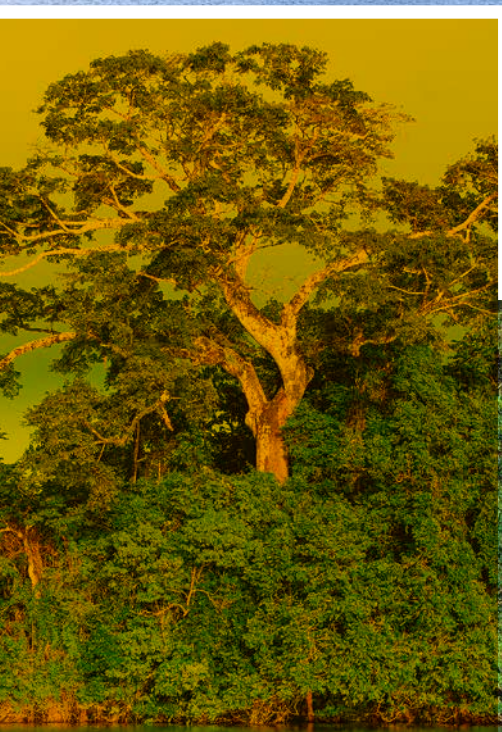




Annual **Report** 2013





Annual Report 2013

Trav. Dom Romualdo de Seixas, 1698, Ed. Zion Business , 11º andar
Umarizal - Zip Code: 66.055-200
Belém - Pará - Brazil
(+55) 91 3182-4000
E-mail: imazon@imazon.org.br
Website: www.imazon.org.br

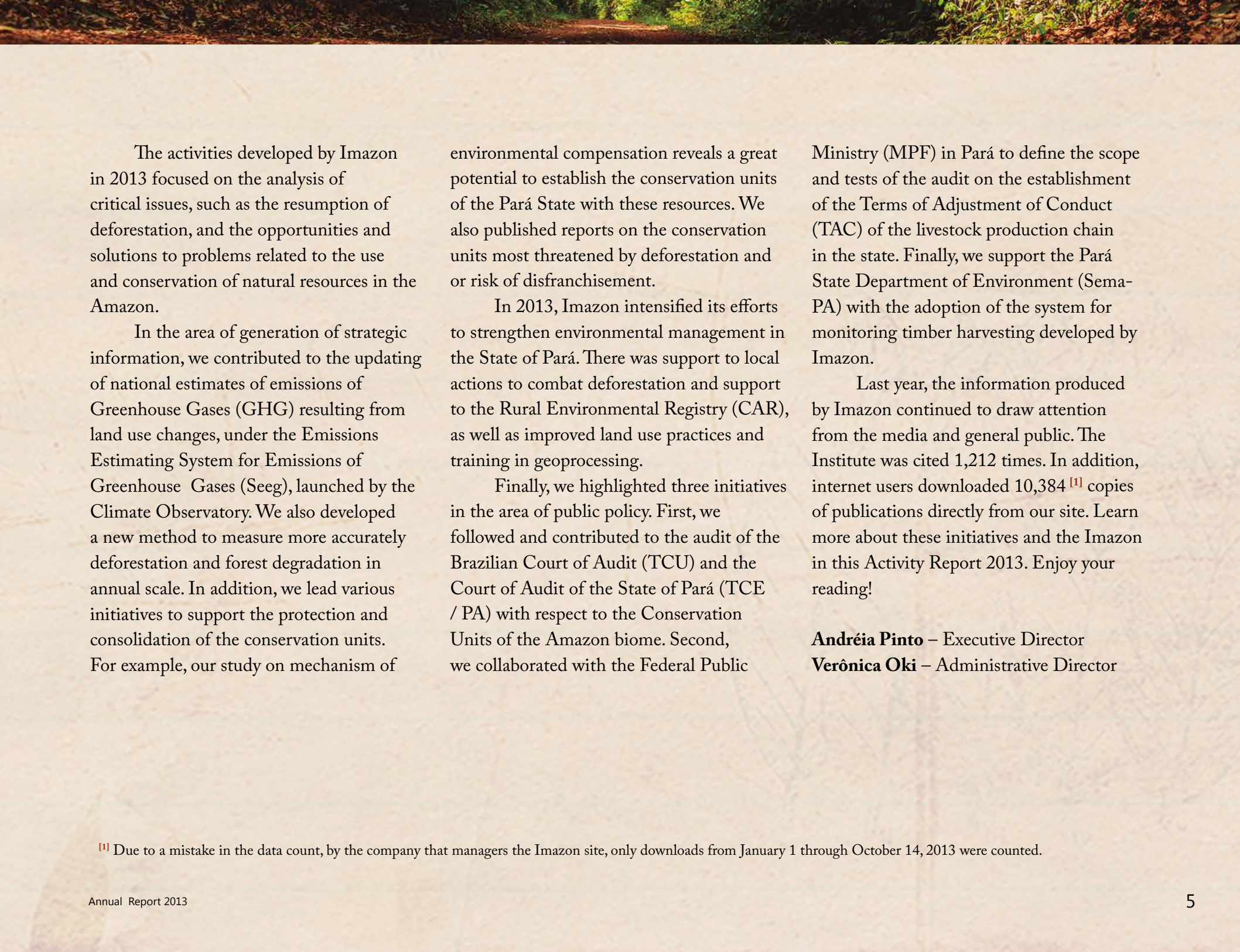
SUMMARY

Letter of the Executive Director.	4	Environmental Management at the	
Who We Are	6	municipal Level takes new steps	16
Mission Vision	6	TCU evaluates the management of UCs in the Amazon	19
Values	7	Environmental compensation can ensure	
Main Contributions	8	the maintenance of conservation units.. . . .	20
Programs	11	Forests in Calha Norte begin to be consolidated	21
Policies and Forest Economy.	11	Method is applied to monitor logging.. . . .	22
Monitoring of the Amazon	11	Imazon helps design audit for cattle ranching	24
Sustainable Municipalities.. . . .	11	Dissemination and Recognition	25
Rights and Sustainability.	11	Main Funders.. . . .	28
Climate Change	11	Balance Sheet Statement 2013	29
Advances and Achievements.. . . .	12	Report of Independent Auditors	34
System estimates emissions of GHG in Brazil.	12	Appendices	35
New system monitors deforestation annually.	14	Acronyms	44

A photograph of a dirt path leading through a dense, sun-dappled forest. The path is in the foreground, leading into the distance. The trees are tall and lush green, with sunlight filtering through the canopy. The overall mood is serene and natural.

Letter of the **EXECUTIVE** Director

The year 2013 was marked by the resumption of deforestation in the Legal Amazon with an increase of 28% in the annual rate. In order to avoid the deforestation to gather momentum, it is necessary to create, implement and/or improve strategies and mechanisms to control deforestation and incentives for a low carbon economy.



The activities developed by Imazon in 2013 focused on the analysis of critical issues, such as the resumption of deforestation, and the opportunities and solutions to problems related to the use and conservation of natural resources in the Amazon.

In the area of generation of strategic information, we contributed to the updating of national estimates of emissions of Greenhouse Gases (GHG) resulting from land use changes, under the Emissions Estimating System for Emissions of Greenhouse Gases (Seeg), launched by the Climate Observatory. We also developed a new method to measure more accurately deforestation and forest degradation in annual scale. In addition, we lead various initiatives to support the protection and consolidation of the conservation units. For example, our study on mechanism of

environmental compensation reveals a great potential to establish the conservation units of the Pará State with these resources. We also published reports on the conservation units most threatened by deforestation and or risk of disfranchisement.

In 2013, Imazon intensified its efforts to strengthen environmental management in the State of Pará. There was support to local actions to combat deforestation and support to the Rural Environmental Registry (CAR), as well as improved land use practices and training in geoprocessing.

Finally, we highlighted three initiatives in the area of public policy. First, we followed and contributed to the audit of the Brazilian Court of Audit (TCU) and the Court of Audit of the State of Pará (TCE / PA) with respect to the Conservation Units of the Amazon biome. Second, we collaborated with the Federal Public

Ministry (MPF) in Pará to define the scope and tests of the audit on the establishment of the Terms of Adjustment of Conduct (TAC) of the livestock production chain in the state. Finally, we support the Pará State Department of Environment (Sema-PA) with the adoption of the system for monitoring timber harvesting developed by Imazon.

Last year, the information produced by Imazon continued to draw attention from the media and general public. The Institute was cited 1,212 times. In addition, internet users downloaded 10,384 ^[1] copies of publications directly from our site. Learn more about these initiatives and the Imazon in this Activity Report 2013. Enjoy your reading!

Andréia Pinto – Executive Director

Verônica Oki – Administrative Director

^[1] Due to a mistake in the data count, by the company that manages the Imazon site, only downloads from January 1 through October 14, 2013 were counted.

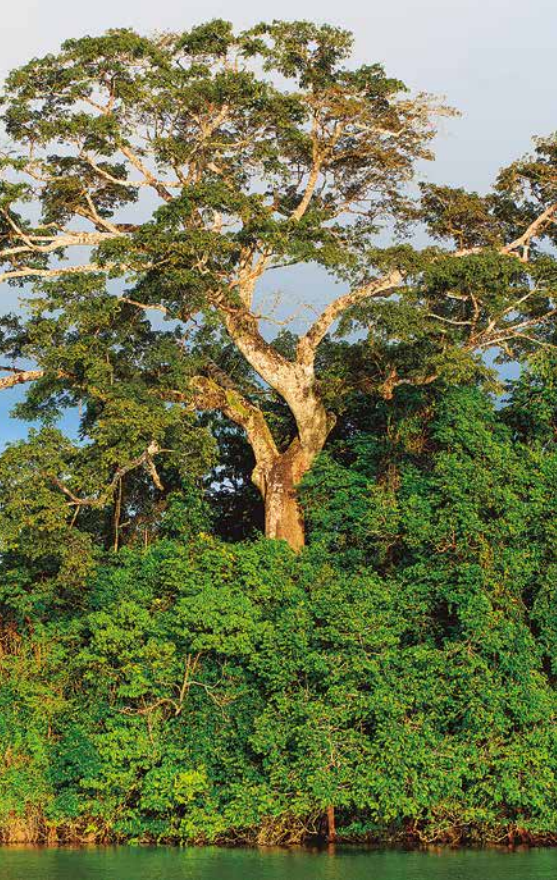


Photo: © Rafael Araújo

Who We Are

The Imazon is a Civil Society Organization of Public Interest (Oscip) that acts as a research institute. It was funded in 1990 and it is based in Belém, Pará. During 23 years of existence, Imazon has published more than 600 technical papers, of which 220 were published in international scientific articles. In addition, the institute published 59 to 22 books and booklets (by December 2013).

Photo: © Adrian Garda



Mission

Promote sustainable development in the Brazilian Amazon through studies, support the formulation of public policies, broad dissemination of information and professional training.

Vision

The Amazon as an area where biodiversity, forest cover and associated ecosystem services will be maintained and sustainable development will be implemented to ensure decent living conditions for all inhabitants of the region.

Values

Sustainability. The solutions to the problems of natural resource use should be based on principles of sustainability, which is the ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time. This means respecting all forms of life and the cycles of nature, valuing cultural diversity, strengthening sustainable local economies, considering environmental and social costs involved in the production processes and promoting the sharing of benefits (sharing power in decision making and divide the goods and services created sustainably).

Ethics. Adopt a respectful relationship with other institutions and social actors; respect the copyrights; respect the codes of professional ethics; not discriminate against race, creed, social position or ideological position in internal and external relations.

Use of scientific method. Imazon conducts objective and fair analysis, based on proven scientific methods in the literature.

Excellence in quality. Imazon products go through a rigorous process of internal quality control and external peer review. This reinforces the credibility and respect for the Institute.



Main Contributions

1. Imazon studies in the area of forest management and ecology are the basis for the establishment of a system of forest management aimed at companies and traditional communities. In late 2013, the area managed in the Amazon already exceeded 6 million hectares, of which more than half had the green seal of the Forest Stewardship Council (FSC).
2. Study published in 2000 on the dynamic of the Boom-Collapse, in partnership with the World Bank, served as a reference for the elaboration of public policies to combat deforestation and for the creation of conservation units in the Amazon.
3. Imazon Research on the ecology of mahogany, the most valuable species of tropical wood, was essential for inclusion of mahogany in the list of endangered species by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 2003.
4. Technical studies and public policy initiatives led by Imazon had direct impact on the creation of 25 million hectares of conservation units in the Amazon, of which 12.8 million hectares in the Calha Norte region, in the State of Pará.
5. Studies on politics and forestry economy contributed decisively to the development of the new Law on Management of Public Forests in Brazil in 2006, whose main objective is to promote the sustainable use of these forests.
6. In 2006, Imazon developed the Deforestation Alert System (SAD) as a tool to monitor deforestation monthly and disseminate widely the situation of deforestation in the Amazon. This monitoring has contributed to increase the efforts to combat deforestation by government.

7. Imazon established an unprecedented partnership with MPF and the State Public Ministry (MPE) to monitor the occurrence of illegal logging In Protected Areas (Conservation Units and Indigenous Lands) in Pará, Mato Grosso, Roraima and Amapá.
8. Studies by Imazon on public credit contributed to the resolution of the National Monetary Council (CMN) in 2008, which requires environmental and land tenure regularization for concession of new credit for properties over 400 hectares in the Amazon region.
9. Studies by the institute on the area of land tenure became reference and have contributed to land tenure regularization to be a chosen as a priority in the preparation of the Sustainable Amazon Plan of the federal government since 2008.
10. Imazon research on community-based forest management was the basis for the definition of the national policy for community-based and family-based forest management in the Amazon.
11. Imazon studies on environmental criminal law contributed to perfecting strategies to combat deforestation, including changes to accelerate the donation of goods seized in environmental inspections, confiscation of seized goods and the dissemination of the list of embargoed properties.
12. Imazon is a pioneer in the development of techniques to detect and evaluate the effectiveness and quality of forest management plans for logging in the Amazon through the use of satellite images.
13. Monitoring of deforestation and forest degradation performed in 2.2 million square kilometers of protected areas directly benefits over 800 thousand people inhabiting these areas, among them indigenous peoples and traditional communities. As a result of this effort, Imazon received the Chico Mendes Award in 2010.
14. In 2007, Imazon was one of the founding organizations of the Amazon Regional Articulation (ARA), which brings together more than 50 entities of the Pan-Amazon to discuss conservation and sustainable use of natural resources in the Amazon basin.
15. In 2008 the Imazon Geotechnolgy Center (CGI) was established to meet the demand for training in geotechnologies for a broad audience, which includes government employees and officials, local and community leaders, national non-governmental organizations (ONGs) and other entities from other Amazon countries.
16. Imazon was one of the partner institutions of the Green Cities Program (PMV) in Paragominas. This project resulted in a reduction of more than 95% of deforestation in the municipality and in the registration of more than 90% of rural proprieties in the CAR. In addition, the institute contributed to three other municipalities in the Pará State to be dropped from the critical list of deforestation of the Ministry of Environment (MMA).
17. Imazon was one of the key-institutions in the “Open Letter from Brazilian companies” initiative, in favor of a climate change agreement at the Climate Conference in Copenhagen in 2009 (COP-15). This initiative was recognized by the United Nations (UN) Secretary-General as one of the most important initiatives in preparation for the COP-15.

18. The leaders of the forest transparency initiative of the Imazon (Carlos Souza Jr. and Beto Verissimo) received the global award for social entrepreneurship of the Skoll Foundation (USA) in 2010.
19. In 2010, Imazon established partnership with Google to develop its system for monitoring deforestation in the Earth Engine platform. The SAD-Earth Engine (SAD-EE) will be used to monitor deforestation in other tropical countries.
20. In 2011, Imazon supported the design and implementation of the PMV of Pará State, which brings together 105 municipalities out of a total of 144 existing in Pará (1 million square miles) and benefits a population of over 5 million people.
21. Imazon contributed technically to the proposal of “Zero Net Deforestation” by 2020 announced by the Government of Pará in the Rio +20 Conference in 2012.
22. Imazon was one of the lead institutions in the development of the first deforestation map for all amazon (Pan-America) countries for the years 2000, 2005 and 2010. This was done though the partnership with Amazonian Network of Georeferenced Socio-Environmental Information (Raisg).
23. Imazon was the pioneer in the monitoring of deforestation in agrarian reform settlements in the Amazon. This work contributed to the creation of Incra’s Green Settlement Program in 2012.
24. Imazon assisted MPF with the preparation of TAC to increase the supply of cattle from farms operating legally in Pará. TAC contributed to the increase in the number of farms registered in the CAR in Para, from about 400 in June 2009 to approximately 100 thousand at the end of 2013.
25. Imazon participated in the elaboration of Seeg ^[2]. It was responsible for the updating of the estimates of emissions from land use change for all biomass in Brazil.
26. The Institute partnered with the World Resources Institute (WRI) in the construction of the Global Forest Watch (GFW), a dynamic online platform for monitoring and alert, which enables, for the first time, access to satellite images, deforestation maps and crowdsourcing to ensure access to accurate real-time information about the world’s forests.
27. The Government of the State of Pará published Decree 739/2013, imposing a special land tenure regularization process in the municipalities that meet the goals of the PMV. This decree was a direct result of the evaluation of Iterpa (Land Institute of Pará) and the proposal of improvement conducted by Imazon in late 2012 and early 2013.

^[2] seeg.observatoriodoclima.eco.br



Photo: © Rafael Araújo

Programs

Policies and the Forest Economy

The objective of this program is to assess and support public policies to promote the use and conservation of forest resources in the Amazon region. In addition, the program also supports the creation and implementation of conservation units in the Legal Amazon with emphasis on the state of Pará.

Monitoring of the Amazon

The overall goal of the program is to detect, quantify and monitor, through satellite images, the deforestation, forest degradation, unofficial roads and other forms of human pressure in the Legal Amazon. The results of the monitoring are combined with various digital maps through Geographic Information Systems (GIS) for the qualification of environmental issues and regional planning. The program also develops proposals for public policies and training in geotechnologies and disseminates its results strategically, contributing to the reduction of deforestation and forest degradation.

Sustainable Municipalities

Work on the strengthening of the environmental management and support of a low carbon economy in the municipalities of the Amazon. For this, we consider the increasing responsibility given to municipalities to control deforestation, completion of the CAR and environmental licensing, as well as the structural and operational weakness of environmental management systems in the municipal Amazon. Thus, the actions of this program include creating bases for environmental management at the municipal level, supporting local pacts for environmental compliance, supporting CAR, elaborating the basemap and supporting the implementation of collaborative monitoring of deforestation with local governments.

Rights and Sustainability

To create an environment conducive to sustainable development in the Amazon is necessary to create coherent environmental and land laws and reinforce them effectively.

This program aims to facilitate the sustainable development in the region, with a focus on increasing the effectiveness of combat to environmental crime and on the expansion of the land regularization.

Climate Change

This program aims to reduce emissions from the main sources of GHG in the Amazon, as well as supporting initiatives to prepare and adapt local populations and ecosystems to the impact of climate change. For this reason, its focus is on: preparing studies and supporting state and federal public policies to reduce emissions from deforestation. The objectives are i) increase the effectiveness of mechanisms of combat and control instruments and develop feasible tools to promote the maintenance of standing forests; ii) stimulate the increasing of agricultural productivity without expansion of area and the adoption of practices that reduce GHG emissions directly from cattle farming; and iii) stimulate the increasing of reforested and restored areas in the Amazon to increase carbon sequestration and adaptation efforts.

Advances and Achievements

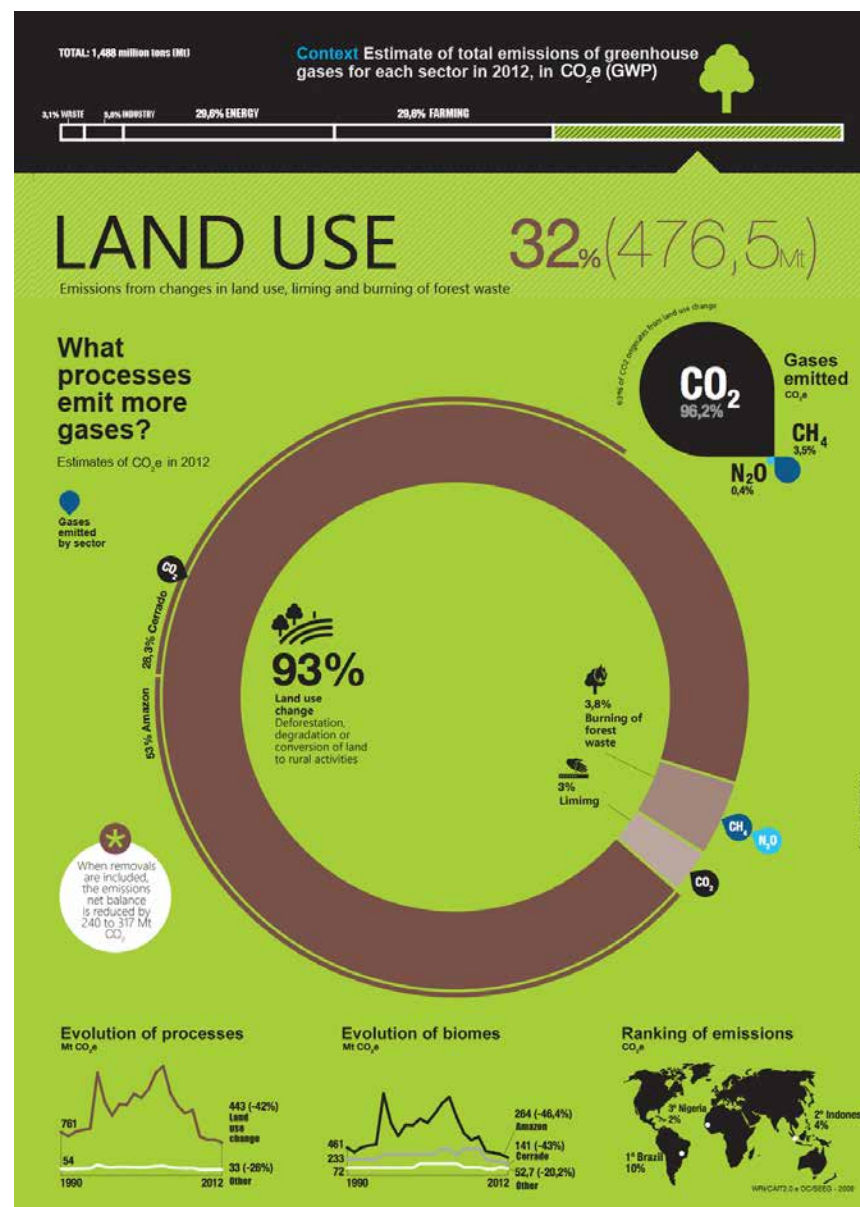
Sistem estimates emissions of GHG in Brazil

Climate observatory gathers and analyzes, in an innovative way, data on emissions in a national scale.

An Average temperature increase of up to 5 ° C and profound impacts on agriculture, energy security, health and housing in Brazil. This is a possible scenario foreseen as a consequence of climate change, according to the reports of the Intergovernmental Panel on Climate Change (IPCC) and the Brazilian Panel on Climate Change (PBMC). Divulged in 2013, reports indicate that the climate changes verified are real and are mainly due to the increase in GHG emissions caused by human action.

Follow the evolution of Brazil's GHG emissions is critical in order to evaluate the extent of the implementation of the National Policy on Climate Change (which has the goal of reducing emissions 36% by 2020) and outline tendencies and detect any deviations in time to propose corrections in its direction.

Based on this, the Climate Observatory (OC) - a network of about 35 NGOs and civil society that are linked to the climate issue - launched the Seeg in November of 2013. The Brazilian government had already published two inventories of



GHG emissions in 2005 (with data from 1990 to 1994) and in 2010 (with data from 2000 to 2005), and the official estimates for 2010, released in June of 2013 “Although extremely important, data from inventories end up being less effective for public policy, given its detachment from the moment of decision,” said Carlos Rittl, executive secretary of the OC.

Seeg updated the annual estimates of five sectors - agriculture, energy, land use change, industrial processes and residuals - for the period 1990-2012, and for all gases provided in the methodology of the national inventory. Imazon was responsible for updating the estimates of carbon emissions from the land use change sector in all biomes of Brazil.

According to adjunct researcher Amintas Brandão Jr., who was part of the Imazon team in this initiative, to replicate the method of the inventory was necessary to use detailed land cover and biomass

maps, and high-quality information only for the Amazon biome maps. This way, it was necessary to repeat “In the future, we intend to empower institutions of other biomes

“In the future, we intend to empower institutions of other biomes to replicate the methodology for mapping deforestation and forest degradation that was used in the Amazon”

to replicate the methodology for mapping deforestation and forest degradation that was used in the Amazon” the last data available about deforestation for the other biomes. “In the future, we intend to enable institutions of other biomes to replicate the methodology of mapping deforestation and forest degradation that was used in the Amazon”, says the researcher.

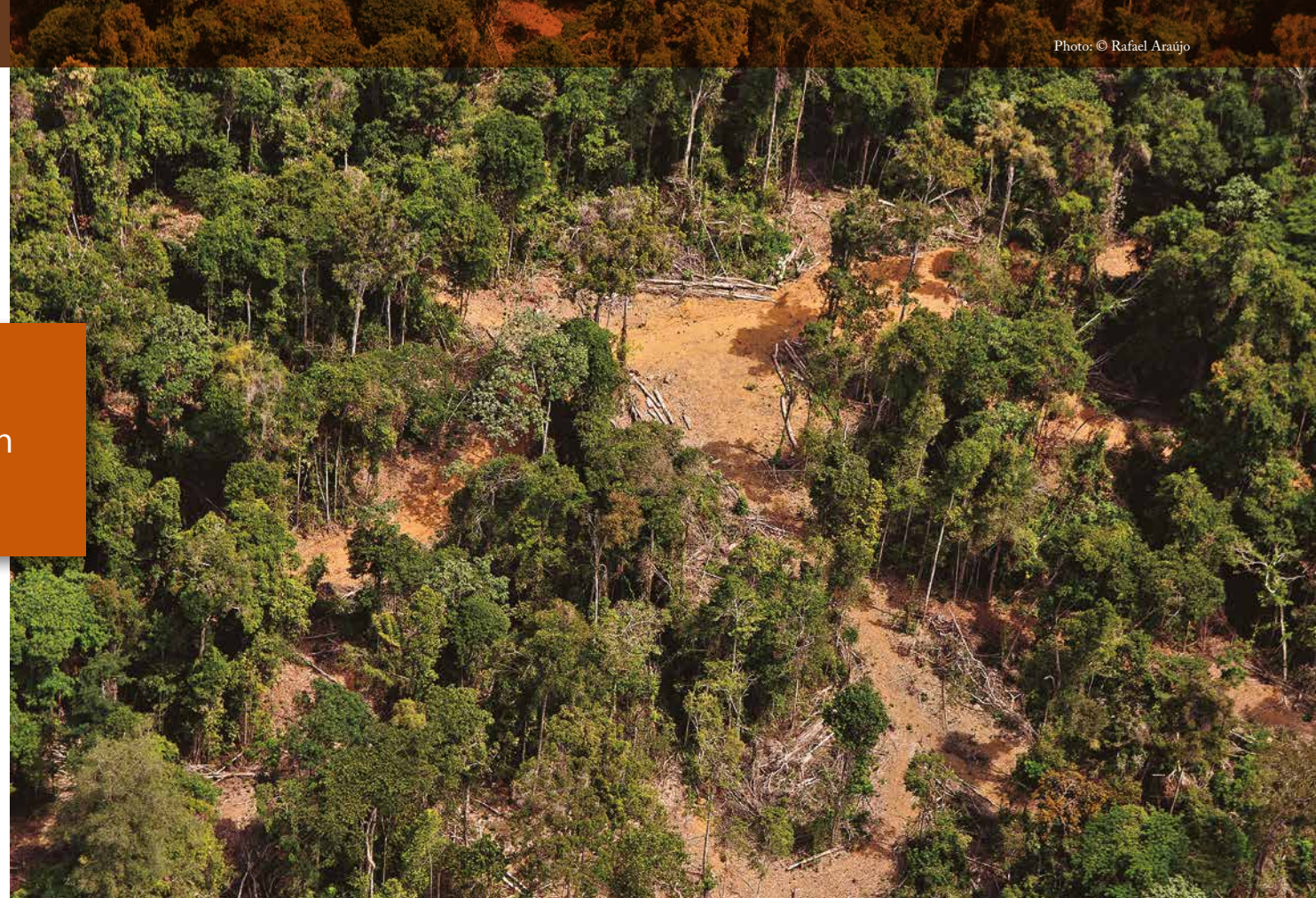
The land use change sector issued by 2012 a total of 28.14 billion tons of carbon equivalent (tCO₂e), corresponding to 61% of the total national gross emissions. However, this sector presented the more significative reduction of emissions in Brazil (42% in 22 years), from 0.82 billion tons of CO₂e in 1990 to 0.48 billion tons of CO₂e in 2012. Great part of this reduction occurred due to a significant drop in deforestation in the Amazon.

“Brazil gave an important contribution to the reduction of global emissions with the decline in deforestation in the Amazon over the last decade,” says Tasso Azevedo, former Director-General of the Brazilian Forest Service and coordinator of the Seeg Project. “We must now face the current contradictions that cause the GHG emissions of other sectors - agriculture, energy, industrial processes and waste - walk in reverse and move higher than the global average”.

New system **monitors degradation** annually

Map shows evolution of deforestation and forest degradation in the Amazon over the years with high resolution images.

Since 2006, the SAD Imazon detects monthly deforestation alerts, i.e. total forest clearing and forest degradation, which is the loss of vegetation by fires or logging, which also represent great loss of biodiversity. Using satellite images with a resolution of 250m per pixel, the methodology of SAD focus much more on location accuracy and on the speed of disclosing data (these images are generated daily) than the exact amount of the impact on the forest.



To provide annual data on deforestation and forest degradation more accurately, in the last three years, Imazon intensified the work of developing a methodology that measures these losses annually in the Amazon. The result was published in March 2013: a map with annual data from 2000 to 2010. The new product is equivalent to Prodes system from Inpe

regarding the quantification of deforestation, but also adds new information about forest degradation. Currently, monitoring with Landsat, in a operational way, for municipalities pilot of the project supported by the Skoll Foundation, Mercy Corps and USAID is already being developed.

In these ten years, the degradation has affected an area equivalent to 30% of the total area deforested in this period, averaging 5,188 square kilometers per year. “It’s a significant loss. When this pressure begins, there is greater risk of the area to become a target for deforestation; then, it is necessary to have control,” says senior researcher Carlos Souza Jr., who coordinates the initiative.

“To get to this map, we have been working since 2006,” says João Siqueira, a researcher who helped continue the work in this area since 2008, in the Imazon. “One of the challenges was to define a unique methodology to analyze images of a region as big as the Amazon, with many different landscapes,” he explains.

The new system uses images Landsat (currently available free of charge by INPE

and the USGS) available every 16 days, with a resolution of 30m per pixel. It was necessary to select the best image of each year for each of the almost 200 scenes that

“One of the challenges was to define a unique methodology to analyze images of a region as big as the Amazon, with many different landscapes...”

cover the Amazon, totaling 1,465 images acquired to compose the map. Images with high cloud cover were excluded in order to avoid errors in the analysis.

Another distinguishing feature of the methodology was the possibility to reproduce it in other countries of the

Amazon and the world. “Currently, a similar map has been published for Peru, Bolivia and Ecuador,” João says. Tropical countries such as Congo, Indonesia and Vietnam are also using the methodology to prepare their annual maps. The same methodology has been adopted by Raisg ^[3].

The same idea was applied to the GFW ^[4], launched in February 2014. This was an initiative of WRI, Google and a group of more than 40 partners, among them, Imazon. GFW is a dynamic online platform for monitoring and alert that enables people everywhere to improve forest management. For the first time, the GFW combines satellite images, maps of deforestation and crowdsourcing to ensure access to accurate information in real-time about forests around the world.

^[3] raisg.socioambiental.org

^[4] globalforestwatch.org

Environmental Management at the Municipal level takes new

Through training and knowledge applied in practice, Imazon supports the Green Municipalities Program and helps reduce deforestation in Pará.

Launched in 2011 by the Government of the State of Pará, the PMV is supported by Imazon since its conception. Currently, the Institute collaborates in the efforts to combat deforestation, promote environmental management at the municipal level, sustainable rural production, territorial planning, and economic and financial incentives.

Focusing on the removal of all municipalities of Pará from the list of the largest contributors to deforestation in the Amazon, published by the MMA, the program's main goals are zero net deforestation ^[5] by 2020 and inclusion in the CAR of at least 80% of the registered area of the state by 2015.



Since March of 2012, Imazon has supported the PMV using SAD technology to monitor deforestation in Pará, at the municipal level. “Specific reports are generated automatically within the Imazon- Geo. In the reports you can see the map of the municipality with the geographic coordinates of deforested area. These are the alerts that we sent in digital and printed format to the Sema-PA and the PMV, and that are distributed to municipalities

for use in monitoring,” explains Antônio Victor Fonseca, researcher from Imazon and part of the SAD team.

According to Antônio, 81 reports were sent to municipalities in 2013 (the reports are generated only when deforestation is detected) and only 11% of alerts was verified in the field. Aiming to increase this aspect, Imazon also provides training for technical secretariats in partnership with the PMV.

^[5] O desmatamento líquido zero pressupõe que o processo de restauração florestal será equivalente ou maior que o desmatamento existente no Estado.

Kátia Pereira, from CGI, explains that the courses focus on the fundamentals of geotechnologies with application in environmental management. “We demonstrated how you can use this knowledge in the monitoring, supervision and planning of strategic actions to combat deforestation” he says. “In addition, we also had the ongoing verification of deforestation, with training for verification of deforestation no local, using GPS and the data provided through the municipality’s bulletin on deforestation,” he adds.

CGI provides support to other axis of the partnership between the Imazon and PMV: the implementation of CAR. The program selects strategic municipalities and the institute provides training for technicians of the secretariat to use geo technologies to implement CAR. In 2013, over 130 people were trained in courses of Introduction to Geotechnologies, Environmental Management with Focus on CAR and Verification of Deforestation.

Alexandre da Cunha and Izabella Paixão, who work on CAR training through

the Imazon, explain that the Institute has also advanced in the application of a methodology that makes the CAR process faster and less costly: the participatory mapping. Member of Working Group Settlements of PMV, Imazon and other engaged institutions have tested this methodology to apply it in the future on a large-scale.

Izabella explains that participatory mapping for the elaboration of CAR is the union between the technical knowledge of scientists and the traditional knowledge of the landowner who knows the region. This technique was used by Imazon for the first time in 2011, in traditional community areas in Paragominas and later in April of 2013 in settlement areas in the municipality of Tailândia. “In 2012, this data helped Iterpa in the titling process of 59 rural properties in the region of Paragominas,” says Alexandre.

The transfer of information and techniques has helped the municipalities to advance in the environmental regularization agenda. “Imazon worked directly for the municipalities of Paragominas, Dom Eliseu,

Green ICMS

The Green Value Added Tax (ICMS) in Pará, which considers environmental aspects for the transfer of state tax to municipalities in the State of Pará, was launched in June of 2013. Imazon collaborated on the design of this initiative, which takes into account the reduction of deforestation rates, the percentage of protected areas in the municipal territory and the percentage of the municipal area registered in the CAR. Over 2014 about R\$30 million are being transferred to municipalities as Green ICMS. This represents 2% of the total transfer of ICMS^[6].

Ulianópolis, Tailândia and Brasil Novo to fulfill the MMA criteria and to be removed from the critical list of contributors to deforestation in the Amazon,” says Paulo Amaral, a senior researcher at the Imazon.

^[6] PMV, 2014. Green Municipalities Program: Activities and Results 2013. Available at http://www.municipiosverdes.com.br/files/999816d7a617e650c796109566e1337c/9f61408e3afb633e50cdf1b20de6f466/PMV_Atividades%20e%20Resultados%202013.pdf, in 6/2/2014.

PMV Municipal Indicators



To track the advances and trends of the key environmental and socioeconomic indicators in municipalities in Pará, the Imazon, the PMV and the Institute of

Economic and Social Development of Pará (Idesp) developed the portal **PMV Municipal Indicators**. Launched in 2012 and updated in 2013, the tool allows access to environmental, land, economic and social information of the municipalities of the State. Renata Cunha, a researcher at Imazon who helped build the portal, says that municipal information is scattered in various sources, and some are in very complex format. “So, we gathered this data in a more interactive form for municipal managers, researchers, students and society in general to be able to access municipal information,” she concludes. Since its launch in December 2012, the portal received approximately three thousand visits. In the future, Imazon intends to expand the tool; including data from other municipalities that are in the list of MMA embargoes in the Legal Amazon.

TCU evaluates the **management of UCs** in the Amazon

With support from Imazon and other institutions, TCU prepared a report with recommendations to optimize the management of the areas.

A report released by TCU in November of 2013 revealed that only 4% of conservation units in the Brazilian Amazon are at an advanced level of implementation.

Invited to participate in the environmental audit by TCU, Imazon helped define the evaluation methodology that the court applied, indicating data, literature and qualified institutions for the initiative. In addition, it revised the content and participated in the presentation of the report as one of guest speakers.

The researcher from Imazon, Elis Araújo, who studies conservation units for seven years, says the initiative is interested in the fact that TCU took the initiative of start the monitoring of the management of these

units by competent entities. “All critical units regarding deforestation present land tenure problems, some do not have a management plan. This is the case of the Environmental Protection Area (APA) Triunfo do Xingu, a fairly populated conservation unit, which has no management plan to order the areas of use and preservation, which leads it to be the second most deforested in the Legal Amazon”, the researcher warns, citing a study of the institute that indicates the most deforested protected areas in 2012 and 2013^[7].

Between the determinations and recommendations of the TCU, MMA and the Chico Mendes Institute for Biodiversity

Conservation (ICMBio), we highlight the determination that ICMBio needs to submit a plan of action within 180 days covering the recommendations of the court. This plan must address the main problems identified by the audit, as the absence of a management plan and land regularization and low funding for conservation units.

TCU is now considering carrying out an assessment of conservation units system throughout the Pan-Amazon. The idea is that this assessment will be carried out in the future under the leadership of the Court of Audit of Amazon countries based on the methodology developed by TCU Brazil.

^[7] Áreas Protegidas da Amazônia Legal com mais alertas de desmatamento em 2012 e 2013.

Environmental compensation can ensure the **maintenance of conservation units**.

Pará has high potential for capturing resources and it has already initiated the development of mechanisms to manage investments for conservation units of integral protection.

Historically, the State of Pará received many infrastructure ventures and mineral projects that cause environmental impacts. All are required, by law, to allocate a percentage of their investments to conservation units of integral protection, such as parks, ecological stations (Esec) and Biological Reserves (Rebio): is the so-called environmental compensation.

To estimate the potential revenues that Para has in environmental compensation, Imazon researchers examined the values of enterprises already licensed from 2000 and the ones foreseen for 2020. With a sum of investments that can reach about R\$140 billion in this period, it would be possible to raise R\$ 720.7 million (assuming 0.5% rate stipulated by federal law).



“Even without owning an environmental compensation fund from the state, Pará was the pioneer in the regularization of its collection in 2007 when it received R\$54 million from Alcoa, the first company to sign a cooperation agreement with Sema,” Explains Mariana Vedoveto, co-author of the study on environmental compensation launched in 2013. Nonetheless it is necessary to

advance. As a solution, Imazon proposed the creation of a fund for environmental compensation based on the successful experience executed in the State of Rio de Janeiro, where the Brazilian Fund for Biodiversity (FUNBIO) operationalizes the resources for compensation. The publication of a decree to regulate the application of the resources for environmental compensation in Pará is scheduled for 2014.

Forests in **Calha Norte** begin to be consolidated

Conservation units in the region give the first steps in the plan of use that can lead to social development and income to communities.

Calha North is home to the largest conservation units of the tropics, including the largest of the world: the ESEC of the Grão-Pará. Imazon works in Calha Norte since 2006, when it developed technical studies and contributed decisively to the creation of five conservation units: the State Forests (Flotas) of Faro, Trompetas and Paru; the ESEC Grão-Pará; and the Rebio Maicuru. The institute was also responsible for the elaboration of the management plans of the Flotas and technical studies for Rebio Maicuru and ESEC Grão - Pará, which were published in 2011.

In 2013, Imazon continued the activities aimed at the implementation of management plans focusing on areas of territorial planning, environmental control, communication and environmental education. One of the important works

of the institute was the Young Protagonists Initiative held on the community of Cachoeira Porteira, located in the Flota of Trombetas. This initiative aims to awaken the interest of this public for matters regarding civic participation in the community's life, cultural identity and environment conservation. The activities include the partnership of ICMBio and the city of Oriximiná through the Municipal Secretary of Education, Environment and Social Action. An achievement of this initiative was the implementation of secondary education in modular system in the Cachoeira Porteira Community in Flota of Trombetas.



I Seminar on Protected Areas of the Guianas Shield in Pará and Amapá

Foto: © Bruno Oliveira



In September 2013, the I Seminar on Protected Areas of the Guianas Shield in Pará and Amapá (Sapeg) was

held in the Mosqueiro Island (Belém). The seminar brought together about 100 participants from both institutions. The event was organized by Imazon, Conservation International (CI) and Institute for Research and Training in Indigenous Education (Iepé). The next editions of Sapeg are scheduled for 2015 and 2017, with participation of institutions from French Guiana, Guiana and Suriname.

Method is applied to **monitor logging**

System used by Imazon to evaluate the implementation of management plans is implemented by Sema-PA in order to authorize new management activity

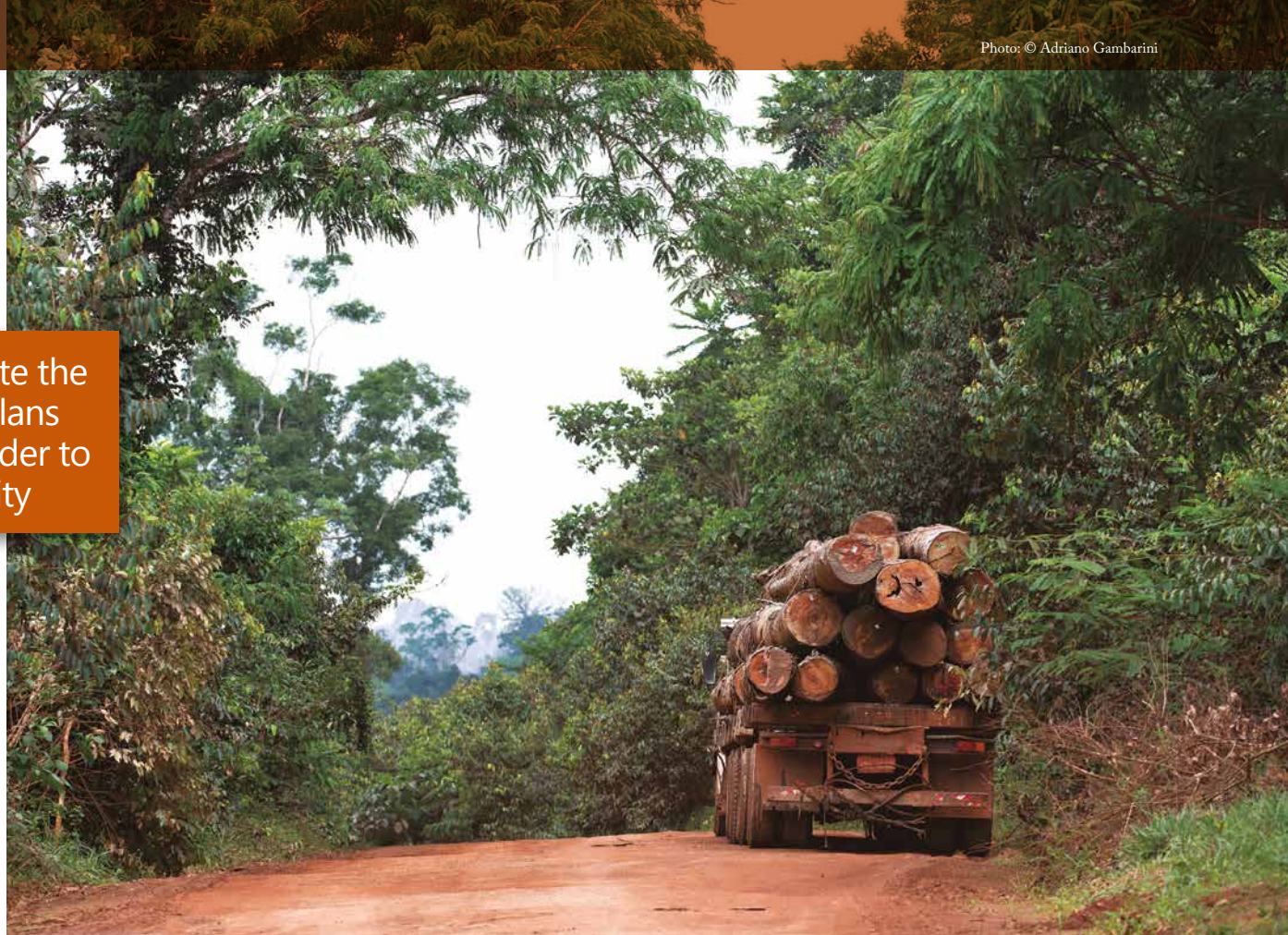
Since 2008, Imazon is developing a major study in the forest sector: the monitoring of management plans in the states of Pará and Mato Grosso (Simex - System for Monitoring Timber Harvesting). Through analysis of satellite images of crossed with information of forest control systems (Simlam – Integrated System for Environmental Monitoring and Licensing and SISFLORA - System for Commercialization and Transportation of Forest Products), researchers from the institute evaluate the situation and implementation of licensed management plans in the period and estimate the area that is illegally harvested. The two states lead the ranking of logging in the Amazon and have forest control systems

with organized information available about the plans.

According to Denis Conrado, one of the researchers working on the verifications made in Mato Grosso, the work begins with the analysis of the documentation available on the management plans approved for a certain period. “We evaluated the consistency of the information contained in documents

of authorization and, in a second moment, we use satellite images to verify that the execution of the activity is in accordance with the parameters described in the document, as well as the pertinent legislation,” he explains.

With the aid of satellite images capable to highlight the scars of the logging activities in the forest structure, the researchers can quantify and qualify the areas subjected to the activity. As



for quality, logging activities may fall into one of three levels, which vary according to the intensity of the damage caused to the forest: good quality, intermediary quality or low quality management.

“Factors such as the disregard for adequate dimensions of roads, skid trails and stockyards are some elements that intensify the impact on the forest, and this disturbance is visible in the images,” says Dalton Cardoso, a researcher who works on the analyses from Pará.

Given the effectiveness of the Imazon method, Sema-Pará decided to adopt it in the process of licensing management plans.

The Imazon method will be used primarily to evaluate the cases of licensing

“Factors such as the disregard for adequate dimensions of roads, skid trails and stockyards are some of the elements that intensify the impact on the forest, and this disturbance is visible in the images”

forest management in areas where harvest already took place. For this, in early 2014, Imazon trained 16 technicians from Sema (Belém) and regional branches, giving emphasis to the treatment of satellite images and evaluation of the areas subject to the management, based on the criteria listed in the normative act.

“The Sema has already established an important partnership with Imazon in programs such as the assessment of deforestation in municipalities in the State of Pará. Recently, as a result of this partnership, Sema published decree 63, which deals with management of areas that were already illegally exploited in the past, and which are in the process of receiving licensing for sustainable forest management,” says Vincente de Paula Sousa, Coordinator of Center for Geotechnology (Geotec) of Sema-PA. “It is a very important technical partnership in this process because now we can better measure and evaluate these areas, within the criteria that this procedure establishes,” he concludes.

Imazon helps design audit for **cattle ranching**

The institute assisted the MPF to develop and test a model for auditing frigorific companies in the Legal Amazon.

Studies indicate that official credit stimulates deforestation. This was the cover story of the newspaper *O Estado de São Paulo* on January 28, 2008, which used data from Imazon^[8] to show how rural credit encouraged deforestation by cattle ranching in the Amazon. Days later, a prosecutor of the MPF demanded the Imazon analyses Imazon and began investigation on cattle ranching contributions to deforestation.

The MPF continued investigations and, in June of 2009, began actions against frigorific companies that bought animals from farms who practiced illegal deforestation. To suspend the actions, the frigorific companies and slaughterhouses signed TACs, commitments with the MPF

that these would only buy animals from farms that had initiated environmental regularization. In addition, the Government of Pará pledged with MPF that it would hire independent auditors to verify the implementation of the agreement.

In 2013, Imazon participated in the elaboration of the scope and test of three pilot audits for the implementation of TAC for cattle ranching, as part of a working group formed by MPF, Sema-Pará and an auditing company. Imazon analyzed data of the cattle ranching sector to identify signs of irregularities in the implementation of TAC, which should be verified by these pilot audits. It also suggested ways to prevent potential fraud in the implementation of the TAC.

For example, Imazon demonstrated how to calculate productivity of farms in order to prevent a legal farm from selling

animals illegally, explains senior researcher Paulo Barreto. “Auditors can divide the number of animals sold by each farm by the area of the farm. As we know the typical production capacity of farms is easy to identify, when a farm has sold a very large number of animals, which is an indication that the farm sold cattle from illegal farms. This type of case should be investigated in detail to prove possible frauds,” he comments.

Imazon also helped the MPF and Sema in the evaluation of the pilot audit pilot products. In February of 2014, the Working Group approved an audit protocol that will be used for all frigorific companies that signed the TAC in 2009. The Government of Pará will use the protocol to launch a public notice in 2014, through which it will hire an auditing service for all frigorific companies that have signed the commitment with MPF.

^[8] Barreto, P., Pereira, R. & Arima, E. 2008. A pecuária e o desmatamento na Amazônia na Era das Mudanças Climáticas. (p. 40). Belém: Imazon.

Dissemination and Recognition



Recognition

The Economist highlights the combat against deforestation

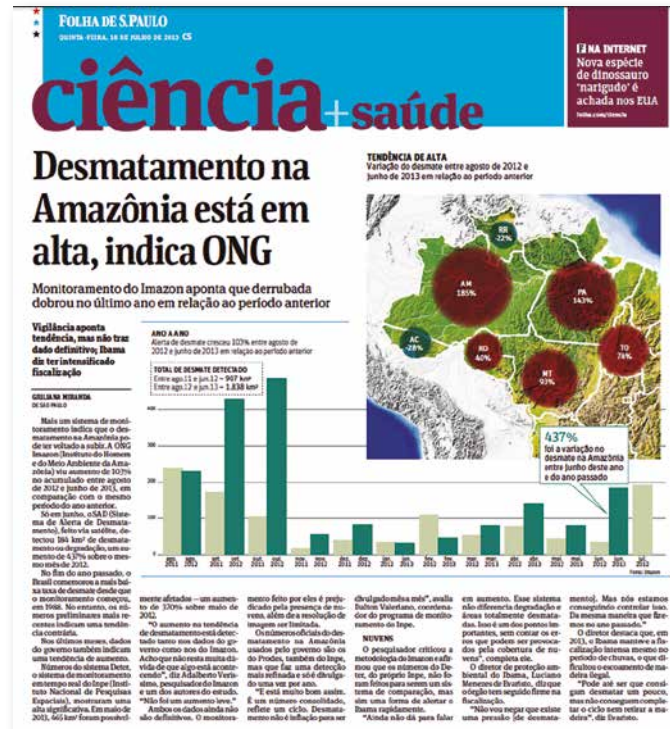
The most influential business magazine in the world, *The Economist*, brought on the cover of the September 2013 issue the advances in the fight against deforestation in the Amazon and highlighted the crucial role of Paragominas in this effort. In the special section of 14 pages on biodiversity, the magazine showed the role and the origin of Imazon in monitoring of deforestation. Key institutions such as the MPF, the Brazilian Insitute of Environment and Renewable Natural Resources (IBAMA), MMA and the Government of Pará were also highlighted in the issue. Paragominas is cited in the magazine as a city that has a comeback, the laboratory of the new Amazon showing that it is possible to reconcile economy and nature. The Economist also reports a significant drop in deforestation in the Amazon by 82% - in the comparison between 2012 and 2004 - which is an unprecedented achievement in the global effort to protect tropical forests.



The trend of increasing deforestation is a focus in the news

From August 2012 to July 2013, SAD showed an increase of 92% of areas detected by deforestation alerts. This statistic indicated a trend of increase in the estimated annual rate of deforestation. On July 18, 2013, Folha de São Paulo - Brazilian newspaper with the highest circulation among the national newspaper of general interest [9] - published an article indicating this tendency, which was later confirmed by preliminary data for the period of August 2012 to July 2013, which revealed an increase of 28% in the rate of deforestation compared to the previous period. This means a return of the annual increase of the deforested area after three consecutive years of a drop in the deforestation rate.

In November, the Jornal Nacional (TV News), with an average audience of 16 million spectators, also highlighted the data from SAD with an interview with senior researcher Adalberto Verissimo.



Calha Norte Is the subject of a special article

A reporter from the newspaper O Estado de São Paulo traveled to Calha Norte to produce a broad coverage about the history of the region and the challenges to its sustainable development. Posted in the section Planeta (Planet) of the February 20, 2013 edition, the article emphasizes both the natural wealth of the region - since it is the home of the largest number of endemic species in the world - as the initiatives that are currently



being developed by various institutions to support the consolidation of the conservation units established there, as source of profitable and preserved natural resources.

Literature & Sustainability 2

Adriano Gambarini, André Trigueiro and Sônia Bridi were the three big names that participated in the second edition of Literature & Sustainability, a chat among major authors of the Brazilian environmental literature conducted by Imazon since 2012, as part of the Pan-Amazon Book Fair. In 2013, with the change in the fair schedule, the event took place on April 27 at the Hangar. The chat Literature & Sustainability 2, by invitation only, gathered 500 people among them were leaders of environmental, social and political sectors, as well as business people, intellectuals, journalists, artists, NGOs and students.



Photo: © Tita Padilha

Vehicles	Originals	Reproductions	Total Overall
<i>Website</i>	136	463	599
Printed newspaper	28	216	244
Agency	29	208	237
Magazine	14	24	38
Radio	23	20	43
TV	13	35	48
Total	246	966	1212

Main founders

Vale Sustainable Development Association

Brazilian Development Bank (BNDES)

British Embassy

Ford Foundation

Fundación Avina

Gordon and Betty Moore Foundation

Center of Life Institute (ICV)

Socio-Environmental Institute (ISA)

Mercy Corps/ United States Agency for International Development Internacional (USAID)

Skoll Foundation

United States Department of Agriculture (USDA) Forest Service

World Resources Institute (WRI)

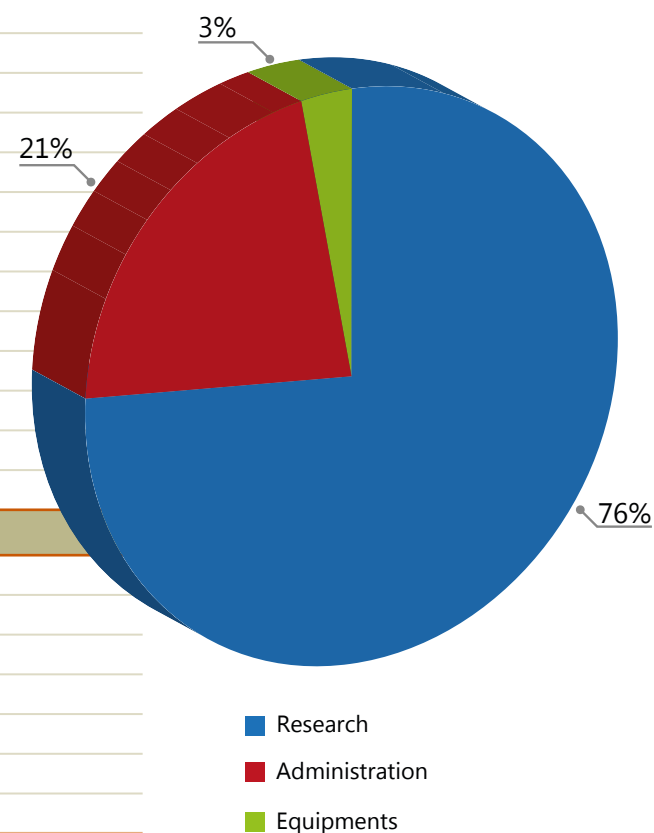
Balance Sheet Statement 2013

FUNDS		
Skoll Foundation	2.795,46	22,43%
Gordon and Betty Moore Foundation	1.792,72	14,39%
Vale Sustainable Development Association	1.787,85	14,35%
Bndes – Brazilian Development Bank	1.786,88	14,34%
Mercy Corps (Usaid)	1.456,86	11,69%
Porticus Latin America	795,68	6,38%
United States Depart. of Agriculture Forest Service	621,68	4,99%
Sema – State of Pará Department of Environment	445,25	3,57%
Ford Foundation	341,25	2,74%
ICV – Center of Life Institute	208,69	1,67%
WRI - World Resources Institute	176,25	1,41%
Climate Works Monitoramento	77,60	0,62%
British Embassy	55,75	0,45%
Fundación Avina	54,88	0,44%
Martins Agropecuária S/A	37,53	0,30%
Ebata Produtos Florestais	10,50	0,08%
Golf Indústria e Comércio de Madeira Ltda	10,50	0,08%
Ieb - Inst. Internacional de Educação do Brasil	6,79	0,05%
	12,462.13	100,00%

USE OF FUNDS		
Research	11.187,75	75,69%
Administration	3.102,80	20,9 9%
Equipment	490,62	3,32%
	14.781,17	100,00%

Results 2013	(2.319,03)
---------------------	-------------------

Use of Funds 2013



AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT- IMAZON

Balance Sheet for the Financial Years ending on December 31, 20112 and 2013 – in Real (Brazilian currency)

Assets	2013	2012	Liabilities and Social capital	2013	2012
Current			Current		
Cash and cash equivalents (Note 4)	383	339	Suppliers	108	118
Funds linked to projects (Note 5)	5.431	7.932	Social and labor obligations (Note 9)	812	1.058
Advance paid (Note 6)	390	367	Tax obligations	25	40
Credits from contracts and terms of cooperation	1	228	Advance received (Note 10)	165	98
Anticipated expenses	19	36	Obligations with project resources (Note 11)	4.612	7.092
	6.224	8.902		5.722	8.407
Not current			Social capital (Nota 9)		
Fixed assets (Nota 5)	324	374	Social capital	968	995
Intangible (Nota 6)	43	99	Accumulated surplus (deficit)	-99	-26
	367	473		869	968
Total assets	6.591	9.375	Total liabilities and social capital	6.591	9.375

The explanatory notes are an integral part of the financial statements.
The complete financial statements with their respective explanatory notes are available at www.imazon.org.br

AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT - IMAZON
Balance Sheet for Surplus and Deficit for the Financial Years ending on December 31, 2012 and
2013 - In Reais (Brazilian currency)

	2013	2012
Income (note 15)	3.454	4.164
Costs		
Cost with provision of services	(364)	(414)
Salaries and social security charges (note 16)	(1.658)	(1.627)
	(2.022)	(2.041)
Gross Surplus	1.432	2.123
Expenses with services	(266)	(783)
Administrative expenses (note 17)	(1.212)	(1.282)
Other net operating expenses	(9)	(8)
Results before net financial expenses	(55)	50
Financial income (note 18)	48	7
Financial expense (note 18)	(92)	(83)
Net financial expenses	(44)	(76)
Surplus for the financial year	(99)	(26)

The explanatory notes are an integral part of the financial statements.
The complete financial statements with their respective explanatory notes are available at
www.imazon.org.br

AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT - IMAZON

Balance Sheet for Changes in the Net Worth for the Financial Years ending in December 31, 2012 and 2013 – in Reais (Brazilian currency)

DESCRIPTION	Social capital	Accumulated surplus/(deficit)	Total
On December 31, 2011	1.198	-203	995
Absorption of surplus	-203	203	0
Surplus for the financial year		-26	-26
On December 31, 2012	995	-26	968
Absorption of surplus	-26	26	0
Surplus for the financial year		-99	-99
On December 31, 2013	968	-99	869

The explanatory notes are an integral part of the financial statements.
The complete financial statements with their respective explanatory notes are available at www.imazon.org.br

AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT - IMAZON

Balance Sheet for Changes for Cash Flow for Financial Years ending on December 31, 2011 and 2012 – in Reais (Brazilian currency)

	2013	2012
Cash flows for operational activities		
Surplus for the financial year	-99	-26
Adjustments		
Depreciation and amortization	101	139
Residual cost of the disposed fixed assets	9	7
Variations in assets and liabilities	38	149
Net cash derived from operational activities	49	269
Cash flows from investments activities		
Acquisitions of goods from fixed assets	-5	-15
Acquisitions of goods from intangible assets		-29
Net cash applied to investment activities	-5	-44
Decrease in cash and cash equivalents	44	225
Cash and cash equivalent at the beginning of the year	339	114
Cash and cash equivalent at the end of the fiscal year	383	339

The explanatory notes are an integral part of the financial statements.
The complete financial statements with their respective explanatory notes are available at
www.imazon.org.br

Report of the independent auditors on the financial statements



(A free translation of the original in Portuguese)

Independent auditor's report

To the Management
Instituto do Homem e Meio Ambiente da Amazônia - IMAZON

We have audited the accompanying financial statements of Instituto do Homem e Meio Ambiente da Amazônia - IMAZON (the "Institute"), which comprise the balance sheet as at December 31, 2013 and the statements of operations, changes in equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting practices adopted in Brazil, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Brazilian and International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

2

PricewaterhouseCoopers SHS Quadra 6, Cj. A, Bloco C, Ed. Business Center Tower, Salas 801 a 811, Brasília, DF, Brasil 70.322-915
Caixa Postal 08650 T: (61) 2196-1800, F: (61) 2196-1820, www.pwc.com/br



Instituto do Homem e Meio Ambiente da Amazônia - IMAZON

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Instituto do Homem e Meio Ambiente da Amazônia - IMAZON as at December 31, 2013, and its financial performance and cash flows for the year then ended, in accordance with accounting practices adopted in Brazil.

Brasília, June 2, 2014


PricewaterhouseCoopers
Contadores Públicos Ltda.
CRC 2SP023173/O-4 "S" PA


Fabiano Ricardo Tessitore
Contador CRC 2SP216451/O-1 "S" PA

3

Appendices

Lists of **Technical Councils and Boards**

In 2013, Imazon integrated the following Technical Councils and Boards:

- **Technical Committee of the Amazon Fund.**
Representative: Adalberto Veríssimo
- **Technical Board of the Forest Sector of the State of Pará (CTSF).**
Representative: André Monteiro
- **Environmental Council of the Board of Directors of FSC – Brazil Initiative.**
Representative: Paulo Amaral.
- **Forum on Climate Change in Pará, as the main representative of the Climate Observatory.**
Representative: Brenda Brito.
- **Executive Intergovernmental Group of the Legal Lan Program, as the substitute of the Sustainable Amazon Forum.**
Representative: Brenda Brito.
- **Executive Committee of the Corporate Movement for Biodiversity.**
Representatives: Adalberto Veríssimo e Mariana Vedoveto.
- **Coordination Committee of the Climate Observatory.**
Representative: Brenda Brito
- **Working Group for the definition of the State Policy on Sema's environmental services.**
Representative: Brenda Brito
- **Management Council of the Green Municipalities Program.**
Representatives: Paulo Amaral e Andréia Pinto.
- **Working Group for the elaboration of Sema's plan for monitoring protected areas.**
Representative: Heron Martins



Photo: © Rafael Araújo

Download of publications

Publications	Downloads
O Estado da Amazônia. Uso da Terra	324
Compensação ambiental: Oportunidades para a consolidação das Unidades de Conservação do Pará	291
Municípios Verdes: Caminhos para a sustentabilidade	257
Como desenvolver a economia rural sem desmatar a Amazônia?	216
Boletim do Desmatamento (SAD) Junho de 2013	209
Floresta para sempre: um manual para a produção de madeira na Amazônia	203
Marco regulatório sobre pagamento por serviços ambientais no Brasil	200
A atividade madeireira na Amazônia brasileira: produção, receita e mercados	189
Áreas Protegidas da Amazônia Legal com mais Alertas de Desmatamento em 2012-2013	150
Pendências fundiárias no Pará	149
Other publications	8196
Total	10384*

* Due to a mistake in the data count, by the company that manages the Imazon site, only downloads from January 1 through October 14, 2013 were counted. contabilizados *downloads* de 1º de janeiro a 14 de outubro de 2013.

List of publications

• Books and Booklets

Áreas Protegidas da Amazônia Legal com mais Alertas de Desmatamento em 2012-2013

Araújo, E., Martins, H., Barreto, P. & Lima, A. C. 2013. Áreas Protegidas da Amazônia Legal com mais Alertas de Desmatamento em 2012-2013 (p. 32). Belém: Imazon.



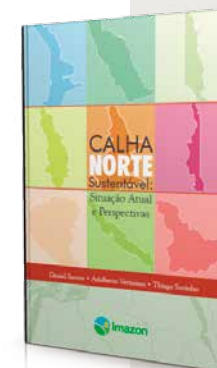
Avaliação da transparência de informações no Instituto de Terras do Pará

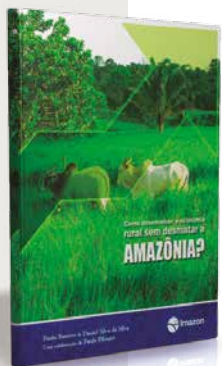
Cardoso Jr., D. & Brito, B. 2013. Avaliação da transparência de informações no Instituto de Terras do Pará (p. 40). Belém: Imazon.



Calha Norte sustentável: Situação atual e perspectivas

Santos, D., Veríssimo, A. & Sozinho, T. 2013. Calha Norte sustentável: Situação atual e perspectivas (p. 200). Belém: Imazon.





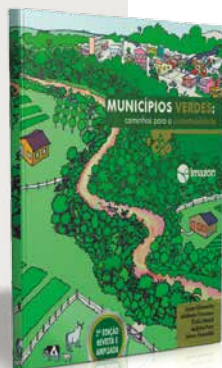
Como desenvolver a economia rural sem desmatar a Amazônia?

Barreto, P. & Silva, D. 2013. Como desenvolver a economia rural sem desmatar a Amazônia? (p. 56). Belém: Imazon.



Compensação ambiental: Oportunidades para a consolidação das Unidades de Conservação do Pará

Pinto, I. C., Vedoveto, M. & Veríssimo, A. 2013. Compensação ambiental: Oportunidades para a consolidação das Unidades de Conservação do Pará (p. 53). Belém: Imazon.



Municípios Verdes: Caminhos para a sustentabilidade (2ª edição)

Guimarães, J., Veríssimo, A., Amaral, P., Pinto, A. & Demachki, A. 2013. Municípios Verdes: Caminhos para a sustentabilidade (2a ed., p. 174). Belém: Imazon

Situação do desmatamento nos assentamentos de reforma agrária no Estado do Pará

Brandão Jr., A., Souza Jr., C., Pinto, A., Amaral, P. & Veríssimo, A. 2013. Situação do desmatamento nos assentamentos de reforma agrária no Estado do Pará (p. 34). Belém: Imazon.



O Estado da Amazônia. Uso da Terra

Santos, D., Pereira, D. & Veríssimo, A. 2013. O Estado da Amazônia: Uso da Terra (p. 67). Belém: Imazon.



- **Articles**

10-year Landsat classification of deforestation and forest degradation in the Brazilian Amazon

Souza Jr., C., Siqueira, J., Sales, M., Fonseca, A., Ribeiro, J., Numata, I., Cochrane, M., Barber, C., Roberts, D. & Barlow, J. 2013. Ten-Year Landsat classification of deforestation and forest degradation in the Brazilian Amazon. *Remote Sensing* 5, 5493–5513.

A social and ecological assessment of tropical land uses at multiple scales: the Sustainable Amazon Network

Gardner, T.A. et al. 2013. A social and ecological assessment of tropical land uses at multiple scales: the Sustainable Amazon Network. *Philosophical Transactions of the Royal Society B: Biological Sciences* 368 (20120166), 11.

Base de informações geográficas para gestão ambiental municipal da Amazônia

Souza Jr., C., Amaral, P., Sales, M., Salomão, R., Oliveira Jr., L., Batista, W. & Martins, J. 2013. Base de informações geográficas para gestão ambiental municipal na Amazônia. *Revista Brasileira de Cartografia* 3(65), 591–603.

Predictive modelling of contagious deforestation in the Brazilian Amazon

Rosa, I.M.D., Purves, D., Souza Jr., C. & Ewers, R. M. 2013. Predictive modelling of contagious deforestation in the Brazilian Amazon. *PLOS ONE* 8(10), 14.

Setting priorities to avoid deforestation in Amazon protected areas: Are we choosing the right indicators?

Nolte, C., Agrawal, A. & Barreto, P. 2013. Setting priorities to avoid deforestation in Amazon protected areas: are we choosing the right indicators? *Environmental Research Letters* 8(1), 7.

Spontaneous colonization and forest fragmentation in the central Amazon Basin

Arima, E. Y., Walker, R. T., Souza Jr., C., Pereira, R. & do Canto, O. 2013. Spontaneous colonization and forest fragmentation in the central Amazon Basin. *Annals of the Association of American Geographers* 103(6), 1485–1501.

Temporal patterns of road network development in the Brazilian Amazon

Ahmed, S. E., Souza Jr., C., Ribeiro, J. &

Ewers, R. M. 2013. Temporal patterns of road network development in the Brazilian Amazon. *Regional Environmental Change*, (13), 927–937.

- **Bulletins of Deforestation/Forest Transparency**

Boletim do Desmatamento (SAD) Dezembro de 2012

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (dezembro de 2012) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Janeiro de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (janeiro de 2013) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Fevereiro de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (fevereiro de 2013) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Março de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (março de 2013) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Abril de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (abril de 2013) (p. 13). Belém: Imazon.

Boletim do Desmatamento (SAD) Maio de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (maio de 2013) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Junho de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (junho de 2013) (p. 13). Belém: Imazon.

Boletim do Desmatamento (SAD) Julho de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (julho de 2013) (p. 13). Belém: Imazon.

Boletim do Desmatamento (SAD) Agosto de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (agosto de 2013) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Setembro de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (setembro de 2013) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Outubro de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (outubro de 2013) (p. 12). Belém: Imazon.

Boletim do Desmatamento (SAD) Novembro de 2013

Martins, H., Fonseca, A., Souza Jr., C., Sales, M. & Veríssimo, A. 2013. Boletim Transparência Florestal da Amazônia Legal (novembro de 2013) (p. 13). Belém: Imazon.

- **Forest Transparency**

Boletim Transparência Manejo Florestal Estado do Pará 2011-2012

Monteiro, A., Cardoso, D., Conrado, D., Veríssimo, A. & Souza Jr., C. 2013. Boletim Transparência Manejo Florestal Estado do Pará (2011-2012) (p. 14). Belém: Imazon.

- **The State of the Amazon**

Pendências fundiárias no Pará

Brito, B., Baima, S. & Salles, J. 2013. Pendências fundiárias no Pará. O Estado da Amazônia (Vol. 23, p. 6). Belém: Imazon.

- **Congresses and annals**

Cálculo do índice NDFI em imagens IRS-P6/LISS3: Aplicações na detecção de extração seletiva de madeira na Amazônia

Doblas, J. & Souza Jr., C. 2013. Cálculo do índice NDFI em imagens IRS-P6/LISS3: aplicações na detecção de extração seletiva de madeira na Amazônia. XVI Simpósio Brasileiro de Sensoriamento Remoto do Inpe.

ImgTools: A software for optical remotely sensed data analysis

Souza Jr., C. & Siqueira, J. 2013. ImgTools: A software for optical remotely sensed data analysis. XVI Simpósio Brasileiro de Sensoriamento Remoto do Inpe (pp. 1571–1578). Foz do Iguaçu: Inpe.

Mapeamento da cobertura do solo de Paragominas-PA com imagens de satélite de alta resolução: aplicações para o Cadastro Ambiental Rural (CAR)

Martins, H., Nunes, S., Salomão, R., Wagner, R., Augusto, L. & Souza Jr., C. 2013. Mapea-

mento da cobertura do solo de Paragominas-PA com imagens de satélite de alta resolução: aplicações para o Cadastro Ambiental Rural (CAR). XVI Simpósio Brasileiro de Sensoriamento Remoto do Inpe (pp. 1283–1290). Foz do Iguaçu: Inpe.

Monitoramento remoto de concessões florestais na Amazônia - Flona do Jamari, Rondônia

Monteiro, A., Conrado, D., Cardoso, D. & Souza Jr., C. 2013. Monitoramento remoto de concessões florestais na Amazônia - Flona do Jamari, Rondônia. XVI Simpósio Brasileiro de Sensoriamento Remoto do Inpe (pp. 6433–6440). Foz do Iguaçu: Inpe.

- **Risk of Deforestation**

Boletim Risco de Desmatamento: avaliação de resultados (Agosto de 2011 a Julho de 2012)

Sales, M. & Souza Jr., C. 2013. Boletim Risco de Desmatamento: avaliação de resultados (Agosto de 2011 a Julho de 2012) (p. 7). Belém: Imazon.

- **Calha Norte**

Boletim da Calha Norte Outubro de 2012 a Março de 2013

Consórsio Calha Norte. 2013. Boletim da Calha Norte Outubro de 2012 a Março de 2013 (p. 6). Belém: Imazon.

Boletim da Calha Norte Março a Agosto de 2013

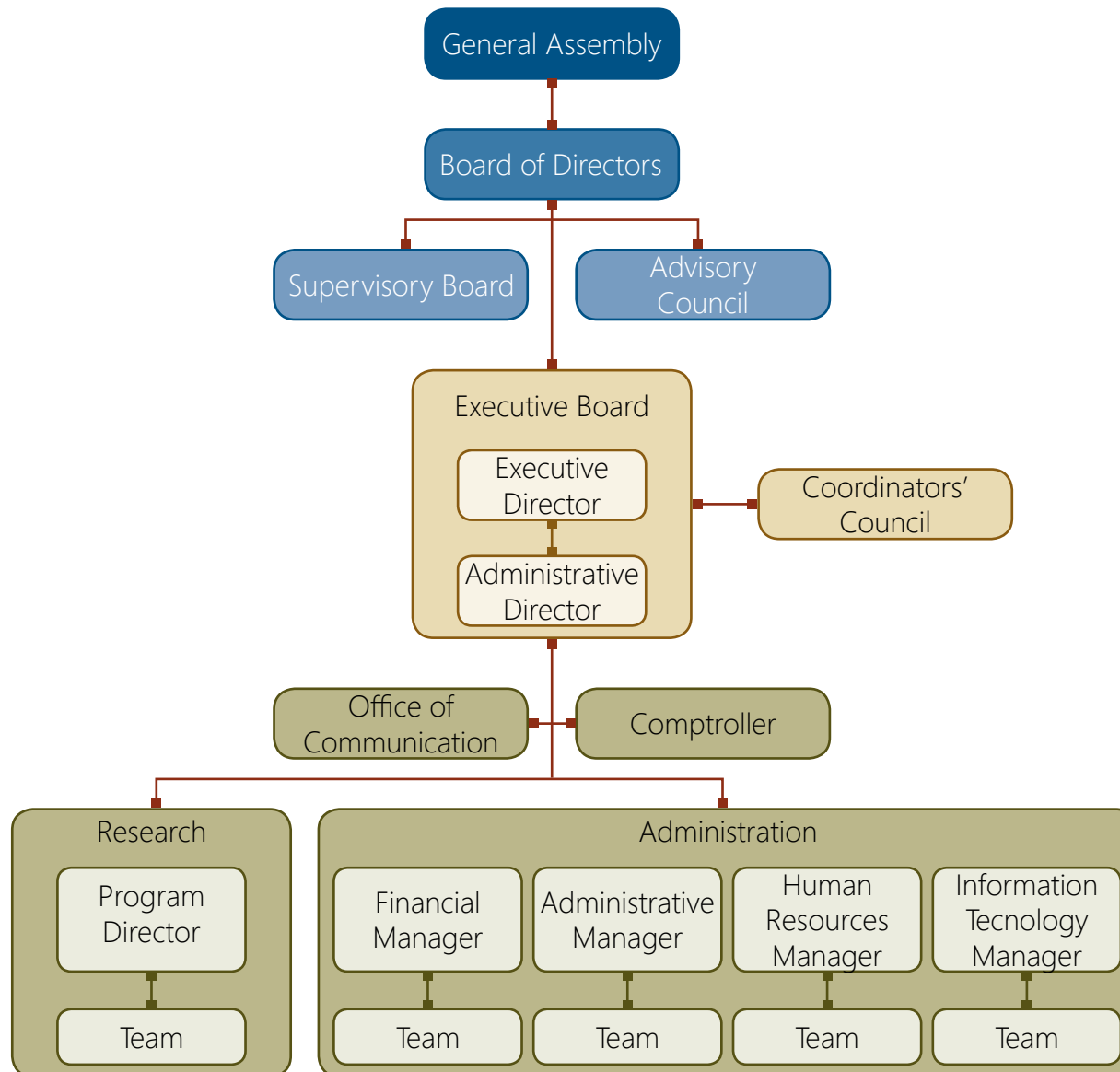
Consórsio Calha Norte. 2013. Boletim da Calha Norte Março a Agosto de 2013 (p. 4). Belém: Imazon.

- **Other publications**

Desmatamento e degradação florestal do bioma Amazônia (2000 - 2010)

Souza Jr., C., Siqueira, J., Ribeiro, J. & Sales, M. 2013. Desmatamento e Degradação Florestal do Bioma Amazônia (2000 - 2010) (p. 2). Belém: Imazon.

Organogram and team (December 31, 2013)



Researchers

Senior Researcher

Adalberto Veríssimo
Carlos Souza Jr.
Paulo Barreto
Paulo Amaral

Adjunct Researcher

Amintas Brandão Jr.

Assistant Researcher II

Andréia Pinto
Antônio Victor Fonseca
Daniel Santos
Elis Araújo
Heron Martins
Jakeline Pereira
Márcio Sales
Mariana Vedoveto

Assistant Researcher I

Dalton Cardoso
Daniel Silva
Dário Rodrigues
Dênis Conrado
Gabriela Góes
João Victor Siqueira
Luís Augusto Oliveira
Marcelo Justino
Renata Cunha

Analysts

Analysts III

Bernardo Caires
Kátia Pereira
Rodney Salomão
Sâmia Nunes

Analysts II

Jarine Reis
Júlia Ribeiro
Victor Lins

Analysts I

Alan Lins
Izabella da Paixão
Roberto Wagner Batista
Sara Baima

Technicians

Carlos Alexandre Ribeiro
Eli Franco
Henrique Vilani
Renan Moura

Administration

Managers

Bruno Oliveira (Comunicação)
Daniel Souza (TI)
Elson Vidal (Administrativo)
Isabelle Corrêa (Financeiro)
Verônica Oki (Controladoria)
Wanessa Ferreira (Recursos Humanos)

Assistants

Arthur Lisboa (Financeiro)
Fabiany Lucidos (Financeiro)
Flávia Valle (Financeiro)
Thays Borges (Controladoria)
Paula Ramos (Secretária Bilíngue)

Other Assistants

Fernando Medeiros (Administrativo)
Helton Rodrigues (TI)
Izabel Cristina Andrade (Serviços Gerais)
Larissa Barros (Financeiro)
Maria de Nazaré da Costa (Serviços Gerais)
Selma Ramos (Serviços Gerais)
Stefânia Costa (Comunicação)
Rosa Maria Pinheiro (Serviços Gerais)
Rita de Cássia Oliveira (Contabilidade)

Trainees

Taciane do Socorro
Wildson Queiroz

Interns

Carolina Yamada
Dyeden Monteiro
Leandro Botelho
Leandro Neves
Rayssa Braga
Sérgio Barbosa
Thaís Santos

Associate Researchers

Brenda Brito
Christopher Barber
Danielle Celentano
Edson Vidal
Erin Sills
Eugênio Arima
Mark Cochrane



We thank **André Luiz Monteiro, Júlia Beltrão, Jime Rodrigues, Laura Orioli** and **Thiago Sozinho**, who contributed to Imazon's work in 2013. We wish them good luck and a bright future in their careers!

ACRONYMS

ARA	Amazon Regional Articulation	OC	Climate Observatory
APA	Environmenttal Protection Area	ONGs	Non-government Organizations
CAR	Rural Environmental Registry	ONU	United Nations
CGI	Imazon Geotechnology Center	Oscip	Civil Society Organization of Public Interest
CI	Conservation International	PBMC	Brazilian Panel on Climate Change
CMN	National Monetary Council	PMV	Green Cities Program
COP-15	Climate Change Confereence in Copenhagen in 2009	Raisg	Amazonian Network of Georeferenced Sirvironmentalformation Socio-Environmental Information
CTSF	Technical Board of the Forest Sector of the State of Pará	Rebio	Biological Reserve
Esec	Ecological Station	SAD	Deforestation Alert System
Flotas	State Forest	SAD-EE	SAD-Earth Engine
FSC	Forest Stewardship Council	SEEG	System for Emissions of Greenhouse Gases
GEE	Greenhouse Gases	SGA	Geological Society of America
GFW	Global Forest Watch	Sapeg	Seminar on the Guianas Shield in Pará and Amapá
Ibama	Brazilian Instituto of environment and Renewable Natural Resources	Sema-PA	Pará State Department of Environment
ICMbio	Chico Mendes Institute for Biodiversity Conservation	SIG	Geographic information System
ICMS	Goods and Services State Tax	Simex	System for Monitoring Timber Harvesting
Idesp	Institute for Economic and Social Development of Pará	Simlam	Integrated System for Environmental Monitoring and Licensing
Iepé	Institute for Research and Training in Indigenous Education	Sisflora	System for Commercialization and Transportation of Forest Products
IPCC	Intergovernmental Panel on Climate Change	TCU	Brazilian Court of Audit
Iterpa	Land Institute of Pará	TCE-PA	Court of Audit of the State of Pará
IVC	Circulation Verification Institute	TAC	Terms of Adjustment of Conduct
MMA	Ministry of the Environment	WRI	World Resources Institute
MPE	State Public Ministry	USGS	U.S. Geological Survey
MPF	Federal Public Ministry		



Trav. Dom Romualdo de Seixas, 1698,
Ed. Zion Business , 11º andar
Umarizal - Zip Code: 66.055-200
Belém - Pará - Brazil
(+55) 91 3182-4000
E-mail: imazon@imazon.org.br
Website: www.imazon.org.br