



**Cover Page**

i.	Project Name	Carbono Nascentes do Xingu
ii.	Project Location	Private properties in the Xingu Basin in Mato Grosso, Brazil.
iii.	Project Proponent	Instituto Socioambiental Rodrigo Junqueira <a href="mailto:rodrigojunqueira@socioambiental.org">rodrigojunqueira@socioambiental.org</a> Fone: +55 61 3035 5114
iv.	Auditor	Rainforest Alliance Lawson Henderson <a href="mailto:lhenderson@ra.org">lhenderson@ra.org</a> Fone: (802)923-3766  Imaflora Bruno Brazil de Souza <a href="mailto:bruno@imaflora.org">bruno@imaflora.org</a> Fone: +55 19 3429 0848  <i>Imaflora, acting as an approved subcontractor for Rainforest Alliance, will be conducting the audit.</i>
v.	Project Start Date	01 October 2011
	GHG accounting period	01 October 2011 to 01 October 2042
	Lifetime	31 years
vi.	Whether the document relates to a full validation or a gap validation	Full validation document
vii.	History of CCB Status	The project applied to the validation in the CCB standard 25 February 2015, having been removed before validation one year later.
viii.	CCB Standards edition	CCBA. 2013. Climate, Community & Biodiversity Project Design Standards Third Edition. CCBA, Arlington, VA, EUA. Dezembro de 2013. At: <a href="http://www.climate-standards.org">www.climate-standards.org</a>
ix.	Summary of the project's expected climate, community and biodiversity benefits	The project comprises the restoration of native vegetation in degraded riparian areas on private farms in the basin of the Xingu River in the state of Mato Grosso. It results directly in climate benefits, since previous land use does not fix carbon above ground. Therefore, forest restoration activities implies on net removals of CO <sub>2</sub> . The Carbono Nascentes do Xingu Project, part of the Xingu PoA, will remove 61,533 tons of CO <sub>2</sub> from the atmosphere during a 30 years period. The project's restoration activities are included in the Campaign 'Y Ikatu Xingu, acting since 2006 in the region of the headwaters of the Xingu River in order to protect and restore the waters of the Xingu and its tributaries. It is a campaign in which responsibilities are differentiated and shared between different



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		social actors - ranchers, small farmers, indigenous peoples, civil society organizations, government agencies-, regarding the protection of the waters of the Xingu. Water is the motto of the campaign, which puts historically antagonistic social actors working together for a common goal. This is perhaps the main social benefit of the project, but certainly not the only one. The Xingu Seed Network, born within the campaign's activities, provides the raw material for farmers to start their forest restoration practices - the native seeds. Since it generates sustainable income for more than 300 seed collectors, mostly indigenous peoples and small farmers, many of them women, it enhances the chances of conservation of standing forests where seeds are collected. Besides the collateral conservation and recovering of environmental goods and services related to water and forests, the project's benefits to biodiversity comes from habitat restoration on riverbanks and wetlands and from increased landscape connectivity, in an area considered a world hotspot for biodiversity conservation, a transition zone between two important biomes - Cerrado and Amazon, which are under heavy pressure from agricultural activities.
x.	Gold Level criteria	Not applicable
xi.	Date of completion of this version of the PDD	31 May 2016, v.3.0
xii.	Expected schedule for verification	Verifying expected to August 2016





Carbono Nascentes do Xingu Project

## **Carbono Nascentes do Xingu project**

**Brief**

**31 May 2016**



The Carbono Nascentes do Xingu project is part of the Xingu PoA and the Y'ikatu Xingu Campaign. The Instituto Socioambiental (ISA) is the main proposing institution of this project. ISA coordinates its execution and is responsible for the implementation of its activities. The Instituto Centro de Vida (ICV), coordinated the development of the PoA Xingu (Program of Activities)<sup>1</sup>, the main source of information used in PD submitted for CCB validation and its summary is presented here.

The project's main objective is the restoration of riparian 'Areas of Permanent Preservation' (APPs) on private farms located on the Xingu River headwaters, in the state of Mato Grosso. It was estimated that in 2009 there were 366 000 ha of deforested APPs in the region, and other 216 000 ha of degraded or altered APPs<sup>2</sup>, representing, respectively, 22% and 13% of total APPs on private farms in the region (1.6 million hectare)<sup>3</sup>. Indeed, it is also estimated that 33% of the almost 22 000 water springs located in the Xingu headwaters are missing any protective native vegetation and other 17% are protected with only altered vegetation (ISA and ICV, 2010).

The Xingu River is a symbol of Brazil's biological and cultural diversity. Its waters flow through landscapes as diverse as the cultures of the people who live by it. It's watershed covers over 51 million hectares, including parts of Mato Grosso and Para states. Xingu river flows 2,700 km from the Cerrado (brazilian savannah) in central Brazil, down into the Brazilian Amazon, delivering 8,728 cubic meters per second to the Amazon river.

The Xingu Basin occupies 17.7 million hectares in the Mato Grosso state, from which 12.6 million hectare are public and private land, 4.2 million hectare are Indigenous peoples Territories, 600 000 hectares are rural settlements of small farmers and only 200 000 hectares are biodiversity Conservation Areas. Nevertheless, there are significant areas of still preserved Cerrado, Amazon and transitional vegetation bearing rich biodiversity, which includes endemic plant and animal species (which do not exist in other region). Additionally, it is becoming a huge sociobiodiversity corridor in Brazil, with 28 million hectares, comprising 10 protected areas (PAs) and 20 contiguous Indigenous Lands (TIs) - see Figure 1 and Figure 2 detailing the Xingu River Basin in the state of Mato Grosso. Currently, 24 indigenous peoples, many riverine populations and thousands of migrants from different parts of Brazil live in the Xingu watershed in Mato Grosso and Para states.

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<sup>1</sup> Wich describes the project and all its climate benefits.

<sup>2</sup> Altered areas are those with significant alteration in original composition, caused by human action, such as selective logging, fires and others, but who have not suffered clearcutting.

<sup>3</sup> In this document we used the estimative generated by ICV in 2009 to the amount of APPs and APPs degraded, which is slightly higher than the data presented in the publication "Fique por dentro: a Bacia do Xingu em Mato Grosso," one of the main references document to describe the headwaters region. The data differences occur because the use of a different concept for APP boundary. The data presented here reflect the interpretation of the applicable law at the time of the beginning of PoA Xingu. Anyway, we find that this choice does not influence the results of the different analyzes presented in this document (for example, analysis of the baseline and additionality line or project risks).



The Xingu River headwaters are the target region for the project operation. It comprises, partially or totally, 35 municipalities, with a population of approximately 260 000 inhabitants. In this universe, the project chose to focus on municipalities where there are cooperative relations among organizations of landowners, their representations and the municipal government, specifically Querencia, Canarana, São José do Xingu, Santa Cruz do Xingu, Claudia and Marcelândia municipalities.

Whilst kept long apart from the country's development policies and investments, this region has recently established itself as an important agricultural hub due to favorable soil, climate and market conditions. The same activities driving the local economic growth, however, contributed to a rapid degradation of the Xingu River headwaters, impacting water flowing regime and quality in the region. In this context, dwell medium and large land owners, small farmers and more than six thousand indians, located in the Xingu Indigenous Park and in other Indigenous Territories (TIs).

The Xingu Basin in the state of Mato Grosso has 4.4 million hectares (25% of its territory) protected in state Conservation Areas (UCs) and TIs, whereas 4.2 million ha are on 16 Indigenous Territories (TIs). The Xingu Indigenous Park (PIX) itself accounts for more than half that number, occupying an area of 2.8 million hectares. These areas are critical to maintaining a set of ecosystem services, markedly the conservation of regional biodiversity, the regulation of water regime and climate, and the fixation of carbon stocks.

Furthermore, these areas are strategic for agro-biodiversity conservation. The Kawaiwete indigenous people, for instance, cultivate 42 peanut varieties and near 60 types of cassava. Furthermore, the "Pequi from Xingu", a fruit variety managed for centuries by indigenous peoples of upper Xingu, has originated in this region.

Cattle ranching, soy farming, and logging are the main economic activities in the Xingu headwaters region. Pasture and degraded areas are being converted in soybean fields, changing the headwaters region land use profile. Most farmers do not have silos for storing production and are subject to occasional prejudicial negotiations with trading companies.

Small hydropower plants (PCH) are planned for the Xingu tributaries due to the large hydroelectric potential on its headwaters region, in addition to the five already in operation, according to the National Electric Energy Agency. Indigenous peoples have objections to these works due to the lack of consistent and multidimensional assessments of impacts. There is also a potential threat of mineral exploration that focus on the region.

Seed collection and other forest restoration related activities have emerged as alternative sources of income, although incipient. Rede de Sementes do Xingu (RSX), the Xingu Seed Network, is a platform for exchange and sale of seeds of native plants propelled by seed collectors and farmers living in the region. It has been able to generate income for family farmers and indigenous communities while also valuing the forest and its many cultural uses and knowledge. The meetings promoted by the RSX also acts as a communication channel for exchanges between collectors, tree nurseries, landowners and other interested people.



The Project Area comprises the APPs of degraded watercourses in specific farms located in the municipality of Santa Cruz do Xingu, in the state of Mato Grosso, associated to Associação Xingu Sustentável. The Project Zone extends throughout the Xingu River basin in Mato Grosso, which is able to receive projects (CPAs) within the PoA Xingu.

Indirectly, however, the project has a much greater influence, since the restoration of degraded riparian vegetation contributes to the maintenance of water quality and the local biodiversity, benefiting the entire population of the Xingu Basin, including indigenous people, riparian communities, large, medium and small landowners and the general population, including those who live in cities. The Socio Carbon of the Xingu project is included in a broader context within the campaign 'Y Ikatu Xingu.

The Campaign 'Y Ikatu Xingu was born in 2004 focusing in the protection of the water of the Xingu river and specifically targeted on the recovery and conservation of the native vegetation on its tributaries margins. Developed in partnership with various sectors - indigenous peoples, ranchers, small farmers, researchers and civil society organizations – the campaign brings together initiatives that have contributed to the restoration of more than two thousand hectares of riparian forests in small, medium and large farms (<http://www.yikatuxingu.org.br/>). It is a campaign with shared but differentiated responsibilities.

The growing demand for native forest seeds generated a new initiative - the Rede de Sementes do Xingu, which now involves more than 350 seed collectors in 22 municipalities and nine indigenous villages in the Xingu Basin (see <http://sementesdoxingu.org.br/site/>).

Direct impacts of the Xingu Socioambiental Project are restricted to private properties being restored and managed. Indirect impacts regard increase in conserved land and habitat, creation of ecological corridors, Rede de Sementes do Xingu formation and consolidation, income generation for indigenous communities and family farmers, carbon sequestration, climate and rainfall regulation, water conservation, among others - are positive. Promoting dialogue between different stakeholders, which have antagonistic interests and views of the world, which live in a constant state of tension in the relationship and which had not talked yet prior to this project, may be the main positive impact.

Since the Campaign started, ISA has been developing techniques for direct seeding of native species and for forest mechanized planting. The goal is to increase forest restoration at the landscape scale, to reduce costs, enhance ecological efficiency and yield sustainable income for people who live and take care of the forests as seed suppliers.

Xingu's Headwaters Carbon Project comes from a carbon trade agreement with Natura, a Brazilian cosmetics company that supports voluntarily a program to neutralize their annual carbon emissions and opens bids for purchase of credits in the voluntary market. Natura acquired roughly 64,000 tons of CO<sub>2</sub> from native vegetation growing on 181.8 hectares of riparian forests in nine farms of Santa Cruz do Xingu, in the state of Mato Grosso, over a 30 years period.



ISA is responsible for planting seeds and seedlings along with the landowners, providing materials and technical knowledge. ISA monitors and takes care of the planted areas for a three years period, managing and enriching the vegetation where it is needed. After this period, owners become responsible for the areas, and ISA will coordinate the monitoring procedures that will be conducted every five years for verification reports.

Activity	Results, effects and impacts expected
Seed collection and marketing	Seed collection generates income for communities who sell through the Rede de Sementes do Xingu to the farms that are part of the project and use it on forest restoration projects for recovering native vegetation on their degraded areas. The seed sale's income generates greater economic independence and empowerment of these forest people. People cultivating those seeds can transform areas of pastures or degraded areas into or tropical forests, thus providing climate and water benefits, the latter being the motto of the 'Y Ikatu Xingu campaign. The campaign acting under this motto helps to organize the regional forest restoration's supply chain, from seed collection until the fruit sale, and the necessary associated knowledge, gathering historically antagonistic groups such as farmers and Indians into one initiative. A collateral effect is the reduction of social tensions between these groups, experienced in the way of being together in the same watershed, becoming partners searching for a common good, the water of Xingu.
Restoration of degraded APPs	Forest restoration activities undertaken by the project increase the vegetation cover in the region, generating direct climate benefits by removing CO <sup>2</sup> from the atmosphere and fixing it in long-living trees and by enhancing natural water regime regulation and river protection.  The procedures of plowing the soil, mixing and planting the seeds in the right way are done together with farm employees, developing the knowledge on native species and on forest restoration itself, empowering them for doing it by themselves and raising awareness about riparian vegetation importance.
Restoration management and enrichment	While taking care of the planted areas, managing and enriching the vegetation where it is needed is done by weeding and planting seeds and seedlings. Seedlings are purchased from 10 nurseries that are partners of Rede de Sementes do Xingu in 7 municipalities. Some nurseries are partnerships with City Halls and work with schools on



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	various activities, helping to create a critical mass in the city about the need for their existence and for forest restoration and conservation. Nurseries also enable professionals to produce seedlings and supply it for forest restoration projects outside of this project as well.
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The project start date was 01 October 2011, meaning the first implementation of activities directly related to forest restoration, with the mobilization of the owners through AXS and the beginning of the soil preparation, seed purchase, etc.

The project lifetime and the accounting period are 31 years, goes from 01 October 2011 (project start date) to 01 October 2042.

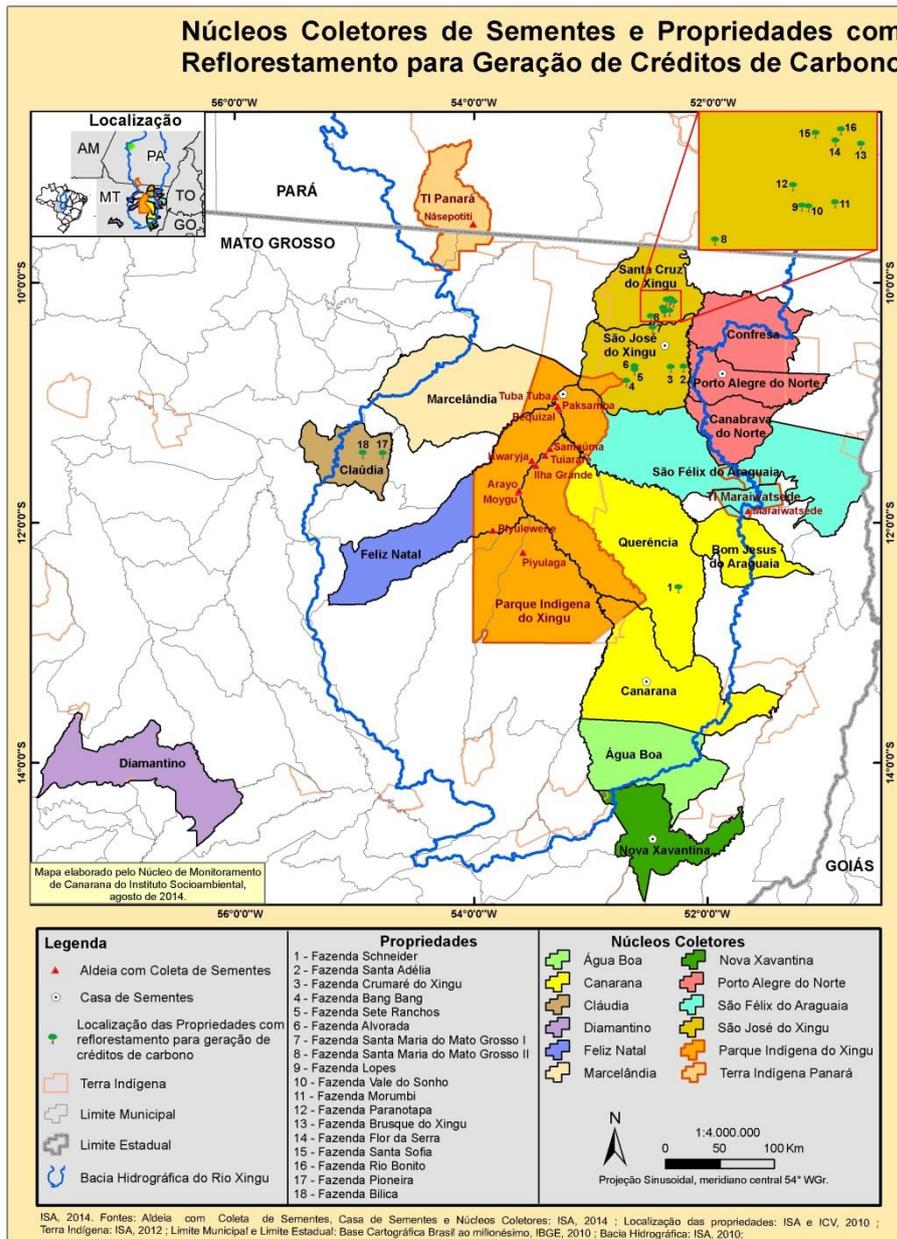


Figure 1 – Farms in the project scope (project area), Xingu river watershed (project zone and HCV), core seeds collectors and indigenous communities (project stakeholder and traditional communities).