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**REPORT AND RECOMMENDATION OF THE PRESIDENT**

TO THE EXECUTIVE BOARD ON PROPOSED

**TECHNICAL ASSISTANCE GRANTS**

FOR

**AGRICULTURAL RESEARCH AND TRAINING**

BY

**CGIAR-SUPPORTED INTERNATIONAL CENTRES**





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## ABBREVIATIONS AND ACRONYMS

CIFOR	Center for International Forestry Research
CIP	International Potato Center
CPMs	Country Portfolio Managers
FAO	Food and Agriculture Organization of the United Nations
ICARDA	International Center for Agricultural Research in the Dry Areas
IPM	Integrated Pest Management
NARS	National Agricultural Research Systems
NGO	Non-Governmental Organization
NTFP	Non-Timber Forest Product
TAG	Technical Assistance Grant
R&D	Research and Development
PY	Programme Year





**REPORT AND RECOMMENDATION OF THE PRESIDENT OF IFAD  
TO THE EXECUTIVE BOARD ON PROPOSED TECHNICAL ASSISTANCE GRANTS  
FOR AGRICULTURAL RESEARCH AND TRAINING BY  
CGIAR-SUPPORTED INTERNATIONAL CENTRES**

I submit the following Report and Recommendation on three proposed technical assistance grants (TAGs) for agricultural research and training to CGIAR-supported international Centres in the total amount of USD 2 700 000.

**PART I - INTRODUCTION**

1. This report recommends the provision of IFAD support to the research and training programmes of three CGIAR-supported international centres: the International Center for Agricultural Research in the Dry Areas; the Center for International Forestry Research; and the International Potato Center.

2. Documents relating to the TAGs being presented to the Executive Board for approval are contained in the annexes to this report:

- I. International Center for Agricultural Research in the Dry Areas (ICARDA): Programme for Strengthening Research and Development to Improve Marketing of Small-Ruminant Products and Income Generation in Dry Areas of Latin America
- II. Center for International Forestry Research (CIFOR): Programme for Improving Income Generation for Forest Communities through IFAD's Loan Portfolio in the Asia and the Pacific Region
- III. International Potato Center (CIP): Programme for Integrating and Scaling-Up and Replicating Technologies for Resource-Poor Potato Growers.

3. The objectives and content of these applied research programmes are in line with the evolving strategic objectives of IFAD, and the policy and criteria of its TAG programme for agricultural research and training.

4. The strategic objectives of IFAD's support for technology development relate to: (a) IFAD's target groups and their household food security strategies, specifically in remote and marginalized agro-ecological areas; (b) technologies that build on traditional knowledge systems, are gender-responsive, and enhance and diversify the productive potential of resource-poor farming systems by improving productivity and addressing production bottlenecks; (c) access to productive assets (land and water, financial services, labour and technology, including indigenous technology) and sustainable and productive management of such resources; (d) a policy framework that provides the rural poor with an incentive to reach higher levels of productivity, thereby reducing their dependence on transfers; and (e) an institutional framework within which formal and informal, public and private-sector, local and national institutions provide services to the economically vulnerable, according to their comparative advantage. Within this framework, IFAD also intends to develop commodity-based approaches to rural poverty reduction, specifically targeting those items that are produced and consumed by the rural poor. Finally, the establishment of a consolidated network for knowledge-



gathering and dissemination will enhance the Fund's capacity to establish long-term strategic linkages with its development partners and to multiply the effect of its agricultural research and training programme.

5. The TAGs proposed in this document respond to the foregoing strategic objectives, which derive from the *Strategic Framework for IFAD 2002-2006*. The grant through ICARDA will strengthen marketing of small-ruminant products, led by research and development (R&D) and focused on objectives (a),(b) and (e), and in particular, linked with elements of smallholder capacity-building to derive the best from smallholder livestock markets. The grant through CIFOR is directly focused on IFAD project areas, supporting evaluation of different options for income-generation among poor forest communities and therefore addressing objectives (a) through (c). A special emphasis will also be placed on policy and institutional reform prospects and empowerment in an action research context, thus responding to objectives (d) and (e) as well. The grant through CIP will build on previous research under the Global Initiative on Late Blight to scale up technology diffusion efforts among resource-poor potato growers, thereby responding to objectives (a) and (b) in particular, while also further strengthening farmer fields schools to improve the acceptability and adoption of technology.

## **PART II - RECOMMENDATION**

6. I recommend that the Executive Board approve the proposed technical assistance grants in terms of the following resolutions:

RESOLVED: that the Fund, in order to finance, in part, the Programme for Strengthening Research and Development to Improve Marketing of Small-Ruminant Products and Income Generation in Dry Areas of Latin America, shall make a grant not exceeding one million United States dollars (USD 1 000 000) to the International Center for Agricultural Research in the Dry Areas (ICARDA) upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board in this Report and Recommendation of the President.

FURTHER RESOLVED: that the Fund, in order to finance, in part, the Programme for Improving Income Generation for Forest Communities through IFAD's Loan Portfolio in the Asia and the Pacific Region, shall make a grant not exceeding nine hundred thousand United States dollars (USD 900 000) to the Center for International Forestry Research (CIFOR) upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board in this Report and Recommendation of the President.

FURTHER RESOLVED: that the Fund, in order to finance, in part, the Programme for Integrating and Scaling-Up and Replicating Technologies for Resource-Poor Potato Growers, shall make a grant not exceeding eight hundred thousand United States dollars (USD 800 000) to the International Potato Center (CIP) upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board in this Report and Recommendation of the President.

Lennart Båge  
President





**INTERNATIONAL CENTER FOR AGRICULTURAL RESEARCH IN THE DRY AREAS (ICARDA): PROGRAMME FOR STRENGTHENING RESEARCH AND DEVELOPMENT TO IMPROVE MARKETING OF SMALL-RUMINANT PRODUCTS AND INCOME GENERATION IN DRY AREAS OF LATIN AMERICA**

**I. BACKGROUND**

1. The arid and semi-arid areas of Latin America are home to some of the poorest, most marginalized and vulnerable sectors of the population. Due to climatic constraints and variability, yields from traditional rainfed agriculture in these regions are low and unreliable. Livestock raising (especially of small ruminants, sheep and goats) is a major activity of the rural poor in the high-risk and climatically vulnerable areas. The species and breeds, although low-yielding, are highly adapted to the adverse environmental conditions and can take advantage of the scarce forage resources, which would not otherwise be used, transforming them into highly nutritional products such as milk and meat. Despite efforts to improve living conditions in these dry areas, livelihoods of the rural populations remain precarious and marginal. There are a number of R&D issues to address. In the region's traditional extensive livestock production systems, based on native vegetation and rangelands, continued overgrazing of communal land is degrading rangeland resources. Animal health problems represent a serious risk of disease transmission to humans. The quality and marketing of livestock products do not meet current consumer demands.

2. Technological solutions to smallholder-based livestock systems are lacking mainly because existing R&D interventions have generally been conceived and implemented without considering market opportunities or projections. Consequently technology adoption has been low, with little impact on sustainable production and producers' incomes. Moreover, research, extension and development programmes have mostly been designed without the direct participation of farmers, the end users of the R&D process.

**II. RATIONALE/RELEVANCE TO IFAD**

3. A number of technologies and management practices for improving small-ruminant productivity have already been developed in other arid and semi-arid areas. Some of these technologies, tested and disseminated in IFAD-funded projects through ICARDA, could have direct application in the arid and semi-arid areas of Latin America. These include: (a) technologies geared to the efficient transformation of the biomass from natural vegetation into animal products; and (b) technologies geared to sustaining the production and quality of livestock products coupled with improved transformation of primary products (i.e. milk) into value-added derivatives.

4. Qualified researchers and technical staff exist in the region who could build a model programme to improve rural producers' livelihoods, based on an applied, market-oriented community and participatory approach. The programme will benefit resource-poor producers of small ruminants in the marginal dry areas of Brazil, Chile and Mexico, by generating opportunities for improving production and marketing of livestock products thereby enhancing rural incomes and livelihoods. The programme contributes to IFAD's regional strategy for Latin America (2001), and particularly to the medium-term strategic goal of improving the competitive capacity of small-scale rural producers. Ongoing development projects that support production and the development of markets in marginal arid and semi-arid zones, such as those funded by IFAD, offer a unique opportunity to link technological interventions to a market-driven research framework to improve farmers' livelihoods. The programme will be directly relevant to, and is expected to cooperate closely with, the following IFAD-financed projects: (a) Chile: Agricultural Development Project for Peasant Communities and Smallholders of the Fourth Region; (b) Brazil: Low-Income Family Support Project in the Semi-Arid

Region of Sergipe State, and all other IFAD projects in north-east Brazil; (c) Mexico: Rural Development Project of the Mayan Communities in the Yucatan Peninsula; and (d) El Salvador: Rural Development Project for the Central Region (PRODAP- II).

### III. THE PROPOSED PROGRAMME

#### Programme Objectives

5. The programme's overall goal is to improve the livelihoods of rural communities in the arid and semi-arid areas of Latin America by increasing the productivity of small-ruminant production systems (goats and sheep) and expanding the marketing opportunities for livestock products while promoting sustainable natural resource management in the region. The specific objectives are to (a) increase the productivity of small ruminants through better management, strategic feed supplementation and improved animal health; (b) improve quality, processing and marketing of animal products (cheese, sweets, kids, lambs and skins); (c) strengthen the institutional capacity of farmers' organizations, and extension and research institutions; (d) promote a participatory approach, and particularly the involvement of women in organizing producers for better natural resource use, training and marketing; (e) provide technical support to development programmes with a livestock component in the dry areas of Latin America; and (f) identify and expand market opportunities for small ruminant products.

#### Key Programme Activities

6. **Adaptive research.** The programme will adopt a participatory research approach with a strict market orientation, promoting the active participation of small-ruminant producers. This approach addresses key components of adaptive research interventions in four critical links in the production chain:

- (a) **interventions to promote the marketing of goat, kid and lamb meat.** This will be based on seller/processor-to-seller/processor exchanges that represent important elements of the market, in particular among agents, such as restaurant-owners, roasters and meat processors, who actively promote and influence the demand for small-ruminant products. Careful assessment of the existing market opportunities in each country will be an important element of this component;
- (b) **on-farm interventions to improve production, focusing on strategic management and efficient feeding systems.** Efficient range management and integration of crop residues, by-products and unconventional sources of fodder in the feeding system, techniques to improve fodder use (e.g. feed blocks), flock management, reproduction, health care and quality control are examples of low-cost interventions expected to boost productivity to meet target market opportunities. These will be validated with the full participation of farming communities;
- (c) **interventions to improve the quality of animal products with added value (e.g. cheese and sweets) and to diversify products.** This component will include careful assessment of actual and potential consumer demand, testing and adaptation of technologies from collection of produce to the transformation and handling of transformed products. Ongoing support to farmer organizations in IFAD investment projects will be capitalized on to test different levels of cooperative microindustrialization and marketing;
- (d) **training.** This important component will target, among others, retailers (e.g. roasters and restaurant-owners who can expand demand), producers, researchers and extension



agents. The aim is to form a nucleus of people capable of providing services to producers in the country and in other similar regions.

7. **Information and networking.** The programme will create a virtual (Internet-based) information centre on technologies related to small-ruminant production (with emphasis on dry regions) to support researchers, technicians, extensionists, producers and IFAD project managers and link them with relevant existing networks, such as FIDAMERICA (an Internet-based network of organizations and projects working with the rural poor in Latin American and the Caribbean) and the Latin American Network on Agroforestry for Animal Production. This centre will have the following components: Latin American small-ruminant scientific and technical literature, published and unpublished, and world literature relevant to small-ruminant processing and product marketing; links with other relevant information systems and sites; database of researchers and institutions working on small ruminants in dry areas; database of small-ruminant projects; a discussion forum (e.g. electronic and Internet conferences and feedback), training materials (extension, communication, videos) and a photograph library.

8. **Training.** In coordination with current IFAD-funded development programmes in the countries, training courses will be organized for technical staff and producers on various aspects of production, processing and marketing of products. IFAD-funded development programmes will cover most training costs. Subject matter and content, in addition to budget requirements, will be defined, depending on local conditions and needs, during the annual programme planning phase. The programme will organize two workshops per year per country with representatives of participating research institutions and IFAD projects.

#### IV. EXPECTED OUTPUTS/EXPECTED BENEFITS

9. Expected programme outputs will be the following:

- **research.** Increased productivity, improved quality of small-ruminant products and expanded market opportunities in pilot sites in the participating countries, and recommendations for technology and management options that can be disseminated more widely;
- **information and networking.** A virtual centre for information established, accessible through the Internet and electronic mail, containing scientific, technical and extension literature; databases of institutions, researchers and projects; photograph library; links; and discussion forums;
- **training.** A minimum of three courses by country conducted, one for technicians and two for producers. The number will depend on IFAD projects' interest and financing;
- **training of professionals of national agricultural research systems (NARS).** Three NARS scientists trained in specific pertinent subjects for short periods and the problem-solving capacity of NARS enhanced; and
- **proceedings of meetings.** Three regional meetings with proceedings published in electronic and printed formats.

#### V. IMPLEMENTATION ARRANGEMENTS

10. ICARDA will be responsible for programme management and coordination, including financial management and donor reporting, through a regional coordinator based in Latin America. It will provide technical support in collaboration with the Food and Agriculture Organization of the United Nations (FAO). National/local researchers, with the help of other relevant stakeholders (including leaders of farming communities), will develop proposals for collaborative adaptive research projects, in consultation with ICARDA and FAO. At least six research projects (two per country) are expected



to be conducted at selected pilot sites in the participating countries. Distribution of funding among countries will depend on the number and quality of proposals.

11. The programme budget provides for partial support of national coordinators of activities in each of the three participating countries. National activities will be discussed and annual workplans and budgets (AWP/Bs) developed in the annual national coordination meetings. Regional coordination meetings, held annually at alternating country locations, will provide the opportunity for the participating national scientists, ICARDA, FAO and other collaborating institutions to share research results, technological developments and information, and to finalize plans for the coming season. Intercountry cooperation will also be facilitated by the information network to be established by the programme, exchange visits among countries and travelling workshops. A programme steering committee will be formed, comprising the national coordinators and/or research directors from each country, ICARDA's regional coordinator, and representatives from ICARDA, FAO and IFAD and the donor agencies. The steering committee will meet once a year to review, amend and approve the AWP/Bs developed during the national and regional meetings. It will also be responsible in the first programme year (PY) for evaluating the initial proposals for the research projects in each country and making the necessary recommendations.

## **VI. INDICATIVE PROGRAMME COSTS AND FINANCING**

12. The total cost of this three-year programme is estimated at USD 1 630 000. IFAD's proposed contribution is estimated at USD 1 000 000. ICARDA's in-kind contribution is estimated at USD 100 000 and FAO's at USD 70 000. The in-kind contribution of participating NARS, estimated at USD 260 000, will cover salaries of scientists and provision of research facilities, vehicles, etc. It is anticipated that IFAD-financed projects in the three countries concerned will also contribute about USD 200 000 towards the costs of training, workshops and some operations.

**Programme Cost and Financing Plan  
(USD)**

Activity	PY 1	PY 2	PY 3	Total
Personnel <sup>1</sup>	48 000	49 000	50 000	147 000
International travel <sup>2</sup>	47 000	46 000	45 000	138 000
Research costs <sup>3</sup>	135 000	135 000	135 000	405 000
Virtual centre <sup>4</sup>	10 000	10 000	10 000	30 000
Training, workshops and meetings <sup>5</sup>	51 000	51 000	51 000	153 000
Publications <sup>6</sup>	3 000	5 000	7 000	15 000
Communications, etc.	2 000	2 000	1 000	5 000
Total direct costs	296 000	298 000	299 000	893 000
Indirect costs	36 000	36 000	35 000	107 000
<b>Total IFAD contribution</b>	<b>332 000</b>	<b>334 000</b>	<b>334 000</b>	<b>1 000 000</b>
ICARDA's in-kind contribution	35 000	35 000	30 000	100 000
FAO's in-kind contribution	25 000	24 000	21 000	70 000
NARS' in-kind contribution	90 000	85 000	85 000	260 000
Cofinancing from IFAD-financed projects	60 000	70 000	70 000	200 000
<b>Total programme cost</b>	<b>542 000</b>	<b>548 000</b>	<b>540 000</b>	<b>1 630 000</b>

**Budget Notes**

- <sup>1</sup> Covers: (a) project coordinator in Latin America (four person-months per year); (b) national coordinators (six months per year); and (c) cost of specialists for specific areas.
- <sup>2</sup> Includes travel costs, per diem and accommodation relating to supervision and consultancies.
- <sup>3</sup> Includes grants to be awarded on a competitive basis to sustain six or more grants per year.
- <sup>4</sup> Covers basic computational equipment and peripherals and operational costs of the virtual centre to be based at the programme coordination site.
- <sup>5</sup> Includes:
- (a) national workshops to train producers, programme researchers and staff from development projects (two per country/per year);
  - (b) only organizational costs for regional coordination meetings (one per year), as travel costs will be budgeted in each programme grant;
  - (c) regional training workshop (one per year); and
  - (d) training of programme staff in selected countries for specific strengthening of research areas (one person per country/per year).
- <sup>6</sup> Includes cost of publishing reports and dissemination of materials.



**CENTER FOR INTERNATIONAL FORESTRY RESEARCH (CIFOR):  
PROGRAMME FOR IMPROVING INCOME GENERATION FOR FOREST  
COMMUNITIES THROUGH IFAD'S LOAN PORTFOLIO IN THE ASIA AND THE  
PACIFIC REGION**

**I. BACKGROUND**

1. Marginalized rural groups such as indigenous people, women, the landless or frontier farmers are particularly dependent on forests in areas of Asia that are remote, capital-poor and have limited access to markets. During the last ten years much attention has been paid to increasing incomes among these groups, especially through the development of improved markets and technologies for non-timber forest products (NTFPs). Persistent structural limitations have, however, thwarted efforts to improve forest communities' NTFP incomes. Although such conditions are faced by poor people everywhere, they are more extreme in forest areas: poor access to resources, markets and information; lack of local organizational and managerial capacity; difficulty in accumulating long-term assets; capture of benefits by elites; and unsupportive policies.

2. With increasing awareness that there are no easy solutions for reducing the poverty of forest communities, more attention is being given to alternative income strategies, especially those that jointly enhance empowerment and income and asset building. To the extent the forest-dependent poor are more organized and empowered, they are more likely to identify and negotiate livelihood choices that yield higher and longer-term benefits. CIFOR-led IFAD-supported research in the past examined the impacts of forest devolution policies in Asia, including income-related impacts. A major conclusion was that devolution's impacts on the poor reached further where local organization was strong and alliances with advocates, development assistance groups and local government occurred. Devolution by itself was not sufficient to empower the forest-dependent poor or increase incomes consistently. At IFAD's recommendation, and based on discussions in Rome in March 2002, CIFOR proposed building on these conclusions by examining the potential of linking social organizing and coalition-building strategies of empowerment with the development of specific policies and investments that could effectively improve income-generation.

**II. RATIONALE/RELEVANCE TO IFAD**

3. The programme's rationale is the striking gap between the anticipated role of forest products and services in reducing poverty and the almost complete neglect of forests in economic development and poverty-reduction strategies. Forests have both potentials and limitations in regard to poverty reduction. To reduce poverty among forest communities, it is imperative to go beyond current technical interventions to extract higher income from timber and NTFPs. Broader strategies are necessary including those addressing social organization, power relations, security of tenure and policies affecting forest communities' capacity to negotiate for real benefits and work with coalitions that support their aims. Also needed is an understanding of key policy trends affecting these strategies. The poor must have more influence over their own income choices, and a range of complementary income-enhancing strategies should be explored.

4. Little work has been done to examine the effectiveness of different income-generation strategies among the forest-dependent poor. Yet such an understanding could assist external investments and development projects to reach their objectives more effectively. Current understanding is particularly weak with regard to the role of stronger social organization and coalitions in creating more viable income options for the forest poor. A guided and informed understanding of the linkages between forest-based income-generation and local social organization and coalitions would help guide pro-poor forest investments. The proposed programme will aim to



produce the information necessary for IFAD country portfolio managers (CPMs), and other development organizations to make such choices. It will concentrate on women and indigenous groups managing forests in up to six countries in Asia where IFAD is active: China, India, Indonesia, Nepal, The Philippines and Viet Nam. It will also draw on other agencies' experiences and on CIFOR's global comparative and interdisciplinary work.

### III. PROPOSED PROGRAMME

5. The programme's goal is to support more resilient livelihoods for poor and socially disadvantaged women and ethnic minorities dependent on forest resources in Asia. The programme will provide lessons and specific recommendations for development practitioners, including IFAD and its partners, about investments and other interventions in alternative strategies for income-generation and empowerment of the forest-dependent poor.

6. **Objectives.** The programme will seek to:

- evaluate the effectiveness of different income-generation interventions for the poor in forest areas;
- identify leverage points for poor people to increase their influence over income and asset opportunities through more effective local organization and coalition-building;
- identify policy reforms that support more effective income-generation strategies and local organization and coalition-building for the poor; and
- increase the capacity of participating partners and others to improve the implementation of strategies that link pro-poor organizational strengthening and coalition-building with income-generation.

7. **Components/activities.** The programme's core is participatory action research with national partners and local communities in China, India and Nepal to explore how stronger local social organization and coalition-building can enhance income opportunities and assets for the poor in forest areas. Working closely with CPMs and local IFAD project implementers, the research will focus on highly forest-dependent women and indigenous groups/ethnic minorities in remote, marginalized regions where IFAD-supported projects are active. Initial programme sites are likely to be:

- Meghalaya, India;
- Jumla and Humla Districts in western Nepal; and
- South-west China (sites to be selected but Qinling or Wulin mountains area are indicative).

8. The action research will be supplemented with reviews of documented experiences and IFAD projects elsewhere to develop more generalizable insights and lessons. CIFOR will make a special effort to review experiences and create linkages with CIFOR and IFAD projects in Malinau and Kutai Barat, East Kalimantan, Indonesia, and with IFAD's Regional Programme in Support of Indigenous Peoples in the Amazon Basin (PRAIA). The programme will aim to produce technical information for dissemination to development practitioners, including IFAD and their partners.

9. National and local partners (most likely a local research institute and non-governmental organizations (NGOs) or in China appropriate state organizations) will take the lead in identifying 3-5 community sites in accordance with the team's site selection criteria and local community interest. Sites should be selected to demonstrate a range of possible income and empowerment strategies for the poor in forest areas and to allow the comparison of strategies within and across countries. The team will review or establish a set of baseline data describing local livelihood conditions and equity based on available documents and discussions with communities. Local partners will facilitate

community involvement in the participatory action research. The programme will build on CIFOR's wide experience in participatory action research and integrated natural resource management.

10. **Identifying income strategies.** Working collaboratively with communities, the research team and local NGO partner will examine at least four strategies for making poor people better off in forest areas:

- increase forest production value (*make the pot bigger*). Adding value to NTFPs through better technology and marketing is a common example;
- protect the poor's access to food, medicine, fuelwood and shelter from threats such as violent conflict, high-intensity logging and expropriation by outsiders (*prevent the pot from shrinking*);
- redistribute assets in favour of the poor (*divide the pot more equally*) through, for example, regulatory policies, tenure reform and empowerment of the poor; and
- look for new, non-product sources of value (*another pot*), such as payments for ecological services.

11. Each of these four strategies presents investment opportunities that IFAD and other lenders or donors need to be able to assess in designing effective project interventions.

12. **Analysing the role of local organizations and coalitions.** A second component of the action research will therefore be to identify innovative and effective methods of grass-roots community mobilization, social capital strengthening, and stakeholder coalition-building related to the interventions for income-generation described above. Although many of these approaches have been commonly used in microenterprise development in the agricultural sector, less is known about their use in remote forest communities. As above, the methods selected cannot be determined in advance, but will be a product of IFAD partner and community negotiations. As appropriate to programme needs, CIFOR will assist local NGO and research partners in conducting participatory research with communities so that they can better understand how local institution and coalition-building has influenced their livelihoods in the past and assess the potential for these kinds of project/programme interventions to assist them in the future.

13. The research team will follow up with communities and partners to understand the causal impact of these local organizations and coalitions on local livelihoods. To support this activity, CIFOR will provide background information on the possible opportunities for these institutional mechanisms in forest areas by bringing together practitioners and leading thinkers working in income-generation, empowerment and forest livelihoods to produce a joint technical note based on their experience. This note will serve to stimulate thinking both among local partners implementing the action research, and among other development practitioners working in forest areas. The action research will then test how far the opportunities identified are realized in practice.

14. **Determining impact potential.** To assess the effectiveness of these strategies and opportunities, the team will examine the impacts of interventions in: (a) reaching the poor, especially women and marginalized indigenous groups or ethnic minorities, and avoiding appropriation or control by more powerful local elites or local government; (b) making a significant impact on incomes and food security of poor households; (c) building long-term assets, particularly land, capital and human assets; and (d) achieving sustainability, both socially and on the resource base. For the poor in forest areas, land and timber assets will be especially important as the state has traditionally denied these resources to them and still heavily controls them (with the exception of Meghalaya where communities have largely retained control or privatized forest lands). Understanding potential complementarities and synergies among these approaches will also be important. Whereas the impact of the first three income strategies can be evaluated on the ground, experiences with non-product sources of value such as transfer payments are as yet incipient in Asia and will need to be explored





more experimentally. In this effort, CIFOR will collaborate with, inter alia, the World Agroforestry Centre (former International Centre for Research in Agroforestry (ICRAF))/IFAD Programme for Developing Mechanisms to Reward the Upland Poor of Asia for the Environmental Services they Provide. The results of this analysis will be shared through 4-5 technical notes, with results reported by country and for cross-country trends.

15. **Analysing policy influences.** Integral to this programme is the assumption that research must address both the local community level and the policy environment and seek to enhance learning between these actors at these two levels. Two sets of trends that affect the linkage between income opportunities and local people's influence are: (a) globalization, privatization, and increasing involvement of the forest-dependent poor in markets; and (b) decentralization, increasing participation of the poor in local government, and tenure reforms in forest areas. In each site, CIFOR will identify national or local policies that are having major impacts on alternative income strategies and local communities' capacity for more influence over their livelihoods. The results of this analysis will be shared through 4-5 technical notes, with results reported by country and for cross-country trends. These notes will serve to inform CPMs of the policy constraints within which they are working and the existing opportunities. They will also be used as part of a policy processes designed to facilitate policy change.

16. **Synthesizing.** To generate products for more general use, CIFOR and partners will synthesize the results of the action research projects and thoroughly review existing documented experiences. CIFOR will also consult with specific IFAD projects in other sites not only in Asia but also in Latin America and Africa to review findings and identify where findings are generalizable and where regional differences occur. In the final project year, the project manager will visit 3-8 additional IFAD sites to assist with this analysis. Development communication writers and a training specialist would then work with the research team to produce a guide and curriculum. CIFOR and the research team will report the project results in a final stakeholder meeting that will include key IFAD staff and partners.

17. **Disseminating research results and increasing partner capacity.** In addition to technical notes addressing specific research aspects, CIFOR and partners will generate two major products intended to pull together the generalizable lessons of the research. The first is a guide for national and local intermediary practitioners identifying key principles for developing income opportunities and empowering communities in forest areas. The guide will provide generic templates that practitioners can adapt to produce their own locally relevant materials. It will be translated into relevant languages and shared with IFAD and key networks. The second product will be a set of technical advisory notes.

18. CIFOR will work at each stage to build a constituency of guide users and to increase their capacity to use findings. Although the initial target users will be IFAD project staff, research partners and development practitioners in the case countries, the work will seek to influence a wider range of users in Asia and beyond. In each IFAD-selected target country, CIFOR will work with local activist partners to develop advocacy strategies for influential donors such as the World Bank, Asian Development Bank, Canadian International Development Agency, Swedish International Development Agency, Ford Foundation and activist NGOs or similar organizations capable of catalyzing change.

#### IV. EXPECTED OUTPUTS/EXPECTED BENEFITS

19. The following outputs/benefits are expected:

- action research outcomes in 15-30 forest communities in China, India and Nepal;
- direct capacity-building with partners and IFAD project staff in income-generation strategies for the poor living in the forest areas of these countries;



ANNEX II

- cohort of resource people (among CIFOR, partners and leading thinkers/practitioners) for advice and consultation about poverty-reduction strategies based on linkages among income-generation, empowerment and forest livelihoods;
- technical notes on strategies and lessons learned about (a) investment opportunities for enhancing income (one note); (b) opportunities for linking social organization and capacity-building to income-generation in forest areas (one note); impacts of alternative income-generation approaches and empowerment strategies on the forest-dependent poor (4-5 notes); impacts of major policy trends on poverty reduction in forest communities and recommendations for policy reforms (4-5 notes);
- guide for IFAD partners and others with principles related to pro-poor investments in income-generation in forest communities;
- curriculum for training programmes targeted at intermediary development practitioners likely to work with forest communities;
- dissemination and capacity-building for regional advocacy groups and 3-6 smaller workshops for these advocates to conduct with their own constituencies; and
- dissemination to IFAD project managers and senior staff through a final report and presentation of results.

## V. IMPLEMENTATION ARRANGEMENTS

20. The programme will be tailored to work directly with and assist CPMs in current and future project sites. It will also be structured to ensure ongoing reflection from experience during the course of the programme. The TAG will be administered by the Technical Advisory and Asia and Pacific Divisions.

21. CIFOR will appoint a programme manager drawn from one of the focus countries and reporting to one of CIFOR's senior scientists who will be responsible for day-to-day implementation. A number of CIFOR's senior scientists will be involved in the programme, organized by thematic interests and country expertise. The programme will establish an advisory group of between five and six members (including one from each target country, one senior staff member from IFAD and one international expert in forestry development assistance).

**VI. INDICATIVE PROGRAMME COSTS AND FINANCING**

(USD)

<b>Cost Category</b>	<b>IFAD</b>	<b>CIFOR</b>	<b>TOTAL</b>
<b>Staff</b> (project managers, research staff, administrative support)	290 000	200 000	490 000
<b>Research</b> (stakeholder review, country coordinators, meeting expenses, travel, communications)	319 000	10 000	329 000
<b>Dissemination</b> (technical advisory notes, editing, training module, graphics, workshops, programme coordination/management, advisory group, research team coordination, staff travel, evaluation)	174 000		
Subtotal	783 000	210 000	819 000
Overhead (21%) (15% on IFAD portion, CIFOR carries remainder)	117 000	102 000	219 000
<b>Total</b>	<b>900 000</b>	<b>312 000</b>	<b>1 038 000</b>

## **INTERNATIONAL POTATO CENTER (CIP): PROGRAMME FOR INTEGRATING AND SCALING-UP AND REPLICATING TECHNOLOGIES FOR RESOURCE- POOR POTATO GROWERS**

### **I. BACKGROUND**

1. Poverty reduction is a common objective among research- and development-oriented institutions. However, there is no clear consensus on the best approaches for achieving this purpose. One debate focuses on whether poverty reduction will best be achieved through technical interventions increasing social and human capital or those facilitating access to resources. Even when discussing technical interventions, experts argue whether input-based technologies such as new varieties or fertilizers will have more impact than knowledge-intensive technologies such as integrated pest management (IPM). Furthermore, no consensus exists nor are their guidelines on which participatory approaches are best for different types of technology and how research and development institutions and farmers themselves can sustainably adopt such approaches.

2. CIP has experience with technical constraints and solutions related to potato production in developing countries, and recently, thanks to a TAG from IFAD, has also looked at participatory approaches for dealing with knowledge-intensive technologies such as the integrated management of potato diseases. In addition, the Center has experience in conducting impact evaluation studies of technologies and methodologies. As a result of farmer participation supported by the TAG, CIP gained information about the demands of potato growers for types of technologies needed to improve competitiveness and food security. Satisfying farmer demands, however, represents both a technological and methodological challenge. In addition, CIP has established a network of counterpart institutions in countries with different types of research and extension systems related to potatoes. Partners represent not only research-oriented institutions (national, private and international) but also NGOs and others involved in development interventions. This network of partners provides the framework for the assessment of participatory approaches that could be used to develop, evaluate and scale out methodologies and technologies.

### **II. RATIONALE/RELEVANCE TO IFAD**

3. In most developing countries, poor households depend on roots and tubers (such as potatoes) as an important, if not the main, source of food and nutrition. Potatoes are among crops with the highest rate of growth in developing countries because of an increasing demand in emergent markets, which represents an opportunity for resource-poor growers to generate additional income. In Africa and Asia, potatoes are one of the few products that producers can profitably sell to generate income. This is particularly important for women farmers who are frequently responsible for potato production (as is the case of China and Uganda, for example). In the Andes, potatoes are important for food security. Unfortunately, the growth in the importance of the potato crop has not been accompanied by the adoption of sustainable technologies. Farmers therefore tend to use available technologies such as highly toxic pesticides to control pest problems, to the detriment of their health.

4. There are generally two types of technologies related to potato production. The first, input-based technologies, have direct effects on yield and depend almost exclusively on the availability of the physical input of technology (namely, seeds of a new variety or an agrochemical). The second, knowledge-intensive technologies such as IPM, depend on farmer learning and the application of acquired knowledge. Furthermore, different types of participatory approaches have been used for developing technologies, such as farmer field schools, local farmer committees for agricultural research and participatory technology development. These approaches can be divided into four



general categories: consultative, collaborative, collegial or self-initiated. Debate is ongoing regarding the use of different approaches for technology development and farmer training for more efficient and sustainable interventions.

5. At the methodological level, the programme will analyse existing agricultural knowledge and information systems related to the potato crop. Initially it will identify and describe institutions, organizations, groups or individuals and their interactions. It will focus on areas where the participating institutions are intervening and where current IFAD-investment projects (related at least partially to the potato crop) could be involved (see table below). This analysis includes the conventional system that involves formal institutions providing services, and non-conventional systems that include farmers' own ways for exchanging information and knowledge and the growing involvement of local institutions such as municipalities.

#### **IFAD-Related Projects with which Linkages Could Be Established by Participating Country**

<b>Country</b>	<b>IFAD investment project</b>
Bangladesh	Smallholder Agricultural Improvement Project
Bolivia	Small Farmers Technical Assistance Services Project (PROSAT)
China	West Guangxi Poverty-Alleviation Project
Ethiopia	Agricultural Research and Training Project
Peru	Development of the Puno-Cusco Corridor Project
Uganda	Area-Based Agricultural Modernization Programme

6. At the technological level, two types of technologies will be analysed, namely input-based (new varieties and seed) and knowledge-intensive (IPM or soil and/or post-harvest management). The grant will provide support for evaluating different types of participatory research activities for designing, testing and disseminating such technologies. Special attention will be focused on identifying the technological characteristics influencing the use of specific approaches and vice versa, which in turn could affect the dissemination process.

### **III. THE PROPOSED PROGRAMME**

7. The general goal is to improve competitiveness and food security of resource-poor potato growers through sustainable technologies developed and disseminated by appropriate methodologies in key countries in Africa, Asia and Latin America.

8. Specific objectives are to:

- (a) describe components, interactions and strategies of existing research and extension systems related to the potato crop using an agricultural knowledge and information systems approach;
- (b) determine factors that facilitate or limit innovation for using and scaling up technologies and participatory research methodologies;
- (c) fill technology and knowledge gaps related to potato production in each site using basic and participatory research; and
- (d) assess which participatory approaches could be more effective for each type of technology within the context of the intervention area, taking into consideration the potential for scaling up.

9. Although CIP will be a key partner in this programme and will support the implementation of research activities by partner institutions, CIP scientists will carry out specific research activities. According to the preliminary analysis CIP can contribute to technologies relating to new varieties or



clones and seed (as input-based), IPM focusing on late blight and bacterial wilt (as input/knowledge-based), and IPM for insect management (as knowledge-intensive). Parts of the basic or strategic research related to these technologies will be conducted at CIP headquarters or in the regions, prioritizing technologies responding to farmer and partner demands. The social science component of the research will also be supported and systematized by CIP's scientists.

10. CIP will also provide training to partner institutions. Training will have two components, one related to methodological aspects for evaluating participatory approaches and technologies, and the other for specific technical backstopping of research aspects.

11. **Programme components and outputs.** Main activities and outputs are described below according to each programme objective, although some will have to be adapted to socio-economic and agroecological conditions.

- (a) identify components, interactions and strategies of agricultural knowledge and information systems related to the potato crop:
  - identify system components: institutions and organizations (governmental, NGO and farmers) that generate, disseminate, process and use information related to the potato crop;
  - map the type of knowledge and information related to the main potato-related constraints that exist in the system; and
  - identify the types of interactions and strategies through which components generate and exchange information;
- (b) determine factors that facilitate or limit methodological innovation for scaling up the use of different types of participatory research and training approaches within the existing systems:
  - conduct workshops and focus groups, and use the method for rapid assessment of agricultural knowledge systems to characterize the types of participatory approaches currently in use (emphasis on participatory research-farmer field schools developed with IFAD TAG support);
  - identify factors that facilitate or constrain the use of participatory approaches; and
  - determine with partners potential strategies to overcome limiting factors;
- (c) design, test and evaluate early acceptance of input-based and knowledge-intensive technologies related to the potato crop:
  - identify the types of technologies to be tested according to farmer demands;
  - conduct research to test technologies and evaluate participatory research approaches according to each technology type; and
  - evaluate technology development and its potential dissemination according to the approach in use;
- (d) determine which participatory approaches are more effective for particular technologies within the context of the intervention areas:
  - assess early adoption of technologies and its relationship with the type of approach needed;



- ex-ante analysis of strategies for interventions into existing research and extension systems for fostering innovation related to participatory approaches and sustainable technologies; and
- design and test guidelines to help decision-makers to select appropriate approaches according to technologies and local conditions.

## VI. EXPECTED OUTPUTS/EXPECTED BENEFITS

12. The expected programme outputs are:

- (a) agricultural knowledge and information systems (research and extension systems) related to the potato crop analysed in the intervention areas and regions of influence in each participating country and points for intervention identified;
- (b) factors identified that favour or limit methodological innovation for using and scaling up technologies and participatory approaches;
- (c) input-based and/or knowledge-intensive technologies to solve potato-related constraints refined according to local contexts and potential impact estimated; and
- (d) guidelines for selecting appropriate participatory approaches according to types of technologies and contexts designed, and strategies for scaling up methodologies and technologies defined in each region of intervention on the part of participating institutions.

## V. IMPLEMENTATION ARRANGEMENTS

13. CIP will be the main implementing agency. The programme will include a programme steering committee that will allow for interaction with the IFAD task manager based in the Technical Advisory Division and CPMs responsible for current and future project sites in the concerned regions. It will also be structured to ensure ongoing reflection from experience during the course of the programme. CIP will enter into a memorandum of understanding with each programme implementation partner.

14. The research activities proposed will be supported and cofinanced by CIP projects related to institutional innovation. These projects, as well as IFAD investment projects will serve as mechanisms for further validation and dissemination of programme outputs. Examples include projects supported by the Swiss Agency for Development and Cooperation, the Consortium for the Sustainable Development of the Andean Ecoregion (CONDESAN), the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), and a new proposal recently submitted by the CGIAR Programme on Participatory Research and Gender Analysis and CIP to the Federal Ministry of Economic Cooperation and Development, Germany.

15. CIP will coordinate the research programme in close interaction with participating institutions in each country, including some institutions already participating in IFAD investment projects. A steering committee with representatives of each institution will make decisions related to programme activities, appropriate use of funds and performance evaluation.

**VI. INDICATIVE PROGRAMME COSTS AND FINANCING**

(USD)

<b>Item</b>	<b>IFAD</b>	<b>Cofinancing Resources*</b>
Staff	300 000	100 000
Research Services/TA	200 000	30 000
Travel	50 000	50 000
Supplies and Small Equipment	100 000	20 000
Workshops	60 000	30 000
Capital	--	10 000
Administrative support	90 000	30 000
<b>Total</b>	<b>800 000</b>	<b>270 000</b>

\* Provided in kind by CIP and other participating institutions.



