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TECHNICAL ANNEX

MEXICO

RURAL FINANCE

TECHNICAL ASSISTANCE AND PILOT PROJECT

September 16, 1996

CURRENCY EQUIVALENTS
(September 16, 1996)

Currency Unit	=	Mexican Peso (N$)
US$1	=	N$7.55
N$1 million	=	US$132,450

WEIGHTS AND MEASURES
Metric System

GOVERNMENT FISCAL YEAR
January 1 - December 31

ABBREVIATIONS AND ACRONYMS

BANRURAL	National Rural Bank (Banco Nacional de Crédito Rural)
BORUCONSA	Rural Warehouses, S.A.
CETES	Treasury Bills Rate
CNBV	Comisión Nacional Bancaria y de Valores
GOM	Government of Mexico
CONSASUPO	National Food Supplies Company (Compañía Nacional de Subsistencias Populares)
DGDB	Director General of Development Banking
FERTIMEX	Mexican Fertilizer Company (Fertilizantes de Mexico)
FIRA	Trust Fund for Agriculture
FOBAPROBA	Trust Fund for the Protection of Deposits (Fondo de Protección al Ahorro)
FOCIR	Trust Fund for Shared Risk (Fideicomiso de Riesgo Compartido)
GATT	General Agreement in Trade and Tariffs
GOM	Government of Mexico
IBRD	International Bank for Reconstruction and Development
INEGI	National Institute for Statistics, Geography, and Informatics
MOP	Memorandum of the President of the IBRD to the Executive Directors
NAFTA	North American Free Trade Agreement
NGOs	Non-government Organizations
PROCAMPO	Producers' Income Support Program
PROCAPTE	Temporary Capitalization Program
PRONASE	National Seed Production Company
REs	Rural Entrepreneurs
RFM	Rural Financial Markets
SAPs	Savings and Loan Association (Sociedad de Ahorro y Préstamo)
SDI	Subsidy Dependence Index
SHCP	Ministry of Finance (Secretaria de Hacienda y Credito Público)
SMU	Specialized Management Unit
UCs	Credit Association (Unión de Crédito)

MEXICO

RURAL FINANCE TECHNICAL ASSISTANCE AND PILOT PROJECT

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This document and the accompanying Memorandum of the President are based on the findings of identification and preparation missions which visited Mexico during late 1995 and early 1996. These missions, lead by Rodrigo A. Chaves (LASLG), were also integrated by Mark Cackler (LADCN) and Elena Galaitsi (LASLG). Messrs. Michael Baxter, Olivier Lafourcade, and Ted Nkodo are the LASLG Manager, LAMXC Director, and Sector Leader, respectively, for this operation.

MEXICO

RURAL FINANCE TECHNICAL ASSISTANCE AND PILOT PROJECT

TECHNICAL ANNEX

1. SECTION A: DETAILED PROJECT DESCRIPTION

A. PERFORMANCE OF RURAL FINANCIAL MARKETS.

1. The Government of Mexico has long recognized that the functioning of rural financial markets (RFMs) greatly affects agricultural growth, income distribution, rural poverty, and the management and conservation of natural resources. Unfortunately, the empirical evidence available indicates that the performance of RFMs has been poor in terms of aggregate efficiency and fairness.[1] In particular, RFMs are very shallow in that rural entrepreneurs (REs) have only limited access to financial services. The markets are also highly segmented because types of borrowers and lenders are so clearly matched that funds do not flow across regions or groups of individuals, even though there are gains from such a flow. These markets are either not competitive or highly inefficient: observed *ex post* interest rates imply abnormal returns, or *ex ante* risk premia charged by some lenders are socially inefficient because of their inability to diversify geographically.

2. Rural entrepreneurs have little opportunity to participate as borrowers in these markets because of the weak supply and demand of credit. Supply has been hindered by a combination of factors: an underdeveloped institutional infrastructure, which permits borrowers and lenders to take undue advantage by not honoring credit contracts; the small local markets, which cannot support the large fixed costs connected with traditional banking technologies; and massive government interventions, which crowd out private lenders by allowing poorly run government institutions to lend at low rates. In addition, government intervention has prevented the development of informal sources of funding (such as supplier and crop purchaser credits) by severing market linkages between credit markets and input and commodity markets.

3. On the demand side, the majority of REs do not even apply for loans because of the process involved or because borrowing is too risky. This weak demand for credit is due in part to the high collateral required for loans and the non-institutional techniques used to enforce credit contracts. Also some borrowers face such high interest rates that they would demand credit only if absolutely necessary.

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[1] See: "Mexico: Rural Financial Markets." World Bank Report No. 15599-ME (August, 1995). All references made below regarding the performance of RFMs are based on the findings of the study which included a specially designed survey conducted in three regions.

4. Another factor affecting the flow of resources is that the current legal framework makes it difficult and expensive to use tangible assets (real estate and movable goods) as collateral. Under these circumstances, borrowers and lenders are motivated to engage in financial contracts only with those counterparts they trust or with whom they are likely to incur "reasonable" costs. As a result, borrowers and lenders tend to match up in almost mutually exclusive groups, with little interaction among them and with large interest rate differentials that are not arbitraged by other lenders. Although the rural financial markets are highly local, which is a symptom of segmentation, they are not meticulously segmented by geographic region only; they are also set apart by the fact that some REs are excluded from specific segments while other REs are not.

5. Competition in RFMs is limited because only those lenders who already know borrowers can provide credit services effectively—given the general lack and effectiveness of collateral. This condition limits the entry of potential lenders and reduces competition among incumbent lenders. It also implies that some lenders have an advantage over others because it is more expensive for borrowers to establish their creditworthiness with other lenders. Also it is more costly for other lenders to screen new potential borrowers. These circumstances allow lenders to arbitrage profitably on such cost differentials by charging noncompetitive rates of interest.

6. The differences in interest rates charged by lenders are not justified by *ex post* risk of default or transaction costs of lending. Indeed, delinquency problems have been more severe for formal sector lenders than for their informal counterparts, who charge much higher rates. At the same time, groups of lenders with very similar transaction costs charge significantly different rates. The current situation could be improved even if excessively high interest rates corresponded to legitimate risk premia (i.e., no *ex ante* economic profits) arising from the inability of creditors to diversify their portfolios. There are other lenders who can diversify and, hence, charge lower rates.

7. The performance of RFMs is also poor in terms of fairness because the disadvantaged segments of the population have reduced access to RFMs. When they do have access, they receive credit in very negative conditions in terms of, for example, interest rates and maturity structures. The more favorable conditions of credit market participation on the part of well-off individuals persist after controlling for the relevant variables; namely the borrower's socio demographic factors, characteristics of the credit contracts, wealth and enterprise variables, and attributes of the borrower's locality of residence.

8. The inefficient and unfair performance of RFMs has negative effects on rural growth and poverty. Because of the shallow financial markets, the rural economy will have difficulty adjusting to the major policy reforms of recent years and the aftermath of the exchange rate crisis of early 1995 (see below). These events will require rural entrepreneurs to adjust factor proportions, modify output mixes, change their scale of operations, and invest in new technologies. Their success in this endeavor will depend on the performance of all factor markets, particularly financial markets. Segmentation, however, will force rural investors to rely mainly on local resources, which are often limited. Therefore, local negative income shocks or low initial endowments of resources in a locality would have long-term negative effects on wealth accumulation and hence on poverty. Not only are extreme interest rates excessive but

also peculiar collateral requirements carry negative distribution consequences. The evidence suggests that traditionally disadvantaged groups of the rural population may be trapped in low-risk/low-return investment strategies that in the long run will probably widen the income distribution gap. The lack of access to rural financial markets may be contributing to this state of affairs.

9. Unfortunately, the performance of these markets is likely to deteriorate even further before it improves. In the short term, the informal sector is unlikely to expand because the retiring state institutions (see below) have not been completely replaced by endogenous market organizations with an interest in developing financial interlinkages; at the same time, contracts may be difficult to enforce in rural areas because the structural adjustment has weakened traditional enforcement mechanisms, which in turn have not been supplanted by formal legal structures or similar informal mechanisms. The predicament of the banking system following the exchange rate crisis of early 1995 suggests that the formal sector may be unable to expand its operations to the country's rural areas. Thus, struggling banks can be expected to downsize by closing branches, among other things.[2]

B. MEXICO'S RURAL SECTOR.

10. Mexico's rural sector has been greatly affected by policy reforms introduced since 1988, the devaluation of the nuevo peso in early 1995, and rural poverty. In the wake of these policy reforms and the exchange rate crisis, rural entrepreneurs are being forced to adjust factor proportions drastically, modify output mixes, change their scale of operations, and invest in new technologies. Whether REs can adjust will depend on the performance of all factor markets, particularly financial markets.

11. **Recent Policy Reforms**. Apart from the well-known general macroeconomic reforms and fiscal stabilization measures undertaken since 1988, the principal policy reforms affecting rural areas have been those in agriculture. These have included increasing price trade liberalization, privatization of agricultural-related parastatals, the reduction or elimination of agricultural input and price subsidies, and constitutional changes to allow the privatization of *ejido* land.

12. **Price Policies**. Before 1990, the main goal of Mexico's agricultural policy was to keep prices low for consumers yet ensure high prices for producers. Prices were guaranteed for 12 major crops: beans, wheat, barley, rice, sorghum, soybeans, safflower, cottonseed, copra, sunflower, and sesame. Recently, guaranteed prices were replaced with agreement prices for sorghum, soybeans, wheat, and rice, while guaranteed prices were retained for maize and beans. Beginning in the late 1980s, the government began pursuing reforms to reduce general food subsidies and direct those remaining to the poor. Products currently benefiting from targeted consumption subsidies include maize flour and tortillas

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[2] In any event, the geographical coverage of the banking system is limited, for less than a third of the country's municipalities have banking offices, including those of development banks.

13. **International Trade Policies.** Two international accords —the North American Free Trade Agreement (NAFTA) and the General Agreement in Trade and Tariffs (GATT) (Marrakesh Agreement)— have altered agricultural trade policy in Mexico. Under NAFTA, 42 percent of tariff codes were liberalized, with tariffs on foodstuffs and cotton to be phased out over a period of 15 to 20 years. The expected phaseouts are consistent with GATT agreements regarding reduced agricultural protection for developing countries.

14. **Income Support and Government Investment Programs**. To compensate for the reduced protection implied by NAFTA and GATT and the anticipated elimination of producer price supports, the government of Mexico has introduced a producer income support program (PROCAMPO). It is to replace price support with income support by providing fixed payments per hectare cultivated instead of guaranteed prices. Under the definitive PROCAMPO program, the details of which are yet to be defined, guaranteed and agreement prices are to be eliminated. Instead, farmers will only receive PROCAMPO payments on the basis of historical hectarage planted.

15. Another recent initiative, the National Solidarity Program, finances poverty-targeted investments and transfers through more than 34 separate programs. Solidarity programs support infrastructure investment through grants to municipalities and communities for basic infrastructure in poor communities (e.g., Fondos Municipales); the financing of state-managed investments in rural roads, water supply, and other public infrastructure; and joint ventures with small rural and urban entrepreneurs (e.g., Fondos Nacionales de Empresas de Solidaridad).

16. **Government Parastatal Companies**. Since 1988 the government has reduced the role of the agricultural parastatals involved in the production, processing, and marketing of agricultural inputs and products. For example, the fertilizer industry was completely deregulated, the parastatal FERTIMEX was privatized, and fertilizer prices were increased from 50 percent to 85 percent of their import/export parity. All restrictions on private sector competition with the national seed production company (PRONASE) were eliminated. The government is considering privatizing some of the affiliates of its national foodstuff company's (CONASUPO), including its rural and urban grain storage facilities (BORUCONSA and ANDSA), in anticipation of an eventual privatization of CONASUPO's marketing functions.

17. **Property Rights and the Markets for Land and Water**. Steps have also been taken to improve property rights on land and water. In early 1992, Article 27 of the Constitution and the Agrarian Reform Laws were modified to give land ownership directly to residents of agrarian communities (*ejidos* and communal lands) and to allow them to develop new forms of economic association.[3] The reform allows for transactions such as renting and selling *ejido* land, pledging land as collateral for loans, and contributing land to joint ventures. The reform also provides for faster resolution of land disputes and reduces the risks of expropriation.

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[3] The Mexican land tenancy regime was based on Article 27 of the 1917 Constitution, which states that all land and subsoil resources are ultimately the property of the nation. Approximately 52 percent of Mexico's total land area and half of the country's cropland fell under the *ejido system*.

18. Policy changes in the irrigation subsector have coincided with the broader changes in economic policy. Thus irrigation policy has begun to encourage efficient water use through (a) reforms in the legal basis of land tenure; (b) reforms in the legal structure of water rights; (c) a major increase in irrigation water fees to make operations self-sufficient and pay for the upkeep of the irrigation infrastructure; (d) a transfer of irrigation districts to water users' organizations; (e) changes in economic policy to promote a shift away from basic grains production; and (f) more private sector participation in decisions and investment.

19. **The Devaluation of Early 1995**. In late 1994, the nuevo peso was devalued from 3.3 to 6.9 to the U.S. dollar, in March 1995. This move precipitated a massive economic adjustment, which included drastic changes in the relative prices of tradable and non-tradable goods, a sharp increase in interest rates, and a reduction in the availability of credit. These changes have occurred in the midst of the ongoing agricultural liberalization program.

20. **Rural Poverty**. Extreme poverty is primarily a rural phenomenon in Mexico, and unlike poverty in urban areas, it has increased over the past decade.[4] In 1992 the incidence of rural poverty was twice that of urban areas, while the incidence of rural extreme poverty was more than six times that of urban areas. Although the rural population makes up only 41 percent of Mexico's total population, it accounts for 57 percent of the country's poor and 84 percent of its extreme poor. Between 1984 and 1992 extreme poverty decreased from 2.4 to 2.2 percent in the urban areas but increased from 12 to 16 percent in rural areas. In absolute numbers, the rural population living in extreme poverty increased by 71 percent, while the urban extreme poor actually decreased by 0.3 percent.

21. Social indicators of poverty—including illiteracy rates, primary school enrollment and access to running water—also indicate great urban-rural disparities. Adult illiteracy is more than three times as high in rural areas as in urban areas, and the average years of schooling for rural adults is about half that of urban adults (3.3 year versus 5.8 years). Access to running water and sanitation is more than twice as common in urban as in rural areas.

C. THE REMAINING AGENDA

22. GOM recognizes that, although the shortcomings of RFMs are due largely to the institutional underdevelopment of the regions surveyed and to its massive interventions in the rural economy, some form of government participation may still be desirable because such problems may be ameliorated (even overcome) if the government endeavors to arrive at a better understanding of the issues at hand and formulates viable strategies for dealing with them. The great concern, however, is that any potential improvements in efficiency and fairness may be eroded by significant agency costs. Such costs have arisen in the government's past efforts to participate in rural financial markets, notably in the form of (a) excessive

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4 "Extreme poverty" is defined as the proportion of the population whose expenditures fall below the extreme poverty line, defined as the amount required to purchase minimum food needs. "Poverty" refers to the proportion of the population whose expenditures (used as a measure of income) fall below the poverty line, defined as the amount required to cover minimum food needs plus typical nonfood expenditures of the poor.

administrative costs and delinquency within public development banks, (b) the widespread strategic default promoted by disguised debt-forgiveness programs, (c) worsening income distribution resulting from interest rates subsidies, and (d) regulatory problems regarding special private organizations promoted to increase access to financial services in rural areas.

23. The government also recognizes that its objective should be to increase the availability in rural areas of viable, competitively priced, and untargeted deposit and credit services from formal financial intermediaries. This objective is tantamount to increasing the outreach and the sustainability of formal financial intermediaries in rural areas. Such an effort would increase overall access to rural financial markets and change the composition of that market niche by including entrepreneurs whom the formal sector would not currently serve.

24. The government will focus in its primary responsibility: to provide an environment in which property rights, contracts, and financial services can prosper. Such an environment would consist of an improved legal framework for enforcing contracts and making use of collateral, as well as networks for sharing information between lenders (e.g., credit checks). In particular, it is necessary to (a) have a more efficient legal framework for lending secured by real estate, equipment, inventory receivables, and consumer goods; (b) make the system of public registries efficient; and (c) introduce mechanisms for expeditious recovery of collateral. These required legal changes and institutions may take generations to evolve, however. Thus, other complementary strategies should also be found to increase access to institutional financial services in rural areas over the shorter term and in a self-sustainable and appropriate manner.

25. The government is considering to fund experiments in developing sustainable technological packages for delivering financial services to small rural entrepreneurs. The objective should be to establish general guidelines for providing financial services to medium and small entrepreneurs in rural areas on the basis of the success stories of informal lenders in the regions surveyed and in other countries. One important lesson already learned is that financial services in rural localities must follow sensible business practices if they are to be self-sustaining. That is to say, the services offered and the technologies used must be appropriate, and the people involved must act on a proper set of incentives within a conducive policy framework.

26. GOM efforts will be directed at improving the functioning of all organizations —public and private— involved in providing financial services in rural financial markets. In particular, the government of Mexico wants to ensure that the incentives faced by managers and owners are consistent with the financial health of their intermediaries. In the case of specialized government organizations, their highest authorities are interested in achieving self-sustainability, even if this entails privatizing existing institutions.

27. Above all, government policies should be aimed at protecting the financial viability of participating organizations. Thus, adequate rates of interest would be needed, because in the current policy environment of fiscal discipline, low-subsidized interest rates suggest that an organization will not have a prolonged existence. Such an outlook weakens incentives for borrowers to repay and for managers to protect the organization, since it may not be around for long.

28. GOM has requested a technical assistance loan from the World Bank to: (a) assist in the implementation of an integral policy towards the sector; (b) review its direct participation in the sector, and (c) develop a package of appropriate financial products, lending technologies, and incentive schemes to provide sustainable financial services to low income rural population.

D. PROJECT DESIGN

29. **Project Objectives and Approach.** The ultimate goal of the project is to augment the participation of REs in RFMs, especially of the poor; overcome the segmentation of these markets; and increase competition in the sector. The project would, in the short term, contribute to the achievement of this objective by providing the government of Mexico with the necessary technical assistance and applied research to formulate an adequate policy for RFMs—including an improvement of the government's current direct participation in the sector.[5] That is, the project would assist government in undertaking the analytical work to develop policies towards RFMs, to test such policies, and to underpin the sector's improvement.

30. Additionally, the experimental component of the project would demonstrate that it is possible to supply financial services to small and micro-entrepreneurs in small rural localities—in a sustainable matter. Such evidence is required to guide decision makers in the adoption of an adequate policy towards the sector and to induce increased private sector participation in RFMs.

31. A very important innovation of the proposed project is that it would allow to empirically test—on a pilot basis—the key policies suggested by its technical assistance components. This experimentation is essential because any mistakes in the design and implementation of large scale reforms in RFMs may be extremely expensive. The lessons learned and the evidence gathered during project implementation would be the mainstay of the future integral improvement of the sector.

32. Another important innovation of the proposed project is that it would cover a broader set of issues than those covered by traditional RFMs projects. The project would assist government to address the entire spectrum of necessary conditions for developing RFMs and improving the market-based provision of financial services to small and micro rural entrepreneurs. In contrast, traditional RFMs projects have mostly focused on transitory increases in the availability of agricultural credit.

33. **Institutional Framework.** The improvement of RFMs is complex and wide-ranging, addressing issues of, for example, the legal environment for financial transactions on rural areas, GOMs direct participation in RFMs through specialized intermediaries, and the regulation of rural financial intermediaries. SHCP has been chosen as the agency in charge of steering the reform process. Project implementation would be the responsibility of the office of the Director General of Development Banking (DGDB) within the Undersecretariat of Finance and Public Debt (see organizational chart below).

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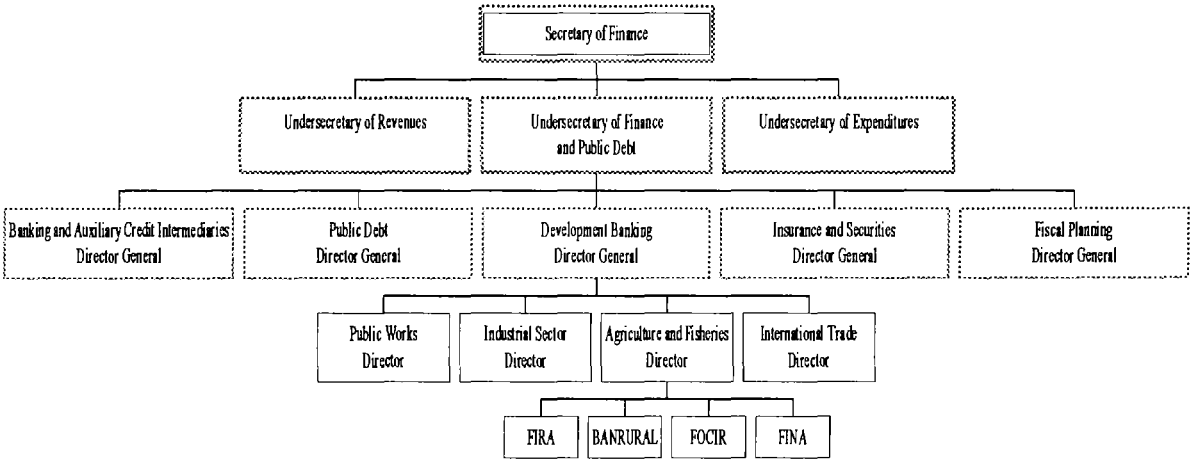
[5] This Government participation in RFMs has been characterized by (a) excessive administrative costs and delinquency within public development banks, (b) the widespread strategic default promoted by disguised debt-forgiveness programs, and (c) worsening income distribution resulting from interest rates subsidies and disproportionate concentration of services in the hands of mostly well-off individuals. The project seeks to reverse these shortcomings.

34. The Undersecretariat of Finance and Public Debt represents an ideal institutional setting for the project because its functions include a wide set of relevant issues regarding RFMs. In particular, SHCP is charged with: (a) providing GOM's main specialized rural financial institutions —FIRA, BANRURAL, FOCIR, and FINA— with: (i) general policy guidelines (i.e., *cabeza de sector*), (ii) operating budgets, and (iii) annual fiscal transfers; (b) drafting and final approval of all legislation and regulations relating to financial institutions and markets (Banking and Auxiliary Credit Institutions, Insurance and Securities); and (c) holding within its structure the supervision of all financial intermediaries in the system as the corresponding supervisory agencies (CNBV, CNV, CNSF, CONSAR) are legally part of the Secretariat.



E. PROJECT DESCRIPTION

35. The project would consist of two substantive components: (A) **Direct Technical Assistance**, and (b) **Pilot Experimentation with Financial Technologies and Policies**.

(A) Direct Technical Assistance (US$ 10 million, 9.7 percent of project costs).

36. This component will support SHCP policy making and dialogue by financing expenditures incurred in —*inter alia*: (a) hiring external consultants to assist in the development of policies, (b) secondment of special long term consultants to strengthen specific activities of SHCP, (c) commissioning and conducting applied research, (d) sponsoring and participating in seminars, (e) organizing study tours, and (f) providing technical assistance to financial non-government organizations (NGOs). The Project Implementation Plan — Attachment to the Memorandum of the President (MOP)— provides a complete description of this component's forms of assistance, activities, expected outputs, and timing. The following topics and objectives, *inter alia,* are key to successful improvement of the sector:

37. **Business Environment for Financial Transactions in Rural Areas**. The specific objectives of the activities on this subject are to: (a) reduce the transaction costs involved in: (i)

creating, (ii) perfecting, and (iii) enforcing security interests on real state and movable goods when used as collateral for loans; (b) increase the flow of investment capital to rural areas through non-credit instruments (e.g., leasing of capital goods); (c) induce better market enforcement of credit contracts by introducing system wide borrower reputation effects (e.g., credit rating mechanisms); (d) reduce the general risk of rural credit transactions by improving the supply and quality of private insurance services in rural areas; (e) augment private sector interest in providing rural credit (specially for long term capital investments) by improving the functioning of technical assistance markets.

38. **Government's Direct Participation in RFMs**. The specific objectives of the activities on this subject are to improve the: (a) efficiency, (b) development impact, (c) sustainability, (d) consistency, and (e) outreach of GOMs direct participation in RFMs through its specialized rural financial intermediaries.

39. **Applied Policy Analysis.** Activities will be aimed at supporting the formulation of adequate policies regarding RFMs —including: (a) interest rates policies, and (b) the role and need for government guarantees of rural credit transactions.

40. **Support to Financial NGOs**. The main objective of these activities would be to increase the quality and outreach —through technical assistance— of the financial services being provided by non-government organizations (NGOs) to microentrepreneurs in rural areas —specially the poorest segments.

41. **Policy Dialogue and Research Dissemination**. The objective is to build the necessary consensus regarding the need and suitability of the resulting package of adequate policies for RFMs. These efforts will be aimed at key decision makers. Proposed activities would include seminars, study tours, and workshops.

(B) Pilot Experimentation with Financial Technologies and Policies (US$ 93 million, 90.3 percent of project costs).

42. This component would support the development and testing of appropriate technologies of financial intermediation in rural areas (see below) and the experimentation with innovative policies by disbursing against incremental expenditures incurred —*inter* alia—in the: (a) development of suitable technologies to provide financial services to small and micro-entrepreneurs in small rural localities, (b) establishment and operation of a network of pilot experimental banking offices, (c) functioning of a Specialized Management Unit (SMU) to administer and monitor the (i) pilot experiment and (ii) Direct Technical Assistance component described above, (d) dissemination of the results of the pilot experiment. The component would also finance an initial working capital endowment for the experimental units. This initial working capital is required for the units to provide a limited number of subloans to rural entrepreneurs and thereby test the services and technologies to be developed by the project.

43. The central idea of the pilot is to establish a series of very small branches of private banks located in rural localities of various sizes that do not have formal financial intermediaries to demonstrate that the provision of financial services to small and micro rural entrepreneurs may be profitable if appropriate technologies are used to do so. The component will also serve

as a show-case for innovative policies— such as the provision of untargeted and market-priced financial services by the experimental units.

44. This component is justified as technical assistance because the development of sustainable technologies for delivering financial services to small REs requires extensive local experimentation on how to implement such new technologies. The problem is that the investment in experimentation may be inadequate unless the government provides the necessary stimulus. Since no single lender can capture a significant portion of the social value of improved lending, the rational strategy is to wait for someone else to assume the risks and costs of experimentation and, in case the technologies were successful, to copy them. It is also justifiable for the government to invest in this pilot experimentation because government interventions in financial markets are extremely costly. Any mistakes may be extremely expensive. Hence, the component will underpin policy development.

45. **Appropriate technologies for financial intermediation in rural areas**. The relevant stylized facts of Mexico's rural financial markets include: (a) formal intermediaries are generally absent from medium and small rural localities —two thirds of the country's municipalities do not have offices of financial intermediaries; and (b) formal intermediaries rarely provide credit to small and microentrepreneurs in rural localities. One very important factor contributing to this performance is the technology of financial intermediation (TFI) used by the country's formal financial intermediaries.

46. A TFI is defined, in the context of the proposed project, as the general method used by financial intermediaries to: (a) raise funds and (b) to allocate and recover loans. This method requires: (a) a *business component* including —*inter alia*— (i) physical infrastructure, (ii) management information systems, (iii) internal control procedures, and (iv) asset and liability management techniques; and (b) an *information component* comprising (i) screening of loan applicants, (ii) monitoring of borrowers, and —to certain extend— (iii) enforcing credit contracts. These two components determine the fixed cost structure of a bank branch and the average cost of providing financial intermediation services —respectively.

47. The traditional TFI used by Mexican formal financial intermediaries is inappropriate to provide financial services in rural areas because: (a) the TFI's business component implies high fixed costs (expensive physical infrastructure, numerous employees) that could not be supported by comparatively small financial markets in most rural localities, (b) the TFI's information component (e.g., screening of loan applicants using feasibility studies or audited financial statements) implies costs of lending that render small loans (the majority of the potential demand) non-economical.[6]

48. The proposed project is aimed at developing and testing alternative TFIs based on: (a) low fixed-cost structures; (b) screening borrowers on the basis of their character and reputation; (c) conducive incentive schemes for employees; and (d) adequate internal control mechanisms. The following is a summary of the alternative methodology that would be adopted and tested by the experimental branches.

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[6] For example, only 16 percent of rural entrepreneurs in surveyed areas keep accounting records of any kind. See "Mexico: Rural Financial Markets." World Bank Report No. 14599-ME. August, 1995.

49. The fixed costs of the branches would be proportional to the size of the markets they would serve. These costs would be reduced by—*inter alia*: (a) minimizing investment costs (e.g., renting office space); (b) providing few — easy to manage and control—financial services, namely: (i) passbook accounts and (ii) certificates of deposit with 3, 6, and 12 months maturities, (iii) few types of short term loans; (c) having from two to four employees per unit; (d) paying personnel two-tiered salaries with a relatively low fixed monthly payment and quarterly incentive bonuses based on performance (i.e., variable cost); (e) hiring local residents, rather than professional bankers, who may perform effectively for low salaries. For example, it is estimated that the average investment to establish a traditional bank branch in Mexico is about US$500,000. The investment to establish one of the experimental branches is estimated at US$ 25,000.

50. The average (variable) cost of allocating credit would be minimized by screening loan applicants on the basis of their character and reputation. Such information will be gathered by hiring local managers who already know applicants and by requiring references from well respected members of the community (e.g., teachers, traditional leaders) as required by managers acting on appropriate incentives (see below). The use of local information reduces the costs of providing credit to small borrowers because such information could be generated at a very low marginal cost by, for example, the ordinary daily interactions among residents of the same locality. The monitoring of borrowers would be carried-out in the same fashion.

51. The recruitment of local managers implies an agency problem that would require a system of incentives to induce them to exert an appropriate amount of effort in borrower screening, monitoring, and enforcement; and to make collusion with borrowers and other forms of corruption unattractive options. The most direct method to avoid this collusion would be by, somehow, making managers residual claimants of the profits/losses of their branch. In this way managers would not only be rewarded because of positive profit realizations but would also be punished when losses or other irregularities occur.[7] Managers would be given incentives to behave properly (as if they were co-owners) by means of paying them salaries substantially higher than their opportunity cost; thus they would regard the present value of the difference between their opportunity cost and the *efficiency wages* they would receive as part of their wealth endowments. This wealth, however, would be contingent upon employment in the branch, which implies that being fired would cause a significant loss for managers. The possibility of being fired because of negligence or malfeasance would be maximized (so the incentive effects) by the internal control mechanisms that would be supported by the proposed project.

52. These general ingredients: (a) simple financial products, (b) low fixed costs, (c) use of local information to screen and monitor borrowers, (d) conducive incentive schemes, and (e) adequate internal control mechanisms are the common ingredients of all successful rural

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7 The ideal would be to make managers co-owners by requiring them to invest their own resources in the intermediary's equity. The problem is, however: Because managers should be recruited among local residents, it is likely that they will be wealth-constrained or too averse to risk to invest sufficient resources. Consequently, alternative mechanisms must be implemented. Over time, managers could be made shareholders by paying them their share of profits with some sort of stock option.

financial intermediaries. The experiences of these intermediaries are well documented in the professional literature and in World Bank publications.

53. **Support to participating banks**. The proposed project would support four private commercial banks to: (a) adopt and test alternative TFIs and (b) to explore, on a pilot basis, the market opportunities in rural localities with no financial intermediaries and less than 20,000 inhabitants. Each of the selected participating banks would establish at least 30 branches. The project would provide grants to cover: (a) up to 50 percent of the set-up investments required to establish the experimental branches; (b) up to 50 percent of the cost of incorporating the experimental branches into the participating banks' existing accounting and internal control systems; (c) the cost of monitoring and supervising branches: (i) up to 50 percent in year 1 of project implementation, (ii) up to 33.3 percent in year 2 of project implementation, (iii) up to 16.6 percent in year 3 of project implementation; and (d) the fixed operational cost of the experimental branches: (i) up to 50 percent in year 1 of project implementation, (ii) up to 33.3 percent in year 2 of project implementation, (iii) up to 16.6 percent in year 3 of project implementation.

54. The total (per branch) cost estimates for the categories mentioned above are: (a) set-up investments required to establish one experimental branch: US$ 25,000 (one-time-only expenditure); (b) average cost of incorporating one branch into the participating banks' existing accounting and internal control systems: US$ 1,250 (one-time-only expenditure); (c) cost of monitoring and supervising one branch during a year: US$ 8,100; and (d) fixed operational cost of one experimental branch during a year: US$ 40,000.

55. These cost estimates and the limits set above for project-financed expenditures imply that the maximum of grants per branch established under the project would be US$ 65,000.

56. **Allocation of grants**. Participating private commercial banks would be selected through competitive bidding. Pre-selected banks, chosen on the basis of their financial situation and their interest in the project (see below), would submit bids for the lowest amount of grant financing they would require to establish and operate 30 experimental branches. The reference amount would be US$ 1.9 million. The four banks requesting the lowest grant amount would be selected. If competing banks submitted the same bid the selection would be made on the basis of their financial situation and their commitment to carry out the project.

57. Each selected participating bank would receive the same amount of grant financing: the largest amount bid by any of the four winning banks. The disbursement percentages by category of expenditure for the proposed loan (see para. 68) were calculated to insure that the resulting grant amount would be transferred to participating banks to finance: (a) 20 percent of the investments required to establish the experimental branches; (b) 3 percent of the costs of incorporating the experimental branches into the participating banks' existing accounting and internal control systems; (c) 13 percent of the costs of monitoring and supervising the experimental branches; and (d) 64 percent of the fixed operational costs of operating the experimental branches.

58. In order to be invited to bid for the award of financial support to participate in this component, privately owned and controlled banks must be in compliance with all banking laws,

capitalization requirements and regulations and must not be intervened, or expected to be intervened, by Mexico's banking authorities.

59. SHCP would suspend or terminate the participation of any commercial bank in the project in case one such bank: (a) failed to perform any of its obligations under the Participation Agreement, (b) failed to maintain the eligibility criteria set forth in the previous paragraph, or (c) were the subject of dissolution or disestablishement actions by any authority having jurisdiction. Upon termination of a commercial bank's participation in the project, SHCP would be able to substitute the excluded commercial bank with another commercial bank which meets the required eligibility criteria. The substitute bank would participate in the project on terms identical to those of the remaining non-substituted commercial banks. SHCP shall require that the substituted bank repay immediately to SHCP all grant proceeds received and the outstanding principal of said Commercial Bank's Intermediary Loan —as described immediately below— together with all interest and charges accrued.

60. **Initial liquidity for the units**. The banking experimental branches supported by the project would require an initial endowment of liquidity to provide subloans before they have mobilized enough deposits. SHCP would make funds available to participating private commercial banks at a market interest rate of at least CETES. The maximum amount of initial liquidity available to any single branch would be US$75,000. Participating banks would assume the entire credit risk involved in the subloans granted with project funds. The exchange rate risk would be assumed by Government. This risk would be compensated by the interest rate differential between the World Bank's standard rate and the market rate paid on project funds by participating banks. At the moment this differential is equivalent to 28 annual percentage points.

61. **Eligibility criteria for borrowers and subloans.** Borrowers eligible to obtain subloans with project funds would comply with all of the following conditions: (a) they would be small and micro rural entrepreneurs (e.g., small scale farmers, cottage industry producers, sharecroppers, artisans, service providers, and small traders and merchants) with at least one year of experience, (b) they would be residents of the localities where the experimental units would be established, and (c) they would be individuals (*personas fisicas)* —although their enterprises may be incorporated as legal entities (*persona moral*).

62. Only short and medium-term investments to expand existing rural enterprises would be eligible to be financed with project funds. Short and medium term investments are those whose cash flows would allow repayment of subloans within 30 months. Land, existing buildings and other assets previously used within the rural sector (except breeding livestock) would be ineligible. The maximum combined amount of all the subloans granted to a single borrower would be US$ 5,000 equivalent and the maximum repayment term for subloans would be 30 months. All other subloan conditions (e.g., interest rate, collateral) would reflect prevailing local market conditions and would be freely negotiated between borrowers and participating private banks. Subloan appraisal and approval would be the responsibility of participating commercial banks.

2. SECTION B: PROJECT ADMINISTRATION AND IMPLEMENTATION

63. **Project Organization.** The project would be carried-out under the overall responsibility of SHCP in very close collaboration with participating private banks, other ministries (e.g., agriculture), and relevant government agencies and institutions (e.g., congress, judiciary, specialized intermediaries). Responsibilities within SHCP would be allocated to the Office of the Director General of Development Banking —under the direction of which a Specialized Management Unit (SMU) for project implementation will operate. To support the Office of the Director General of Development Banking (DGDB) in implementing the proposed project, consultants would be hired with the proceeds of the Loan to support the SMU in administrative procedures and procurement (see Schedule B of the MOP). The pilot experimental units will be managed by the corresponding participating private banks. The SMU would also: (a) monitor the economic sustainability, outreach, and general operation of these units, (b) promote coordination and sharing of lessons learned among participating banks, (c) observe and evaluate the socio-economic profile of the customers of the experimental units.

64. SHCP may explore the possibility of executing the project trough a trust (*fideicomiso)* established by SHCP (acting as grantor) in NAFIN (acting as trustee). This trust would operate under the direction of a *comité técnico* —or its equivalent. This *comité técnico* would be under the complete control of DGDB and supported by the SMU. In the event that the project is executed through such a trust, SHCP would be still explicitly identified as the party on behalf of which Participation Agreements would be entered into with Commercial Banks.

65. The project is anticipated to be implemented over the course of roughly three years. Project completion is schedule for December 31, 1999 and the project closing date will be June 30, 2000.

66. **Project Costs and Financing.** Estimated project costs are detailed in Schedule A of the MOP. Total project cost is estimated at US$ 103 million of which US$ 10 million correspond to direct technical assistance and US$ 93 million to pilot experimentation of policies and financial technologies —including physical and price contingencies. The IBRD loan (US$30 million) would finance 100 percent of the direct technical assistance component (US$ 10 million) and 22 percent of the pilot component (US$ 20 million). SHCP and private financial intermediaries would finance the corresponding local counterparts.

67. Retroactive financing in an amount not exceeding US$ 3.0 million (10 percent of the Bank loan) would be available for eligible expenditures made after March 1, 1996.

68. **Disbursements**. Proceeds of the proposed Loan would finance —by category of expenditure— (a) goods —except materials included in categories (c) and (d) below: 85 percent; (b) consultant services, 100 percent; (c) training and related expenses, 100 percent; (d) incremental operating costs of the experimental rural branches: (i) 50 percent until withdrawals under this category have reached an aggregate amount equivalent to $2.4 million, (ii) 33 percent until withdrawals under this category have reached an aggregate

amount equivalent to $4 million, (iii) 17 percent thereafter; (e) incremental operating costs of the SMU, 70 percent; (f) subloans granted by experimental rural branches, 100 percent of disbursements made under eligible subloans. The described disbursement percentages and disbursement conditions for subloans would insure: (a) that private participating banks would finance at least 83 percent of the equilibrium loan portfolios of the experimental rural branches and (b) that rural branches would have enough liquidity to provide a limited number of loans at the beginning of their operation. The disbursements expected to be made under the loan are summarized in Schedule B of the MOP.

69. To facilitate the efficient and timely implementation of the project, the Bank would authorize a maximum allocation of up to US$ 2.5 million to set up a Special Account in accordance with Bank guidelines. After loan effectiveness and at the request of SHCP, an initial deposit of US$ 1.5 million would be made in US dollars into a Special Account at Banco de Mexico to finance eligible expenditures and subloans. Separate accounts for all expenditures financed by the Project would be maintained by the Borrower, the Executing Agency, and participating financial intermediaries.

70. Withdrawal applications would be fully documented, except for: (a) contracts smaller than the following levels (i) goods not subject to prior review (see para. 84), (ii) US$ 50,000 for individual consultants other than lawyers, (iii) US$ 100,000 for consulting firms other than law firms; (b) training services; (c) reimbursements for incremental operating expenses; and (d) reimbursements to participating banks for subloans granted to rural entrepreneurs.

71. In the case of contracts and amounts specified above, participating banks and the SMU would prepare certified Statements of Expenditure (SOE) to be used as the basis for disbursement. Supporting documentation for SOEs would be retained by the SMU and participating banks and made available for examination by Bank staff during supervision missions and by the project auditors —as indicated below.

72. **Accounts, reports, and auditing**. The Borrower, the Executing Agency, and private participating banks would maintain adequate records to reflect all outlays and expenditures made under the project in accordance with sound accounting practices. These records would form the basis for generating quarterly financial statements of the SMU and of the pilot experimental units. The accounts and statements of expenditures would be audited each year by auditors satisfactory to the Bank, in accordance with appropriate auditing principles consistently applied. The audit report would be submitted to the Bank no later than six months following the close of the fiscal year.

73. Banco de Mexico, which would be the depository for funds in the Special Account, would provide the SMU with statements reflecting the deposits to and withdrawals from the Special Account and any related sub-accounts. The SMU would forward each statement to the Bank in conjunction with their respective Withdrawal Applications soliciting funds from the Loan Account to replenish the Special Account. These Special Account statements and Withdrawal Applications would be submitted regularly (preferably monthly, but no less often than quarterly) or when the amounts withdrawn equal 50 percent of the initial deposit.

74. Private participating banks would maintain all accounting records necessary to judge the performance and viability of the pilot experimental units that they would establish under the project. These records would be available to the SMU and Bank staff. Private participating banks would also prepare a quarterly financial report of their units that would be reviewed during the quarterly Bank supervision missions.

75. Participating banks would agree to provide all necessary information to the SMU and to Bank staff to monitor the success —in terms of outreach and economic sustainability— of the experimental branches supported by the project. This information would include all required data to compose financial statements (e.g., income statement, balance sheet, statement of uses and origins of funds) for each individual experimental branch and for their consolidated operation. Participating banks would also assist the implementing agency in monitoring the socio-economic profile of the customers of the experimental branches.

76. The exact content, format, and periodicity of the reports that would be provided by participating banks would be an integral part of a Participation Agreement to be signed by such banks and SHCP. All reporting and auditing requirements would be detailed in the bidding documents issued to pre-selected private banks.

77. **Procurement**. All project components financed by the Bank loan would be procured in accordance with the Bank Guidelines for Procurement (as revised in January 1996). Five types of procurement would be undertaken under the Loan: (a) goods, (b) consultant services, (c) training and dissemination, (d) incremental operating costs, and (d) subloans.

78. Goods. The executing agency and the four participating private banks would procure the necessary goods to execute the project independently and according to the above mentioned Bank guidelines. Decentralized procurement of goods is required because of the specificity of the goods required by private participating banks (e.g., standard appearance for a given bank's branch, standard security equipment). Goods and non-consultant services estimated to cost less than US$ 100,000 equivalent per contract or per bid package may be procured either (a) under contracts awarded in accordance with National Competitive Bidding (NCB) procedures, using standard bidding documents satisfactory to the Bank; or (b) under contracts awarded on the basis of national shopping procedures. Goods and non-consultant services estimated to cost more than US$ 100,000 equivalent per contract or per bid package would be procured under contracts awarded in accordance with International Competitive Bidding (ICB) procedures. All goods procured under the project are expected to aggregate to about US$ 3.6 million.

79. Consultant services. Selection and engagement of consultants for studies, technical assistance, and support of project execution —which are expected to aggregate to about US$ 11.4 million— would be carried out in accordance with the Bank's "Guidelines for the Use of Consultants by World Bank Borrowers and by the World Bank as Executing Agency" published by the Bank in August 1981. For complex, time based assignments, such contracts would be based on the standard form of contract for consultants' services issued by the Bank. Where no relevant standard contract documents have been issued by the Bank, other standard forms acceptable to the Bank would be used.

80. Training and dissemination expenditures. These expenditures, expected to aggregate to about US$ 3.3 million, would be allocated among (a) fees of consultants employed as trainers; (b) reasonable travel and *per* diem expenditures incurred by trainees in connection with their training; (c) course fees charged by academic institutions; (d) costs of pre-printed publications; and (e) reasonable costs incurred for printing and for consumable materials and space and equipment rentals in connection with the delivery of training and the dissemination of lessons derived from Project experience. Selection and engagement of consultants for training would be carried out in accordance with the Bank's "Guidelines for the Use of Consultants by World Bank Borrowers and by the World Bank as Executing Agency" published by the Bank in August 1981. The remaining services would be procured by direct contracting in view of their scattered nature and small individual amounts.

81. Incremental operating costs. These expenditures, expected to aggregate to about US$ 18.9 million, would consist of (a) in the case of commercial banks: (i) branch staff remuneration, (ii) branch space and equipment rental costs, (iii) branch utility and transportation costs, (iv) branch costs for consumable office supplies, (v) branch costs for cleaning and maintenance, (vi) branch costs for insurance, and (vii) other Commercial Bank operation and maintenance costs which would not have been incurred absent the establishment of branches under the Project; and (b) in the case of the SMU: (i) non-consultant personnel remuneration, (ii) space and equipment rental costs, (iii) utility and transportation costs, (iv) costs for consumable office supplies, (v) costs for cleaning and maintenance, and (vi) other SMU operation and maintenance costs which would have not been incurred absent the establishment of the SMU. Incremental operating costs would be procured by direct contracting in view of their diversity and recurrent nature (except to the extend such costs are incurred for goods).

82. Subloans. It is expected that during project implementation the rural branches of participating banks would allocate about US$ 65.7 million in loans to rural entrepreneurs. Project funding for this category, expected to amount to US$ 9 million, would be allocated among participating banks according to the bidding process described in paragraph 58 of this technical annex. The eligible expenditures made by rural entrepreneurs with subloans from participating banks would be procured under normal commercial practices for goods and works.

83. To support the Office of the Director General of Development Banking in implementing the proposed project, experienced consultants would be hired with the proceeds of the Loan to support the SMU in procurement and administrative procedures. These services would insure an adequate procurement capability for the implementation agency.

84. **Bank review of procurement** procedures would be as follows: for consulting services, the Bank would conduct prior review of all contracts for lawyers and law firms and of all contracts of more than US$ 50,000 equivalent for individuals and more than US$ 100,000 equivalent for firms. For these contracts, the Bank would require prior review of (a) budgets; (b) letters of invitation, including short lists; (c) terms of reference; (d) selection procedures; (e) evaluation reports; and (f) contract forms. The Bank would only carry out prior review of the terms of reference of contracts below US$ 100,000 for consulting firms and below US$ 50,000 for individual consultants. For procurement of goods the Bank would

review *ex ante* documentation pertaining to each ICB and the first two contracts or bid packages procured under NCB procedures. All other procurement documentation would be subject to *ex post* review. The Bank would also carry out prior review of all legal consultancies. The prior review thresholds described above will result in the prior review by the Bank of about 75 percent of the total Bank financed contracts.

85. **Monitoring and Evaluation.** The innovative nature of the project—technical assistance and pilot testing of financial technologies and policies—would require of frequent monitoring and supervision. The Executing Agency and the World Bank would conduct a Project Implementation Review on a semi-annual basis. During the first year of project implementation, these Implementation Reviews would be carried out quarterly. These reviews would include: (a) assessment of project implementation, (b) evaluation of the work plan for the next six months, (c) meetings with participating private banks, rural users of financial services, and SHCP to obtain feedback on (a) and (b) above and to agree on any required modifications to the originally proposed program. Additionally, GOM has requested frequent and substantive support by World Bank staff during project implementation. This request would be met by quarterly supervision missions with participation of Bank staff and external consultants.

86. The performance of the Direct Technical Assistance component would be measured by the timely completion of its activities. On the other hand, the Pilot Experimentation component would be deemed successful if the following indicators are met (a) **outreach**: (i) participation of four private banks, (ii) the establishment of at least 80 experimental banking units in localities with less than 20,000 inhabitants with no bank offices to date, (iii) disbursement of 4,000 subloans to small and micro rural entrepreneurs, (iv) establishment of savings accounts and certificates of deposit with an aggregate of at least 5,000 accounts; and (b) **sustainability**: (i) Subsidy Dependence Index that has decreased every quarter and with a value of less than 40 percent after a year of operations —for each individual experimental unit,[8] (ii) break even point after 24 months of operation —for each individual experimental unit. The calculations of the Subsidy Dependence Index and of break-even points would take into account general supervisory costs incurred by the corresponding private participating banks.

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[8] The Subsidy Dependence Index is a sensitivity measure which indicates the degree of financial sustainability of financial intermediaries. This index would be the key indicator of the management information system used to monitor the experiment. The index will be periodically calculated for each of the experimental units and for their consolidated operation.