

‘Science, technology and innovation, and the potential of culture for promoting sustainable development and achieving the Millennium Development Goals’

1. Background

The complexity and diversity of rural poverty call for new and better approaches. Despite global progress towards MDG 1, many countries and regions are lagging behind, and social and economic inequalities are growing almost everywhere. This situation calls for new tested approaches to rural poverty and a better understanding of its challenges as seen by the rural poor. A key success factor to achieving sustainable rural development is, without doubt, “innovation”.

Since the mid-90s the International Fund for Agricultural Development (IFAD) has put increasing emphasis on innovation in its corporate level-processes. The vision statement of May 1995 recognized the significance of innovations, noting that IFAD would ‘ensure the design and implementation of innovative, cost-effective and replicable programmes with sustainable impact (IFAD, 1995)’. The focus on innovations has however become more prominent since 2000.

In 2001 IFAD’s Office of Evaluation undertook an assessment which provided recommendations at the strategic, organizational and operational levels with a view to *enhancing IFAD’s ability to promote innovations and its scaling up*. In response to the recommendations, IFAD developed a unique financial instrument to specifically promote innovation in IFAD country programmes and to develop innovative capacity at the corporate level: the ***Initiative for Mainstreaming Innovation (IMI)***.

2. The Initiative for Mainstreaming Innovation (IMI)

The purpose of the IMI is to strengthen the financial tools IFAD can use to increase the scope and quality of the replicable innovations explored and disseminated by IFAD and its partners to reduce rural poverty. The goal of this initiative is to *enhance IFAD’s capacity to promote innovations that will have a positive impact on rural poverty*. Its expected outcomes are to have innovation mainstreamed into IFAD operations; strengthened learning on innovation and sharing, and the application of such learning; and, a change organizational culture and practices for supporting innovation.

This tool has proved to be very successful in financing innovations that can be useful in IFAD’s operations. In the 2012 competitive bidding 12 projects were selected (below are a few examples).

- i. **Making biogas portable: Renewable technologies for a greener future - Kenya.** The flexi biogas initiative has introduced two innovative models in Kenya: a) second generation plastic bio digesters producing methane from recycled livestock and agricultural waste; and ii) portable biogas bottling. The two innovations can provide resource-poor people with access to a clean energy source which can also be used for generating electricity. The pilot offers opportunities for income generation, new jobs and improved livelihoods. A secondary effect will be improved soil fertility through the use of discarded digester effluents.

ii. **Improving Weather Risk Management using satellite-based technology- Senegal.** The project would build on IFAD's work with weather risk insurance by developing and testing an innovative satellite-based approach to drought index insurance in Mali. The activities proposed could represent a new model for index insurance, which has hitherto required data from on-the-ground weather station; and they could push the frontier for the entire industry and have enormous scaling-up potential.

iii. **Smallholder post-harvest innovation project (SPIP) - Malawi and Rwanda.** Post-harvest management systems and technologies have a critical role to play in reducing food losses, ensuring the quality and quantity of produce and improving market access for small scale farmers. The project, which is piloted in 2 IFAD projects, will include awareness raising, learning packages, capacity building and field testing of affordable post-harvest technologies and techniques. A further objective will be to ensure that post-harvest issues are addressed in project design and implementation for value chain projects.

3. IFAD's Innovation Strategy

A further step toward institutionalizing innovations was taken in 2007. In the context of the IFAD Action Plan for Improving its Development Effectiveness, IFAD developed an Innovation Strategy. The goal of the strategy is to ensure that innovation is systematically and effectively mainstreamed in IFAD processes and in its practice in country programmes. Its purpose is to enhance IFAD's capacity to work with partners to find and promote new and better ways to enable the rural poor to overcome poverty.

IFAD's Innovation Strategy defines what is needed to create an *innovation-friendly environment*. As there is no universally binding definition of innovation, each organization must reach a definition that has the greatest operational value from its perspective. In the case of IFAD, innovation is defined as "**a process that adds value or solves a problem in new ways**" (IMI) and "**in order to qualify as an innovation, a product, idea, or approach needs to be new to its context, useful and cost-effective in relation to a goal, and able to "stick" after pilot testing**" (IS).

4. IFAD's Strategic Framework for 2011-2015

IFAD's Strategic Framework for 2011-2015 also includes *innovations, learning and scaling up* as one of its six principles of engagement: "responding to a changing environment requires a capacity to innovate and learn. At the same time, making a serious dent in rural poverty and achieving MDG1 under current circumstances calls for a more systematic focus on scaling up where appropriate". In line with this principle, during the next the next three years, IFAD will:

- Continue to focus on developing demand-driven and innovative approaches to rural poverty reduction;
- Continue to promote innovation at all levels in its operations;
- Place greater emphasis on knowledge generation and sharing within IFAD and in its operations management, with a focus on building on operational experience;

- Scale up successful approaches and innovations, when appropriate, by treating scaling up as “mission critical”, and building on recent efforts to better understand the preconditions for successful scaling up and to systematize IFAD’s approach in this regard; and
- Review existing policies and strategies on knowledge management and innovation to develop an integrated innovation, learning and scaling-up strategy focused particularly on country programmes and projects.

5. Innovations within IFAD’s operations

Projects in China and Bangladesh dominate the list of high performing countries in the **Asia and the Pacific Region**. In the China Post-Earthquake Agricultural Rehabilitation Project the **fiberglass covers** the project introduced to replace the conventional concrete covers in bio-digesters was found to be so useful that it was picked-up by the Government to be used in other areas. In India an experiment in collaboration with the Ministry of Telecommunications in the implementation of **SMS-based market information system** covering 2000 household in the Livelihoods Improvement Project for the Himalayas was carried out.

The projects in **East and Southern Africa** are increasingly concentrating on **value chain oriented research**, establishment of **innovative pro-poor PPP arrangements**, strengthening of community human capital, and the **development of financial services and instruments tailored for the rural poor**. In Kenya, several **high impact innovative financial products** (e.g. medium-term financing for the agricultural sector, micro-venture capital modalities, index-based insurance, and health insurance, etc.) with strong scaling-up potential were identified. These should enhance economic empowerment through improved market access and risk management were identified. The same programme is also investigating **innovative ways to deploy mobile technology and biometric point of sale devices** to increase competition and efficiency and improve financial monitoring in the Microfinance sector.

With an increased number of middle income countries, the **Near East and North Africa** portfolio has even more incentives to search for innovative solutions. Project designers have generally opted for an **incremental type of innovation** that minimize the risks associated with more radical innovations. As a result, the cases of breakthrough innovations are scarcely represented in the portfolio while more pedestrian types of innovation abound. In an ecological context marked by water scarcity and a generally poor natural resource potential, **farming systems innovation** is of paramount importance to achieve greater water use efficiency, higher labour productivity in the agricultural sector with more effective job creation in the non-agricultural sector. Piloting innovative solutions is a requisite for scaling up these solutions where successful.

In **Western and Central Africa** the use of regional grants is critical to the piloting of innovative approaches which can be scaled up by projects. These grants, in addition to permitting piloting of innovative technical and institutional approaches, also allow testing of innovation in terms of partnerships with public, private and NGO partners. Examples include the support to VU University and World Agro-Forestry Centre for testing the broader application, **innovative PPP approaches for smallholder participation in biofuel and carbon credit (Mali)**, supporting and testing expansion of an **innovative youth training and support programme for agricultural entrepreneurship (Benin)**, and developing **famer-managed models of native seed conservation and replication for rain-fed food crops (Bioversity)**. Country grants have also been mobilized to support innovation, including the **transfer of an integrated ecological model from Ethiopia** (Bioeconomy in Democratic Republic of

Congo and drip irrigation for vegetable production in Côte d'Ivoire). In WCA, IFAD has also reached beyond to obtain funding from other institutions such as the OPEC Fund for International Development, for piloting approaches to rural energy supply.

The **Latin America and the Caribbean** region has been paying increasing attention to exploring the potential for innovation, replication and scaling-up, not only within IFAD-financed portfolio or in the region but also across regions and development partners. One of the on-going ventures in this area concerns the —**innovation marketplace**, a mechanism designed to involve researchers from different countries in joint efforts to devise solutions to some of the challenges faced by smallholder farmers, rapidly, efficiently and at a low cost. Specifically, its purpose is to enhance the agricultural innovation and development processes through partnerships between research institutes, from Brazil (especially EMBRAPA) and other countries, to develop new useful productive approaches, small-holder friendly technologies and increases in food production. This initiative supported by IFAD started in 2010 in collaboration with DFID and the World Bank, with the Africa-Brazil agricultural innovation marketplace.

At the **policy and technical level**, IFAD's role in knowledge sharing and innovations provides a strong impetus for the regions to work with prominent agricultural research organisations such as the CGIAR centres. Much of IFAD's work with the Food and Agriculture Organization (FAO) has also been instrumental in developing and identifying technological innovations and adapting these to benefit IFAD's target group. The technical grants related to innovation typically focus on **agricultural research for development** that supports the development and diffusion of **sustainable agricultural technologies** – including pro-poor livestock innovations, sustainable management of natural resources; technologies for enhancing production, processing and marketing of pro-poor crops and crops that are important for improving food security.