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PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT FROM THE

RAIN FOREST TRUST FUND

IN THE AMOUNT OF US\$ 3.5 MILLION

TO

INSTITUTO DE CONSERVAÇÃO AMBIENTAL “THE NATURE CONSERVANCY DO
BRASIL”

FOR A

BRAZIL RURAL ENVIRONMENTAL CADASTRE TECHNICAL ASSISTANCE PROJECT

September 2, 2010

Brazil Country Management Unit
Sustainable Development Department
Latin America and the Caribbean Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective June 7, 2010)

Currency Unit = Brazilian Real – R\$
US\$ = R\$1.75

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

APP	Areas of Permanent Preservation
ART	Note of Technical Responsibility (authorizing the “responsible engineer”)
CAR	Rural Environmental Cadastre
CCIR	Certificate of Registration of Rural Holding in Rural Cadastre (not in CAR)
CNIR	National Cadastre of Rural Holdings
CPS	Country Partnership Strategy
HDI	Human Development Indicator
IBAMA	National Institute for the Environment and Renewable Resources
IBGE	Brazilian Institute of Geography and Statistics
INCRA	National Institute for Settlement and Land Reform
INPE	National Institute of Space Research
MMA	Ministry of Environment
NRPP	Natural Resources Policy Project (or sub-program)
OEMA	State Environmental Agency
PPG7	Pilot Program to Conserve the Brazilian Rain Forest
PRAD	Plan to Rehabilitate Degraded Areas
PRODES	Program to Calculate the Deforestation of the Brazilian Amazon (by INPE)
RFT	Rain Forest Trust Fund
RL	Legal Reserve
SIMLAM	Environmental Licensing and Monitoring System
SINIMA	National System of Environmental Information
SLAPR	Environmental Licensing of Rural Activities System
SNCR	National System of the Rural Cadastre
SPOT	Earth Observation Satellite
TNC do Brasil	Instituto de Conservação Ambiental “The Nature Conservancy do Brasil” (NGO)

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BRAZIL
Rural Environmental Cadastre Technical Assistance Project

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RURAL ENVIRONMENTAL CADASTRE TECHNICAL ASSISTANCE PROJECT
PROJECT APPRAISAL DOCUMENT
LATIN AMERICA AND CARIBBEAN
LCSEN

Date: September 2, 2010 Country Director: Makhtar Diop Sector Manager: Karin Erika Kemper Project ID: P120523 Lending Instrument: Specific Investment Grant	Team Leader: Bernadete Lange Sectors: General agriculture, fishing and forestry sector (100%) Themes: Environmental policies and institutions (70%); Land administration and management (30%)
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Project Financing Data	
<input type="checkbox"/> Loan	<input type="checkbox"/> Credit
<input checked="" type="checkbox"/> Grant	<input type="checkbox"/> Guarantee
<input type="checkbox"/> Other:	
For Loans/Credits/Others:	
Total Project Cost (US\$m.):	3.5
Cofinancing:	
Total Bank Financing (US\$m.):	0.0

Financing Plan (US\$m)			
Source	Local	Foreign	Total
Borrower/ Recipient	0.00	0.00	0.00
Rainforest Trust Fund	3.50	0.00	3.50
Total:	3.50	0.00	3.50

Recipient:

Instituto de Conservação Ambiental "The Nature Conservancy do Brasil"

Responsible Agency:

Instituto de Conservação Ambiental "The Nature Conservancy do Brasil"

Project Implementation Period:

Start: September 30, 2010 **End:** June 30, 2011

Sector Unit Estimate of Resources Required for Preparation and Approval		
Source of Funds	Identification and Preparation Expenses to Date (US\$)	Estimate of Resource Requirements (US\$)
Bank Budget	00	00
Trust Funds	\$ 51,899.97	\$ 82,000

Estimate of Bank funds required for preparation and approval relative to average for this sector in this region					
<input type="checkbox"/> 50%	<input type="checkbox"/> 75%	<input checked="" type="checkbox"/> 100%	<input type="checkbox"/> 125%	<input type="checkbox"/> 150%	<input type="checkbox"/> < 50% or > 150%

Team Composition			
Name	UPI	Title	Unit
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Team Composition			
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STRATEGIC CONTEXT AND RATIONALE

COUNTRY AND SECTOR ISSUES

The Brazilian Amazon

1. **The Amazon in Brazil contains nine states covering over 4.1 million km².** With a population of about 23 million (13% of Brazil's population), the region's share of GDP is only 7%. Low GDP per capita reflects the aggregate low income of the rural population (which accounts for 45% of GDP) and an agriculture and forestry sector which is less productive than elsewhere in Brazil. Manufacturing is somewhat more developed (25% of GDP, on a par with industry's GDP share nationally) but this is concentrated in relatively few cities in the region. 45% of the population (the majority in rural areas) exists below the poverty line. The Human Development Index (HDI) for states in the Amazon region is 10-15% below the average for Brazil as a whole, with the notable exception of Amazonas and Mato Grosso states.

2. **In 1975-2005 the Amazon region's GDP grew at over double the national rate (7.2% vs. 3.3%) and export growth was even higher.** While most of the growth took place in urban areas, actual export growth was due to increased exploitation of natural resources (forest conversion to pasture for beef exports, and mining). In large part, the poor income growth for the majority of the population in rural areas has been due to a lack of public policies focused on productivity growth. Historically, the model has been one of extensive land conversion promoted by the building of federal roads, encouragement of migration, organized (public and private) settlements, land concessions (and tolerance of land grabbing), tax incentives and institutional credit, which resulted **in the clearing of almost one fifth of the Amazon rain forest, primarily for livestock raising (and to a lesser extent for crop cultivation).**

The Amazon Deforestation

3. **The annual average deforestation rate from 2000 to 2008 in the Brazilian Amazon was 18,785 km² per year, peaking in 2004 at 27,772 km².** Since 2005, annual deforestation rates have been decreasing. However, annual deforestation rates from 2005 to 2008 are still high with an average of 14,465 km²¹.

4. **Mato Grosso state has the highest average annual deforestation in the Brazilian Amazon from 2000 to 2008, with 6,800 km² per year (i.e., 37% of the deforestation average for this period). The State of Pará came second, with 6,300 km² per year (34%),** followed by Rondônia (14%). The remaining six states (Acre, Maranhão, Tocantins, Roraima, Amazonas, and Amapá) between them accounted for 15% of total deforestation².

5. Declining deforestation rates can be attributed to new interest by business leaders in reducing deforestation, new government forestry policies, increased vigilance against illegal logging and land seizures, expansion of the country's protected area network, reduced world demand for beef and soybean and, finally, the increasing strength of Brazil's currency, the Real (R\$).

¹ Source: PRODES, 2009.

² Source: Instituto do Homem e Meio Ambiente da Amazônia – Imazon.

6. **Confident in Brazil's progress in controlling illegal deforestation, the Brazilian Government set a goal to reduce annual deforestation in the Brazilian Amazon by 80% by 2020 (from a 1996-2005 baseline).** To achieve this government has introduced measures to strengthen the enforcement of laws to combat illegal deforestation. One of the key measures involves identifying municipalities in the so-called "Arc of Deforestation".

7. Between August 2008 and February 2009³, the deforestation rates in 12 of the 43 municipalities in the states of Amazonas, Maranhão, Mato Grosso, Pará, Rondônia and Roraima with the highest rates declined by over 80%. A further 18 experienced reductions of between 54% and 80%.

Forest Policies to Reduce Deforestation

8. **Brazil has been making and implementing increasingly effective policies to control and reduce deforestation in the Amazon.** The Pilot Program to Conserve the Brazilian Rain Forest (PPG7), which has been funded since 1992 by the G-7 group of countries, the Netherlands and the European Union, has helped to prepare the ground for more explicit policies and measures to be implemented. It has increased awareness in Brazil of the need for Amazon forest conservation, experimented with new forms of sustainable use of forest resources, helped protect indigenous lands, and strengthened state environmental agencies in the Amazon.

9. **Brazil possesses a strong framework of environmental legislation.** The 1988 Constitution made environmental management a shared responsibility of the three spheres of government (Federal, State and Municipal), making the public sector responsible for preserving and managing vital ecosystems and species and providing criminal and administrative sanctions for perpetrators of environmentally-detrimental activities.

10. **The piece of legislation relevant to use and conservation of forests in private landholdings is the Brazilian Forest Code of 1965, which was last changed in 1996.** The Forest Code requires that rural landholders maintain the natural vegetation of part of their private rural holdings all land on steep slopes, along water courses (up to a certain distance from the margin) or in the vicinity of springs. These areas are APPs (Area of Permanent Preservation). The Forest Code also obliges landholders to set aside areas of "Legal Reserve" (*Reserva Legal*), the required size of which varies according to particular biomes. In the Amazon biome, for example, the rules governing the RL require 80% of areas of private land to be retained as native vegetation (except in areas where State Ecological Economic Zoning requires 50%)⁴. In the Amazon region the areas of the APPs are included in this calculation.

11. Compliance by private landholders with these requirements is at the heart of monitoring and control of forest cover by the Federal and State environmental agencies. Note from the above that forest-clearing is not all illegal: owners can be authorized to clear forest on up to 20% of their holdings, but not in APPs (Area of Permanent Preservation) occupying steep slopes, along watercourses or close to springs.

12. The National Environment Policy Law 6938 of 1981 introduced, inter alia, the environmental licensing of polluting activities, including agriculture and livestock operations and the use of natural (forest) resources. Since the late 1990's the Federal Government has delegated these

³ Source: INPE

⁴ 20% in the rest of Brazil and 35% in *Cerrado* biome (savanna) in the "Legal Amazon".

licensing responsibilities to the State Environmental Agencies (*Orgãos Estaduais de Meio Ambiente* - OEMAs).

13. Environmental licensing in rural holdings was first applied by Mato Grosso under the PPG7 Natural Resources Policy Subprogram (NRPP). The State Environmental Licensing in Rural Properties System (SLAPR), aimed at enforcing the Forest Code, was introduced in 1999 and became operational in 2000. This system aims to identify private rural landholdings, together with their respective owners, the property boundaries and the existence of RL and APPs, and is responsible for licensing agricultural or livestock activities thereon.

14. In 2007 a series of measures was announced aimed at intensifying the enforcement of laws to combat deforestation. A Federal Decree of 2007 required the Ministry of Environment to publish an annual list of Amazon municipalities with the highest incidence of deforestation. In March 2009 the “blacklist” included 43 municipalities which together were considered to be responsible for around 55% of deforestation in the Brazilian Amazon.

15. Municipalities can be removed from this list providing: (i) 80% of holdings are registered under the Rural Environmental Cadastre (CAR); (ii) deforestation was under 40 km² in 2009; and (iii) mean deforestation in 2008 and 2009 was under 40% of the 2004-2007 figure. In March 2010, the Paragominas municipality, for example, fulfilled the required criteria and was taken off the “blacklist” as a result of joint efforts by the local government, the local Rural Producers’ Union, the Pará State Environmental Agency (SEMA-PA), The Nature Conservancy do Brasil (TNC), and Instituto do Homem e Meio Ambiente da Amazônia (IMAZON). As result of these efforts over 85% of the landholdings were included in the Rural Environmental Cadastre system (CAR).

16. Other measures applied in these municipalities include: (i) a requirement for landholders to re-register their properties in the National Cadastre of Rural Holdings (CNIR)⁵, aimed at preventing the widespread phenomenon of fraudulent land claims prior to deforestation; (ii) a directive to banks to refuse credit to rural businesses found to be breaking environmental laws; and, (iii) the publication of a “dirty list” of deforesters whose land will be subject to embargo with a ban on the commercialization of products originating from those areas. The municipalities on this list receive priority attention in the form of intensive monitoring of land use and forest cover.

Rural Environmental Cadastre (CAR)

17. The Rural Environmental Cadastre (CAR) has been introduced as an additional tool to monitor and control deforestation in private landholdings⁶. Registering private properties in the CAR is a first step towards compliance with the Brazilian Forest Code. Registration enables the localization and monitoring of Areas of Permanent Preservation (APP) – such as river banks and hilltops – and Legal Reserve (RL) (the portion of private land that under Brazilian laws cannot be deforested) as a prelude to conserving or recovering such areas.

18. The CAR is the responsibility of the Ministry of Environment (MMA) and the State Environmental Agencies (OEMAs).

⁵ Brazilian land tenure legislation stipulates the methodology to be used in defining the borders of landholdings. The precision of geodesic surveys of property boundaries required by INCRA is down to about 0.5m.

⁶ Public protected areas, urban areas and indigenous land cannot be registered in the CAR.

19. Federal Decree 7029 of 2009 established the Federal Program to Support the Environmental Regularization of Private Rural Holdings (the “*Mais Ambiente*” Program). CAR is defined in this Decree as an electronic geo-referencing system for identifying rural properties or occupied private landholdings, delimiting APPs⁷, RL⁸ and any remaining areas of natural vegetation on the properties and for control and monitoring purposes. The CAR does not apply to indigenous land or public land (e.g. national and state parks, biological reserves).

20. While registration of a rural property in the CAR is on the initiative of the landholder, Presidential Decree 7029 by 2009 nevertheless expressly requires registration to occur within three years, i.e. by 2013. On registering his property the landholder is required: (i) to declare the geo-referenced boundaries of the respective landholding, the location of remaining native vegetation cover, the proposed location of the RL set-aside area and the present location of APPs; and (ii) to give an undertaking to maintain the land in accordance with the Forest Code or to take appropriate action to ensure compliance with the Forest Code⁹. The landholder must also provide evidence of ownership or recognized occupation of the land. Where an inadequate RL or degradation of APPs is detected and recorded, the landholder must submit a Plan to Rehabilitate Degraded Areas (PRAD).

21. Registration of a landholding in the CAR does not imply authorization for any particular land use and does not constitute an environmental license for pursuing rural economic activities. Nor does it constitute proof of title to, or possession of, a particular parcel of land. CAR does not underpin land tenure regularization: this is a separate process requiring documentation to be scrutinized and approved by the licensed State public notary offices (*cartórios*). The geodesic survey of property boundaries required by the National Institute for Settlement and Land Reform (INCRA) for registration of a property in the National System of Rural Holdings (SNCR) is very precise (down to around 0.5m), whereas land tenure legislation requires a different specific methodology to be used for defining property limits. This question is outside the scope of the proposed project.

22. To register in the CAR, a landholder is required to sign the Terms of Adhesion and Commitment¹⁰, to the effect that his property, if it is in violation of the law, is considered (temporarily) to be in compliance and that applicable fines or criminal prosecution are meanwhile suspended¹¹.

⁷ The Brazilian Forest Code requires that rural landholders to retain the natural vegetation of part of their private rural holdings all land on steep slopes, along water courses (up to a certain distance from the margin) or in the vicinity of springs. These areas are APPs (Area of Permanent Preservation).

⁸ The private landholders must also set aside an area called a Legal Reserve (*Reserva Legal* – RL). The required size of the RL differs according to the biome. In the Amazon Biome, the Legal Reserve requires 80% of the private landholding to be retained in its natural state (except in areas indicated by State ecological economic zoning, where a limit of 50% applies).

⁹ Complying with the Forest Code may involve the replanting of cleared areas or steps to be taken to ‘compensate’ for the Legal Reserve (RL).

¹⁰ This is similar to the Commitment Adjustment Instrument (TAC) employed in Brazil by Federal and State attorneys. TAC, an innovative mechanism for out-of-court settlements of violations of the law, involves the perpetrator agreeing to review his conduct and to seek to redress his “environmental liabilities” by compensating for, or restoring, cleared areas, thus enabling him to obtain an environmental license immediately and avoid further prosecution in the courts.

¹¹ Presidential Decree 7029 (Art. 6) rules that an amnesty for “environmental liabilities” only applies to violations (i.e. deforestation) which were committed prior to 12/11/2009, one day before publication of the Decree. This

23. There are reasons why landholders are becoming interested in registering in CAR. The advantages to landholders and rural producers to register in CAR include:

- Registration in CAR is required to obtain an environmental license for rural economic activity on the land, and for other official permits and authorizations issued by the environmental authorities.
- Failure to register in CAR will eventually result in the application of the notifications and penalties for previous deforestation.
- CAR is one of the requisites for obtaining official rural credit. Resolution 3545 of 2008 by the National Monetary Council stipulates that the parties requesting official rural credit must present, inter alia, a license, certificate or other evidence of environmental regularity, or at least proof of receipt of the necessary documentation for issued by the State Environmental Agency (OEMA). This basically means that the applicant must possess proof of registration in the CAR. Banks are obliged to verify compliance with this procedure. Activities on embargoed land are not eligible for official rural credit.
- A property that is free of “environmental liabilities” tends to be worth more. The owner is also in a better position to secure good prices for the products grown or raised on this land, given the appetite of international and domestic markets for products sourced from environmentally-correct sources and the legal restrictions placed on products from illegally-cleared areas.
- Local governments have a strong interest in the registration of landholdings in the CAR if their municipality is currently on the list of those with the highest deforestation, since no further forest clearing is allowed in those municipalities. One of the conditions for being removed from the list is that at least 80% of the total area of holdings has to be registered in CAR.

24. A further advantage is that registration in CAR is cost-free to landholders.

The Nature Conservancy do Brasil and CAR

25. With the support of Brazilian and international funding, TNC do Brasil is working with the states of Pará and Mato Grosso to implement the Rural Environmental Cadastre (CAR) in 12 municipalities.

26. TNC do Brasil has developed an innovative approach to carrying out CAR-related activities, including mapping, geo-referencing and documentation of most or all holdings in a municipality (“systematic cadastre”, *varredura*). TNC do Brasil works directly with landowners, providing tools to assist them to comply with the Forest Code by: (i) registering their properties in the CAR system; (ii) planting trees on cleared lands; (iii) making more intensive use of productive areas, thus with less need to clear forest; and, (iv) developing ways to maximize the return on farming activities while at the same time retaining the forested portions of their properties.

27. In order to increase the CAR implementation, Ministry of Environment and TNC do Brasil signed a technical cooperation agreement to implement the CAR system across the country. Both

amnesty is contingent on the landholder signing the Terms of Adhesion and Commitment. This commits violators to redress “environmental liabilities” through compensating for, or restoring, cleared areas.

have also reached agreement with the governments of Pará and Mato Grosso to implement CAR in both states. Further information is presented in Annex 6.

RATIONALE FOR BANK INVOLVEMENT

28. The proposed Project and its objectives remain fully consistent with the World Bank Group Country Partnership Strategy (CPS) 2008-11 (Report # 42677-BR) discussed by the Executive Directors on May 1, 2008, and the Progress Report (Report # 53356-BR) discussed by the Executive Directors on April 20, 2010. The CPS contains the specific development outcome “Annual deforestation rate in the Amazon decreased from 1.4 million ha in 2005 to 0.7 million ha in 2011”. The CAR is one of the instruments to reduce forest clearing, as it facilitates monitoring and control of deforestation. Within the CPS, the Bank Group has developed an Amazon Partnership Framework, which has been widely acknowledged as sound by the Federal and State governments, by NGOs, by the scientific community, by the private sector and by bilateral partners. The Framework foresees working with states to widen the coverage of systems for environmental licensing of agricultural producers, for which CAR is a precondition.

29. The Resolution 3545 of the National Monetary Council was one of the prior acts recognized by the Bank for purposes of the Brazil First Programmatic Development Policy Loan of 2009 (Report No: 47215-BR).

30. On the basis of the Mato Grosso and Rondônia Land Management Projects, two National Environment Projects, and its participation in the PPG7 and especially the NRPP (TF 026653 and TF021958), the Bank has developed ample experience with environmental management in the Amazon and elsewhere in Brazil, which has been leading worldwide in the attempt to control forest clearing over vast tropical rain forest regions. The Bank is positioned to provide assistance due to its access to the lessons learned in these contexts, to its long-term commitment to the Amazon region, and to its wider environmental work in Brazil.

Pilot Program to Conserve the Brazilian Rain Forest

31. The Pilot Program to Conserve the Brazilian Rain Forest (PPG7) is a joint undertaking of the Brazilian Government, Brazil’s civil society and the international community. Launched in 1992, it aims to explore ways to conserve the tropical rainforests of the Brazilian Amazon and the Atlantic Forest with financial support from the governments of Germany, the Netherlands, Italy, France, Japan, Canada, the United Kingdom and the United States, and from the European Commission and the Brazilian Government. A total of US\$ 428 million has been made available by program participants to the PPG7.

32. The PPG7 is financed from the Rain Forest Trust Fund core funds (TF021945) and associated co-financing. The Bank, acting as Trustee, is responsible for holding the funds, assets and receipts.

33. The PPG7 is headed by the Brazilian Government, with its actions implemented by Federal Government agencies and through partnerships with states and municipal governments and civil society organizations. **A Joint Steering Committee (JSC), responsible for decision-making, comprises the Brazilian Coordinating Committee (BCC), the various donors and NGO representatives.**

34. PPG7 has been instrumental in strengthening the process of environmental management in the nine Amazon states through the Natural Resources Policy Project NRPP, 1995-2006 (TF026653 and TF026654), with particular emphasis on deforestation monitoring and control. Under the NRPP, some of the Amazon states have developed and implemented a rural activities environmental licensing system. Over time, it has become clear that for effective monitoring of forest cover, farming and ranching in the rain forest and for a licensing system to function, some form of cadastral data are required. Thus PPG7 gave rise to the development of the concept of CAR in the States of Mato Grosso, Pará and Rondônia, endorsed and supported by the federal government. More recently, PPG7 has helped to create the officially approved cartographic base at a scale of 1:100,000 for the entire Amazon.

35. Recognizing the link between effective land-use monitoring and control in the Amazon and a reliable environmental cadastre of rural holdings, **the Joint Steering Committee (JSC), on September 17, 2009, have requested and authorized MMA and the Bank to allocate part of the remaining undisbursed Rain Forest Trust Fund (RFT) as a grant of up to US\$ 3.5 million for the present proposed project, with TNC do Brasil as Grantee and Project Implementing Agency.** Bank involvement is thus appropriate, given that the Bank is the Trustee of the RFT.

HIGHER LEVEL OBJECTIVES TO WHICH THE PROJECT CONTRIBUTES

36. The CAR is a key instrument to improve Amazon regional planning for sustainable development and reduced deforestation. The proposed project would contribute to sustainable use of the natural resources of the Brazilian Amazon by landholders in accordance with environmental legislation.

PROJECT DESCRIPTION

LENDING INSTRUMENT

37. The project will be funded through a **grant of US\$ 3.5 million from the Rain Forest Trust Fund.** The Grantee will be the Brazilian subsidiary of the international conservation organization The Nature Conservancy (TNC do Brasil).

PROJECT DEVELOPMENT OBJECTIVE AND KEY INDICATORS

38. The development objective (PDO) has two related parts: First to secure the commitment of the majority of landholders in the project area to maintain or restore legally required forest cover; and, second, to evaluate a rural environmental cadastre (CAR) methodology to extract lessons for dissemination to other states and municipalities in the Amazon region.

39. The proposed PDO indicators are:

- OEMAs have issued CAR certificates for 90% of the mapped holdings in Pará target municipalities and at least 50% of such holdings in Mato Grosso target municipalities, after landholders have signed Terms of Adhesion and Commitment.
- Those landholders in Pará target municipalities who received CAR certificates through project during the first and second quarterlies are complying with the requirement to

complete a Plan to Rehabilitate Degraded Areas (PRAD) within six months of receiving the certificate.

- The CAR methodology has been evaluated and lessons learned have been extracted for dissemination to other states and municipalities through a variety of media.

40. The target groups of this project are primarily the landholders (of any size) and the municipal governments, but also the OEMAs of Mato Grosso and Pará, and the Ministry of Environment.

PROJECT AREA

41. The project will include a total of five municipalities in Mato Grosso and Pará. These two states together accounted for more than two-thirds of the deforestation in the Brazilian Amazon. The following criteria were used for selecting the target municipalities:

- municipalities belong to the Official List of Municipalities with the highest deforestation;
- municipalities that have developed initiatives to decrease illegal deforestation and could be taken off the list if they complied with the criterion of having at least 80% of the area of private land holdings covered by CAR;
- municipalities that have accessibility and logistical conditions that allow completion of the surveys within the project period;
- municipalities that present a reasonably strong interaction and mobilization of local actors; and,
- municipalities that are not financially supported by external funds or grants to carry out landholdings registration.

42. The selected municipalities are: Feliz Natal, Brasnorte, and Juina in Mato Grosso, and Santana do Araguaia and Marabá in Pará. Together, they cover an area of about 8.0 million ha and have a population of about 66,000 people. All of these are currently on the list of Amazon municipalities that contribute most to deforestation in 2009 (“blacklist”). Further information is presented in Annex 4.

43. This project will be a pilot, addressing deforestation control in the most critical areas of the Amazon region and enabling the scaling up and adaptation thereof for other parts of the region through application of lessons learned from its implementation.

PROJECT COMPONENTS

44. The CAR is both an electronic system (database) maintained by the states and the process of registering a holding in that system (electronically) based on geo-referenced data (digital map) of the holding. The registration of each holding must be done through intermediation of a responsible professional or firm accredited with the OEMA. The states of Pará and Mato Grosso possess an integrated CAR and Environmental Licensing and Monitoring (SIMLAM) system which can be accessed electronically by members of the public and “responsible professionals” authorized to work with and on behalf of landholders.

45. An innovative approach to carry out the mapping, geo-referencing and documentation of most or all holdings in a municipality (“systematic cadastre”, *varredura*) has been developed and tested by TNC do Brasil in selected municipalities of Mato Grosso State.

46. TNC do Brasil mounts a campaign to mobilize all landholders and cover all holdings, collecting and recording geo-referenced data of each holding (survey and mapping) “in one sweep”, including information on the location of proposed or actual legal reserves and areas of mandatory preservation. The simultaneous geo-referencing of holdings in a municipality has three advantages: (i) it reduces the cost of the surveys and mapping; (ii) it results in a much larger rate of registration than an approach that relies on the sporadic individual initiative of land holders; and, (iii) it ensures that the coordinates of adjacent holdings are consistent at their boundaries.

47. In the event of conflicting claims to private land TNC do Brasil will forward the geo-referenced information about the land in question to the respective OEMA. The disputed area will not be recorded in the CAR system¹². The same approach will be applied in case of overlaps of the claimed lands and protected areas or indigenous lands.

48. The processes to be followed in Pará and Mato Grosso, where CAR has been implemented for about one year now, are quite similar. There are, however, some differences that might result in different degrees of adhesion of landholders to the CAR. In Pará, the OEMA allows provisional registration of a holding, documenting the perimeter of the holding and the location of APPs, but without definitive indication of the location of the RL and of the areas for economic use. Such definition is required only in a definitive registration six months later. In Mato Grosso, registration in the CAR requires already a Plan to Rehabilitate Degraded Areas (PRAD), for which the landholder may have to incur a substantial cost. In Pará State, a PRAD is required only within six months after the definitive registration.

49. The detailed steps involved are described in Annex 4.

Components

50. Component 1: Information and Mobilization Campaign and Dissemination of Lessons Learned (Cost: US\$ 734,788). This component aims at: (i) fostering the implementation of the project through the involvement of the stakeholders benefited by the interventions in the target municipalities, which includes the landholders, their associations and the municipal governments; and (ii) documenting and disseminating lessons learned for application in other municipalities of the Brazilian Amazon.

51. Subcomponent Information and Mobilization Campaign. The campaign will seek to inform, raise awareness, mobilize and engage local governments, stakeholder representations and landholders in the selected municipalities as to what CAR is, its purpose, what it involves, how it will be done and what the advantages are for the landholders and local governments. It will follow a plan of communication prepared for each municipality. The subcomponent includes contracting, mobilization and training of the project teams for local management of the process.

¹² This project will not register in the CAR system any landholding which is the subject of dispute between private parties.

52. Subcomponent Learning and Dissemination of Lessons. This subcomponent would systematically evaluate the experiences made with the implementation of CAR in the five municipalities. This would include an updated and improved methodology for implementation, suitable for application to other places in the Amazon. The results would be disseminated through publications, Internet, workshops, and training activities.

53. Under the component, agreements and institutional arrangements will be sought with local partners to help create legitimacy for the project and secure the active support of local governments, especially through provision of logistical support by the municipalities.

54. Typical activities envisaged under this component are: (i) identification of relevant stakeholders and mapping audiences; (ii) definition of local media channels; (iii) designing and development of communication materials and tools, including leaflets, folders, radio spots, meetings, workshops, training; (iv) carrying out studies and analyses related to operation and methodologies for CAR implementation; (v) training to address basic steps of geo-reference landholdings; (vi) data collection and systematization vis-à-vis the CAR implementation steps; and, (vii) dissemination events.

55. Component 2: Mapping and Geo-referencing of Rural Holdings and inclusion in CAR databases (Cost: US\$ 2,415,212). This component aims at obtaining up-to-date environmental cadastral data containing information about owners (names, addresses, etc.) and their properties (surface, boundaries, forest cover, legal reserve, and permanent protected areas), and their insertion in official databases of the OEMAs.

56. Subcomponent Mapping and Geo-referencing of Rural Holdings. This subcomponent will focus on surveying, mapping and geo-referencing land use and rural holdings in each of the targeted municipalities. This subcomponent will include all activities necessary to collect geographic and other physical data of holdings as well as information about the identity of landholders. Municipal maps at a scale of 1:25,000 would be prepared presenting: (i) urban area; (ii) protected areas; (iii) indigenous lands; (iv) land use and vegetation cover; and, (v) a complete mosaic of all holdings.

57. Subcomponent CAR database. This subcomponent would include all activities necessary to: (i) include cadastral data in the States databases; (ii) get landholders to endorse such information and to get their agreement to register under CAR; (iii) get the actual registration by landholders, including signing the Terms of Adhesion and Commitment; and, (iv) get the Plan to Rehabilitate Degraded Areas (PRAD) prepared for the landholdings in Mato Grosso.

58. Typical activities envisage under this component are: (i) preparation of logistical support in municipalities and strengthening capacity of local governments; (ii) acquisition of satellite images; (iii) preparation of updated digital cartographic base; (iv) mapping of land use and vegetation cover and validation; (v) compilation and organization of existing information on rural holdings; (vi) field surveys and creation of geo-referenced database; (vii) inclusion of the cadastral database of the selected municipalities in the State's systems; and, (viii) providing financial support and technical assistance for preparing the compulsory PRAD in Mato Grosso. Detailed information is described in Annex 4.

59. Component 3: Project Management and Administration (Cost: US\$ 350,000). This component aims at ensuring adequate and continuous implementation, through: (i) technical

implementation, monitoring and reporting; (ii) appropriate financial management, procurement, audit; and, (iii) project financial and technical closing activities.

LESSONS LEARNED AND REFLECTED IN THE PROJECT DESIGN

60. The key lesson learned from the Natural Resources Policy Project (NRPP) (TF026653 and TF026654), funded by PPG7, is that the effective monitoring of forest cover in landholdings and enforcement of the Forest Code is possible only with a clear identification of the owner or occupant of the land, of the exact, geo-referenced boundaries of the holding, the actual vegetation cover, and the delineation of RL and APPs. Such information could come from a land tenure cadastre, but for technical, legal and institutional reasons, the process of registering rural land holdings through a tenure cadastre process has been slow and cumbersome. The CAR is a more suitable and agile instrument of monitoring and control, based on the experiences with the rural environmental licensing system, SLAPR. Waiting for the land tenure cadastre to get implemented would unnecessarily hold up monitoring and control of compliance with the Forest Code.

ALTERNATIVES CONSIDERED AND REASONS FOR REJECTION

61. There are two ways to bring about registration of rural landholders and their holdings – by stimulating individuals to initiate the process themselves, or by a systematic assisted survey, mapping and registration process (“sweep”). For reasons already explained above, the second is much more effective (higher rate of adhesion) and efficient (lesser cost per register). It also allows the elimination of (to a large degree) of inconsistencies and overlaps of boundary data between adjacent holdings.

IMPLEMENTATION

INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

62. The project would be implemented by the Grantee, TNC do Brasil - a Brazilian NGO linked to the international nature conservation organization TNC.

63. In March 2010, TNC do Brasil signed a Technical Cooperation Agreement with the Ministry of Environment (MMA), the State of Mato Grosso and the State of Pará, for implementation of CAR in five municipalities within these two States. MMA would provide the cadastre framework, each state is charged with implementation. TNC do Brasil would carry out the steps that involve field work and interaction with the landholders, while the OEMAs would receive, record, and approve the registrations (in bulk) and insert the pertinent data into their databases.

64. Under this agreement the MMA, *inter alia*, will articulate the cooperation among the parties and monitor and oversee the progress of work and production of outputs. The agreement obligates the OEMAs, *inter alia*, to: (i) make available existing cartographic databases, satellite images and CAR registries; (ii) provide technical personnel to accompany the field work; (iii) approve the terms of reference for elaboration of the cartographic base and of land use and vegetation maps; (iv) create user interfaces to the SIMLAM databases; (v) validate cartographic bases, maps and geo-referenced data of rural holding, in bulk, presented by engineers authorized through the ART; (vi) and, seek regularization of RL, APP and Terms of Adjustment of Conduct

with violators, rather than fining or prosecuting them. (See: Annex 6: Implementation Arrangements).

65. The Mato Grosso and Pará State Governments will also sign Municipal Cooperation Agreements with the respective participating municipalities and TNC do Brasil. Such agreements will spell out the role and actions expected from municipal governments, and TNC do Brasil, which are essentially the same as in the above-mentioned Technical Cooperation Agreement.

66. The project would conclude on June 30, 2011.

MONITORING AND EVALUATION OF OUTCOMES/RESULTS

67. The Monitoring and Evaluation (M&E) system summarized in Annex 3 has been designed to include MMA, OEMAs, and targeted municipalities. The M&E system will be under the responsibility and implementation of the TNC do Brasil, and will be implemented by: (i) effective participation of MMA, OEMAs and targeted municipalities to secure transparency and dynamism; and, (ii) mechanisms to ensure institutional commitment and on-going information flow.

68. The M&E system will be used by TNC do Brasil for monitoring outputs and outcomes, including relationship with beneficiaries (landholders) and management. A quarterly report should be presented. The Bank will supervise project implementation through two supervision missions and recommend adjustments as necessary.

SUSTAINABILITY

69. The institutional sustainability of this project will be ensured by employing the CAR in Pará and Mato Grosso as an additional and improved tool for monitoring and controlling deforestation. Municipal authorities and local community associations will contribute to social sustainability through their participation in the project.

70. All outputs will benefit MMA, states and municipal governments for long-term decision making.

71. In terms of replicability and continuity, the project will: (i) create the needed awareness among local landholders that will support the CAR system; and (ii) insert information gathered through the registry process into the states systems (Mato Grosso and Pará). This project will be a pilot to be scaled up and adapted for other parts of the region using lessons learned from its implementation.

CRITICAL RISKS AND POSSIBLE CONTROVERSIAL ASPECTS

72. The main risks potentially affecting project implementation are:

<i>Risk factors</i>	<i>Description of risk</i>	<i>Mitigation measures</i>	<i>Rating of residual risk</i>
Governance, Policies and Institutions			
Sector-Specific	Economic activities such as	The project-supported legal	M

Risks	soybean and other grain production, logging and cattle-raising expansion pose an increasing pressure over the forest borders. Market incentives, such as the currently witnessed high demand for agricultural commodities in areas with cheap or free land, with poorly defined land tenure – conditions found from the southern to the eastern borders of the Amazon, in a region known as “Arc of Deforestation” – can greatly increase deforestation threats.	definition of portions of private land set aside as Areas of Permanent Preservation (APP) and Legal Reserves (RL) eliminates an incentive for illegal deforestation.	
Operation-specific risks			
Technical Design	The project design requires the collaboration of all stakeholders, especially local governments and landholders in the municipalities targeted by the project.	The selection criteria applied to municipalities would reduce this risk. Selected municipalities have a higher share of landholders with likely interest in the environmental cadastre and subsequent licensing process.	M
	Adherence of the majority of landholders to the process in the selected municipalities and cooperation of local governments may fall short of expectations.	A communication campaign to raise the awareness of local government personnel, landholders and landholder associations of the advantages of inclusion in the CAR.	M
Institutional Risk	2010 brings elections for State governments throughout Brazil (October). State Environmental Agencies may not be sufficiently functional for part of 2010 and early 2011 to attend effectively to the cadastre process.	The project will be undertaken by an NGO. The active participation of the latter is required more towards the end of the project period (second quarter of 2011), by when the new State administrations should have geared up.	L
Implementation Capacity and Sustainability	The implementing agency (TNC do Brasil) might not complete the task within the designated period.	TNC do Brasil has conducted the rural environmental cadastre process successfully in several municipalities in Mato Grosso state, and has developed a reasonable know-how in this regard. A detailed methodology for the task has been designed.	L
Financial	The NGO that would be the Recipient of the grant and the executing agency (TNC do Brasil) is unfamiliar with Bank fiduciary rules and procedures.	Project preparation included the detailed assessment of financial management practices in TNC do Brasil. Project FM supervision should be done twice during project	M

		considering the short duration of project.	
Procurement	TNC is an institution new to the Bank and needs to develop the expertise to follow Bank's procurement and selection of consultants' guidelines.	Project preparation included a detailed assessment of procurement management practices in TNC do Brasil. An annual supervision mission to visit the field to carry out post review of procurement actions should be done.	L
Social and Environmental Safeguards	The project would record facts and data relevant to the registration of landholdings in the Amazon region and prepare the ground for subsequent licensing of rural economic activities. It is unlikely that registration of landholdings in the environmental cadastre could generate indirect environmental or social impacts that might trigger certain safeguard policies of the Bank.	TNC do Brasil has prepared an environmental and social assessment, and guidelines that will be implemented during the project period. No indirect Environmental or Social impacts are expected.	L
	Despite the project being unconnected with private land tenure conflict resolution, some possibility exists that the project (and, by association the Bank) could be drawn into controversy in the event of conflicts arising as the result of CAR activities.	The experience gained in TNC do Brasil's previous work on CAR indicates that close consultation and cooperation with landholders is likely to satisfy their requirements and minimize potential conflict. The project postulates a broad communication strategy to be developed by TNC do Brasil. This will involve holding regular seminars to discuss and explain CAR rules and their implications. The project will not register in the CAR system any landholding which is a source of dispute between private parties. In the event of conflicting land claims, TNC do Brasil will submit the geo-referenced information about the land in question to the OEMA. A training workshop on conflict resolution and CAR/ Land Tenure Regularization studies will receive direct technical assistance under the PPG7 Program.	M

Overall Risk (including Reputational Risks)	
Overall Risk	The overall level of risk for the financed activities is expected to be moderate .
Memo items: ^a Rating of risks on a four-point scale – High, Substantial, Moderate, Low – according to the likelihood of occurrence and magnitude of potential adverse impact.	

GRANT CONDITIONS AND COVENANTS

73. The proposed project does not require any exceptions from Bank policies. Covenants applicable to project implementation:

(a) The TNC do Brasil shall carry out the Project in accordance with an operational manual dated August 27 2010, satisfactory to the World Bank (“Operational Manual”), said manual to include, inter alia: (i) the detailed policies, procedures and approaches for the carrying out, monitoring and evaluation of the Project (including its indicators) and the procurement and financial requirements thereof, including the detailed procedures for coordination and collaboration among the municipalities and other cooperating institutions; (ii) the organizational structure for Project implementation; (iii) a communication strategy for the Project; and (iv) an Environmental and Social Framework (“ESMF”) dated July 29, 2010 to guide potential environmental and social issues (including the approach related to the exclusion if indigenous peoples areas from the Project) that could arise during project implementation, including appropriate preventive actions and mitigation measures.

(b) The TNC do Brasil shall maintain, at all times during Project implementation a project implementation unit with composition, numbers and functions satisfactory to the World Bank.

(c) For the purposes of carrying out the Project, the TNC do Brasil shall enter, and thereafter maintain cooperation agreements with each municipality comprising the Project Area (“Municipal Cooperation Agreement”), and agreements with each State in the Project Area (Mato Grosso or Pará, as the case may be) and the Member Country’s Ministry of the Environment (“State Cooperation Agreement”), all in form and substance satisfactory to the Bank, as such agreements may be individually or collectively called “Project Cooperation Agreement or Agreements”. These cooperation agreements are condition of grant effectiveness.

(d) (i) The TNC do Brasil shall exercise its rights and carry out its obligations under each Project Cooperation Agreement in such manner as to protect the interests of the Brazil, TNC do Brasil and the World Bank and to accomplish the purposes and objectives of the Grant; and (ii) except as the Bank may otherwise agree, the TNC do Brasil shall not amend, assign, waive or fail to enforce each of the Cooperation Agreements or any provision thereof. The TNC do Brasil shall promptly inform the Bank of any condition which interferes or threatens to interfere with the performance of the TNC do Brasil respective obligations under the Grant Agreement.

APPRAISAL SUMMARY

ECONOMIC AND FINANCIAL ANALYSES

74. Estimating the real value of biodiversity conservation in monetary terms for the determined project activities is difficult, especially when done at municipal scale. It is therefore not possible

to determine in advance and estimated economic rate of return for the project as a whole. The project approach focuses on sustainable use of the natural resources in accordance with environmental legislation.

75. The project has been designed specifically to maximize sustainability and efficiency, and to this end, it funds investments in activities that seek to have an optimal combination of immediate and long-term benefits.

TECHNICAL

76. The mapping of landholdings will involve state-of-the-art cartographic, remote-sensing and surveying techniques. The equipment and technology involved in the proposed activities have a proven efficiency record.

77. The fact that adjacent holdings will be surveyed and mapped in one “sweep” adds to the consistency and accuracy of the coordinates of the resulting polygons describing the holdings.

78. The Rural Environmental Cadastre (CAR) is an important tool for monitoring and controlling deforestation in private rural holdings. It is an electronic-based system designed to geo-reference private rural holdings, delimiting all land occupying steep slopes, along watercourses (up to a certain distance from the margin) or in the vicinity of springs (Area of Permanent Preservation - APP), of Legal Reserves (RL)¹³, and remaining natural vegetation within each of private holding. Public protected areas, urban areas and indigenous land cannot be registered in the CAR. Under current law, CAR does not provide evidence to support claims over disputed landholdings or to establish public protected areas.

79. Although the project will not employ the INCRA legally-defined requirements for precise measurement of land for tenure purposes, it will send the resultant mapping and other data on landholdings to the State Land Tenure Institutions and INCRA.

80. The project will adopt a mechanism to ensure that MMA, the OEMAs, INCRA and the Mato Grosso and Pará State Land Institutes are kept fully informed of project activities.

81. Furthermore, the project will contribute to and complement the studies being undertaken by PPG7 and the MMA regarding CAR nationwide strategy and its deployment throughout the Amazon region. Two CAR strategy workshops in 2009 provided useful opportunities for discussing CAR implementation in the Amazon.

82. To optimize CAR deployment the PPG7 will provide direct technical assistance. This will include: (i) a conflict resolution training workshop (ii) CAR and Land Tenure Regularization studies and analyses; (iii) compilation and preparation of communication materials; and, (iv) technical workshops for exchanging information.

FIDUCIARY

83. The required fiduciary and financial assessments have been completed satisfactorily. The project's financial management arrangements are based on the Financial Management

¹³ The required size of the RL varies according to the biome. In the Amazon Biome, the Legal Reserve requires 80% of the private landholding to be maintained in its natural state (except in areas indicated by state ecological economic zoning, where a limit of 50% applies).

Assessment Review (FMA) undertaken at The Nature Conservancy do Brasil (TNC do Brasil) in February 2010. Based on the Bank's Financial Management (FM) guidelines¹⁴ the main purpose of the assessment was to confirm that the project's implementing agency (TNC do Brasil) has adequate FM arrangements for the project.

84. Based on the FM assessment performed at TNC do Brasil in February 2010, the project financial management arrangements are considered adequate. The financial management risk associated with the project has been assessed as moderate.

85. An assessment of TNC's capacity to implement procurement actions for the project was carried out on February 04, 2010. The assessment reviewed the organizational structure for implementing the project and their procurement practices. It also analyzed the Procurement Department's capacity to handle procurement in accordance with Banks Guidelines. The amount of funds to be spent by TNC, although in a short period of time, is considered small when compared to their current overall budget.

86. The key procurement issue for implementation of the project under TNC is limited to the fact that they have never dealt with Bank's Guidelines. A mitigating factor that lowers the risk is the fact that TNC is an international NGO dealing with sources of funds from many donors, complying with a variety of donor's requirements. A short procurement learning curve is expected and TNC staff has already attended training on Bank's procurement guidelines in May 2010. The overall project risk for procurement is LOW.

SOCIAL

87. The project will work directly with landholders, landholder associations and municipal and state governments. Benefits will accrue to all rural landholders, directly or indirectly, from the environmental regularization promoted by the project. Key stakeholders associated with this project have been involved in project preparation.

88. There are no issues of large vs. small holdings as the project would seek to cover all holdings in the "sweep". In the process of rural environmental regularization, the rights of current occupiers of landholdings must be respected provided they are not in violation of legal provisions. Undisputed occupation is therefore a basic requirement for environmental regularization. Project preparation involves discussions with representatives of the MMA, the National Institute for Settlement and Land Reform (INCRA), individual State Environmental Agencies (OEMA), the National Institute for the Environment and Renewable Resources (IBAMA), the National Indian Foundation (FUNAI), the Institute for Land of Mato Grosso State (ITERMAT), the *Programa Terra Legal*, the Institute for Land of Pará State (ITERPA) and the Agriculture Agency of Pará State (ADEPARÁ). Local landholders are expected to be involved at various stages of project deployment, authorizing survey teams' access to their land, registering in CAR registration and monitoring/evaluating field activities.

¹⁴ Financial Management Practices in World Bank Financed Investments Operations as of November 3, 2005; Implementing Output- Based Disbursement Mechanisms For Investment Operations of April 2, 2007.

ENVIRONMENT

89. The project will focus on rural environmental regularization and would not have any negative environmental impacts. It will support State Governments in their efforts to strengthen environmental management tools aimed at sustainable use of natural resources and reduce illegal deforestation.

90. The project will also support the Plan to Rehabilitate Degraded Areas (PRAD) to be prepared for landholdings in Mato Grosso. This plan, required by environmental legislation, aims to make private landholders responsible for restoring environmental damage caused by illegal deforestation etc.

SAFEGUARD POLICIES

91. An environmental and social assessment is being prepared for the proposed project. The following safeguard policies are possibly relevant:

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	[x]	[]
Natural Habitats (OP/BP 4.04)	[x]	[]
Forests (OP/BP 4.36)	[x]	[]
Pest Management (OP 4.09)	[]	[x]
Physical Cultural Resources (OP/BP 4.11)	[]	[x]
Indigenous Peoples (OP/BP 4.10)	[]	[x]
Involuntary Resettlement (OP/BP 4.12)	[]	[x]
Safety of Dams (OP/BP 4.37)	[]	[x]
Projects on International Waterways (OP/BP 7.50)	[]	[x]
Projects in Disputed Areas (OP/BP 7.60)*	[]	[x]

92. **Environmental Assessment** (OP/BP 4.01). The proposed project is a conservation project, and it is rated as Category B. The project is expected to have a positive impact on the environment since it seeks to promote rural environmental regularization of landholdings i.e. to ensure that private landholdings conform to environmental and forest legislation by reducing the “environmental liabilities” thereon.

93. TNC do Brasil has prepared an Environmental and Social Assessment (ESA) that have a bearing on project implementation activities. An Environmental and Social Management Framework (ESMF) will serve as a guide for addressing issues arising during project implementation. It is expected that potentially adverse environmental or social impacts will be minor or non-existent, since they will be avoided or minimized with appropriate preventive and mitigation measures.

94. As a preventive measure, TNC do Brasil’s approach includes a wide-ranging outreach communication strategy to mobilize all landholders, landholder associations and local governments in the targeted municipalities. The communication campaign will mobilize land

* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties’ claims on the disputed areas.

holders, their associations and local governments and would emphasize the benefits from inclusion in the cadastre, both for the individual land holder and for the municipality.

95. Compliance by landholders with these requirements is at the heart of the efforts by the Federal and State Environmental Agencies to monitor and control deforestation and to secure CAR registration of APP and RL in private holdings and is the main issue of the proposed project, registering APP and RL by each landholding in the CAR system. Public land cannot be registered in the CAR.

96. TNC do Brasil's previous experience shows that close consultation and cooperation with landholders minimizes potential conflicts and helps to satisfy their requirements. The project will follow a plan of communication to be prepared for each municipality.

97. The ESA and ESMF report has been disseminated in Brazil on the TNC do Brasil website. This report contains a detailed description of the environmental impacts of project activities and identifies preventive/corrective measures. The ESA has been also sent to the representatives of the MMA, OEMAs, State Land Tenure Institutions, INCRA, municipal governments and non-governmental organizations who have been consulted at the project design stage. The ESA and ESMF report was received by the Bank on July 15, 2010. It was disclosure in the country on July 29, 2010, and sent to the Infoshop on August 3, 2010.

98. **Stakeholder consultations.** The consultation process consists of a two-stage process. The first phase involved preparatory meetings from March to May 2010 in Brasilia, Cuiabá (Mato Grosso) and Belém (Pará) (the latter two containing the potential target municipalities) to discuss the concept of the proposed project.

99. During the first stage of the consultation process, the scope, objectives and timing of the project were discussed with representatives of the MMA, INCRA and OEMAs in Brasilia, followed by direct meetings with municipal government representatives in Cuiabá. The proposed approach and activities have received widespread support from State and local governments and INCRA. It was agreed that the project will include a mechanism to keep MMA, OEMAs and INCRA fully informed of project implementation activities.

100. The second phase of the consultation process aimed at discussing specific project activities and targeted municipalities, plus Belém, Cuiabá and Brasilia. This phase was more focused on rural civil society organizations active in the productive sector, as well as FUNAI and indigenous organizations. Meetings were held in the target municipalities in June and July 2010 to discuss the possibility of environmental and social issues arising during implementation. Similar consultations were held with land regularization agencies.

101. **Natural Habitats (OP/BP 4.04).** Activities under project components should lead to positive impacts on natural habitats, such as their conservation and recovery. Given that OP 4.04 is triggered, all planning activities must follow World Bank policies, identifying monitoring and management activities to prevent or mitigate any possible negative impacts. The rural environmental cadastre procedures will comply with: (i) the Brazilian Forest Code; (ii) Brazilian legislation on protected areas (SNUC - Law 9985 of 2000, Decree 4340 of 2002 and Decree 5758 of 2006; (iii) national, State, and local laws on natural habitats; and (iv) the principle of refusing to register rural landholdings that impinge on officially-demarcated Protected Areas.

102. The Brazilian Forest Code requires landholders to retain natural vegetation on steep slopes, along watercourses (up to a given distance from the riverbank) or in the vicinity of springs.

These areas are APPs (Area of Permanent Preservation). In addition, the holdings must also set aside an area called the Legal Reserve (Reserva Legal – RL)(See Footnote 13 above). The required size of the RL differs according to the biome. In the Amazon Biome, the Legal Reserve requires that 80% of the private land holding should be maintained with native vegetation (in the Amazon the area of the APP is included in the calculation).

103. Compliance by landholders with these requirements is at the heart of the efforts by the Federal and State Environmental Agencies to monitor and control deforestation and to secure CAR registration of APP and RL in private holdings. This project will assist rehabilitation of degraded natural habitats in Legal Reserves (LR) and Areas of Permanent Protection (APP).

104. **Involuntary Resettlement (OP/BP 4.12).** Involuntary population displacement and/or negative impacts on livelihoods are not envisaged. In accordance with the Bank’s OP 4.12 the project is exempt from the Involuntary Resettlement policy because: (i) no person would be displaced or relocated from his/her landholding; (ii) the Rural Environmental Cadastre (CAR) focuses on regulating natural resources management on a national and State level (Presidential Decree 7029 of 2009); (iii) the project would not restrict the management of natural resources; and, (iv) the project will not register in the CAR system any land which is the subject of dispute between private parties.

105. This project will not affect the rights or welfare of landholders nor their dependence on, or interaction with, the forest. The enforcement of restrictions will not affect access to natural resources in protected areas.

106. **Indigenous Peoples (OP/BP 4.10).** The locations selected for project interventions do not include any areas traditionally occupied or used by indigenous communities or “quilombolas” (communities of former slaves), as defined under the Federal Constitution, the Indian Statute and other national legal and administrative provisions, regardless of whether such areas have been formally demarcated or not.

107. The Rural Environmental Cadastre (CAR) is a tool for monitoring and controlling deforestation in private landholdings. The CAR procedures do not apply to indigenous or public lands. No holding will be registered in CAR if it is found to overlap with land claimed by indigenous peoples, even in cases where such land is not yet declared or registered as indigenous land. No negative impacts are thus foreseen on indigenous peoples or other ethnic groups.

108. **Forests (OP/BP 4.36).** This project will contribute to the conservation, restoration and monitoring of the Amazon forest. It is expected to have a positive impact by securing the retention and maintenance of natural vegetation in parts of private rural holdings (all land on steep slopes, along water courses (up to a given distance from the margin) or in the vicinity of springs. These areas are of Areas Permanent Preservation (APPs). The project will also contribute to conserving and/or restoring the Legal Reserve (RL) in the private holdings.

109. The registration of landholdings in the CAR applies only to landholders who have signed the Terms of Adhesion and Commitment to environmental regularization. The Terms of Adhesion and Commitment involve violators formally agreeing to adjust their conduct and remove “environmental liabilities” through compensating for, or restoring, cleared areas by planting native species. In cases where landholder fails to fully comply with environmental regularization, State laws in Mato Grosso (Law 343 of 2008 and Decree 2238 of 2009) require a

Plan to Rehabilitate Degraded Areas (PRAD) to have been already prepared pending registration in the CAR. This PRAD will cover the planting of native species in the illegally-cleared areas.

110. A six-month provisional registration is accepted in Pará, during which period the PRAD must be submitted to the OEMA. While the project will provide financial support and technical assistance for the preparation of the PRADs in Mato Grosso, the landholder will be responsible for implementation after project conclusion.

POLICY EXCEPTIONS AND READINESS

111. The proposed project does not require any exceptions from Bank Policies. The following regional requirements for readiness of implementation were: Policies and meets the following regional requirements for readiness of implementation: (i) fiduciary (financial management and procurement) arrangements in place; (ii) project staff mobilized; (iii) disclosure requirements met; (iv) environmental and social assessment arrangements completed; and, (vi) M&E capacity in place.

Annex 1: Country and Sector Background

Brazil: Rural Environmental Cadastre Technical Assistance Project

The Brazilian Amazon

1. The Amazon in Brazil contains nine states covering over 4.1 million km². With a population of about 23 million (13% of Brazil's population), the region's share of GDP is only 7%. Low GDP per capita reflects the aggregate low income of the rural population (which accounts for 45% of GDP) and an agriculture and forestry sector which is less productive than elsewhere in Brazil. Manufacturing is somewhat more developed (25% of GDP, on a par with industry's GDP share nationally) but this is concentrated in relatively few cities in the region. 45% of the population (the majority in rural areas) exists below the poverty line. The Human Development Index (HDI) for states in the Amazon region is 10-15% below the average for Brazil as a whole, with the notable exception of Amazonas and Mato Grosso states. The main indicator which reduces the HDI is income, followed by low levels of education and other social welfare indicators in rural areas.

2. Over 1975-2005, the Amazon region's GDP grew at more than double the national rate (7.2% vs. 3.3%) and export growth was even higher. Most of the growth was in urban areas, but export growth has been mainly a result of expanded use of natural resource uses (forest conversion to pasture for beef exports, and mining). In large part, the poor income growth for the majority of the population in rural areas has been a lack of public policies focused on productivity growth. Historically, the model has been one of extensive land conversion promoted by the building of federal roads, encouragement of migration, organized (public and private) settlements, land concessions (and tolerance of land grabbing), tax incentives and institutional credit. These policies - some of which have since been modified or halted - helped to promote the clearing of almost one fifth of the Amazon rain forest, primarily for livestock and to a much lesser degree for crops, and the growth of new small and medium-sized towns along the agricultural frontier.

3. Between 1989, when systematic recording and mapping of deforestation began (through the Program to Calculate the Deforestation of the Brazilian Amazon - PRODES system of the National Institute for Space Research), and 2008 the annual rate of deforestation has averaged about 17,500 km². Deforestation and forest burning still is the largest source of greenhouse gas emissions of Brazil, accounting for about 58% of Brazil's total emissions. Nearly 18% (713,000 km², or 71 million hectares) of the original forest cover had been cleared by 2008. Most of this deforestation has occurred in the "Arc of Deforestation", which includes the southern parts of the states of Maranhão, Pará, and Amazonas, northern Mato Grosso, Rondônia, and southeast Acre. Just three states (Mato Grosso, Pará, and Rondônia) have been responsible for more than 86% of the total deforestation measured from 2000 to 2008. Deforestation has declined substantially between 2004 and 2008, from 27,700 to 12,900 km² per year.

Forest Policies to Reduce Deforestation

4. Since the early 1990s, **Brazil has been formulating and implementing increasingly effective policies to control and reduce deforestation in the Amazon.** The Pilot Program to

Conserve the Brazilian Rain Forest (PPG7), jointly funded since 1992 by the G-7 member countries, plus the Netherlands and the European Union, has helped to prepare the ground for better targeted policies and measures, increasing awareness in Brazil of the need for forest conservation, experimenting with new forms of sustainable use of forest resources, helping to protect indigenous lands and strengthening state environmental agencies throughout the Amazon region.

5. In 2003, the Federal Government created the Permanent Inter-Ministerial Working Group for Reducing Deforestation Indices in the Legal Amazon. The work of the Group resulted in the adoption of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon which has since been under implementation.

6. **Brazil possesses a strong framework of environmental legislation.** The 1988 Constitution made environmental management a shared responsibility of the three levels of government (Federal, State and Municipal), endowing the public sector with the responsibility for preserving and managing vital ecosystems and species and for subjecting environmentally-detrimental activities to criminal and administrative sanctions. Environmental assessment reports are also required under the Constitution for works or activities with major degrading impacts. The Constitution also declares the Amazon as a national heritage, requiring that it be preserved and not used to the detriment of the environment.

7. The relevant piece of legislation relevant to use and conservation of forests is the Forest Code of 1965, which has last been changed in 1996. It requires that landholders maintain the natural vegetation on part of their land, the so called Legal Reserve (*Reserva Legal* – RL). In the Amazon Biome, the Legal Reserve requires that 80% of the private land should be maintained with native vegetation (except in areas where de state ecological economic zoning indicate 50%)¹⁵ which must be preserved in their natural state. Compliance by landholders with these requirements is at the heart of monitoring and control of forest cover by federal and State Environmental Agencies. Thus, it should be noted that deforestation (forest clearing) is not all illegal; it can be authorized on up to 20% of a holding, but not on land on steeper slopes, along water courses, or in the vicinity of springs (*Áreas de Preservação Permanente* - APPs).

8. Most landholdings in the Amazon fail to comply both with the requirement to retain 80% of the land under the original forest cover and with the obligation to preserve vegetation in APPs. It is estimated that 85% of the total deforestation detected in Mato Grosso from August 2004 to July 2008 could be classified as illegal. This information has been widely disseminated to authorities and through the media to the general public in an effort to strengthen law enforcement against illegal deforestation. Enforcement of the Forest Code aimed at protecting private and public forest reserves has proved to be the weakest link in the chain.

9. The National Environment Policy Law (Law 6938 of 1981) introduces, *inter alia*, the licensing of effectively or potentially polluting activities as one of the policy instruments. Later regulations expressly included agriculture and livestock operations, as well as the use of natural (i.e. forest) resources.

10. The Constitution makes State environmental bodies jointly responsible for applying the environmental laws. Their functioning, however, depends largely on the political will of each state government. Generally speaking, the federal government administers the public forests and

¹⁵ The percentage is 20% in the rest of Brazil, and 35% in Cerrado biome (savanna) in the so called Legal Amazon.

is responsible for controlling timber exploitation in those areas. Local governments are responsible for controlling deforestation and timber exploitation in private lands.

11. The State Environmental Agencies (*Orgãos Estaduais de Meio Ambiente – OEMAs*), through competency transfer agreements with IBAMA, administer land-use licensing, with general responsibility for overseeing rural activities in private landholdings and projects with potential environmental impacts (see Table 1).

Table 1. Division of competencies among the three government levels in Brazil.

<i>Government Level</i>	<i>Competencies</i>	<i>Body</i>
Federal	•Concessions in National Forests.	Forest Service
	•Delimitation and administration of federal protected areas.	Instituto Chico Mendes de Conservação da Biodiversidade - ICMBio
	•Licenses for activities with national or multi-states impact. •Enforcement of environmental law • Monitoring of forest deforestation.	National Institute for the Environment - IBAMA
	•Delimitation and protection of indigenous land.	National Indigenous Foundation - FUNAI
State	•Delimitation and administration of state protected areas. •Rural Environmental Registry. •Licenses for land use and forest management plans on private lands. •Authorization for sawmill operations. •Licenses for activities with state impact. •Enforcement of environment law. •Control of deforestation on private lands.	State Environmental Agencies - OEMAS
Municipal	•Delimitation and administration of municipal-protected areas. •Licenses for activities with local impact or delegated by other government levels.	Unspecified (generally municipal environment secretariats).

12. Registration of rural holdings and environmental licensing of activities in rural holdings were first applied by Mato Grosso in the late 1990s in the context of the PPG7 Natural Resources Policy Subprogram. This state’s System of Environmental Licensing of Rural Properties (SLAPR) includes the identification of the holdings and their owners, property boundaries, the RL and APPs, as well as the licensing of agricultural or livestock activities, but only in cases where Forest Code requirements have been complied with. In the event of “environmental liabilities” (i.e. Forest Code violations) these must first be remedied before a license can be issued.

13. Presidential Decree 6321 of December 2007 requires the publication by the Ministry of Environment of an annual list of Amazon municipalities that contribute most to deforestation. This list must contain details of: (i) total area cleared; (ii) the area cleared over the last three years; and, (iii) any increase in the rate of deforestation which has occurred in three out of the

previous five years. The first list, published in February 2008, contained 36 municipalities (43 in March 2009). These municipalities are together responsible for around 55% of all deforestation in the Brazilian Amazon.

14. Municipalities can be removed from the list providing they fulfill three conditions: (i) 80% of holdings are registered under the Rural Environmental Cadastre (CAR); (ii) if deforestation in 2009 was under 40 km²; and (iii) if mean deforestation in 2008 and 2009 was less than 40% of what it was in 2004-2007. Paragominas municipality was removed from the list in March 2010, having fulfilled the required criteria as the result of joint efforts by the local government, the Paragominas Rural Producers' Association, the Pará Environmental Agency (SEMA-PA), TNC do Brasil and *Instituto do Homem e Meio Ambiente da Amazônia* (IMAZON). As result of its efforts over 85% of the landholdings were included in Rural Environmental Cadastre system (CAR).

15. Other measures applied in these municipalities include: (i) a requirement for landholders in these municipalities to re-register their property in the National Cadastre of Rural Holdings (CNIR)¹⁶, aimed at addressing the widespread phenomenon of fraudulent land claims to facilitate deforestation; (ii) a directive to banks to cut off credit to rural businesses found to be breaking environmental laws; and, (iii) the publication of a “dirty list” of deforesters whose land will be subject to embargo with a ban on the commercialization of products originating from those areas. The municipalities on the list get priority attention in terms of intensive monitoring of land use and forest cover.

Rural Environmental Cadastre (CAR)

16. The Rural Environmental Cadastre (CAR) has been introduced as an additional tool for monitoring and controlling forest deforestation in private landholdings. CAR registration is a first step towards compliance with the Brazilian Forest Code.

17. In order to monitor land-use effectively and make owners or squatters responsible for legal land use, government agencies need reliable, officially-sanctioned information on the boundaries of each holding, the location of APPs, the internal allocation of land to RL and the identity and address of the landholder. To obtain and maintain such information, Brazil has the Rural Environmental Cadastre (CAR). The CAR is the responsibility of the Ministry of Environment (MMA) and the State Environmental Agencies (OEMAs).

18. Cadastral systems are not ends in themselves. Environmental rural cadastral systems serve multiple purposes and must meet the requirements of modern Geographic Information Systems (GIS) and a modern information technology environment. The purpose of the CAR system is to enhance managing and controlling land use with a focus on sustainable use of natural resources and reduction of illegal forest clearing. CAR promotes “rural environmental regularization” of holdings by landholders, bringing holdings into conformity with environmental and forest law by reducing what the “environmental liabilities” related to their holdings.

19. CAR was first defined by States, particularly Mato Grosso (Law 343 of 2008 and Decree 2238 of 2009) and Pará (Decree 1848 of August 2009). These were superseded by Presidential

¹⁶ The land tenure legislation is detailed identifying the methodology to be used in defining the borders of land holdings. The precision of geodesic surveys of property boundaries required by INCRA is about 0.5 meter.

Decree 7029 of December 2009 which created the Federal Program to Support the Environmental Regularization of Rural Holdings, known as the “*Mais Ambiente*” Program.

20. This Decree defines CAR as an “electronic system of geo-referenced identification of rural properties or occupied holdings, covering the delimitation of areas of permanent preservation, of the Legal Reserve and remaining natural vegetation inside the holding, for purposes of control and monitoring.” While Decree 7029 foresees the creation of a national cadastre within the framework of the National System of Information on the Environment (SINIMA), MMA Directive 68 of 2010 (*Portaria*) specifically refers to the CAR as an electronic register maintained by the OEMAs in individual states.

21. Registration of a holding in the state cadastre is undertaken by individual landholders or, (on his behalf and with his consent) by an authorized agent. CAR registration in CAR cannot be done without the landholder’s consent and is required within a period of three years.

22. The registration requires that the landholder declare: (i) the exact geo-referenced boundaries of the holding, the location of remaining native vegetation cover, the proposed location of RL, and the actual location of APPs; and (ii) his/her adhesion and commitment to keep the land in compliance with environmental and the Forest Code or to take actions to bring it into compliance (environmental regularization), as the case may be. The landholder must also provide evidence of ownership or recognized rights of occupation of the land.

23. To register, the landholder signs the Terms of Adhesion and Commitment¹⁷. This has the effect that a holding that is in violation of the law is considered (temporarily) to be in compliance and that the fines or criminal prosecution are suspended. The landholder must take remedial actions within a prescribed, limited time. Failing to do so, he/she would be subject to criminal prosecution and administrative fines. Once in compliance, fines will be considered converted into services for the environment already rendered. Nevertheless, the Presidential Decree 7029 (Art. 6) expressly defines that the benefit of amnesty regarding environmental liabilities only applies to violations (i.e., deforestation) which took place prior of 12/11/2009, one day before this Decree publication.

24. In the case of Pará, if a land is unable to indicate the RL and APPs immediately on the geo-referenced map of the holding, a provisional registration is accepted, which has to be followed by the definitive registration within six months, including the location of RL and APPs.

25. Where “environmental liabilities” have been detected and registered, the State Governments of Mato Grosso and Pará require a Plan to Rehabilitate Degraded Areas (PRAD), prepared by an authorized professional, to be submitted. Degradation may refer to an inadequate RL or degraded APPs. While registration in CAR is cost-free to the landholder (except for the cost of the geo-referenced maps) the PRAD is charged for. Mato Grosso requires the PRAD to

¹⁷ This is similar to the Commitment Adjustment Instrument (TAC) employed in Brazil by federal and state attorneys. An innovative mechanism for out-of-court settlements of violations of the law, the TAC involves the This is similar to the "Commitment Adjustment Instrument" (TAC) now widely being used in Brazil by federal and state attorney’s offices. This is an innovative mechanism for out-of-court settlement of violations of environmental law, negotiated between state attorneys and farmers. The Terms of Adhesion and Commitment implies an agreement of violators to adjust their conduct and to remove “environmental liabilities” through compensation or restoration of cleared areas, and allows farmers to obtain the environmental license for the holding immediately, and avoid further prosecution in the courts.

be submitted at the same time as CAR registration. Pará allows landholders a six-month grace period to submit the PRAD.

26. Registration of a landholding in the CAR does not imply authorization of any particular land use and does not constitute an environmental license for rural economic activities. Nor does it constitute proof of title to, or possession of, a specific parcel of land. The geodesic surveys of property boundaries required by INCRA for registration of a property in the National System of Rural Holdings (CNIR) is very precise (down to around 0.5m, and cannot be done at low cost. Moreover, land tenure legislation establishes that only those who can prove a genuine presence on the land before 12/01/2004 are eligible to be entered in the CNIR. Given that this specific methodology is not being employed for CAR registration, the data generated by CAR cannot create a basis for formalizing land tenure and cannot be used as a proof of any claim for registration in the SNCR.

27. There are several reasons why landholders are becoming interested in registering in CAR:

- CAR is required to obtain an environmental license for rural economic activity on the land, and for other authorizations and official purposes within a State's environmental administration.
- Failure to register in CAR will eventually result in the application of the notifications, fines and punishments of law enforcement.
- CAR is one of the requisites for obtaining official rural credit. Resolution 3545 of 2008 by the National Monetary Council, already mentioned above, stipulates that the parties requesting official rural credit must present (among other things) a license, certificate or other evidence of environmental regularity, or at least proof of receipt of the necessary documentation for regularization issued by the State Environmental Agency (OEMA), which is in essence the CAR. Banks are obliged to verify compliance with this rule. Activities on land that is embargoed (illegally cleared) are ineligible for official rural credit.
- A property that is free of "environmental liabilities" tends to have a higher land value and can fetch better prices for its products, due to the growing requirements of the international and domestic markets for products from environmentally correct sources and to the legal restrictions of sales from an embargoed (illegally cleared) area.
- Local governments have a strong interest in the registration of holdings in the CAR if their municipality is currently on the list of those with the highest deforestation, since no further forest clearing is allowed in those municipalities. One of the conditions to be taken off the list is that at least 80% of the total area of holdings be registered under CAR.

28. Under this proposed project an additional advantage is that registration in CAR will be free of cost to landholders.

29. The proposed project would carry out the CAR in five selected municipalities in Mato Grosso and Pará States.

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies

Brazil: Rural Environmental Cadastre Technical Assistance Project

Sector Issue	Project	Project ID	Latest Supervision Ratings	
			Implementation Progress (IP)	Development Objective (DO)
Bank-financed				
Strengthening Institutional Capacity	Sustainable Environmental Management Development Policy Loan	P095205	U	MU
	Environmental Sustainability Agenda TAL	P090041	MS	MS
Land Management	Pará Integrated Development	P082651	MS	MS
Bank-managed				
Biodiversity Conservation and Natural Resources Sustainable Use	Brazil GEF-Amazon Region Protected Areas Project (ARPA)	P058503	Closed	Closed
	Brazil GEF-Amazon Region Protected Areas Project (ARPA II)		Under preparation	
	Brazil GEF – National Biodiversity Fund (PROBIO)	P006210	S	S
	Rainforest Trust Fund - Fire Prevention & Mobilization Project – PROARCO	P063551)	Closed	Closed
	Rainforest Trust Fund - Amazon Cartography Project	P097322	Closed	Closed
	Rainforest Trust Fund - Forest Resources Management – PROMANEJO	P037961	Closed	Closed
	Rainforest Trust Fund - National Resources Policy Project –NRPP	P006565	Closed	Closed

Annex 3: Results Framework and Monitoring

Brazil: Rural Environmental Cadastre Technical Assistance Project

PDO	Project Outcome Indicators	Use of Project Outcome Information
<p>First to secure the commitment of the majority of landholders in the project area to maintain or restore legally required forest cover; and, second, to evaluate the CAR methodology to extract lessons for dissemination to other states and municipalities in the Amazon region.</p>	<p>OEMAs have issued CAR certificates for 90% of the mapped holdings in Pará target municipalities and at least 50% of such holdings in Mato Grosso target municipalities, after landholders have signed Terms of Adhesion and Commitment.</p> <p>Those landholders in Pará target municipalities who received CAR certificates through the project during the first and second quarters are complying with the requirement to complete a PRAD within 6 months of receiving the certificate.</p> <p>The CAR methodology has been evaluated and lessons learned have been extracted for dissemination to other states and municipalities through a variety of media.</p>	<p>With landholders' registrations in CAR, the OEMAs are in a position to effectively monitor and enforce compliance with the Forest Code.</p>
Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
Component 1: Information and Mobilization Campaign and Dissemination of Lessons Learned		
<p>1.1. Those responsible for landholdings in the municipalities are informed, mobilized and engaged in the project's purpose.</p>	<p>At least 60% of land holders authorize access of the survey teams to their holdings (open farms gates).</p>	<p>Assessment of degree of adhesion in five municipalities.</p>
<p>1.2. Lessons learned have been documented and are ready for dissemination.</p>	<p>Communication materials and events (workshop, seminars, guidelines, etc) produced for the dissemination of the CAR methodology.</p>	<p>Application of lessons learned in other municipalities of the Brazilian Amazon.</p>
Component 2: Mapping and Geo-referencing of rural holdings and inclusion in CAR database		
<p>2.1. Mapping data of the municipal rural vegetation cover and land use are entered into the data bases of the OEMAs.</p>	<p>Municipal maps of vegetation cover and land use are validated and included in the respective state bases of Mato Grosso and Pará States.</p>	<p>Use in sub sequent step of registration of land holdings.</p>
<p>2.2. Rural environmental cadastre certificates have been issued for those landholders that authorize forwarding of their data to the OEMAs.</p>	<p>Rural holdings covering at least 80% of the area of each municipality (except public protected areas, indigenous lands and urban areas) are mapped and geo-referenced in conformity with the format and technical norms of the OEMAs, and inserted into each state's data base.</p>	<p>Monitoring and control of land use and forest cover in registered holdings.</p>

Arrangements for results monitoring

1. The responsibility for monitoring of results rests with the implementing agency, TNC do Brasil. Specially designated monitoring unit staff in TNC do Brasil will collect indicator data monthly from the field teams in Mato Grosso and Pará, concerning holdings with “open farm gates”, area and number of holdings covered by field surveys and mapping, and holdings entered into TNCs own databases, and will consolidate those into quarterly data and reports.
2. The monitoring unit will request each OEMA quarterly for the list of holdings effectively entered into the State database, and calculate the percentage of: (i) the total number holdings in the municipality; and (ii) of the total number of holdings mapped by TNC do Brasil.
3. Similarly, the OEMAs will be requested to provide copies of all registration requests issued, by municipality, to holdings covered and mapped under the project.
4. Quarterly reports covering the information mentioned above will be made available to field teams, municipal governments, landholder associations, OEMAs, MMA, and, the Bank.
5. The document of lessons learned will be prepared by TNC do Brasil in draft and forwarded for review to the OEMAs of Pará and Mato Grosso, to MMA and to the Bank, for review and comment, by the project completion date. Comments will be sent to TNC do Brasil within two weeks. A final, revised version will be prepared within one month after the completion date and delivered to OEMAs, MMA, the Bank and interested organization of civil society.

Project Outcome Indicators	Baseline	Cumulative Target Values				Data Collection and Reporting		
		Q1	Q2	Q3	Q4	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
CAR certificates for 90% of the mapped holdings in PA target municipalities and at least 50% of such holdings in MT target municipalities have been issued by the OEMAs, after landholders' signing Terms of Adhesion and Commitment.	To be defined by Q1	10% (5%)	30% (20%)	70% (40%)	90% (50%)	Quarterly - Project implementation reports (PIRs).	State Pará and Mato Grosso databases.	TNC do Brasil.
Those landholders in Pará target municipalities who received CAR certificates through project (Q1 and Q2) are complying with the requirement to complete a PRAD within 6 months of receiving the certificate.	n/a	0%	0%	25%	75%	Quarterly - Project implementation reports (PIRs).	State Pará and Mato Grosso databases.	TNC do Brasil.
The CAR methodology has been evaluated and lessons learned have been extracted for dissemination to other states and municipalities through a variety of media.	n/a	0%	0%	0%	100%	Quarterly - Project implementation reports (PIRs).	State Pará and Mato Grosso databases.	TNC do Brasil.
Intermediate Outcome Indicators								
At least 60% of land holders authorize access of the survey teams to their holdings (open farms gates)	0 % of landholders.	20%	40%	60%	60%	Quarterly - Project implementation reports (PIRs).	TNC database.	TNC do Brasil.
Communication materials and events (workshop, seminars, guidelines, etc) produced for the dissemination of the CAR methodology.	n/a	0%	10%	20%	100%	Quarterly - Project implementation reports (PIRs).	TNC database.	TNC do Brasil.

Municipal maps of vegetation cover and land use are validated and included in the respective state bases of Mato Grosso and Pará States.	0	0	5	5	5	Quarterly - Project implementation reports (PIRs).	TNC database.	TNC do Brasil.
Rural holdings covering at least 80% of the area of each municipality (except public protected areas, indigenous lands and urban areas) are mapped and geo-referenced in conformity with the format and technical norms of the OEMAs, and inserted into each state's data base.	to be defined by Q1 (% already been issued)	0%	30%	50%	80%	Quarterly - Project implementation reports (PIRs).	TNC database.	TNC do Brasil.

Annex 4: Detailed Project Description

Brazil: Rural Environmental Cadastre Technical Assistance Project

Methodology

1. The CAR is an electronic database system designed to enable state authorities to electronically record and register landholdings on the basis of geo-referenced data (digital maps). Individual landholdings must be registered under the aegis of a responsible engineer or company accredited by the OEMA. The states of Pará and Mato Grosso each possess an integrated CAR and Environmental Licensing and Monitoring (SIMLAM) system which can be accessed electronically by members of the public and “responsible professionals” authorized to work with and on behalf of landholders.
2. An innovative approach to the mapping, geo-referencing and documenting of most or all landholdings in a municipality (“systematic cadastre” or *varredura*) has been developed and tested by TNC do Brasil in selected municipalities of Mato Grosso. TNC do Brasil mounts a campaign to mobilize all landholders and cover all holdings, collecting and recording geo-referenced data of each holding (survey and mapping) “in one sweep”, including information on the location of proposed or actual legal reserves and areas of mandatory preservation. The simultaneous geo-referencing of holdings in a municipality has three advantages: (i) it reduces the cost of the surveys and mapping; (ii) it results in a much larger rate of registration than an approach that relies on the individual initiative of land holders; and, (iii) it ensures that the coordinates of adjacent holdings are consistent at their boundaries.
3. The CAR is essentially an environmental management system for relating people to land. It includes the following: (i) a spatial referencing system (geodetic survey); (ii) an unambiguous land-parcel description system (including cadastral mapping); (iii) a land-cover classification system providing basis for valuation; and (iv) a system for marking ground-based boundaries (cadastral survey).
4. CAR does not cover the regularization and cadastre of land tenure. Land tenure regularization is a separate process which involves the licensed public notary offices (*cartórios*) in the states. This is not within the scope of the proposed project¹⁸.
5. The procedures to be followed in Pará and Mato Grosso, where CAR is being implemented in 2009, follow a similar pattern, including use of the software for the user interface with the general public and the authorized professionals. There are, however, some variations in these two states that might result in different degrees of adhesion to the Car by landholders. In Pará, the OEMA allows provisional registration of a holding, documenting the perimeter of the holding and the location of APPs, but without definitive indication of the location of the Legal Reserve (RL) and of the areas for economic use, and requires such definition only in a definitive registration six months later. In Mato Grosso, registration in the CAR requires already a Plan to Rehabilitate Degraded Areas (PRAD), for which the landholder may have to incur a substantial

¹⁸ The high precision of geodesic survey of property boundaries required by INCRA for registration in the National System of Rural Holding (SNCR) is very stringent (about 0.5m). Land tenure legislation stipulates the methodology to be used in defining the borders of land holdings.

cost, whereas such plan is required in Pará State later only (within six months after the definitive registration).

6. The following steps would be involved to encourage landholders to register in the State's integrated systems:

- a) A **campaign** to inform, raise awareness, mobilize and engage local governments, stakeholder representations and landholders in the selected municipalities. The campaign aims to create maximum transparency as to what CAR is, how it will be done and what the advantages are for the landholders and local governments. This should result in understandings, agreements and institutional arrangements that create legitimacy for the project, and consequently in "open farm gates" for the survey and mapping teams. It also should result in willingness to provide of logistical support by the municipalities.
- b) Preparation of **logistical support** in municipalities and strengthening the capacity of local governments, which should function as meeting spaces, operational and information centers. This involves also support to the OEMA for training and quality control of the survey work.
- c) Acquisition of **satellite images** (SPOT, 2.5 m resolution) for the selected municipalities where these are not available from the Mato Grosso and Pará OEMAs. The OEMAs would also use the images for subsequent validation and approval of cadastral entries.
- d) Preparation of an updated and corrected digital **cartographic base** on the basis of satellite images.
- e) Mapping of **vegetation cover and land use** at a scale of 1:25,000 and validation, based on classifications and criteria provided by OEMAs and the Brazilian Institute for Geography and Statistics (IBGE). The maps would include: (i) urban areas; (ii) protected areas; (iii) indigenous lands; and, (iv) vegetation cover.
- f) **Validation and approval** of the cartographic base, vegetation cover and land use by the respective OEMA. This would provide a basis for issuing the Note of Technical Responsibility (ART) to the firm responsible for the material.
- g) **Uploading** the updated, validated cartographic base into the data base (SIMLAM) of either State. This ensures the existence and use of a single geographic database for CAR purposes in the municipalities, as well as for environmental licensing and monitoring to be undertaken by OEMAs in the respective states.
- h) Compilation and organization of existing **information on rural holdings**, and geo-referencing it in the cartographic database. The information source would consist of the records held by INCRA, the OEMAs, IBAMA and the State Land Institutes, in addition to other sources that may be able to provide information on the holdings.
- i) **Sampling analysis of holdings** on the basis of the information and cartography gathered so far (at least ten holdings, in different size classes, per municipality) and identification of likely problems to be encountered in the sweep survey operations in the field. The sample data will be entered into the database of the respective State.

- j) **Creation of a municipal mosaic map of rural holdings.** This is the actual “sweep” involving visits to the holdings, field surveys, recording of data of the holdings and mapping of geo-referenced boundaries and other characteristics. This will also create the geo-referenced database containing the complete mosaic of holdings in each municipality. Holdings will be surveyed in the order suggested by contiguous boundaries, to ensure consistency of boundary coordinates (avoiding overlaps). Wherever disputes about land boundaries or possession arise, the mapping will not be concluded. The geo-referencing will be done to the precision that the cartographic base, available geodesic data and use of the GPS L1 permit. This is not the precision required by INCRA for the National System of Rural Holding (SNCR), but the project will take advantage of any geo-referenced data provided by INCRA and of the geodesic network in as far as it exists in the area. The surveys will make use of any available sketches of the holdings, descriptive documents (*memorial descritivo*), visual identification by the landholder on the map, and will include the identification of APPs and RL, of areas of alternative (economic) use, as well as cadastral information about the landholder/producer.
- k) **All cadastral information will be assembled in a landholder assistance center in the center of the municipality, with the support of the local government and landholder unions/associations (*sindicatos*).**
- l) **Consolidation and validation of the databases** by the project team (pre-cadastre) after conclusion of field work. Where technical problems or errors are encountered, adjustments will be made based on field visits. The data, including geo-referenced cadastral and geographic information for each municipality, will be prepared in the format required by the states’ SIMLAM databases. A map will be printed for each municipality showing all the landholdings entered, together with consolidated analytical reports for each municipality and individual reports for each holding. Individual maps will be shown to the landholders for validation and authorization for inclusion in the CAR.
- m) **Analysis, validation and insertion of cadastral databases by OEMAs.** In this step, the cadastre, duly validated, will become part of the States’ SIMLAM data base. This does not yet represent the registration of holdings in the environmental cadastre.
- n) **Registration of landholdings in the CAR** by willing landholders, individually or together, through the intervention of an accredited professional hired under the project (possessing special access to the SIMLAM database). This applies only to landholders who have signed the Terms of Adhesion and Commitment to environmental regularization. For holdings covered by the project “sweep”, TNC do Brasil would hire a “responsible professional” for this purpose that would be authorized to access the SIMLAM database in order to gain sight of the data already inserted. In effect this professional would act as an agent to ensure CAR registration of each landholder in accordance with the regulations and requirements of each state. The authorization/nomination by the OEMAs of a responsible engineer (ART) can cover a group of holdings. In Mato Grosso, a PRAD prepared by the authorized professional is required immediately, whereas in Pará this can be submitted later.

- o) **Technical assistance to prepare and submit the PRADs in Mato Grosso.** The project will provide financial support and technical assistance to help prepare the mandatory PRAD. Implementation will be the responsibility of individual landholders after project conclusion. The PRAD would include the obligation to plant native species in illegally-cleared areas.
- p) **Issuance of a certificate of registration in CAR by the respective OEMA.** In Pará, a preliminary certificate may be issued first, followed by a definitive one six months later when the landholder has prepared and submitted the PRAD.
- q) **Making cadastral geo-referenced information available to landholders.**

7. TNC do Brasil would accompany and monitor the entire process at the OEMAs through conclusion of all registrations authorized by landholders in the CAR.

8. In the event of conflicting land claims, the project would refer cases for mediation by municipal governments and landholders' associations. Failing resolution, the project would submit geo-referenced information about the land in question to the OEMA. The land would not be registered in the CAR.

Project Area

9. The project would cover three municipalities in Mato Grosso and two in Pará. These two states together account for over two-thirds of deforestation in the Brazilian Amazon. The following criteria were used for selection of the target municipalities:

- municipalities belong to the Official List of Municipalities with the highest deforestation;
- municipalities that have developed initiatives to decrease illegal deforestation and could be taken off the list if they complied with the criterion of having at least 80% of the area of private land holdings covered by CAR;
- municipalities that have accessibility and logistical conditions that allow completion of the surveys within the project period;
- municipalities that present a reasonably strong interaction and mobilization of local actors; and,
- municipalities that are not financially supported by external funds or grants to carry out landholdings registration.

10. The selected municipalities are: Feliz Natal, Brasnorte, and Juína in Mato Grosso, and Santana do Araguaia and Marabá in Pará. Together, they cover an area of about 8.0 million ha and have a population of about 66,000 people. All of these are currently on the list of Amazon municipalities that contribute most to deforestation in 2009 ("blacklist").

<i>Municipality</i>	<i>State</i>	<i>Total Area (ha)</i>	<i>Protected Areas¹⁹ (ha)</i>	<i>Private Areas (ha)</i>	<i>Number of Rural Holdings²⁰</i>	<i>Forest Cover</i>
Feliz Natal	MT	1,144,825	523,074	621,751	560	82%
Brasnorte	MT	1,596,007	408,913	1,187,094	494	65%
Juína	MT	2,625,130	1,837,492	787,638	4,081	82%
Santana do Araguaia	PA	1,159,100	0	1,159,100	1,877	35%
Marabá	PA	1,509,202	356,575	1,152,627	2,879	46%
TOTAL		8,034,264	3,126,054	4,908,210	9,891	-

Project Components

11. **Component 1: Information and Mobilization Campaign and Dissemination of Lessons Learned (Cost: US\$ 734,788).** This component aims at: (i) fostering the implementation of the project through the involvement of the stakeholders benefited by the interventions in the target municipalities, which includes the landholders, their associations and the municipal governments; and (ii) documenting and disseminating lessons learned for application in other municipalities of the Brazilian Amazon.

12. **Subcomponent Information and Mobilization Campaign.** The campaign will inform, sensitize, mobilize and engage local governments, stakeholder representations and landholders in the selected municipalities as to what CAR is, its purpose, what it involves, how it will be done and what the advantages are for the landholders and local governments. It will follow a plan of communication prepared for each municipality. The subcomponent includes also contracting, mobilization and training of project teams for local management of the process.

13. **Subcomponent Learning and Dissemination of Lessons.** This subcomponent would systematically evaluate the experiences made with the implementation of CAR in the five municipalities. This would include an updated and improved methodology for implementation, suitable for application to other places in the Amazon. The results would be disseminated through publications, Internet, workshops and training courses.

14. Typical activities envisage under this component are: (i) identification of relevant stakeholders and mapping audiences; (ii) definition of project messages for target audience, languages, tools, local media channels; (iii) designing and development of communication materials and tools, including leaflets, folders, radio spots, meetings, workshops, training; (iv) carrying out studies and analyses related to operation and methodologies for CAR implementation; (v) training to address basic steps of geo-reference landholdings; (vi) information collections and systematization vis-à-vis the CAR implementation steps; and, (vii) dissemination events.

15. Under the component, agreements and institutional arrangements will be sought with local partners that help create legitimacy for the project and secure the active support of local governments, especially through provision of logistical support by the municipalities.

16. **Component 2: Mapping and Geo-referencing of rural holdings and inclusion in CAR databases (Cost: US\$ 2,435,635).** This component aims at obtaining up-to-date environmental

¹⁹ Includes protected areas and indigenous lands.

²⁰ Source: Agricultural Census of 200.

cadastral data containing information about owners (names, addresses, etc.) and their properties (surface, boundaries, forest cover, legal reserve, and permanent protected areas), and their insertion in official databases of the OEMAs.

17. **Sub-component Mapping and Geo-referencing of Rural Holdings.** This subcomponent will focus on surveying, mapping and geo-referencing of land use and rural holdings in each of the targeted municipalities. This subcomponent would include all activities necessary to collect geographic and other physical data of holdings as well as information about the identity of landholders. Municipal maps at a scale of 1:25,000 would include: (i) urban area; (ii) protected areas; (iii) indigenous lands; (iv) land use and vegetation cover; and, (v) a complete mosaic of all holdings.

18. **Sub-component CAR database.** This subcomponent would include all activities necessary to include cadastral data in the States SIMLAM databases, to get landholders to endorse such information and to get their agreement to register under CAR, the actual registration by landholders, including signing the Terms of Adhesion and Commitment and, where required, proposal of a PRAD.

19. Typical activities envisage under this component are: (i) preparation of logistical support in municipalities and strengthening capacity of local governments; (ii) acquisition of satellite (SPOT) images; (iii) preparation of updated digital cartographic base; (iv) mapping of land use and vegetation cover (1:25,000) and validation; (v) uploading the updated, validated cartographic base into SEMA-MT's data base; (vi) compilation and organization of existing information on rural holdings, geo-referencing of a sample of holdings; (vii) field surveys and creation of geo-referenced database; (viii) creation of municipal maps of all holding; (ix) inclusion of the cadastral database of the selected municipalities in the State's; (x) making cadastral geo-referenced information available to land holders; (xi) registration of land holdings in the Rural Environmental Cadastre by willing land holders, individually or in bulk, through intervention of an accredited Responsible Engineer hired under the project. This includes signing by those landholders of the Terms of Adhesion and Commitment to environmental regularization, and follow-up of registration with OEMA; and, (xii) preparation and submission of PRADs in Mato Grosso. This includes technical assistance and financial support for the landholdings. PRADs will be prepared by authorized professionals. In Pará, the PRAD is required later only; and, (xii) issuance of a certificate of registration in CAR by the respective OEMA. In Pará, a preliminary certificate may be issued first, followed by a definitive one six months later when the landholder has prepared and submitted the PRAD.

20. **Component 3: Project Management and Administration (Cost: US\$ 350,000).** This component aims at ensuring adequate and continuous Implementation, through: (i) technical coordination, monitoring and reporting; (ii) adequate financial management, procurement, audit; and, (iii) project financial and technical closing activities.

Annex 5: Project Costs

Brazil: Rural Environmental Cadastre Technical Assistance Project

Components	Local US\$	PP7 US\$	Total US\$
1. Information and Mobilization campaign and dissemination of lessons learned	0	734,788	734,788
2. Mapping and geo-referencing of rural holdings and inclusion in CAR databases	0	2,415,212	2,415,212
3. Project Management and Administration	0	350,000	350,000
Total Project Costs	0	3,500,000	3,500,000
Total Financing Required			3,500,000

Annex 6: Implementation Arrangements

Brazil: Rural Environmental Cadastre Technical Assistance Project

1. The project would be implemented by the Grantee, TNC do Brasil, a Brazilian NGO linked to the international conservation organization TNC.
2. The Nature Conservancy (TNC do Brasil) would implement the project in cooperation with the Ministry of Environment (MMA) and the State OEMAs of Mato Grosso and Pará. The MMA will provide the framework for the cadastre, with each state being responsible for execution. TNC do Brasil would undertake field work and interaction with the landholders. The OEMAs would be charged with receiving, recording and approving registrations (in bulk) and entering the pertinent data into their databases.
3. In March 2010, TNC do Brasil signed a Technical Cooperation agreement with MMA and the States of Mato Grosso and Pará, covering implementation of the CAR. The parties agreed to carry out joint actions as follows:
 - mapping of holdings, diagnostic of actual land and forest use, remaining forest cover, etc.
 - guaranteeing ample adhesion of rural producers;
 - establishment of partnerships in the municipalities to promote the environmental regularization process;
 - creation of mechanisms for effective use municipal CARs in the systems of monitoring and control of the OEMAs;
 - establishment of a policy of integrating data and information among the principal entities involved in deforestation control, and making them available;
 - effective monitoring of compliance of rural landholders with environmental regularization agreements in a form that is transparent and recognized by civil society and government authorities;
 - integration of efforts towards official insertion of individual CAR registrations into the OEMAs licensing systems; and,
 - establishment of priority actions for reverting environmental liabilities, through collective agreements, including compensation of RL outside the holdings.
4. Under this agreement MMA, *inter alia*, will articulate the cooperation among the parties and monitor and oversee the progress of work and production of outputs. It obliges the OEMAs, *inter alia*, to make available existing cartographic databases, satellite images and CAR registries, provide technical personnel to accompany the field work, approve the terms of reference for elaboration of the cartographic base and of land use and vegetation maps, create user interfaces to the SIMLAM databases, validate cartographic bases, maps and geo-referenced data of rural holding, in bulk, presented by engineers authorized through and ART, and seek to obtain the regularization of RL and APP and Terms of Adjustment of Conduct with violators, rather than fining or prosecuting them.
5. The Cooperation Agreement will run for three years. It is supplemented by an official Work Plan covering the period May 2010 to June 2011.

6. The local municipal governments will play a key role, providing logistical support and infrastructure, mobilizing landholders and associated organizations, and hosting a one-stop shop for dealing with queries by landholders regarding the registration process. The State Governments of Mato Grosso and Pará would sign Cooperation Agreements with the participating municipalities and TNC do Brasil. These agreements will contain provisions covering the expected roles and actions of the municipal governments, the OEMAs and TNC do Brasil (essentially the same as those outlined in the above-mentioned Technical Cooperation Agreement).

7. The project will provide the mapping and geo-referenced landholding data to INCRA and the Mato Grosso and Pará State Land Institutes. The project will also adopt a mechanism to ensure that MMA, OEMAs, INCRA and the respective State Land Institutes are kept fully informed of project activities.

8. The project would be completed by June 30, 2011.

Annex 7: Financial Management and Disbursement Arrangements

Brazil: Rural Environmental Cadastre Technical Assistance Project

1. The project’s financial management arrangements are based on the Financial Management Assessment review (FMA) undertaken at The Nature Conservancy do Brasil (TNC do Brasil) in February 2010. Based on the Bank’s Financial Management (FM) guidelines²¹, the main purpose of the assessment was to confirm that the project’s implementing agency (TNC do Brasil) has adequate FM arrangements for the Project. This annex reflects the necessary Financial Management arrangements and Action Plan, as well as measures to mitigate financial management risks associated with the project design.

2. **Financial Management Conclusion:** Based on the FM assessment performed at TNC do Brasil in February 2010, the Project financial management arrangements are considered adequate. The financial management risk associated with the project has been assessed as moderate.

3. FM Risk Assessment: The overall FM risk for the project was assessed as moderate based on the following risk analysis:

Table 1. Financial Management Risk Assessment

Risk	H	S	M	L	Mitigations
<i>Inherent Risks</i>					
i. Country specific			X		
ii. Sub-national level			X		
iii. Entity specific			X		FM training to new project implementation unit.
iv. Project specific			X		FM training to new project implementation unit.
<i>Control Risks</i>					
i. Implementing Agency			X		
ii. Flow of Funds				X	
iii. Staffing			X		FM training to new project implementation unit.
iv. Accounting procedures				X	
v. Internal/External Audit				X	TNC’s auditor is a Big-4 accounting firm.
vi. Reporting & Monitoring			X		FM training to new project implementation unit.
vii. Information Systems			X		

H-High S-Substantial M-Moderate L-Low

4. All payments will use country systems, that is, the TNC do Brasil budgeting, accounting and payment policies, processes, procedures, systems, and internal controls. Commitments, payables and payment authorization and requests will be processed using standard TNC do Brasil’s institutional processes. Payments will be executed by TNC do Brasil using their standard

²¹ Financial Management Practices in World Bank Financed Investments Operations as of November 3, 2005; Implementing Output- Based Disbursement mechanisms for investment operations of April 2, 2007.

payment policies, processes and controls. TNC do Brasil personnels' knowledge and experience with these processes are high and internal controls are adequate. All payments will be centralized and paid directly to consultants and suppliers using these standard processes so budgeting, budget execution, accounting and payment risk is considered low.

5. The preparation of project financial monitoring reports (IFRs) will be done by TNC do Brasil personnel. Also, project reports (IFRs) will be prepared by the Project Implementation Unit for the first time. There is some risk that the Project Implementation Unit will experience a learning curve in preparing the reports at the start of the Project but this risk is considered moderate as there is nothing intrinsically difficult in this reporting, transaction volume is expected to be low and the information systems to be used for reporting have been successfully used by other projects financed by the Bank in TNC do Brasil in the past, as well as by projects financed by other international organizations. Bank FM training would mitigate this risk.

6. The external auditor of the project has not been defined. An independent auditing firm will be hired, under ToR that are satisfactory to the Bank, to carry out the external audit of the Project, including the Project accounts. The audit report for the Project will be sent to the Bank within six months after the closing of the project. The Bank will include the cost of this external audit as an eligible expenditure to be fully financed by grant proceeds. This risk is considered low as there are external audit arrangements in place for TNC do Brasil by an accounting/auditing firm (Bousinhas, Campos & Conti).

Overall Financial Management Arrangements

7. Staffing and institutional arrangements. TNC do Brasil would have the primary fiduciary responsibilities for the project. These responsibilities will be carried out by TNC do Brasil operating departments.

8. The primary project implementation unit fiduciary responsibilities include: (i) preparing and obtaining TNC do Brasil approval of project FM arrangements; (ii) coordinating and supervising project implementation; (iii) submitting disbursement requests and documentation of expenditures to the Bank; (iv) preparing and submitting project financial reports (IFRs) to the Bank; (v) preparing and providing all financial documentation and project reports requested by external auditors and Bank staff and (vi) preparing, updating and ensuring that the project executor follow the Project Operating Manual. The Project Coordinator and other TNC do Brasil personnel assigned to the project implementation unit are preparing the project and appear capable. The Bank reviewed the résumés of the proposed accountants for the Project Implementation Unit and they appear to have reasonable experience for the Project.

9. All transaction processing (recording annual budgets, budget commitments, and payables, authorizing payments, and internal control reviews) would be carried out by TNC do Brasil. TNC do Brasil would execute payments and control segregated project bank accounts.

10. Internal audits would be carried out by an audit unit currently within TNC. TNC do Brasil personnel in the fiduciary areas have the education levels, experience and knowledge of processes to adequately perform these functions.

11. **Internal Control:** The internal control environment of the Project is adequate. All transaction processing uses TNC institutions, processes and systems that provide for segregation of duties, supervision, quality control reviews, reconciliations, internal audit and independent external audits and appear to meet the needs of the Project. Process flows appear to be clear and well understood by TNC do Brasil personnel, with the updated documentation of the processes in place. These processes will be part of the Project Operations Manual that will document Project processes, although probably not to the level of detail that TNC do Brasil institutional manuals would include. Internal audit is in place, and is totally independent.

12. **Budgeting:** The budget cycle includes standard TNC do Brasil planning and budgeting of all activities. Resources have been included in the proposed 2010 budget to enable project execution in CY 2010 and will be included in the 2011 for implementation during CY 2011. The project budget will be included 100% within TNC do Brasil and all commitments and project expenditures will be recorded by TNC do Brasil.

13. **Accounting.** TNC do Brasil adheres to the Brazilian Accounting Rules (NBC), law 11.63/07. Grant implementation will be on a cash accounting basis. TNC do Brasil will maintain accounting records encompassing all project activities. They will reconcile these records with budget and procurement report figures on a monthly basis. **Financial Management System.** TNC do Brasil uses the proprietary FMIS (Financial Management Information System) of Baker Tilly, the accounting firm that provides all accounting services in Brazil. This system is used for recording project transactions, accounting, financial reporting and budget execution. In addition to the system used by TNC do Brasil, TNC accounting is also loaded in the central TNC accounting system in the United States (Oracle General Ledger), used for consolidation of all offices worldwide. The Oracle General Ledger records all project transactions, accounting, financial reporting and budget execution, and fulfills the Bank's fiduciary financial management requirements.

14. The system will also be used to generate the primary financial reports for the Project, the Interim unaudited Financial Reports (IFRs).

15. **Disbursements and Flow of Funds:** The disbursement arrangements for the Project are:

- **Disbursement methods:** Advances, Direct Payment, Reimbursement;
- **Currency of the Designated Account:** Brazilian Reais (BRL)
- **Designated Account holding bank:** Citibank (Rio de Janeiro Brazil)
- **Supporting documentation for eligible expenditures:** Interim unaudited Financial Reports (IFRs) for Advances and Reimbursements and Records for Direct Payments. Withdrawal Applications to document eligible expenditures paid from the DA, to be submitted at least on a quarterly basis.
- **Minimum Application Size:** USD 150,000 equivalent
- **Proposed DA ceiling:** Forecast for two quarters as provided for in the IFR.

- **IBRD Loan Disbursement Schedule**

Category	Amount of the Grant Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, Non-consultants' services, consultants' services, Workshops and Training	3,150,000	100%
(2) Operating Costs	350,000	100%
TOTAL AMOUNT	\$3,500,000	

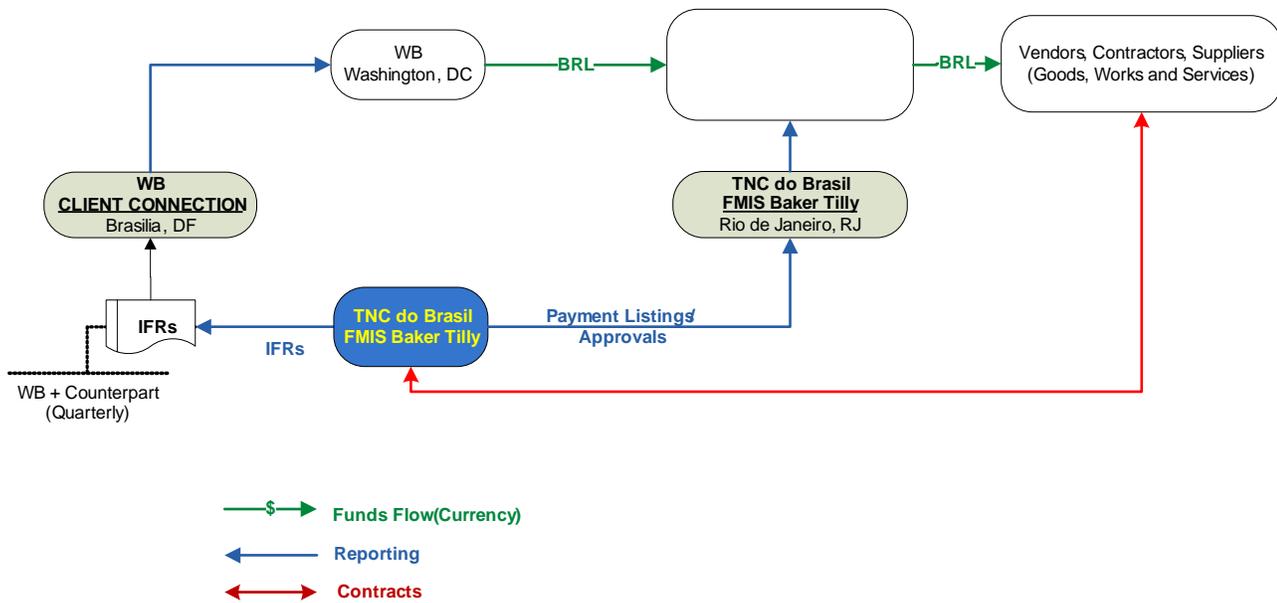
As shown above, the Bank will finance 100% the activities described in the Grant Agreement.

16. For the purposes of this project:

- the term “workshops and training” means: (i) training materials and rental of training facilities; and (ii) reasonable fees, travel, accommodation and per diem of trainers, training institutions and trainees;
- the term “non-consultants services” means the reasonable expenditures incurred on account of Project implementation to cover reasonable costs of rental of software, data collection services and other services which are not rendered by consultants and which are not covered in the definitions of Workshops and Training and Operating Costs.
- the term “operating costs” means recurrent costs associated with the coordination and implementation of the Project by the TNC do Brasil, through the Project Implementation Unit, including: (i) operation and maintenance of vehicles, repairs, fuel and spare parts; (ii) equipment and computer maintenance; (iii) shipment costs (whenever these costs are not included in the cost of goods); (iv) office supplies and equipment; (v) rent for office facilities; (vi) utilities; and, (vii) all costs associated with audits.

17. **Retroactive financing.** Withdrawals up to an aggregate amount not to exceed USD 350,000 equivalent may be made for payments made within twelve months prior to the date of the Grant Agreement but on or after February 1, 2010 for Eligible Expenditures under Categories 1 and 2 of the disbursement table in the Grant Agreement.

18. The Project funds flow would be as shown below.



19. **Financial Reporting and Supervision.** The project implementation unit would prepare and submit to the Bank quarterly IFRs no later than forty-five days after the end of each trimester. All financial transactions will be entered in the FMIS by TNC do Brasil. IFRs will make use of existing financial reporting information in TNC do Brasil.

20. **External Auditing.** An external audit of the Project will be done in line with Bank policy. The audit is expected to be done by a private firm. The audit will be done in accordance with international audit standards by an auditor acceptable to the Bank. The audit report will be delivered by the TNC do Brasil to the Bank within six months of the closing date.

21. The auditors will issue a single opinion on (a) the financial statements; (b) interim IFRs, (c) contractual agreements; and (d) the Project designated account. The auditors’ opinion will cover all sources and applications of funds for the Project. In addition, the auditor will issue a management letter on Project accounts and internal controls.

Table 2. Project Financial Management Action Plan

Activity	Responsible	Target Date	Status
Operations Manual	TNC do Brasil	By Negotiations	Concluded
Select External Auditor/Prepare audit Terms of Reference	TNC do Brasil /WB	By three months after effectiveness	In process

22. **Project FM Supervision:** Project FM supervision is expected be done twice during project considering the short duration of project. The supervision missions will monitor the implementation and performance of the project and confirm that the financial management, disbursement and audit arrangements included in the project design are being adhered to and continue to be valid, as well as to review the performance of the FMIS.

Annex 8: Procurement Arrangements

Brazil: Rural Environmental Cadastre Technical Assistance Project

A. General

Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines: Procurement Under IBRD Loans and IDA Credits", dated May 2004 and revised in October 2006 and May 2010 and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers", dated May 2004 and revised in October 2006 and May 2010, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described in general terms below. For each contract to be financed by the Grant, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and timeframe are agreed between the TNC do Brasil and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually, or as required, to reflect the actual project implementation needs and improvements in institutional capacity.

Procurement of Works. No procurement of works is anticipated under this project.

Procurement of Goods. Procurement of furniture, GPSs, IT equipment, software and satellite images are anticipated under the project and the procurement methods for those services will be Bank's Shopping procedures or NCB and Direct Contracting. All contracts estimated to cost more than US\$ 500,000 equivalent per contract would be subject to prior review by the Bank.

Procurement of non-consulting services. Procurement of non-consulting services such as airline tickets are anticipated under the project and will be contracted through Shopping Procedures and NCB. All contracts estimated to cost more than US\$ 500,000 equivalent per contract would be subject to prior review by the Bank.

Selection of Consultants. Selection of consultants is anticipated under the project and will include studies, researches, etc. These services will be hired through Quality and Cost-Based Selection (QCBS), Selection Based on Consultants Qualification (CQS), Least Cost Selection (LCS), Single Source Selection (SSS) – with due Bank's No-objection Letter on a case-by-case basis, and Individual Consultants (IC). Shortlists of consultants for services estimated to cost less than US\$ 500,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. All contracts estimated to cost more than US\$ 200,000 equivalent per contract would be subject to prior review by the Bank.

Operational Costs. Operational costs include costs with salaries, transportation, per diem, sundries, incidentals and other project implementation-related expenses which would be financed by the project and which would be procured using TNC do Brasil's administrative procedures, which were reviewed and found acceptable to the Bank.

Summary

Expenditure category	Contract value threshold a (US\$ thousands)	Procurement method	Contracts subject to prior review
Goods	>2,000	ICB	All processes
	2,000 □ < 100	NCB	First process and all cases to cost over US\$ 500,000
	□ 100	Shopping	First process
Non-consulting services	>2,000	ICB	All processes
	2,000 □ < 100	NCB	First process and all cases to cost over US\$ 500,000
	□ 100	Shopping	First process
Consulting (firms)	>200	QCBS/LCS	First process and all cases above US\$200,000
	□ 200	QCBS/CQS/SSS	First process and all cases above US\$200,000
Consulting (individual)		Section V in the Guidelines	First process
Direct contracting			All cases regardless of the amounts involved

The thresholds will be reviewed when TNC gains experience in Bank's guidelines and procedures. All single-source selection, regardless of the amount of the contract, will be subject to prior review by the Bank.

B. Assessment of the agency's capacity to implement procurement

Procurement activities will be carried out by TNC. Its procurement is processed in-house by two local staff. TNC is a "new to the Bank" institution and needs to develop the expertise to follow the Bank's procurement and selection of consultants' guidelines.

An assessment of TNC's capacity to implement procurement actions for the project has been carried out by Frederico Rabello on February 04, 2010. The assessment reviewed the organizational structure for implementing the project and their procurement practices. It also analyzed the Procurement Department's capacity to handle procurement in accordance with Banks Guidelines. The amount of funds to be spent by TNC, although in a short period of time, is considered small when compared to their current overall budget.

The key procurement issue for implementation of the project under TNC is limited to the fact that they have never dealt with Bank's Guidelines. A mitigating factor that lowers the risk is the fact that TNC is an international NGO dealing with sources of funds from many donors, complying with a variety of donor's requirements. A short procurement learning curve is expected and TNC staff has already attended training on Bank's procurement guidelines in May 2010.

Procurement Action Plan

Action	Timeframe
Training other TNC staff on Bank-procurement policies.	By effectiveness.

The overall project risk for procurement is LOW.

C. Procurement Plan

A Procurement Plan for project has already been developed which provides the procurement method to be used for each procurement action. This plan has been reviewed by the Bank and needs some improvement by TNC. The Procurement Plan will be updated in agreement with the Project Team as required to reflect actual project implementation needs and improvements in institutional capacity.

D. Frequency of Procurement Supervision

In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency has recommended annual supervision missions to visit the field to carry out post reviews of procurement actions.

The procurement documents for the first procedure under each acquisition method, irrespective of its estimated amount, will be subject to prior review, therefore assuring quality and consistency for subsequent procurement activities.

The first NCB, and all of them to cost above US\$ 500,000, will be subject to Bank's prior review.

Contracts for consultant firms estimated to cost above US\$ 200,000 will be subject to prior review by the Bank. The Bank's review of selection of consultants will be in accordance with Appendix 1 of the Guidelines for Selection and Employment of Consultants and the provisions stipulated in the Grant Agreement. Consultant contract documents to be reviewed will include TORs, shortlists, evaluation reports, and contract forms.

E. Details of the Procurement Arrangements Involving International Competition

Goods, Works, and Non Consulting Services

- (a) List of contract packages to be procured following ICB and direct contracting: N/A
- (b) All ICB and all direct contracting will be subject to prior review by the Bank.

Consulting Services

- (a) List of consulting assignments with short-list of international firms. N/A
- (b) Consultancy services estimated to cost above US\$ 200,000 per contract and single source selection of consultants for firms will be subject to prior review by the Bank.
- (c) Shortlists composed entirely of national consultants: Short lists of consultants for services estimated to cost less than US\$ 500,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

Annex 9: Economic and Financial Analysis

Brazil: Rural Environmental Cadastre Technical Assistance Project

1. For the determined project activities estimating the real value of biodiversity conservation in monetary terms, especially when done at municipal scale, is difficult. It is therefore not possible to determine in advance and estimated economic rate of return for the project as a whole. The project approach focuses on sustainable use of the natural resources in accordance with environmental legislation.
2. The project has been designed specifically to maximize sustainability and efficiency, and to this end, it funds investments in activities that seek to have an optimal combination of immediate and long-term monitor benefits.

Annex 10: Safeguard Policy Issues

Brazil: Rural Environmental Cadastre Technical Assistance Project

1. The project will focus on rural environmental regularization and would not produce any negative environmental impacts. It will, on the contrary, support the State Governments in their efforts to strengthen environmental management tools aimed at sustainable natural resource use and reduction of illegal deforestation.

2. The project will not involve physical activities or infrastructure works. Its executing agency will be an environmental NGO.

3. An environmental assessment is being prepared for the Rural Environmental Cadastre Technical Assistance Project (CAR Project).

4. Preliminary analysis, based on the components and activities of the CAR Project and the typical social and environmental situation in the rural areas of Pará and Mato Grosso, indicates the safeguards that might be triggered.

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP4.01)	[x]	[]
Natural Habitats (OP/BP 4.04)	[x]	[]
Forests (OP/BP 4.36)	[x]	[]
Pest Management (OP 4.09)	[]	[x]
Physical Cultural Resources (OP/BP 4.11)	[]	[x]
Indigenous Peoples (OP/BP 4.10)	[]	[x]
Involuntary Resettlement (OP/BP 4.12)	[]	[x]
Safety of Dams (OP/BP 4.37)	[]	[x]
Projects on International Waterways (OP/BP 7.50)	[]	[x]
Projects in Disputed Areas (OP/BP 7.60)*	[]	[x]

5. **Environmental Analysis** (OP/BP4.01). The Rural Environmental Cadastre is a conservation project with a Category B rating. The project is expected to have a positive impact on the environment through direct measures in the selected municipalities (a database of mapped and geo-referenced holdings and identification of forest cover), and indirectly through engaging producer-sector stakeholders whose current activities may result in biodiversity loss.

* *By supporting the proposed project, the Bank does not intend to influence the final determination of the parties' claims on the disputed areas.*

6. The project is expected to have a positive impact on the environment since it seeks to promote rural environmental regularization of landholdings i.e. to ensure that private landholdings conform to environmental and forest legislation by reducing the “environmental liabilities” thereon. Direct and positive environmental impacts stemming from from implementation of the Rural Environmental Cadastre project include: (i) supporting the implementation of public environmental policies and dissemination of environmental cadastre processes; (ii) promoting interest and engagement in the project by practitioners in the productive sector; and (iii) strengthening the capacities of municipal governments to implement public policies in support of sustainable land use and natural resources management and better control of the threats to forest biodiversity and resources.

7. Registration in CAR, defined by Presidential Decree 7029 of 12/10/2009, is a requirement under which landholders are allowed a flexible-three year grace period in which to comply and avoid penalties for previous deforestation. After this period has lapsed, landholders are then required to register in the CAR as a condition for obtaining an environmental license for pursuing economic activities on the land. Art. 6 of the Presidential Decree expressly states that amnesties regarding environmental liabilities only apply to forest clearing violations which took place before 12/11/2009.

8. Most rural producers are aware that they will have to subscribe to this process and support by this project can reduce the cost of compliance to landholders. CAR requires the occupiers to produce documentation confirming land tenure status either as an owner of the property or as an officially-recognized squatter by INCRA or a State Land Administration Agency.

9. The CAR system will be an important tool for enabling government agencies to effectively monitor land-use and to hold owners or squatters accountable for illegal land-use. It will also provide official information regarding the perimeter of each holding, the location of Permanent Preservation Areas (APP), the allocation of land on properties as Legal Reserves (RL) and the identification of the landholder.

10. TNC do Brasil’s approach includes a wide-ranging communication outreach strategy to mobilize all landholders, landholder associations and local governments in the targeted municipalities, collecting and recording geo-referenced data of each holding (survey and mapping) using a “sweep” technique, including information on the location of proposed or declared Legal Reserves (RLs) and Permanent Preservation Areas (APPs). The experience gained with the TNC do Brasil’s previous work shows that conducting the process in close consultation and cooperation with the landholdings minimizes the potential conflicts and better responds to their needs and demands. The project will follow a plan of communication to be prepared for each municipality. The proposed approach to managing environmental and social impacts, as well as communication strategy of the Project will be reflected in the Operation Manual.

11. The ESA and ESMF report was disseminated in Brazil on the TNC do Brasil website. This report contains a detailed description of the environmental impacts of project activities and identifies preventive/corrective measures. The ESA and ESMF report was also sent to the representatives of the MMA, OEMAs, State Land Tenure Institutions, INCRA, municipal governments and NGOs who have been consulted at the project design stage. The ESA and ESMF report was received by the Bank on July 15, 2010. It was disclosed in the country on July 29, 2010, and sent to the InfoShop on August 3, 2010.

12. In the event of conflicting claims on private land, the project would submit the geo-referenced information on the land in question to the OEMA, State Land Tenure Institutions and INCRA. The land in question would not be registered in the CAR (the project will not register in the CAR system any landholding which is the subject of ownership dispute between private parties). The same approach will be applied in the case of claimed lands overlapping with protected or indigenous areas.

13. **Stakeholder consultations:** The consultation process consists of a two-stage process. The first phase involved preparatory meetings from March to May 2010 in Brasilia, Cuiabá (Mato Grosso) and Belém (Pará) (the latter two containing the potential target municipalities) to discuss the concept of the proposed project.

14. During the first stage of the consultation process, the scope, objectives and timing of the project were discussed with representatives of the MMA, INCRA and OEMAs in Brasilia, followed by direct meetings with municipal government representatives in Cuiabá. The proposed approach and activities have received widespread support from State and local governments and INCRA. It was agreed that the project will include a mechanism to keep MMA, OEMAs and INCRA fully informed of project implementation activities.

15. The second phase of the consultation process aimed at discussing specific project activities and targeted municipalities, plus Belém, Cuiabá and Brasilia. This phase was more focused on rural civil society organizations active in the productive sector, as well as FUNAI and indigenous organizations. Meetings were held in the target municipalities in June and July 2010 to discuss the possibility of environmental and social issues arising during implementation. Similar consultations were held with land regularization agencies.

16. **Natural Habitats** (OP/BP 4.04). Activities under project components should lead to positive impacts on natural habitats, such as their conservation and recuperation. Nevertheless, OP 4.04 is triggered and therefore all planning activities must follow World Bank policies, identifying monitoring and management activities to prevent or mitigate any possible negative impact. The rural environmental cadastre procedures will be consistent with: (i) the Brazilian Forest Code; (ii) the Brazilian legislation on protected areas (SNUC - Law 9985 of 2000, Decree 4340 of 2002 and Decree 5758 of 2006); (iii) the national, state and local legislation concerning

natural habitats; and, (iv) the principle of avoiding the registration of any landholders that not cadastre any rural landholding that overlap demarcated Protected areas.

17. The Brazilian Forest Code requires landholders to retain natural vegetation on steep slopes, along watercourses (up to a given distance from the waters edge) or in the vicinity of springs (APPs). Legal Reserve areas (RL) must also be set aside. The required size of the RL differs according to the biome. In the Amazon Biome, the Legal Reserve requires 80% of the private land holding to be retained as native vegetation (in the Amazon the area of the APP is included in the calculation).

18. Compliance by landholders with these requirements is at the heart of the efforts by the Federal and State Environmental Agencies to monitor and control deforestation and to secure CAR registration of APP and RL in private holdings. This project will assist rehabilitation of degraded natural habitats in Legal Reserves (LR) and Areas of Permanent Protection (APP).

19. **Physical Cultural Resources** (OP/BP 4.11). It is not expected that Project implementation will have negative impacts on physical cultural resources. Under Brazilian legislation provisions for the protection of cultural property form part of environmental licensing procedures. The National Institute for Historical and Cultural Heritage (IPHAN) is the Brazilian institution responsible for handling archeological and cultural property issues. Whenever “chance findings” occur, it is incumbent, under federal and state law, for Brazilian Government agencies to seek IPHAN’s support to deal with such issues.

20. **Involuntary Resettlement** (OP/BP 4.12). Involuntary population displacement and/or adverse indirect social or economic impacts on livelihoods are not envisaged at present. In accordance with WB OP 4.12, the project is exempt from the Involuntary Resettlement policy because: (i) no person would be displaced or relocated from his/her landholding; (ii) the CAR focuses on regulating natural resources management on a national and State level (Presidential Decree 7029 of 2009); (iii) the project would not restrict management of natural resources; (iv) the CAR focuses on regulating natural resources management on a national and State level (Presidential Decree 7029 of 2009) with the aim of promoting their sustainability; and, (v) the project will not register in the CAR system any land which is the subject of dispute between private parties

21. This project will not affect the rights or welfare of landholders, or their dependence upon, or interaction with, the forest. The enforcement of restrictions will not affect access to natural resources in protected areas.

22. **Indigenous Peoples** (OP/BP 4.10). The locations selected for project interventions do not include any areas traditionally occupied or used by indigenous communities or “*quilombolas*”, as defined under the Federal Constitution, the Indian Statute and other national legal and

administrative provisions, regardless of whether such areas are formally demarcated or not. As a precautionary measure, no holding will be registered in CAR if it is found to overlap with land claimed by indigenous peoples, even in cases where such land is not yet declared or registered as indigenous land. No negative impacts are thus foreseen on indigenous peoples or other ethnic groups. A specific guideline to prevent any project activities and potential impact on indigenous peoples will be included in the Project Operations Manual.

23. In the event of indigenous land being accidentally *registered* in the environmental cadastre under a private holding, this would have no legal effect on indigenous rights since: (i) registration in CAR does not imply acknowledging the land tenure status of the specific holding; and (ii) any title issued which incorporates indigenous land will be null and void.

24. **Forests** (OP/BP 4.36). This project will contribute to conserving, restoring and monitoring Amazon forests. It is expected to have a positive impact by securing the retention and maintenance of natural vegetation in parts of private rural holdings (all land on steep slopes, along watercourses (up to a given distance from the waters edge) or in the vicinity of springs. These areas are defined as Areas of Permanent Preservation (APPs).

25. The project will also contribute to conserving and/or restoring a set-aside area called a Legal Reserve (Reserva Legal – RL) in the private holdings. The required size of the RL differs according to the biome. In the Amazon biome, the Legal Reserve requires 80% of the private landholding to be retained with native vegetation (except in areas indicated by State Ecological Economic Zoning, where a limit of 50% applies)²². In the Amazon the APP area is included in the calculation.

26. The registration of landholdings in the CAR includes only those landholders who have signed the Terms of Adhesion and Commitment to environmental regularization. The Terms of Adhesion and Commitment imply that landholder violators will remove the “environmental liabilities” on the properties by restoring (or compensating for) cleared areas by planting native species.

27. In cases where landholdings are not in full compliance with the environmental regularization, the State of Mato Grosso (Law 343 of 2008 and Decree 2238 of 2009) require a Plan to Rehabilitate Degraded Areas (PRAD) to have been prepared in order to effect registration in the CAR. The PRAD would contain provisions such as the requirement to plant native species in illegally-cleared areas.

²² The percentage is 20% in the rest of Brazil, and 35% in Cerrado ecosystems (savanna) in the so called Legal Amazon.

28. A six-month provisional registration is accepted in Pará, during which period the PRAD must be submitted to the OEMA. This must be followed by definitive registration within six months, indicating the location of the set-aside area (RL) and APPs and, wherever necessary, to include the PRAD. In order to comply with the State requirement, the project will provide financial support for the preparation of the PRADs in Mato Grosso, although the landholder will remain responsible for its implementation after project conclusion.

Annex 11: Project Preparation and Supervision

Brazil: Rural Environmental Cadastre Technical Assistance Project

	Planned	Actual
PCN review	May 13, 2010	May 13, 2010
Initial PID to PIC		June 11, 2010
Initial ISDS to PIC		July 08, 2010
Appraisal	July 30, 2010	July 30, 2010
Negotiations	August 16, 2010	August 20, 2010
Board/RVP approval	n/a	
Planned date of effectiveness	September 30, 2010	
Planned date of mid-term review	January 10, 2011	
Planned closing date	June 30, 2011	

Key institutions responsible for preparation of the Program: Ministry of Environment and The Nature Conservancy (TNC do Brasil).

Bank staff and consultants who worked on the initiative included:

Name	Title	Unit
Bernadete Lange	TTL, Environmental Specialist	LCSSEN
Garo Batmanian	Senior Environmental Specialist, RFT Manager	LCSSEN
Alberto Ninio	Lead Counsel	LEGLA
Cristina Roriz	Operation Analyst	LCSRF
Eduardo Franca	Financial Management Systems, ET Consultant	LCSFM
Frederico Rabello	Procurement Specialist	LCOPR
Mark Lundell	Sector Leader	LCSSD
Christoph Diewald	Consultant	
Daniel Gross	Social Specialist, Consultant	

Bank funds expended to date on projects preparation:

1. Bank resources: US\$ 0
2. Trust funds: US\$ 51,899.97
3. Total: US\$ 51,899.97

Estimated Approval and Supervision costs:

1. Estimated costs to approval: US\$ 10,000.
2. Estimated annual supervision cost: US\$ 20,000.

The estimated budget for the project is US\$ 82,000.

Annex 12: Documents in the Project File

Brazil: Rural Environmental Cadastre Technical Assistance Project

Rural Environmental Cadastre Technical Assistance PCN Minutes. 05/13/2010

Rural Environmental Cadastre Technical Assistance QER Minutes. 06/15//2010

Relevant Legislation (all only in Portuguese)

- ③ **Federal Law N°. 4.771**, dated 15 September 1965, which institutes the National Forestry Code.
- ③ **Presidential Decree N°. 6.321**, dated 21 December 2007, which requires the publication by the Ministry of the Environment of an annual list of Amazon municipalities that contribute most to deforestation.
- ③ **Federal Law N°. 11.952**, dated 25 June 2009, which defines the requirements for land tenure regularization.
- ③ **Federal Decree 7.029**, dated 10 December 2009, which create the Federal Program to support the Environmental Regularization of Private Rural Holdings (“Mais Ambiente” Program).
- ③ **Mato Grosso State Law 343**, dated 24 December 2008, which create the Sate Program to support the land tenure regularization (Programa Mato-grossense de Regularização Ambiental Rural – MT LEGAL).
- ③ **Mato Grosso State Decree 2.238**, dated 13 November 2009, which organizes the implementation of the MT Legal and requires the Plan for the Rehabilitation of Degraded Areas of Permanent Preservation (PRAD).
- ③ **Presidential Decree N°. 9.992**, dated 28 October 2009, which institutes the “Terra Legal” program and defines land tenure regularization procedures in the Amazon region.
- ③ **Presidential Decree N°. 4.339**, dated 22 August 2002, which institutes the National Policy on Biodiversity.
- ③ **Presidential Decree N°. 5.092**, dated 21 May 2004, which defines priority areas for the conservation of biodiversity.
- ③ **MMA Decree (Portaria) N°. 126**, dated 27 May 2004, which defines the methodologies for the identification of priority areas for conservation, sustainable use and partition of the Brazilian biodiversity benefits.
- ③ **Federal Law N°. 6.938**, dated 31 August 1981, which institutes the National Policy for the Environment and the National Environment System (SISNAMA).
- ③ **Federal Law N°. 9.985**, dated 18 July 2000, which institutes the National Protected Areas System (SNUC).
- ③ **Presidential Decree N°. 4.340**, dated 22 August 2002, which organizes the implementation of the SNUC law.
- ③ **Presidential Provisional Decree N°. 2.166-67**, dated 24 August 2001, which alters sever key environmental laws.

Annex 13: Statement of Loans and Credits

Brazil: Rural Environmental Cadastre Technical Assistance Project

Project ID	FY	Purpose	Original Amount in US\$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P118077	2011	BR AF São Paulo Feeder Roads	326.80	0.00	0.00	0.00	0.00	326.80	0.00	0.00
P106768	2011	BR Rio de Janeiro Public Sector Technical Assistance	18.70	0.00	0.00	0.00	0.00	18.70	0.00	0.00
P111665	2011	BR- RJ Munic Fiscal Consolid DPL	1,045.00	0.00	0.00	0.00	0.00	1,045.00	0.00	0.00
P101508	2010	BR-RJ Sustainable Rural Development	39.50	0.00	0.00	0.00	0.00	36.59	2.83	0.00
P108654	2010	BR Pernambuco Sustainable Water	190.00	0.00	0.00	0.00	0.00	189.53	0.51	0.00
P108443	2010	BR SP Sust Rural Dev & Access to Markets	78.00	0.00	0.00	0.00	0.00	78.00	0.50	0.00
P104995	2010	BR Municipal APL5: Santos	44.00	0.00	0.00	0.00	0.00	43.89	2.67	0.00
P106703	2010	BR SP Water Reagua	64.50	0.00	0.00	0.00	0.00	64.50	0.21	0.00
P106663	2010	BR Sao Paulo Feeder Roads Project	166.65	0.00	0.00	0.00	0.00	12.48	-153.75	0.00
P106390	2010	BR SP METRO LINE 4 (PHASE 2)	130.00	0.00	0.00	0.00	0.00	130.00	0.00	0.00
P099469	2010	BR (APL2) 2nd National Environmental	24.30	0.00	0.00	0.00	0.00	24.24	0.00	0.00
P111996	2010	BR RJ Mass Transit II	211.70	0.00	0.00	0.00	0.00	193.89	-17.28	0.00
P113540	2010	BR AIDS-SUS	67.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00
P006553	2010	BR SP APL Integrated Wtr Mgmt	104.00	0.00	0.00	0.00	0.00	103.75	20.28	0.00
P118410	2010	BR Mato Grosso do Sul Road	300.00	0.00	0.00	0.00	0.00	300.00	0.00	0.00
P114204	2010	ELETRORBRAS Distribution Rehabilitation	495.00	0.00	0.00	0.00	0.00	495.00	0.00	0.00
P116170	2010	BR Sao Paulo Metro Line 5	650.40	0.00	0.00	0.00	0.00	650.40	0.00	0.00
P104752	2009	BR Paraiba 2nd Rural Pov Reduction	20.90	0.00	0.00	0.00	0.00	20.85	0.00	0.00
P094315	2009	BR Municipal APL4: Sao Luis	35.64	0.00	0.00	0.00	0.00	33.49	-1.71	0.00
P095205	2009	BR 1st Prog. DPL for Sust. Env Mgmt	1,300.00	0.00	0.00	0.00	0.00	500.00	-795.45	0.00
P099369	2009	BR Ceara Regional Development	46.00	0.00	0.00	0.00	0.00	45.13	-0.46	0.00
P106208	2009	BR Pernambuco Educ Results& Account.	154.00	0.00	0.00	0.00	0.00	97.84	15.62	0.00
P110614	2009	BR: Sergipe State Int. Proj.: Rural Pov	20.80	0.00	0.00	0.00	0.00	16.04	4.13	0.00
P107843	2009	BR Fed District Multisector Manag. Proj.	130.00	0.00	0.00	0.00	0.00	129.68	46.74	0.00
P107146	2009	BR Acre Social Economic Inclusion Sust D	120.00	0.00	0.00	0.00	0.00	97.92	-0.11	0.00
P106767	2009	BR RGS Fiscal Sustainability DPL	1,100.00	0.00	0.00	0.00	0.00	450.00	450.00	0.00
P106765	2009	BR Ceara Inclusive Growth (SWAp II)	240.00	0.00	0.00	0.00	0.00	119.66	37.35	0.00
P088716	2009	BR Health Network Formation & Quality Im	235.00	0.00	0.00	0.00	0.00	234.41	10.27	0.00
P101324	2008	BR-Second Minas Gerais Dev't PArtnership	1,437.00	0.00	0.00	0.00	0.00	589.04	11.77	0.00
P106038	2008	BR Sao Paulo Trains and Signalling	550.00	0.00	0.00	0.00	0.00	283.25	165.20	0.00
P095626	2008	BR (APL2)Family Health Extension 2nd APL	83.45	0.00	0.00	0.00	0.00	70.24	27.40	0.00
P083997	2008	BR Alto Solimoes Basic Services and Sust	24.25	0.00	0.00	0.00	0.00	18.93	5.36	0.00
P088966	2008	BR Municipal APL3: Teresina	31.13	0.00	0.00	0.00	0.00	28.48	7.60	0.00
P094199	2008	BR-(APL) RS (Pelotas) Integr. Mun. Dev.	54.38	0.00	0.00	0.00	0.00	39.31	11.06	0.00

P089013	2008	BR Municipal APL: Recife	32.76	0.00	0.00	0.00	0.00	32.68	18.12	0.00
P089929	2008	BR RGN State Integrated Water Res Mgmt	35.90	0.00	0.00	0.00	0.00	30.11	22.96	0.00
P082651	2007	BR APL 1 Para Integrated Rural Dev	60.00	0.00	0.00	0.00	0.00	51.20	48.87	0.00
P089011	2007	BR Municipal APL1: Uberaba	17.27	0.00	0.00	0.00	0.00	10.02	8.12	0.00
P089793	2007	BR State Pension Reform TAL II	5.00	0.00	0.00	0.00	0.00	4.99	3.75	0.00
P095460	2007	BR-Bahia Integr.Hway Mngmt.	100.00	0.00	0.00	0.00	0.00	68.35	18.22	0.00
P081436	2006	BR-Bahia Poor Urban Areas Integrated Dev	49.30	0.00	0.00	0.00	0.00	38.96	38.96	0.00
P050761	2006	BR-Housing Sector TAL	4.00	0.00	0.00	0.00	2.70	0.65	3.35	-0.47
P093787	2006	BR Bahia State Integ Proj Rur Pov	84.35	0.00	0.00	0.00	0.00	30.00	0.00	0.00
P089440	2006	BR-Brasilia Environmentally Sustainable	57.64	0.00	0.00	0.00	0.00	21.22	21.22	0.00
P092990	2006	BR - Road Transport Project	501.25	0.00	0.00	0.00	0.00	164.04	164.04	0.00
P090041	2006	BR ENVIRONMENTAL SUST. AGENDA TAL	8.00	0.00	0.00	0.00	0.00	4.78	4.75	2.61
P076924	2005	BR- Amapa Sustainable Communities	4.80	0.00	0.00	0.00	0.23	1.78	2.01	1.78
P083533	2005	BR TA-Sustain. & Equit Growth	12.12	0.00	0.00	0.00	0.00	7.45	7.45	0.00
P087711	2005	BR Espirito Santo Wtr & Coastal Pollu	107.50	0.00	0.00	0.00	0.00	16.57	-54.75	-22.75
P060573	2004	BR Tocantins Sustainable Regional Dev	60.00	0.00	0.00	0.00	0.00	13.99	13.99	0.00
P076977	2003	BR-Energy Sector TA Project	12.12	0.00	0.00	0.00	0.00	4.74	4.74	0.00
P049265	2003	BR-RECIFE URBAN UPGRADING PROJECT	46.00	0.00	0.00	0.00	0.00	6.91	6.91	0.00
P066170	2002	BR-RGN Rural Poverty Reduction	45.00	0.00	0.00	0.00	0.00	6.66	-15.78	6.72
P060221	2002	BR FORTALEZA METROPOLITAN TRANSPORT PROJ	85.00	0.00	0.00	0.00	62.60	4.93	58.01	6.30
P051696	2002	BR SÃO PAULO METRO LINE 4 PROJECT	304.00	0.00	0.00	0.00	0.00	5.51	-89.25	5.75
P006449	2000	BR CEARA WTR MGT PROGERIRH SIM	239.00	0.00	0.00	0.00	0.00	87.05	-15.69	4.64
Total:			11,409.11	0.00	0.00	0.00	65.53	7,166.63	120.74	4.58

BRAZIL
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2005	ABN AMRO REAL	98.00	0.00	0.00	0.00	15.77	0.00	0.00	0.00
2005	ABN AMRO REAL	98.00	0.00	0.00	0.00	15.77	0.00	0.00	0.00
2001	AG Concession	0.00	30.00	0.00	0.00	0.00	30.00	0.00	0.00
2002	Amaggi	17.14	0.00	0.00	0.00	17.14	0.00	0.00	0.00
2005	Amaggi	30.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
2002	Andrade G. SA	22.00	0.00	10.00	12.12	22.00	0.00	10.00	12.12
2001	Apolo	6.04	0.00	0.00	0.00	3.54	0.00	0.00	0.00
1998	Arteb	20.00	0.00	0.00	18.33	20.00	0.00	0.00	18.33
2006	BBM	49.40	0.00	0.00	0.00	49.40	0.00	0.00	0.00

2001	Brazil CGFund	0.00	19.75	0.00	0.00	0.00	18.15	0.00	0.00
2004	CGTF	54.01	0.00	7.00	65.12	54.01	0.00	7.00	65.12
1994	CHAPECO	10.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
1996	CHAPECO	1.50	0.00	0.00	5.26	1.50	0.00	0.00	5.26
2003	CPFL Energia	0.00	40.00	0.00	0.00	0.00	40.00	0.00	0.00
1996	CTBC Telecom	3.00	8.00	0.00	0.00	3.00	8.00	0.00	0.00
1997	CTBC Telecom	0.00	6.54	0.00	0.00	0.00	6.54	0.00	0.00
1999	Cibrasec	0.00	3.27	0.00	0.00	0.00	3.27	0.00	0.00
2004	Comgas	11.90	0.00	0.00	11.54	11.90	0.00	0.00	11.54
2005	Cosan S.A.	50.00	5.00	15.00	0.00	50.00	5.00	15.00	0.00
	Coteminas	0.00	1.84	0.00	0.00	0.00	1.84	0.00	0.00
1997	Coteminas	1.85	1.25	0.00	0.00	1.85	1.25	0.00	0.00
2000	Coteminas	0.00	0.18	0.00	0.00	0.00	0.18	0.00	0.00
1980	DENPASA	0.00	0.52	0.00	0.00	0.00	0.48	0.00	0.00
1992	DENPASA	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.00
	Dixie Toga	0.00	0.34	0.00	0.00	0.00	0.34	0.00	0.00
1998	Dixie Toga	0.00	10.03	0.00	0.00	0.00	10.03	0.00	0.00
1997	Duratex	1.36	0.00	3.00	0.57	1.36	0.00	3.00	0.57
2005	EMBRAER	35.00	0.00	0.00	145.00	35.00	0.00	0.00	145.00
1999	Eliane	14.93	0.00	13.00	0.00	14.93	0.00	13.00	0.00
1998	Empesca	1.33	0.00	2.67	0.00	1.33	0.00	2.67	0.00
2006	Endesa Brasil	0.00	50.00	0.00	0.00	0.00	50.00	0.00	0.00
2006	Enerbrasil Ltda	0.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00
2006	FEBR	12.00	0.00	0.00	0.00	12.00	0.00	0.00	0.00
2000	Fleury	0.00	0.00	6.00	0.00	0.00	0.00	6.00	0.00
1998	Fras-le	4.00	0.00	9.34	0.00	4.00	0.00	6.04	0.00
2006	GOL	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	GP Capital III	0.00	14.00	0.00	0.00	0.00	0.14	0.00	0.00
	GP Cptl Rstrctd	0.00	2.22	0.00	0.00	0.00	2.16	0.00	0.00
2001	GPC	0.00	0.00	9.00	0.00	0.00	0.00	9.00	0.00
	GTFP BIC Banco	44.91	0.00	0.00	0.00	44.91	0.00	0.00	0.00
	GTFP BM Brazil	4.22	0.00	0.00	0.00	4.22	0.00	0.00	0.00
	GTFP Indusval	5.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00
1997	Guilman-Amorim	18.08	0.00	0.00	14.37	18.08	0.00	0.00	14.37
1998	Icatu Equity	0.00	5.46	0.00	0.00	0.00	4.16	0.00	0.00
1999	Innova SA	0.00	5.00	0.00	0.00	0.00	5.00	0.00	0.00
1980	Ipiranga	0.00	2.87	0.00	0.00	0.00	2.87	0.00	0.00
1987	Ipiranga	0.00	0.54	0.00	0.00	0.00	0.54	0.00	0.00
2006	Ipiranga	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	Itambe	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	Itau-BBA	12.86	0.00	0.00	0.00	12.86	0.00	0.00	0.00
2002	Itau-BBA	70.61	0.00	0.00	0.00	38.47	0.00	0.00	0.00
1999	JOSAPAR	7.57	0.00	7.00	0.00	2.57	0.00	7.00	0.00
2005	Lojas Americana	35.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
1992	MBR	0.00	0.00	10.00	0.00	0.00	0.00	10.00	0.00
2006	MRS	50.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00
2002	Microinvest	0.00	1.25	0.00	0.00	0.00	0.82	0.00	0.00
	Net Servicos	0.00	10.93	0.00	0.00	0.00	10.93	0.00	0.00
2002	Net Servicos	0.00	1.60	0.00	0.00	0.00	1.60	0.00	0.00

2005	Net Servicos	0.00	5.08	0.00	0.00	0.00	5.08	0.00	0.00
1994	Para Pigmentos	2.15	0.00	9.00	0.00	2.15	0.00	9.00	0.00
1994	Portobello	0.00	0.59	0.00	0.00	0.00	0.59	0.00	0.00
2000	Portobello	4.28	0.00	7.00	0.00	4.28	0.00	7.00	0.00
2002	Portobello	0.00	0.90	0.00	0.00	0.00	0.90	0.00	0.00
2000	Puras	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
2003	Queiroz Galvao	26.67	0.00	10.00	0.00	26.67	0.00	10.00	0.00
2004	Queiroz Galvao	0.60	0.00	0.00	0.00	0.08	0.00	0.00	0.00
2006	RBSec	22.83	1.51	0.00	0.00	0.00	1.51	0.00	0.00
	Randon Impl Part	2.33	0.00	3.00	0.00	2.33	0.00	3.00	0.00
1997	Sadia	2.55	0.00	2.33	3.28	2.55	0.00	2.33	3.28
1997	Samarco	3.60	0.00	0.00	0.00	3.60	0.00	0.00	0.00
1998	Saraiva	0.00	1.24	0.00	0.00	0.00	1.24	0.00	0.00
2000	Sepetiba	26.24	0.00	5.00	0.00	11.24	0.00	5.00	0.00
2002	Suape ICT	6.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00
1999	Sudamerica	0.00	7.35	0.00	0.00	0.00	7.35	0.00	0.00
2006	Suzano petroq	50.00	0.00	10.00	140.00	39.50	0.00	10.00	110.50
2001	Synteko	11.57	0.00	0.00	0.00	11.57	0.00	0.00	0.00
2006	TAM	50.00	0.00	0.00	0.00	17.00	0.00	0.00	0.00
1998	Tecon Rio Grande	3.55	0.00	5.50	3.71	3.55	0.00	5.50	3.71
2004	Tecon Rio Grande	7.87	0.00	0.00	7.76	7.59	0.00	0.00	7.48
2001	Tecon Salvador	2.95	1.00	0.00	3.10	2.95	0.77	0.00	3.10
2003	Tecon Salvador	0.00	0.55	0.00	0.00	0.00	0.55	0.00	0.00
2004	TriBanco	10.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
2006	TriBanco	0.35	0.00	0.00	0.00	0.35	0.00	0.00	0.00
2002	UP Offshore	9.01	9.51	0.00	23.29	0.00	2.51	0.00	0.00
2002	Unibanco	16.89	0.00	0.00	0.00	16.89	0.00	0.00	0.00
Total portfolio:		1,164.15	253.88	144.84	503.45	703.91	223.86	141.54	400.38

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
2000	BBA	0.01	0.00	0.00	0.00
1999	Cibrasec	0.00	0.00	0.00	0.00
2006	Ipiranga II	0.00	0.00	0.00	0.10
2002	Banco Itau-BBA	0.00	0.00	0.00	0.10
Total pending commitment:		0.01	0.00	0.00	0.20

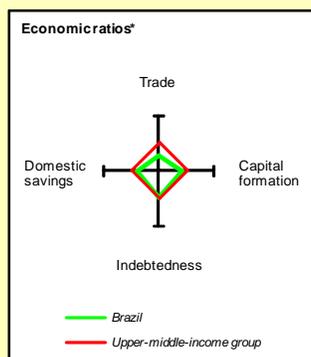
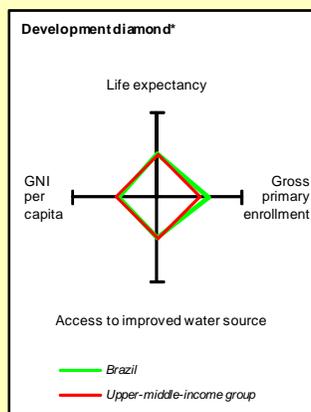
Annex 14: Country at a Glance

Brazil: Rural Environmental Cadastre Technical Assistance Project

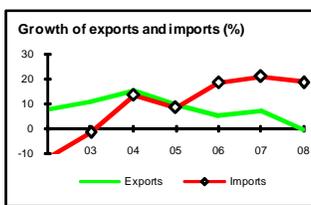
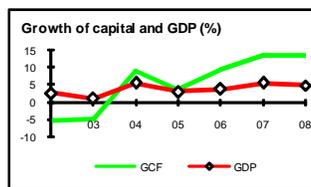
Brazil at a glance

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	Brazil	Latin America & Carib.	Upper-middle-income		
POVERTY and SOCIAL					
2008					
Population, mid-year (millions)	192.0	565	949		
GNI per capita (Atlas method, US \$)	7,300	6,781	7,878		
GNI (Atlas method, US \$ billions)	1,401.3	3,833	7,472		
Average annual growth, 2002-08					
Population (%)	1.2	1.2	0.8		
Labor force (%)	2.1	2.2	1.7		
Most recent estimate (latest year available, 2002-08)					
Poverty (% of population below national poverty line)	22		
Urban population (% of total population)	84	79	75		
Life expectancy at birth (years)	72	73	71		
Infant mortality (per 1,000 live births)	18	22	21		
Child malnutrition (% of children under 5)	2	5	..		
Access to an improved water source (% of population)	91	91	94		
Literacy (% of population age 15+)	90	91	94		
Gross primary enrollment (% of school-age population)	130	117	110		
Male	134	119	112		
Female	125	115	108		
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1988	1998	2007	2008	
GDP (US \$ billions)	330.4	843.8	1,333.3	1,575.2	
Gross capital formation/GDP	22.7	17.0	17.7	18.9	
Exports of goods and services/GDP	10.9	6.9	13.7	14.3	
Gross domestic savings/GDP	27.9	15.0	19.3	19.1	
Gross national savings/GDP	23.9	13.0	17.6	17.1	
Current account balance/GDP	1.3	-4.0	0.1	-1.8	
Interest payments/GDP	1.9	1.7	1.1	1.0	
Total debt/GDP	30.7	26.6	17.3	16.2	
Total debt service/exports	25.9	80.7	24.2	25.1	
Present value of debt/GDP	19.6	15.6	
Present value of debt/exports	117.2	111.2	
	1988-98	1998-08	2007	2008	2008-12
(average annual growth)					
GDP	2.3	3.3	5.7	5.1	2.8
GDP per capita	0.7	2.0	4.6	4.1	0.8
Exports of goods and services	5.4	9.1	6.7	-0.6	14.8



	1988	1998	2007	2008
STRUCTURE of the ECONOMY				
<i>(% of GDP)</i>				
Agriculture	10.1	5.5	6.0	6.7
Industry	43.6	25.7	28.1	28.0
Manufacturing	31.0	15.7	17.4	16.0
Services	46.2	68.8	66.0	65.3
Household final consumption expenditure	59.5	64.3	60.8	60.7
General government final consumption expenditure	12.6	20.6	19.9	20.2
Imports of goods and services	5.7	8.9	12.1	14.2
	1988-98	1998-08	2007	2008
(average annual growth)				
Agriculture	2.5	4.4	5.9	5.8
Industry	1.5	2.8	4.8	4.3
Manufacturing	2.6	3.0	4.7	3.2
Services	3.3	4.0	6.0	5.3
Household final consumption expenditure	3.9	3.0	8.8	6.9
General government final consumption expenditure	0.7	2.9	4.7	5.6
Gross capital formation	2.6	2.8	13.5	13.8
Imports of goods and services	14.6	5.5	20.8	18.5



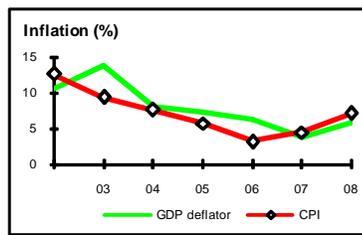
Note: 2008 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

*The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

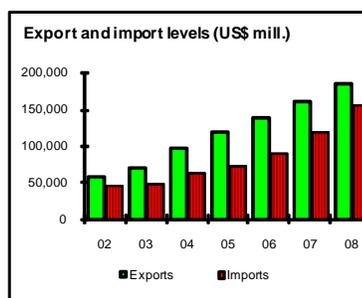
PRICES and GOVERNMENT FINANCE

	1988	1998	2007	2008
Domestic prices				
<i>(% change)</i>				
Consumer prices	980.2	1.7	4.5	7.1
Implicit GDP deflator	651.1	4.2	3.7	5.9
Government finance				
<i>(% of GDP, includes current grants)</i>				
Current revenue	10.8	18.8	23.9	24.8
Current budget balance	-2.0	0.4	2.3	3.0
Overall surplus/deficit	#####	-0.8	-2.3	-1.6



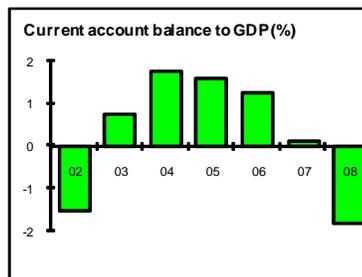
TRADE

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Total exports (fob)	32,809	50,736	160,649	184,216
Coffee	2,091	3,253	11,629	20,183
Soybeans	3,175	2,178	8,030	13,462
Manufactures	18,389	29,387	87,254	88,483
Total imports (cif)	14,605	57,714	120,622	155,475
Food	376	2,514	0	2,582
Fuel and energy	4,104	4,109	16,345	24,978
Capital goods	4,195	16,093	25,124	32,190
Export price index (2000=100)	88	99	114	128
Import price index (2000=100)	44	104	94	100
Terms of trade (2000=100)	199	95	121	127



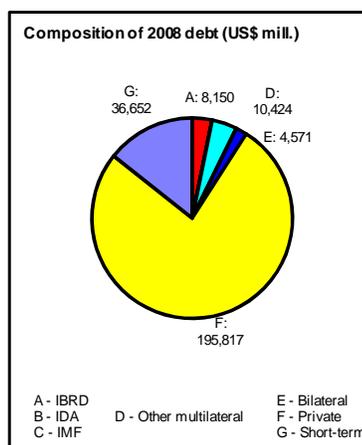
BALANCE of PAYMENTS

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Exports of goods and services	35,650	59,037	184,603	228,393
Imports of goods and services	17,500	75,722	157,795	220,247
Reserve balance	18,150	-16,685	26,808	8,146
Net income	-13,776	-18,188	-29,291	-40,562
Net current transfers	-20	1,458	4,029	4,224
Current account balance	4,180	-33,416	1,551	-28,192
Financing items (net)	-2,931	25,446	85,933	31,161
Changes in net reserves	-1,249	7,970	-87,484	-2,969
Memo:				
Reserves including gold (US\$ millions)	9,140	44,556	180,334	216,881
Conversion rate (DE C, local/US\$)	9.53E-8	12	19	18



EXTERNAL DEBT and RESOURCE FLOWS

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	101,295	224,632	231,032	255,614
IBRD	1,824	171	6,704	8,150
IDA	0	0	0	0
Total debt service	9,448	48,465	53,941	55,420
IBRD	429	77	480	481
IDA	0	0	0	0
Composition of net resource flows				
Official grants	46	103	178	211
Official creditors	-340	3,632	-754	2,076
Private creditors	3,194	15,728	19,105	27,188
Foreign direct investment (net inflows)	2,804	31,913	34,585	45,058
Portfolio equity (net inflows)	189	-1,768	26,217	-7,565
World Bank program				
Commitments	0	0	1,335	2,962
Disbursements	0	0	374	1,606
Principal repayments	268	61	115	146
Net flows	-268	-61	258	1,459
Interest payments	161	15	364	335
Net transfers	-429	-77	-106	1,125



Note: This table was produced from the Development Economics LDB database.

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Annex 15: Maps

Brazil: Rural Environmental Cadastre Technical Assistance Project

Map 1: Amazon municipalities that contribute most to deforestation (2010)

