



1. Project Data

Project ID

P126343

Project Name

BR Parana Multi-sector Development

Country

Brazil

Practice Area(Lead)

Governance

L/C/TF Number(s)

IBRD-82010

Closing Date (Original)

30-Nov-2017

Total Project Cost (USD)

333,626,367.41

Bank Approval Date

06-Nov-2012

Closing Date (Actual)

30-Nov-2019

IBRD/IDA (USD)
Grants (USD)

Original Commitment

350,000,000.00

0.00

Revised Commitment

333,626,367.41

0.00

Actual

333,626,367.41

0.00

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2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO) at approval was: *“to make access to economic and human development opportunities more equitable and environmentally sustainable in the Borrower’s territory through the modernization of the Borrower’s public sector and revenue management”* (as stated in the Loan Agreement and Project Appraisal Document). The PDO was formally revised through a level one restructuring following the mid-term review. The PDO after restructuring was: *“to: (i) increase the survival rate in the final cycle of fundamental education; (ii) improve maternal and emergency health care services; (iii) promote business initiatives and improve natural resources management in rural areas; and (iv) contribute to building*



capacity in public administration, and environmental and disaster risk management” (2017 Restructuring Paper). As indicated in the Restructuring Paper (April 12, 2017), the reformulation of the PDO and PDO indicators was designed to better capture the expected development outcomes of the project and facilitate their measurement. However, the scope, outcome indicators, and the content of the project did not substantially change after restructuring. Moreover, the original objectives did not adhere to the guidance that PDOs should not encompass higher-level objectives beyond the purview of the project. Therefore, this ICRR invokes the exceptional case referred to in the ICRR guidance (footnote [1]) to infer project's intended objectives from key associated outcome indicators and does not undertake a split evaluation.

[1] World Bank, OPCS, n. d.; World Bank, OPSPQ 2013, p. 3. The OPCS/IEG Harmonized Criteria (World Bank, OPCS/IEG 2006) note that “For evaluation purposes, an operation’s objectives encompass both the project development objectives (PDOs) stated in Board documents and key associated outcome targets. This means that whenever the PDOs stated in the Board documents are so broad and/or vaguely worded as to preclude any meaningful evaluation, intended objectives are inferred by the evaluator from key associated outcome targets (and/or the operation’s design features as relevant)” (p. 1). However, it is only in the exceptional case of very poorly articulated objectives that the key outcome targets can be used to infer objectives, and in these instances the ICR Review coordinator should be consulted. (Key associated outcome targets refer to measurable or observable outcomes expected by completion [in terms of types of benefits or progress expected for primary target groups], as well as any indications of their scale and scope [which are normally captured in key indicators in the PAD/program document.])

b. Were the project objectives/key associated outcome targets revised during implementation?

Yes

Did the Board approve the revised objectives/key associated outcome targets?

Yes

Date of Board Approval

26-Apr-2017

c. Will a split evaluation be undertaken?

No

d. Components

The Project supported 2 complementary components:

Component 1: Fostering equitable and environmentally sustainable economic and human development. This results-based component was structured around Eligible Expenditure Programs (EEPs) and Disbursement Linked Indicators (DLIs) in the areas of rural development, environmental and disaster risk management, education, and health. Appraisal: US\$M 315; Actual: US\$M 308.

Component 2: Technical assistance for more efficient and effective public management. This component provided targeted support in the form of equipment and studies in the areas of: environmental management; disaster risk management; land use planning; public sector training/capacity development; rural development; regional planning; internal control systems; tax management systems; evaluation of



educational outcomes; school infrastructure management; and public asset management. Appraisal: US\$M 35.0; Actual: US\$M 25.5.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

The total project cost was estimated at US\$M 713.2 at appraisal, the Bank financing at US\$M 350.0 and the State of Parana financing at US\$M 363.2. Actual cost of the project was estimated at US\$M 1,612 at closing. The percentage of expenditures to be financed by the Bank loan was increased from 50 percent at approval to 100 percent at the first restructuring (2015). Bank disbursement amounted to US\$M 333.6 and the State of Parana contribution to US\$M 1,280. According to the ICR, the actual cost of the project was 2.5 times the estimated cost at appraisal (ICR page 70, Table 2). The main reason was the cost of the health program, which was about four times the cost estimated at appraisal. The cost of the health program amounted to 83 percent of the total project cost against a share estimated at 53 percent at appraisal (the lack of clarity on the increase in health spending is further discussed in section 4 below). The execution rate of the other programs -- sustainable rural development, environment and disaster risk management, education, and public sector management -- were 80 percent or below.

The project was approved on November 6, 2012 and became effective on January 13, 2014. A mid-term review was conducted on April 4, 2016.

A level 2 restructuring was completed on December 31, 2015. It simplified disbursement arrangements and adjusted the results framework to ensure a stronger emphasis on the achievement of development objectives and account for a one-year delay in project effectiveness due to delayed approval of the project by the Brazilian Senate. The delay in project effectiveness also led to activities being carried out with the government's own funds, which in some cases led to the achievement of final targets before the expected completion date. The restructuring also added two indicators to monitor the implementation of the indigenous people's safeguards.

A level 1 restructuring completed on April 12, 2017 included: (i) a reformulation of the PDO and PDO indicators to better capture the expected development outcomes of the project and facilitate their measurement; (ii) an extension of the closing date by 24 months to allow for implementation of Component 2 and expand the disbursement withdrawal schedule for Component 1; (iii) revision of the results framework to reflect adjustments in project activities and implementation schedule, including moving some DLI targets to future dates to reflect a more realistic achievement schedule as well as adjustments to the relevant EEPs; (iv) modifications to activities under sub-components 2.2. (Institutional Modernization), 2.3. (More Strategic and Efficient Human Resources Management), and 2.4. (Mitigating the Environmental Impact of the Agricultural sector) to reflect changes in government priorities; and (v) change of the due date for audited financial statements from six months (June 30) to eight months (August 31) after the fiscal year under review.

The project closing was extended by 2 years from November 30, 2017 to November 30, 2019.

3. Relevance of Objectives



Rationale

At approval, the PDO was relevant to the State's economic and social challenges and aligned with the Government of Parana's Strategy of introducing a new way of governing, focused on efficient and effective service delivery and aimed at promoting more inclusive and equitable development in Parana. The PDO was also fully consistent with the objectives of the FY2012-15 World Bank's Group Country Partnership Strategy (CPS) for Brazil and the Bank program in the four CPS pillars: (i) increasing the volume and productivity of public and private investment, (ii) improving the quality of public services for low-income households, and expanding their provision through public and private channels; (iii) promoting regional economic development through improved policies, strategic infrastructure investments, and support for private sector actors in frontier areas; and (iv) further improving the sustainable management of natural resources and enhancing resilience to climate shocks while maximizing contributions to local economic development, and helping to meet rising global food demand. At closing, the PDO continued to be aligned with the FY2018-2022 Country Partnership Framework (CPF) focused on three broad areas: (i) fiscal consolidation and government effectiveness; (ii) private sector investment and productivity growth; and (iii) inclusive and sustainable development. As pointed out in the current CPF, the Bank's has a predominantly subnational portfolio, with targets mostly set at the state level and most of the operations in Brazil are expected to remain active for the next few years and are largely oriented at boosting access to basic services. The continued implementation of this portfolio of projects will ensure that the Bank maintains a focus on access to services in times of fiscal strain.

However, beyond this broad alignment, the original PDO was all-encompassing ("*to make access to economic and human development opportunities more equitable and environmentally sustainable through the modernization of the public sector and revenue management*"). The team reformulated the wording at the 2017 restructuring to make it more specific but the scope of the project and of each sector component did not substantially change. Moreover, some elements of the revised objectives formulation became too narrow. For instance, in education, the revised PDO of "*increasing the survival rate in the final cycle of general education*" when the de-facto objective of the education program focused on improving the quality of education through improvements in the quality of instruction and the provision of a better learning environment, was too specific. Even as a PDO indicator, this PDO statement was not reflecting accurately the objectives of the education program supported by the project which was not designed specifically to reduce the survival rate in education. Surprisingly, the critical equity dimension of the original PDO was dropped in the reformulation of the PDO in the 2017 restructuring. Although the equity objective embedded in the project design mostly through targeting, remained a key aspect of the project up to closure. However, given there was no explicit reference to the equity both in PDOs and the result framework, equity aspects were not monitored nor evaluated, and equity outcomes are not assessed in the ICRR.

Rating

Modest

4. Achievement of Objectives (Efficacy)



OBJECTIVE 1

Objective

Increase the survival rate in the final cycle of fundamental education

Rationale

The education program objective focused on improving the quality of education through improvements in the quality of instruction and the provision of a better learning environment. In order to ensure these efforts would have an impact on learning outcomes, the State would develop its capacity to measure learning outcomes and disseminate standardized evaluation results with a view to quickly and effectively implementing pedagogical remedial interventions. The technical assistance component was well aligned with the sector program. It aimed at (i) strengthening the Secretariat of Education (SEED) capacity to evaluate teacher training programs and (ii) improving the management of schools' physical infrastructure. These two objectives were monitored through two Intermediate Results Indicators (IRIs).

Implementing a state student learning assessment and carrying out tests and dissemination

activities. The student learning assessment system was developed and is implemented; test results are publicly available and school results are shared with schools, teachers, and parents. A tool was developed and is being implemented (output), but there is no indication it is used effectively to improve education outcomes. There are little indication that remedial/improvement plans were developed and implemented at the school level as originally planned. Also, there is no indication the State is monitoring the development and implementation of school remedial/improvement plans and tracking their impact on education outcomes. As a result, there is no evidence that this sub-program contributed to the improvement of education quality and increasing the survival rate in the final cycle of fundamental education.

Improving skills and proficiency of teachers. (1) A university-based in-service teacher training program was developed and deployed, and about 10,000 teachers benefited against a target of about 8,000. However, its effectiveness remains unverified, as the performance of teachers is not assessed, and no efficient career management system is in place. There is little evidence that this program contributed to improved teachers' skills, proficiency of teachers, or students' learning outcomes. Moreover, as indicated in the ICR, the program was costly and raised efficiency and fiscal sustainability concerns. The wage bill increased sharply as a result of the automatic promotion provided to program participants. This policy was subsequently revised, but participation in the training program remains the only requirement for career advancement. Finally, the envisaged impact evaluation to determine the impact of the program on learning outcomes was dropped. It was replaced by an evaluation with a narrower scope (2017 RP), but this evaluation was not completed by the closing of the project. It is unlikely that the SEED capacity to evaluate the effectiveness of its programs has improved. (2) A peer-to-peer teacher training system is in place, but there is no information on its effectiveness and its effect on teachers' performance and students' learning outcomes.

Improving school environment.

- 466 schools were rehabilitated and/or expanded.
- 1,322 schools received various equipment including basic furniture, information technology (IT) equipment for computer centers, laboratory equipment, and library materials.
- An integrated IT system (*obras* online) was put in place to catalogue, manage, and monitor school infrastructure. The system covers all State schools and includes maps, pictures of buildings and facilities, equipment, and an assessment of their functional/physical condition and maintenance



needs. It also includes a planning/analytical module allowing for better budget estimates and operational planning.

School infrastructure was improved as planned, and an integrated system to manage assets has been put in place at the SEED. But there is no evidence presented that (1) the school infrastructure management system is effectively used and (2) the management of schools' physical infrastructure has actually improved.

The survival rate in the final cycle of fundamental education in State schools increased from 78.4 percent in 2012 to about 87 percent in 2019, and the revised target (85.5 percent) was met. Note that the revised target was especially unambitious; by 2016, the survival rate had surpassed the original target (85 percent against 80 percent) and the revised target for 2019 was very close to the rate achieved three years earlier. More importantly, although the outcome indicator target was met, there is little evidence of each sub-program's contribution to this achievement. It is plausible that the primary school graduation rate increased for reasons other than the project.

Rating
Modest

OBJECTIVE 2

Objective

Improve maternal and emergency health care services

Rationale

The main objectives of the health program were to reduce maternal, infant, and external causes of mortality (mainly related to violence and traffic accidents). This was expected to be achieved by improving the quality of services and ensuring adequate access to specialized regional services in (1) infant and maternal healthcare and (2) emergency healthcare, including for pregnant women and infants. The original equity objective was expected to be achieved through targeting the municipalities with lower health status, such as in the central regions. The related health technical assistance component was well designed and coordinated with the health sector programs and was well aligned with the cross-cutting project objective of establishing results-based management in public service delivery. The original IRI was well chosen to track progress: strengthen the monitoring and evaluation (M&E) system for infant and maternal health care and emergency health care, including carrying out patient satisfaction surveys.

The efficacy of the two health programs is difficult to verify. Both the original and revised health related PDO lacked clarity and were poorly articulated ("*make access to ... human development opportunities more equitable*," revised to "*improve maternal and emergency health care services*"). The original PDO statement was explicit about equity in access, while the revised PDO statement is only about "improving" services. The results framework was inadequate. Outcome indicators (maternal and infant mortality rates) were much beyond the reach of the project-supported programs, which were essentially on the supply-side. The "maternal" component was limited to pregnancy and delivery services (including emergency deliveries); the maternal mortality rate was therefore not an appropriate outcome measure of the project. Neonatal mortality would have been a better measure of outcomes (vs. infant mortality), as investments were limited to pregnancy/deliveries and not broader infant care, even during the first year. Infant mortality is also affected by a full range of multisectoral factors outside of health sector performance. Targets were constantly surpassed



over the project life, signaling the disconnect between project activities and selected outcome indicators. This disconnect was not corrected through the two restructurings. Instead, future targets were set below the level reached at the time of revision. As a result, project results cannot be assessed based on these indicators and targets. Moreover, the ICR does not provide enough details on outputs to assess attribution and does not account for the quadrupling of health project expenditure. With US\$M 1,346 ultimately spent on health (of which US\$M 229 was Bank financing or about 70 percent of total disbursements), more details would be needed on which outputs and intermediary outcomes this money was spent on and how they related to the outcomes.

Improve maternal healthcare services. The improvement of maternal healthcare services was to be achieved through: (i) expansion of infant and maternal healthcare at municipal level and (ii) construction, expansion, and equipping of primary care units of selected municipalities. The proposed activities included both general improvement of primary healthcare services ((a) improvement of primary healthcare units' physical infrastructure; (b) increasing the amount of state financial incentive ("fund to fund" transfers) for family health teams based on epidemiological and social vulnerability criteria; (c) implementation of continuous educational programs for family health teams; (d) development of telemedicine and "second clinical opinion" programs to support family health physicians in disease diagnosis; (e) increasing dental health care, with emphasis on oral cancer; and (f) development and implementation of electronic medical records at primary health units) and some activities targeted to infant and maternal care (g) availability of quality prenatal consultations for pregnant women through implementation of continuous training and information programs focused on system management and regulation procedures; (h) structuring of referral hospitals for higher-risk deliveries and other services; and (i) implementation of a risk classification system to monitor high-risk children under one year of age) (PAD, page 43, para. 59). Among all these activities, the ICR reports only on a few and without much detail, especially on infant and maternal care. According to information provided by the team, the project supported the implementation of the *Rede Mãe Paranaense* program which objectives were to: (i) guarantee access to maternal and child care, (ii) promote safe and quality care during pregnancy, childbirth, the puerperium for the mothers and children under one year of age, through an organized care network throughout the State of Paraná.

- 391 municipalities were ranked based on epidemiological and social vulnerability criteria
- An early risk detection system was put in place
- Care for pregnant women and children up to one year was improved and standardized
- The organization of care processes was improved including introduction of the early reception of pregnant women in prenatal care, risk stratification and referral to the most appropriate hospital for childbirth assistance
- The monitoring capacity was strengthened with the monitoring of maternal mortality indicators and epidemiological analyses
- 59,415 professionals were trained and a specialization in Obstetric Nursing was developed at the State Public Health School (ESPP)
- 380 Basic Healthcare Units (UBS) were built, renovated and / or expanded
- 597 Health Care Units received equipment
- Sanitary transportation was developed for the 399 municipalities.

As a result of these interventions, the percentage of pregnant women identified with a high risk of complications in childbirth referred by UBS increased from 5.5 percent in 2012 to 100 percent in 2020 and the proportion of live births of pregnant women who participated in 7 or more prenatal consultations increased from 80 percent in 2012 to 100 percent in 2020. The infant mortality rate did decrease significantly over the



decade from 1,850 per 100,000 to 1,566 in 2019. The maternal mortality oscillated around a slightly decreasing trend; it was 38.3 per 100,000 live births in 2012, 31.7 in 2017 but 42.3 in 2019 reflecting the inadequacy of this PDO indicator.

Improve emergency health care services. The project aimed to improve the availability and quality of services for emergency care in the 22 Health Administrative Regions of the Paraná State through the development of a set of hospitals able to operate efficiently and provide quality healthcare in support of maternal and infant care and urgent and emergency care. This was to be achieved by: (i) the provision of in-service management training, improving management capacity for referral hospitals and other health facilities with focus on scaling-up, care delivery flows, logistics, and managerial processes; (ii) the provision of technical care training, developing and implementing care guidelines based on scientific evidence; (iii) expansion of trauma care, aero medical transport, and specialized health service for treating multiple trauma, myocardial infarction, and stroke; (iv) expansion of pre-hospital emergency health care; (v) implementation of performance-based contracts; and (vi) the strengthening of the State's patient referral system. The ICR does not provide information on which planned activities were implemented and which outputs were obtained and does not explain to what extent the dramatic expansion of the cost is reflected in the results. Additional information provided by the team shows that among the planned activities, the project supported a major strengthening of the State's patient referral system for emergencies and the related development of aeromedical and mobile emergency care service covering the 22 health regions (399 municipalities).

The PDO indicator target was achieved, the mortality rate for deaths through external causes, except violence decreased from 51.5 per 100,000 in 2011 to 46.3 in 2018 surpassing the target of 48.6. Note that this target had been achieved since 2013 reflecting how disconnected the result indicators were from the project activities. Similarly, the mortality rate for cardio-vascular diseases (IRI) declined from 80.4 per 100,000 in 2011 to 68.5 in 2018 surpassing the target of 76.2 which had been met since 2014 (75.6). The 100 percent target for the percentage of the population with access to urgent and emergency health services (IRI), in closer relation with project support, was missed but access more than doubled over the project life; access increased from 43.8 percent in 2013 to 90.2 percent in 2020.

The technical assistance component was designed to support the improvement of healthcare management networks through: (i) monitoring of the healthcare networks implementation (incl. planning, budgeting, epidemiological indicators and M&E) by designing and structuring a robust information system; (ii) the development and implementation of a communication plan; and (iii) the evaluation of the quality of services provided by Health Service Providers by carrying out patient satisfaction surveys. The initial related IRI was focused on M&E systems for the Infant and Maternal and the Emergency healthcare networks including patient satisfaction surveys. Given these activities had not been implemented by the time of the first restructuring, it was replaced by a new indicator "*compatible with the project execution stage and with appropriate technical conditions for its implementation*" (2015 RP). The new IRI had a much narrower scope and ambition (*impact assessment of the reduction of premature births in pregnant women with chlamydia, by applying rapid antigen detection test during prenatal care*) but was deleted at the second restructuring. As for the other sectors supported by the project, the activities designed to strengthen the government's capacity to monitor and evaluate results were dropped. Not only were the stated objectives not reached, but the project itself does not provide adequate information on project results.

Rating



Substantial

OBJECTIVE 3

Objective

Promote business initiatives and improve natural resources management in rural areas

Rationale

This PDO was to be achieved through two programs designed to: (i) revitalize the economy of the Central Region and (ii) promote the sustainability of the agricultural economy.

Revitalize the economy of the Central Region. This was to be achieved by improving the competitiveness of small rural producers in the Central Region and had three elements: (i) capacity building of beneficiaries and rural institutions; (ii) strengthening the provision of public support services; and (iii) increasing small producers' income.

- **Capacity building of beneficiaries and rural institutions.** Project documents provide very few details about the content of this capacity building program. According to the ICR, 75,784 farmers were trained or received technical assistance against a target of 21,000. No explanation is provided regarding the quasi quadrupling of this program over the last two years of the project life. Also, there is no evidence on the effect of this program on small producers' capacity to access markets and increase their competitiveness.
- **Strengthening the provision of public support services.** (1) Research and innovation. There is no information in the ICR on the implementation of this activity, which was not monitored by a result indicator. (2) Land regularization. This activity was to finance the formal titling of approximately 4,000 small rural properties whose occupation was consolidated and undisputed and where the main barrier to formal titling was the lack of financial resources. This activity had a slow start. By 2016, only 1,539 owners had benefited from formal land titling. A target of 6,000 beneficiaries by end-2019 was added after the 2016 mid-term review. While geo-referencing was carried out for 6,907 properties, only 2,702 properties had been fully regularized at project closing, or 45 percent of the target (November 2019). Another 3,500 processes were still awaiting a decision by the judicial authorities, who continue to have limited capacity and large backlogs of such requests. Project implementation difficulties highlighted the absence of standard procedures for the process of land regularization. The Institute of Land, Cartography and Geology now has a specialized department dealing with such requests. (3) Rural roads rehabilitation. The project was to finance the formation of seven consortia of municipalities with joint road management programs, the acquisition of equipment, and rehabilitation and maintenance of critical spots and sections of unpaved rural roads identified in road management programs. Steps have been taken to prepare road management plans, but none has been completed seven years after project approval. Despite this, eight lots of roads maintenance equipment were purchased and have been transferred to inter-municipal consortia covering 40 municipalities (rural maintenance groups). Approximately 675 km of rural roads had been upgraded or maintained using this equipment as of project closing. The ICR does not explain why the preparation of management plans has been delayed for so long and why the Bank team did not seek to remedy this situation.
- **Increase small producers' income.** The project was to finance subprojects submitted by small producer groups aimed at increasing their income and using environmentally and socially responsible practices. Despite the target being reduced from 210 business proposals approved and to be financed (original) to 150 (2015 restructuring) to 75 (2017 restructuring), it was not met. By end-2019, a total of



52 business proposals had been prepared and financed, supporting 40 percent of all associations and cooperatives in the area (130) and approximately 5,200 agricultural families. In 2015 or Year 3 of the project, only 25 business proposals had been approved, and the 2015 restructuring paper noted that the main reason was a lack of demand. It is unclear whether the project team analyzed the reasons why there was a lack of demand and adjusted the program design to address the issues beyond reducing the target. The ICR does not discuss to what extent the related PDO indicator (percentage of producer groups supported through the project with improved access and integration to output markets; a producer group was to be deemed as having "improved access and integration to output markets" if the value of its sales had increased by at least 7 percent on a year-to-year basis) was achieved.

Promote the sustainability of the agricultural economy. The project objective was to foster sustainable agriculture in selected micro-catchment areas most susceptible to environmental degradation by improving water and soil management in selected micro-catchments and improving access to potable water for poorer communities in priority areas. Project documents, including the ICR, are not clear whether these two beneficiary groups ("selected micro-catchments" versus "poorer communities in priority areas") were integrated or separate. This ICRR treats them as two separate activities and beneficiary groups.

- **Improving water and soil management in selected micro-catchments.** There is little evidence on the extent to which the objective was achieved. 321 micro-catchment plans were developed by the project, surpassing the revised target of 250 plans (initially 350). The ICR does not provide information on the extent to which these micro-catchment plans were implemented. In particular, the ICR does not provide any result information on the grant mechanism to (i) implement priority activities identified in the micro-catchment development plans and (ii) implement agroecological business initiatives. The related PDO indicator "hectares supported by the Micro-catchment Action Plans interventions" was mostly achieved, with 728,000 hectares covered against a target of 750,000 hectares. But this is an output, which does not provide information on actual adoption, implementation, and effectiveness of sustainable agricultural and natural resource management practices and the potential positive impact of these new practices.
- **Improving access to potable water for poorer communities in priority areas.** The extent to which this objective has been achieved is unclear. An intermediate indicator "number of people in rural areas provided with access to **improved water sources** under the project" was added after the MTR (2017 Restructuring Paper) with a target of 28,000. According to the ICR, in late 2019, 185 rural water supply systems had been installed providing (potable) water to 6,644 families (19,267 people). A final assessment conducted from November 2019 to March 2020 found that only eight systems were delivering treated water to approximately 1,395 families (21 percent of families) or 4,046 people, and 28 systems were delivering bulk untreated water (66 percent of families). The ICR concludes that this is clearly below the project target of 28,000. Regarding this result indicator, the definition is not clear. "Improved water sources" is not defined in project documents. There are inconsistencies between the ICR and ISRs (16,762 people having access to water, and in the last ISR 9,600 people), and inconsistencies within the ICR (16,762 people in para. 58 versus 3,338 people in Annex 1, page 47). Notwithstanding, the ICR attributes the relatively weak results to poor institutional coordination between communities, municipal authorities, and the State water company and limited involvement of communities in the planning and implementation of the rural water supply systems.

The related technical assistance objective was to identify opportunities to adjust the State's agriculture policy instruments and agricultural support programs to further reduce the impact of the agriculture sector on the environment and its contribution to greenhouse gas emissions. The planned activities included: (i) a review of



existing studies on the impact of key agricultural subsectors on the environment as well as carrying out of complementary analysis as needed; (ii) an analysis of options available to address negative impacts of sub-sector activities identified under (i); and (iii) an analysis of financing instruments available to mitigate the impact of the agriculture sector on the environment and how these instruments could be used at the State, municipal, and other administrative subdivision levels. The technical assistance component was well articulated with the overall objective of fostering sustainable agriculture but was quite disconnected from the rural sector development programs supported by the project. There was no diagnosis in the PAD to put this technical assistance component into a broader context and no explicit link with the government agriculture sector strategy. There was no related IRI. It took five years for the Bank to reflect changes in government priorities and replace originally planned activities by carrying out an impact evaluation on land titling activities. According to the ICR, terms of reference were prepared but the bid was never launched. The changes were not explained in Bank documents, which report only a change in government priorities without any specifics and very late. Revised activities were not implemented, and no explanation was provided.

Rating
Negligible

OBJECTIVE 4

Objective

Contribute to building capacity in public administration, and environmental and disaster risk management

Rationale

Building capacity in public administration. The then new Government of Paraná had an ambitious public sector reform agenda designed to: (i) introduce a "new way to govern" - a new form of leadership in the public sector; (ii) focus on results; and (iii) become more attuned to the needs of citizens. This objective aimed at supporting the government's firm commitment to: (i) restoring administrative efficiency; (ii) adjusting the State's public finances; and (iii) introducing results-based management through performance agreements and sector targets. The project was organized in three areas: (1) improve tax revenue collection ("fiscal quality"); (2) modernize institutions; and (3) develop more strategic and efficient human resources management.

- **Fiscal Quality.** The objective of this activity was narrower than its name implies and was focused on improving tax revenue collection. The aim was to address the lack of enforcement in tax arrears collection and inadequate resources to administer Tax on Inheritances and Donations (ITCMD) and Motor Vehicle Property Tax (IPVA) receipts. This was to be achieved by improving tax management processes (IPVA, ITCMD, collection of arrears). The achievement of the PDO was to be assessed by the increase of revenue from tax arrears as a share of the stock of tax arrears from 0.5 percent (average 2009-11) to 1.2 percent by the end of 2016. To achieve this objective, the project was to support a review of tax management processes and the implementation of an action plan designed to address identified shortcomings. Both the 2015 and the 2017 restructuring papers report that revisions of tax collection processes (an IRI) were done in-house and financed by government budget. Bank project documents do not report on what was actually done and achieved over 2014-2016 and what was the Bank contribution. Bank project documents also do not report on how the decision to move to a new tax administration system was made and whether the Bank provided inputs. This decision was eventually reflected in the 2017 restructuring paper, and the related IRI was revised to the improvement of the tax management system as measured by the automatization of the evaluation,



declaration, and collection of ITCMD (2019 target was 90% automated). The ICR reports that a contract for a new tax system was signed end-2017 and work started in early 2018. At closing, according to the ICR, one module was fully operational and another module was being tested. The third and most complex module (ICMS/consumption tax) was still at the planning stage, but the ICR does not identify which module was functional and does not report explicitly on whether the target was met. Despite these revisions in activities, results indicators, and targets, the PDO indicator did not change over the project life. However, the PDO indicator target was raised in the 2017 restructuring to 5 percent to reflect that the original target for 2016 had been met (2 percent). The ICR concludes that no progress was made on this objective and provides explanations for why this was so. According to the 2017 restructuring paper, progress was actually made and by 2016, the target had been met, but this progress cannot be attributable to the project. Given the same PDO indicator was kept after the decision had been made to install a new integrated tax administration software/system, it is assumed that this new tax system was expected to cover tax arrears management and that as a result of its implementation, tax arrears collection would improve. The ICR's justification for lack of progress highlights several important project shortcomings and issues. The project design was based on the assumption that the main impediment to tax arrears collection was related to tax administration constraints, where the ICR points to tax policy constraints which had been identified at appraisal: "*State of Paraná had a tradition of not collecting tax arrears and promoting tax amnesties*" (PAD Annex 2 para. 69, page 45). Unless difficult policy decisions would be made, improving tax arrears administration only was unlikely to lead to any significant improvement in tax arrears collection, at least not in the range needed to improve the fiscal space for public investment as envisioned at appraisal. The fact that the non-ambitious original target had been met by 2016 despite the absence of action further indicates design shortcomings. The ICR does not provide any information on progress made in improving tax collection beside tax arrears, where the PAD highlighted the poor performance of the State of Paraná in tax collection compared to other Brazil States. It would have been useful to report on whether the State of Paraná was catching up with comparable States and why, further reflecting the paucity of the results framework.

- **Institutional Modernization.** This activity had multiple aims and related components. This ICRR follows the project results framework structure around four sub-objectives: (i) promote efficiency and effectiveness through administrative reform; (ii) strengthen the link between policy and budgeting through better planning and budgeting; (iii) strengthen internal control systems; and (iv) institutionalize results-based management. The PAD argues that the limited fiscal space for investment and the rigid expenditure structure were at the time of appraisal further aggravated by weak planning and budgeting processes. The main weaknesses on the expenditure side to be addressed with project support were that: (i) government planning could not ensure that priority objectives would guide government activities; instead, cash availability and short-term political considerations dictated resource allocations. As a result, the budget did not serve as a credible statement of policy intentions and was not effectively based on sector strategies and policy objectives; and (ii) cumbersome procedures, fragmented public financial management systems, and ineffective internal controls further undermined the government's ability to strategically allocate resources, control expenditures, and efficiently provide public services. However, the design of this activity was at best incomplete and was based on the same unrealistic assumption as for the revenue side, that administration/institutional reform can make up for weak policies.

Promote efficiency and effectiveness through administrative reform. The ICR does not provide information on the rationale for the decision to drop this activity, and it was not possible to identify an explanation. It is possible that the planned review of organizational structures and procedures for the modernization of public



administration was conducted in-house, but there is no information on follow-up actions and what were the results in terms of public administration efficiency and effectiveness.

Strengthen the link between policy and budgeting through better planning and budgeting. This was to be achieved through a broad public finance management reform and capacity building.

Strengthen internal control systems. The scope of this sub-component initially designed for the development of internal control methods and procedures, was broadened to reflect the more extensive mandate given to the internal control unit in 2013 with the creation of the Office of the Comptroller General (2015 RP). After years of inaction, the project provided technical assistance on a full diagnosis and recommendations for the new office development strategy, organizational structure, technology equipment and capacity development. With the support of the project, an integrated IT system to manage the unit's work program was developed, install, and is operational in 117 government entities and a comprehensive training and capacity building program were developed and implemented. The related IRI and target evolved accordingly, from internal auditors trained in new methods and procedures for internal control (2012 PAD) to information system for the internal control systems implemented (2015 RP) to internal control information system implemented and operational in 50 government entities (2017 RP). The ICR does not provide information on progress made in actually improving internal controls.

Institutionalize results-based management. This activity was designed to address the need to strengthen the capacity of the government to translate its key strategies and goals into a more operational plan, clearly identifying each entity's roles and contributions in achieving the desired outcomes. This was to be achieved through: (i) institutionalizing results-based management in Paraná (through the formulation of a strategic plan to foster greater alignment of top and middle management within government, and the definition of institutional performance agreements that would translate each entity's contribution into milestones and targets to be achieved); and (ii) the strengthening of the State's procedures for monitoring and evaluation. Institutionalize results-based management. Not achieved. The ICR does not report on the implementation of activities designed to institutionalize results-based management.

Strengthen the State's monitoring and evaluation capacity. Not achieved. The PAD formulation ("strengthen the State's procedures for monitoring and evaluation") reflects a misunderstanding of what constitutes the M&E of public policies and which role it is expected to play in results-based management. M&E is not just a question of procedures but involves processes, protocols, competencies, knowledge, and discernment that cannot be summarized in a manual describing procedures to follow. Moreover, the design of this component was not targeted to actually strengthening the State's capacity but instead to compliance with a Bank requirement narrowly focused on the project EEPs (preparation of log frames for all EEPs; impact evaluation of two selected EEPs: baseline reports; follow-up surveys of intermediate impact evaluations; final impact evaluation reports) and was to be implemented by an external agency. The project-supported activities could have been designed as an experience on which to develop a broader M&E capacity building program, but there are no indications in the Bank documents, including the ICR, that this was the case. By the time two proposals for the design of an impact evaluation related to two EEPs were presented (2015), most programs (EEPs) were already under way and did not have a control group, which made it impossible to carry out an impact evaluation. The activities and targets were revised to reflect this situation. Instead, the project supported an impact evaluation of the land regularization activities, and the target became "to prepare a report with recommendations on the sustainability and continuation of the land regularization activities" based on the impact evaluation. According to the 2017 RP, by end-2016, a report on the achievement of the performance indicators from the log frames for all EEPs and a baseline report for the impact evaluation on land regularization had been completed. Moreover, a report with recommendations on the sustainability and



continuation of the land regularization activities would have been completed by the closing date (ICR, Annex 2), but this contradicts a statement made in the ICR section on rural development ("An impact evaluation for the land regularization/titling activities was planned, and terms of references were prepared, but the bid was never launched," para. 70, page 26). Unfortunately, the ICR does not comment on this activity in the main text. Based on this contradictory information, it is unlikely that the outcome of strengthening the State's capacity to monitor and evaluate public policies would have been achieved. Moreover, given the shortcomings of the project results framework and the patchy information on what was done and what was achieved in Bank documents, it is unlikely that the project could have helped strengthen the State's capacity to monitor and evaluate its public policies.

- **More Strategic and Efficient Human Resources Management (HRM).** The project was designed to achieve three objectives: (i) achieving a fiscally sustainable wage bill; (ii) attracting and retaining staff with the right skills; and (iii) increasing the professionalization of public service. The PAD clearly identified the most binding constraints the project was expected to address. Personnel expenditures were close to the Fiscal Responsibility Law limits for the executive branch and had been increasing steadily in the last five years, pushed by a higher number of public servants plus increase in salaries and pensions well above inflation. Paraná's pay system was complex, and control over payroll management was weak. Pay scales did not attract or retain young and skilled personnel. Finally, the State's workforce was not responsive to the challenges it was facing, with too many positions filled by civil servants with only basic or high school education. Several years of nonstrategic recruitment had led to a lack of professional staff at key institutions. In addition, a large percentage of staff within these institutions had already reached retirement age and were being retained through the payment of a special bonus. Finally, the lack of operational manuals or any kind of succession planning was of great concern, since this could significantly affect the State's operational capacity.

The HRM component was structured around five areas: (i) strengthen controls over personnel expenditure; (ii) improve the attraction and retention of personnel; (iii) modernize the Administration Secretariat and decentralized HRM units; (iv) develop and implement the State's occupational health strategy; and (v) strengthen the School of Government and promote a performance-based public administration. Although changes were made early in the project life, the scope of this component was formally revised only in the 2017 restructuring to: (i) develop a strategic workforce plan for the administration; (ii) modernize the occupational health service; and (iii) strengthen the School of Government and provide support to the capacity building and training programs for civil servants. Given that Bank documents, including the ICR, do not explain why the most important aspects of this component had been dropped, as well as the lack of clarity of the evolving results framework, this ICRR reviews all the five original activities and reflects the changes.

Strengthen controls over personnel expenditure. This outcome was to be achieved by the following activities: (i) implementation of payroll audits for education, health, and civil service careers in the central government as well as in the decentralized administration; (ii) modernization of payroll for the health sector; (iii) consolidation of a single database for all personnel from central and decentralized administrations; (iv) evaluation of the current payroll system for the central administration; and (v) a communications strategy for advising the Secretariat of Administration regarding the planning and implementation of HRM modernization measures. According to the 2015 RP, this sub-component and the related IRI, "modernization of payroll management," were dropped because the original 2016 target had been met in 2014, although it is unclear which target had been met because there are two different formulations across Bank documents: (1) measures to strengthen controls over personnel expenditures adopted Y3-2015 (2012 PAD), versus (2)



implementation of an automated decentralized payroll system for the health sector Y3-2016 (2015 RP). The ICR does not report on this sub-component because it was financed by the State.

Improve the attraction and retention of personnel, in particular in central government institutions. Activities included : (i) preparation of a strategic workforce plan with long-term vision and a short-term action plan; (ii) development of a planning, budgeting, and management career, improving the State's pay and grading policies in the different careers; and (iii) the review of central government careers and technical assistance for the drafting of a revised policy for the executive branch career (*Quadro Proprio do Poder Executivo - QPPE*). The ICR does not report on this sub-component for the same reason as above, that these activities were carried out with the government's own funds while awaiting project effectiveness. The related IRI was deleted end 2015 because due to political and economic circumstances, the government has decided not to pursue further actions in its HR policy (2015 RP). However, this sub-component was maintained and revised in the 2017 restructuring to "develop a strategic workforce plan for the administration" (2017 RP). There is no information about what had been done and what had been achieved by the time the government decided to drop further HR reforms and what was planned under the revised activity. Given the lack of clarity and consistency across Bank documents, it would have been useful for the ICR to report on which activities had been carried out and what results had been achieved regardless of funding source to get a sense of the extent to which the related outcome had been reached.

Modernize the Administration Secretariat and decentralized HRM units. This outcome was to be achieved through two activities: (i) reengineering of selected business processes for the Administration Secretariat and preparation of a manual; and (ii) acquisition of IT equipment for HRM units in the interior of the State. This subcomponent was formally dropped in 2017 due to a change in government priorities because of "political and economic circumstances."

Develop and implement an occupational health policy. This outcome was to entail two main activities: (i) a consultancy for defining Paraná's occupational health strategy, and (ii) acquisition of equipment and furniture for the different occupational health units across the State. Among all the subcomponents of the HRM outcome, this second was maintained. An IRI was added in 2015 to monitor this sub-component but was subsequently dropped and replaced by a more specific and result-oriented one, "reduction of sick leaves/absences due to work-related illness or injury" (2017 RP). According to the ICR, related activities were initiated, including the diagnosis of staff exits and absences due to work-related illnesses and the preparation of a Work Safety Report and a Program for the Prevention of Environmental Risks at Work for the Health and Education sectors. However, there is no data provided to assess to what extent the target was met.

Strengthen the School of Government and promote a performance-based public administration. In the original design this sub-component comprised the following: (i) development of a continuous training policy and an action plan for the School of Government; (ii) workshops with top management officials to define the State's performance management model; (iii) training of 4,700 public servants across the central administration on the performance management model adopted by the State; and (iv) acquisition of equipment, software, and furniture for the School of Government. For unclear reasons, developing a performance-based public administration and institutionalizing results-based management was dropped, and the civil service capacity-building activity was subsequently revised to a very unspecific one, "capacity building and training programs for civil servants" (2017 RP). The ICR does not report on interventions designed to strengthen the capacity of the School of Government, but the outcome was likely achieved given the extension of capacity building services provided by the School. A broad training needs assessment was carried out; a series of courses was prepared and delivered including face to face courses, workshops, presentations and online courses; and sector-specific courses were provided in education and health. A related IRI was added at the 2017



restructuring, “enhancing core competencies of civil servants” (2017 RP), with the following target: “competencies of civil servants have increased as reported in the final report of the consultancy.” Unfortunately, the ICR does not report beyond the outputs (number of civil servants attending training) on the extent to which competencies were enhanced.

There is little evidence to assess whether the most important public service constraints -- (i) achieving a fiscally sustainable wage bill; (ii) attracting and retaining staff with the right skills; or (iii) increasing the professionalization of public service -- were alleviated.

Building capacity in environmental management. Although the original outcome was clearly stated (modernize the environmental licensing system), the design of the component was confusing with many inconsistencies across Bank documents and over the project life. The scope is unclear on various dimensions, including geographical and environment/licensing areas (environmental licensing versus water rights). The links between planned activities, expected results, and expected outcomes were unclear and inconsistent over time. The results framework does not help ascertain the underlying/implicit theory of change. In order to define a reasonable evaluation basis, this ICRR starts from the PAD diagnostic and the project description as a baseline. The project was designed to strengthen government capacity to process licensing requests and water rights permits and reduce processing time for users. The project also aimed to strengthen government capacity for environmental monitoring and enforcement. Both these outcomes were to improve quality of government services and environmental compliance, and further down the results chain, increase environmental sustainability.

The sector program was supported by a technical assistance component that included: (i) studies and analysis related to environmental monitoring and enforcement; (ii) modernization of related IT systems; and (iii) training related to the strengthened environmental management approach developed under the related sector program.

- **Strengthen the government capacity to process licensing requests & water rights.** This outcome was to be achieved through various activities including decentralizing selected environmental licensing responsibilities to municipalities; rehabilitating buildings of government environment agencies and providing them with adequate equipment and training; developing and rolling out an integrated environment licensing system (SIGARH); and modernizing information and technology of the Environment Directorate.

Bank documents, including the ICR, provide little detail about activities implementation. For example, it is unclear which environmental licensing responsibilities were to be decentralized to which municipalities and how. The ICR reports that an integrated platform for the management of water use rights, monitoring of water use, and management of water and air quality monitoring stations has been developed and linked to the land use system through a shared database. This system was been rolled out to municipalities and is currently implemented in 30 municipalities (Parana currently has 399 municipalities). The ICR concludes that the project thus met the related indicator end target of 25. However, the project related IRI was the “number of municipalities with a decentralized environmental licensing and monitoring system.” The implementation of a water resources sub-system was added in 2015 RP. There is no information in the ICR and other Bank documents on what the SIGARH covers, on which part of the system is decentralized to municipalities, or on which environmental licensing procedures are managed through the SIGARH besides the management of water use rights. In Annex 2, the ICR reports that three out of four modules of the (water resources) sub-system are implemented. A search on the internet leads to the *Sistema de Informação para Gestão Ambiental e de Recursos Hídricos* (Information System for Environmental and Water Resources



Management), SIGARH site managed by the Instituto *Água e Terra* (Water and Land Institute). This site indicates that the current version of the software does not provide the application for granting water rights, a function that should become available soon to users.

- ***Strengthen the government capacity for environmental monitoring and enforcement.*** This was to be achieved through studies on environmental monitoring and enforcement and expansion and modernization of intelligence data and devices. There is no information on implementation of activities or on the extent to which government capacity to monitor and enforce environmental regulations increased.

Building capacity in Disaster Risk Management (DRM). At appraisal, this component was designed to support the strengthening of response capacity and identification of risk in the short/medium term while developing an integrated disaster risk management policy in the medium/long term. The EEP activities were to strengthen the system for prevention and response to disasters and capacity building of the Project Secretariats and Project Agencies involved. The EEP was well coordinated with the technical assistance component, which was to support the design and implementation of the system's governance structure. Overall, the DRM component aimed at three outcomes: (i) improved the understanding of State risk and move towards more proactive risk management; (ii) improved government response capacity and coordination; and (iii) strengthened DRM governance structure.

The ICR's assessment is not based on the DRM component design and intervention logic. It does not report on the IRIs related to the DRM. The ICR claims achievements that were not planned under the project or to which the project did not contribute. None of the restructuring papers documented the changes in the content of this component. Both the 2015 and 2017 RPs revised outcome indicators, IRIs, and targets but did not present or justify the changes in the component design. Additional information provided by the team show that the project did support the implementation of the government DRM program aimed at the above 3 objectives.

The project supported a number of activities designed to improve the understanding of State risk and move towards more proactive risk management: (i) flood and landslide disaster risk maps were produced for key selected municipalities and 86 risk areas were identified; (ii) a rain forecast and estimation system (SIPREC) was developed, installed and is operational; (iii) REDESASTRE, a State network for research, teaching, extension, and technological innovation focused on risk and disaster reduction was established in 2014 and disaster simulators were developed; (iv) a disaster monitoring and management room (CEGERD) was set up allowing monitoring in real time and issuing of alerts to regional and municipal civil defense managers and the population of Paraná; (v) a meteorological monitoring room was set-up and equipped for improved weather forecast; and (vi) a methodology for disaster risk assessment was developed in 2017.

Response capacity and coordination were improved through various project-supported activities: (i) local early warning systems for potential disasters and weather radar systems were installed; (ii) an aerial mobile monitoring system was put in place; (iii) on the job trainings and online training courses were provided for the civil defense staff; (iv) the training capacity of the University Center for Disaster Studies and Research (CEPED/PR) was strengthened with the acquisition and customization of a learning platform designed to provide a single robust, secure and integrated system to create personalized learning environments.

The State DRM governance structure was strengthened with: (i) the setting-up of a state council for civil protection and defense (CEPRODEC) through State Decree in 2013, (ii) the adoption of a State policy for protection and civil defense by law in 2015; (iii) the approval of guidelines and methodology for preparing a



disaster risk management plan in 2017 by the State Council. However, the state plan for protection and civil defense was not elaborated because although the national Civil Protection and Defense System was adopted by a Federal Law passed in 2012, the federal regulation became effective only at the end of 2020.

Rating
Modest

OVERALL EFFICACY

Rationale

In conclusion, overall efficacy is rated Modest based on the aggregation of one Substantial, two Modest ratings and one Negligible rating among the four objectives.

Overall Efficacy Rating
Modest

Primary Reason
Low achievement

5. Efficiency

The economic and financial analysis conducted at the time of appraisal did not compare estimated project costs against expected benefits. As part of the Mid-Term Review (MTR, 2016), a comprehensive economic and financial analysis was prepared. The analysis estimated that the project would yield a present value of net benefits of US\$226 million and produce an estimated internal rate of return (IRR) of 15 percent (2017 RP). The ICR indicates that it added some results in the estimates, including the technical assistance component and the emergency health care program, and adjusted some assumptions. The ICR does not calculate an overall IRR and does not report on the estimated IRR at the MTR. The overall project IRR estimated in the ICR was 13.7 percent, slightly below the estimate at MTR. The main difference is related to the lower IRR for the sustainable rural development component (2 percent in the ICR compared to above 6 percent at MTR). The estimated IRR for the education component (27 percent of the total project cost at appraisal) was 19 percent in both the MTR and the ICR. The estimated IRR for the health component (53 percent of total project cost at appraisal) was slightly higher in the ICR, at 11.7 percent compared to 11 percent in the MTR analysis.

The main concerns about the robustness of the estimated IRRs are related to the use of expected targets established in the results framework to measure benefits, rather than actual results. The calculations are based on a number of targets that were either not met or for which the contribution of the project has not been established in the efficacy section. For instance, for both the maternal/child health and emergency health care activities, the benefits were estimated in terms of avoided deaths based on the decrease in mortality rates (pregnant women, newborns, and deaths due to external causes except violence) from 2010 onward when the project contribution to this decrease was at best partial. In education, in addition to attribution issues, the calculations did not factor the additional cost of the intervention besides the project investment cost. The benefits of the teacher training program were identified as stemming from the increased salaries teachers would get for attending training. However, as indicated in the efficacy section above, the teacher training program



supported by the project was assessed as not fiscally sustainable, while the impact evaluation designed to assess the effectiveness of this program was not conducted; thus, there is little evidence on the extent to which the project contributed to improved teacher performance and therefore to the increase of the survival rate, the main outcome of the activity from which the benefits are derived. When including only the benefits from survival rate, the education IRR is only 11 percent compared to the overall IRR of 19 percent (estimated IRR of the teacher development program: 33 percent). Also, the calculations considered extended benefits to project investments, as project benefits were expected to continue much beyond project closure (health component: 35 years, education: 15 years; DRM: 10 years; rural development: 5 years; and public sector: 5 years).

Finally, the project had significant shortcomings in the efficiency of implementation. There were significant disbursement delays. Project effectiveness was delayed by over one year due to the time required for approval by the Senate (ICR, page 28). Delays in the approval of the project were compounded by delays in processing the level 1 restructuring. The second restructuring (level 1), in 2016, took one year to receive approval and signature of the new Loan Agreement. Disbursements were temporarily put on hold between Q1 and Q3 of FY16 due to the initial findings of the 2014 Audit report and further delayed with a suspicion of fraud and corruption identified in the 2016 Audit report. Additional delays in disbursement were related to the implementation of the technical assistance component, where several changes to the planned activities and the preparation and approval of terms of reference and bidding processes took longer time than planned. Disbursement under component 1 was delayed as the macroeconomic crisis affected project implementation by reducing eligible expenditures. The ICR (page 32) noted that procurement processes suffered important delays due to low technical capacity of some executing institutions, and lack of experience with international competitive bidding. Most of the loan proceeds were disbursed only after a two-year project extension. Component 1 (results-based component) was fully disbursed, while component 2 (technical assistance) was 45 percent disbursed. A total of US\$ 16.370 million from the technical assistance component was cancelled at project closing. On the positive side, the ICR notes that Inter-agency cooperation and coordination was effective.

Efficiency Rating

Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome



Relevance of objectives is rated as Substantial, as the objectives remained broadly consistent with Bank and government strategies, although the formulation of the original PDOs lacked clarity. Efficacy is rated Modest as detailed in Section 4. Efficiency is also rated Modest because of significant shortcomings in the efficiency of implementation, and an economic analysis based on hypothetical benefits that precludes robust conclusions.

Overall Outcome is rated Moderately Unsatisfactory, indicating significant shortcomings in the project's preparation, implementation, and achievement.

a. Outcome Rating

Moderately Unsatisfactory

7. Risk to Development Outcome

Risks were reviewed throughout the implementation period and were systematically assessed by supervision missions as moderate. Likewise, the ICR rates the risks to development outcomes as moderate. The ICR does not elaborate on the follow-up to the project nor on the risks after the project's closure. The policies and investments supported by the project are likely to be maintained as they constitute sector programs and policies embedded in the state's multiyear plans and budgets. The State implementing agencies and sector stakeholders were strengthened to some extent through capacity building, technical assistance, and implementation support provided by the Bank supervision team. The extent to which the experience gained in results-based approaches through implementing this project has been institutionalized beyond the Project Implementation Unit (PIU) is uncertain. The ICR highlights that the sustainability of some programs may be in question. For example, the State court of accounts and the State Parliament have both questioned the cost and fiscal sustainability of the teacher training program. While the ICR indicates that, among the risks identified at appraisal, only the macroeconomic risk materialized, and that the "deep" macroeconomic crisis experienced in 2014-16 had a significant impact on the project's implementation, it does not comment on this risk going forward which is currently high unless Paraná's economy is immune to the broader country macro-fiscal context. Brazil economic recovery in 2017-2019 was lower than projected, with annual real GDP growth around one percent only. In 2020, Brazil is projected to fall into its deepest recession on record.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project was designed with a strong cross-sectoral theme of strengthening public sector management and introducing results-based management approaches in all the sectors supported by the project. This theme was to be supported by a public sector management component that was well articulated with the sector programs. However, the public sector management component focused on administrative reforms and capacity building without addressing significant and well identified public finance weaknesses, was not well designed to achieve the implicit objective of creating fiscal space for public investment. Given the multisector aspects, the implementation arrangements were complex, but the project was coordinated by a strong counterpart that operated as a PIU. The project design was underpinned by sound initial sector diagnosis (PAD, Annex 2) and built on existing government sector programs. Risks and mitigating



measures were clearly identified. The main shortcomings were related to the broad scope of the project and its weak results framework. The PDO were too general and too broad, and PDO indicators were not well linked to the sector programs or were too far away from what the project could deliver. This may reflect insufficient knowledge of Paraná State policies and institutions as well as a shallow policy dialogue in the supported sectors. The risk of delayed effectiveness was not identified, although it was a common occurrence in the Bank's Brazil portfolio.

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

Project implementation was well supported by the task team, and progress was adequately monitored. However, the team was reactive and with significant delays rather than proactively identifying risks to development outcomes and solutions. The first restructuring was late and superficial. The second restructuring did not correct the main shortcomings. Supervision of fiduciary aspects was satisfactory. The team generally responded effectively when issues arose, as was the case with the audit report for the years 2014 and 2016. Supervision missions occurred regularly to support the implementation of the project and provided technical support when needed. Implementation Status and Results Reports (ISR) were filed bi-annually between 2013 and 2019. Although ISRs reported adequately on the status of the indicators, the shortcomings of the results framework did not allow for monitoring to provide a sound and useful picture of progress towards development objectives. The ICR notes that the three changes in task team leadership during the lifetime of the project created some challenges and delays, but continuity of the procurement team and the majority of sector specialists based in Brasilia helped to ensure continuous support through regular technical missions and close supervision.

For reasons that were not accounted for in any of the Bank project documents and remain unexplained, the project cost of the two health components, maternal and infant care and emergency care, were about four times, the estimated cost at approval and constituted more than 80 percent of the total project cost against about 50 percent estimated at approval. The ICRR does not have enough information to attribute this shortcoming to the design or the supervision of the project.

Quality of Supervision Rating Moderately Satisfactory

Overall Bank Performance Rating Moderately Satisfactory

9. M&E Design, Implementation, & Utilization



a. M&E Design

The indicators were clearly defined and measurable. Baseline data were available, and M&E arrangements were aligned with existing government systems. However, the objectives of the project were not all well specified even after the first restructuring; some were still too broad (“building capacity in public administration”) or vague (“promote business initiatives and improve natural resources management in rural areas”) or too narrow (“increase the survival rate in the final cycle of fundamental education”; improving fundamental education services would have been more aligned with the design of the education sector program objectives). The PDO indicators after the second restructuring did not reflect the project’s contribution toward achieving the intended outcomes. Some were too far down the results chain (health PDO: “improve maternal and emergency health care services” and health PDO indicators: “reduce maternal mortality rate and mortality rate for deaths through external causes, except violence”). Some were specific to one activity out of many and did not reflect the intended outcome, in this case, strengthening the results orientation of the State public administration (“building capacity in public administration, and environmental and disaster risk management” (PDO) versus increase revenue from tax arrears (PDO indicator). Intermediary results indicators were mostly output indicators used as disbursement triggers (DLIs), with some inconsistencies that made them ineffective to guide project implementation. For example, infant mortality, an outcome indicator, was used as an IRI. The ICR reports that detailed log-frames were developed for each sector program supported by the project. These frameworks may have been useful for monitoring and reporting purposes but were not designed to assess the project’s contribution to stated development objectives. A promising program of impact evaluations of sector programs was planned as part of the technical assistance component. Although the technical assistance component on public sector management was originally well articulated with sector programs, its M&E design was disconnected from the sector programs M&E, a shortcoming that may have hampered integrated supervision and negatively affected results.

b. M&E Implementation

As pointed out in the ICR, the complexity of the M&E framework and the number of agencies involved in the monitoring of indicators were challenges, particularly in the first years of project implementation. The development of an M&E module in the Project Management and Monitoring System (SIGMA-PP) significantly improved the collection of data and monitoring and reporting of results. During implementation, several IRI targets were revised downward in relation with implementation delays or dropped altogether. Although the cost of the health component quadrupled over the project life, signaling a significant broadening of the scope, the PDO indicator targets were not raised, highlighting the lack of relevance of health PDO indicators. These revisions (or lack of), blurred the picture of actual implementation, especially in results areas not monitored by a PDO indicator or a DLI such as the technical assistance component (strengthening public administration capacity). No planned impact evaluations were implemented.

c. M&E Utilization

Monitoring data were collected and used mostly for substantiating disbursements and reporting to the Bank. There are few indications that monitoring data were analyzed and used beyond these project needs. Also, there is little evidence that monitoring data and findings were communicated to the various stakeholders and used to manage sector programs. Implementing a result-based financing instrument cannot substitute for institutionalizing results-based management in public sector management, the



original cross-sectoral objective of this project. There is little sign that any learning by doing of the State public administration occurred through the implementation of the project, or that Paraná State capacity to manage for results increased and would be sustained beyond project closure.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

Environmental. The Project was classified as Category B and triggered the following safeguard policies: Environmental Assessment (OP/BP 4.10), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Pest Management (OP 4.09), and Physical Cultural Resources (Op/BP 4.11). An Environmental Assessment was conducted, and an Environmental Management Framework was prepared, disseminated, and disclosed. Institutional arrangements for supervision and oversight of environmental compliance were set up. Overall, according to the ICR, environmental safeguard policies were complied with.

Social. The project triggered two social safeguard policies, Indigenous Peoples (OP/BP 4.10) and Involuntary Resettlement (OP/BP 4.12), for risks in health, education, and agriculture activities. Social risk was initially rated low but raised to moderate in 2016 because of greater potential for resettlement issues related to the rural water systems and rural roads maintenance works under the agriculture component. An Indigenous Peoples Framework and a Resettlement Policy Framework were prepared at appraisal. Social safeguards compliance remained satisfactory for OP 4.10 (indigenous peoples) but was rated moderately unsatisfactory for OP/BP 4.12 (Involuntary Resettlement) from October 2017 due to lack of accurate information on the management of potential involuntary resettlements. At project closure, the Bank was informed by the Borrower that project activities did not involve resettlement and that the project's Resettlement Policy Framework had been complied with. The related Due Diligence Report had not been provided to the Bank by the time of ICR submission.

b. Fiduciary Compliance

Financial Management. The program was implemented using the State's public financial management systems. The State Secretariat of Planning and General Coordination (SEPL) had overall responsibility for financial management, and primary fiduciary responsibilities for the project were carried out by SEPL's Governmental Development Coordination department. The project's external audit was carried out by the State Court of Accounts. Financial management performance was adequate, but with delays in interim financial reports and audit reports. The interim financial reports were considered acceptable. Fiduciary risk was initially rated as moderate but was raised to substantial late in 2015 and remained at this level up to closing. The 2014 audit identified two fiduciary issues: (i) suspicion of fraud and corruption in school construction works under the *Renova Escola* program, and (ii) wells built with project funds in rural areas under the *Microbacias* program were not connected to households. The suspicion of fraud and corruption in school construction works was reiterated in the 2016 audit. Following both the 2014 and the 2016 audit findings, further investigations were conducted, and no evidence that project funds had been involved was



found. Nevertheless, to avoid any further issues, the Bank decided to exclude expenditures related to the *Renova Escola* program from the EEP. According to the ICR, the issue of non-functioning water supply systems (WSSs) was raised repeatedly in all audits from 2014 onward. A remedial action plan to be implemented by project closing was finally agreed in March 2019. The first phase was implemented in late 2019, and the second phase had just been initiated by the time the ICR was finalized. Results from the assessment had severe shortcomings. Based on field visits of the 185 WSSs installed over 2011-2014, only about 20 percent are functional, and among those, only 8 WSSs are providing treated water to about 450 rural people. The ICR does not provide information on remedial action to be taken by the State government.

Procurement. Procurement was undertaken in accordance with Bank policies and rules. While there was compliance with the guidelines, the main issue consisted of delays in approvals and contract awards by the state. These constraints contributed to overall delays in project implementation.

c. Unintended impacts (Positive or Negative)

None reported.

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Moderately Unsatisfactory	The ICR rated the Outcome Satisfactory based on substantial ratings for the 3 dimensions of the rating. The ICRR rates Relevance as Substantial, and Efficacy and Efficiency as Modest.
Bank Performance	Satisfactory	Moderately Satisfactory	The ICR rated quality at Entry as Moderately Satisfactory and Quality of supervision as Satisfactory and the ICRR rated both as Moderately Satisfactory.
Quality of M&E	Modest	Modest	
Quality of ICR	---	Modest	

12. Lessons



The ICR (pp. 38-40) offered several useful lessons, including the following lessons restated by IEG:

- **Project design benefits from substantial assessment of the maturity and realism of the project context, the client's reform program, and its institutional capacity through sustained dialogue at the project preparation and implementation stages.** In this case, implementation was hampered by lack of readiness at approval, underestimation of institutional capacity constraints both on the Bank and the government sides, superficial analytical underpinnings, and lack of consideration for the macro-fiscal context and more generally the socio-political context.
- **Setting meaningful results frameworks requires deep knowledge and regular updates.** The above shortcomings at appraisal, which persisted through project implementation, were reflected in the weaknesses of the results framework. Addressing them successfully would have required stronger analytical and knowledge inputs and continuous monitoring of the main assumptions underlying the project's theory of change.
- **Proactive and hands-on project supervision and periodic adjustment in project activities is critical for project success.**
- **Managing complex multi-sector operations at the sub-national level, where Bank knowledge is traditionally more limited, requires generous preparation and supervision budgets.** This last lesson is the consequence of the three lessons above, calling for more substantive preparation and supervision work.

IEG adds two lessons:

- **Results-based project disbursement modalities are not a substitute for results-based public sector management.** M&E is not just a question of procedures but involves a range of processes, protocols, competencies, knowledge, and discernment that cannot be summarized in a manual describing procedures to follow. The project-supported activities could have been designed as an experience on which to develop a broader M&E capacity building program, but there are no indications in the Bank documents, including the ICR, that this was the case.
- **Institutional reforms alone are unlikely to compensate for constraints that are due to sub-optimal policy.** In this case, institutional reforms on public finance management (specifically raising tax revenue through improving tax management and containing the wage bill by strengthening payroll management and control) are unlikely to address fiscal space constraints without adequate related fiscal policies, namely tax and salary expenditure policies.

13. Assessment Recommended?

Yes

Please Explain



Yes, in conjunction with assessment of other Brazil State-level sector-wide approaches covering both public sector management and service delivery.

14. Comments on Quality of ICR

The ICR provided a comprehensive overview of the project experience.

However, the ratings are based mostly on a deficient results framework and related theory of change. The narrative does not correct the inadequacy of the evaluation basis. Moreover, the ICR does not revisit the 2015 and 2017 revisions of the results framework, which were more than formal revisions of indicators. In a number of cases, especially in health, the revised targets were set below results already achieved at the time of the revisions indicating either that no progress was expected from the project implementation or that the results framework was inadequate to track project achievements and does not provide an adequate evaluation basis. Neither the ICR nor the 2015 and 2017 restructuring papers explain why project implementation and results were so different from the stated objectives and planned activities. For the finalization of the ICRR, the team provided additional information on activities and results in the health, DRM and Internal Control components, that were taken into account and reflected in the ICR. The ICR broadly followed the guidelines but includes several inconsistencies that blur messages.

a. Quality of ICR Rating Modest