Report Number: ICRR0022364

1. Project Data

Project ID	Project Name
P128968	BR Marine Protected Areas Project
Country	**Practice Area(Lead)**
Brazil	Environment, Natural Resources & the Blue Economy

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
TF-18151	31-Oct-2019	18,200,000.00
Bank Approval Date	**Closing Date (Actual)**	
19-Sep-2014	31-Mar-2020	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	18,200,000.00	18,200,000.00
Revised Commitment	18,200,000.00	18,200,000.00
Actual	18,200,000.00	18,200,000.00

Prepared by	Reviewed by	ICR Review Coordinator	Group
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2. Project Objectives and Components

a. Objectives

According to the Project Appraisal Document (PAD) (p. 15) and the Financing Agreement of September 26, 2014 (p. 7) the objective of the project was “a) to support the expansion of globally significant, representative and effective Marine and Coastal Protected Areas (MCPA) system in Brazil, and b) to identify mechanisms for its financial sustainability.”

The Global Environmental Objective (GEO) was identical to the Project Development Objective (PDO).

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

No

c. Will a split evaluation be undertaken?

No

d. Components

The project included four components:

Component 1: Creation and consolidation of Marine and Coastal Protected Areas (MCPAs) (appraisal estimate US$12.29 million, actual US$7.72 million): This component was to finance the increase in area and the strengthening of the management of marine and coastal areas that were under formal protection and creation of MCPAs, by, inter alia: i) identifying and establishing new marine Protected Areas (PAs) and related seasonal or permanent no-take fishing zones in some of the MCPAs and ii(to consolidate existing MCPAs.

Component 2: Identification and design of financial mechanisms to support Marine and Coastal Protected Areas (appraisal estimate US$2.5 million, actual US$1.68 million): This component was to finance the identification and design of, at least, two potential financing mechanisms for the MCPAs to ensure their long term financial sustainability.

Component 3: Monitoring and evaluation (appraisal estimate US$2.5 million, actual US$0.28 million): This component was to finance: i) the development and implementation of an integrated M&E system to track key marine and coastal environmental and biodiversity indicators in Marine and Coastal PAs supported by the Project as well as of other marine and coastal PAs; and ii) an assessment of marine biodiversity conservation status and conservation requirements of the MCPA system.

Component 4 - Project coordination and management (appraisal estimate US$0.91 million, actual US$0.38 million): This component was to finance i) establishing efficient day-to-day management and supervision of the project by supporting the Project Coordination Unit (PCU) and the Project Implementation Unit (PIU), in discharging their functions and responsibilities (including support for Project audits) and developing and implementing a communication strategy for the Project; ii) ensuring Project coordination by supporting the establishment and functioning of the Project Operational Committee (POC), the Project Council (PC), and ad hoc Technical Working Groups; and iii) developing and implementing M&E systems to manage effectiveness of MCPAs and the MCPA system, including their long term financial sustainability.

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

Project Cost: The project was estimated to cost US$117.86 million. Actual cost was US$18.2 million due Brazil's entry into a deep recession and an exchange rate devaluation.

Financing: The total project cost was financed by the GEF through a Bank administered Trust Fund of US$18.2 million, which completely disbursed.

Borrower Contribution: The Borrower was to contribute US$99.66 million, of which $39.26 million was materialized. The Bank team stated (December 21, 2020) that while PETROBRAS (Petroleo Brasileiros – a public-private company) provided substantial co-financing (approximately US$10.5 million) the total expected amount was impacted by an exchange rate devaluation and Brazil's entry into a deep recession.

Dates: The project was restructured twice:

- On August 23, 2017 the project was restructured to align grant proceeds with the new Bank procurement guidelines of June 1, 2016.
- On August 5, 2019 the project was restructured to: i) reallocate grant proceeds between disbursement categories and ii) change the closing date from October 31, 2019 to March 31, 2020 to allow for finalizing the setup of the Marine Fund, including asset management, M&E, and to oversee its administration.

3. Relevance of Objectives

Rationale

According to the PAD (p. 12) Brazil has an extensive coastline that measures over 9,000 km2 and hosts 18 percent of national population (43 million people). The Brazilian coast has a large variety of environments and wildlife and is one of the longest continuous stretches of mangrove ecosystems in the world, which are important for aquatic nursery sites, biological filters and carbon sinks. However, these environments have been subject to intense human and economic pressure.

Slow growth, persistent inflation, structural bottlenecks, and domestic as well as global uncertainties continue to overshadow the economic outlook for Brazil. Efforts to increase the coverage of Brazil's network of Marine and Coastal PAs (MCPA) contribute to the protection of global public goods (marine and coastal ecosystems). Also, they protect stocks and so support the productivity of Brazil fisheries, which, at the time of appraisal, provided approximately 800,000 jobs, involving about four million people directly and indirectly. Economic activities in the coastal zone account for roughly 70 percent of the Brazilian Gross Domestic Product (GDP), but the coastal zone is one of the most environmentally threatened regions in the country. Despite the vastness of Brazil´s coastal zone, only 1.57 percent of it was protected within the MCPA network (Rede de Unidades de Conservação Marinhas e Costeiras – UCMC) at the time of project appraisal.

In order to address biodiversity issues, in 2000 the government established the National System of Protected Areas (PAs) (SNUC), which established rules for the PAs management, provided mechanisms for property ownership and provided a framework for coordination between federal, state, and municipal levels and the private sector. Also, in 2003 the government established the National Committee on Biodiversity (CONABIO). According to the ICR (p. 10) the decree is composed of 12 articles, rules on the National Program on Biological Diversity (PRONABIO) and on the National Commission on Biodiversity. PRONABIO aims to orient the elaboration and the implementation of the National Policy on Biodiversity, promoting the implementation of the commitments undertaken by Brazil with regards to the Convention on Biological Diversity and defining the actions implementing the principles and guidelines of the National Policy on

Biodiversity. Furthermore, the government also implemented more recently biodiversity policies such as the 2010 National Goals for Biodiversity and the 2012-2015 National Coastal Management Plan.

The objective of the project supported the Bank's current Country Partnership Framework (FY18-23), which emphasizes the need to continue to support management of natural resources in a sustainable way, combining conservation with promotion of local and regional economic development. In addition, the project was in line with the 2016 Strategic Country Diagnostic, which discusses the need for efficient use of land to achieve economic and environmental goals. At the same time the Strategic Country Diagnostic stressed the need to conserve valuable biomes and protect important resources. Finally, the project was also aligned with the Global Environment Facility (GEF) priorities such as the conservation of globally unique biodiversity and its sustainable use while maintaining biodiversity conservation and sustainable use of productive landscapes, seascapes, and sectors.

Overall, the objective of the project was aligned with key development problems and country priorities. Also, the objective was realistic given the available resources. Therefore, the relevance of objective was rated High.

Rating
High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective
To support the expansion of globally significant, representative and effective Marine and Coastal Protected Areas (MCPA) system in Brazil:

Rationale
Theory of Change: The project's theory of change envisioned that project activities such as creating new MCPAs, consolidating selected marine and coastal PAs, developing and implementing an integrated M&E system to track key marine and coastal environmental and biodiversity indicators, and assessing marine biodiversity conservation status and conservation requirements of the MCPA system were to result in outputs such as availability of maps of priority areas, MCPA classification system, and marine biodiversity monitoring systems. These outputs were to result in the project's outcomes of marine areas being under biodiversity protection, and supporting the expansion of a globally significant, representative and effective MCPA system in Brazil.

The project made the following assumptions (ICR p. 6): i) successful collaboration between the various stakeholders and government ministries etc.; ii) timely provision of co-financing from the government; iii) continued political will for environmental and marine protection and accompanying positive macroeconomic conditions. These assumptions were made for both objectives.

Outputs:

- A Marine Biodiversity Monitoring System was developed and is under implementation in 19 out of 30 project sites, not achieving the target of being implemented in all project sites. According to the Bank team (December 21, 2020) this involved development of a strategy along with integration of existing data into SISBio (a biotechnology solutions provider of integrated resource services for water quality management, including treatments for wastewater and bulk-water). By project end, 28 percent of marine and coastal species had been reevaluated and action plans for 80 percent of threatened species were reviewed/developed.
- Managerial effectiveness monitoring systems were adopted and implemented in all project sites, achieving the target of being implemented in all 30 PAs supported by the project.
- An evaluation of the conservation status of 257 marine species along with the elaboration, evaluation, and monitoring of National Conservation Plans for marine threatened species was conducted. No target was provided for this and the two following outputs.
- A national monitoring strategy, several workshops and meetings for the design of the program, and a training course for multipliers of the Monitora program were developed.
- Local Management Plans (PLGs) were prepared for the Resex Canavieiras, Cassuruba, and Corumbau extractive reserves. The PLGs fused on self-monitoring concerning endangered fishing species such as Guaiamum and Budioes.
- 12 PA Management Plans were prepared or updated and are under implementation, not achieving the target of 16 Protected Area Management Plans.
- 21 PAs were supported by the project with management councils instituted by holding periodic meetings. A total of 7,325 participants (of which 41 percent were female) joined these meetings, surpassing the target of 480 participants.

Outcomes:

- 1,525,282 hectares (representing 17 MCPA were brought under enhanced biodiversity protection), surpassing the target of 930,000 hectares.
- The size of marine areas brought under biodiversity protection increased from 5.5 hectares in 2013 to 96.4 hectares in 2020, surpassing the target of 17.5 hectares. Throughout project implementation eight new PAs were created and one PA was expanded.
- According to the ICR (p. 11) an analysis of the *Sistema de Analise e Monitoramento da Gestao (SAMGe)/*Management System for Analysis and Monitoring showed an increased access to inputs (human, financial, and material resources), better alignment in the management of critical processes, and greater impacts of permitted uses (including research, monitoring, and public use).The ICR did not provide any quantitative evidence for “increased access” and “greater impacts”.

The project made significant achievements in several areas such as areas being brought under biodiversity protection while there were shortcomings in implementing a Marine Biodiversity Monitoring System as well as preparing PA Management Plans

Rating
Substantial

OBJECTIVE 2

Objective

To identify mechanisms for its financial sustainability:

Rationale

Theory of Change: The project's theory of change envisioned that project activities such as supporting the development of necessary public policies, and costing and financial modeling for PA management were to result in outputs such technical studies being conducted and the Marine Fund being created. These outputs were to result in the outcome of identifying mechanisms for financial sustainability.

Outputs:

- Four technical studies were completed, achieving the target of four studies. The studies included: i) Systematization of Payment by Experience in Environmental Services (PES) in the marine and coastal area; ii) mapping of sources with current potential for funding MCPAs; iii) study of financial demand for the Blue Initiative; and iv) elaboration of a project platform proposal for financing the MCPA system, which later served as the basis for the elaboration of the Marine Fund.
- A study to identify the financial demand for the Blue Initiative was developed. A tool for detailing the specific costs of Coastal and Marine PAs were still being developed, not achieving the target of an MCPA classification system being defined and costed.
- A management system (including fiduciary systems) was put in place and was operational and producing satisfactory annual and quarterly reports, achieving the target (ICR p. 30).

Outcomes:

Four mechanisms to support the long-term sustainability of MCPAs designed and ready for implementation were identified, surpassing the target of two mechanisms. These mechanisms included: i) federal environmental compensation; ii) an agreement between IBAMA and Petrobras for co-financing approx. US$10.5 million; iii) development of a platform of financing under the New Blue Initiative; and iv) development of the Marine Fund with financing in the amount US$8.5 million, which (according to the ICR p. 12) will support the management of MCPAs, monitoring of research centers, and integration actions with communities.

The project's achievement of the second objective was Substantial since activities such as the establishment of the Marine Fund can ensure the flow of financing to support and promote sustainable management of MCPAs after project closing.

Rating

Substantial

OVERALL EFFICACY

Rationale

The achievement of both objectives was Substantial given that the project surpassed the targets of all PDO indicators and made critical achievements in expanding the MCPA system and their financial sustainability.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic Efficiency:

The PAD (p. 19) did not conduct a traditional economic analysis and only stated that the $18.2 million GEF investment would leverage an additional US$90 million from other partners over the same period (which did not materialize). The ICR (p. 13) conducted a cost-benefit analysis based on costs and benefits calculated for Component 1. For components 2,3, and 4 a qualitative analysis was conducted because the activities did not focus on increasing the areas of Marine and Coastal Protected Areas but on creating financing mechanisms for the conservation of the areas, monitoring, and project management.

The cost-benefit analysis made the following assumptions: i) the clearing of mangrove in protected areas would be ten percent lower than in unprotected areas; ii) a 15-year period to assess the economic feasibility of the project, alongside a five year project sensitivity assessment; and iii) alternative discount rates of 6 percent and 9 percent were applied. The analysis calculated at a discount rate of 6 percent a Net Present Value (NPV) of US$19.05 million, a benefit-cost ratio of 17.96 (upper-bound) and at a discount rate of 9 percent a NPV of US$14.9 million and a benefit cost ratio of 17.64 (upper-bound). The results of this analysis indicate that the first Component of this project was a worthwhile investment.

Operational Efficiency:

According to the ICR (p. 17) the federal government's transition during project implementation resulted in delays and weakened capacity of the PCU. The government's commitment deteriorated in 2016 resulting in the approval of the reduction of federal PAs in the Amazon and Atlantic Forest regions (the first such cut since 1998). Also, the Chico Mendes Institute for Biodiversity Conservation (ICMBio), the Ministry of Mines and Energy (MME) and other government entities lacked coordination in terms of moving the biodiversity protection agenda forward. However, the project did not experience any significant implementation delays. The project's implementation period was extended by five months from October 31, 2019 to March 31, 2020 to allow for finalizing the setup of the Marine Fund, including asset management, M&E, and to oversee its administration.

The economic analysis showed that the project was a worthwhile investment and since the project did not experience any significant operational inefficiencies, the project's efficiency is rated Substantial.

Efficiency Rating

Substantial

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 ☐ Not Applicable
ICR Estimate		0	0 ☐ Not Applicable

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

6. Outcome

Relevance of the objective was High given its alignment the Bank's most recent Country Partnership Framework (FY18-23). Efficacy and Efficiency were Substantial. Taking everything together, the project's outcome rating is Satisfactory.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

Government commitment/ownership:

According to the ICR (p. 17) the federal government's transition during project implementation resulted in delays and weakened capacity of the PCU. The government's commitment deteriorated in 2016 resulting in the approval of the reduction of federal PAs in the Amazon and Atlantic Forest regions (the first such cut since 1998). Also, the Chico Mendes Institute for Biodiversity Conservation (ICMBio), the Ministry of Mines and Energy (MME) and other government entities lacked coordination in terms of moving the biodiversity protection agenda forward. However, in 2020 a new presidential decree to create two new MPAs in the exclusive economic zones was passed indicating government commitment. Continued political will and commitment will be critical for ensuring the success of expanded MCPAs.

Partnership: According to the ICR (p. 22) the project was able to engage local communities and ensure local ownership resulting in local communities playing a crucial role in protecting PA against environmental incidents. Also, the project was able to build partnerships. For example, the collaboration between MME and Petrobras resulted in Petrobras providing financing for the project. Also, the partnership developed between the Ministry of Defense and the Ministry of the Environment allowed for a better enforcement of the rules of

PAs and no-take areas. These ongoing partnerships will have a positive impact on the sustainability of project outcomes.

Financing: The continuous implementation of the conservation finance mechanism will require financing to ensure its sustainability. According to the ICR (p. 21) ownership by significant partners will be critical for the benefits of development finance being sustainable. A follow-on project by the Bank ("Sustaining Healthy Coastal and Marine Ecosystems Project"; financing amount US$15.7 million) is currently being prepared and will complement the activities of this project. The follow-on project aims to strengthen the management of the MCPA system and the enabling conditions for the blue economy in Brazil.

Technical capacity: According to the ICR (p. 14) the project was able to build capacity in various institutions and used existing systems such as FUNBIO and the Grievance Redress Mechanism. Also, the project contributed to the alignment and involvement of research and conservation centers such as integrating the National Center for Research and Conservation of Socio-biodiversity Associated with Traditional Peoples and Communities – CNPT). Furthermore, the project supported the implementation of various national tools such as the rollout of the initial modules of the SALVE system, which integrates the architecture of information systems in biodiversity and supports the evaluation of Brazilian fauna. These measures could positively impact the sustainability of project outcomes.

8. Assessment of Bank Performance

a. Quality-at-Entry

According to the ICR (p. 20) the project took lessons learned from the Amazon Region Protected Areas (ARPA) into account. According to the Bank team (December 23, 2020) the project adopted lessons in terms of financing strategies and sustainability, governance of the fund, and operating rules of the fund.

The Bank team identified relevant risks such as moderate risks of social conflicts regarding the creation of new PAs due to perceived potential economic losses, and poor past experiences with land tenure regularization or resettlement. To mitigate these risks, the Bank conducted consultations on traditional communities' issues, loss of access, and the complete environmental assessment, as well as prepared a Process Framework (PF) and an Indigenous Peoples Plan. In order to ensure strong stakeholder participation, the project was to utilize a highly participatory approach that was to emphasize consensus and community participation in MCPA management. Also, the project design included a sub-component for stakeholder engagement. The ICR (p. 20) stated that the project team selected an experienced fiduciary partner (FUNBIO) and outlined the governance structure and implementation arrangements for the project.

The design of the project's Results Framework and M&E approach was sound (see section 9a for more details).

Overall, the shortcomings in project identification and preparation were minor resulting in a Satisfactory Quality at Entry rating.

Quality-at-Entry Rating
Satisfactory

b. Quality of supervision
The project benefitted from the continuity of the same Task Team Leader and several team members preparing and implementing the project. According to the ICR (p. 17) the Bank team prepared detailed and complete Implementation and Supervision Reports and Aide-Memoires, which detailed implementation issues and how they were to be addressed.

The Bank team restructured the project twice to align grant proceeds with the new Bank procurement guidelines and to reallocate grant proceeds between disbursement categories and change the closing date.

The project did not encounter any financial management, procurement or safeguard issues (see section 10 for more details).

Bank supervision did not encounter any implementation bottlenecks and benefited from continuity of the same Task Team Leader and several team members. Therefore, the quality of supervision rating is Satisfactory.

Quality of Supervision Rating
Satisfactory

Overall Bank Performance Rating
Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design
The project's theory of change was sound and reflected in the results framework. The objective of the project was clearly specified. The indicators encompassed all outcomes of the project's objective and were adequate to capture the components' contributions to achieving the PDO. The majority of indicators included in the results framework had a target and when appropriate also a baseline.

However, several indicators tried to measure several things at once such as the intermediate outcome indicator "marine biodiversity monitoring system developed and under implementation in project sites" and "protected area management plans a) prepared or updated, and b) under implementation" making an evaluation challenging.

According to the PAD (p. 18) an M&E unit within the PCU in MMA was to be established. Progress was to be tracked against the indicators outlined in the results framework and the actions agreed in the project's

Annual Operation Plans (Planos Operativos Anuais – POA) agreed annually with the Project Operational Committee (POC) and partners. Quarterly financial and bi-annual progress and M&E reports were to be submitted to the Bank.

b. M&E Implementation

The Bank team stated (December 21, 2020) that after the first supervision mission all stakeholders were included in the process to update the baseline aiming to make it as accurate as possible. Also, two additional indicators were added.

However, during the Mid-Term Review in August 2018 it turned out that the targets of two of the PDO indicators and one intermediate outcome indicator were already surpassed. The ICR stated that this was due to conservative estimates of targets during project design, which were based on evidence from similar projects, and good collaboration between all implementing partners. Furthermore, the ICR (p. 19) stated that the indicators closely and accurately measured achievement of project outcomes.

According to the Bank team (December 21, 2020) all indicators were systematically measured and reported. Also, the data was found to be of good quality and the reporting was usually complete and frequent. Furthermore, the M&E functions were likely to be sustained after project closure. A newly prepared similar Bank-funded project was to build on these functions.

c. M&E Utilization

According to the ICR (p. 19) the achievement of all three PDO indicator targets at the time of the Mid-Term Review may have had an effect on the second restructuring. The Bank team stated (December 21, 2020) that low disbursements and currency devaluation allowed the project to establish the Marine Fund, which contributed further to achieving the project objectives.

The sections on the quality of M&E design and implementation were Substantial although the section on M&E utilization could have been expanded. Taking everything together, the project's M&E quality rating is Substantial.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as category B and triggered the following Bank safeguard policies: OP/BP 4.01 (Environmental Assessment), OP/BP 4.04 (Natural Habitats), OP/BP 4.36 (Forests), OP/BP 4.11 (Physical Cultural Resources), OP/BP 4.10 (Indigenous People), OP/BP 4.12 (Involuntary Resettlement). According

to the ICR (p. 20) the project complied with all safeguards. Also, the project had a Grievance Redress Mechanism (GRM), which only filed three cases and dealt with them appropriately.

According to the Bank team (December 21, 2020) the project did not experience any negative and social impacts from the project. Instead, the project supported the cleaning up the major 2019 oil spill along the coast of Brazil.

b. Fiduciary Compliance

Financial Management:

According to the ICR (p. 20) the project submitted regular and detailed financial reports with the majority of subprojects being submitted in a timely manner. Also, the Bank team submitted detailed Financial Management Implementation Support and Supervision reports on a regular basis. All audits conducted by the external auditor had unqualified opinions and were accepted by the Bank. The ICR stated that the project's financial compliance was satisfactory throughout project implementation. Furthermore, the project complied with the Bank's financial covenants. According to the Bank team (December 21, 2020) the project did not encounter any financial management staff issues and benefitted from the Brazilian Biodiversity Fund (FUNBIO), an experienced fiduciary partner.

Procurement:

According to the ICR (p. 20) the project consisted of many small procurement activities, which took place in rural areas and had to be conducted by people who were not familiar with formal or in-depth procurement processes. In order to ensure smooth project procurement, the project streamlined processes and developed reactive and tailored solutions to any procurement challenges. For example, the project developed measures such as local procurement solutions to allow managers to receive competitive quotations, which allowed for a faster procurement process. Also, project staff developed a procurement marketplace mechanism and developed framework agreements with vendors to accelerate the procurement process. In addition, according to the Bank team (December 21, 2020) during the first project restructuring the project adopted the revised 2016 World Bank Procurement Guidelines, which facilitated the procurement processes and allowed for increased engagement with the communities.

According to the ICR (p. 20) procurement was Satisfactory throughout project implementation.

c. Unintended impacts (Positive or Negative)

NA

d. Other

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11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	Substantial	

12. Lessons

The ICR (p. 21-23) included several lessons learned, which were adapted by IEG:

- **Including key stakeholders from as early as project conceptualization can have a positive impact on ownership and involvement**. In this project, the Bank team collaborated with the science department at Petrobras from the beginning onwards. The collaboration also included Petrobras providing key data and eventually led to Petrobras supporting the project financially.
- **Engaging local communities increases longer-term sustainability of project outcomes**. In this project, in each PA management councils were formed, which developed their own regulations. Also, those PAs, which organized large meetings where relevant stakeholders were able to comment, achieved better results and stronger commitment as demonstrated in the defense of the PAs against environmental incidents.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR provided an adequate overview of project preparation and implementation and included a cost-benefit analysis of the first and most costly component of the project. Also, the ICR is concise. However, the ICR provided limited information on critical areas such as procurement, financial management, and M&E implementation. Also, the lessons learned included were not sufficiently broad to be applicable to other projects. The ICR is rated Substantial but with caveats.

a. Quality of ICR Rating
Substantial