



# Integrated Landscape Management in the Cerrado Biome

Country / Region: **Brazil** | Project Id: **XFIPBR027A** | Fund Name: **FIP** |

MDB : **International Bank for Reconstruction and Development**

Comment Type	Commenter Name	Commenter Profile	Comment	Date
Comment 1	Katie Berg	United States	Dear Mafalda, We support the suggestion of the UK to provide an extension to November 30, 2017, in line with the extension provided to the recent Ghana project. Thank you, Katie Berg	Aug 04, 2017
Comment 2	Bernadete Lange	IBRD	On behalf of FIP: Brazil Landscape team, we would like to thank you for the opportunity respond on the comments regarding the request for an extension of deadline for FIP Brazil Landscape for project approval. The FIP: Brazil Landscape project recognizes the inevitable constraints on time. In this context, the Project team have revised the Project preparation activities timeline for processing the project preparation. (see attached) We would like to highlight that the proposed timeline aims to ensure adequate time for all preparation stages and to guarantee adequate time for environmental and social assessment and public consultations. The institutional arrangement and environmental and social assessment, as well as public consultations are important parts of the design and implementation of the proposed project. The primary proposed of this timeline is ensure enough time to allow detail discussion on institutional arrangement and communication with stakeholders. - Review and preparation of the concept package - August <u>2017</u> - Concept review – August/September <u>2017</u> - Technical meetings to design the project activities – July <u>2017</u> /October <u>2017</u> - Institutional arrangements design – September/October <u>2017</u> - Fiduciary and financial assessment of the grant recipient – September/October <u>2017</u> - Environmental and social assessment and preparation of an environmental and social management framework for the project, as well as stakeholder consultation – October/November <u>2017</u> - Project operation manual preparation – October <u>2017</u> - Preparation of the appraisal package, including draft legal agreement, environmental and social framework – November <u>2017</u> - Project Decision Meeting – November <u>2017</u> - Submission of the final package to the FIP Subcommittee – November <u>2017</u> - Grant Agreement negotiation – January <u>2018</u> - Submission of the final package to the Board Directors – February <u>2018</u> - Grant signature and project effectiveness – February/March <u>2018</u>	Aug 08, 2017
Comment 3	Coraina de la Plaza	FIP Observer-Global Forest Coalition	We welcome the very informative proposal and the Gender Action Plan that it contains. However, we would like to ask for more information and clarity about the term “degraded pasture lands”. One of the aims of this project proposal is to recover and rehabilitate 15 million hectares of “degraded pasture lands” and there are some criteria for the site’s selection. Yet, a comprehensive and clear definition of “degraded pasture lands” for the project area context is needed to avoid potential social conflicts and environmental negative impacts. In addition, in the results framework, for the indicators “Land area where conservation and restoration practices have been adopted” and “Landholders adopting environmental conservation and restoration practices”, planting or direct seeding of non-native trees species is considered as part of the activities that landowners can carry out to achieve the desired results. We would like to call for an explicit guarantee that excludes the use of invasive alien species (for instance but not only, Eucalyptus) and the promotion and further establishment of monoculture tree plantations as part of the conservation and restoration activities due to all the negative impacts both social and environmental associated to this type of practices.	Apr 20, 2018



Response 1    Meerim Shakirova    IBRD

Jun 01, 2018

Thank you very much for the comments. Please find below some clarification and additional information on the themes raised regarding the Brazil - FIP Integrated Landscape Management in the Cerrado Biome Project. During appraisal, the Project Team will work with the clients to review the PAD and intends to include clarifications and additional information in the PAD Annexes, in accordance with Bank procedures.

#### Question on Restoration/ Native Species

GF Coalition: we would like to ask for more information and clarity about the term "degraded pasture lands". One of the aims of this project proposal is to recover and rehabilitate 15 million hectares of "degraded pasture lands" and there are some criteria for the site's selection. Yet, a comprehensive and clear definition of "degraded pasture lands" for the project area context is needed to avoid potential social conflicts and environmental negative impacts. In addition, in the results framework, for the indicators "Land area where conservation and restoration practices have been adopted" and "Landholders adopting environmental conservation and restoration practices", planting or direct seeding of non-native trees species is considered as part of the activities that landowners can carry out to achieve the desired results. We would like to call for an explicit guarantee that excludes the use of invasive alien species (for instance but not only, Eucalyptus) and the promotion and further establishment of monoculture tree plantations as part of the conservation and restoration activities due to all the negative impacts both social and environmental associated to this type of practices.

Re: Restoration legal framework: The project will incentivize the restoration with native species and it will not promote monoculture tree plantations, fully in line with Brazilian legal framework and, with Bank's Safeguards OPs/BPs and the project ESMF.

The project will be following the Native Vegetation Protection Law, or Forest Code. According to the Forest Code, the Permanent Preserved Areas (APPs) are environmentally sensitive areas that must be protected or restored, especially for water supply and prevention of soil erosion. These areas include riparian vegetation adjacent to streams and rivers, around springs, on hilltops, high elevations and on steep slopes. The Legal Reserves (RL) are portions of landholdings that should be maintained as natural vegetation. The RL within rural properties can be used to: (i) generate income in a sustainable way; (ii) help conservation and rehabilitation of ecological processes; and (iii) promote biodiversity conservation. Some set-aside areas (Legal Reserves, RLs) for conservation can be sustainably harvested and include partial use of exotic species, interplanted with native species, which could mitigate the cost of restoration and even provide profits, but in Cerrado areas this tends to be limited to species which produce non-timber products. Specific recommendations are that: (i) up to half of the RL may be used for economic benefits; (ii) when using exotic species (up to 50%), these species need to be interspersed with native species; (iii) when using exotic species, management should promote the regeneration of native species; (iv) the landholding must follow the principles of sustainable forest management; and (v) the species diversity needs to be maintained. APPs may not be used to provide economic benefits, although small rural properties ( $\leq 4$  fiscal module units) can use them for sustainable agroforestry.

Project environmental management: The implementing agencies prepared a draft Environment and Social Management Framework (ESMF). The ESMF includes: (i) environmental and social screening criteria; (ii) potential impact and risk mitigation measures; (iii) guidelines to mitigate and/or avoid damage to natural habitats; (iv) criteria to ensure that the pesticides used have negligible adverse impacts; (v) procedures to ensure that the pesticides used in subprojects do not include formulated products that fall under WHO Classes IA and IB or formulations that fall under Class IIA; (iv) institutional responsibilities and monitoring arrangements, including supervision protocols; and (iv) stakeholder communication guidelines. The ESMF considers the requirements of OP/BP 4.36 Forests and OP/BP 4.04 Natural Habitats whenever restoration activities are being planned to prevent or mitigate any possible negative impacts, based on experience with previous MMA (P143334) and MAPA (P1431284) projects.

Degraded pasture: The Project will address the reduction or loss of the pasture's support capacity resulting from natural processes, land uses or other human activities. Data from 2006 the Agricultural Census indicate that the area of cultivated pasture in Brazil corresponds to about 106 million hectares. The Brazilian Agricultural Research Corporation (EMBRAPA) is developing geotechnologies to identify and monitor pasture degradation levels in the Amazon, Cerrado and Atlantic Rainforest biomes. This initiative includes: the standardization, organization and integration of the different types of data obtained in a single information database;



the identification of pasture degradation levels based on images by multispectral remote sensors; the identification of biophysical aspects concerning pasture degradation levels; and the definition of spatially explicit indicators of degradation of pasture areas based on integration and on geospatial crossings between the information plans generated and the different levels of degradation observed in the field. See: <https://www.embrapa.br/en/busca-de-projetos/-projeto/37897/geodegrade---development-of-geotechnologies-to-identify-and-monitor-pasture-degradation-levels> and <https://ainfo.cnptia.embrapa.br/digital/bitstream/item/77431/1/DOC189.pdf>

The quality of pastures has been the major challenge for livestock farming in the face of advances already obtained through genetic improvement, increases in animal resistance to pathogens and improvement in quality of the final product. It is that about 80% of all agricultural land in Brazil is occupied by pastures and that 27–42% of the total planted pastureland is degraded in Brazil, meaning the average stocking rate is far below the potential carrying capacity of most pastures in the Cerrado Biome. The average rate of Brazilian pasture occupation is 0.9 animal units (AU) per hectare. Increasing productivity with sustainable practices should accommodate the current production volume of key products (meat, soybean, sugarcane or maize), , and release areas for restoration of natural systems. In accordance with various studies, pasture intensification can help to reduce demand for additional agricultural land, but, if technical assistance is not provided to stimulate stronger intensification, the market alone will not be sufficient to cause the intensification.

According to the scientific literature, by promoting the adequacy of pasture stocking to grass availability and avoiding overgrazing, sustainable grazing practices contribute to increase and protect species diversity as well as to prevent and control the spread of invasive species. These practices also contribute to reduce soil erosion and desertification, and to restore degraded pasturelands and natural grassland landscapes. There is also evidence that the sustainable management with the stocking of animals according to the supply of fodder has a positive impact on carbon sequestration.

Conservation and restoration practices. "Conservation and restoration practices" is a broad term comprising all processes that return complete or partially tree cover on forestland through planting or through natural or assisted regeneration processes, which can also include agroforestry, restoration plantations, or small woodlots. The following conservation or restoration practices are envisaged within the project: Restoration Plans (PRAs) approved; legal reserves and permanent protected areas maintenance and /or enrichment; fencing; natural regeneration; assisted regeneration; planting or direct seeding of natives or non-natives tree species; silvicultural systems; erosion control; terraces; runoff management; invasive species control; fertilizing; remove disturbance; fuel reduction by mechanical means; re-introduce prescribe fire; fire surrogates. The choice of the conservation and restoration practices depend on soil conditions, the surrounding ecosystem and forest fragments, intensity and historical land use and natural regeneration potential of each area.

Currently, EMBRAPA is assessing the economic and ecological effectiveness of different models of forest restoration of degraded areas by promoting secondary ecological succession, through natural regeneration, planting of seedlings, and the direct sowing of tree species in the Legal Reserve. During project implementation, EMBRAPA will be involved in the definition of restoration technics and preparation of the technical content of the training courses. Its researchers will validate all practices disseminated by the project (restoration and low-carbon agricultural practices). All models to be promote by the project must adhere to Bank's Safeguards OPs/BPs and the project ESMF.

Comment 4 Gaia Allison United Kingdom

Thank you for providing us with the opportunity to comment on this proposal.

Apr 21, 2018

The UK thanks the Brazil FIP team for their helpful clarifications already received through a phone call last week. On the basis of the call we would appreciate seeing the following more explicitly set out in a revised version of the PAD:

- We would appreciate a more detailed theory of change which sets out clearly the rationale for this project and the chosen activity areas. In particular this should provide insight into the underlying assumptions around how and why behaviour change is going to occur amongst farmers. This should highlight the central role of technical assistance as one of the critical "blockages" to uptake of credit and investment in improved practice and restoration. It should also make clear the innovative nature of the delivery model – where Agricultural and environment agencies will be working jointly on longer term planning as well as farm level technical advice.
- It would be helpful to have a clearly set out description of how improved TA will provide the incentive for farmers to access finance to implement improved land management, restoration, low carbon agriculture. In the original project concept, it



was envisaged that a credit line would be established in support of restoration. This has not been possible in the absence of the legal framework required. This should be explained, and information provided on the availability of alternative credit lines, and whether the absence of dedicated restoration credit lines presents any risk to the achievement of the objectives.

- Given the proposal has evolved since the original concept which set the project envelope, and that the project is an effort to pilot new ways of joined up working across government agencies, some analysis of the budget requirements for testing the approach would be helpful. This may identify opportunities for savings. A more detailed breakdown of the TA budget would be helpful.

- We would appreciate more information on the long term prospects for sustainability of the improved TA services, and the extent to which resource constrained government agencies will be in a position to provide the scale up that will be required in future. With implementation of this project resting with GIZ, what measures will be taken to ensure that institutional learning rests within government agencies, and that the commitment exists within government to adequately resource the work in future should these pilots be successful and warrant replication.

The UK is keen to ensure the value for money of all its investments, and in the case of the FIP we seek to ensure that increasingly scarce grant resources stretch as far, and are spent as effectively, as possible. With this in mind, we have the following questions and comments:

If one of the objectives is to demonstrate to farmers the economic returns possible through improved farming and restoration practices, it would be interesting to see some consideration of payment for ecosystem services opportunities as well as enhanced production and the restoration input supply chain potential.

References are made to actions like cash for work with no further explanation. Can you explain under what circumstances this will be used?

Registration in the CAR appears to be a foundational aspect of the theory of change and yet we are seeing very low levels of implementation in the \$32 million FIP project that is focused on regularization. Since registration in the cadastre is mandatory it would seem that this is a critical piece of the FIP jigsaw in the Cerrado. What are the implications of the slow delivery of project 1.1 for the success of the rest of the FIP projects? We also have concerns about approving significant additional finance "in advance of need" when disbursement has only just moved in to double figures for some FIP projects approved in 2014. Can you provide some information on what measures are in place to ensure improvements in disbursement and implementation?

On the selection of GIZ as the delivery partner, please provide further information on:

- why the GIZ was selected as implementing partner – and, if it is building on their earlier work – why there is no financial contribution
- the extent to which this delivery model constitutes value for money and compares favourably with other delivery models?
- how/if this project is distinct from what GIZ has already been implementing

Risks are well covered. Do the same risks apply to the other projects in FIP – are they part of the cause of delayed disbursement – and what mitigation lessons have been learnt?

The UK commissioned work in Defra project areas interviewing farmers about their intentions in relation to the forest code and the requirements to conserve forest areas and/or restore. In a number of interviews – farmers that had higher than the minimum area of forest required stated clearly their intention to clear forest to the legal limit. Has this risk been considered?

On page 86 the concept of the "offset" is raised – where natural vegetation lost on one farm can be offset by excess vegetation on another. This will require very good levels of detailed monitoring and oversight – surely also a risk. It would be good to hear how this has unfolded to date and whether it is only viable in the case of larger land holdings.

In the results framework, Baselines are all set at zero. We assume that this will change once areas are selected – and there is some assessment of what is already happening on farms. It can't be the case that no one is doing anything already?

7,000 ha of restoration – is this an annual target?

component 1 – this is probably the "glue" that holds all the FIP investments together – but do the various projects geographically overlap? It would be useful to have a map to show where the different projects operate, where there are synergies.

It is important to include in any capacity development for landscape planning, the capability to understand and assess trade offs – how these might play out at different levels (from farm up to state government) and how to take this analysis to the political decision making arena. This is potentially the more innovative part of



the proposal.

Component 2 – can the team reassure us that every effort will be made to utilise native species in restoration activities.

Thank you for your consideration

Best wishes

Gaia Allison

Response 1 Meerim Shakirova IBRD

Please find below some clarification and additional information on the themes raised regarding the Brazil - FIP Integrated Landscape Management in the Cerrado Biome Project. During appraisal, the Project Team will work with the clients to review the PAD and intends to include clarifications and additional information in the PAD Annexes, in accordance with Bank procedures.

Jun 01, 2018

Question on Theory of change:

Re: The project's theory of change is supported by the following assumptions:

- Technical assistance: Areas where technical assistance was effective, fostering sustainable management as well as low carbon emission agricultural practices, that yielded incremental financial results, rendered landholders willing to invest their own money to scale-up the adoption of the new practices. Currently, there is a lack of knowledge and understanding among landholders of the conservation, reforestation, restoration and low carbon agriculture practices. Some practices require strong farm management skills, and adequate training and technical assistance for farmers and ranchers. Landholders in the Cerrado biome have shown a high level of interest for receiving more intensive technical assistance on low carbon agriculture practices and restoration practices, but the Government does not have the required funds to provide it. The premise of the project is that by addressing this constraint, producers will be more likely to adopt low carbon practices, through credit lines or their own resources. Further information on credited line and producers' investments are provided below.

- Legal framework: The Low Carbon Agriculture Plan (ABC) and Forest Code (Law 12.651/2012) provide the essential legal framework for supporting and controlling private rural land use, including compliance with reforestation obligations and adoption of low carbon agriculture practices by producers.

- Spatial management: spatial planning and monitoring are crucial elements of integrated landscape management, as they guide and control land-use decisions in the landscape. The integrated landscape approach provides the solid technical basis needed to make the trade-offs between conservation and development explicit as well as to foster platforms for negotiation about these tradeoffs.

Based on these assumptions, the project's theory of change is it will scale up the adoption of land-use planning which integrates agricultural production and biodiversity conservation, through

implementation of the following intervention strategies: (i) monitoring, evaluating and promoting continuous improvement of integrated landscape management; (ii) strengthening of the capacities of producers, technicians and institutions; (iii) integrating agricultural production and compliance with legislation and environmental conservation in the rural environment; and (iv) engaging and empowering different social actors,

As part of project preparation, the Project team designed a detailed flow chart for project implementation.

Under Component 1 – Institutional Development and Capacity Building for Landscape Management – project executing agencies (Ministry of Agriculture, Livestock and Supply - MAPA, Brazilian Agricultural Research Corporation - EMBRAPA, National Rural Service - SENAR, Brazilian Forest Service – SFB, and German Technical Cooperation Agency - GIZ) will promote innovation, collaboration and mutual learning. Integrated landscape management implies an ongoing process of negotiation, decision-making and evaluation and is not likely to succeed without a cross-sector and multi-institutional learning and negotiation process. Hence, under this component the project will bring agricultural and environmental actors from the Cerrado Biome together and will rely in land use assessment methods as they can be effectively used as tools to: generate discussion among key stakeholders and negotiate trade-offs; improve communication and innovation; and, ultimately, foster successful landscape management throughout the Cerrado Biome.

Complementarily, under Component 2 - Mainstreaming Landscape Practices into Selected Watersheds – the executing agencies will work together to plan and implement technical assistance activities within landholdings and watersheds. This component is characterized by a multi-disciplinary approach aiming to promote the adoption of low-carbon emission agricultural practices as well as restoration practices, involving technical, economic and social sciences, and a high degree of institutional and producers' participation.



UK: It would be helpful to have a clearly set out description of how improved TA will provide the incentive for farmers to access finance to implement improved land management, restoration, low carbon agriculture.

Re: Training and Technical Assistance: The Project introduces a new strategy for conservation, restoration and low carbon agricultural practices transfer to landholders through: (i) training of trainers; (ii) training program for field technicians in conservation, restoration and low-carbon emission agricultural practices for the restoration of environmental liabilities and productive landholding management; (iii) training program for producers, including workshops, events, field days, demonstration units; and (iv) field technical assistances for selected producers (extension). This strategy also includes stakeholder mobilization, communication and the establishment of landholders' networks in selected watershed.

A Training of Trainers (TOT) process will provide the new trainers with the background knowledge, skills and practical experience needed to promote conservation, restoration and low carbon agricultural practices training and technical assistance to technicians, producers and communities. EMBRAPA, MAPA and SFB will be involved in the preparation of the technical content of the training courses for TOT and technicians. The intention is to create a network of providers of technical assistance to landholders.

The field technician will act as a coach for dissemination of low carbon emission agricultural practices as well as conservation and restoration practices acquired through research and their application in the field. The role of the field technicians is to: (i) provide technical assistance to farmers/ranchers; (ii) set up a technological reference unit (URT); (iii) when necessary, assist with the registration of farmers in the rural environmental registry (CAR); (iv) collect data for the Sustainability Indicators for Agroecosystems -- SIA at the beginning and at the end of the technical assistance program. Based on the lessons learned from the FIP ABC project, each field technician will provide assistance to 20 farmers/ ranchers and set-up a technological reference unit (URT- Unidade de referencia tecnologica) on one of the farms/ranches.

SENAR has twenty years of experience in planning, carrying out and supervising training programs and education of rural professionals in Brazil, including large producers and family farmers, extension technicians and technical assistance staff. SENAR has highly qualified staff in the fields of planning, training, technical assistance, and financial administration. In addition, EMBRAPA and SFB have large experience in conservation and restoration practices and will help promote the regularization of rural properties, sustainable production activities, and the restoration of Permanent Preservation Areas (APPs) and Legal Reserves (RL).

Question: Credit line

UK: In the original project concept, it was envisaged that a credit line would be established in support of restoration. This has not been possible in the absence of the legal framework required. This should be explained, and information provided on the availability of alternative credit lines, and whether the absence of dedicated restoration credit lines presents any risk to the achievement of the objectives.

Re: There is a large variety of agricultural credit lines and programs in Brazil, but so far producers have not been able to access funds for restoration practices either because they are not fully aware of it or because they do not much knowledge on how to design good restoration plans. However, most of restoration practices are not very costly, so lack of credit does not seem to be a major impediment.

Credit line and this project. The original submission in 2015 included 2 projects: one US\$40 million from the World Bank and one US\$ 5million credit line by IDB (through BNDES). The FIP Sub-Committee decision was to authorize the preparation of single US\$25 million project, including a credit component (without specifying amounts). Considering the findings presented above that lack of credit is not a real constraint; the small size of a potential credit component owing to the smaller allocation, decreasing its potential demonstration effect; and the complexity that it would add to the project structure and management, the Brazilian Government partners and the Bank decided to focus the project on addressing the other constraints faced by farmers as an strategy to reach targets as close as possible of the original project.

Question on Sustainability and Institutional Learning

UK: We would appreciate more information on the long-term prospects for sustainability of the improved TA services, and the extent to which resource constrained government agencies will be in a position to provide the scale up that will be required in future. With implementation of this project resting with GIZ, what measures will be taken to ensure that institutional learning rests within government agencies, and that the commitment exists within government to adequately resource



the work in future should these pilots be successful and warrant replication.

**Re: Sustainability:** The Project's future sustainability relies on the highly participatory approach followed in its preparation, the engagement of local producer's associations, producers' organizations and public authorities and the strengthening of government institutions.

By promoting an integrated landscape management approach that can be scaled up to cover a larger area, the Project would demonstrate the relevance of convening multiple stakeholders within the landscape and fostering a convergence of understandings and objectives among them.

Lessons learned from previous experiences with technical assistance project (Rio Grande do Sul Biodiversity Project) shows that practices that yielded benefits related to both (i) the sustainability of natural resources and biodiversity in the Project area and, (ii) significant incremental financial returns to participating farmers, are fully adopted by farmers and are maintained after the technical assistance ends. Trained agriculture extension technicians were, and continue to be after the project closed, a strong advocate for action in support of sustainable production practices and biodiversity conservation, proving to be a substantial partner.

**Institutional Learning:** The proposed project will be implemented by the Ministry of Agriculture, Livestock and Food Supply (MAPA) and the Brazilian Forest Service (SFB) in partnership with the Brazil Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and National Rural Learning Service (SENAR). MAPA and the SFB have the overarching policy and technical level responsibility for carrying out the overall institutional coordination required to implement project activities. They will be responsible for coordinating project implementation; technically supervising the development of project activities, including effective coordination of research and development activities at the project level; coordinating the project's different actors; and monitoring and evaluation the project. Periodic meetings among agencies involved in the implementation of the project will be held and recorded to ensure regular and structured opportunities for information sharing and joint analysis and planning.

As the grant agreement recipient, GIZ will act as MAPA, SFB and SENAR's partner under the terms of a Technical Cooperation Agreement to be signed. GIZ will be responsible for the overall administrative and financial management of project execution, including systematic reporting to the Bank.

#### Question on Value of Money

**UK:** References are made to actions like cash for work with no further explanation. Can you explain under what circumstances this will be used?

**UK:** If one of the objectives is to demonstrate to farmers the economic returns possible through improved farming and restoration practices, it would be interesting to see some consideration of payment for ecosystem services opportunities as well as enhanced production and the restoration input supply chain potential.

**Re: Cash for work.** The project expects to increase job creation through the rural extension service and more labor-intensive practices, and to increase capacity and knowledge retained at the farmer level for the application of improved agricultural, land-use and management practices and production systems (i.e., ABC practices and APP and RL reforestation). Field technicians would receive payments for each farm supported (cash-for-work). The field technician will act as a coach for dissemination of practices acquired through research and their application in the field.

**Restoration supply chain:** A major economic benefit of forest restoration is the development of supply chains for tree-planting activities and plantation maintenance, which generates employment and business opportunities, as mentioned in some studies. Depending on the balance between restoration plantings and natural regeneration, restoration of 12 Mha of forest in Brazil is projected to generate between 112,270 and 190,696 jobs annually (MMA 2013). An important part of the proposed Project is the development of supply chain for tree-planting activities and plantation maintenance in the selected watersheds.

As part of the implementation strategy, the proposed project will assess the current supply chain in each selected watershed, including local forest restoration costs, existing nurseries, seeding producers, job opportunities, etc. If necessary the project would finance the creation of a seeding producers and local nurseries. The project would help to involve people and private sector in restoration supply chain to create income and quality jobs. The costs of implementing forest landscape restoration are notoriously site-specific. EMBRAPA in partnership with SFB is currently conducting assessment of forest restoration costs and forest restoration supply assessment process in some areas in Brazil, mainly in the Amazon region. The proposed project would support and structure the forest restoration supply chain in the selected



watersheds in the Cerrado.

The payment for ecosystem services is not part of the project because, unfortunately, the legal framework and the long-term sustainability of this approach are still not fully developed in Brazil. Once this is established, it would be a great opportunity to promote forest restoration.

Value Added. The value added of FIP and the Bank in this project is the provision of support to the SFB and MAPA for technical assistance practices and scale up the option of landscape approach in selected watersheds in the Cerrado Biome.

Currently, Brazil has no sufficient public funds to fully finance technical assistance on restoration and on low carbon emission agriculture without the assistance of additional funds.

Question on FIP: Brazil Investment Plan implementation

UK: Registration in the CAR appears to be a foundational aspect of the theory of change and yet we are seeing very low levels of implementation in the \$32 million FIP project that is focused on regularization. Since registration in the cadastre is mandatory it would seem that this is a critical piece of the FIP jigsaw in the Cerrado. What are the implications of the slow delivery of project 1.1 for the success of the rest of the FIP projects? We also have concerns about approving significant additional finance "in advance of need" when disbursement has only just moved in to double figures for some FIP projects approved in 2014. Can you provide some information on what measures are in place to ensure improvements in disbursement and implementation?

Re: Adoption of the CAR in the existing project. It is important to note that registration of small farms (focus of the existing project) in the CAR is the direct responsibility of the government. With support from the project, the first step of the rural environmental cadaster enrollment has already taken, i.e. registration of 43,000 small landholdings or 86% of the target of the project. To complete the environmental regularization the following steps are still being carried out: registers analyses, survey, validation, resolution of data conflicts and inconsistencies; and support forest restoration plans.

Brazil Investment Plan implementation. The years of 2015 and 2016 were a time of great change in the social, political, and economic environment in Brazil. Due to the political and financial crises, the Environmental Regularization of Rural Lands (FIP: CAR Project or Project 1.1 under Brazil Investment Plan), FIP: Forest Information to Support Public and Private Sectors (Project 2.1) and FIP: Coordination projects preparation like many other projects faced severe political and fiscal constraints and their start were delayed. The FIP: CAR project was declared effective on August 18, 2017 and is now under implementation, using FIP fund. The resources allocated in 2017, were fully committed and the Brazil Forest Service (SFB), the main counterpart of the project, is working hard to guarantee that all the budget allocated to the Project this year is spent as soon as possible. SFB is also requesting from the government a supplementary budget for 2018 to increase SFB budget capacity because even grant resources have to appear in the institution's official budget to enable expenditure authorizations. (see: projects status Annex 3).

Focus of the new proposal. The new project does not support actual CAR registration and can provide technical assistance to any farm in the CAR within the selected landscape, including those that entered the CAR without direct assistance from the FIP project 1.1.

Question on Budget Breakdown

UK: Given the proposal has evolved since the original concept which set the project envelope, and that the project is an effort to pilot new ways of joined up working across government agencies, some analysis of the budget requirements for testing the approach would be helpful. This may identify opportunities for savings. A more detailed breakdown of the TA budget would be helpful.

Re: Project Cost by Component and main activities. The table (that was shared via email) shows the summary of project budget by component the savings in US dollar and the revised costs. The Annex 1 shows the project breakdown by component and activities.

Since November 2017, the Brazilian currency was highly depreciated. The exchange rate effective on October 18, 2017 was R\$ 3.17 per US\$ 1.00. On May 7, 2018, the change rate is R\$ 3.48 per US\$ 1.00 and the projections is that the rate will not decrease during the foreseeable future in this context, we have revised the budget down to US\$21 million without reduction in original estimated targets (land areas and beneficiaries).





## Question on Project Recipient: GIZ

UK: On the selection of GIZ as the delivery partner, please provide further information on: - why the GIZ was selected as implementing partner – and, if it is building on their earlier work – why there is no financial contribution - the extent to which this delivery model constitutes value for money and compares favourably with other delivery models? - how/if this project is distinct from what GIZ has already been implementing

Re: It is not uncommon for the Ministry of Environment to prefer to have grants implemented through third-party NGOs or agencies. Several PPG7, GEF, and Cerrado Program Trust Fund supported by DEFRA, were/ are being successfully implemented in this way.

GIZ's involvement in Brazil has become part of the SFB/ MMA efforts for rural environmental cadaster, restoration practices as well as sustainable development, since 2014 with the beginning of the CAR technical cooperation project. In addition, Brazil-GIZ partnership is driving innovation by acting as a matchmaker between universities and research institutions and partners from the spheres of politics, business and civil society. On broader country context around 150 experts are working for GIZ throughout the country, including national experts. The projects and programs under implementation focus on the conservation and sustainable management of tropical forests, and on renewable energy and energy efficiency. GIZ is also supporting the development of an inter-institutional knowledge platform for practice-oriented educational activities. The focus is on building up the capacity and competence of official bodies, municipalities and non-governmental organizations that are responsible for the protection and sustainable use of natural resources. Thus, GIZ has a large experience on different sectors and will provide value added to managing this project, because it is in a unique and ideal position for providing the needed support to SFB, MAPA, SENAR, Embrapa and INPE having implicitly and explicitly coordinated forest and landscape programs.

It is important to consider the complementary character and synergies between the implementation of FIP: Landscape and the current GIZ: CAR Project, which is executed by GIZ by order of the German Ministry of Cooperation - BMZ. The FIP: Landscape will be carried out by GIZ, as integrated part of the ongoing CAR project, which has received a 5.5 million Euro financing. The German Government already authorized GIZ to continue with the implementation of their GIZ: CAR Project until 2023. Although there is a clear geographical distinction between the GIZ: CAR project (Amazon Region) and FIP Landscape (Cerrado Biome), there are large opportunities for the use of synergies using the experiences of GIZ's administrative and technical staff for FIP Landscape implementation. The shared use of management and infrastructure will reduce overhead costs. Additionally, the success of the GIZ: CAR project, based on the long relationship between GIZ and SFB/MMA could bring several lessons learned and a good "modus operandi" both for the management and for implementation of the CAR and the Forest Code. The joint experience can provide confidence and give and avoid a "learning curve" that other institution would face, which is part of the risk reduction.

Besides synergy and cost effectiveness, GIZ has an important role as "honest broker" and stakeholder manager, accepted by all within the governance structure of the project. This is also part of risk reduction management. The Brazil Investment Plan Executive Committee (BIP-EC) has appointed GIZ to manage grant resources, especially because its recognition and confidence by all Brazilian partners and reflecting the specific difficulty Brazil has at the moment to absorb funds through their own central budget. Having an external and impartial organization as the grant recipient also avoids Government budget constraints and enables streamlined procurement processes.

## Question on Risk Analysis

UK: Risks are well covered. Do the same risks apply to the other projects in FIP – are they part of the cause of delayed disbursement – and what mitigation lessons have been learnt?

Re: Key lessons learned from the preparation and implementation of the DEFRA Cerrado Program were incorporated in the FIP Landscape project design. They include:

- Issuing grants to non-governmental agencies in the form of recipient-executed trust funds, and having these institutions performing the role of financial and procurement agents for projects, have been very effective, have simplified implementation, and have relieved public-sector implementing agencies of the burdens of grant administration. Channeling funds through federal or state budgets would have made implementation much more difficult due to the rules and procedures imposed by applicable laws.
- Project teams have found that implementation should only begin when highly



qualified technical personnel in adequate numbers, whether consultants or not, are on board. The hiring of specialized consultants to support and complement existing staff turned out to be the most important factor for accelerating project implementation, but could have been done earlier, i.e., at the very start of a project. Many lessons learned and experiences with other projects in the related themes contributed to the proposed institutional arrangement.

The Project will be managed by GIZ, aiming to avoid Government budgetary constraints and enable streamlined procurement processes. A procurement and financial management assessment of GIZ's capacity to implement procurement actions was done as part of project preparation. GIZ is a solid institution and has substantial experience in implementing projects in Brazil. Staff members of GIZ, SENAR and SFB have been attending procurement and financial management trainings offered by the Bank.

#### Question on Risk Analysis:

UK: The UK commissioned work in Defra project areas interviewing farmers about their intentions in relation to the forest code and the requirements to conserve forest areas and/or restore. In a number of interviews – farmers that had higher than the minimum area of forest required stated clearly their intention to clear forest to the legal limit. Has this risk been considered?

Re: The project will focus on the restoration of areas within the legal reserve and permanent protection areas. Landholders that are in compliance with the Forest Code, won't be targeted by the project.

When considering the indicator: Number of hectares where deforestation and degradation have been avoided through ICF support (KPI8) for 2015 and 2016, Ecometrica's draft report of the Cerrado Program, supported by DEFRA, evidences that it started to deliver avoided deforestation in 2016. Although the Cerrado Program has not been completed yet and implementation is underway, the preliminary assessments carried out at the level of individual small landholders indicate that the rural environmental cadaster process could contribute to decrease the deforestation rate in the Cerrado Biome.

#### Question on Environmental Reverse Quota (CRA)

UK: On page 86 the concept of the "offset" is raised – where natural vegetation lost on one farm can be offset by excess vegetation on another. This will require very good levels of detailed monitoring and oversight – surely also a risk. It would be good to hear how this has unfolded to date and whether it is only viable in the case of larger land holdings.

Re: The Forest Code creates incentives to conserve and restore native vegetation in landholding that exceed the Forest Code requirements. The Environmental Reserve Quota (CRA), a tradable legal title for landowners with an intact or regenerating native vegetation exceeding the Forest Code requirement, may be used to offset a RL debt of another property within the same biome and, preferably, the same state. Implementing the CRA could create a market for forested lands, adding monetary value to native vegetation.

Accurate data from the CAR and a legal framework are still required to track the extent of directing incentives or disincentives to credit lines, including to establish the Environmental Reverse Quota (CRA) market, which has the potential to reduce the total cost of restoration and could include incentives to conserve and restore native vegetation in priority regions. Currently, SFB is working to develop incentives for producers who want to invest in restoration programs (for example: The Water Producers/Produtores de Água Program).

#### Question on Baselines and indicators

UK: In the results framework, Baselines are all set at zero. We assume that this will change once areas are selected – and there is some assessment of what is already happening on farms. It can't be the case that no one is doing anything already?

Re: 7.000 ha of restoration – is this an annual target?

component 1 – this is probably the "glue" that holds all the FIP investments together – but do the various projects geographically overlap? It would be useful to have a map to show where the different projects operate, where there are synergies.

UK: It is important to include in any capacity development for landscape planning, the capability to understand and assess trade-offs – how these might play out at different levels (from farm up to state government) and how to take this analysis to the political decision-making arena. This is potentially the more innovative part of the proposal.



Re: Baseline. In the project results framework, the baseline values for the proposed indicators are expected to be zero as the indicators are stated to measure the outputs and outcomes as a result of the project support. A "zero" in the baseline means that project has not started contributing to the provision of the expected output or outcome. Subsequently, the data should be cumulative— that is, the data in the reports should represent the cumulative numbers of people/ hectares etc.

Restoration time horizon. The Brazilian Forest Code defines situations in which landholders are required to recover natural vegetation on their land. Since the recovery of vegetation is a long-term process and includes different alternatives (natural regeneration, seeding, fencing), the Brazilian legislation forecasts the recovery of APPs and RL over 20 years within private landholdings. Whatever the technical alternative, the landowner or landholder should formally commit to public authorities to be fully compliant with the law within 20 years, recovering farmlands gradually (a minimum of 10% of the area to be recovered every two years). In this context, the proposed project expects to plan the recovering process of 70,000 hectares of APPs and/ RL within private landholdings in selected watersheds. Total restoration/reforestation process is expected to be achieved in 20 years, but when considering the project period (5 years) a fraction of the restoration area will be delivered end of Project. Thus, the project indicator estimates the APP and RL areas adopting recovering practices during the project period, representing 10% of the total area under restoration process, taking also into account the time to provide and absorb the technical assistance, provide the seedlings etc. Nevertheless, the impact of the project overtime should the restoration of all 70,000 cover in the plans, and the additional plans that would use the technical package promoted by the trainers and organization involved in the project.

The project indicator measures the cumulative area of Legal Reserves (RL) and/or Areas of Permanent Protection (APP) within private landholdings that, as a result of the project, incorporated and/or improved at least one of the following conservation or restoration practices: RL and/or APP enrichment; fencing; natural regeneration; assisted regeneration; planting or direct seeding of natives or non-natives trees species; silvicultural systems; erosion control; invasive species control; fertilizing; remove disturbance; fuel reduction by mechanical means; re-introduce prescribe fire; fire surrogates.

FIP projects map. The Annex 2 shows where the different projects operate.

#### Question on Restoration/ Native Species

UK: Component 2 – can the team reassure us that every effort will be made to utilise native species in restoration activities.

Re: Restoration legal framework: The project will incentivize the restoration with native species and it will not promote monoculture tree plantations, fully in line with Brazilian legal framework and, with Bank's Safeguards OPs/BPs and the project ESMF.

The project will be following the Native Vegetation Protection Law, or Forest Code. According to the Forest Code, the Permanent Preserved Areas (APPs) are environmentally sensitive areas that must be protected or restored, especially for water supply and prevention of soil erosion. These areas include riparian vegetation adjacent to streams and rivers, around springs, on hilltops, high elevations and on steep slopes. The Legal Reserves (RL) are portions of landholdings that should be maintained as natural vegetation. The RL within rural properties can be used to: (i) generate income in a sustainable way; (ii) help conservation and rehabilitation of ecological processes; and (iii) promote biodiversity conservation. Some set-aside areas (Legal Reserves, RLs) for conservation can be sustainably harvested and include partial use of exotic species, interplanted with native species, which could mitigate the cost of restoration and even provide profits, but in Cerrado areas this tends to be limited to species which produce non-timber products . Specific recommendations are that: (i) up to half of the RL may be used for economic benefits; (ii) when using exotic species (up to 50%), these species need to be interspersed with native species; (iii) when using exotic species, management should promote the regeneration of native species; (iv) the landholding must follow the principles of sustainable forest management; and (v) the species diversity needs to be maintained. APPs may not be used to provide economic benefits, although small rural properties ( $\leq 4$  fiscal module units) can use them for sustainable agroforestry.

Project environmental management: The implementing agencies prepared a draft Environment and Social Management Framework (ESMF). The ESMF includes: (i) environmental and social screening criteria; (ii) potential impact and risk mitigation measures; (iii) guidelines to mitigate and/or avoid damage to natural habitats; (iv)



criteria to ensure that the pesticides used have negligible adverse impacts; (v) procedures to ensure that the pesticides used in subprojects do not include formulated products that fall under WHO Classes IA and IB or formulations that fall under Class IIA; (iv) institutional responsibilities and monitoring arrangements, including supervision protocols; and (iv) stakeholder communication guidelines. The ESMF considers the requirements of OP/BP 4.36 Forests and OP/BP 4.04 Natural Habitats whenever restoration activities are being planned to prevent or mitigate any possible negative impacts, based on experience with previous MMA (P143334) and MAPA (P1431284) projects.

Degraded pasture: The Project will address the reduction or loss of the pasture's support capacity resulting from natural processes, land uses or other human activities. Data from 2006 the Agricultural Census indicate that the area of cultivated pasture in Brazil corresponds to about 106 million hectares. The Brazilian Agricultural Research Corporation (EMBRAPA) is developing geotechnologies to identify and monitor pasture degradation levels in the Amazon, Cerrado and Atlantic Rainforest biomes. This initiative includes: the standardization, organization and integration of the different types of data obtained in a single information database; the identification of pasture degradation levels based on images by multispectral remote sensors; the identification of biophysical aspects concerning pasture degradation levels; and the definition of spatially explicit indicators of degradation of pasture areas based on integration and on geospatial crossings between the information plans generated and the different levels of degradation observed in the field. See: <https://www.embrapa.br/en/busca-de-projetos/-projeto/37897/geodegrade---development-of-geotechnologies-to-identify-and-monitor-pasture-degradation-levels> and <https://ainfo.cnptia.embrapa.br/digital/bitstream/item/77431/1/DOC189.pdf>

The quality of pastures has been the major challenge for livestock farming in the face of advances already obtained through genetic improvement, increases in animal resistance to pathogens and improvement in quality of the final product. It is that about 80% of all agricultural land in Brazil is occupied by pastures and that 27–42% of the total planted pastureland is degraded in Brazil, meaning the average stocking rate is far below the potential carrying capacity of most pastures in the Cerrado Biome. The average rate of Brazilian pasture occupation is 0.9 animal units (AU) per hectare. Increasing productivity with sustainable practices should accommodate the current production volume of key products (meat, soybean, sugarcane or maize), , and release areas for restoration of natural systems. In accordance with various studies, pasture intensification can help to reduce demand for additional agricultural land, but, if technical assistance is not provided to stimulate stronger intensification, the market alone will not be sufficient to cause the intensification.

According to the scientific literature, by promoting the adequacy of pasture stocking to grass availability and avoiding overgrazing, sustainable grazing practices contribute to increase and protect species diversity as well as to prevent and control the spread of invasive species. These practices also contribute to reduce soil erosion and desertification, and to restore degraded pasturelands and natural grassland landscapes. There is also evidence that the sustainable management with the stocking of animals according to the supply of fodder has a positive impact on carbon sequestration.

Conservation and restoration practices. "Conservation and restoration practices" is a broad term comprising all processes that return complete or partially tree cover on forestland through planting or through natural or assisted regeneration processes, which can also include agroforestry, restoration plantations, or small woodlots. The following conservation or restoration practices are envisaged within the project: Restoration Plans (PRAs) approved; legal reserves and permanent protected areas maintenance and /or enrichment; fencing; natural regeneration; assisted regeneration; planting or direct seeding of natives or non-natives tree species; silvicultural systems; erosion control; terraces; runoff management; invasive species control; fertilizing; remove disturbance; fuel reduction by mechanical means; re-introduce prescribe fire; fire surrogates. The choice of the conservation and restoration practices depend on soil conditions, the surrounding ecosystem and forest fragments, intensity and historical land use and natural regeneration potential of each area.

Currently, EMBRAPA is assessing the economic and ecological effectiveness of different models of forest restoration of degraded areas by promoting secondary ecological succession, through natural regeneration, planting of seedlings, and the direct sowing of tree species in the Legal Reserve. During project implementation, EMBRAPA will be involved in the definition of restoration technics and preparation of the technical content of the training courses. Its researchers will validate all practices disseminated by the project (restoration and low-carbon agricultural practices). All models to be promote by the project must adhere to Bank's



Safeguards OPs/BPs and the project ESMF.

Response 2	Gaia Allison	United Kingdom	<p>The UK would like to thank the Brazil team for their detailed responses to our comments and questions and are satisfied that these have been addressed. We also express our thanks for taking action on our request for cost savings.</p> <p>We request that, to the extent possible, these points are reflected in the revised PAD that will be developed after approval by the sub committee, and that the revised version of the PAD is circulated for information to the sub committee prior to its submission to the MDB board.</p> <p>We ask that you confirm this request</p> <p>Thank you</p>	Jun 10, 2018
Response 3	Meerim Shakirova	IBRD	<p>Dear Gaia,</p> <p>Many thanks for the comment, it is well received and appreciated. Hereby, the IBRD team confirms that the above points will be reflected and an updated PAD will be circulated to the FIP SC for information prior its submission to the WB board.</p>	Jun 11, 2018
Comment 5	Katie Berg	United States	<p>Thank you for the opportunity to review this project. We have a few questions and comments before proceeding.</p> <ol style="list-style-type: none"> <li>1. A more detailed theory of change would be helpful. This could include a description of the rationale for the desired outcome, what success would look like, the barriers to implementation, the precise activities to be implemented and how these activities address the barriers to change.</li> <li>2. Now that a credit line is no longer envisaged to support restoration, how will farmers be able to finance activities?</li> <li>3. Once FIP finance is fully utilized, how will sustainability of TA activities be ensured?</li> <li>4. The economic and financial analysis could be clearer. It would be helpful to have the connection to specific project activities, as well as the assumptions underlying the different scenarios, explained.</li> <li>5. Why is the grant to GIZ?</li> <li>6. The concessionality level of this project is very high. Can you please provide an explanation of why 100% grant is required? Also, there appears to be no co-financing. Is that in fact the case?</li> </ol> <p>Thank you, Katie Berg</p>	Apr 23, 2018
Response 1	Meerim Shakirova	IBRD	<p>Thanks so much for the comments. Please find below some clarification and additional information on the themes raised regarding the Brazil - FIP Integrated Landscape Management in the Cerrado Biome Project. During appraisal, the Project Team will work with the clients to review the PAD and intends to include clarifications and additional information in the PAD Annexes, in accordance with Bank procedures.</p> <p>Question on Theory of Change.</p> <p>US: A more detailed theory of change would be helpful. This could include a description of the rationale for the desired outcome, what success would look like, the barriers to implementation, the precise activities to be implemented and how these activities address the barriers to change.</p> <p>Re: The project's theory of change is supported by the following assumptions:</p> <ul style="list-style-type: none"> <li>• Technical assistance: Areas where technical assistance was effective, fostering sustainable management as well as low carbon emission agricultural practices, that yielded incremental financial results, rendered landholders willing to invest their own money to scale-up the adoption of the new practices. Currently, there is a lack of knowledge and understanding among landholders of the conservation, reforestation, restoration and low carbon agriculture practices. Some practices require strong farm management skills, and adequate training and technical assistance for farmers and ranchers. Landholders in the Cerrado biome have shown a high level of interest for receiving more intensive technical assistance on low carbon agriculture practices and restoration practices, but the Government does not have the required funds to provide it. The premise of the project is that by addressing this constraint, producers will be more likely to adopt low carbon practices, through credit lines or their own resources. Further information on credited line and producers' investments are provided below.</li> <li>• Legal framework: The Low Carbon Agriculture Plan (ABC) and Forest Code (Law 12.651/2012) provide the essential legal framework for supporting and controlling private rural land use, including compliance with reforestation obligations and adoption of low carbon agriculture practices by producers.</li> <li>• Spatial management: spatial planning and monitoring are crucial elements of</li> </ul>	Jun 01, 2018



integrated landscape management, as they guide and control land-use decisions in the landscape. The integrated landscape approach provides the solid technical basis needed to make the trade-offs between conservation and development explicit as well as to foster platforms for negotiation about these tradeoffs.

Based on these assumptions, the project's theory of change is it will scale up the adoption of land-use planning which integrates agricultural production and biodiversity conservation, through

implementation of the following intervention strategies: (i) monitoring, evaluating and promoting continuous improvement of integrated landscape management; (ii) strengthening of the capacities of producers, technicians and institutions; (iii) integrating agricultural production and compliance with legislation and environmental conservation in the rural environment; and (iv) engaging and empowering different social actors,

As part of project preparation, the Project team designed a detailed flow chart for project implementation. The flow chart below displays graphically the project's outputs and seeks to more logically order the activities therein. This chart will be part of Project Operational Manual (POM).

Under Component 1 – Institutional Development and Capacity Building for Landscape Management – project executing agencies (Ministry of Agriculture, Livestock and Supply - MAPA, Brazilian Agricultural Research Corporation - EMBRAPA, National Rural Service - SENAR, Brazilian Forest Service – SFB, and German Technical Cooperation Agency - GIZ) will promote innovation, collaboration and mutual learning. Integrated landscape management implies an ongoing process of negotiation, decision-making and evaluation and is not likely to succeed without a cross-sector and multi-institutional learning and negotiation process. Hence, under this component the project will bring agricultural and environmental actors from the Cerrado Biome together and will rely in land use assessment methods as they can be effectively used as tools to: generate discussion among key stakeholders and negotiate trade-offs; improve communication and innovation; and, ultimately, foster successful landscape management throughout the Cerrado Biome.

Complementarily, under Component 2 - Mainstreaming Landscape Practices into Selected Watersheds – the executing agencies will work together to plan and implement technical assistance activities within landholdings and watersheds. This component is characterized by a multi-disciplinary approach aiming to promote the adoption of low-carbon emission agricultural practices as well as restoration practices, involving technical, economic and social sciences, and a high degree of institutional and producers' participation.

#### Question on Credit Line

US: Now that a credit line is no longer envisaged to support restoration, how will farmers be able to finance activities?

Re: There is a large variety of agricultural credit lines and programs in Brazil, but so far producers have not been able to access funds for restoration practices either because they are not fully aware of it or because they do not much knowledge on how to design good restoration plans. However, most of restoration practices are not very costly, so lack of credit does not seem to be a major impediment.

Credit line and this project. The original submission in 2015 included 2 projects: one US\$40 million from the World Bank and one US\$ 5million credit line by IDB (through BNDES). The FIP Sub-Committee decision was to authorize the preparation of single US\$25 million project, including a credit component (without specifying amounts). Considering the findings presented above that lack of credit is not a real constraint; the small size of a potential credit component owing to the smaller allocation, decreasing its potential demonstration effect; and the complexity that it would add to the project structure and management, the Brazilian Government partners and the Bank decided to focus the project on addressing the other constraints faced by farmers as an strategy to reach targets as close as possible of the original project.

#### Question on Sustainability and Institutional Learning

US: Once FIP finance is fully utilized, how will sustainability of TA activities be ensured?

Re: The Project's future sustainability relies on the highly participatory approach followed in its preparation, the engagement of local producer's associations, producers' organizations and public authorities and the strengthening of government institutions.

By promoting an integrated landscape management approach that can be scaled up to cover a larger area, the Project would demonstrate the relevance of convening multiple stakeholders within the landscape and fostering a convergence of



understandings and objectives among them.

Lessons learned from previous experiences with technical assistance project (Rio Grande do Sul Biodiversity Project) shows that practices that yielded benefits related to both (i) the sustainability of natural resources and biodiversity in the Project area and, (ii) significant incremental financial returns to participating farmers, are fully adopted by farmers and are maintained after the technical assistance ends. Trained agriculture extension technicians were, and continue to be after the project closed, a strong advocate for action in support of sustainable production practices and biodiversity conservation, proving to be a substantial partner.

**Institutional Learning:** The proposed project will be implemented by the Ministry of Agriculture, Livestock and Food Supply (MAPA) and the Brazilian Forest Service (SFB) in partnership with the Brazil Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and National Rural Learning Service (SENAR). MAPA and the SFB have the overarching policy and technical level responsibility for carrying out the overall institutional coordination required to implement project activities. They will be responsible for coordinating project implementation; technically supervising the development of project activities, including effective coordination of research and development activities at the project level; coordinating the project's different actors; and monitoring and evaluation the project. Periodic meetings among agencies involved in the implementation of the project will be held and recorded to ensure regular and structured opportunities for information sharing and joint analysis and planning.

As the grant agreement recipient, GIZ will act as MAPA, SFB and SENAR's partner under the terms of a Technical Cooperation Agreement to be signed. GIZ will be responsible for the overall administrative and financial management of project execution, including systematic reporting to the Bank.

#### Question on Economic Analysis

US: The economic and financial analysis could be clearer. It would be helpful to have the connection to specific project activities, as well as the assumptions underlying the different scenarios, explained.

Re: Financial and economic assessments were carried out to estimate the cash flow and price sensitivity for low-carbon emission agricultural practices and forest recovery, as well as the project's economic viability through shadow prices and value of potential CO<sub>2</sub> captured. The assessment used real field data (farmers applying ABC technologies and carrying out environmental recovery) and results show that most combinations of low carbon emissions agricultural practices are economic and financially feasible compared to conventional agricultural technologies.

For the economic analysis, technical production estimates were used for practices that are expected to be implemented by farmers as result of project interventions: livestock - restoration of degraded pasture, livestock intensification, crop-livestock-forestry integration system and crop-livestock system. The reports were prepared in Portuguese, but it will serve as reference to monitor and evaluate project results. The assessment prepared by the consultants would be made available by e-mail.

In addition, FIP ABC project preliminary results shows an incremental financial return from the adoption of ABC practices by producers.

#### Question on Budget Breakdown:

US: The concessionality level of this project is very high. Can you please provide an explanation of why 100% grant is required?

Re: Project Cost by Component and main activities. The table (in the attached document) shows the summary of project budget by component the savings in US dollar and the revised costs. The Annex 1 shows the project breakdown by component and activities.

Since November 2017, the Brazilian currency was highly depreciated. The exchange rate effective on October 18, 2017 was RS\$ 3.17 per US\$ 1.00. On May 7, 2018, the change rate is RS\$ 3.48 per US\$ 1.00 and the projections is that the rate will not decrease during the foreseeable future in this context, we have revised the budget down to US\$21 million without reduction in original estimated targets (land areas and beneficiaries).

#### Question on Counterpart Funds

US: Also, there appears to be no co-financing. Is that in fact the case?

Re: Counterpart funds from implementing agencies. The Brazilian Government reconfirmed the relevance of the proposed Project as an important instrument to achieve climate mitigation commitments as well as to promote the adoption of conservation, restoration and low carbon agricultural practices by landholders in the



Cerrado Biome. The counterpart funds consist of in-kind resources from the partners institutions, which must be strictly applied to activities that contribute to the Project. In addition, whenever possible, projects will collaborate directly with existing IBRD loans or other lending instruments with the states in the selected watershed.

The counterpart funds were not stated in the PAD as they will be not de part of the Grant Agreement to be signed between the GIZ and the Bank. The in-kind counterpart funds were estimated by each implementing agency, based on project design and expected staff effort. The counterpart funds will be monitored and reported during project implementation.

Retroactive counterpart funds may also be considered, insofar as the actions funded clearly contribute to the outputs and outcomes of the project, and pending analysis and agreement by the implementing agencies, and approval by the Bank.

The table (attached) presents the estimated counterpart funds by each implementing agency. It is expected that the FIP's US\$21-25 million grant would leverage R\$40.1 million, or approximately US\$ 11.5 million, in counterpart funds from the project implementing agencies.

Leveraging funds from landholders. By helping landholders adopt low carbon emission agricultural practices, the project has the potential to leverage significant additional funds.

Based on FIP: ABC project preliminary results, the table below presents the resources invested by the project and producers, results so far, and producers' counterpart funding.

The FIP: ABC project resources leveraged significant matching funds, at a ratio of almost 1:10, from the producers supported by the project. Note that only 10% of these resources are from agricultural credit lines, 90% are from their own financial resources.

Although technical assistance costs and counterpart resources vary depending on the landscape composition, history of land use, and potential for technical capacity building, in the similar-case scenario, FIP: Landscape project could leverage over R\$ 100million, or approximately US\$ 28 million, in-kind from landholders that will invest to adopt agricultural and restoration practices. This would represent a significant financial contribution to the project results and will also contribute to the project sustainability.

To monitor the landholders' investments and results in the supported landholdings, the project will adopt the Sustainability Indicators for Agroecosystems (SIA). The SIA includes economic indicators (farm investment and income, profitability and productivity), environmental indicators (water use, soil health, waste) and social indicators (employment, community involvement, health, safety). Field technicians will assist with SIA data collection.

Question on Project Recipient: GIZ

US: Why is the grant to GIZ?

Re: It is not uncommon for the Ministry of Environment to prefer to have grants implemented through third-party NGOs or agencies. Several PPG7, GEF, and Cerrado Program Trust Fund supported by DEFRA, were/ are being successfully implemented in this way.

GIZ's involvement in Brazil has become part of the SFB/ MMA efforts for rural environmental cadaster, restoration practices as well as sustainable development, since 2014 with the beginning of the CAR technical cooperation project. In addition, Brazil-GIZ partnership is driving innovation by acting as a matchmaker between universities and research institutions and partners from the spheres of politics, business and civil society. On broader country context around 150 experts are working for GIZ throughout the country, including national experts. The projects and programs under implementation focus on the conservation and sustainable management of tropical forests, and on renewable energy and energy efficiency. GIZ is also supporting the development of an inter-institutional knowledge platform for practice-oriented educational activities. The focus is on building up the capacity and competence of official bodies, municipalities and non-governmental organizations that are responsible for the protection and sustainable use of natural resources. Thus, GIZ has a large experience on different sectors and will provide value added to managing this project, because it is in a unique and ideal position for providing the needed support to SFB, MAPA, SENAR, Embrapa and INPE having implicitly and explicitly coordinated forest and landscape programs.

It is important to consider the complementary character and synergies between the implementation of FIP: Landscape and the current GIZ: CAR Project, which is executed by GIZ by order of the German Ministry of Cooperation - BMZ. The FIP: Landscape will be carried out by GIZ, as integrated part of the ongoing CAR project, which has received a 5.5 million Euro financing. The German Government already





authorized GIZ to continue with the implementation of their GIZ: CAR Project until 2023. Although there is a clear geographical distinction between the GIZ: CAR project (Amazon Region) and FIP Landscape (Cerrado Biome), there are large opportunities for the use of synergies using the experiences of GIZ’s administrative and technical staff for FIP Landscape implementation. The shared use of management and infrastructure will reduce overhead costs. Additionally, the success of the GIZ: GIZ: CAR project, based on the long relationship between GIZ and SFB/MMA could bring several lessons learned and a good “modus operandi” both for the management and for implementation of the CAR and the Forest Code. The joint experience can provide confidence and give and avoid a “learning curve” that other institution would face, which is part of the risk reduction.

Besides synergy and cost effectiveness, GIZ has an important role as “honest broker” and stakeholder manager, accepted by all within the governance structure of the project. This is also part of risk reduction management. The Brazil Investment Plan Executive Committee (BIP-EC) has appointed GIZ to manage grant resources, especially because its recognition and confidence by all Brazilian partners and reflecting the specific difficulty Brazil has at the moment to absorb funds through their own central budget. Having an external and impartial organization as the grant recipient also avoids Government budget constraints and enables streamlined procurement processes.

Comment 6 Gaia Allison United Kingdom

The following questions can be answered in slower time by email: Management

Apr 17, 2018

It would be helpful to have a better sense of why the GIZ was selected as implementing partner – and, if it is building on their earlier work – why no financial contribution from BMZ and/or other parts of the German government has been leveraged?

Pgs 57-58 provide a lot of information on GIZ procedures and management fees. It would be useful to have some commentary on the extent to which this delivery model being selected constitutes value for money and compares favourably with other delivery models?

Useful to know how this project is distinct from what GIZ has already been implementing

Risks

Quite well covered but it would be good to know if the same risks apply to the other projects in FIP – are they part of the cause of delayed disbursement – and what mitigation lessons have been learnt?

The UK commissioned some work in Defra project areas (attached) – interviewing farmers about their intentions in relation to the forest code and the requirements to conserve forest areas and/or restore. In quite a number of interviews – farmers that had higher than the minimum area required stated clearly their intention to clear forest to the legal limit. Has this risk been considered?

On page 86 the concept of the “offset” is raised – where natural vegetation lost on one farm can be offset by excess vegetation on another. This will require very good levels of detailed monitoring and oversight – surely also a risk. It would be good to hear how this has unfolded to date and whether it is only viable in the case of larger land holdings.

Results framework

Baselines are all set at zero. We assume that this will change once areas are selected – and there is some assessment of what is already happening on farms. It can’t be the case that no one is doing anything already?

7.000 ha of restoration – is this an annual target?

It is not clear whether the focus is only on smaller farms – the PAD explains that there are larger farms too – but we get no sense of which target group we are working with. There must be significant gains to be made with the larger farmers – but then one would expect to see less subsidised support.

Wouldn’t uptake of loans to carry out the activities demonstrated be a good indicator of the fact that the model/approach works? e.g. how many farmers borrow money to put the techniques into practice?

component 1 – this is probably the “glue” that holds all the FIP investments together – but do they geographically overlap? It would be useful to have a map to show where the different projects operate, where there are synergies.

It is important to include in any capacity development, the capability to understand and assess trade offs – how these might play out at different levels (from farm up to state government) and how to take this analysis to the political decision making arena. This is potentially the more innovative part of the proposal.

Response 1 Meerim Shakirova IBRD

Please find below some clarification and additional information on the themes raised regarding the Brazil - FIP Integrated Landscape Management in the Cerrado Biome Project. During appraisal, the Project Team will work with the clients to review the PAD and intends to include clarifications and additional information in the PAD

Jun 01, 2018





Annexes, in accordance with Bank procedures.

Question on Theory of change:

Re: The project's theory of change is supported by the following assumptions:

- Technical assistance: Areas where technical assistance was effective, fostering sustainable management as well as low carbon emission agricultural practices, that yielded incremental financial results, rendered landholders willing to invest their own money to scale-up the adoption of the new practices. Currently, there is a lack of knowledge and understanding among landholders of the conservation, reforestation, restoration and low carbon agriculture practices. Some practices require strong farm management skills, and adequate training and technical assistance for farmers and ranchers. Landholders in the Cerrado biome have shown a high level of interest for receiving more intensive technical assistance on low carbon agriculture practices and restoration practices, but the Government does not have the required funds to provide it. The premise of the project is that by addressing this constraint, producers will be more likely to adopt low carbon practices, through credit lines or their own resources. Further information on credited line and producers' investments are provided below.
- Legal framework: The Low Carbon Agriculture Plan (ABC) and Forest Code (Law 12.651/2012) provide the essential legal framework for supporting and controlling private rural land use, including compliance with reforestation obligations and adoption of low carbon agriculture practices by producers.
- Spatial management: spatial planning and monitoring are crucial elements of integrated landscape management, as they guide and control land-use decisions in the landscape. The integrated landscape approach provides the solid technical basis needed to make the trade-offs between conservation and development explicit as well as to foster platforms for negotiation about these tradeoffs.

Based on these assumptions, the project's theory of change is it will scale up the adoption of land-use planning which integrates agricultural production and biodiversity conservation, through

implementation of the following intervention strategies: (i) monitoring, evaluating and promoting continuous improvement of integrated landscape management; (ii) strengthening of the capacities of producers, technicians and institutions; (iii) integrating agricultural production and compliance with legislation and environmental conservation in the rural environment; and (iv) engaging and empowering different social actors,

As part of project preparation, the Project team designed a detailed flow chart for project implementation.

Under Component 1 – Institutional Development and Capacity Building for Landscape Management – project executing agencies (Ministry of Agriculture, Livestock and Supply - MAPA, Brazilian Agricultural Research Corporation - EMBRAPA, National Rural Service - SENAR, Brazilian Forest Service – SFB, and German Technical Cooperation Agency - GIZ) will promote innovation, collaboration and mutual learning. Integrated landscape management implies an ongoing process of negotiation, decision-making and evaluation and is not likely to succeed without a cross-sector and multi-institutional learning and negotiation process. Hence, under this component the project will bring agricultural and environmental actors from the Cerrado Biome together and will rely in land use assessment methods as they can be effectively used as tools to: generate discussion among key stakeholders and negotiate trade-offs; improve communication and innovation; and, ultimately, foster successful landscape management throughout the Cerrado Biome.

Complementarily, under Component 2 - Mainstreaming Landscape Practices into Selected Watersheds – the executing agencies will work together to plan and implement technical assistance activities within landholdings and watersheds. This component is characterized by a multi-disciplinary approach aiming to promote the adoption of low-carbon emission agricultural practices as well as restoration practices, involving technical, economic and social sciences, and a high degree of institutional and producers' participation.

UK: It would be helpful to have a clearly set out description of how improved TA will provide the incentive for farmers to access finance to implement improved land management, restoration, low carbon agriculture.

Re: Training and Technical Assistance: The Project introduces a new strategy for conservation, restoration and low carbon agricultural practices transfer to landholders through: (i) training of trainers; (ii) training program for field technicians in conservation, restoration and low-carbon emission agricultural practices for the restoration of environmental liabilities and productive landholding management; (iii) training program for producers, including workshops, events, field days, demonstration units; and (iv) field technical assistances for selected producers



(extension). This strategy also includes stakeholder mobilization, communication and the establishment of landholders' networks in selected watershed.

A Training of Trainers (TOT) process will provide the new trainers with the background knowledge, skills and practical experience needed to promote conservation, restoration and low carbon agricultural practices training and technical assistance to technicians, producers and communities. EMBRAPA, MAPA and SFB will be involved in the preparation of the technical content of the training courses for TOT and technicians. The intention is to create a network of providers of technical assistance to landholders.

The field technician will act as a coach for dissemination of low carbon emission agricultural practices as well as conservation and restoration practices acquired through research and their application in the field. The role of the field technicians is to: (i) provide technical assistance to farmers/ranchers; (ii) set up a technological reference unit (URT); (iii) when necessary, assist with the registration of farmers in the rural environmental registry (CAR); (iv) collect data for the Sustainability Indicators for Agroecosystems -- SIA at the beginning and at the end of the technical assistance program. Based on the lessons learned from the FIP ABC project, each field technician will provide assistance to 20 farmers/ ranchers and set-up a technological reference unit (URT- Unidade de referencia tecnologica) on one of the farms/ranches.

SENAR has twenty years of experience in planning, carrying out and supervising training programs and education of rural professionals in Brazil, including large producers and family farmers, extension technicians and technical assistance staff. SENAR has highly qualified staff in the fields of planning, training, technical assistance, and financial administration. In addition, EMBRAPA and SFB have large experience in conservation and restoration practices and will help promote the regularization of rural properties, sustainable production activities, and the restoration of Permanent Preservation Areas (APPs) and Legal Reserves (RL).

Question: Credit line

UK: In the original project concept, it was envisaged that a credit line would be established in support of restoration. This has not been possible in the absence of the legal framework required. This should be explained, and information provided on the availability of alternative credit lines, and whether the absence of dedicated restoration credit lines presents any risk to the achievement of the objectives.

Re: There is a large variety of agricultural credit lines and programs in Brazil, but so far producers have not been able to access funds for restoration practices either because they are not fully aware of it or because they do not much knowledge on how to design good restoration plans. However, most of restoration practices are not very costly, so lack of credit does not seem to be a major impediment.

Credit line and this project. The original submission in 2015 included 2 projects: one US\$40 million from the World Bank and one US\$ 5million credit line by IDB (through BNDES). The FIP Sub-Committee decision was to authorize the preparation of single US\$25 million project, including a credit component (without specifying amounts). Considering the findings presented above that lack of credit is not a real constraint; the small size of a potential credit component owing to the smaller allocation, decreasing its potential demonstration effect; and the complexity that it would add to the project structure and management, the Brazilian Government partners and the Bank decided to focus the project on addressing the other constraints faced by farmers as an strategy to reach targets as close as possible of the original project.

Question on Sustainability and Institutional Learning

UK: We would appreciate more information on the long-term prospects for sustainability of the improved TA services, and the extent to which resource constrained government agencies will be in a position to provide the scale up that will be required in future. With implementation of this project resting with GIZ, what measures will be taken to ensure that institutional learning rests within government agencies, and that the commitment exists within government to adequately resource the work in future should these pilots be successful and warrant replication.

Re: Sustainability: The Project's future sustainability relies on the highly participatory approach followed in its preparation, the engagement of local producer's associations, producers' organizations and public authorities and the strengthening of government institutions.

By promoting an integrated landscape management approach that can be scaled up to cover a larger area, the Project would demonstrate the relevance of convening multiple stakeholders within the landscape and fostering a convergence of understandings and objectives among them.

Lessons learned from previous experiences with technical assistance project (Rio



Grande do Sul Biodiversity Project) shows that practices that yielded benefits related to both (i) the sustainability of natural resources and biodiversity in the Project area and, (ii) significant incremental financial returns to participating farmers, are fully adopted by farmers and are maintained after the technical assistance ends. Trained agriculture extension technicians were, and continue to be after the project closed, a strong advocate for action in support of sustainable production practices and biodiversity conservation, proving to be a substantial partner.

**Institutional Learning:** The proposed project will be implemented by the Ministry of Agriculture, Livestock and Food Supply (MAPA) and the Brazilian Forest Service (SFB) in partnership with the Brazil Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and National Rural Learning Service (SENAR). MAPA and the SFB have the overarching policy and technical level responsibility for carrying out the overall institutional coordination required to implement project activities. They will be responsible for coordinating project implementation; technically supervising the development of project activities, including effective coordination of research and development activities at the project level; coordinating the project's different actors; and monitoring and evaluation the project. Periodic meetings among agencies involved in the implementation of the project will be held and recorded to ensure regular and structured opportunities for information sharing and joint analysis and planning.

As the grant agreement recipient, GIZ will act as MAPA, SFB and SENAR's partner under the terms of a Technical Cooperation Agreement to be signed. GIZ will be responsible for the overall administrative and financial management of project execution, including systematic reporting to the Bank.

#### Question on Value of Money

UK: References are made to actions like cash for work with no further explanation. Can you explain under what circumstances this will be used?

UK: If one of the objectives is to demonstrate to farmers the economic returns possible through improved farming and restoration practices, it would be interesting to see some consideration of payment for ecosystem services opportunities as well as enhanced production and the restoration input supply chain potential.

Re: Cash for work. The project expects to increase job creation through the rural extension service and more labor-intensive practices, and to increase capacity and knowledge retained at the farmer level for the application of improved agricultural, land-use and management practices and production systems (i.e., ABC practices and APP and RL reforestation). Field technicians would receive payments for each farm supported (cash-for-work). The field technician will act as a coach for dissemination of practices acquired through research and their application in the field.

**Restoration supply chain:** A major economic benefit of forest restoration is the development of supply chains for tree-planting activities and plantation maintenance, which generates employment and business opportunities, as mentioned in some studies. Depending on the balance between restoration plantings and natural regeneration, restoration of 12 Mha of forest in Brazil is projected to generate between 112,270 and 190,696 jobs annually (MMA 2013). An important part of the proposed Project is the development of supply chain for tree-planting activities and plantation maintenance in the selected watersheds.

As part of the implementation strategy, the proposed project will assess the current supply chain in each selected watershed, including local forest restoration costs, existing nurseries, seeding producers, job opportunities, etc. If necessary the project would finance the creation of a seeding producers and local nurseries. The project would help to involve people and private sector in restoration supply chain to create income and quality jobs. The costs of implementing forest landscape restoration are notoriously site-specific. EMBRAPA in partnership with SFB is currently conducting assessment of forest restoration costs and forest restoration supply assessment process in some areas in Brazil, mainly in the Amazon region. The proposed project would support and structure the forest restoration supply chain in the selected watersheds in the Cerrado.

The payment for ecosystem services is not part of the project because, unfortunately, the legal framework and the long-term sustainability of this approach are still not fully developed in Brazil. Once this is established, it would be a great opportunity to promote forest restoration.

**Value Added.** The value added of FIP and the Bank in this project is the provision of support to the SFB and MAPA for technical assistance practices and scale up the option of landscape approach in selected watersheds in the Cerrado Biome.

Currently, Brazil has no sufficient public funds to fully finance technical assistance on restoration and on low carbon emission agriculture without the assistance of additional funds.



## Question on FIP: Brazil Investment Plan implementation

UK: Registration in the CAR appears to be a foundational aspect of the theory of change and yet we are seeing very low levels of implementation in the \$32 million FIP project that is focused on regularization. Since registration in the cadastre is mandatory it would seem that this is a critical piece of the FIP jigsaw in the Cerrado. What are the implications of the slow delivery of project 1.1 for the success of the rest of the FIP projects? We also have concerns about approving significant additional finance "in advance of need" when disbursement has only just moved in to double figures for some FIP projects approved in 2014. Can you provide some information on what measures are in place to ensure improvements in disbursement and implementation?

Re: Adoption of the CAR in the existing project. It is important to note that registration of small farms (focus of the existing project) in the CAR is the direct responsibility of the government. With support from the project, the first step of the rural environmental cadaster enrollment has already taken, i.e. registration of 43,000 small landholdings or 86% of the target of the project. To complete the environmental regularization the following steps are still being carried out: registers analyses, survey, validation, resolution of data conflicts and inconsistencies; and support forest restoration plans.

Brazil Investment Plan implementation. The years of 2015 and 2016 were a time of great change in the social, political, and economic environment in Brazil. Due to the political and financial crises, the Environmental Regularization of Rural Lands (FIP: CAR Project or Project 1.1 under Brazil Investment Plan), FIP: Forest Information to Support Public and Private Sectors (Project 2.1) and FIP: Coordination projects preparation like many other projects faced severe political and fiscal constraints and their start were delayed. The FIP: CAR project was declared effective on August 18, 2017 and is now under implementation, using FIP fund. The resources allocated in 2017, were fully committed and the Brazil Forest Service (SFB), the main counterpart of the project, is working hard to guarantee that all the budget allocated to the Project this year is spent as soon as possible. SFB is also requesting from the government a supplementary budget for 2018 to increase SFB budget capacity because even grant resources have to appear in the institution's official budget to enable expenditure authorizations. (see: projects status Annex 3).

Focus of the new proposal. The new project does not support actual CAR registration and can provide technical assistance to any farm in the CAR within the selected landscape, including those that entered the CAR without direct assistance from the FIP project 1.1.

## Question on Budget Breakdown

UK: Given the proposal has evolved since the original concept which set the project envelope, and that the project is an effort to pilot new ways of joined up working across government agencies, some analysis of the budget requirements for testing the approach would be helpful. This may identify opportunities for savings. A more detailed breakdown of the TA budget would be helpful.

Re: Project Cost by Component and main activities. The table (that was shared via email) shows the summary of project budget by component the savings in US dollar and the revised costs. The Annex 1 shows the project breakdown by component and activities.

Since November 2017, the Brazilian currency was highly depreciated. The exchange rate effective on October 18, 2017 was RS\$ 3.17 per US\$ 1.00. On May 7, 2018, the change rate is RS\$ 3.48 per US\$ 1.00 and the projections is that the rate will not decrease during the foreseeable future in this context, we have revised the budget down to US\$21 million without reduction in original estimated targets (land areas and beneficiaries).

## Question on Project Recipient: GIZ

UK: On the selection of GIZ as the delivery partner, please provide further information on: - why the GIZ was selected as implementing partner – and, if it is building on their earlier work – why there is no financial contribution - the extent to which this delivery model constitutes value for money and compares favourably with other delivery models? - how/if this project is distinct from what GIZ has already been implementing

Re: It is not uncommon for the Ministry of Environment to prefer to have grants implemented through third-party NGOs or agencies. Several PPG7, GEF, and Cerrado Program Trust Fund supported by DEFRA, were/ are being successfully implemented in this way.



GIZ's involvement in Brazil has become part of the SFB/ MMA efforts for rural environmental cadaster, restoration practices as well as sustainable development, since 2014 with the beginning of the CAR technical cooperation project. In addition, Brazil-GIZ partnership is driving innovation by acting as a matchmaker between universities and research institutions and partners from the spheres of politics, business and civil society. On broader country context around 150 experts are working for GIZ throughout the country, including national experts. The projects and programs under implementation focus on the conservation and sustainable management of tropical forests, and on renewable energy and energy efficiency. GIZ is also supporting the development of an inter-institutional knowledge platform for practice-oriented educational activities. The focus is on building up the capacity and competence of official bodies, municipalities and non-governmental organizations that are responsible for the protection and sustainable use of natural resources. Thus, GIZ has a large experience on different sectors and will provide value added to managing this project, because it is in a unique and ideal position for providing the needed support to SFB, MAPA, SENAR, Embrapa and INPE having implicitly and explicitly coordinated forest and landscape programs.

It is important to consider the complementary character and synergies between the implementation of FIP: Landscape and the current GIZ: CAR Project, which is executed by GIZ by order of the German Ministry of Cooperation - BMZ. The FIP: Landscape will be carried out by GIZ, as integrated part of the ongoing CAR project, which has received a 5.5 million Euro financing. The German Government already authorized GIZ to continue with the implementation of their GIZ: CAR Project until 2023. Although there is a clear geographical distinction between the GIZ: CAR project (Amazon Region) and FIP Landscape (Cerrado Biome), there are large opportunities for the use of synergies using the experiences of GIZ 's administrative and technical staff for FIP Landscape implementation. The shared use of management and infrastructure will reduce overhead costs. Additionally, the success of the GIZ: GIZ: CAR project, based on the long relationship between GIZ and SFB/MMA could bring several lessons learned and a good "modus operandi" both for the management and for implementation of the CAR and the Forest Code. The joint experience can provide confidence and give and avoid a "learning curve" that other institution would face, which is part of the risk reduction.

Besides synergy and cost effectiveness, GIZ has an important role as "honest broker" and stakeholder manager, accepted by all within the governance structure of the project. This is also part of risk reduction management. The Brazil Investment Plan Executive Committee (BIP-EC) has appointed GIZ to manage grant resources, especially because its recognition and confidence by all Brazilian partners and reflecting the specific difficulty Brazil has at the moment to absorb funds through their own central budget. Having an external and impartial organization as the grant recipient also avoids Government budget constraints and enables streamlined procurement processes.

#### Question on Risk Analysis

UK: Risks are well covered. Do the same risks apply to the other projects in FIP – are they part of the cause of delayed disbursement – and what mitigation lessons have been learnt?

Re: Key lessons learned from the preparation and implementation of the DEFRA Cerrado Program were incorporated in the FIP Landscape project design. They include:

- Issuing grants to non-governmental agencies in the form of recipient-executed trust funds, and having these institutions performing the role of financial and procurement agents for projects, have been very effective, have simplified implementation, and have relieved public-sector implementing agencies of the burdens of grant administration. Channeling funds through federal or state budgets would have made implementation much more difficult due to the rules and procedures imposed by applicable laws.
- Project teams have found that implementation should only begin when highly qualified technical personnel in adequate numbers, whether consultants or not, are on board. The hiring of specialized consultants to support and complement existing staff turned out to be the most important factor for accelerating project implementation, but could have been done earlier, i.e., at the very start of a project. Many lessons learned and experiences with other projects in the related themes contributed to the proposed institutional arrangement.

The Project will be managed by GIZ, aiming to avoid Government budgetary constraints and enable streamlined procurement processes. A procurement and financial management assessment of GIZ's capacity to implement procurement actions was done as part of project preparation. GIZ is a solid institution and has substantial experience in implementing projects in Brazil. Staff members of GIZ,



SENAR and SFB have been attending procurement and financial management trainings offered by the Bank.

#### Question on Risk Analysis:

UK: The UK commissioned work in Defra project areas interviewing farmers about their intentions in relation to the forest code and the requirements to conserve forest areas and/or restore. In a number of interviews – farmers that had higher than the minimum area of forest required stated clearly their intention to clear forest to the legal limit. Has this risk been considered?

Re: The project will focus on the restoration of areas within the legal reserve and permanent protection areas. Landholders that are in compliance with the Forest Code, won't be targeted by the project.

When considering the indicator: Number of hectares where deforestation and degradation have been avoided through ICF support (KPI8) for 2015 and 2016, Ecometrica's draft report of the Cerrado Program, supported by DEFRA, evidences that it started to deliver avoided deforestation in 2016. Although the Cerrado Program has not been completed yet and implementation is underway, the preliminary assessments carried out at the level of individual small landholders indicate that the rural environmental cadaster process could contribute to decrease the deforestation rate in the Cerrado Biome.

#### Question on Environmental Reverse Quota (CRA)

UK: On page 86 the concept of the "offset" is raised – where natural vegetation lost on one farm can be offset by excess vegetation on another. This will require very good levels of detailed monitoring and oversight – surely also a risk. It would be good to hear how this has unfolded to date and whether it is only viable in the case of larger land holdings.

Re: The Forest Code creates incentives to conserve and restore native vegetation in landholding that exceed the Forest Code requirements. The Environmental Reserve Quota (CRA), a tradable legal title for landowners with an intact or regenerating native vegetation exceeding the Forest Code requirement, may be used to offset a RL debt of another property within the same biome and, preferably, the same state. Implementing the CRA could create a market for forested lands, adding monetary value to native vegetation.

Accurate data from the CAR and a legal framework are still required to track the extent of directing incentives or disincentives to credit lines, including to establish the Environmental Reverse Quota (CRA) market, which has the potential to reduce the total cost of restoration and could include incentives to conserve and restore native vegetation in priority regions. Currently, SFB is working to develop incentives for producers who want to invest in restoration programs (for example: The Water Producers/Produtores de Água Program).

#### Question on Baselines and indicators

UK: In the results framework, Baselines are all set at zero. We assume that this will change once areas are selected – and there is some assessment of what is already happening on farms. It can't be the case that no one is doing anything already?

Re: 7.000 ha of restoration – is this an annual target?

component 1 – this is probably the "glue" that holds all the FIP investments together – but do the various projects geographically overlap? It would be useful to have a map to show where the different projects operate, where there are synergies.

UK: It is important to include in any capacity development for landscape planning, the capability to understand and assess trade-offs – how these might play out at different levels (from farm up to state government) and how to take this analysis to the political decision-making arena. This is potentially the more innovative part of the proposal.

Re: Baseline. In the project results framework, the baseline values for the proposed indicators are expected to be zero as the indicators are stated to measure the outputs and outcomes as a result of the project support. A "zero" in the baseline means that project has not started contributing to the provision of the expected output or outcome. Subsequently, the data should be cumulative— that is, the data in the reports should represent the cumulative numbers of people/ hectares etc.

Restoration time horizon. The Brazilian Forest Code defines situations in which landholders are required to recover natural vegetation on their land. Since the recovery of vegetation is a long-term process and includes different alternatives (natural regeneration, seeding, fencing), the Brazilian legislation forecasts the recovery of APPs and RL over 20 years within private landholdings. Whatever the



technical alternative, the landowner or landholder should formally commit to public authorities to be fully compliant with the law within 20 years, recovering farmlands gradually (a minimum of 10% of the area to be recovered every two years). In this context, the proposed project expects to plan the recovering process of 70,000 hectares of APPs and/ RL within private landholdings in selected watersheds. Total restoration/reforestation process is expected to be achieved in 20 years, but when considering the project period (5 years) a fraction of the restoration area will be delivered end of Project. Thus, the project indicator estimates the APP and RL areas adopting recovering practices during the project period, representing 10% of the total area under restoration process, taking also into account the time to provide and absorb the technical assistance, provide the seedlings etc. Nevertheless, the impact of the project overtime should the restoration of all 70,000 cover in the plans, and the additional plans that would use the technical package promoted by the trainers and organization involved in the project.

The project indicator measures the cumulative area of Legal Reserves (RL) and/or Areas of Permanent Protection (APP) within private landholdings that, as a result of the project, incorporated and/or improved at least one of the following conservation or restoration practices: RL and/or APP enrichment; fencing; natural regeneration; assisted regeneration; planting or direct seeding of natives or non-natives trees species; silvicultural systems; erosion control; invasive species control; fertilizing; remove disturbance; fuel reduction by mechanical means; re-introduce prescribe fire; fire surrogates.

FIP projects map. The Annex 2 shows where the different projects operate.

#### Question on Restoration/ Native Species

UK: Component 2 – can the team reassure us that every effort will be made to utilise native species in restoration activities.

Re: Restoration legal framework: The project will incentivize the restoration with native species and it will not promote monoculture tree plantations, fully in line with Brazilian legal framework and, with Bank's Safeguards OPs/BPs and the project ESMF.

The project will be following the Native Vegetation Protection Law, or Forest Code. According to the Forest Code, the Permanent Preserved Areas (APPs) are environmentally sensitive areas that must be protected or restored, especially for water supply and prevention of soil erosion. These areas include riparian vegetation adjacent to streams and rivers, around springs, on hilltops, high elevations and on steep slopes. The Legal Reserves (RL) are portions of landholdings that should be maintained as natural vegetation. The RL within rural properties can be used to: (i) generate income in a sustainable way; (ii) help conservation and rehabilitation of ecological processes; and (iii) promote biodiversity conservation. Some set-aside areas (Legal Reserves, RLs) for conservation can be sustainably harvested and include partial use of exotic species, interplanted with native species, which could mitigate the cost of restoration and even provide profits, but in Cerrado areas this tends to be limited to species which produce non-timber products. Specific recommendations are that: (i) up to half of the RL may be used for economic benefits; (ii) when using exotic species (up to 50%), these species need to be interspersed with native species; (iii) when using exotic species, management should promote the regeneration of native species; (iv) the landholding must follow the principles of sustainable forest management; and (v) the species diversity needs to be maintained. APPs may not be used to provide economic benefits, although small rural properties ( $\leq 4$  fiscal module units) can use them for sustainable agroforestry.

Project environmental management: The implementing agencies prepared a draft Environment and Social Management Framework (ESMF). The ESMF includes: (i) environmental and social screening criteria; (ii) potential impact and risk mitigation measures; (iii) guidelines to mitigate and/or avoid damage to natural habitats; (iv) criteria to ensure that the pesticides used have negligible adverse impacts; (v) procedures to ensure that the pesticides used in subprojects do not include formulated products that fall under WHO Classes IA and IB or formulations that fall under Class IIA; (iv) institutional responsibilities and monitoring arrangements, including supervision protocols; and (iv) stakeholder communication guidelines. The ESMF considers the requirements of OP/BP 4.36 Forests and OP/BP 4.04 Natural Habitats whenever restoration activities are being planned to prevent or mitigate any possible negative impacts, based on experience with previous MMA (P143334) and MAPA (P1431284) projects.

Degraded pasture: The Project will address the reduction or loss of the pasture's support capacity resulting from natural processes, land uses or other human





activities. Data from 2006 the Agricultural Census indicate that the area of cultivated pasture in Brazil corresponds to about 106 million hectares. The Brazilian Agricultural Research Corporation (EMBRAPA) is developing geotechnologies to identify and monitor pasture degradation levels in the Amazon, Cerrado and Atlantic Rainforest biomes. This initiative includes: the standardization, organization and integration of the different types of data obtained in a single information database; the identification of pasture degradation levels based on images by multispectral remote sensors; the identification of biophysical aspects concerning pasture degradation levels; and the definition of spatially explicit indicators of degradation of pasture areas based on integration and on geospatial crossings between the information plans generated and the different levels of degradation observed in the field. See: <https://www.embrapa.br/en/busca-de-projetos/-/projeto/37897/geodegrade---development-of-geotechnologies-to-identify-and-monitor-pasture-degradation-levels> and <https://ainfo.cnptia.embrapa.br/digital/bitstream/item/77431/1/DOC189.pdf>

The quality of pastures has been the major challenge for livestock farming in the face of advances already obtained through genetic improvement, increases in animal resistance to pathogens and improvement in quality of the final product. It is that about 80% of all agricultural land in Brazil is occupied by pastures and that 27–42% of the total planted pastureland is degraded in Brazil, meaning the average stocking rate is far below the potential carrying capacity of most pastures in the Cerrado Biome. The average rate of Brazilian pasture occupation is 0.9 animal units (AU) per hectare. Increasing productivity with sustainable practices should accommodate the current production volume of key products (meat, soybean, sugarcane or maize), and release areas for restoration of natural systems. In accordance with various studies, pasture intensification can help to reduce demand for additional agricultural land, but, if technical assistance is not provided to stimulate stronger intensification, the market alone will not be sufficient to cause the intensification.

According to the scientific literature, by promoting the adequacy of pasture stocking to grass availability and avoiding overgrazing, sustainable grazing practices contribute to increase and protect species diversity as well as to prevent and control the spread of invasive species. These practices also contribute to reduce soil erosion and desertification, and to restore degraded pasturelands and natural grassland landscapes. There is also evidence that the sustainable management with the stocking of animals according to the supply of fodder has a positive impact on carbon sequestration.

Conservation and restoration practices. "Conservation and restoration practices" is a broad term comprising all processes that return complete or partially tree cover on forestland through planting or through natural or assisted regeneration processes, which can also include agroforestry, restoration plantations, or small woodlots. The following conservation or restoration practices are envisaged within the project: Restoration Plans (PRAs) approved; legal reserves and permanent protected areas maintenance and /or enrichment; fencing; natural regeneration; assisted regeneration; planting or direct seeding of natives or non-natives tree species; silvicultural systems; erosion control; terraces; runoff management; invasive species control; fertilizing; remove disturbance; fuel reduction by mechanical means; re-introduce prescribe fire; fire surrogates. The choice of the conservation and restoration practices depend on soil conditions, the surrounding ecosystem and forest fragments, intensity and historical land use and natural regeneration potential of each area.

Currently, EMBRAPA is assessing the economic and ecological effectiveness of different models of forest restoration of degraded areas by promoting secondary ecological succession, through natural regeneration, planting of seedlings, and the direct sowing of tree species in the Legal Reserve. During project implementation, EMBRAPA will be involved in the definition of restoration technics and preparation of the technical content of the training courses. Its researchers will validate all practices disseminated by the project (restoration and low-carbon agricultural practices). All models to be promote by the project must adhere to Bank's Safeguards OPs/BPs and the project ESMF.

Response 2 Gaia Allison United Kingdom

The UK would like to thank the Brazil team for their detailed responses to our comments and questions and are satisfied that these have been addressed. We also express our thanks for taking action on our request for cost savings. Jun 10, 2018

We request that, to the extent possible, these points are reflected in the revised PAD that will be developed after approval by the sub committee, and that the revised version of the PAD is circulated for information to the sub committee prior to its submission to the MDB board.

We ask that you confirm this request

Thank you





Response 3	Meerim Shakirova	IBRD	Dear Gaia, Many thanks for the comment, it is well received and appreciated. Hereby, the IBRD team confirms that the above points will be reflected and an updated PAD will be circulated to the FIP SC for information prior its submission to the WB board.	Jun 11, 2018
Comment 7	Simon Foster	United Kingdom	We welcome the efforts to reduce the amount of grant funding requested, and have been satisfied with the responses to questions received to now approve this proposal. We welcome IBRD's commitment (already posted) that they will update the PAD and will circulate it to FIP SC for information prior to submission to the WB Board.	Jun 18, 2018