



Inter-American
Development Bank

MEXICO

**FIP/ IDB PROGRAM “FINANCING LOW CARBON
STRATEGIES IN FOREST LANDSCAPES”**

**IDB PUBLIC SECTOR
FIP PROPOSAL**

CONTENT

PROPOSAL FOR SUBMISSION TO THE FIP SUB-COMMITTEE

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Abbreviations

AFOLU	Agriculture, Forestry and Other Land Use
AFS	Audited Financial Statements
CFP	Commercial Forest Plantations
CIF	Climate Investment Funds
CO ₂	Carbon Dioxide
CONAFOR	National Forestry Commission
CPD	Country Program Document
EARA	Early Action REDD+ Areas
FAO	Food and Agriculture Organization
FIP	Forest Investment Program
FR	Financiera Rural
GHG	Greenhouse Gas
Ha	Hectares
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
INE	National Institute of Ecology
IP	Mexico's Investment Plan under the FIP
MIF	Multilateral Investment Fund
MRV	Monitoring, Reporting And Verification System
NDP	National Development Program
NFM	Native Forest Management
NPV	Net Present Value
OR	Operating Regulations
PCR	Project Completion Report
PECC	Special Climate Change Program
	UN Programme on Reducing Emissions from Deforestation and Forest
REDD+	Degradation in Developing Countries
SAF	Agroforestry Systems
SSP	Silvo-Pastoral Systems
SCX	Strategic Climate Fund
TAF	Technical Assistance Facility
TC/HA	Tons of carbon per hectare
TCO ₂ E	Million tons of carbon dioxide

PROJECT SUMMARY
MEXICO
FINANCING LOW CARBON STRATEGIES IN FOREST LANDSCAPES
(ME-L1120 and ME-G1002)

Financial Terms and Conditions			
Borrower: Financiera Rural		Maturity:	40 years
Guarantor: United Mexican States		Grace period:	10 years
Executing Agency: Financiera Rural		Disbursement period:	5 years
		Interest rate:	N/A
Source	Amount (US\$ million)	Principal Repayments (per year)	Year 11-20: 2% Year 21-40: 4%
Loan ME-L1120 Forest Investment Program Fund	10	FIP Service charge:	0.25%**
Grant* ME-G1002 Forest Investment Program Fund	5	Currency:	US\$
Total	15		
Project at a Glance			
Program objective and description: contribute to climate change mitigation by creating conditions for a reduction of deforestation and degradation in forest landscapes for <i>ejidos</i> and communities.			
Special conditions prior to first disbursements of the financing of ME-L1120 and ME-G1002: the Executing Agency will provide evidence, to the Bank's satisfaction, of: (i) the formal designation of a Program Manager; and (ii) the entry into effect of the Operational Regulations agreed with the Bank. (¶3.1)			
Exceptions to Bank policies: none.			
The project is in line with the country strategy: Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]			
The project qualifies for: SEQ [<input type="checkbox"/>] PTI [<input type="checkbox"/>] Sector [<input type="checkbox"/>] Geographic [<input type="checkbox"/>] Headcount [<input type="checkbox"/>]			

* The financial terms and conditions described apply only to the concessional loan portion, as the grant is non-refundable, except for the disbursement period which is the same in ME-L1120 and ME-G1002.

** The service charge is charged on the disbursed and outstanding loan balance. Principal and service charge payments accrue semi-annually to the FIP trust fund.

I. DESCRIPTION AND EXPECTED RESULTS

A. Background, problem addressed and justification

1. Background and problem addressed

- 1.1 According to the latest official estimation,¹ in 2006 Mexico emitted 709 million tons of carbon dioxide equivalent (Mt CO₂e) to the atmosphere. The country is ranked twelfth in the world based on total Greenhouse Gas (GHG) emissions and is the second largest emitter in the region after Brazil. The third highest source of emissions is the Agriculture, Forestry and Other Land Use sector (AFOLU) sector, which represents 16.3% of total emissions.
- 1.2 Deforestation² rates for the period of 2005-2010 were an average of 0.24% for all types of forests, representing 155,000 hectares per year. Although the rates have been stable, there is a pronounced heterogeneity expressed in significantly higher rates for particular regions in the country. On the other hand, forest degradation has become a critical issue, as rates of conversion of primary forest³ to secondary forests are estimated at a rate of approximately 44,000 hectares per year for the same period.⁴ In addition to the high socio-economic costs and GHG emissions, the loss of critical ecosystems for biologically important species was significant.
- 1.3 Mitigation and adaptation measures within AFOLU sector, particularly those that promote productive activities that lead to reduced forest pressure, are critical in Mexico's climate change policy. The government's Special Climate Change Program 2009-2012 (PECC) establishes that this sector can potentially contribute up to 30% of GHG emissions reduction.
- 1.4 The Forest Investment Program (FIP) is a program under the Strategic Climate Fund (SCX), one of the Climate Investment Funds (CIF), which supports governments in their efforts to reduce emissions from deforestation and degradation, promote sustainable forest management and enhance forest carbon stocks. Mexico represents one of three pilot programs in the Latin American region. [Mexico's Investment Plan under the FIP \(IP\)](#) was approved by the FIP Subcommittee in October, 2011. The IP and the lessons learned from its implementation will be important contributions to the national policy for

¹ Fourth National Communication to the United Nations Framework Convention on Climate Change, 2009.

² Deforestation refers to the conversion of forest to another land use or the long-term reduction of the tree canopy cover below the minimum 10% threshold; forest degradation refers to changes within the forest which negatively affect the structure or function of the stand or site, and thereby lowers the capacity to supply products and/or services.

³ A primary forest is one that has never been logged and has developed under natural processes. A secondary forest is an area which has re-grown after a major disturbance.

⁴ Food and Agriculture Organization (FAO) (2010). (<http://www.fao.org/forestaci3n/fra/67090/en/>)

Reducing Emissions from Deforestation and Degradation (REDD+) currently being developed.⁵

- 1.5 The IP has the core objectives of reducing emissions from deforestation and forest degradation, promoting sustainable forest management and enhancing forest carbon stocks in Mexico. The IP's strategy consists of promoting sustainable land use practices in forest and non-forest areas in productive mosaics⁶ at the landscape level,⁷ through building institutional and local capacity and supporting sustainable investments. The IP includes four Projects that total US\$60 million: Projects 1 and 2 (US\$42 million), channeled through the International Bank for Reconstruction and Development (IBRD), which was approved by the FIP in October, 2011 and is currently being executed by the National Forestry Commission (CONAFOR) as overall coordinator and focal point for the IP; Project 3 (US\$15 million), channeled through the Inter-American Development Bank (IDB), which constitutes the present Program; and Project 4 (US\$3 million) channeled through the IDB/Multilateral Investment Fund (MIF).⁸
- 1.6 In order to attain a higher transformational impact through its interventions, the IP will target specific strategic priority areas at state and forest landscape level which have been denominated Early Action REDD+ Areas (EARA). The selected forest landscapes for deploying investments were prioritized considering: (i) maximizing emissions reduction outcomes and ability to offer additional environmental co-benefits as biodiversity and hydrological services; (ii) short term transformational impact useful for local and national scaling up strategies; and (iii) improving local population livelihoods. This strategy will also allow for taking into account the diverse ecological and socio-economic conditions of the target areas when shaping investments.
- 1.7 The criteria used to identify and select EARA include: (i) areas with important forest blocks under high pressure for forest cover and forest carbon loss. Area assessment was made based on available data and information on forest cover, vegetation and land use changes patterns from the National Institute of Statistics, Geography; (ii) areas with high environmental value; particularly, biodiversity and hydrological value. Assessment was made based on the analytical work on biodiversity gaps and conservation priorities from the National Commission of Biodiversity; (iii) areas with socio-economic development demands assessed based on the existent national poverty indicators; and (iv) areas with sufficient

⁵ [Mexico's Vision on REDD+: Heading Towards a National Strategy](#)

⁶ Productive mosaics refer to a set of productive activities that take place within a landscape with a mix of natural ecosystems and human dominated land use types.

⁷ Within the context of the IP, forest landscapes are defined as forested rural spatial units together with productive mosaics which are other land uses outside the forest area.

⁸ MIF has 2 related operations: a loan under ME-T1217 for US\$1.5 million with FIP resources and technical assistance under ME-M1079 that includes US\$3 million of MIF resources and US\$1.385 million of FIP. These operations have yet to be approved. US\$115,000 of FIP resources were utilized for project preparation, so total FIP amounts to US\$3 million.

presence of local stakeholders with relevant experiences for implementing innovating models able to produce results in the short term.

- 1.8 In Mexico, an estimated 70% of forests are owned by *ejidos* and communities under a collective land tenure system. The land tenure system, and the diverse economic and social mosaic in the forest landscapes, has led the government to support communities to manage their forest resources through a series of community-based incentives and advisory programs.⁹ The community forestry approach is seen by the government as a central piece of its social development and poverty alleviation strategies in forested regions and will also likely serve as a foundation of Mexico's national policy for REDD+.
- 1.9 The EARA encompass five of the eight states with the highest net forest loss (Oaxaca, Yucatán, Quintana Roo, Jalisco and Campeche). These areas include 1,768 *ejidos* and communities, which contain 4,277 localities of under 2,500 inhabitants, and a total population of 556,624 (50% are women). The municipalities in EARA are primarily poor, reflected in average poverty rates of 75%¹⁰ and significant lags in health and education.¹¹ In addition, 40% of municipalities are considered indigenous.¹²
- 1.10 The direct causes of deforestation and degradation in EARA include:¹³ forest conversion to food crops as a transition to extensive livestock for meat production; forest conversion to commercial agriculture; forest degradation (leading up to deforestation) caused by the use of natural grasses for extensive livestock farming and for small caprine livestock; degradation of primary and secondary forests caused by illegal logging for firewood and charcoal production for domestic use (rural population living in poverty conditions), as well as for other industrial processes; degradation of primary and secondary forests caused by illegal logging, selective extraction and over exploitation of high commercial value species (mahogany, cedar, some conifers, and non-timber products such as *xate*); and degradation of primary forests by over-exploitation of timber species of high commercial value and bad forestry practices and by purchase-and-sale contracts of standing timber with intermediaries and forest timber industry.
- 1.11 To illustrate empirically the direct causes of deforestation, the National Inventory of Green House Gas Emissions from 1990 to 2006 for the sector of land use, land use change and forestry determined that the conversion of forest land to agricultural and grazing lands, represented the major sources of emissions. The

⁹ Around 3,000 *ejidos* and communities (10% of total) have forestry as their main activity. An estimated 2,380 communities use forest management plans, and about 50 are independently certified (*Censo Ejidal*).

¹⁰ Census 2010

¹¹ Based on a study for this program, 30% of EARA population lack access to health services and have an average 5.3 years of schooling.

¹² Defined as 40% or more of the population five years or older that speaks an indigenous language.

¹³ See Pg. 19 Forest Investment Plan of Mexico for further details.

total emissions generated with this land use conversion were between 69,674 and 86,188 Gg CO₂. Moreover, land use change from forest to agriculture and grazing lands is made clear according to the following figures: from 1993-2007 forest land decreased by 6,188,000 hectares, while the land use for agriculture and grazing purposes increased by 5,415,000 hectares.¹⁴

- 1.12 The underlying causes of deforestation and degradation in EARA include:¹⁵
- a. Economic: (i) the lack of awareness of higher incomes and social benefits that sustainable low carbon activities can provide such as those that maintain or capture carbon in trees, principally forest management, compared to those that deforest and degrade, such as extensive livestock farming and agriculture. The perception of the short term higher marginal benefits of activities that deforest and degrade does not consider the positive externalities of low carbon activities. Moreover, it neglects the fact that low carbon activities have the potential to be as or even more profitable than activities that deforest and degrade, (ii) the absence or the limited availability of financial services for sustainable AFOLU related activities, which implies a liquidity restriction to the productive units for the initial investment.
 - b. Institutional: (i) a lack of coordination between agricultural, livestock, and forest policies and the inadequate implementation of incentives and subsidies to promote agricultural and livestock activities at a landscape level generate indirect impacts that exacerbate land use change, (ii) absence of land use planning and implementation of economic and ecologic zoning, (iii) high transaction costs in order to comply with regulatory measures, and (iv) weak institutional capacity to enforce forest management regulations.
 - c. Social: (i) the general lack of technical and management skills at the *ejido* and community level for conducting forest operations, contributes to high levels of risk for investments, (ii) weak governance and organizational structures within *ejidos* and communities, and (iii) land tenure conflicts due to unclear demarcation of the territory.¹⁶
- 1.13 As to the first of the economic causes,¹⁷ higher marginal benefit of activities that deforest and degrade, this is sustained with an initial empirical analysis which confirms that tropical deforestation is caused by the drive for maximizing profits

¹⁴ *Conjunto de Datos Vectoriales de la Carta de Uso del Suelo y Vegetación, escala 1:250,000 (continuos nacionales INEGI, Serie IIV3r, Serie III y Serie IV)* published in: FAO (2010) *Evaluación de los recursos forestales mundiales 2010*.

¹⁵ Based on Forest Investment Plan of Mexico and ad-hoc study.

¹⁶ Land tenure conflicts due to unclear demarcation of the territory falls outside the scope of the IP and these lands are not subject to IP investments. It should be noted though that *ejidos* and communities have undergone an intense process of land titling since 1994.

¹⁷ For empirical evidence of the institutional and social causes, which are not the focus of this program, please consult the IP (page 18).

within the agricultural sector. In other words, the policy and structural variables at the macro-level that stimulate agricultural production, such as improved output-input price ratios, access to technology and less opportunities for off-farm activities, provide the farmers with incentives to deforest and expand their arable land areas. This situation is confirmed with the model developed by the National Institute of Ecology (INE), which indicates that agriculture density (areas of agriculture surrounding certain area) has the largest effect in increasing the probability of deforestation (2.9%); the price of corn and its yield (tons/hectare) has the same marginal effect and increases the probability of deforestation in 0.7%; and the price of livestock increases the probability in 0.3%. On the other hand, the probability of deforestation decreases in 0.8% in the case of a protected natural areas

- 1.14 In order to address the lack of awareness of potential economic and social benefit that low carbon activities can generate, as well as mitigate the risk aversion towards new activities, Projects 1 and 2 of the IP will enable and promote policy and program implementation alignment for integrated multi-sectorial action in EARA, by using the support of territorial management entities¹⁸ and enhancing coordination mechanisms to effectively assist sustainable forest management. Project 4 will strengthen financial inclusion of *ejidos* and communities by establishing a Technical Assistance Facility (TAF) expected to build community capacities for developing viable financial and technical business proposals, as well as providing basic administration and entrepreneurial skills for sound community-based enterprises. By empowering existing stakeholders and expanding the opportunities for participation and improving coordination of actions within forest landscapes, these projects attend to the institutional and social causes of deforestation and degradation cited above. Project 3 of the IP, which constitutes the present program, complements the activities of the other three projects by creating a dedicated financing line accessible by communities and *ejidos* to finance identified low carbon activities in forest landscapes.
- 1.15 To support the sustainable investments under the IP (¶1.5), projects must reconcile: (i) economic profit for the communities and (ii) generate environmental benefits through reducing the pressure on forests and promoting enhancement of carbon stocks. Among the most attractive investment alternatives identified¹⁹ are: Agroforestry Systems (SAF), Silvo-Pastoral Systems (SSP), Native Forest Management (NFM) and Commercial Forest Plantations (CFP). In addition to having a positive Net Present Value (NPV), the estimated carbon sequestration,

¹⁸ Proposed territorial structures include Local Technical Agents and the Local Development Agents that are expected to provide on the ground technical assistance and follow up for deployed investments for local and indigenous communities in the EARA (see IP).

¹⁹ Results based on an ad hoc study for the design of the program, which considers alternatives based on the different current use of land, whether agriculture, livestock or forestry activities, and evaluates their economic and environmental costs and benefits. Refer to Economic Analysis Annex for sources, assumptions and calculations.

measured by tons of carbon per hectare (tC/ha), is 15 for SSP, 42 for CFP and 25.5 for SAF; forest management would lead to an avoided deforestation of 102 tC/ha.

- 1.16 It is important to underline that the activities indicated above will become profitable and increase the income of the potential beneficiaries by improving the productivity of their land through more effective productive processes such as improved forest management practices. They will also promote diversification of sources of income. The financing of these low carbon strategies favor the marginal benefit of activities that capture carbon versus those that deforest and degrade. The potential beneficiaries will also be incentivized to undergo these new activities by the overall IP enabling conditions and support (¶1.14), and by increasing awareness of the opportunities offered.
- 1.17 In relation to the absence or the limited availability of financial services, an *ad hoc Demand Study* was conducted for this program and the following was observed: (i) lack of finance was the main difficulty mentioned by the surveyed when asked about their *ejidos'* challenges; (ii) the majority of the surveyed responded that their *ejido* would be willing to ask for a loan in the future, which shows their willingness to adopt financial schemes, although they probably identify that they are currently not in the capacity to do so; (iii) the surveyed responded positively when asked if they were willing to adopt new activities or practices if they were granted a loan, demonstrating a willingness to change if an economic benefit is perceived.
- 1.18 Forestry activity represents only 0.01% of total loans by the banking sector. According to a survey in EARA, only 16% of the *ejidos* and communities have applied for a loan to a financial institution, the vast majority for agriculture and herding activities. It should be noted that AFOLU has not been categorized yet within the financial sector. Moreover, in general, only 1% of rural productive units have access to medium to long term finance, which is of the kind required for productive investments.²⁰
- 1.19 The main factors that limit financing to low carbon strategies in forest landscapes in *ejidos* and communities are: (i) lack of dedicated credit lines adapted to sectorial demands and local needs (in terms of interest rates, grace periods and maturity) due to limited knowledge and experience from the financial sector, (ii) extended maturity periods of projects due to the natural biological cycle of forest products, which increase the risk exposure of investors, (iii) the land tenure in *ejidos* and communities that generates uncertainty, particularly to long term investments, and limits the collateral options, and (iv) lack of institutional capacity of the borrowers to manage loans and long term investments.

²⁰ Instituto Nacional de Estadística Geográfica e Informática- Censo Agrícola, Ganadero y Forestal, 2007.

- 1.20 **Financiera Rural (FR).** [Financiera Rural](#) is a national development finance institution aimed at increasing the supply of financial services in the rural sector. FR's main objective is promoting the development of economic activities linked to the rural sector aiming at increasing productivity and improving the livelihoods of its population by providing financial services. In 2011, it had total holdings superior to MXN27,000 million and had a portfolio of MXN23,900 million in credit placement. In addition it was responsible for 15% of financing provided to the primary sector. These goals have been achieved while fulfilling its legal mandate for financial sustainability through the correct, efficient and transparent management of its resources. As a national development institution, it has the capacity to receive long term resources as well as to manage greater risks which are implicit in this program.
- 1.21 In addition to its aim of increasing the supply of financial services, the institution endeavors to diversify its loan portfolio towards sectors with a high impact in generating environmental and social benefits,²¹ many of which require long term financing. It recently developed an institutional strategy with the aim of promoting environmentally sustainable investments through the development of new financial tools as well as by capacity building of its staff.

2. Justification

- 1.22 As mentioned above, the present program constitutes Project 3 of the IP. Through the dedicated financing line, the program will attend one of the underlying economic causes of deforestation and degradation by removing the obstacles that limit access to credit by offering the financial terms and conditions required for these projects.
- 1.23 In addition, the program will attend to one of the social causes of deforestation and degradation (¶1.12) - lack of technical, financial and management skills at the *ejido* and community level for conducting forest operations - through an intensive technical assistance program for *ejidos* and communities that will support limiting the risks of the investments.
- 1.24 Based on the [Demand Study](#), and considering factors such as the percentage of *ejidos* and communities that have applied for credit, properties with productive potential and willingness to change if they received a loan, the estimated potential demand for the financing of the activities described above in EARA is a quarter of the total potential productive forest land (2.1 million ha), equivalent to 524,000 ha. This is a conservative estimate based on current conditions, not taking into account the success of the IP in other areas nor the potential in other regions in Mexico.²²

²¹ Plan Estratégico 2007-2012

²² The conditions would be improved upon under the IP and other governmental programs, and through the lessons learned from the pilot project under the present program.

- 1.25 The Program is a pilot project that will permit obtaining lessons for its replication in EARA and possibly on a national scale, demonstrating a viable business models that promote reduction of deforestation and degradation while increasing economic returns, and the corresponding financial structures that are required. It covers approximately 18% of potential demand in EARA.
- 1.26 The approach builds on a range of strategies tested in the field and documented by several studies on mitigation potential in the forest sector (see [Studies Related to the Justification of the Program](#)). As addressed by the FAO and sustained through the consultations, the technical assistance, the demonstration of the profitability of sustainable forest management and the diversification of activities that generate income in rural areas are key factors for the engagement of communities into financial schemes.
- 1.27 **Consistency with GCI-9 and the Country Strategy.** The Mexican strategy on climate change was incorporated into the IDB Country Strategy for Mexico 2010-2012 and the program is included in the 2012 Country Program Document (CPD).²³ The program will contribute to the following objectives and outcomes: (i) reduction of GHG emissions, measured by the volume of emissions derived from financing low carbon programs, including REDD+, (ii) increased institutional capacity at federal and local level (including development banks) to implement climate change mitigation and adaptation programs and, (iii) increase the financing to the agriculture sector, including forestry activities. It also is consistent with the lending target in support of climate change initiatives of the IDB's GCI-9.
- 1.28 **Country Strategy in the sector.** The project is consistent with the objectives of the National Development Program, 2007-2012 (NDP) in the aspects of promoting financing and capitalization in rural areas, as well as with the environmental sustainability goals through the PECC. It is aligned to the current national framework regarding REDD+, which acknowledges that the sustainable rural development is one of the means to achieve emissions reductions as well as enhancement of carbon stocks, and contributes to design of the national policy on REDD+.
- 1.29 **Complementary Programs.** "Rural Financing in Mexico" (ME-L1055, Loan 2656/OC-ME), which recently became eligible for disbursement in May 2012 and is also executed by FR, has the objective of increasing investments in projects with high environmental impact and in fixed assets of rural productive units in highly marginalized areas. It is complementary as it also finances AFOLU, although the present program is tailor made for *ejidos* and communities.
- 1.30 **Complementary Technical Cooperations.** The program is complemented by a series of the IDB's technical cooperations granted to FR for institutional

²³ CP-3451.

strengthening, which are currently being prepared or in execution: (i) Analysis of Financiera Rural's portfolio in the AFOLU sector. This study aims at positioning FR as a key player to promote emission reductions in Mexico, as well as harnessing its potential to structure and finance carbon mitigation projects in this sector. It is based on the analysis of the institutions' current portfolio and its associated potential emissions and includes a capacity building component on fundamental aspects of carbon markets for the AFOLU sector, (ii) Identifying new financing instruments and opportunities in areas related to environmental sustainability, under the program entitled: Support for National Development Banks on Climate Change Financing.²⁴ This technical cooperation will allow FR to design appropriate financial instruments to develop projects that achieve GHG mitigation, including those related to the present program, and (iii) Development of an environmental and social risks management system.²⁵

- 1.31 **Other relevant issues.** The program constitutes the initial effort by the Bank to implement FIP resources, which will have important lessons for future programs. In addition, it benefits from Inter-Divisional collaboration between IFD/CMF and INE/CCS for its design, as well as contributions from the MIF. The interdisciplinary nature of climate change and its complexity requires the involvement of complementary expertise within the Bank. As for FR, it will provide the opportunity for long-term financing in order to more actively enter new markets and increase its technical capacity in financing activities related to environmental sustainability.

B. Objectives

- 1.32 The objective of the program is to contribute to climate change mitigation by creating conditions for a reduction of deforestation and degradation in forest landscapes for ejidos and communities. The beneficiaries of the program are the *ejidos* and communities and their members, located in EARA as described in ¶1.9, whether as a group (represented by the *comisario ejidal* or other representative), individual creditors or associated in a firm (such as community forest enterprises).
- 1.33 The program has two components.
- a. **Component 1 Financing line** (US\$10 million). With the loan resources under ME-L1120, FR will create a dedicated financing line, accessible by communities and *ejidos* or their members (the end borrowers), for identified low carbon projects in forest landscapes. The projects financed through sub-loans must reconcile: (i) economic profit for the communities and (ii) generate environmental benefits through reducing the pressure on forests and promoting enhancement of carbon stocks. The specific projects will be determined by FR considering the eligibility criteria which will be included

²⁴ ATN/OC-12718-RG (RG-T1866).

²⁵ ATN/FI-13334-ME (ME-T1199).

in the Operating Regulations (OR), including those mentioned in ¶1.15, although other opportunities outside the forest sector to address drivers of deforestation and forest degradation in EARA will also be explored.²⁶

- b. **Component 2 Financial and technical assistance** (US\$5 million). With the grant resources under ME-G1002, financial and technical assistance will be provided to support the viability of each project. The resources will be focused on: (i) enhancing the institutional capacity of FR through contracting local promotional agents (with prior training by the TAF) that will accompany each individual project, (ii) providing technical assistance to the sub-borrowers, principally through the TAF, (iii) monitoring results and evaluation, and (iv) supporting the financial viability of the individual projects through credit guarantees that reduce costs and mitigate risks, specifically by applying part of the resources as liquid collateral that complements other non-land guarantees.
- 1.34 As mentioned in ¶1.14, as part of the overall IP, a [TAF](#) will be created for capacity building purposes, particularly of less-developed community enterprises, and as project incubator for the MIF-led project. This same TAF will play an important role in the present program as capacity development is key to increasing access to credit. In this regard, among other activities, it will be supporting business planning and market strategizing; facilitating training in business, administrative and financial management; fostering value-added and diversified production; upgrading production efficiencies; and facilitating market linkages. In addition, it will train FR promotional agents and support the monitoring of results of the program. All these activities will develop awareness in *ejidos* and communities towards the implementation of low carbon activities and the demand for credit. The TAF will also be providing much needed project supervision from a technical standpoint in order that they obtain their sustainability, which will combine with the project credit monitoring that FR will undertake utilizing their specialized agents.
- 1.35 The sub-borrowers will be *ejidos* and communities and their members, represented as a group, individual creditors or associated in a firm. FR will evaluate the projects based on their normal credit and risk assessment process and will originate, approve, administer and collect the loans directly. The projects will be demand-driven, although it is expected that each project will have had technical assistance from the present Program under Component 2 and/or from the other IP projects, prior (and subsequently) to formal processing of the loan. As it is a pilot project, there are no limits contemplated in terms of size, activity or geographic dispersion, as the demand displayed will in itself be a very important

²⁶ Other activities that could be promoted through financing lines may include the sustainable use of non-timber products from forests such as natural rubber extraction, apiculture, medicinal plants as well as activities in non-forest areas that will increase efficiency of the land use such as low carbon agriculture and improved grassland management. These activities would be promoted under the basis of an ecologic and economic zoning in order to ensure the maintenance of the forest cover.

lesson learned from the Program. However, the Economic Analysis annex provides estimates on the size of each of the main types of potential projects.

C. Expected results

- 1.36 The estimated direct impact of the program is a reduction of GHG of 397,000 tCO₂e, equivalent to the capture of 108,000 tons of carbon, under a 10 year time span.²⁷ If successful and replicated to reach potential demand, and considering a 50 year time span for carbon stock accumulation, the indirect impact potential of the program is of 10.2 million tC just in EARA. The increased profit of the beneficiaries' derived from their activities after implementing low carbon projects is shown in the Results Matrix²⁸. The expected result from the loans and technical assistance (project inputs) is an increase in the proportion of land under low carbon strategies, which will yield the environmental and economic benefits. In addition, an intermediate result would be the increase in participation of indigenous groups and women through the financing projects managed by these groups.
- 1.37 The specific projects, and hence the benefits they accrue, will depend on the demand by communities and *ejidos* and their members. Based on the assumptions in the [Economic Analysis](#), which considers the income derived from the selling of agro, livestock and forestry products and the benefit derived from carbon capture, as well as the associated costs of physical capital plus labor and the technical assistance required, the program resulted in a NPV of US\$11.3 million.

²⁷ See Economic Analysis Annex for methodology. It is important to mention that these estimations could change as the result of the implementation of the Monitoring, Reporting and Evaluation System that is still under development by CONAFOR.

²⁸ Since over the first 5 years only forest management and SSP generate incomes (SAF and CFP generate additional income after 10 years), only these are considered for impact results at the end of the program.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing structure

- 2.1 The program will be funded entirely with SCX resources for the FIP Program, through a global credit loan for an amount of US\$10 million (the “Loan” -ME-L1120) and a grant for an amount of US\$5 million (the “Grant” -ME-G1002). Component 1 will be funded entirely with the loan and Component 2, as well as the monitoring and evaluation, will be funded with the Grant.

Component	Program	Source-FIP (US\$ million)	Total (US\$ million)
<u>Component 1</u>	ME-L1120	10.0	10.0
<u>Component 2</u>	ME-G1002	4.9	4.9
<ul style="list-style-type: none"> • FR institutional capacity • Technical assistance for subborrowers • Collateral schemes 		1.1 2.8 1.0	
Monitoring and evaluation	ME-G1002	0.1	0.1
TOTAL		15.0	15.0

- 2.2 The terms and rates applicable to the Loan to FR, which are described in the following chart, are determined in accordance with FIP standards conditions²⁹.

Maturity	Grace Period	Principal Repayments Year 11-20	Principal Repayments Year 21-40	Service Charge	Grant Element
40	10	2%	4%	0,25%	aprox 75%

- 2.3 As for the terms and conditions of the resources to be on-lent to the end borrowers, these are not possible to pre-determine without previously determining the precise project. FR will determine the terms by applying a spread to its costs that reflects the characteristics of the project, its internal rate of return and its risk profile for similar projects, as well as an administrative fee. FR will provide IDB with the necessary pricing information on the pass through of the concessional terms of FIP resources on to the end borrower, as well as the collateral. This will allow the Project Team to report back to the SCX FIP Sub-Committee and the Bank, on the terms of the sub loans.

²⁹ Contained in FIP: Investment Criteria and Financing Modalities.

B. Main Risks

- 2.4 **Fiduciary risks.** For project ME-L1055 approved in 2011, the Bank performed an [Institutional Capacity Evaluation Report](#) which concludes that FR has a satisfactory level of fiduciary capacity and represents a low risk for project execution. The complete analysis of fiduciary topics can be reviewed in Annex III.
- 2.5 **Other risks.** The [Risk Matrix](#) provides a detailed view of the risk profile of the program, based on the application of the Project Risk Management tool (see [Project Risk Management \(PRM\)](#)). The high risks are: (i) lack of credit placement and the possibility of defaulted loans by the sub borrower due to the technical complexity of the activities to be financed, and (ii) the possible rejection or cancellation of projects in execution due to institutional and cultural factors of *ejidos* and communities. Both of these risks will be mitigated through the technical assistance under Component 2, as well as the training and hiring of FR local agents that will accompany the projects and the overall support of the IP program. Also, the Bank is providing a technical cooperation (¶1.30) to FR that will support the design of appropriate financial instruments.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Implementation summary

- 3.1 With respect to the loan, the borrower and the executing agency will be FR. The United Mexican States will guarantee the loan. The beneficiary of the grant will also be FR. FR will execute the program under its current organizational structure. With respect to the grant funds, these will be administered by FR in its capacity as trustee of a trust fund established for the exclusive purpose of administering these funds,³⁰ a scheme which presents advantages by simplifying the administration and accounting of these resources, particularly those utilized for establishing collateral. The provisions governing overall program execution and eligibility of individual loans will be established in the OR, in accordance with standards and policies of both entities. **As conditions prior to the first disbursements of the financing of ME-L1120 and ME-G1002, the Executing Agency will provide evidence, to the Bank's satisfaction, of: (i) the formal designation of a Program Manager, and (ii) the entry into effect of the OR agreed with the Bank.**
- 3.2 The FIP resources are to be fully disbursed within 5 years running from the effective date of the loan agreement. Returns from the sub-loans, including pre-payments of outstanding loans, will be used by FR only to repay the loan or to

³⁰ The management fees will be absorbed by FR. All payments will be made by the trust and will be justified through expost revision. The trust, through FR, will present detailed information on the payments prior to disbursements.

use them to finance similar eligible projects. After 5 years from the date of last disbursement, the Bank and the Borrower, upon request by the latter, may convene on an alternative use of the resources, without deviating from the program's basic objectives, or the reduction of the maturity of the loan.

- 3.3 The Bank will disburse FIP resources via a reimbursement mechanism or advancing resources according to Bank policies. The volume of the advanced resources will be limited on the contract on account of the concessional element involved and the relatively long disbursement period for the overall facility. Advances will be based on the necessary fund flows presented by the borrower. Disbursement documentation support will be revised *ex-post*.
- 3.4 The procurement of works, goods, services and consulting services under Component 2 will be performed according to the GN-2349-9 and GN-2350-9. As indicated, MIF will establish a TAF that will also support carrying out some of the technical assistance of this program (¶1.34).

B. Monitoring and Evaluation

- 3.5 The program will be monitored through semiannual reports prepared by the executing agency and presented to the Bank within 60 days after the close of each six-month period, measuring progress against the indicators in the Results Matrix.
- 3.6 FR will present Audited Financial Statements (AFS) for the program. The AFS will be audited by independent firms eligible to the Bank and in accordance with terms of reference agreed by the Bank with the *Secretaría de la Función Pública*. These AFS will be presented annually 120 days after the close of the fiscal year and the final AFS will be presented 120 days after the date of the last disbursement. The costs for the audits will be covered by FR.
- 3.7 The borrower and the Bank will conduct a midterm evaluation within 24 months from the date of the first disbursement of financing or once 50% of the loan has been committed, whichever occurs first. The evaluation will assess progress in accomplishing program objectives and outcomes based on the Results Matrix in order to identify any corrective action required. The borrower will compile and provide all necessary information for the Bank to conduct a Project Completion Report (PCR), to be carried out six months after the last disbursement, and any *ex-post* assessment the Bank or FIP may wish to conduct. Periodical monitoring visits will also be scheduled.
- 3.8 The monitoring will be supported by the TAF, which will provide the information regarding the accomplishments of the Expected Results. The evaluation of the expected impacts in terms of reduction in emissions will be based on estimates by CONAFOR under a comprehensive REDD+ Monitoring, Reporting and Verification System (MRV) which it is currently in development with the support of the Government of Norway. The attribution of carbon benefits to individual actions is complex, particularly given that multiple activities that may be undertaken in the same territories within Early Action REDD+ Areas, including

the three other IP projects. In this regard, an ex post cost benefit analysis will be conducted to identify the program's specific contribution to emission reductions as well to estimate the increase of household income of beneficiaries.