFAD's contribution is 52.9 per cent of the total project cost. ICIPE will directly receive and administer the European Union financing.
18. Disbursements of the grant will be made in advance, with the initial advance limited to the equivalent of 50 per cent of the approved AWP/B.¹ For the second and subsequent withdrawal applications, ICIPE will submit to IFAD an SOE on the use of at least 75 per cent of the immediately preceding instalment and 100 per cent of previous instalments (if any). The last disbursement of the grant will be made only once the final report, SOEs and audited financial statements have been received.

Table 1
Summary of budget and financing plan
(Thousands of United States dollars)

| <i>Type of expenditure</i> | <i>IFAD</i> | <i>Cofinancing</i> |
|--|--------------|--------------------|
| Personnel (including subcontractors) | 250 | 430 |
| Professional services / consultancies | 100 | 140 |
| Travel costs | 115 | 28 |
| Equipment | 205 | 135 |
| Operational costs | 200 | 120 |
| Training/capacity-building | 238 | 220 |
| Overheads | 110 | 99 |
| Goods, services and inputs | 20 | 15 |
| Workshops | 40 | 65 |
| Vehicles (five four-wheel drive – for each island) | 122 | 32 |
| Works (refurbishment of five marketplaces) | 100 | 50 |
| Total | 1 500 | 1 334 |

Table 2
Costs by component and financier
(United States dollars)

| <i>Components</i> | <i>IFAD</i> | <i>ICIPE</i> | <i>European Union/ NARs/private sector</i> | <i>Total</i> |
|---|------------------|----------------|--|------------------|
| Technology transfer | 488 000 | 65 000 | 250 000 | 803 000 |
| Development of marketplaces | 330 000 | 6 000 | 59 000 | 395 000 |
| Capacity-building of partner institutions | 220 000 | 70 000 | 215 000 | 505 000 |
| Project coordination and management | 462 000 | 270 480 | 398 300 | 1 130 780 |
| Total | 1 500 000 | 411 480 | 922 300 | 2 833 780 |

¹ Disbursement of the initial advance will be conditional upon IFAD having received an acceptable final audit report for the previous grant to ICIPE, Scaling up Bee-keeping and other Livelihood Options to Strengthen Farming Systems in the Near East and North Africa (NENA), and East Africa. (G-I-R 1229).

Results-based logical framework

| | Objectives-hierarchy | Objectively verifiable indicators | Means of verification | Assumptions |
|------------------------------|---|---|---|---|
| Goal | Food and income security of targeted rural smallholder households sustainably increased | 80% of direct beneficiaries food secured, resilience strengthened and living conditions improved; Positive effects and impact of introduction of beekeeping technologies on the ecological integrity of the Island Nations. | Income and expenditure surveys Project M&E | Stable political and macroeconomic environment |
| Objectives | Transfer of technologies in improved beekeeping and practices in bee pollination services among smallholder farmers Market access of honey and bee hive products produced by project farmers insured Capacity of key partner institutions build | 80% beneficiaries adopt beekeeping as means diversification and additional income 15 – 20% increase in incomes of targeted smallholder households 25% increase in share of honey and other hive products in household income 5% increase in targeted Island Nation's government funding to beekeeping sector | Income and expenditure surveys Project M&E | No political or tribal disturbance delaying programme progress |
| Outcomes/ Outputs | Outcome 1 Increased honey production and crop yields among targeted smallholder farmers | 50 MT of honey produced annually by targeted farmers 20 – 25% increase in crop yields among participating farmers | Project M&E Periodic market surveys | Government commitment to embrace measures for ensuring bee health |
| | Outputs 1.1 Targeted smallholder farmers adopt improved beekeeping technologies 1.2 Targeted farmers adopt practices in bee pollination services in their farms | 1,250 farmers have improved hives 2,500 improved beehives among targeted farmers – with at least 80% colonisation 1,250 acres of land owned by targeted smallholder farmers under bee pollination services | Project M&E | Farmer commitment to participate in groups |
| | Outcome 2 Increased earnings of farmers from sale of honey and bee hive products | US\$ 250,000 annual sales of honey from targeted farmers Organic certification of honey and bee products sold by farmers 3 new generation hive products sold by participating farmers | Project M&E | Continued strong demand for honey and bee hive products |
| | Outputs 2.1 Marketing infrastructure available to targeted farmers is improved 2.2 Improved value-added for honey and hive products sold by targeted farmers | 5 fully equipped market places are established for honey and bee products with processing capacity 10 honey and other bee products collection centres established | Project M&E Periodic field mission reports | Government/community willingness to donate land for market infrastructure |

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| | Objectives-hierarchy | Objectively verifiable indicators | Means of verification | Assumptions |
|-----------------------|--|--|--|---|
| | | 1,250 farmers trained in organic certification 30% increase in price of honey sold by targeted farmers | | |
| | Outcome 3 Increased capacity of key institutions on key issues, thematic areas and approaches for development of a sustainable beekeeping industry | Informed policy discourse on measures required to develop a sustainable beekeeping industry among key institutions responsible for development of the sector | Project M&E Government annual reports | Government commitment to development of beekeeping industry |
| | Outputs 3.1 Key staff of partner institutions trained on key issues in bee health and sustainable development of beekeeping industry 3.2 Capacity of beekeeping stations improved to support training, extension services to farmers and gathering of data important in formulation of sustainable beekeeping industry 3.3 Improved awareness of key stakeholders in beekeeping sector on important issues in development of a sustainable beekeeping industry | 50 staff members of key institutions in targeted Island Nations trained on improved technologies in beekeeping 5 beekeeping resource centres established 10 Manuals and beekeeping resource documents developed for dissemination 200,000 key stakeholders in beekeeping industry in targeted Island nations reached with information on improved beekeeping | Project M&E Government annual reports | Good staff retention for targeted institutions |
| Key Activities | 1 - <i>Technology Transfer Activities</i> : Training of Trainers, f farmers and carpenters; Supply of beehives to farmers; Establishment of demonstration apiaries and greenhouses; provision of extension services to farmers 2 - <i>Market access</i> : Establishment of collection centres, Organic certification, market linkage 3 - <i>Capacity building of partner institutions</i> : Training of key staff of partner institutions; Establishment of beekeeping resource centres; Preparation of awareness creation materials, Information dissemination 4 - <i>Project management and coordination</i> : project launch, Scoping and value chain studies, M&E, implementation support | 50 qualified individuals receive ToT training; 50 smallholder farmer groups of 20 – 30 members constituted 2,500 good quality langstrothe hives supplied to farmers 1,250 farmers receive extension services at least 2 times per year; 5 marketplaces constructed and equipped Market information system set up in each market place 5 market places receive organic certification 5 beekeeping resource centres established/ strengthened 5 studies of beekeeping sector concluded | Project progress report on AWPB | Project funds mobilized as planned |