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Report No:. 20267

PERFORMANCE AUDIT REPORT

CHILE

SMALL FARMER SERVICES PROJECT
(LOAN 3473-CH)

March 31, 2000

Sector and Thematic Evaluations Group
Operations Evaluation Department

Currency Equivalents (annual averages)

Local Currency Unit	Chilean Peso (Ch$)
Exchange Rate at Project Appraisal: (September 30, 1991)	US$1 = Ch$360.0 Ch$1 = US$0.0028
Exchange Rate at Loan Closing: (June 30, 1998)	US$1 = Ch$465.0 Ch$1 = US$0.0022

Abbreviations and Acronyms

INDAP	**Agricultural Development Institute (Instituto de Desarrollo Agropecuario)**
MBN	**Ministry of National Property (Ministerio de Bienes Raíces Nacionales)**
CASEN	**Annual Household Survey**

FISCAL YEAR

Government of Chile: January 1 – December 31

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The World Bank
Washington, D.C. 20433
U.S.A.

Office of the Director-General
Operations Evaluation

March 31, 2000

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

**SUBJECT: Performance Audit Report on Chile
Small Farmer Services Project (Loan 3473-CH)**

Attached is the Performance Audit Report on the Chile Small Farmer Services Project, prepared by the Operations Evaluation Department (OED). The project was supported by a loan of US$95 million, which became effective in October 1992 and closed in June 1998, US$36.2 million having been canceled at the borrower's request.

The project sought to increase small farmer productivity and incomes, and to raise the capacity of a government agency, the Agricultural Development Institute (INDAP), charged with providing extension services and credit, and the Ministry of National Property (MBN), responsible for land titling. Components were: technology transfer, involving both farm-oriented and home-centered extension (37 percent of estimated project cost); complementary credit for working capital and investment (51 percent); land titling (4 percent); a rural communications system designed to improve the information flow to small farmers (1 percent); and institutional strengthening (8 percent).

The project aimed to consolidate an already existing and well regarded model of agricultural extension based on competition between private service providers. At the outset the Bank sought to adjust this model, making it more responsive to the needs of the smallest farmers. As the fortunes of these farmers improved the aim was for them to assume a higher proportion of program costs and to secure access to commercial bank loans.

Although, when it was prepared, the design of the project was consistent with the strategy of the Bank and the borrower, the main implementing agency, INDAP, did not fully endorse the project's stated objectives of improving targeting and promoting the graduation of farmers to private credit and extension services. After 1994, changes in the Chilean administration (including INDAP management), a Bank reorganization, and Chile's reduced demand for Bank assistance weakened project implementation. At this point, the Bank should have canceled the project or redefined its objectives but it allowed the project to run its course.

The project's results were limited. The number of farm families covered by the extension program rose from 47,875 in 1992 to 50,369 in 1997, well short of the target of 92,000 families. Because of weak monitoring, it is not clear what proportion of these farmers correspond to the original target group (farmers with less than 5 irrigated hectares or the dryland equivalent). The number of women served was 35,000 compared to an appraisal estimate of 60,000. The objectives of graduating farmers to private extension services and commercial bank financing were not met. Land titling was the only project component that was successfully implemented, with 41,933 titles issued, close to the appraisal target of 43,500.

What little data there are suggest that INDAP's program has not substantially increased the productivity and incomes of its clients. The cost per family of delivering extension exceeded appraisal estimates: at project closing, the cost ranged from US$278 to US$527 per family, compared to the US$140 forecast at appraisal. Cost recovery limits—set according to farm size class—ranged from 0 to19 percent in 1992 and from 0 to 9 percent in 1997. The proportion of loans recovered was higher in the first two years of the project than in the two years preceding project approval, but the recovery rate never reached the 92 percent target set at appraisal.

OED concurs with the unsatisfactory outcome rating given in the Implementation Completion Report (ICR). Both the audit and the ICR rate sustainability as unlikely, given the limited results—the (minor) land titling component representing an exception. OED rates institutional development as negligible (not partial, as the ICR indicates), mainly because of the failure to develop an adequate system for tracking farmer performance. Both the ICR and the audit rate Bank and borrower performance as unsatisfactory.

The audit finds that at project mid-term (late 1994)—owing largely to a change of administration in Chile—the main implementing agency, INDAP, ceased to be guided by the project objectives and design approved at appraisal: in particular, the original focus on the smallest farmers was dropped. The Bank should have restructured or canceled the project at this point, but failed to do so.

In addition to the observation that the Bank needs to restructure or cancel loans when the borrower departs from a project's original objectives, OED draws three main lessons. First, targeting of extension services needs to take into account the substantial variation in development potential among small farmers, giving first priority to employment generation. Second, to serve small farmers effectively, public extension services need to draw on a complementary system of adaptive research that supports agricultural intensification. Third, a system of monitoring and evaluation is essential, and should be geared to tracking the outcomes of the project at the level of the farmer, rather than simply measuring extension inputs and outputs. Other lessons emerged from a discussion of the audit findings with specialist Bank staff. In some respects the most revealing aspect of this "shared learning" was the revelation that staff are unable to agree about the feasibility of strategies to graduate farmers from public to private extension.

Robert Picciotto
By Elizabeth McAllister

Attachment

Contents

This report was prepared by John R. Heath, Task Manager, who audited the project in November 1999. William Hurlbut edited the report, and Pilar Barquero provided administrative support.

PRINCIPAL RATINGS

	ICR	Audit
Outcome	Unsatisfactory	Unsatisfactory
Sustainability	Unlikely	Unlikely
Institutional Development	Partial	Negligible
Borrower Performance	Unsatisfactory	Unsatisfactory
Bank Performance	Unsatisfactory	Unsatisfactory

KEY STAFF RESPONSIBLE

	Task Manager	Division Chief	Country Director
Appraisal	Surajit Goswami	Mark Wilson	Ping Cheung-Loh
Midterm	Eugene Versluysen, then Michael Carroll	Mark Wilson, then Constance Bernard	Gobind Nankani
Completion	Steven Oliver	Thomas Wiens*	Myrna Alexander**

* Lead Specialist

** Country Director

Preface

This is a Performance Audit Report on the Small Farmer Services Project in Chile, for which Loan No. 3473-CH, in the amount of US$95.0 million equivalent, was approved by the Board on May 21, 1992 and became effective on October 1, 1992.

At the request of the borrower, the amount of US$36,210,613 equivalent was canceled with effect from July 24, 1997, the date of receipt by the Bank of the request. This cancellation reflected the borrower's decision to fund part of the project expenditures from fiscal resources and not from the proceeds of the loan. The loan was closed on June 30, 1998. The final disbursement was made on March 31, 1998.

Following customary procedures, copies of the draft audit report were sent to the relevant government officials and agencies for their review. Comments received from the Ministry of National Property have been incorporated into the Project Audit Report as Annex C.

1. Findings

1.1 The Small Farmer Services Project sought to raise the incomes of small farmers and to raise the capacity of the Agricultural Development Institute (INDAP), a government agency founded in 1962 that is responsible for credit and extension services, while also strengthening the Ministry of National Property (MBN) charged with land titling (Box 1). The project was implemented mainly by INDAP. It aimed to consolidate an already existing and well regarded model of agricultural extension based on competition between private service providers. At the outset the Bank sought to adjust this model, making it more responsive to the needs of the smallest farmers. As the fortunes of these farmers improved, the aim of the project was for them to assume a higher proportion of program costs and to secure access to commercial bank loans.

Box 1. Objectives, components, benefits and risks.

Objectives[a] "The project would (a) overcome constraints to increased small-farmer productivity and incomes and improved well being, (b) enhance the institutional capacity and effectiveness of INDAP and MBN, and (c) foster small-farmer access to commercial markets for their products and factors of production, and to publicly-sponsored agricultural development programs. To accomplish these objectives the project would primarily focus on the poorest small farmers (*minifundistas*)[b]"

Components[c]	*Project cost in US$ million (% of total)*			
	Estimated		*Actual*	
Total (US$ million)	236.0	(100)	183.6	(100)
Technology transfer	88.0	(37)	93.6	(51)
Complementary credit	120.0	(51)	77.2	(44)
Rural communications	2.3	(1)	1.0	(1)
Land titling	8.4	(4)	8.1	(4)
Institutional development				
INDAP	15.5	(7)	0?	
MBN	1.8	(1)	3.7	(2)

Benefits[a] "(a) increased on-farm productivity and family incomes and improved welfare, (b) improved and more cost-effective agricultural services, (c) improvement in the credit-worthiness of subsistence farmers, and (d) better targeting of public services including improvement of services to women farmers".

Risks[a] "(a) the potential for political over-eagerness to expand programs to address rural poverty, threatening INDAP's operational capability and (b) reluctance of commercial credit market to extend credit to graduates of INDAP program".

a. Staff Appraisal Report.
b. Farmers with less than 5 hectares of irrigated land or the rain-fed equivalent.
c. Implementation Completion Report

1.2 OED rates the project's outcome as unsatisfactory. This rating is a composite, based on relevance, efficacy, and efficiency—each of which is given a separate section in this report. Although the project's objectives were relevant, for the most part they were not attained, and cost effectiveness was not enhanced.

1.3 The audit finds that at project mid-term (late 1994)—owing largely to a change of administration in Chile—the main implementing agency, INDAP, ceased to be guided by the project objectives and design approved at appraisal: in particular, the original focus on the smallest farmers was largely dropped. The Bank should have restructured or canceled the project at this point; but failed to do so.

1.4 The project offers several insights that are potentially relevant to the design of new operations. First, the Chilean experience highlights the importance of making targeting objectives clear and reconciling them with the extension-driven aim of boosting farmer productivity. Among its various objectives, the Bank sought to redirect the extension program to focus on the smallest farmers. It gave insufficient consideration to the enormous socioeconomic and agroclimatic variations separating households in this group—not all had a vocation for intensive farming. Many small farmers are over sixty years old and may be in more need of pensions than extension advice. Also, extension may not be the best intervention for the poorest of the poor.

1.5 Second, the project's extension component was not supported by an adequate technology package, based on adaptive research geared to small farmer needs, taking into account the substantial agroclimatic variations between Chile's 13 regions. The expectation at appraisal that the Inter-American Development Bank would fund a parallel research project was not realized.

1.6 Third, the project had ambitious plans to deliver phased support to small farmers, progressively increasing cost recovery over a pre-defined term and effectively pushing these farmers toward private sector extension and credit. Although this graduation strategy was, in principle, appealing it was undercut by the absence of any monitoring of farmer progress and the lack of fallback options for those who failed to progress. Some degree of failure is inevitable and needs to be planned for. Also, the incentives for farmers to graduate to private-sector extension and credit need to be examined very carefully: in Chile, the incentives were not there.

1.7 Finally, the system of monitoring and evaluation should be geared to tracking outcomes rather than inputs. It should provide just-enough, just-in-time data that will allow for midcourse adjustments to targeting. It should make provision for a panel design impact evaluation that will make it possible to evaluate the impact of the project on farmer livelihoods. The need for appropriate base-line studies and the definition of the sampling methods should be specified as early in the project cycle as possible.

1.8. Other lessons emerged from a discussion of the audit findings with specialist Bank staff (Box 2). In some respects the most revealing aspect of this "shared learning" was the revelation that staff are unable to agree about the feasibility of graduating poor farmers from public to private extension. This issue merits closer examination by the thematic team.

Box 2. Shared Learning from this Evaluation

On January 13, 2000, members of the Bank's thematic group for Agricultural Knowledge and Information Systems met to listen to and comment on a presentation of the findings from the Implementation Completion Report and this Performance Audit Report. Among those present were several persons with experience of the project at the various phases of its development. The aim was to make the lesson learning part of the evaluation fully participatory, and to improve dissemination of findings. Participants agreed on the following lessons:

- When the original project objectives are compromised by the Borrower's loss of commitment, the Bank must be willing to take decisive action to restructure or cancel a project.
- The Bank needs to ensure early on that an adequate monitoring and evaluation system is in place and that the data generated is made use of, feeding back in a timely way into project management; objectives need to be precise enough to be monitorable.
- The Bank needs to make a more effective "public goods" case for extension projects--particularly when presenting them to its own management.
- Partners need to recognize that in countries where real wages are rising sharply, farm productivity will need to rise in step to keep returns to farm labor competitive; the scale of the productivity increase that this calls for may be beyond the capacity of research and extension services to deliver in the short-term *to the majority of small farmers*—expectations need to be adjusted accordingly.
- Extension cost recovery will only work when the implementing agency has a real incentive to cover costs.
- It is good practice in project preparation to have focus groups of the various stakeholders, using the logical framework to facilitate a discussion of project objectives, monitorable outcomes and key assumptions.

The following lessons were also suggested but not endorsed by all participants:

- "Graduation" of farmers remains sound in principle, but will only be realistic if the project focuses on farmers with real potential (other interventions may be needed for the poorest), and if the incentives are right for farmers and implementing agencies. Bank staff need clearer guidance on the "nuts and bolts" of putting a graduation program into practice, so they can provide informed advice to their clients when projects are prepared; the thematic group could facilitate this process.
- The same agency should not be responsible for both extension and credit: it removes the incentive for the extension agency to produce a relevant message because farmers may uncritically adopt in order to gain access to finance
- Farmers need to be actively involved in selecting extension firms and to feel ownership of the program—putting extension contracts out to private tender will not do this when the contracting process is controlled by the implementing agency, not by farmers.

Subsequent discussion of these points revealed substantial disagreement among staff about the feasibility of graduation strategies. These issues merit closer examination by the thematic team.

2. Relevance: Were the Project's Objectives Right?

RATING: SUBSTANTIAL

2.1 When the project was prepared, Chile had already attracted worldwide attention for the radical changes it had made to its extension system, changes that spoke of the potential for making the process of technology transfer much leaner and more efficient. By 1990, Chile had

- Drastically curbed the number of public sector extension personnel
- Moved responsibility for delivering extension from the public to the private sector
- Introduced competitive tendering for extension contracts, and
- Committed to increase farmer contributions to extension costs.

2.2 The project aimed to build on these promising foundations by increasing the number of the smallest farmers served, introducing phased extension such that as farmers progressed they would pay more for the service and ultimately graduate from the public program, and promoting small farmer access to commercial bank loans. These were ambitious and highly worthwhile objectives.[1]

2.3 However, the evaluation of the operation that preceded this project would conclude—three years after appraisal—that expectations about graduation needed to be substantially reduced.[2] There are other grounds for questioning the feasibility of the approach proposed. In *developed* countries, farmers typically do not pay more than the equivalent of 2 percent of gross sales for extension. In Chile, where today gross sales of INDAP's clients average US$3,000 per year, the project was expecting farmers at project start up to pay US$240, or 8 percent of gross sales.[3]

2.4 For the most part, project design was consistent with the stated policy of the Bank and the concerns of the Finance Ministry, but a closer reading suggests that it was not fully attuned to the development needs of the country, nor did it fit well with the experience and inclinations of the main executing agency, INDAP.

2.5 The Bank and the Finance Ministry gave a premium to fiscal austerity, trimming the public sector and phasing out subsidized credit programs. This policy had become ingrained in Chile during the military government, gaining in credibility from the generally sound macroeconomic performance of the country in this period. In the Bank, a similar orientation gained particular impetus from the 1989 Levy report, which argued that subsidized credit lines undermined

1. The principles are explained in Mark D. Wilson, "Reducing the cost of public extension services," in W.M. Rivera and D.J. Gustafson (eds.), Agricultural Extension, Amsterdam: Elsevier, 1991.

2. Chile: Agricultural Services and Credit Project (Loan 2481), Project Completion Report no. 13227, June 1994, para. 6.3: "The goal of graduating 30,000 clients from the program by the end of the project (i.e. after 3-4 years participation) was not feasible; it was found necessary in practice to extend many farmers' participation to get the desired results."

3. Chile: Small Farmer Services Project, Staff Appraisal Report no. 10133–CH, April 14, 1992, p. 19, Table 4.1 (Phase I beneficiaries).

financial sector development. At the same time, there was pressure from within the Bank to address poverty.[4] The project's design was fully consistent with these policies.

2.6 The project was not in line with the more progressive thinking on results-oriented design. Already, when this project was prepared, there were calls from some Bank quarters for greater clarity in the statement of project objectives and linkage of objectives to monitorable indicators.[5] The previous project in Chile had demonstrated the need for stronger monitoring and evaluation.[6] The audited project did not rise to these challenges. Objectives were couched at a high level of generality (Box 1). The design of monitoring and evaluation was geared to measuring inputs (e.g., number of extension agents and training courses) rather than impacts (e.g., measurements of technology adoption, yield and income increases). Specifically, the key performance indicators identified at appraisal[7] did not allow for measurement of the precision of targeting (how many poor farmers were served?) and the poverty impact (how much did rural incomes increase as a result of participation in the INDAP program?). A 1990 sector review had already drawn attention to the heterogeneity of INDAP's client group, suggesting the need for careful targeting.[8]

2.7 The Staff Appraisal Report (SAR) pledged to refocus INDAP's program to privilege farmers with less than 5 irrigated hectares or the rain-fed equivalent (*minifundistas*). Yet INDAP had thus far concentrated not on *minifundistas* but on farmers with 5–12 irrigated hectares or equivalent—farmers assumed to have development potential. The absence of a system for monitoring the accuracy of targeting made it likely that INDAP would continue to give preference to better-off small farmers (many of whom would already be known to extension workers).

2.8 Even if the project had successfully targeted *minifundistas*, it is not clear that a program of agricultural extension was the best way to reduce poverty among this group: many of the farmers had too little land and capital to make good use of improved technology packages. Also, many farmers in this poorest of groups were too old to adopt new farm practices; arguably they could derive more benefit from direct income support than from new technology.[9] Moreover, by targeting small farmers producing livestock and crops such as wheat—which, in Chile, creates fewer jobs per hectare than forestry—the project's employment impact was bound to be limited.

2.9 One alternative would have been to promote association of resource-poor farmers with better-off farmers with management skills: association may take a variety of forms, ranging from the contractual pooling of factors of production to the hiring in of labor, or simply one neighbor

4. Office memorandum entitled "FEPS Package", from S. Shahid Husain to Ping-Cheung Loh, October 4, 1991: "Poverty alleviation is a key project objective. The appraisal team should analyze and present in the staff appraisal report social and income indicators for targeted groups, and an assessment of expected benefits. I understand that the monitoring and evaluation system will focus on the project's poverty impact, as well as the program's experience in reaching women."

5. Willem Zijp, From Extension to Agricultural Information Management: Issues and Recommendations from World Bank Experience in the Middle East and North Africa; Europe, Middle East and North Africa Region: Technical Department Paper; volume 1, no. 2, June 1991, Report no. 10034 ("Objectives are seldom formulated in terms of expected results…", p. iii).

6. Chile: Agricultural Services and Credit Project (Loan No. 2481), Project Completion Report no. 13227, June 1994, paragraph 11.2(b).

7. Chile: Small Farmer Services Project, Staff Appraisal Report no. 10133–CH, Annex 7, April 14, 1992.

8. Chile. Sustaining Growth: An Agricultural Sector Review, Report no. 8759, p. 15, June 1990.

9. A later project, implemented by INDAP with Bank support, would address the needs of poorer dry land farmers: Secano Rural Poverty Alleviation and Natural Resource Management Project (Loan No. 3974-CH), approved in 1996.

copying another's practices. Even beneath INDAP's ceiling—it is not mandated to serve farmers with more than 12 irrigated hectares or the dry land equivalent—there were probably better-endowed farmers capable of acting as magnets for poorer neighbors—assuming of course that the project had given due consideration to targeting. Alternatively, the project could have stuck with its originally constituency—*minifundistas*—but adopted much tighter criteria for targeting poor farmers with development potential, based on matching grants rather than credit and downplaying the objective of graduation.

2.10 The ambitious plans for increasing small farmer access to commercial bank credit took insufficient account of the weak incentives on offer. INDAP arguably had no interest in pushing its credit subjects toward commercial banks because, given that only the most solvent would be eligible for the move, INDAP may have feared that its own loan repayment rates would suffer. However, INDAP argues that the intention was never fully to wean clients off the agency's credit, merely to encourage them to seek supplementary credit from commercial sources (to this end, INDAP sets a limit of about US$8,000 for short-term loans to individuals).[10]

2.11 From the producers' side there was likely to be an equal disinclination to shift from INDAP to commercial bank loans, partly because INDAP's loans carried slightly lower interest rates but mainly because of the large implicit subsidy that INDAP offered through its willingness to forgive bad loans. As long as INDAP was willing to forgive debts there was likely to be little farmer demand for harder money. An innovative aspect of the project's design was providing commercial banks with the credit history of INDAP clients thus, in principle, lowering the banks' transaction costs. But it was acknowledged that commercial banks might not respond: however much their costs were lowered, there would always be borrowers more attractive than small farmers.

2.12 INDAP (and the Implementation Completion Report) argue that the original project design was relevant to the circumstances of c.1990 but became less so as the decade progressed—both sources invoke the adverse trends in prices, exchange rate and weather to explain the post–1994 restructuring of the project. However, closer analysis suggests that the post–1994 model—which emphasized crop diversification and group-centered business plans—was already a more appropriate design in 1990. There was already significant diversification among small farmers before the project was prepared (Table B1); the fall in the area devoted to traditional crops and livestock may have been accentuated by the shocks of the mid–1990s but it was not caused by them. The 1990 sector review had already drawn attention to these trends.[11]

10. The ceiling is US$19,000 for long-term loans to individuals. There is no ceiling for loans to groups.

11. Sustaining Growth, 1990, *op.cit.*, Executive Summary.

3. Efficacy: Did the Project Achieve its Objectives?

RATING: NEGLIGIBLE

3.1 Although, *de facto*, INDAP redefined the project's objectives at midterm, there was no formal (Board-approved) revision. Therefore, the project's achievements must be assessed against the original objectives, as stated in the Staff Appraisal Report. Ninety-five percent of actual project costs were devoted to two components—technology transfer and credit. An overall judgment about the success or failure of the project must hinge on performance in these two areas.

3.2 *Technology transfer.* One of the key performance indicators specified at the outset was the number of families served by INDAP's extension program. At appraisal it was projected that there would be 92,000 beneficiary families by the end of the project. Coverage stood at 47,875 farm families in 1992 and 50,369 in 1997 (Table B2). At appraisal, the total universe of farm families falling within INDAP's legal mandate—those with no more than 12 irrigated hectares or equivalent—was estimated at 393,000, meaning that at most INDAP reached 13 percent of the potential constituency.

3.3 The indicators track the total number of beneficiaries in the program but do not pinpoint how many of these correspond to the target group: *minifundistas*. After mid-term, the focus shifted to farmers with somewhat larger holdings (5 to12 irrigated hectares or equivalent). As indicated in the Relevance section, this switch was justified; it was not intrinsically incompatible with the Bank's original poverty reduction imperative.

3.4 The original design paid special attention to raising the number of women served. By 1996, 35,000 women had benefited from the project compared to a target of 60,000. After 1996, the focus shifted from providing specialized extension for rural women (with female extension workers) to a focus on the family as a whole. (A study on women's extension needs was scheduled at appraisal but was not completed.)

3.5 INDAP aimed not only to increase the number of families served but also to move farmers to a development plane where they would no longer need INDAP assistance. This process of "graduation" would be essential if—as intended—INDAP were to progressively widen its sphere of influence; essential because INDAP's budget limited the number of beneficiaries that could be served at any one time. Given the weakness of the monitoring, there are no data on progress achieved in moving farmers from lower to higher development levels, and it is not clear how many graduated. There were no performance indicators adapted to measuring development level: no criteria that could be used to justify moving farmers from one phase of the program to the next. In any event, the phasing proposed at appraisal had been abandoned by midterm.

3.6 *Credit.* The total number of credit beneficiaries in 1998 was only 55 percent of the target for project closing set at appraisal.[12] The proportion of long-term lending rose more than

12. See Implementation Completion Report.

expected, owing to INDAP's decision, after 1994, to give priority to more elaborate schemes for farm development (Table B3).

3.7 Several attempts were made to facilitate access by INDAP clients to commercial banks (although no physical targets were set at appraisal). As agreed at appraisal, a study was conducted to examine constraints on access and ways to overcome them. INDAP promoted a scheme to subsidize the transaction costs of banks lending to small farmers; by the end of 1997 only 580 loans had been granted using this facility. Only 4 percent of INDAP's clients had borrowed from commercial banks in 1997.[13]

3.8 *Other components.* Land titling[14] was the most successful of all project components. The appraisal target was to issue 43,500 titles; by project end the number issued was 41,933 (about 40 percent of which were given to women). The rural communications component was discontinued at an early phase of project execution reflecting weak commitment by the borrower. All the projected physical investments associated with strengthening INDAP were made early in the project's life. Training was provided to 1,170 extension workers and supervisors, somewhat short of the original target (1,390). The number of extension workers employed in 1997 was 1,407, compared to the original goal of 1,671. The strengthening of the Ministry of the National Property (MBN)—through expenditures on office rehabilitation, vehicles, and surveying equipment—may have contributed to the satisfactory record on land titling.

3.9 *Income effect.* The overarching objective of the project was to boost farmer incomes. Project design did not furnish the means to measure whether this objective was achieved. A baseline survey was conducted, but the data were never processed—there was no benchmark against which income and productivity changes could be measured.

3.10 The project did not allow for an impact evaluation. However, two studies conducted outside the project examined the effect of INDAP's program on farmer incomes. A study based on 1994 data finds no evidence of a positive income effect[15] but the other study (referring to 1997) does find a positive impact.[16] These are both cross-section studies with the corresponding methodological limitations.[17] A third (panel) study suggests that the income effect is positive, but it only examines farmers in one of Chile's thirteen regions.[18] This study found that the increase in income was roughly equal to the average expenditure per farm made by INDAP. Participation in the program increased the intensity of farming activity although it is less clear that this entailed diversification out of traditional crops. The effect on crop yields and farming techniques was also mixed. The program was not well targeted and the effect of participation on household poverty status was not statistically significant.

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13. See Implementation Completion Report, footnote 16.

14. See Borrower's comments (Annex C) for amplication of the benefits associated with the land titling component.

15. Ramón López, "Determinants of rural poverty in Chile", in Ramón López and Alberto Valdés (eds.), Rural Poverty in Latin America, World Bank: Rural Development Department, February 1999.

16. Evaluación del programa de transferencia tecnológica de INDAP: Informe Final, Ministerio de Economía/Ministerio de Agricultura, Chile, September 1998.

17. In particular, there is the problem of selection bias: INDAP may tend to focus on farmers who are already performing relatively well. The only way to isolate the incremental benefit (or cost) associated with INDAP is to employ a panel design.

18. Christopher Edmonds, "The Effect of Technology Transfer Program Participation on Small Farmers in Chile," October 1998 manuscript, forthcoming in Cuadernos de Economía. (The study examined Ñuble province, in Region VIII).

3.11 On balance, the evidence does not show that INDAP has had a major positive impact on small farm development. This may partly be explained by the lack of an appropriate technology package for small producers.

4. Efficiency: Was the Approach Cost Effective?

RATING: NEGLIGIBLE

4.1 No economic rate of return was estimated in the Staff Appraisal Report or the Implementation Completion Report. The project does not identify alternative efficiency indicators but, based on the Staff Appraisal Report, the audit derived three such indicators.

4.2 *Unit cost of extension.* At appraisal it was estimated that the unit cost of providing extension would decline from US$240 per family to US$140, mainly because the number of families served by each agent was projected to rise from an average of 66 pre-project to 90 (for "most advanced" farmers).[19] In practice, the number of families per extension worker fell from 40 in 1993 to 37 in 1997.

4.3 The data in the Staff Appraisal Report on current extension costs and the expected rate of decline seem to be overoptimistic. Data supplied by INDAP for the audit show that the cost per family of delivering extension averaged US$320 in 1992, and ranged from US$278 to US$527 in 1997—the higher figure applying to "farmers with greater business skills" (Table B4). These estimates refer to the direct cost of extension and do not include the agency's overhead. In the same period, costs per farmer were US$423 in Nicaragua and US$1,590 in the Netherlands.[20] The number of permanent staff in INDAP grew only slightly (from 944 in 1990 to 1,097 in 1998), and over the same period the share of administrative costs in total expenditures remained constant at 16 percent. INDAP's operating costs must have increased in absolute terms—how much is not clear. INDAP's total budget increased by 19 percent in real terms between 1992 and 1998 (Table B5).

4.4 *Farmer contribution to extension costs.* The Loan Agreement stipulated that by June 1994 the borrower should define the criteria for distinguishing "small" and "medium" farmers, the former to pay (by June 1996) 30 percent of extension costs and the latter 100 percent. In practice, cost recovery ranged from 0 to 19 percent in 1992, and from 0 to 9 percent in 1997 (Table B4). The design of the phases and modules changed repeatedly in the life of the project, so there were no consistent criteria for determining what level of recovery applied to a given farmer. None of INDAP's clients graduated to private sector extension (i.e., bearing 100 percent of the costs), although graduation remained, in principle, an objective.

4.5 *Loan recovery rate.* Over the project's life, recovery rates averaged 82 percent for short-term loans and 80 percent for long-term loans, compared to an appraisal target of 92 percent. Recovery rates in the first two years of the project improved on the record in the two years or so

19. Chile: Small Farmer Services Project, Staff Appraisal Report no. 10133–CH, April 14, 1992, p. 20, para. 4.14.

20. Ariel Dinar and Gabriel Keynan, "Medición del costo y algunos indicadores de rendimientos de la extensión pagada...Nicaragua," Debate Agrario, Vol. 29-30, pp. 191-221, September 1999.

before appraisal (Table B6). Since 1994, recovery rates have continued to improve for long-term loans but have fallen back somewhat for short-term loans. In no year has the 92 percent target been achieved.

4.6 The number of bad loans forgiven by INDAP averaged 11,026 per year in 1990–94 and 11,037 in 1995–98, respectively 16 percent and 13 percent of the average number of credit beneficiaries in these periods. In 1990-94 the volume of loans forgiven equaled 10 percent of the portfolio, falling to 5 percent in 1995-98.[21]

4.7 Taking these various factors together, there is no compelling evidence that the efficiency of resource use increased during the life of the project. By virtue of its design flaws, and the context in which it was inserted, the project had little leverage over efficiency. For example, according to the graduation theory, INDAP's clients would no longer be eligible for the agency's credit after a three-year period, ostensibly giving them an incentive to build up a positive credit history with INDAP that could be used subsequently to secure commercial bank loans. However, neither INDAP nor the Bank put theory into practice. INDAP was never convinced by the idea of graduation and, partly because INDAP's operation depended very little on project funds, the Bank had very little leverage over the agency.

5. Institutional Development Impact

RATING: NEGLIGIBLE

5.1 There is no evidence that at INDAP *headquarters* the management of human and financial resources was significantly enhanced by the project. The technical quality of the management team seems to have fallen since the 1994 change of administration. In particular, there was no strengthening of the system of monitoring and evaluation, despite improvements in computing capacity and telecommunications. The absence of a system for monitoring the outcome of work by the regional offices makes it impossible for INDAP to establish some linkage between the performance of these offices and the annual budget they are given. Performance of INDAP's regional offices was reportedly enhanced by the training and equipment provided by the project but, because of weak monitoring, the incentive for regional offices to perform better is not strong.

6. Sustainability

RATING: UNLIKELY

6.1 The sustainability of project results is moot, given the overall failure to meet appraisal targets and the abandonment of the original project design by 1994. INDAP's program enjoys solid political support, as attested by the steady growth in its budget (Table B5) but this is not a project-specific outcome. The substantial achievement on land titling seems likely to be sustained, but because this represented only 4 percent of project spending it cannot offset the weak results in other quarters.

21. INDAP, Gestión Crediticia INDAP. Memoria Anual. Año 1998, Santiago 1999, pp. 2–4.

7. Bank Performance

RATING: UNSATISFACTORY

7.1 Bank inputs to this project were somewhat higher than the average for agriculture projects in the Latin America and Caribbean Region. From preparation through appraisal, 161 staff-weeks were invested, compared to an FY91 regional average of 124 staff-weeks. Supervision intensity was 16.4 staff-weeks per year (against a regional average for 1992-97 of 15.3).

7.2 Bank staff and borrower both perceive that the supervision effort slackened around midterm. The official record shows that staff actually spent more days in the field after 1994 (166 staff-days) than from 1992 to 1994 (128 staff-days); but the accuracy of time recording was probably low because, after 1994, task managers were required to supervise three projects on the same mission. After midterm the Bank was possibly more focused on delivering another INDAP-executed project,[22] whose design was more closely geared to the needs of the rural poor. In 1996, following instructions from management to reduce work on Chile, the task manager at that time estimates that he did not devote more than two weeks to the Small Farmer Services project.

7.3 Throughout the project's life, the range of staff specialization was fully in line with design needs, including economists, financial analysts, agriculturists, and institutional development specialists. Until 1996, the project was managed by persons with a finance rather than an agriculture or extension background and supervision missions correspondingly gave primary focus to the credit component.

7.4 During project preparation, the Bank focused on re-targeting INDAP's coverage but did not seriously consider alternatives; another INDAP-executed project was underway at the time and this probably created inertia. There were a number of reasons why the Bank remained wedded to INDAP. This agency had a long track record—it was set up in 1962—and was well known to the Bank. It was the only agency (with the possible exception of Banco del Estado) that had a nationwide network of branch offices. Its local staff were close to farmers and generally well regarded by them. On the other hand, INDAP's extension agents were primarily focused on staple crops and livestock—they were not likely to be the best advocates of crop diversification. Also, INDAP did not have a tried-and-tested technology package to disseminate and there was no tradition of farmer-centered adaptive research; the national agricultural research system was not geared to serving small farmer needs. At appraisal the Bank argued that an upcoming project to be supported by the Inter-American Development Bank would strengthen small farmer oriented research, but this project failed to materialize. INDAP's programs involved minimal consultation with farmers or with other service providers in the same locality (notably, municipal authorities) and the Bank did not press for a more participatory approach.

7.5 INDAP and the Finance Ministry observed that the close dialogue between the Bank and the borrower from appraisal through midterm was not sustained in the second half of the project's life. The original task manager moved to another unit of the Bank in 1994 and, from then until completion, there were three other task managers. The 1994 change of personnel—which was prompted by a reorganization at Bank headquarters—coincided with a change of government in

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22. Secano Rural Poverty Alleviation and Natural Resource Management Project (Loan No. 3974-CH), approved in 1996.

Chile, which in turn led to the appointment of a new head of INDAP—and a shift in the agency's policy, which rendered the original project design irrelevant. Although there was a protracted midterm review at this stage, Bank staff did not discuss the terms of INDAP's policy shift with the agency, and did not take steps to formally revise the project's objectives.

7.6 A detailed "midterm" report—finished close to project completion—was prepared by an independent consultant.[23] This report indicated that the project had lost direction. An action plan based on this report's recommendations was not accepted by INDAP. Other red flags were raised.[24] But supervision reports continued to state that the project was meeting its objectives. Bank management evidently chose, at this late stage, to let the project run its course rather than spend staff resources on restructuring or cancellation. Also, one of the task managers notes that because Chile's privatized model of extension was viewed as so promising—continuing to attract visitors from around the world—there was a disinclination to rate the project as unsatisfactory.

7.7 The Bank did not contribute effectively to the design and implementation of an monitoring and evaluation system that would have permitted an accurate assessment of the project's results. The Staff Appraisal Report specifies the criteria for graduating farmers from Phase I to Phase II[25] but these criteria are not fully reflected in the list of performance indicators,[26] and supervision missions did not stress the tracking of these indicators—partly it seems because INDAP was never fully convinced of the graduation objective and failed to take steps to generate the relevant data.

7.8 On a positive note, the Bank fought justifiably to include components on land titling and female-oriented extension—against initial resistance from the government. Staff at the MBN gave high marks to the Bank on its supervision of the first of these components.

8. Borrower Performance

RATING: UNSATISFACTORY

8.1 The project was identified in 1990, coinciding with the start of a new government that was committed to expanding the number of poor farmers served by INDAP. However, there were disagreements between INDAP and the Finance Ministry about the design of the project, leading to a delay in preparation and appraisal. The Implementation Completion Report questions the borrower's ownership of the project and its commitment to project objectives. It also notes that INDAP was slow to review its portfolio accounting system, raising concerns that this agency did not want to expose its poor loan recovery performance. Arguably, the agency had little incentive to conduct this review. The massive real increase in INDAP's budget during the project's life

23. Patricio Fernández Seyler, Análisis de Mediano Plazo del Proyecto BIRF 3473-CH, April 1996.

24. Note the following comment, made by a Bank extension expert, unassociated with the project, who conducted a study tour to Chile in early 1996: "The project seems to have run out of steam and the overall strategy ought to be redefined..." (Office Memo entitled Small Farmer Services Project: Findings and Recommendations, from Charles Ameur to Michael Carroll, March 15, 1996).

25. Pages 64-65.

26. Annex 7.

(Table B5) suggests that Congress was willing to condone loan forgiveness—perhaps regarding it as an acceptable price for keeping small farmers from crowding into the cities. The scale of the budget increase also suggests that the Bank may have had a marginal role in providing resources to INDAP, and that INDAP could therefore afford to ignore its advice.

8.2 INDAP was initially reluctant for the project to be run from a specialized coordinating unit. This was partly reflected in INDAP's failure to set up a separate account for project expenditures, the proceeds of the loan being added to the budget received from Finance for the agency's overall program. In the end, a coordinating unit was established and operated effectively for the first half of the project. But after INDAP changed direction in 1994, the unit's role became increasingly untenable, this being aggravated by the Bank's limited engagement in the revision of program objectives.

8.3 Project implementation was hindered by the inconstancy of INDAP's program strategy. The Implementation Completion Report distinguishes three phases, only the first of which (1993–94) was compatible with the project's original design. From 1995 to 1996, the focus shifted to micro-regional projects and from 1997 onwards INDAP targeted groups of producers. INDAP greatly diversified the range of services provided but, despite real budgetary growth of 19 percent from 1992 to 1998, its institutional capacity did not grow proportionately, and consequently the quality of service declined. In a February 1996 survey, INDAP's regional managers reported that they were poorly prepared to implement a strategy geared to group-centered commercial agriculture, lacking skills in marketing and producer organization.[27]

8.4 Despite these reservations, the performance of INDAP's extension arm was sound in many respects. The commitment of the staff—particularly in the regions—and the respect they are accorded by farmers, has been noted by various Bank staff.[28] However, INDAP headquarters in Santiago appears to have given relatively weak oversight to the project after 1994, mirroring the Bank's own lack of engagement. On the other hand, the redesign of the program to privilege commercially-oriented farmer associations was a logical step, arguably more in tune with Chilean needs than the project: in this respect, INDAP was ahead of the Bank.

8.5 INDAP's monitoring arm has not taken steps to establish the panel survey design that would allow for more precise estimation of the program's effects. Use could have been made of nationally representative household surveys (CASEN)—conducted annually by government—to build a control group of persons not participating in INDAP, thus allowing for incremental benefits to be quantified and measured against costs.

27. Seyler, op.cit. 1996 (Mid-term review), p. F-8.

28. The following comment is typical: "I also share the view expressed in previous supervision reports as to the commitment of those agents from both the public and private sector involved with the support services to agriculture" (Office Memo entitled Small Farmer Services Project: Findings and Recommendations, from Charles Ameur to Michael Carroll, March 15, 1996).

BASIC DATA SHEET

CHILE—SMALL FARMER SERVICES PROJECT (LOAN 3473–CH)

Key Project Data

	Appraisal estimate	*Actual or current estimate*	*Actual as % of appraisal estimate*
Total project costs (US$)	236.0	183.6	78%
Loan amount (US$)	95.0	58.8	62%
Cancellation (US$)	NA	36.2	NA
Date physical components completed: June 30, 1998			

Cumulative Estimated and Actual Disbursements *(US$ thousands)*

	FY92	*FY93*	*FY94*	*FY95*	*FY96*	*FY97*	*FY98*
Appraisal estimate	9.7	16.0	30.4	52.0	77.1	91.5	95.0
Actual	0.0	13.8	22.7	35.0	56.8	58.8	58.8
Actual as % of estimate	0.0	86.3	74.7	67.3	73.7	64.3	61.9
Date of final disbursement: March 31, 1998							

Project Dates

Steps in project cycle	*Original*	*Actual*
Identification		May 1990 (during supervision of the Agricultural Services and Credit Project)
Initial Executive Project Summary	August 1990	August 8, 1990
Preparation	August 1990	August 1990—March 1991
Pre-appraisal	March 1991	July—August 1991
Appraisal	March 1991 (IEPS) September 1991 (FEPS)	October 1991
Negotiations	—	March 16–20, 1992
Letter of Development Policy (if applicable)	—	A Statement of Policy/Program Matrix was provided by MAG and Strategic Plans were provided by INDAP and MBN prior to loan negotiations which took place in March 1992.
Board Presentation	December 1991 (IEPS) March 1992 (FESP)	May 21, 1992
Signing	—	August 7, 1992
Effectiveness	November 10, 1992	October 1, 1992
Mid-term review	July 1994	November 1994—July 1996
Project Completion	December 31, 1997	December 31, 1997
Loan Closing	June 30, 1998	June 30, 1998

Staff Inputs (staff weeks)

Stage of project cycle	Actual	
	Weeks	*US$ ('000)*
Preparation to Pre-Appraisal	126.0	277.4
Appraisal	35.2	78.0
Negotiations to Board Approval	12.1	19.7
Supervision	82.0	245.2
Completion	6.1	18.7
Total	261.4	639.0

Mission Data

Stage of project cycle	Date (month/year)	No. of staff in field	Duration of mission (# of days)	Specializations represented[a]	Performance ratings Impleme nt. Status	Develop. Objectives	Types of problems[c]
1. Preparation	August 1990	1	7	Institutional Specialist	—	—	Lack of awareness of priorities and content of the proposed project. Capacity gaps analysis initiated.
2 Preparation	Sept./Oct. 1990	6	18	Agriculture Ag. Economics Fin. Analysis Social Science	—	—	Slow progress in project preparation. Main issues – INDAP's financial solvency and the level of loan arrears
3. Preparation	Oct./Nov. 1990	1	4	Institutional Specialist	—	—	Greater coordination effort needed in inter-institutional effort of project preparation
4. Preparation	Oct. 1990	1	4	Information Technology	—	—	Consulting assistance required to define the information technology needs at INDAP and the MBN.
5. Pre-appraisal	March 1991	8	12	Agriculture Ag. Economics Fin. Analysis Institutions Social Science Inf. Technology Legal	—	—	Lack of decision-making on a broad range of issues. Major differences of opinion between the Ministerio de Hacienda and INDAP on a range of issues, including subsidy programs, length of beneficiary participation in technology transfer programs, interest rates, credit-technical assistance linkage.
6. Pre-appraisal	July 1991	6	17	Agriculture Ag. Economics Institutions Social Science Procurement	—	—	Key issues defined were: build-up rates in technology transfer; graduation from technology transfer program; loan arrears and portfolio accounting; subsidies; graduation from INDAP credit program; and project coordination.
7. Pre-appraisal	August 1991	1	12	Fin. Aanlysis	—	—	The portfolio information system was found to be inadequate. The poorest farmers will have difficulty graduating to the commercial banking sector because their average requirement is less than one-tenth of the average break-even loan of US$8000 equivalent.
8. Appraisal	October 1991	5	?	Agriculture Ag. Economics Fin. Analysis Institutions Social Science	—	—	Appraisal emphasized: transition to commercial bank credit, improvement in portfolio management, targeted beneficiaries, interest rates, social extension and the graduation of INDAP technology transfer beneficiaries.

Stage of project cycle	Date (month/year)	No. of staff in field	Duration of mission (# of days)	Specializations represented[a]	Performance ratings: Impleme nt. Status	Performance ratings: Develop. Objectives	Types of problems[c]
Supervision 1	July 1992	1	5	Fin. Analysis	—	—	None. "Pre-Loan Effectiveness" mission.
Supervision 2	Nov. 1992	1	7	Fin. Analysis	1	1	Anticipated slow start to disbursements for Balance of Payments reasons
Supervision 3	Mar./April 1993	1	10	Agriculture			
Supervision 4	April 1993	1	5	Fin. Analysis	1	1	
Supervision 5	Aug. 1993	2	10	Fin. Analysis Agriculture	1	1	Over-burdening of INDAP with other governmental social programs; *anticipation* of possible interest rate covenant problem
Supervision 6	Nov. 1993	2	8	Fin. Analysis Agriculture	1	1	Delay in making the scheduled change of interest rate on sub-loans
Supervision 7	May 1994	5	11	Fin. Analysis Agriculture Institutional Development Rural Development	2	2	Budget restrictions, including funding from the Loan, for 1994 (and anticipated for 1995).
Supervision 8	Aug. 1994	1		Fin. Analysis			
Supervision 9 (Mid-term review, first stage)	Nov. 1994	3	3	Economics Agriculture Rural Development	S	S	Evidence that commercial banks are reluctant to lend to farmers that could graduate from INDAP's credit program.
Supervision 10 (Mid-term review, second stage)	April 1995	1	16	Economics	S	S	Reluctance of commercial banks to lend to potential graduating farmers of INDAP's credit program. Failure by Stage II technology transfer beneficiaries to make the required contribution to cost recovery.
Supervision 11	Sept. 1995	3	7	Agriculture Irrigation Economics			It was concluded that the mid-term review had not been finalized. INDAP agreed to hire an independent consultant to prepare a consolidated mid-term review report for the supervision mission scheduled for January 1995
Supervision 12	Jan. 1996	4	7?	Agriculture Irrigation Economics			

Stage of project cycle	Date (month/year)	No. of staff in field	Duration of mission (# of days)	Specializations represented[a]	Performance ratings: Impleme nt. Status	Performance ratings: Develop. Objectives	Types of problems[c]
Supervision 13	April 1996	2	5	Agriculture Economics?			Issues were raised concerning the audit of internal control processes at INDAP and MBN, as well as the information presented in the audit reports of the CGR.
Supervision 14 (Finalization of the mid-term review)	July 1996	2	7	Agriculture Ag. Economics			The mid-term review report high-lighted as areas for improvement the graduation strategy (both credit and technology transfer) and the overall quality control of technology transfer services.
Supervision 15	Jan. 1997	4	14	Agriculture Ag. Economics Economics	S	S	The difficulties anticipated earlier in graduating INDAP credit recipients to the commercial banking sector started to become apparent. The Action Plan, resulting from the mid-term review finalized in July 1996, was agreed. A plan to improve the monitoring and evaluation system was agreed upon.
Supervision 16	July 1997	3	7	Agriculture Ag. Economics Economics			
Supervision 17 (and completion)	Jan. 1998	3	9	Agriculture Ag. Economics Economics			Despite advances in the project accounting system, it still does not generate a Sources and Uses of Funds Statement in accordance with Bank's requirements.

Other Project Data

Borrower/Executing Agency: Chile/INDAP

Related Bank Loans

Project Name and Loan No.	*Purpose*	*Year of approval*	*Status*
Agricultural Services and Credit Project (Ln. 2481-CH)	Credit and Technical Assistance for agricultural development	1984	Closed
Irrigation Development Project (Ln. 3528-CH)	Investment in small- and medium-scale investment	1992	Closes in June 1999
Secano Rural Poverty Alleviation and Natural Resource Management Project (Ln. 3974-CH)	Small-scale on-farm investment	1996	Operational

SUPPLEMENTARY TABLES

Table B1. Land Use Changes: Small-Scale Farming, 1987-97.

	Area (hectares)	
	1986-87/a	1996-97/b
Fruits	34,872	41,204
Vineyards	20,532	21,344
Vegetables	40,509	43,013
Seeds	--	2,244
Annual crops	376,461	232,669
—wheat	(192,418)	(104,681)
—beans	(32,719)	(14,328)
—potatoes	(40,119)	(40,043)
Planted pasture	41,678	64,765
Natural pasture	1,303,885	836,847
Other	638,226	524,966
Total	2,476,546	1,768,494

/a Jorge Echenique & Rolando Nelson, *La Pequena Agricultura*, Santiago: Agraria, 1988.
/b Chile: Censo Agropecuario, 1996-97

Note. Same definition of "small-scale farming" is applied in /a and /b. It refers to farm units of a size small enough to be worked primarily with family labor, with only temporary use of hired labor. This size varies between the 90 agroclimatic regions of Chile, and reflects differences in cropping pattern: it ranges from 5 hectares (irrigated) in Norte Chico to 50 hectares (rain-fed) in Sur Humedo. The territorial area of continental Chile is 75.6 million hectares; in 1997, total cultivable area was 5.1 million hectares.

Table B2. INDAP Extension Program: Number of Users, 1990-99

Year	N of users
1990	32,951
1991	42,072
1992	47,875
1993	51,273
1994	50,426
1995	50,157
1996	49,214
1997	50,369
1998	52,802
1999*	49,649

Source: INDAP, special tabulation for audit mission, November 1999.
*Up until September 30.
Note. The (1992) appraisal target was to reach a total of 84,000 users in Year 5 of the project. Data in Table B2 above vary somewhat from those in the implementation completion report.

Table B3. INDAP's Lending Volume, 1990-98/a

Year	Short-term credit (%)	Long-term credit (%)	Total (%)
1990	11,060.810 (90.9)	1,227,479 (9.1)	12,288,289 (100.0)
1991	9,183,509 (83.3)	1,845,744 (16.7)	11,029,253 (100.0)
1992	8,292,559 (83.2)	1,669,807 (16.8)	9,962,366 (100.0)
1993	9,264,688 (82.1)	2,019,338 (17.9)	11,284,026 (100.0)
1994	10,992,382 (69.0)	4,929,624 (31.0)	15,922,006 (100.0)
1995	12,041,313 (60.6)	7,825,794 (39.4)	19,867,107 (100.0)
1996	15,626,340 (61.3)	9,854,606 (38.7)	25,480,946 (100.0)
1997	13,470,834 (56.8)	10,242,276 (43.2)	23,713,110 (100.0)
1998	14,263,523 (49.8)	14,362,251 (50.2)	28,625,774 (100.0)

Source: INDAP, special tabulation for audit mission, November 1999.
/a Thousands of 1998 pesos.

Table B4. Cost per User of Agricultural Extension, 1990-99/a

Year	"More entrepreneurial"/b	"Less entrepreneurial"/b	% of cost paid by user/c
1990	214	189	NA
1991	219	202	NA
1992	320	/d	0-19%
1993	362	/d	0-23%
1994	370	144	0-26%
1995	334	164	0-15%
1996	497	271	0-17%
1997	527	278	0-9%
1998	472	270	NA
1999	490	281	NA

Source: INDAP, special tabulation for audit mission, November 1999.
/a Current US dollars at annual average exchange rate.
/b "More" and "Less" refer respectively to farmers with developed and less developed market orientation and management skills.
/c The level of cost recovery varies by INDAP sub-program. Data in this column show the range of farmer shares (from zero—full subsidy—to the maximum).
/d In 1992 and 1993, the distinction between "more" and "less" entrepreneurial farmers was not applied.
Note. These costs do not include INDAP's administrative overhead.

Table B5. INDAP's Budget, 1990-99/a

Year	Budget
1990	32,245,253
1991	39,478,230
1992	53,568,984
1993	55,922,222
1994	61,235,482
1995	53,916,758
1996	64,750,918
1997	65,064,761
1998	63,897,837
1999*	72,997,281

Source: INDAP, special tabulation for audit mission, November 1999.
/a Thousands of 1998 pesos assigned.
*Up until November 5. .

Table B6. Overdue Loans: Share of Total Portfolio, 1990-98 (%).

Year	Short-term loans	Long-term loans
1990	30.5	39.2
1991	27.8	40.2
1992	27.4	41.2
1993	15.8	23.8
1994	13.5	17.4
1995	14.3	12.3
1996	13.7	11.9
1997	20.4	13.1
1998	21.8	13.6

Source: INDAP, special tabulation for audit mission, November 1999.

Annex C

REPUBLIC OF CHILE
MINISTRY OF NATIONAL PROPERTY
LAND TITLING DIVISION

MAP/GTG/mmd

Background: Letter from IBRD dated February 10, 2000
Re: Loan 3473-CH. Audit Report.

SANTIAGO, March 9, 2000

FROM: Land Titling Division Chief

TO: MR. GREGORY K.INGRAM
MANAGER, SECTOR AND THEMATIC EVALUATIONS GROUP
OPERATIONS EVALUATION DEPARTMENT
WORLD BANK

It is my pleasure to convey, as requested, observations on the preliminary version of the Performance Audit Report on the Small Farmer Services Project.

The Audit comments favorably on the activities carried out by the Ministry of National Property when it states that "land titling was the most successful of all project components." Later, it points out that "the appraisal target was to issue 43,500 titles; by project end the number issued was 41,933" and that "the strengthening of the Ministry of National Property—through expenditures on office rehabilitation, vehicles, and surveying equipment—may have contributed to the satisfactory record on land titling." The Report also underscores the high proportion of women beneficiaries (40%).

We would like to suggest that the final version of the report expound at greater length the benefits of land titling regularization programs.

In this connection, almost 90% of the replies to a representative sample of beneficiaries described the titling program as useful or very useful. Factors taken into consideration were: possibility of access to social programs; possibility of access to investment programs; possibility of access to personal loans; peace of mind with regard to the future; and better relations with neighbors. The beneficiaries estimate that regularization alone at least doubles the value of the property. Greater potential access to social programs takes the form of subsidies for home ownership, and participation in potable water, electricity, sanitary core, and rod and street enhancement projects. The Performance Audit also points out that once their titles are in order, new owners have a higher propensity to invest and carry out improvements to their property, such as expanding and repairing housing and installations, carrying out small irrigation works, planting trees, repairing fences, etc.

I consider it important to disseminate among the executives, researchers, and professionals who read the final version of the Performance Audit not only the quantitative achievements of the land titling component I refer to, but also the qualitative improvements for the families benefiting from it.

Sincerely yours,

MARISOL ARAVENA PUELMA
LAWYER
LAND TITLING DIVISION CHIEF

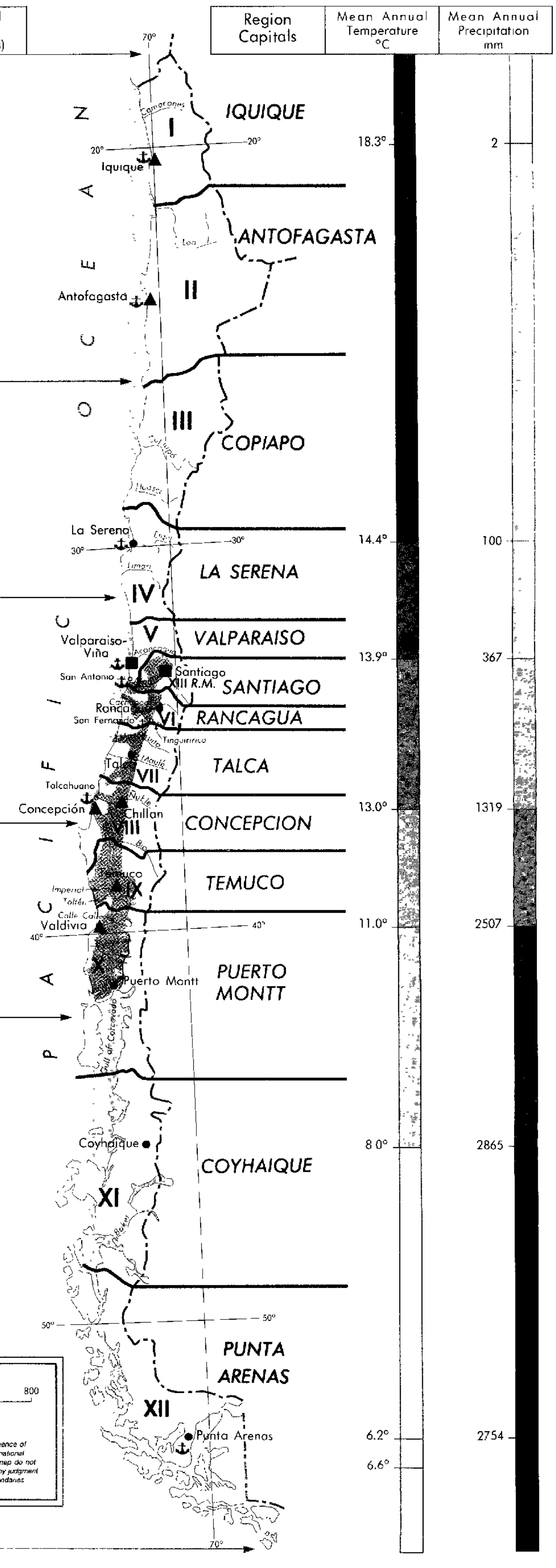
cc.
-Ministerial Cabinet
-Cabinet of the Assistant Secretary
-Division archives

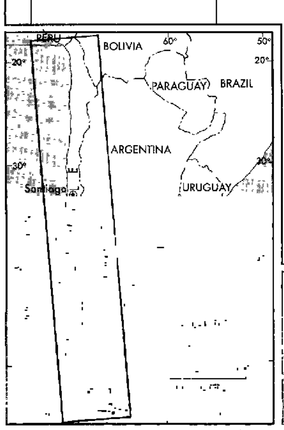
CHILE

CITIES OVER 50,000 INHABITANTS
- ● 50,000 - 100,000
- ▲ 100,000 - 300,000
- ■ 300,000 +

CENTRAL VALLEY
PORTS
ADMINISTRATIVE REGION BOUNDARIES
INTERNATIONAL BOUNDARIES

Agricultural Production	Zone	Total Area km² (000's)	Crops and Pastures ha (000's)	Irrigated Area ha (000's)
Irrigated oases and river valleys	I Desert	178	13	11
Irrigated river valleys and oases, itinerant sheep and goats	II Arid	120	195	13
Fruits, vegetables, grapes, wheat, maize, milk, sunflower, beef, cattle, sheep, sugar, pulses, forestry	III Mediterranean	93	2160	1050
Cattle, milk, sheep, forestry, barley, oats, potatoes, fruits, sugarbeets, pulses, wheat	IV Temperate	102	2990	170
Sheep, cattle, forestry	V Humid	248	185	1





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MAY 1991

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