1. SUMMARY INFORMATION

<table>
<thead>
<tr>
<th>Implementing Country/Technical Partner:</th>
<th>Brazil</th>
</tr>
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<tbody>
<tr>
<td>Reporting Period:</td>
<td>From 10/01/2017 to 09/30/2018</td>
</tr>
<tr>
<td>Report Date:</td>
<td>09/28/2018</td>
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<tr>
<td>Implementing Agency:</td>
<td>Ministry of Finance</td>
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<tr>
<td>Contact Person:</td>
<td>Aloisio Lopes Pereira de Melo – General Coordinator for Environment and Climate Change of the Secretariat for Economic Policy</td>
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<tr>
<th>Grant Executed By:</th>
<th>World Bank</th>
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<tbody>
<tr>
<td>Grant Effectiveness and Closing Dates:</td>
<td>05/06/2015 – 06/30/2020</td>
</tr>
<tr>
<td>Grant Amount (USD):</td>
<td>USD 3,000,000.00</td>
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<tr>
<td>Funding Mobilized (USD):</td>
<td>N/A</td>
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<tr>
<td>Funding Committed (USD)</td>
<td>USD 2,462,600 (commitments + expenses), including:</td>
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<tr>
<td></td>
<td>- Component 1: USD 900,000 (committed)</td>
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<td></td>
<td>- Component 2a: USD 588,000 (committed)</td>
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<td></td>
<td>- Component 2b: USD 274,200 (committed)</td>
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<td>- Component 3: USD 550,400 (committed)</td>
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<td></td>
<td>- Expenses: USD 150,000 (I, II Seminars; I, II, III Technical Workshops; and smaller and more specific workshops)</td>
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2. OVERVIEW

Please provide a general description of the progress made towards the Grant’s Objectives and Activities (as per the Project Development Objective(s) Indicator(s) and Intermediary Results Indicator(s) included in the World Bank’s Project Paper’s Results Framework). Please also highlight critical issues as well as pending actions that may require the PA or the PMR Secretariat’s attention.

Brazil has been involved in the PMR since its operationalization in October 2011. In particular, the Partnership Assembly (PA) approved Brazil’s Organizing Framework in May 2012, after which the preparation of the MRP started. The main deliverables of the MRP preparation phase were the study
“Macroeconomic Assessment of Price-based Instruments to Implement a Voluntary National Emissions Reductions Targets in Brazil”, as well as the following three reports: 1) Review of the Economic Literature on the Adoption of Tax as an Instrument of Emissions Pricing; 2) International Experiences with Carbon Taxes; and 3) Design Options for GHG Taxation Mechanisms.

The draft MRP was presented at the 9th meeting of the PA in Cologne, Germany and the PA approved electronically the final MRP and allocated implementation phase funding to Brazil in August 2014. Component 1 of the MRP focuses on analytical studies aiming to develop alternative design options, covering both carbon tax and ETS policy options. Component 2 is designed to apply different tools to assess the impacts of the market-based instrument(s) proposed in the Component 1, while Component 3 is dedicated to the communication, consultation and engagement process.

The grant became effective on May 6, 2015, after the conclusion of the arrangements for its execution through the World Bank directly, following which the implementation phase was initiated. As of now, the activities are following the expected timeline.

The governance framework of the Project was established in October 19, 2015, by an ordinance of the Ministry of Finance which created the Executive Committee, formed by representatives of the World Bank and Ministry of Finance (Secretariat for International Affairs and Secretariat for Economic Policy), who are in charge of both the leadership and oversight of the implementation of the Project and its accountability.

This ordinance also created a Working Group formed by representatives from each department of the Secretariat for Economic Policy, in order to provide technical support for the Project; and allowed the Executive Committee to establish an Advisory Committee for the project.

The Advisory Committee was then created and consists of the World Bank, Ministry of Finance along with seven other ministries, as well as civil society, research and business organizations, gathering 20 members altogether. There have been three meetings so far, in 09/29/2016, 03/15/2017 and 08/22/2018.

Project Development Objective(s) Indicator(s):

- A White Paper of policy proposals on carbon pricing instrument(s) (to be approved by the Executive Committee of the MRP and submitted to the Minister of Finance, to inform the decision-making process on the adoption of mitigation instruments as part of the National Climate Change Policy) – Writing the White Paper is the final activity of the MRP, which will start after Component 2 presents its results.
- Knowledge, awareness, and capacity built among relevant stakeholders inside and outside the government, in relation to carbon pricing instruments – 2 seminars and 3 workshops have been held, with a considerable number of participants. There is a demand for more such activities.

Intermediary Results Indicator(s):

Component 1:

- Studies to map current policies of the industrial sectors (7 subsectors) – these studies have been concluded and submitted for stakeholders’ review.
- Study to map current policies of the agriculture sector – this study has been concluded and submitted for stakeholders’ review.
- Studies to map current policies of the energy sector (2 subsectors) – these studies have been concluded and submitted for stakeholders’ review.
• Design of Carbon Pricing instruments (Carbon Tax and/or Emissions Trading Scheme) – this report needs final approval by the Executive Committee and will be submitted for stakeholders’ review.

Component 2:
• Adapted Computed General Equilibrium Model comprising all sectors analyzed – the consultant firm finished the literature review and is working on the model development, awaiting the carbon pricing scenarios to be incorporated in the model.
• Regulatory Impact Analysis of Carbon Pricing Instruments – the consultant firm is working on the reference scenario and awaiting the carbon pricing scenarios to be assessed.

Component 3:
• 3 Seminars for raising awareness and engagement – 2 Seminars have been held.
• 4 Technical workshops on economic modeling – 3 Technical Workshops have been held. One extra workshop is needed and shall be object of contract amendment.

All components are scheduled to be complete by the end of July 2019.

3. IMPLEMENTATION REPORT BY COMPONENT

Differences between the Objectives/Activities in the Market Readiness Proposal and the Grant Agreement

Are there any important and material differences between the objectives/activities proposed in the Market Readiness Proposal and endorsed by the Partnership Assembly of the PMR and those agreed to in the Grant Agreement with the Delivery Partner and described in the Project’s Results Framework?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
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<tbody>
<tr>
<td>Are there any important and material differences between the objectives/activities proposed in the Market Readiness Proposal and endorsed by the Partnership Assembly of the PMR and those agreed to in the Grant Agreement with the Delivery Partner and described in the Project’s Results Framework?</td>
<td>No</td>
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There are no important differences between the objectives and corresponding activities proposed in the MRP and those agreed in the grant. Nevertheless, the Executive Committee, based on contributions from stakeholders, has found necessary to add to the MRP a study on offsets from the forestry sector. The developments of the Forest Code implementation are leading to the creation of mechanisms that can promote reforestation and the conservation of forest land that could be legally converted into agricultural land, i.e., measures that can demonstrate additionality in climate change mitigation, such as the Environmental Reserve Quote. REDD-related measures are not included in the study.

Moreover, a fifth Technical Workshop shall be needed to guarantee the robustness of the White Paper, coordinating the contributions and understanding from all Components.

Implementation Progress by Component

<table>
<thead>
<tr>
<th>A. Component 1: Studies to inform policy design and modeling</th>
<th>Status: Under implementation</th>
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Component 1 studies are being carried out by a group of firms led by WayCarbon, that is working together with national partners from the Federal University of Rio de Janeiro (UFRJ), the Center for Advanced Studies on Applied Economics of University of São Paulo (CEPEA) and Volga Consultoria, as well as with international firms, Vivid Economics and Ricardo Energy and Environment.

Component 1 has the following deliverables:

- **Product 1**: Report on results of the diagnosis for the Electricity and Fuels subsectors;

- **Product 2**: Report on results of the diagnosis for the Agriculture and Industry sectors, separating the latter into the seven subsectors of the Industry Plan (Aluminum, Cement, Iron and Steel, Pulp & Paper, Chemical, Lime and Glass);

- **Product 3**: Report on results of the analysis of interactions, propositions and recommendations for the Electricity and Fuels subsectors;

- **Product 4**: Report on results of the analysis of interactions, propositions and recommendations for the Agriculture and Industry sectors;

- **Product 5**: Report presenting recommendations for alternative scenarios of carbon pricing instrument packages, which may include one or various carbon pricing instruments, combined—or not—with proposed adjustments to instruments of existing policies in Brazil, in order to maximize synergies, mitigate conflicts and/or prevent undesirable effects;

- **Product 6**: Synthesis report on the content of Products 1-5, containing the revised version of the recommended alternative scenarios for carbon pricing instrument packages. The report will be prepared after the interaction with the impact assessment teams, using the results of the economic modeling and the feedbacks from the regulatory impact analysis performed under Component 2.

A first approach on the sectors’ key characteristics has been delivered for all sectors, in Products 1 and 2. They’ve been submitted to stakeholders’ review. The incorporation of stakeholders’ comments and suggestions needs a contract amendment to be carried out by the consultant firm.

Products 3 and 4 have been approved by the Executive Committee, except the study on the agriculture sector under Product 4, which still needs adjustments. These deliverables focus on the interactions between the sectoral policies and carbon pricing instruments (CPI) and on proposals of packages of CPIs (C-tax and/or ETS) and policy adjustments needed to create synergies and reduce undesirable interactions and side effects.

Product 5 is going through review by the Executive Committee, so it cannot be considered concluded yet.

Products 3, 4 and 5 shall be submitted to stakeholders’ review. The incorporation of stakeholders’ comments and suggestions needs a contract amendment to be carried out by the consultant firm due to additional work needed.
This amendment shall include a new study on carbon offsets from the forestry sector (not related to REDD, as stated above), to be incorporated in the design solutions of Product 6, which corresponds to the main Project Development Objective.

**Comments:**
There’s been a certain delay in the achievement of the expected results due to the number and complexity of the adjustments needed in the deliverables to make them satisfactory for approval. Also, the restrictions due to the Brazilian national elections delayed the public consultation of reports – such consultations cannot be carried out during the electoral period.

### B. Component 2: Impact assessment of Carbon Pricing

**Status:** Under implementation

The contracting processes of Components 2a and 2b have been successfully finished and the activities are being carried out as planned, except for the definition of the reference scenario. The national strategy on climate change mitigation to comply with the Brazilian NDC is still under construction. Key measures have been outlined by different initiatives, but no national plan is in place yet. Therefore, the definition of the reference scenario has required a unique approach.

Implementation progress per contract:

- Adapted Computed General Equilibrium Model comprising all sectors analyzed – the consultant firm finished literature review and is working on the model development, awaiting the carbon pricing scenarios to be incorporated in the model.
- Regulatory Impact Analysis of Carbon Pricing Instruments – the consultant firm is working on the reference scenario and awaiting the carbon pricing scenarios to be assessed.

**Comments:** The contracting processes of Components 2a and 2b have taken more time to finish than expected.

### C. Component 3: Awareness Raising and Capacity Building

**Status:** Under implementation


The 2nd Seminar took place on October 5th and 6th of 2017, brought to the public more international experiences, recalled the previous work done on MRV systems, addressed competitiveness issues and debated further on sector approaches of CPIs, with the participation of the Component 1 team.

The 3rd Workshop took place on May 3rd and 4th of 2018 and aimed at promoting coordination and coherence among all Project’s components, once all of them had been contracted.

During the year, the Advisory Committee has met on 08/22/2018.

- 3 Seminars for raising awareness and engagement – 2 Seminars have been held.
4. PROGRESS, CHALLENGES, AND LESSONS LEARNED

**Important policy or regulatory developments related to the Grant’s objectives and activities:**

**Developments:**

During the Reporting Period Brazil’s Ministry of Mines and Energy led a task force that culminated in the establishment of a National Program on Biofuels, called Renovabio, that consists of a mechanism akin to a carbon market restricted to the liquid fuels sector, involving the transport sector. Renovabio makes it compulsory for fuel distributors to purchase biofuel “decarbonization” credits (CBIO) proportionally to their respective market share in the distribution of fossil fuels. In turn, each biofuel producer or importer that chooses to generate CBIO credits will be allowed to issue these credits reflecting the emissions hypothetically avoided in the biofuel lifecycle relative to the CO₂ that would be emitted in the lifecycle of its substitute fossil fuel, in case consumers chose the substitute fossil fuel instead and in case there were no compulsory biofuel blending mandates in force. The National Commission on Energy Policy shall establish each year the annual total target of CBIO credits that all fuel distributors will have to purchase. The credits are to be traded in the stock market and, at the moment, financial institutions are working on operationalizing the financial asset.

In 2016, the Brazilian Forum of Climate Change (FBMC) launched a consultation process to collect and systematize proposals for the NDC implementation strategy. FBMC gathers government agencies, academia, private sector and civil society organizations in order to advise the President of Brazil in issues related do Climate Change. The consultation process was structured in 9 thematic groups and has delivered a first set of general recommendations.

A review of the National Policy on Climate Change governance was launched in 2017. Under the guidance of the Civil Cabinet of the Presidency, a new framework is under development, aiming at improving the coordination of initiatives and providing a high level decision making process.

**Challenges:**

The first challenge is the coordination of the analytical work under the MRP with the elaboration of the NDC implementation strategy – developed primarily by the Ministry for the Environment -, which may include a range of policy instruments (regulation, voluntary agreements, incentives), besides carbon pricing instruments.

Another challenge for the MRP, given the central role of forests in the Brazilian post-2020 mitigation agenda, is the definition of the role and suitable approaches to carbon pricing instruments for activities such as the promotion of reforestation, as well as recovery of pastures and climate-smart technologies in agriculture.

Finally, since Renovabio already resembles a carbon pricing instrument for the liquid fuels sector and may represent an extra cost component on fossil fuels to Brazilian consumers, there may be a risk of
duplication of regulation on this sector, which requires attention to mitigate impacts and to try to envisage eventual complementarities, if possible.

In 2017, the Ministry of Mines and Energy envisaged a power sector reform, aiming at restructure tariffs and improving energy security. This reform would eventually have an impact in the carbon pricing strategy. However, the reform initiative has not been completed so far, and its details are still under discussion.

Lessons learned:
There are lessons to be learned from the communication strategy that the biofuels sector used to approve the Renovabio bill in Congress. An alleged GHG emissions mitigation potential was highlighted by its supporters and the details of the complex mechanism involved haven’t been fully discussed during the legislative process. This mechanism was left out of the legislation and has demanded further regulation by the Executive branch for its implementation.

**Important changes in the technical design or approach related to the Grant’s activities:**

**Developments:**
The Executive Committee is working on amendments for the contracts of Components 1 and 3, but the changes proposed are not in place yet.

**Challenges:**  
N/A

**Lessons learned:**  
N/A

**Key capacity issues (implementation, technical, financial management, procurement) related to the Grant’s activities:**

**Developments:**
Regular capacity building activities are necessary to endow the Ministry of Finance team with the knowledge and skills necessary for monitoring and following up on PMR implementation. In this regard, team members’ participation in technical workshops and courses related to carbon pricing instruments, climate change issues and sharing of experiences with other partners are very important.

**Challenges:**
No bottlenecks related to capacity issues have been observed to date. The project team is mindful of the need to build the specific skills necessary to assess the outcomes of the studies undertaken as part of the MRP and to discuss these issues with experts and society. All of the activities supported by the PMR (and in particular Component 3) are expected to contribute to improving these capacities – both the activities carried out under the MRP as well as other activities carried out by PMR and other support tracks, such as technical workshops.

**Lessons learned:**  
N/A

**Coordination with other carbon pricing initiatives, including those funded by other donors:**

**Developments:**
The sector studies carried out in the first deliverables of Component 1 have used data on marginal (emissions) abatement costs produced by Project “Mitigation Options of Greenhouse Gas Emissions in Key Sectors in Brazil” (MOP) led by the Ministry of Science, Technology, Innovation and Communications (MCTIC), which established a technical cooperation agreement with the Ministry of
Finance in order to facilitate the exchange of databases and other relevant information between both projects. Besides, as indicated in the MRP, it is expected that the assessment of social and economic impacts of carbon pricing instruments (Component 2) will be made through a package of models based on the previous work developed under the MOP.

The Brazilian Government and the Federal Republic of Germany launched the Project “Policies on Climate Change Programme (PoMuc)” which was formalized in July 2016. One of the Project’s Outputs (Output 6) is the development of the fundamentals for a National GHG Reporting Program and the resulting national GHG emissions/removals registry, which is one of the building blocks for implementing carbon pricing instruments. The project is implemented by GIZ under the coordination of the Ministry of Environment and the Ministry of Finance. Activities of Output 6 began in November 2017 and is closely integrated with MRP activities.

Furthermore, a member of the Brazil PMR Team has participated as a speaker on the “Technical workshop on carbon pricing”, promoted by the Thailand PMR Project. The objective was to present the Brazil PMR Project, highlighting the general framework of analysis and detailing the methodological approach and the rationale behind the components of the project, in order to provide inputs to the Thailand PMR Project.

Challenges:

It is important to ensure continued complementarity between the activities under the MRP and the projects referred to above (MOP and PoMuc). More specifically, it is intended that products elaborated by these projects will serve as inputs to component 2 of the MRP.

Considering the active participation of the PMR team in the implementation of the MOP project, the risk of lack of compatibility between the products developed by the MOP and the inputs necessary for the MRP is mitigated. However, researchers who were involved in the MOP project have found inconsistencies in the first PMR Component 1 reports, an important input for improving the consultant’s reports. Also, private sector stakeholders have criticized the PMR reports for using data produced in the MOP project that, as they argue, do not represent a realistic estimate of the mitigation technologies’ costs and potentials.

Regarding the “Policies on Climate Change Programme (PoMuc)”, the main challenge was related to the uncertainty on the timing of the delivery of products that will feed into the MRP activities. However, this issue is being mitigated by means of a strong coordination of the activities of both projects. The 3rd Technical Workshop aimed at this coordination, once all components of the MRP had been contracted.

Lessons learned: N/A

Stakeholder engagement related to the Grant’s activities:

Developments:

In October 5 and 6, 2017, the PMR and CPLC held a joint Seminar (2nd Seminar) to address important topics in the carbon pricing agenda, such as the international experience, MRV fundamentals, competitiveness issues, sector specific issues in the Brazilian context and perspectives for the incorporation of the agriculture and forestry sector in a carbon pricing strategy.

In May 3 and 4, 2018, the PMR and PoMuc (MRV system RIA) Projects held a joint Technical Workshop (3rd Workshop), after all MRP Components had been contracted, in order to share the understanding of the roles of all components and to coordinate the activities in terms of responsibilities and the work schedule.
After the conclusion of the sector studies of Component 1, sector specific technical workshops have been held in order to gather contributions from members of the Federal Government and stakeholders from the private sector. Moreover, with the help of Component 3 contracted firm FGV, these reports have been submitted to online review, which has gathered a great number of contributions which now need to be addressed, together with the contributions gathered in the sector specific technical workshops, and are being object of a contract amendment with Component 1 firm WayCarbon. The Advisory Committee members have been invited to the events and sector specific technical workshops that took place in the period.

Since the last ISR, the Project Advisory Committee, which includes members of the Federal Government, stakeholders from the private sector and representatives from relevant civil society organizations currently involved with climate change issues, met once, in August 22, 2018. The agenda comprised the current situation of the PMR worldwide and the state and trends of carbon pricing, by the PMR Secretariat; an introduction of Project PoMuC (RIA of an MRV Program), by GIZ; an ETS proposal conceived by stakeholders from the industry sector, by CEBDS; an update on the PMR Project implementation, by the Executive Committee; the draft report presenting carbon pricing packages and recommendations of sector policy adjustments, by Component 1 team; a report on the events held since the previous meeting (2nd Seminar, 3rd Technical Workshop and consultations), by Component 3 team; the workplan and analytical scope of Components 2A and 2B.

Challenges:
The consultation initiatives definitely have contributed to increase stakeholder engagement in carbon pricing. Subsectors interested in an ETS have been pressing government authorities to advance in the agenda and industry subsectors that tend to lose competitiveness already claim not to oppose an ETS, as long as they are protected against carbon leakage. There’s still a need to involve the agriculture and the electricity sector in the agenda.

The main challenge in engaging stakeholders and political figures is related to the fiscal situation in Brazil. On one hand, the Treasury needs more revenue, and on the other hand, firms and taxpayers aren’t willing to pay more taxes. The communication strategy can and must emphasize tax neutrality, but the tax system in Brazil is so complex, that a tax reform needs efforts that go far beyond the scope of the MRP project.

Lessons learned:
In the 2nd Seminar, it was suggested that intermediate results of the Project be submitted to public consultation. As stated above, the first reports have received a handful of contributions, which now need to be addressed. It was found necessary to understand how Brasil can engage into carbon markets, so as to recognize previous efforts and take advantage of opportunities for resources and technology transfers.

### Other issues related to the Grant’s activities

None.

## 5. ADDITIONAL INFORMATION

*In this Section, please provide any additional information that may be relevant for the achievement of the Grant’s objectives and/or the implementation of the Grant’s activities. Please also provide any*
relevant information related to carbon pricing and the use of market-based instruments for climate change mitigation.

N/A