



# Activity

Report 2011





# Activity Report 2011

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## Letter from the Executive Secretariat

After completing 20 years in 2011 Imazon began a process for drawing up its strategic planning until 2020. Various changes have occurred in the Amazon in the last few years that require a deeper assessment so that Imazon can continue to act in the best way possible in favor of sustainable development in the region.

Some examples of those changes are a 77.5% reduction in deforestation from 2004 to 2011, though implementation of effective command and control actions, creation of protected areas and financial and commercial restrictions on illegal deforestation. At the same time we are living in a period where there is pressure to improve flexibility in the environmental laws that have aided this drop in deforestation, creating a major challenge for civil society, which is concerned about the impacts of predatory economic practices on the forest.

Additionally, the Amazon is going through a new cycle of major projects for generating electricity, building of infrastructure and use of mineral resources. Unfortunately, old problems related to those products still persist, such as mitigation measures that are insufficient for dealing with the impacts that such projects inevitably bring about.

These and other issues relevant to the region were discussed in institutional retreats with Imazon employees in 2011. Based on these we selected those issues where Imazon has the most potential for contributing and validated them with the Board of Directors. Some continue or expand themes already being dealt with by Imazon and others represent new fronts for action. Thus, over the next few years Imazon will be working on four main strategic issues: i) mitigating and offsetting the impacts of major infrastructure work and regional development plans; ii) : Mitigation and adaptation to climate change related to deforestation, reforestation and agriculture and ranching; iii) creation and consolidation of protected areas and iv) sustainable rural economics. The details of this planning should be concluded in 2012.

Some activities begun in 2011 are already aligned with this planning, such as participation on the Management Committee of the Green Municipalities Program

in Pará. Based on the successful experience in Paragominas in strengthening local environmental management, reducing deforestation and increasing properties listed in the Rural Environmental Registry, the state government has decided to create this program to support other municipalities in expanding the experience and achieving results similar to those of Paragominas, reducing deforestation in the state and expanding the quality of life for the population.

Imazon participated decisively in conceiving the program together with government offices, NGOs, and the Federal Public Prosecution Service. On the Management Committee we have supported implementation with information generated by the Deforestation Alert System (SAD), promoting training in environmental management for the municipalities, besides preparing strategic analysis for improving actions.

In 2011 we also continued to produce and disseminate research on the Amazon, with the publication of 52 studies. These publications informed 2,699 articles in the media and 20 presentations by Imazon researchers at national and international events. Furthermore, there were more than 22 thousand downloads of the institute's publications in 2011, reinforcing the growing interest of the public for information about the Amazon.

The publication with the greatest number of downloads (1,865) was the guide *Municípios Verdes: Caminhos Para a Sustentabilidade* (Green Municipalities: Paths to Sustainability), which presents a road map for municipalities to advance in reducing deforestation and improving local environmental management. This guide has been used as one of the reference sources for the Pará state government's Green Municipalities program.

We would like to thank all of our collaborators and partner institutions that have made it possible to reach these achievements and results. We reaffirm our commitment to work so that biodiversity, forest cover and associated environmental services may be conserved in the Amazon and sustainable development can be implemented so as to guarantee quality of life with dignity for all inhabitants in the region.



**Brenda Brito**  
*Executive Secretary*



**Verônia Oki**  
*Vice-Executive Secretary*



# Introduction

Imazon is a research institute whose mission is to promote sustainable development in the Amazon through studies, support for formulating public policies, wide dissemination of information and professional formation. The Institute is a not-for-profit association as is classified by the Brazilian Ministry of Justice as a Civil Society Organization in the Public Interest - Oscip<sup>1</sup>.

The Institute was founded in 1990, and is headquartered in Belém, Pará. Over 21 years, Imazon has published more than 500 technical works, of which 203 have appeared as articles in international scientific periodicals or as chapters of books. Additionally, the Institute published 49 books, 20 booklets, 20 issues of the *Série Amazônia* and 21 issues of the *O Estado da Amazônia* series.

## ● Research

Imazon's research activities include socio-economic, policy legal and institutional diagnoses of land uses in the Amazon; developing methods for evaluating and monitoring those uses; holding demonstration projects; and drawing up scenarios and models for sustainable development for those economic activities. The work of the Institute is based on the principles of interdisciplinarity, an empirically based search for solutions and use of the scientific method.



<sup>1</sup> Oscip is a title regulated by Law no. 9.790, of March 23, 1999, granted by the Ministry of Justice to private legal not-for-profit entities, with the intention of facilitating the signing of partnerships and agreements with the Government. Several requirements must be met to receive this classification, especially regarding institutional transparency.

## ● Dissemination

Imazon publishes the results of its studies in national and international indexed scientific periodicals (Science, Nature, Proceedings of the National Academy of Science, Journal of Geophysical Research, Environmental Science & Policy, Forest Ecology and Management, Conservation Biology, International Journal of Remote Sensing, etc., etc.) and through manuals, videos, booklets, books, technical articles and summaries with recommendations for public policies. Some of the studies are available free of charge on the institute's electronic page ([www.imazon.org.br](http://www.imazon.org.br)).

In the media, the results of the studies are disseminated through news items in newspapers, magazines, televised news programs, radio stations, blogs and large-audience electronic pages, and technical and educational videos, as well as social networks such as *Twitter* and *Facebook*. Additionally, Imazon researchers participate as speakers in various scientific and public policy events at a regional, national and international level.

## ● Public Policies

Imazon studies have contributed effectively to the preparation of far-reaching public policies in the Amazon. The main contributions have been in strategic areas such as territorial organization (zoning and land title regularization), support for the creation and implementation of Conservation Units, improvement of command and control systems with an emphasis on monitoring with satellite images, development instruments (for example, studies for allocating credit for sustainable use activities) and support for preparation and promotion of policies for promoting forest management. Additionally, Imazon has worked towards improving application of the Environmental Crimes Law, recommendations for effective enforcement of environmental licensing, support for the formulation of policies for mitigation of and adaptation to climate changes and public policies for combating deforestation and forest degradation in the Amazon.

On many occasions Imazon has been invited to take part of technical committees and assist decision makers of the Executive, Legislative and Judicial branches in drawing up public policies. The Institute also participates in public hearings and on commissions of the Legislative Branch (state and federal) to give its opinion and issue reports on complex and emerging themes in the Amazon, such as changes in the Forest Code, land title regularization, Ecological-Economic Zoning (ZEE), sustainable development programs for the region, impact and mitigation of major infrastructure works, and others.

## ● Professional Formation

One of the objectives at Imazon is to prepare researchers with analytical capacity, experience in the field and a focus on understanding and solving the Amazon's environmental problems. This work involves preparing research projects, collecting and analyzing data and presenting the results in scientific articles and professional meetings. For its 21 years, Imazon has contributed to capacitating more than 220 professionals in the areas of ecology, forest engineering, environmental law, rural economics, geoprocessing, communications, regional planning, institutional analysis and public policies. Many of those professionals occupy notable positions in other environmental organizations, in the private sector and in public institutions.

## Imazon's Vision

The Amazon as an area where biodiversity, forest cover and their associated environmental services will be conserved and where sustainable development will be implanted so as to guarantee living conditions with dignity for all of the region's inhabitants.

## To fulfill its mission, Imazon adopts the following values:

**Sustainability.** Solutions to problems in the use of natural resources must be based on principles of sustainability, which is the capacity of an ecosystem to maintain ecological processes and functions, biological diversity and productivity over time. That means respecting all forms of life and the cycles of natural, valuing sociocultural diversity, strengthening sustainable local economies and considering the environmental and social costs involved in productive processes. It is also essential to promote efforts for sharing benefits and sharing power in decision-making.

**Ethics.** Adopt a respectful relationship with other institutions and social actors; respect intellectual rights; respect professional codes of ethics; do not discriminate based on race, creed, gender, social, religious or ideological position in internal and external relations.

**Use of the Scientific Method.** Imazon carries out objective and unbiased analyses based on scientific methods confirmed in the specialized literature.

**Excellence in Quality.** Imazon products undergo a rigorous process of internal quality and review by external peers. That reinforces the Institute's credibility and respect.

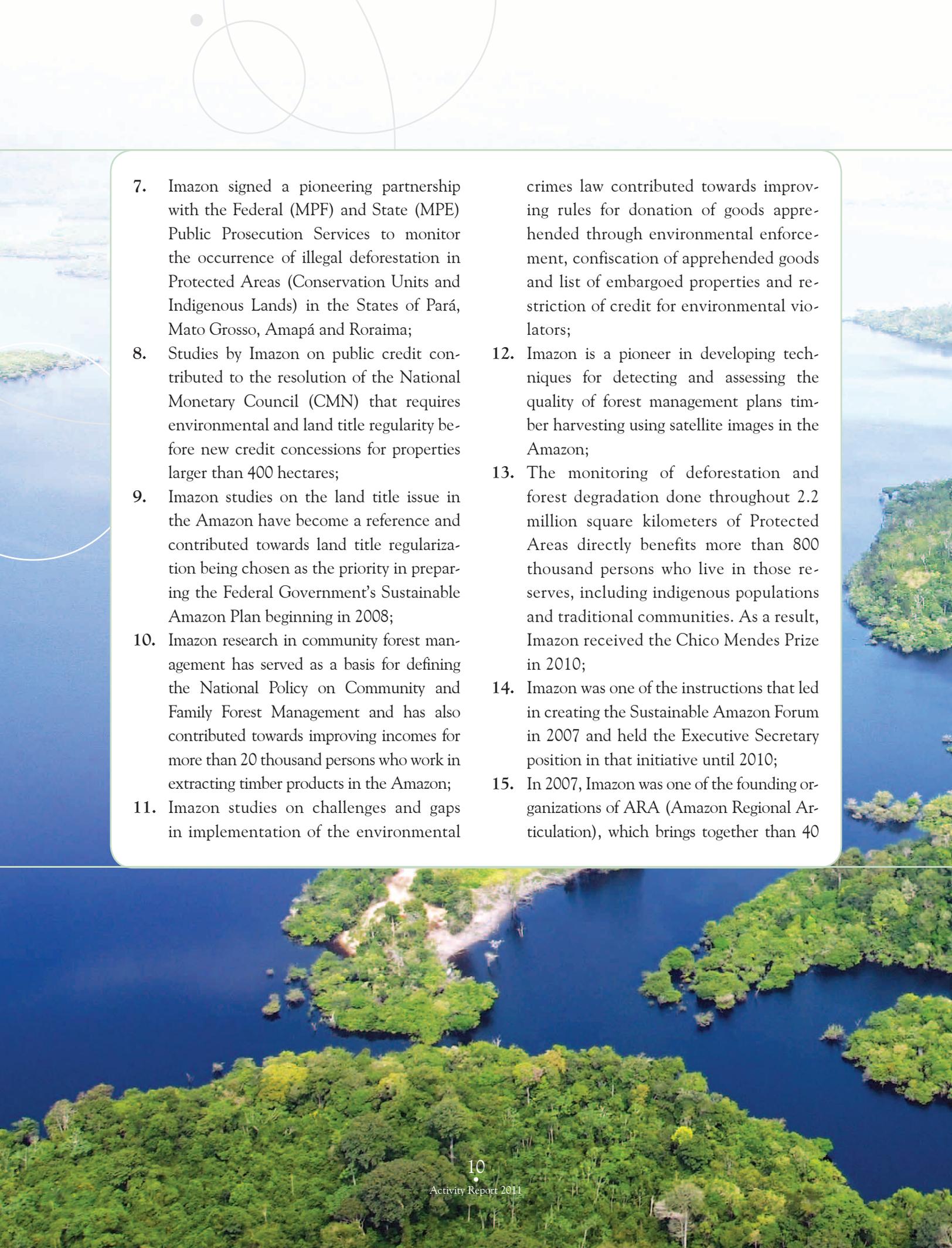
## ● A brief history of Imazon

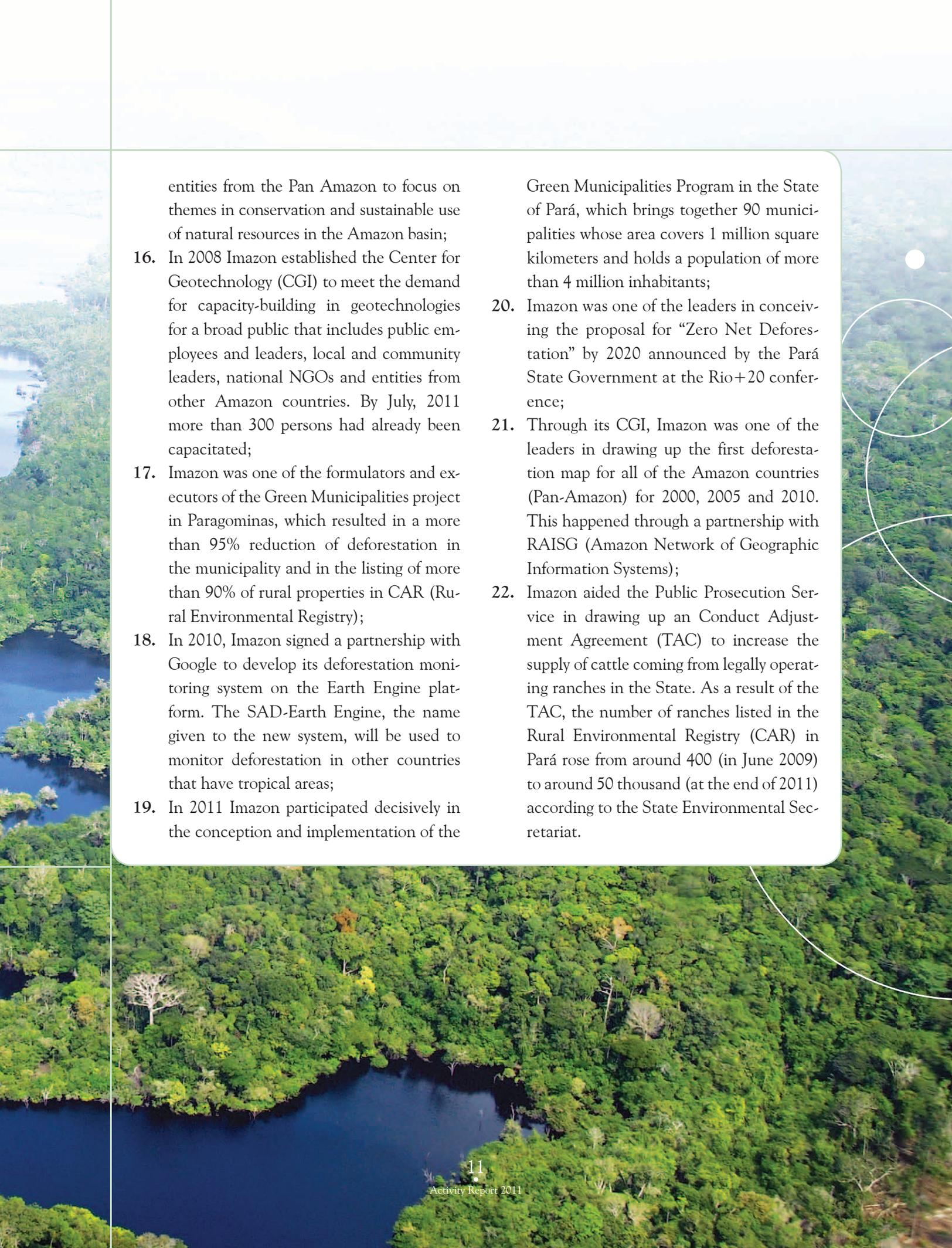
Imazon began its activities in 1990 with an initial team of 15 researchers and technicians and a geographic scope restricted to the State of Pará. The work had a focus on the ecological and socioeconomic impacts of land use activities with an emphasis on the timber and ranching sector. In 2000 the Institute had a team of 40 professionals, a geographic scope on the scale of the Legal Amazon and an expansion of themes, including natural resource economics, geoprocessing, public policies and environmental law.

In 2011 Imazon already had more than 60 collaborators, including, researchers, technicians and administrators. The Institute's work is still centered on the Legal Amazon, but its impacts have already gone far beyond that territory. As an example, Imazon has trained technicians from other Amazon countries in geoprocessing (monitoring do deforestation). The thematic areas at Imazon have undergone a significant expansion and now include issues such as climate changes, protected areas, recovery of degraded areas and strategies for fighting deforestation and forest degradation.

## ● Principal contributions during these 21 years:

1. Imazon studies in the area of forest management and ecology served as a basis for establishing a forest management system directed towards companies and traditional communities. By the end of 2011, the managed area in the Amazon had already surpassed 6 million hectares, of which more than a third had the seal of the Forest Stewardship Council (FSC);
2. Technical studies and initiatives in the area of public policies led by Imazon had a direct impact on creating approximately 25 million hectares in Conservation Units in the Amazon, of which 12.8 million hectares were in the Calha Norte region of Pará;
3. Imazon research on the ecology of mahogany, the most valuable species of tropical timber, was essential to its inclusion on the list of threatened species in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 2003;
4. Studies on forest policy and economics decisively contributed to drafting of the new Law for Management of Public Forests in Brazil (in effect since 2006), whose principal objective is to promote the sustainable use of public forests;
5. A study published in 2000 on the dynamics of Boom-Bust, in partnership with the World Bank, served as a reference for drawing up public policies to combat deforestation;
6. In 2006, Imazon developed the Deforestation Alert System (SAD) as an instrument for monthly monitoring and wide dissemination of the deforestation situation in the Amazon. That monitoring has catalyzed a broad debate in society and contributed towards increasing efforts by the government to combat deforestation;

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- An aerial photograph of a tropical river system, likely in the Amazon basin. The water is a deep, dark blue, and the surrounding land is covered in dense, vibrant green forest. Several islands and peninsulas of varying sizes are scattered throughout the waterway, each also covered in lush vegetation. The sky is a pale, clear blue. In the top left corner, there are faint, overlapping circular lines in a light grey color, which appear to be part of a graphic design element.
7. Imazon signed a pioneering partnership with the Federal (MPF) and State (MPE) Public Prosecution Services to monitor the occurrence of illegal deforestation in Protected Areas (Conservation Units and Indigenous Lands) in the States of Pará, Mato Grosso, Amapá and Roraima;
  8. Studies by Imazon on public credit contributed to the resolution of the National Monetary Council (CMN) that requires environmental and land title regularity before new credit concessions for properties larger than 400 hectares;
  9. Imazon studies on the land title issue in the Amazon have become a reference and contributed towards land title regularization being chosen as the priority in preparing the Federal Government's Sustainable Amazon Plan beginning in 2008;
  10. Imazon research in community forest management has served as a basis for defining the National Policy on Community and Family Forest Management and has also contributed towards improving incomes for more than 20 thousand persons who work in extracting timber products in the Amazon;
  11. Imazon studies on challenges and gaps in implementation of the environmental crimes law contributed towards improving rules for donation of goods apprehended through environmental enforcement, confiscation of apprehended goods and list of embargoed properties and restriction of credit for environmental violators;
  12. Imazon is a pioneer in developing techniques for detecting and assessing the quality of forest management plans timber harvesting using satellite images in the Amazon;
  13. The monitoring of deforestation and forest degradation done throughout 2.2 million square kilometers of Protected Areas directly benefits more than 800 thousand persons who live in those reserves, including indigenous populations and traditional communities. As a result, Imazon received the Chico Mendes Prize in 2010;
  14. Imazon was one of the instructions that led in creating the Sustainable Amazon Forum in 2007 and held the Executive Secretary position in that initiative until 2010;
  15. In 2007, Imazon was one of the founding organizations of ARA (Amazon Regional Articulation), which brings together than 40

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- entities from the Pan Amazon to focus on themes in conservation and sustainable use of natural resources in the Amazon basin;
16. In 2008 Imazon established the Center for Geotechnology (CGI) to meet the demand for capacity-building in geotechnologies for a broad public that includes public employees and leaders, local and community leaders, national NGOs and entities from other Amazon countries. By July, 2011 more than 300 persons had already been capacitated;
  17. Imazon was one of the formulators and executors of the Green Municipalities project in Paragominas, which resulted in a more than 95% reduction of deforestation in the municipality and in the listing of more than 90% of rural properties in CAR (Rural Environmental Registry);
  18. In 2010, Imazon signed a partnership with Google to develop its deforestation monitoring system on the Earth Engine platform. The SAD-Earth Engine, the name given to the new system, will be used to monitor deforestation in other countries that have tropical areas;
  19. In 2011 Imazon participated decisively in the conception and implementation of the Green Municipalities Program in the State of Pará, which brings together 90 municipalities whose area covers 1 million square kilometers and holds a population of more than 4 million inhabitants;
  20. Imazon was one of the leaders in conceiving the proposal for “Zero Net Deforestation” by 2020 announced by the Pará State Government at the Rio+20 conference;
  21. Through its CGI, Imazon was one of the leaders in drawing up the first deforestation map for all of the Amazon countries (Pan-Amazon) for 2000, 2005 and 2010. This happened through a partnership with RAISG (Amazon Network of Geographic Information Systems);
  22. Imazon aided the Public Prosecution Service in drawing up an Conduct Adjustment Agreement (TAC) to increase the supply of cattle coming from legally operating ranches in the State. As a result of the TAC, the number of ranches listed in the Rural Environmental Registry (CAR) in Pará rose from around 400 (in June 2009) to around 50 thousand (at the end of 2011) according to the State Environmental Secretariat.



# Programs

## ● Forest Policy and Economics

The forest sector can perform a crucial role in sustainable development for the Amazon by allying conservation with socioeconomic growth. However, the advance of the forest sector has been marked by predatory logging, although there have been advances in adopting forest management and reducing illegality in the sector. Additionally, the forest sector is undergoing profound changes, including decentralization of forest management, forest concessions and advances in systems for control and monitoring.

The objective of this program is to evaluate and inform public forest policies beginning with an analysis of the evolution dynamics and socioeconomic tendencies in the forest sector in the Amazon. Additionally, the program supports the creation



and implementation of Conservation Units that will enable local economic development (with a strong emphasis on forest concessions) while at the same time strengthening conservation in the region. The main activities of this program are:

- **Timber production centers.** This Imazon initiative has been going on since 1998 throughout the Amazon. It is the broadest survey made of primary data from the timber sector and has been the main reference for strategic information and statistics on this activity in the Amazon. Imazon carried out broad field surveys in 1998, 2004 and 2009, which led to publications such as the Forest Facts series.

- **Mosaic of Conservation Units (UCs) in the Calha Norte.** Since 2006, the Institute has cooperated with the Pará State Environmental Secretariat – Sema in a consortium to

support the creation, implementation and consolidation of the Mosaic of Conservation Units in the Calha Norte of Pará, with a total area of 12.8 million hectares. In 2011, the management plans for State Forests were approved and published under the coordination of Imazon. The Institute also collaborated in drawing up management plans for the Maicuru Biological Reserve and the Grão Pará Ecological Station (the largest conservation unit in the world). Those two management plans were also approved in 2011.

**Coordination:** Adalberto Veríssimo

**Team:** Jakeline Pereira, Denys Pereira Daniel Santos, Eli Franco, Mariana Vedoveto and Thiago Sozinho.

**Collaboration:** André Monteiro (Imazon) Support: Gordon & Betty Moore Foundation and Fundo Vale

**Partnerships:** CI, IFT, Imaflora and Pará State Government (Sema and Ideflor).

## ● Monitoring the Amazon

The Monitoring of the Amazon program has the objective of, through satellite images detecting, quantifying and monitoring of deforestation, forest degradation, timber harvesting, non-official roads and other forms of human pressure in the region. Additionally, the results of monitoring are combined with various digital maps in order to qualify the environmental problems and for regional planning, by means of geographic information systems (GIS). The program also develops proposals for public policies, strategic dissemination of its results and capacity-building in geotechnologies for a varied audience. The main research activities developed with the program are:



The Monitoring the Amazon program collaborates with other Imazon programs, such as in creating a digital cartographic base for Paragominas or preparing economic accessibility maps for the Calha Norte.

- **Mapping of roads.** Imazon monitors the non-official roads in the Legal Amazon in order to assess human pressure, identify priority areas for enforcement land title organization, and model the economic reach and environmental risk of economic activities in the Amazon.

- **Mapping of deforested areas.** The Deforestation Alert System (SAD) at Imazon employs image processing techniques that enable monthly monitoring of deforestation and forest degradation in the Legal Amazon. Those methods for forest monitoring and control are transferred to environmental secretariats, Public Prosecutors, other non-governmental organizations – NGOs and to society in general.

- **Mapping of timber harvesting.** We are pioneers in developing techniques to detect and evaluate the effectiveness and quality of forest management plans using satellite images. It is also possible to map forests degraded by forest fires. In 2009, the institute began to disseminate the For-

est Management Transparency Bulletin for the State of Pará.

- **Spatial Modeling.** This involves generating models for use allocation and natural resource conservation and analyses of economic reach for land use activities (timber harvesting, cattle ranching and soy). Additionally, it develops risk models for deforestation and carbon emissions. With that information, it is possible to provide technical support for creating Protected Areas and modeling future scenarios for the region, such as building hydroelectric projects and paving highways.

*Coordination:* Carlos Souza Jr.

*Team:* Amintas Brandão Jr., André Monteiro, Heron Martins, João Siqueira, Júlia Ribeiro, Kátia Pereira, Márcio Sales, Rodney Salomão, Sâmia Nunes, Sanae Hayashi and Victor Lins.

*Support:* Gordon & Betty Moore Foundation, David & Lucile Packard Foundation, USAID, Fundação AVINA, Fundo Vale, Embassy of the Kingdom of the Netherlands and United States Forest Service.



## ● Forest and Community

The Forest and Community Program has the objective of contributing towards reducing deforestation by valorizing the standing forest. To achieve this, the program documents, analyzes and provides technical support to initiatives for forest management, sale of forest products and reforestation on a small scale in the Legal Amazon. Additionally, the program promotes capacity-building in geotechnology for socio-environmental management at a municipal scale,

in order to facilitate the environmental regularization of rural properties, and, consequently, to attract sustainable alternatives for land and natural resource use.

It is estimated that forest communities and rural family producers occupy an area of around 2 million square kilometers in the Amazon. There are around 1.5 extractivists who depend upon a strengthened forest-based economy. Those communities can play a crucial role in the conservation and use of forest resources if they can be placed in a sustainable forest-based economy. In the same manner, the recovery of forest liabilities through implementing agroforestry systems can also generate income and reduce the pressure on native forests. With that vision, the program is developing the following activities:

- **Support for small-scale forest management.** The objective is to understand the factors that contribute towards adoption of forest management by small producers in the Amazon. The technical, legal and market obstacles faced by that segment are studied. Additionally, there is an emphasis on identification and dissemination of models for technical and management follow-up, contributing so that small producers and communities will have greater autonomy and control over their management projects.

- **Small-scale markets for forest products.** This activity involves data collection, market analyses and preparation of a database for the purpose of improving the marketing of the products of community forests in the Amazon. Every week the prices of various non-timber forest products such as açai, andiroba and copaíba

are collected in five cities and disseminated via the Imazon page on the internet and over the Radio Clube do Pará station. That initiative seeks to offer strategic information to the communities that live off of and depend upon those products, increasing their negotiating power and increasingly adding value to the forest.

- **Collaborative monitoring in Pará and southern Amazonas.** This project monitors human pressure (deforestation, non-official roads, etc.) on areas of traditional communities and Indigenous Lands in southern Amazonas State and the State of Pará. The project also provides training for those communities in using GPS, reading maps and participatory mapping, promoting the local capacity for monitoring community and indigenous areas.

- **Support for the Rural Environmental Registry (CAR) and land title regularization.** Supports field data surveys of small rural properties in Pará for CAR and participates in the planning, development and implementation of land title regularization projects for family properties in Pará. Imazon is responsible for using satellite images to locate rural properties and enabling the preparation of land ownership maps.

**Coordination:** Paulo Amaral.

**Team:** Andréia Pinto, Carlos Souza Jr., Jayne Guimarães, Izabella da Paixão, Carlos Alexandre da Cunha, Marcelo Galdino, Rodney Salomão, Susany Sousa and Wildson Queiroz.

**Collaboration:** Manuel Amaral (IEB).

**Partnerships:** CSF Brasil, IEB, Imaflora, Kanindé, Rádio Clube do Pará, ACT.

**Support:** European Commission, USAID, Fundo Vale and Amazon Fund.

## ● Climate Changes

Climate changes represent one of the major environmental challenges in the XXI century. That phenomenon is the result of global warming caused by increases in emissions of greenhouse gases (GHG) that began with the Industrial Revolution, mainly through burning of fossil fuels. GHG emissions resulting from deforestation and forest degradation contribute 17% of global emissions, according to the Intergovernmental Panel on Climate Change – IPCC. Because of that, the Brazilian Amazon has enormous relevance in the climate debate, because it is the largest continuous tropical forest, with a high quantity of biomass, high rates of deforestation and forest degradation.

Furthermore, the region is very important for regulating climate on the South American continent. Thus, with 18% of its area already deforested, there are opportunities for recomposing forest cover, which will contribute to sequestering carbon from the atmosphere.

The objective of the program is to contribute towards reducing emissions and sequestering carbon in the Brazilian Amazon, especially related for actions to reduce emissions from deforestation

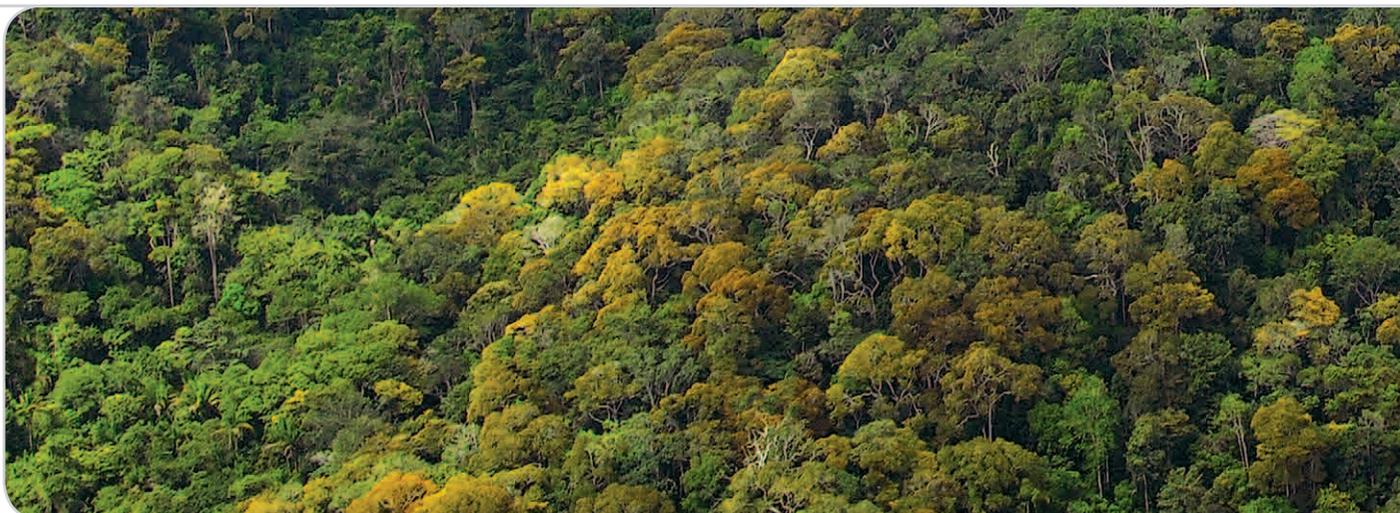
and forest degradation, conserving and increasing stocks of forest carbon, besides sustainable management of forests (REDD+). In specific terms the program seeks to: (1) contribute towards implementation, increasing transparency and efficiency in governance for initiatives to reduce emissions from deforestation and forest degradation (REDD+). In the Brazilian Amazon; (2) contribute to monitoring carbon emissions from deforestation and forest degradation in the Amazon region and to training and transference of that technology to countries with tropical forests and (3) stimulate development of mechanisms for payment for environmental services linked to mitigating global warming. The program activities are:

- **Evaluation of Forest Governance.**

The goal of this activity is to evaluate the governance situation in forests so as to identify the major advances and problems in the Brazilian Amazon, so as to contribute towards implementation of REDD+ initiatives.

- **Legal and institutional analysis.**

The program contributes by evaluating drafts of laws and new legislation on payment for environmental services and REDD+ in the Amazon, seeking to guarantee good governance for forests and for the effective provision of those services.



- **Monitoring carbon emissions.** This activity estimates and monitors carbon emissions. A model for carbon emissions has already been developed and successfully applied in the State of Mato Grosso. Since 2010 the Forest Transparency Bulletin has been reporting on carbon emission from deforestation and forest degradation detected by SAD.

- **Technical studies for REDD+ projects.** The program will contribute towards preparation of technical and scientific studies for defining prerequisites such as baseline, additionality estimate, and leakage risk estimates for REDD+ proposals and projects in the Amazon.

- **Forest recomposition.** This activity seeks to identify and stimulate opportunities for developing pilot projects for forest recomposition and assess their economic viability, together with links to mechanisms for payment for environmental services.

- **Green Municipalities.** Amazon supports consolidation of a socioenvironmental management model and the Rural Environmental Registry in eleven municipalities in Pará through monitoring, socioeconomic and forest diagnoses and capacity-building for agents with

the objective of reducing deforestation, forest degradation and carbon emissions.

- **Capacity-building.** Amazon intends to help meet demands for development of local capacities for improving governance and monitoring of REDD+ and carbon sequestration projects. To do that, the institute conducts courses related to those issues at the Amazon Center for Geotechnology (CGI).

- **Support for public policies and dissemination.** Amazon supports and evaluates the creation and implementation of public policies and private initiatives in the climate change area, as well expanding dissemination related to those actions.

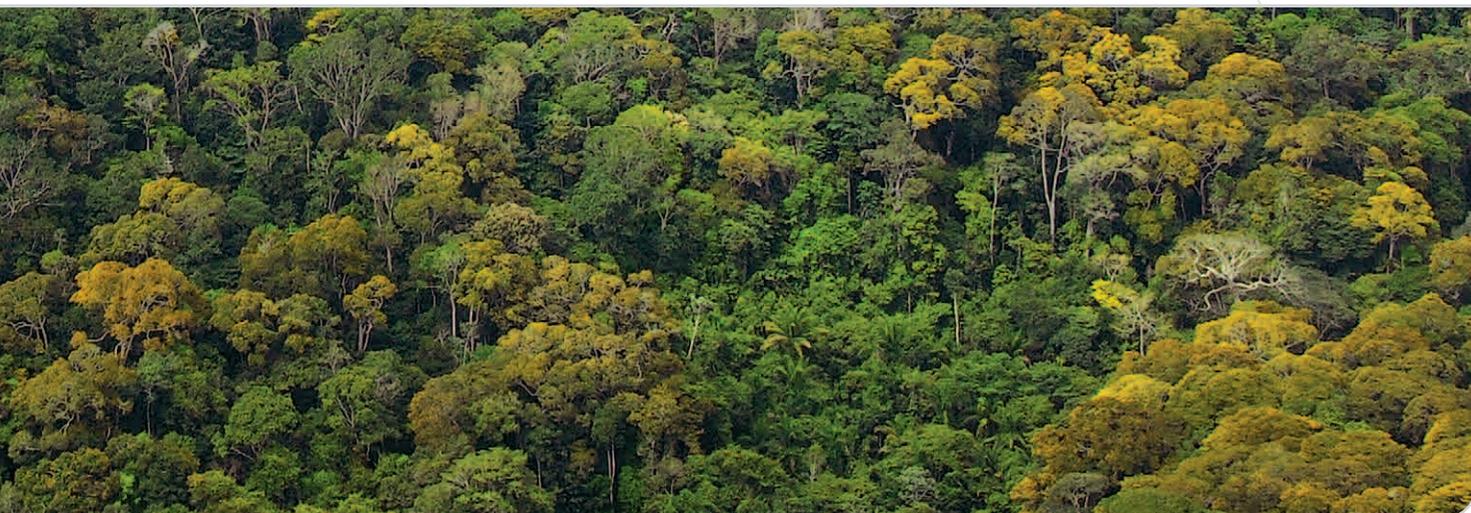
**Coordination:** Brenda Brito.

**Team:** Adalberto Veríssimo, Amintas Brandão Jr., Andréia Pinto, Carlos Souza Jr., Júlia Ribeiro, Márcio Sales, Paulo Amaral, Priscilla Santos and Sâmia Nunes.

**Collaboration:** Laurent Micol (ICV), Alice Thuault (ICV), Crystal Davis (WRI), Florence Daviet (WRI), Edson Vidal (Esalq/USP), Pedro Moura Costa (E2 Brasil Sócio Ambiental), Maurício Moura Costa (E2 Brasil Sócio Ambiental)

**Partnerships:** ICV, WRI, TNC and CI.

**Support:** Avina, CLUA, Conservation International, Amazon Fund, Fundo Vale, Norad (Norway) and Prosperity Fund (United Kingdom).





## ● Law and Sustainability

Imazon studies have revealed two serious problems related to sustainable development in the Amazon: impunity for environmental crimes and confusion over who has land use rights in the region. Furthermore, impunity facilitates environmental and ecological degradation and discourages investors who wish to respect the laws (and who generally pay higher costs in order to produce in a sustainable manner).

Uncertainty over property rights to 53% of the Legal Amazon has stimulated conflicts, complicated investments and stimulated excessive deforestation. Impunity for environmental crimes and land title uncertainty result from various failures all the way from formulating laws and norms to applying them. The low number of judges and of lawyers working as prosecutors at environmental agencies in the Amazon also contributes to delays in proceedings against environmental crimes.

In order to create a favorable environment for sustainable development in the Amazon it will

be necessary to see to it that environmental and land title laws are consistent and are effectively applied. The Law and Sustainability program seeks to facilitate sustainable development in the region by focusing on the following objectives: increase effectiveness in fighting environmental crime and expand land title regularization. The priority activities for this program are:

- **Dissemination of proceedings against environmental infractions in protected areas.** Dissemination of this information occurs in publications that describe the status of the proceedings, as well as at the [www.imazongeo.org.br](http://www.imazongeo.org.br) portal, which contains information regarding the occurrence of environmental infractions in protected areas in the Amazon.

- **Analysis of policies for combating illegal deforestation.** The performance of public policies (enforcement, application of penalties, credit, etc.) against deforestation is analyzed, also considering the influence of other relevant factors such as prices for agricultural products.

- **Monitoring and evaluation of implementation of norms related to territorial or-**



**ganization.** Based on recent legal changes at the federal and state level for land title regularization, Imazon assesses the implementation of those norms and the effectiveness of government programs for defining property rights in the Amazon, especially the Terra Legal (Legal Land) program of the Ministry for Land Reform.

- **Assessment of environmental regularization for rural properties in Pará.** We monitor the quantity and quality of the Conduct Adjustment Agreement (TAC) for environmental regularization of rural properties in Pará. This activity seeks to encourage quality and efficiency in environmental regularization. As an example, how can one simplify procedures for regularization while at the same time guaranteeing that best practices for restoration will be implemented? The work involves analyzing rules and procedures that are being adopted by the government and by the owners of rural properties.

- **Economic assessment of ranches that follow socioenvironmental rules.** Cattle ranching in the Amazon has been undergoing pressures for land title and socioenvironmental

regularization. This regularization should imply economic adjustments for the sector that are not yet known. We assess the impact of socio-environmental regularization on the economic performance of cattle ranching for fattening in Pará. With this analysis, we intend to contribute towards understanding what are the barriers and the opportunities for improving environmental management in the sector.

- **Dissemination.** The results of the studies in this program are widely disseminated to the legislative, judicial and executive branches, Public Prosecution Services and civil society through publications, including books and summaries for public policies (The State of the Amazon series and technical notes), besides dissemination of the studies by the press and internet.

**Coordinator:** Paulo Barreto.

**Team:** Brenda Brito, Daniel Silva, Dário Cardoso Jr, Elis Araújo, and Sara Baima and Ana Carolina Assmar Correia de Lima

**Support:** Gordon & Betty Moore Foundation, Ford Foundation - Brazil Office, Climate Works Amazon Fund.



# Results 2011



- ▶ Executive Committee of the Business Movement for Biodiversity: Representative: Adalberto Veríssimo and Mariana Vedoveto.
- ▶ Joint Coordination of the Climate Observatory. Representative: Brenda Brito
- ▶ Working Group for defining the State Policy for Environmental Services at Sema. Representative: Brenda Brito
- ▶ Management Council of the Green Municipalities Program. Representatives: Andréia Pinto and Paulo Amaral.

## ● Public Policies

In 2011, Imazon was part of the following Technical Councils and Chambers:

- ▶ Management Council for Public Forests (consultative entity of the Brazilian Forest Service), representing the environmental organizations. Representative: Adalberto Veríssimo.
- ▶ Technical Committee of the Amazon Fund. Representative: Adalberto Veríssimo.
- ▶ Technical Sector Chamber for Forests in the State of Pará (CTSF). Representatives: André Monteiro and Denys Pereira.
- ▶ Environmental Chamber of the Board of Directors of FSC - Brazil Initiative. Representative: Paulo Amaral.
- ▶ Pará Forum on Climate Changes, as titular representative of the Climate Observatory. Representative: Brenda Brito.
- ▶ Intergovernmental Executive Group of the Terra Legal program, as substitute for the Sustainable Amazon Forum. Representative: Brenda Brito.



- ▶ Coordinating Commission of the Amazon Forum. Representatives: Adalberto Veríssimo and Brenda Brito.
- ▶ Amazon Regional Articulation (ARA). Representative: Adalberto Veríssimo.

- **Technical Cooperation Agreements**

From May to February, 2011 Imazon also signed Technical Cooperation Agreements with the municipal governments of Goianésia do Pará, Tailândia, Ulianópolis, Rondon do Pará, Bom Jesus de Tocantins, Dom Eliseu, Itupiranga, Jacundá, Abel Figueiredo, Paragominas and Moju. The agreements are for implementing actions in partnership with a view to promoting strengthening of environmental management in each one of the municipalities, for the project supported by the Amazon Fund.



In May a Technical Cooperation Agreement was signed with the Public Prosecution Service of Mato Grosso, with the objective of providing greater efficiency in adopting measures directed towards protecting conservation units, through the use of the ImazonGeo tool.

- **Municipalities mobilize to reduce deforestation**

In January, 2011, Imazon officially began implementing the project “Creating the Bases for Socioenvironmental Management for Critical Deforestation Municipalities in Pará”, supported by the Amazon Fund. The project will be

carried out in 36 months in 11 municipalities, covering 66 thousand km<sup>2</sup>. Throughout 2011, the Institute accompanied signing of the Local Pact for Combating and Controlling Deforestation and Environmental Regularization, which was crucial for the involvement of society in each municipality in the initiative. Abel Figueiredo, Goianésia do Pará, Itupiranga, Jacundá, Rondon do Pará, Bom Jesus do Tocantins, Dom Eliseu, Tailândia, Ulianópolis and Moju took this first



step in 2011. The municipality of Paragominas is also supported in this project. Imazon also created and acts as a moderator for the Environmental Managers Forum blog, a tool for communications between the environmental secretaries in these 11 municipalities.

- **Government launches “Green Municipalities” program**

On March 23, the State Government launched the “Green Municipalities” program, which seeks to strengthen sustainable economic activities and combat deforestation in Pará municipalities. Imazon participates in the Program’s Management Council, together with government secretaries, NGOs, Ibama and the MPF. The Institute is also a member of the “Environmental Observatory,” a group of partners who meet monthly to assess advances and obstacles related to work with the Rural Environmental Registry and the deforestation situation, as well as to plan measures for accountability in order to contain problems. The information generated by Imazon’s SAD are used to define the geography for acting upon those measures. The Institute has also launched a publication entitled “*Municípios Verdes: Caminhos para a Sustentabilidade*”, a manual for aiding other municipalities in adjusting to an economy with a sustainable basis.

- **Management Plans for forests in the Calha Norte**

The Management Plans for State Forests in the Calha Norte drawn up under Imazon leadership have been approved and published. September saw the publication of Management Plans for the Maicuru Biological Reserve and Grão-Pará Ecological Station, both prepared by CI in partnership with Imazon.

- **Regularization of ranching production**

Imazon aided in the Public Prosecution Service in drawing up an Agreement for Ad-



justing Conduct (TAC) to increase the supply of cattle coming from legally operating ranches in the State. As a consequence of the TAC, the number of ranches listed on the Rural Environmental Registry (CAR) in Pará rose from around 400 (in June, 2009) to around 50 thousand (at the end of 2011) according to the State Environmental Secretariat. In March, 2011, almost 21 million hectares were registered in CAR. As a result, deforestation in Pará fell by 24% from 2010 to 2011.

## ● Dissemination

### • Deforestation alert

As an urgent measure, in May 2011 Imazon released a SAD Alert Mato Grosso bulletin that noted an alarming increase in deforestation for that State in April 2011. In that month 243 km<sup>2</sup> was detected, a 537% increase in relation to the same period the year before. Based on that information, the Ministry of the Environment installed a Crisis Cabinet made up of representatives of the Federal Police, the National Security Force, the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama) and Environmental Secretaries from the Amazon States in order to ascertain this increase and combat deforestation.

### • Deforestation Risk

In 2011 Imazon launched the Deforestation Risk bulletin, which presents a forecast for deforestation in municipalities, protected areas, settlements and private areas in the Amazon. Two bulletins were published: one referring to the period of August, 2010 to July, 2011; and another referring to August, 2011 to July, 2012. The deforestation risk is estimated using geostatistical techniques that Imazon had been developing since 2010.

### • Forest Code in Debate

Imazon launched the interactive blog “Forest Code in Debate” with the objective of clarifying and promoting public participation in the debate over the Forest Code. The blog presented the proposals for changing the law and provided a space for internet users to send their own suggestions for the Forest Code.

(codigoflorestalemdebate.wordpress.com). Additionally, Imazon in partnership with Proforest published a study on the status of forests in 11 key countries around the world. That study had a major impact on discussion of the forest code, since it revealed that the other countries have demands for protection that are similar or even greater than those found in the Forest Code of Brazil.

### • SAD Earth Engine

Throughout 2011, Imazon worked with Google to accelerate the process for detecting human pressure on the Amazon. SAD 3.0, the system already used by Imazon, was migrated to the Google Earth Engine platform, allowing the information to be processed more swiftly and facilitating data storage. The idea is that in the future the SAD Earth Engine system, with data storage allocated in a cloud structure, can be used to detect deforestation and degradation in other areas of the forest besides the Amazon.

### • ImazonGeo

In August, 2011 ImazonGeo began to make available specific reports on deforestation and burning to all municipalities in the Legal Amazon. Using these data, Imazon is able to take the first step towards collaborative monthly monitoring together with leaders in the critical municipalities.

New data layers were also included in the system in 2011: the Deforestation Risk layer in September, based on the bulletin of the same name and the Timber Production Centers and Timber Areas in November, which identify the location and areas of timber activity in the Amazon.

• **Imazon in the Media**

In 2011, Imazon's impact in the national and international media grew by 42%. Overall, there were 542 original insertions and 2157 reproductions, for a total of 2,699 news items. That result reinforces the relevance of the work developed by the Institute in promoting sustainable development in the Amazon.

Website. This continues to be the type of media where Imazon has the most notable impact. There were a total of 334 original insertions with major audiences such Folha.com, O Globo, Valor Econômico, Estadão, Exame, G1 and others.

News Agencies. Also on the internet, Imazon was the focus for 54 original insertions in the most influential international and Brazilian news agencies such as BBC, Reuters and Agência Brasil.

Printed Newspapers. Important national newspapers such as Folha de São Paulo, O Globo, Estadão and Valor Econômico, as well as local Pará papers O Liberal and Diário do Pará published 72 articles on Imazon research, participations in events, plus the opinion of Institute researchers on the most various environmental issues

Magazines. National Geographic, Época, IstoÉ and Exame were some of the main magazines that contributed towards a total of 32 insertions in this type of media.

TV. Imazon was the theme of 25 news items in Jornal da Globo, Globo News, TV Record, Record News, TV Cultura and other major networks in Brazil.

Radio. Listeners to major radio networks such as CBN and BBC were able to hear more about the work done by Imazon in 25 participations on radio programs.



Among the most notable topics that appeared in the media insertions were the changes to the Forest Code, the monthly deforestation bulletins (SAD), as well as the publication “Um Resumo do Status das Florestas em Países Selecionados”, “A Amazônia e os Objetivos de Desenvolvimento do Milênio (ODM)” and “Municípios Verdes: Caminhos para a Sustentabilidade”.

**Table 1.** Insertions by vehicle.

Vehicles	Total originals	Total reproductions	Total overall
Website	334	1391	1725
Print Newspaper	72	188	260
News Agency	54	440	494
Magazine	32	125	157
Radio	25	07	32
TV	25	06	31
<b>Total</b>	<b>542</b>	<b>2157</b>	<b>2699</b>

We also had an increase in participation by users of the Imazon site, with a total of 22,043 downloads of the publications available on our webpage. Table 2 presents a ranking of the most downloaded publications.

**Table 2.** Number of downloads.

Publications	Quantity
<i>Municípios Verdes: Caminhos Para a Sustentabilidade</i>	1,865
<i>Boletim Risco de Desmatamento Janeiro 2011</i>	934
<i>Pressão humana na floresta amazônica</i>	904
<i>Áreas Protegidas na Amazônia Brasileira: avanços e desafios</i>	681
<i>Um Resumo do Status das Florestas em Países Selecionados</i>	630
<i>Fatos Florestais da Amazônia 2010</i>	487
<i>A Amazônia e os Objetivos do Milênio 2010</i>	461
<i>Código Florestal: como sair do impasse?</i>	452
<i>Fatos Florestais 2010 – Mercado &amp; Preços da Madeira Amazônica</i>	352
<i>Boletim Transparência Florestal da Amazônia Legal (Dez/10 – Jan/11)</i>	279
Other Publications	14,998
<b>Total Publications</b>	<b>22,043</b>

- **New tools**

Keeping up with the change in its visual identity, Imazon has launched the Institute's new site, with a more didactic layout in an environment that is easy to navigate. A Multimedia area was launched, integrating the Imazon channel on YouTube to the site's main page, allowing visitors to view a total of 14 interviews of researchers about their publications produced in 2011. The site also has systems for sharing information via Twitter, Facebook and e-mail. Imazon Also inaugurated its institutional page on Facebook, allowing users to receive information on their profiles and share this content with their contacts. The Imazon page on Twitter has reached more than 3 thousand followers among journalists, politicians, institutions connected with environmental causes and users interested in sustainability.

- **Events**

- **Fairs**

- 45º AGROPEC

In August Imazon participated in the 45th State Display of Products from the Countryside, held in Paragominas, which had an estimated audience of 230 thousand people. During the event Imazon held a seminar on perspectives for the Rural Environmental Registry in Paragominas and was one of the institutions at the "Green Ranching" stand, which presented the results of the Paragominas - Green Municipality initiative.

- **Presentations**

Adalberto Veríssimo, Carlos Souza Jr. and Bruno Oliveira represented Imazon at the Skoll World Forum, in Oxford at the end of March. The forum brings together social entrepreneurs and partners of the Skoll Foundation from around the world to exchange ideas, information and engagement. Adalberto was part of the panel on "Mobilizing for Large Scale Change: Slowing Deforestation in the Amazon" that presented efforts for reducing deforestation in the Amazon. Adalberto was also a speaker at the "10th Annual Global Philanthropy Forum Conference" that occurred in April in Redwood City, in the United States. The researcher spoke on Pan-Amazon Collaboration.



Brenda Brito participated in the Workshop “Governance of Forests Initiative Stakeholder Meeting,” organized in May in Washington DC by the WRI. The researchers presented results of the Governance of Forests Initiative in partnership with WRI and ICV. Brenda was also at the 16th Brazilian Congress of Environmental Law at the end of May, to present the article “Legislative Analysis of Beneficiaries of Payment for Environmental Services and Redd+ in Protected Areas of the Amazon.” In August Brenda presented the development of a program of payment for environmental services in Paragominas, during the event “Dialogues on Investments in REDD+”, in Brasília. The presentation was made jointly with E2 Brasil Sócio Ambiental, the project partner. In October, Brenda was at the University of Freiburg, in Germany, presenting an article on REDD+ at “Forest Biodiversity in a changing climate: understanding conservation strategies and policies”.

Paulo Amaral was responsible for the main presentation of the workshop on the Public Prosecution Service and its Action in the Amazon, held in October in Belém. The event had the objective of promoting a discussion on Amazon issues and sharing best practices in facing environment problems for the State Public Prosecution Service. On that occasion, Paulo spoke on Public Policies for containing deforestation in the Amazon.

André Monteiro gave a presentation on monitoring and transparency in timber activities in Mato Grosso during the seminar on “Forest Monitoring and Control System in Mato Grosso: challenges and solutions.” The event happened in Cuiabá in June. André also spoke on “Timber

Harvesting in the Amazon: Causes and Consequences of Illegality” during the Workshop on Quilombola Lands and Timber Harvesting, in Belém in April. Together with the researcher Paulo Amaral, André Monteiro participated in the Meeting for Partners of the Fundo Vale in July. The researchers presented an analysis of the advance of deforestation, the tendencies for the upcoming years and the importance of collaborative monitoring.



Researcher Paulo Barreto spoke on deforestation in the Brazilian Amazon at Forest Day 5, an event organized by Cifor (Center for International Forestry Research) and other institutions during COP 17 (17th Conference of the Parties to the United Nations Framework Convention on Climate Change). At the forest days Cifor has sought to compile information in order to try to influence official negotiations at the COPs, as well as sharing information with donors, researchers and other stakeholders regarding the climate change-forest relationship. In a presentation to more than 300 persons, Paulo spoke on how to reduce deforestation in a sustainable man-

ner based on the Amazon experience. Paulo also spoke on ranching and deforestation at the “Oslo REDD Exchange” event that happened in Oslo, Norway, on June 23 and 24. The objective of the event was to promote an exchange of experiences through workshops with a focus on social sustainability in REDD, with a focus particularly on exchanging experiences from the field.

Thiago Sozinho represented Imazon at the II Regular Meeting of the Council for the

Paru State Forest. The event occurred in Santarém on August 3 and 4 in order to clarify doubts about the Forest Concession in the Paru Flota. On that occasion, Imazon presented the results of a Socioeconomic Diagnosis of the Area Surrounding the Flota and Imafloresta carried out capacity-building for the council.

Elis de Araújo participated in the “Seminar on Legislative Changes” on September 14, where he spoke about changes to the Brazilian Forest Code and impacts to the Amazon forest.

## ● Professional Formation

In 2011, Imazon invested in the professional formation of its employees, based on its policy of supporting training. Support provided in 2011 included: meetings and workshops in the areas of geoprocessing, institutional management, remote sensing, forest economics and management planning. A total of 14 trainees were trained in the areas of environmental engineering, law, forest engineering, accounting sciences, information technology and institutional communications.

### • Training at the Imazon Geotechnology Center

The CGI has become consolidated as a reference center for geotechnology training in the Amazon. From its inauguration in 2007 until December 2011, it has trained 491 technicians for a total class load of 1246 hours taught. The training has focused mainly on the areas of geotechnologies, environmental management and forest management. The target audience for the training is made up mostly of technicians



from federal, state and municipal governments, universities, NGOs, associations, Federal and State Public Prosecution Service, unions and cooperatives.

In 2011, the CGI prepared 10 technicians from State Environmental Secretariats in the Amazon in forest management control and monitoring using satellite images and remote sensing techniques to detect timber harvesting areas. As a result, the technicians are able to extract information from the images and integrate them with forest control systems in order to monitor forest management and illegal logging in the Amazon.

In that year the CGI in partnership with the Pará State Government carried out training for technicians from municipalities that support the State Program for Green Municipalities. The training focuses on the use of geotechnologies in order to: i) prepare the socioenvironmental diagnosis for the municipality; ii) map properties for entry into the Rural Environmental Registry (CAR); and v iii) monitor forest cover, including deforestation (verification in the field), burning, reforestation and forest management. With that the municipalities can benefit from capacity-building of local agents in use of geographic information for municipal land management. They can also develop the capacity for monitoring deforestation and forest degradation in their territories, as well as expanding the numbers listed in CAR for the municipality, improving the system for environmental licensing and forest monitoring. That way, those municipalities can actively contribute towards reducing illegal deforestation.

The CGI also trained the first class of managers and technicians from the Federal and State Public Prosecution Services involved with Protected Areas in the Amazon in using geoprocessing and remote sensing tools for environmental management of those areas. The objective is to demonstrate how those tools can be used for monitoring and enforcement in Protected Areas, including identification of threats (deforestation, logging, hotspots and roads) and drawing up Management Plans. With the training it is expected that there will be an increase in effective environmental enforcement in the Protected Areas.

- **Ecological Footprint**

From 2006 to 2010, the activities developed by Imazon resulted in the emission into the atmosphere of the equivalent of 738 tons of CO<sub>2</sub>, which corresponds to an Ecological Footprint (EF) of 410 hectares. That is the area that must be reforested to neutralize the CO<sub>2</sub> emitted during that period. In 2009, there was the largest emission (204 tons of CO<sub>2</sub> and EF of 113 hectares), followed by 2008 (150 tons of CO<sub>2</sub> and EF of 84 hectares) and 2007 (127 tons of CO<sub>2</sub> and EF of 71 hectares). The items that most contributed towards CO<sub>2</sub> emissions from 2006 to 2009 on average were: air travel (53%); food for institution employees (16%); electricity consumption (14%); and fuel for transporting employees to Imazon (5%) and gasoline for cars (4%) and institutional taxi (2%). The consumption of gas, paper, transportation for employees who use the bus and organic solid wastes were the least relevant (1% for each).

- **Capacity-building for RAISG**

In 2009 Imazon began the capacity-building process for technicians from countries belonging to the Amazon Network for Georeferenced Socioenvironmental Information - RAISG in monitoring and controlling deforestation. To meet that demand Imazon CGI taught a 40-hour course in Tropical Forest Monitoring with Satellite Images for 14 technicians from RAISG. This course was the first initiative made in drawing up an integrated methodology, which will result in producing a map of deforestation in the Pan-Amazon.

Later on, a workshop with a class load of 40 hours was held from March 7 to 11, 2011 in Lima (Peru) to evaluate the process of producing a map of deforestation in the Amazon Basin. Following that, from May 23 to 27, 2011, a second workshop was held at CGI in Belém to present new tools developed by Imazon for processing satellite images with ImgTools, for preparing a map of deforestation in the Amazon countries. Additionally, there was one day of introductory in the IDL programming language with a class load of 40 hours.

Also as part of the capacity-building form RAISG technicians, Imazon, in partnership with Google, provided training in “Monitoring Deforestation from the Ground to the Cloud” (<http://imazon.earthoutreach.org/agenda>), from November 8 to 10, 2011 in São Paulo. 30 technicians from institutions in Brazil and the Pan-Amazon participated. The objective was to present the tools for collaborative monitoring for detecting deforestation and forest degradation in the Pan-Amazon region, using the Deforestation Alert System-SAD developed by Imazon and implemented on the Google Earth Engine platform. The training also focused on the use of the Google Android smartphone system and Open Data Kit (ODK) for collecting data in the field.

Finally, a workshop was held (November 11 to 16), also in São Paulo, to validate the deforestation maps produced by RAISG with the ImgTools software (developed by Imazon) with 15 technicians from RAISG. As products, deforestation and forest degradation maps were validated for 2000, 2005 and 2010, produced by RAISG in partnership with Imazon.

## ● Articles

- **Options for monitoring and estimating historical carbon emissions from forest degradation in the context of REDD+.**

Herold, M., Román-Cuesta, R., Mollicone, D., Hirata, Y., Laake, P. V., Souza Jr., C., Asner, G., et al. 2011. Options for monitoring and estimating historical carbon emissions from forest degradation in the context of REDD+. *Carbon Balance and Management*, 6:13.

- **Historic emissions from deforestation and forest degradation in Mato Grosso, Brazil: 1) source data uncertainties.**

Morton, D. C., Sales, M. H., Souza Jr., C., & Griscom, B. 2011. Historic emissions from deforestation and forest degradation in Mato Grosso, Brazil: 1) source data uncertainties. *Carbon Balance and Management*, 6:18.

- **Mapping Canopy Damage from Understory Fires in Amazon Forests Using Annual Time Series of Landsat and MODIS Data**

Morton, D. C., DeFries, R. S., Nagol, J., Souza Jr., C., Kasischke, E. S., Hurtt, G. C., & Dubayah, R. 2011. Mapping Canopy Damage from Understory Fires in Amazon Forests Using Annual Time Series of Landsat and MODIS Data. *Remote Sensing of Environment*, 115(7), 1706- 1720.

## ● Book Chapters

- **REDD+ e Mudanças Climáticas**

Brito, B. 2011. REDD+ e Mudanças Climáticas. In S. Silva, S. Cureau, & M. Leuzinger

# List of Publications

(Eds.), *Mudança do Clima: Desafios jurídicos, econômicos e socioambientais. (Direito e.)*. São Paulo: Fiúza.

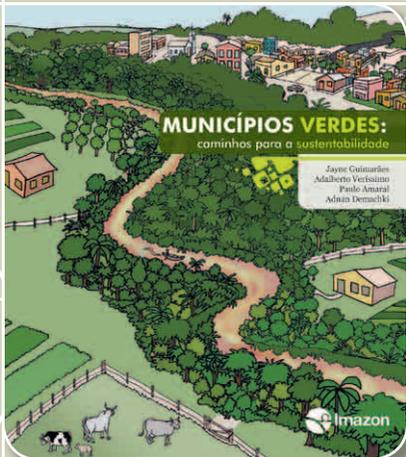
- **Regularização Fundiária na Amazônia e o Programa Terra Legal**

Brito, B., & Barreto, P. 2011. Regularização Fundiária na Amazônia e o Programa Terra Legal. In S. Sauer & W. Almeida (Eds.), *Terras e Territórios na Amazônia: demandas, desafios e perspectivas*. (pp. 141-161). Brasília: UNB e Abaré Editorial.

- **Enforcement against illegal logging in the Brazilian Amazon**

Brito, B., & Barreto, P. 2011. Enforcement against illegal logging in the Brazilian Amazon. In L. Paddock (Ed.), *Compliance and Enforcement in Environmental Law. Towards more effective implementation* (pp. 297-310). Edward Elgard Publishing.

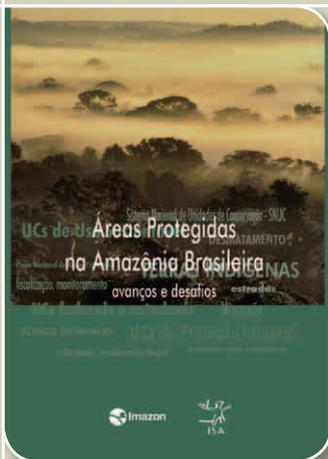
## ● Books



### • **Municípios Verdes: Caminhos Para a Sustentabilidade**

In 2007 and 2008, the federal government launched a series of measures that were decisive in combating deforestation in the Amazon. Among those measures is decree 6.321, which municipalized the fight against deforestation, restricted credit to irregular producers, assigned liability to the entire productive chain for illegal deforestation and made available to society a list of the offenders and of critical municipalities in terms of deforestation.

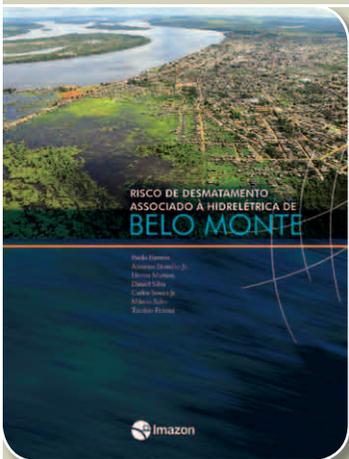
Among those responsibilities, which totaled 43 by 2010, Paragominas has become an example for other municipalities in the Amazon. Its experience in the transition process from a model based on predatory activities to one with more sustainable use can help other municipalities that want to change but do not know how to do so. With a view to encouraging a greater number of green municipalities in the Amazon, Imazon produced the guidebook “Municípios Verdes: Caminhos Para a Sustentabilidade” mainly intended for local managers such as mayors and municipal secretaries and leaders in the productive sector.



### • **Áreas Protegidas na Amazônia Brasileira: avanços e desafios**

Protected Areas have the role of safeguarding the integrity of ecosystems, biodiversity and their associated environmental services. In December, 2010, those areas covered 2,197,485 square kilometers (km<sup>2</sup>) of the Legal Amazon, or 43.9% of the region. Despite the notable advances in creating Protective Areas, there are still many challenges in guaranteeing their consolidation and effective socioenvironmental protection.

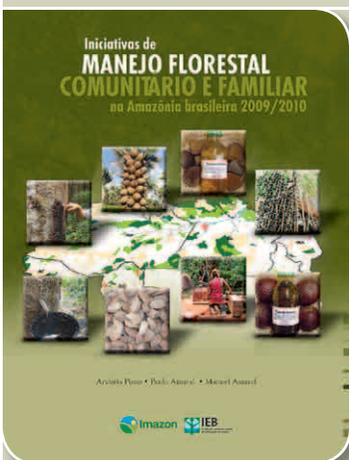
In this publication, Imazon and Instituto Socioambiental (ISA) summarize the situation of Protected Areas in the Amazon and analyze indicators and data related to creation of Conservation Units and Indigenous Lands with an emphasis on their management and the threats that they face.



• **Risco de Desmatamento Associado à Hidrelétrica de Belo Monte**

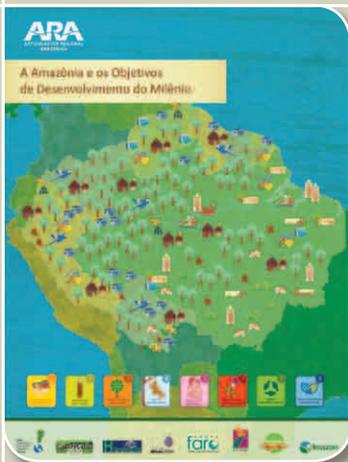
During evaluation of licensing for the hydroelectric project (UHE) of Belo Monte in Pará, Ibama requested an analysis of the risk of indirect deforestation in this project, meaning deforestation beyond the area to be flooded or used for constructions. Indirect deforestation would be caused mainly by immigration (which might reach). Specifically, Ibama requested an estimate of the areas at risk for deforestation and suggestions for reducing that risk.

Imazon estimated a probable deforestation rate up to 2031 considering scenarios with and without construction of the UHE and different deforestation tendencies. Combining the tendency towards lower deforestation for the period of 2006-2009 with the population projections, the forecast was that around 800 additional km<sup>2</sup> would be deforested over 20 years. If one considered the tendency towards higher deforestation for the period of 2000-2005, the projection was for deforestation of an additional 4,408 km<sup>2</sup> to 5,316 km<sup>2</sup>, depending on the level of immigration.



• **Iniciativas de Manejo Florestal Comunitário e Familiar na Amazônia Brasileira 2009/2010**

Community forest management is a promising income alternative for rural communities, since it allies efficient use of forests and their conservation with an improved quality of life for the populations. In order to systematize the most promising experiences in community forest management a study was done on “*Iniciativas de Manejo Florestal Comunitário e Familiar na Amazônia Brasileira 2009/2010*”. The study examined production of timber and non-timber forest products (NTFP) from seven species: açai, andiroba, babaçu, buriti, Brazil nut, copaíba and rubber tree (latex). The survey took place in Acre, Amapá, Amazonas, Maranhão, Pará and Rondônia. The publication defines priority actions for implementing the Annual Plan for Community and Family Forest Management – 2011 and proposes creation of a national register of NTFP initiatives that will allow a constant updating of data regarding this sector and will serve as a tool for planning future actions.



### • A Amazônia e os Objetivos de Desenvolvimento do Milênio

The Millennium Development Goals (MDG) established by the UN in 200 propose goals and indicators for measuring and guiding improvements in socioeconomic conditions (poverty, education, health, gender inequality, child and maternal mortality) and environmental conditions in poor and developing countries around the world. In this study, we analyze the MDGs in the context of the Pan-Amazon considering the nine countries that make it up (Brazil, Bolivia, Colombia, Ecuador, Guyana, French Guyana, Peru, Suriname and Venezuela).

In the Pan-Amazon there has been progress with regard to most of the indicators analyzed if we compare the situation of most recent years with that of the 1990s. However, in general, this improvement is unsatisfactory, and in all of the Amazon countries, their areas in the Amazon are below national averages for the majority of indicators. In the region poverty, gender inequality, serious health problems and access to basic sanitation are insufficient and maternal mortality and incidence of HIV/AIDS have increased in recent years. Among the nine goals evaluated in this study, only one was reached for all of the countries (“Eliminate disparities between the sexes in education”). There is a great difference in the results among the countries that have territory in the Amazon, as well as major variation within the same region. It is vital for the countries to produce and record more primary information about living and environmental conditions in the Amazon region. Furthermore, indicators and rates of quality of life need to be constructed that are adapted to the reality and culture of Amazon peoples.



### • A regularização fundiária avançou na Amazônia? Os dois anos do programa Terra Legal

In 2009, the Brazilian government promulgated Law 11.952/2009 with the objective of accelerating regularization of informal occupations on federal public lands in the Legal Amazon. Next it launched the Terra Legal program to implement that law and benefit up to 300 thousand squatters. The initial objective with the program was to issue land titles in up to 60 days using five main phases: registration of lands held, georeferencing, inspection, titling and monitoring after titling. However, Terra Legal was not able to achieve that ambitious goal in its first year and only 276 titles were

issued, with these coming from proceedings begun before the program. After another year of implementation of the program, we evaluated its principal events and results from June, 2010 to May, 2011. Besides analyzing the Terra Legal phases, we also included in the study an assessment of measures for combating land speculation taken by the court sector, notably in the State of Pará. At the end, we highlight recommendations for achieving continuity in Terra Legal actions.

## ● Booklets

- **Um Resumo do Status das Florestas em Países Selecionados**

Veríssimo, A., & Nussbaum, R. 2011. Um Resumo do Status das Florestas em Países Selecionados (p. 36). Belém: Imazon e The Proforest Initiative.

- **Análise de termos de ajustamento de conduta para a recomposição de passivo ambiental de imóveis rurais no Pará**

Brito, B., Cardoso Jr, D., Pinto, A., & Adams, M. 2011. Análise de termos de ajustamento de conduta para a recomposição de passivo ambiental de imóveis rurais no Pará (1ª ed., p. 24). Belém: Imazon.

## ● The State of the Amazon

- **Avaliação do Desmatamento e do Cadastro Ambiental Rural (CAR) no Pará: bases para o Programa Municípios Verdes**

Martins, H., & Souza Jr, C. 2011. Avaliação do Desmatamento e do Cadastro Ambiental Rural (CAR) no Pará: bases para o Programa Municípios Verdes (No. 21) (p. 6). Belém.

- **Oferta e demanda de áreas para manejo florestal no Estado do Pará.**

Pereira, D., Santos, D., Veríssimo, A., & Salomão, R. 2011. Oferta e demanda de áreas para manejo florestal no Estado do Pará (No. 20) (p. 6). Belém.

- **Deficiências na governança de fundos ambientais e florestais no Pará e Mato Grosso**

Thuault, A., Brito, B., & Santos, P. 2011. Deficiências na governança de fundos ambientais e florestais no Pará e Mato Grosso (No. 19) (p. 6). Belém.

- **A viabilidade da regularização socioambiental da pecuária no Pará**

Silva, D., & Barreto, P. 2011. A viabilidade da regularização socioambiental da pecuária no Pará (No. 18) (p. 6). Belém.

- **O Programa Mais Ambiente e a regularização ambiental na Amazônia**

Araújo, E., & Barreto, P. 2011. O Programa Mais Ambiente e a regularização ambiental na Amazônia (No. 17) (p. 6). Belém.

## ● Forest Transparency

- **Boletim de Desmatamento (SAD) Outubro de 2011**

Hayashi, S., Souza Jr, C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Outubro de 2011) (p. 14). Belém: Imazon.

- **Boletim de Desmatamento (SAD) Setembro de 2011**

Hayashi, S., Souza Jr, C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Setembro de 2011) (p. 14). Belém: Imazon.

- **Boletim Transparência Florestal Sul do Amazonas (Agosto 2010 - Julho 2011)**

Amaral, P., Souza Jr., C., Pinto, A., Salomão, R., Sampaio, L., & Hayashi, S. 2011. Boletim Transparência Florestal Sul do Amazonas (Agosto 2010 - Julho 2011) (p. 13). Belém: Imazon.

- **Boletim Transparência Florestal Sul do Amazonas (Agosto 2009 - Julho 2010)**

Amaral, P., Souza Jr., C., Pinto, A., Salomão, R., Hayashi, S., Galdino, M., Sampaio, L., et al. 2011. Boletim Transparência Florestal Sul do Amazonas (Agosto 2009 - Julho 2010) (p. 16). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal (Agosto de 2011)**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Agosto de 2011) (p. 14). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal (Julho de 2011)**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Julho de 2011) (p. 15). Belém: Imazon.

- **Boletim Transparência Florestal APA Triunfo do Xingu (Agosto de 2010 a Julho de 2011)**

Pinto, A., Hayashi, S., Amaral, P., Salomão, R., Souza Jr., C., & Sampaio, L. 2011. Boletim Transparência Florestal APA Triunfo do Xingu (Agosto de 2010 a Julho de 2011) (p. 8). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal (Junho de 2011)**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Junho de 2011) (p. 15). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal (Maio de 2011)**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Maio de 2011) (p. 15). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal (Abril de 2011)**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Abril de 2011) (p. 15). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal (Março de 2011)**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal Março de 2011 (p. 15). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal (Fevereiro de 2011)**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Fevereiro de 2011) (p. 15). Belém: Imazon.

- **Boletim Transparência Florestal da Amazônia Legal Dezembro de 2010 e Janeiro de 2011**

Hayashi, S., Souza Jr., C., Sales, M., & Veríssimo, A. 2011. Boletim Transparência Florestal da Amazônia Legal (Dezembro de 2010 e Janeiro de 2011) (p. 22). Belém: Imazon.

## ● **Management Transparency**

- **Boletim Transparência Manejo Florestal do Estado do Mato Grosso (agosto de 2009 e julho de 2010)**

Monteiro, A., Conrado, D., Cardoso, D., Veríssimo, A., & Souza Jr., C. 2011. Boletim Transparência Manejo Florestal Estado do Mato Grosso (Agosto de 2009 a Julho de 2010) (p. 16). Belém.

- **Boletim Transparência Manejo Florestal Estado do Pará (2009 e 2010)**

Monteiro, A., Cardoso, D., Conrado, D., Veríssimo, A., & Souza Jr., C. 2011. Boletim Transparência Manejo Florestal Estado do Pará (2009 e 2010) (p. 16). Belém: Imazon.

- **Boletim Transparência Manejo Florestal do Estado do Mato Grosso (2006 a 2009)**

Monteiro, A., Conrado, D., Cardoso, D., Veríssimo, A., & Souza Jr., C. 2011. Boletim Transparência Manejo Florestal do Estado do Mato Grosso (2006 a 2009) (p. 16). Belém: Imazon.

## ● **Deforestation risk**

- **Boletim Risco de Desmatamento: Avaliação de Resultados (Agosto de 2010 a Julho de 2011)**

Sales, M., Souza Jr., C., & Hayashi, S. 2011. Boletim Risco de Desmatamento: Avaliação de Resultados (Agosto de 2010 a Julho de 2011) (p. 12). Belém: Imazon.

## ● **Articles, summaries and posters at congresses**

- **Analyzing temporal and spatial dynamics of deforestation in the Amazon: a case study in the Calha Norte region, State of Pará, Brazil**

Brandão Jr., A., Ogneva-Himmelberger, Y., & Souza Jr., C. (2011). Analyzing temporal and spatial dynamics of deforestation in the Amazon: a case study in the Calha Norte region, State of Pará, Brazil. Anais XV Simpósio Brasileiro de Sensoriamento Remoto - SBSR (p. 2756). Curitiba: INPE.

- **Avaliação de Planos de Manejo Florestal na Amazônia através de imagens de satélites Landsat**

Monteiro, A. L., Souza Jr., C., Conrado, D., & Cardoso, D. 2011. Avaliação de Planos de Manejo Florestal na Amazônia através de imagens de satélites Landsat. Anais XV Simpósio Brasileiro de Sensoriamento Remoto - SBSR (p. 5615). Curitiba: INPE.

- **Análise legislativa sobre beneficiários de pagamento por serviços ambientais e Redd+ em áreas protegidas na Amazônia.**

Brito, B., & Lima, L. 2011. Análise legislativa sobre beneficiários de pagamento por serviços ambientais e Redd+ em áreas protegidas na Amazônia. In BENJAMIM, A. et al (org) (Ed.), 16o Congresso Brasileiro de Direito Ambiental, v 2. (pp. 297-310). São Paulo: Imprensa Oficial do Estado de São Paulo.

## ● Calha Norte

- **Resumo Executivo do Plano de Manejo da Floresta Estadual de Faro**

Secretaria de Estado de Meio Ambiente. 2011. Resumo Executivo do Plano de Manejo da Floresta Estadual de Faro. (J. Pereira, A. Veríssimo, & J. Mesquita, Eds.) (p. 20). Belém: SEMA/PA.

- **Resumo Executivo do Plano de Manejo da Floresta Estadual do Trombetas**

Secretaria de Estado de Meio Ambiente. 2011. Resumo Executivo do Plano de Manejo da Floresta Estadual de Trombetas. (J. Pereira, A. Veríssimo, T. Santos & J. Mesquita, Eds.) (p. 20). Belém: SEMA/PA.

- **Resumo Executivo do Plano de Manejo da Floresta Estadual do Paru**

Secretaria de Estado de Meio Ambiente. 2011. Resumo Executivo do Plano de Manejo da Floresta Estadual do Paru. (J. Pereira, A. Veríssimo, T. Santos & J. Mesquita, Eds.) (p. 20). Belém: SEMA/PA.

- **Plano de Manejo da Floresta Estadual do Paru**

Secretaria de Estado de Meio Ambiente. 2011. Plano de manejo da Floresta Estadual do Paru.. Belém: SEMA; Belém: Imazon, 2011.

- **Plano de Manejo da Floresta Estadual de Faro**  
Secretaria de Estado de Meio Ambiente. 2011. Plano de manejo da Floresta Estadual de Faro.. Belém: SEMA; Belém: Imazon, 2011.

- **Plano de Manejo da Floresta Estadual do Trombetas**

Secretaria de Estado de Meio Ambiente. 2011. Plano de manejo da Floresta Estadual do Trombetas. Belém: SEMA; Belém: Imazon, 2011.

- **Regras de Uso das Comunidades Português e Monte Sião da Flota de Faro**

Vedoveto, M., Pereira, J., Veríssimo, A., Balieiro, M., Naschtergaele, M., Ferreira, L. & Palmieri, R. 2011. Regras de Uso das Comunidades Português e Monte Sião da Flota de Faro. (p. 26). Belém: Imazon.

- **Cartilha do Plano de Manejo da Flota do Trombetas**

Vedoveto, M., Sozinho, T., Veríssimo, A. & Mesquita, J. 2011. Cartilha do Plano de Manejo da Flota do Trombetas (p. 36). Belém: Sema/Imazon.

- **Cartilha do Plano de Manejo da Flota do Paru**

Vedoveto, M., Santos, T., Pereira, J., Veríssimo, A. & Mesquita, J. 2011. Cartilha do Plano de Manejo da Flota do Paru (p. 36). Belém: Sema/Imazon.

- **Cartilha do Plano de Manejo da Flota de Faro**

Vedoveto, M., Pereira, J., Veríssimo, A. & Mesquita, J. 2011. Cartilha do Plano de Manejo da Flota de Faro (p. 36). Belém: Sema/Imazon.

- **Boletim da Calha Norte (Janeiro a Agosto de 2011)**

Pereira, J. & Vedoveto, M. 2011. Boletim da Calha Norte (Janeiro a Agosto de 2011) (p.6). Belém: Imazon.

# Recognition

## ● Greenbest Prize

Imazon won first place in the NGO category chosen by the Greenbest 2011 Prize Academy. GreenBest awards the best initiatives, professionals and personalities in sustainability who contribute towards the development and continuous growth of the sector in Brazil.



## ● Top 100 Scientists 2011

Senior Researcher Carlos Souza Jr. was recognized by the International Biographical Centre as a member on the list of TOP 100 SCIENTISTS 2011 (Top 100 Scientists 2011). The Center is specialized in electing biographies of notable persons who have contributed significantly and who make a difference in their localities, countries and the world.

## ● Man of the Year

Researcher Adalberto Veríssimo was recognized by Alfa Magazine as one of its Men of the Year, an award for men who have stood out the most in their sectors in 2011. The magazine notes the contributions by Imazon in combating deforestation in the Amazon.



## Team

### ● General Assembly

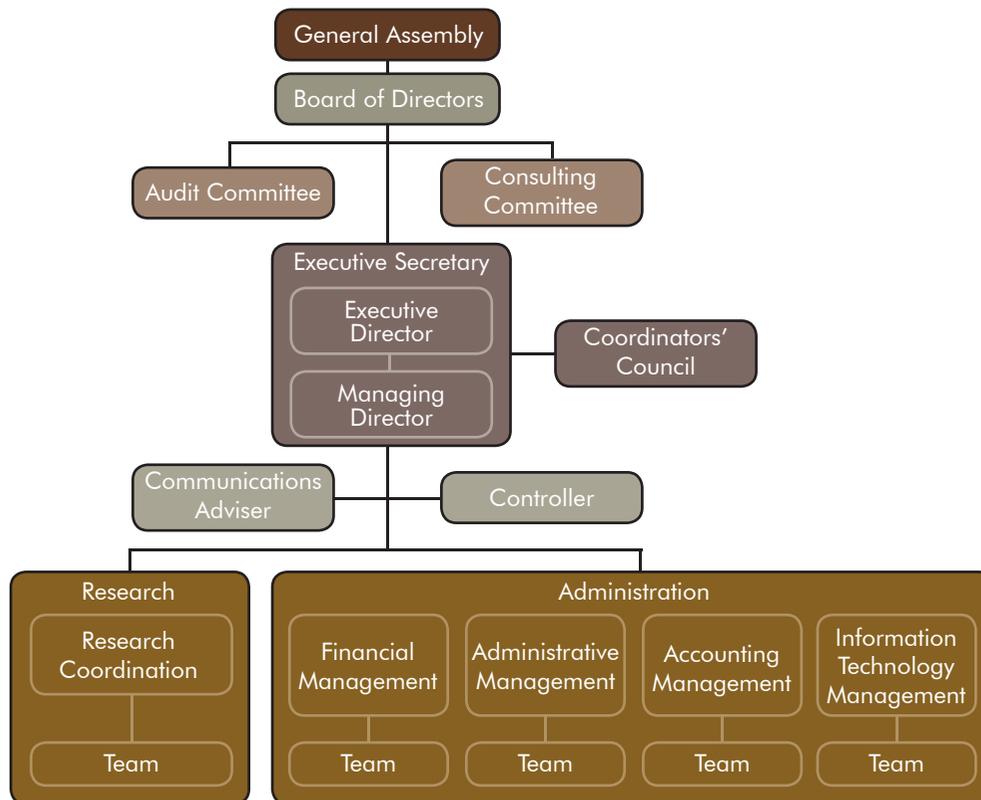
- **Adalberto Veríssimo** - Senior Researcher (Imazon).
- **Christopher Uhl** - Professor (Pennsylvania State University- USA).
- **Cândido Paraguassu** - Lawyer and Professor (Unama).
- **Carlos Souza Junior** - Senior Researcher (Imazon).
- **David MacGrath** - Professor (Naea/ UFPA).
- **Paulo Amaral** - Senior Researcher (Imazon).
- **Paulo Barreto** - Senior Researcher (Imazon).

### ● Board of Directors

- **Robert Schneider** (President of the Board) - Economist.
- **André Loubet Guimarães** (Vice-President) - Instituto Bioatlântica
- **Alexandre Mansur** - Revista Época
- **Garo Batmanian** - World Bank
- **Marcelo Carneiro** - Federal University of Maranhão
- **Maria José Gontijo** - Instituto Internacional de Educação do Brasil
- **Pedro Moura** - E2 Brasil Socio-ambiental and BV Rio



Imazon is structured according to the following flowchart:



- **Sérgio Abranches** - Ecológica and Rádio CBN
- **Tasso Azevedo** - Forest Engineer and Consultant

### ● **Audit Committee**

- **Carlos Antonio Rocha Vicente**
- **Igor Chaves Corrêa Pinto**
- **Ubiratan Cazetta**

### ● **Consulting Committee**

- **Adriana Ramos** - ISA.

- **Jorge Yared** - Ideflor.
- **Luis Gonzaga Costa** - UFRA.
- **Manoel Pereira** - Cikel Brasil Verde S/A.
- **Peter May** - UFRJ.
- **Rita Mesquita** - Inpa.
- **Robert Walker** - Michigan State University - USA.

### ● **Executive Secretary**

- **Brenda Brito** - Executive Secretary.
- **Veronica Oki** - Vice-Executive Secretary.

● **Team (in December 2011)**

Researchers



**Adalberto Veríssimo**  
Senior Researcher.  
Agronomic Engineer (UFRA).  
M.Sc. Ecology (Pennsylvania State University - USA).

**Carlos Souza Jr.**  
Senior Researcher.

Geologist (UFPA). M.Sc. Soil Sciences with emphasis on Remote Sensing (Pennsylvania State University, USA).  
Ph.D. in Geography (University of California, Santa Barbara, USA).



**Amintas Brandão Júnior**  
Assistant Researcher II.  
Environmental Engineer (UEPA). Specialist in Applied Statistics (UFPA). Master degree student in Geographical Information Systems for Development and the Environment - GISDE (Clark University, USA).

**Daniel Santos**

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Environmental Engineer (UEPA).



**André Monteiro**  
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Forest Engineer (UFRA). Specialization in Remote Sensing (UFPA). Master of Forest Management with emphasis on Remote Sensing (UFPR).

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Economist (Unama).



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Biologist (UFPA). Master of Behavior Theory Research (UFPA). Doctor in Socioenvironmental Sciences (UFPA).

**Denys Pereira**

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Environmental Engineer (UEPA).

**Elis Araújo**

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Lawyer (UFPA).  
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Executive Secretary.  
Pesquisadora Adjunta. Lawyer (UFPA).  
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**Heron Martins**

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## Researchers



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Forest Engineer (Esalq/USP).



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Management and Conservation of Tropical  
Forest and Biodiversity (Catie, Costa Rica).



**Paulo Barreto**  
Senior Researcher.  
Forest Engineer (UFRA). M.Sc. Forest  
Sciences (Yale University, USA).



**Priscilla Santos**  
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Lawyer (PUCRS). Specialist in  
Environmental and Urban Law  
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Forest Engineer. Master of Science  
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Forest Engineer (UFRA). Master of  
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## Analysts



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Analyst I.  
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Chemical Engineer (UFPA). Master of  
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Analyst I.  
Bachelor of Information  
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Analyst I.  
Forestry Technician (Juscelino Kubitschek  
Agroindustrial School).  
Forest Engineer (UFRA).



**Izabella Gomes**  
Analyst I.  
Forest Engineer (UFRA).

**Rodney Salomão**  
Laboratory Manager.  
Analyst III. Forest Engineer (Ufra).  
Specialization in Statistics (UFPA).



**Júlia Gabriela Ribeiro**  
Analyst II.  
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**Victor Lins**  
Analyst II.  
Computer Engineer (UFPA).



## Technicians



**Carlos Alexandre da Cunha**  
Forestry Technician  
(Juscelino Kubitschek  
Agroindustrial School).

**Eli Franco Vale**  
Forestry Technician  
(Juscelino Kubitschek  
Agroindustrial School)



## Administration



**Ana Cláudia Rodrigues**  
Accounting Manager.  
Accountant (UFPA).  
Vice Executive Secretary.

**Arthur Lisboa**  
Administrative Assistant.  
Student of Accounting Sciences  
(UFPA).



## Administration



**Bruno Oliveira**  
Communications Adviser.  
Bachelor of Social Communications Social  
Communications with a major in Journalism  
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**Isabelle Corrêa**  
Financial Manager.  
Accountant (Iesam).



**Daniel Aleixo**  
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Student of Social Communications with a  
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**Izabel Cristina Barros**  
General Services Assistant.



**Daniel Souza**  
IT Manager.  
Technologist in Data Processing (Unama).

**Júlia Beltrão**  
Administrative Assistant.  
Accountant with an emphasis on  
Environmental Management (Iesam).



**Elson Vidal**  
Financial Manager.  
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Graduate course in Financial  
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**Fabiany Lucidos**  
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Student of Accounting Sciences (FAP).

**Paula Ramos**  
Bilingual Secretary.  
Technologist in Data Processing  
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**Fernando Medeiros**  
Administrative Assistant.

**Rosa Pinheiro**  
General Services Assistant.



## Administration



**Selma Ramos**  
General Services Assistant.

**Verônica Oki**  
Vice-Executive Secretary.  
Controller. Accountant (Iesam). MBA  
in Accounting Management, Expert  
Examinations, Audit and Comptrollership  
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**Thays Brandão**  
Assistant in Comptrollership.

**Wanessa Ferreira**  
Administrative Manager.  
Accountant (Iesam).



## Trainees



**Dalton Cardoso**  
Forest Engineer  
(UFRA).

**Roberto Batista**  
Forestry Technician (Juscelino Kubitschek  
Agroindustrial School), Technician in  
Geodesics and Cartography (IFPA).  
Student of Forest Engineering (UFRA).



**Dário Cardoso Jr.**  
Bachelor of Legal Sciences  
(UFPA).

**Sara Baima**  
Agronomic Engineer (UFRA).



**Jamilye Salles**  
Bachelor of Legal Sciences  
(UFPA).

## Trainees



**Ana Carolina Correia**  
Student of Sanitary  
and Environmental  
Engineering (UFPA).

**Elita Costa**  
Student of Accounting Sciences  
(Feapa).



## Trainees



**Flavia Colares**  
Student of Accounting Sciences (Feapa).

**Renan Moura**  
Student of Natural Sciences  
with a major in Biology  
(UEPA).



**Helton Rodrigues**  
Technician in Information  
Technology (Cesep).  
Student of Information Systems  
(CESUPA).

**Suzany Ferreira**  
Student of Forest Engineering  
(UFRA).



**Henrique Amorim**  
Student of Environmental  
Engineering (UEPA).

**Wildson Quieroz**  
Student of Environmental  
Engineering (UEPA).



**Marcelo Justino**  
Student of Environmental  
Engineering (UEPA).

**Yasmim Uchôa**  
Student of Social Communications with a  
major in Journalism (FAP).



### Associate Researchers

**Edson Vidal**  
Doctor of Environmental  
Engineering Science  
(Eesc/USP) and Professor  
at Esalq/USP.

**Mark Cochrane**  
Ph.D. in Ecology and  
Professor at University of  
South Dakota - USA.

**Eugênio Arima**  
Ph.D. in Economic  
Geography and  
Quantitative Methods  
(Michigan State University  
- USA).

### Visiting Researchers

**Christopher Barber**  
Doctoral Student  
(South Dakota State University - USA).

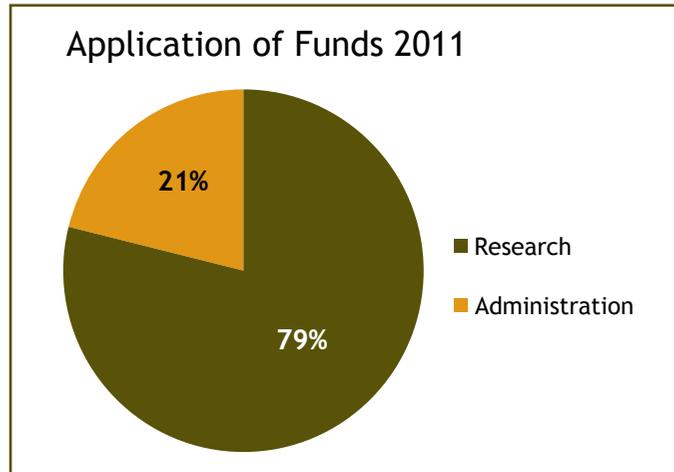
**Erin Sills**  
Economist  
(North Carolina State University - USA).

## ● Contributing to Imazon in 2011

Carolle Alarcon, Diego Monteiro, Ellen Duarte, Enzo Maués, Iêda Fernandes, João Ricardo Porfírio, Laize Sampaio, Larissa Katiussa Lisboa, Marcílio Chiacchio, Moira Adams, Paula Ellinger, Rhayssa Veríssimo and Thales Câmara. We thank each one for his or her efforts and wish them all success in their careers.

# Balance Sheet Statement 2011

ENTRY OF FUNDS		
Fundo Vale	4,930,428.45	28.94%
BNDES	3,601,877.95	21.14%
Moore Foundation	2,270,512.60	13.33%
Porticus	1,977,669.18	11.61%
CLUA	1,003,179.94	5.89%
Skoll Foundation	683,621.57	4.01%
WRI	591,616.18	3.47%
Leme Engenharia	357,996.00	2.10%
Avina Americas	303,338.76	1.78%
IEB-USAID/CE	264,936.63	1.56%
USDA	249,114.52	1.46%
British Embassy	206,521.76	1.21%
Ford Foundation	191,564.17	1.12%
Avina Panamá Foundation	97,676.26	0.57%
CI	95,976.00	0.56%
Companhia Refinadora da Amazônia	50,000.00	0.29%
Others (8)	161,653.42	0.95%
	<b>17,037,683.39</b>	<b>100.00%</b>
APPLICATION OF FUNDS		
Research	10,354,492.14	78.80%
Administration	2,785,365.36	21.20%
	<b>13,139,857.50</b>	<b>100.00%</b>
<b>RESULT 2011</b>	<b>3,897,825.89</b>	



AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT					
Balance Sheet for the Financial Years ending on December 31, 2010 and 2011					
Assets	2011	2010	Liabilities and social capital 2011	2011	2010
<b>Current</b>			<b>Current</b>		
Cash and cash equivalents (Note 4)	113,895	530,083	Suppliers	66,035	80,900
Funds linked to projects (Note 5)	5,973,119	1.813,114	Social and labor obligations (Note 9)	703,541	710,699
Advances paid (Note 6)	283,625	192,115	Tax obligations	23,480	19,917
Credits from contracts and terms of cooperation	24,143	147,740	Advances received (Note 10)	45,751	45,751
Anticipated expenses	17,055	9,974	Obligations with project resources (Note 11)	7,596,799	2,862,176
	<b>6,411,837</b>	<b>2,693,027</b>		<b>8,435,606</b>	<b>3,719,442</b>
<b>Not current</b>			<b>Social capital (Note 9)</b>		
Fixed assets (Note 5)	1,471,863	1,290,955	Social capital	918,559	747,866
Intangible (Note 6)	1,115,423	654,019	Accumulated surplus (deficit)	-355,043	170,693
	<b>2,587,286</b>	<b>1,944,974</b>		<b>563,516</b>	<b>918,559</b>
<b>Total assets</b>	<b>8,999,122</b>	<b>4,638,001</b>	<b>Total liabilities and social capital</b>	<b>8,999,122</b>	<b>4,638,001</b>

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](http://www.imazon.org.br)

AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT

Balance Sheet for Surplus and Deficit for the Financial Years ending on December 31, 2010 and 2011

	2011	2010
<b>Receipts (Note 15)</b>	<b>3,110,486</b>	<b>3,519,358</b>
<b>Costs</b>		
Cost with performing services	(461,149)	(933,976)
Salaries and social security charges (Note 16)	(1,397,680)	(1,170,422)
	<b>(1,858,830)</b>	<b>(2,104,398)</b>
<b>Gross Surplus</b>	<b>1,251,656</b>	<b>1,414,960</b>
Expenses with Services	(256,530)	(346,756)
Administrative Receipts (Note 17)	(1,331,546)	(1,034,722)
Other receipts	93	214,848
<b>Result before net financial expenses</b>	<b>(336,327)</b>	<b>248,330</b>
Financial receipts (Note 18)	32,092	3,903
Financial expenses (Note 18)	(50,808)	(81,540)
<b>Net financial expenses</b>	<b>(18,716)</b>	<b>(77,637)</b>
<b>Surplus for the financial year</b>	<b>(355,043)</b>	<b>170,693</b>

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](http://www.imazon.org.br)

AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT

Balance Sheet for Changes in the Net Worth for the  
Financial Years ending on December 31, 2010 and 2011

DESCRIPTION	Social Capital	Accumulated surplus/(deficit)	Total
<b>On December 31, 2009</b>	<b>708,900</b>	<b>38,967</b>	<b>747,867</b>
Absorption of surplus	38,967	-38,967	0
Surplus for the financial year		170,693	170,693
<b>On December 31, 2010</b>	<b>747,867</b>	<b>170,693</b>	<b>918,560</b>
Absorption of surplus	170,693	-170,693	0
Surplus for the financial year		-355,043	-355,043
<b>On December 31, 2011</b>	<b>918,560</b>	<b>-355,043</b>	<b>563,517</b>

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**AMAZON INSTITUTE OF PEOPLE AND THE ENVIRONMENT**

**Balance Sheet for Changes for Cash Flow for Financial Years ending on December 31, 2010 and 2011**

	2011	2010
<b>Cash flows for operational activities</b>		
Surplus for the financial year	-355,043	170,693
<b>Adjustments</b>		
Depreciation and amortization	600,177	220,383
Residual cost of the disposed fixed assets	34,300	135,221
Variations in assets and liabilities	581,167	823,094
<b>Net cash derived from operational activities</b>	<b>860,601</b>	<b>1,349,391</b>
<b>Cash flows from investment activities</b>		
Acquisitions of goods from fixed assets	-559,271	-662,421
Acquisitions of goods from intangible assets	-717,517	-162,131
<b>Net cash applied in investment activities</b>	<b>-1,276,788</b>	<b>-824,552</b>
<b>Decrease in cash and cash equivalents</b>	<b>-416,188</b>	<b>524,839</b>
<b>Cash and cash equivalent at beginning of financial year</b>	<b>530,083</b>	<b>5,244</b>
<b>Cash and cash equivalent at end of financial year</b>	<b>113,895</b>	<b>530,083</b>

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# Report of the independent auditors on the financial statements



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## Relatório dos auditores independentes sobre as demonstrações financeiras

Ao  
Conselho Diretor e Administradores do  
Instituto do Homem e Meio Ambiente da Amazônia - IMAZON  
Belém - PA

Examinamos as demonstrações financeiras do Instituto do Homem e Meio Ambiente da Amazônia - IMAZON ("Instituto"), que compreendem o balanço patrimonial em 31 de dezembro de 2011 e as respectivas demonstrações do déficit, das mutações do patrimônio líquido e dos fluxos de caixa para o exercício findo naquela data, assim como o resumo das principais práticas contábeis e demais notas explicativas.

### Responsabilidade da administração sobre as demonstrações financeiras

A administração do Instituto é responsável pela elaboração e adequada apresentação dessas demonstrações financeiras de acordo com as práticas contábeis adotadas no Brasil, assim como pelos controles internos que ela determinou como necessários para permitir a elaboração de demonstrações financeiras livres de distorção relevante, independentemente se causada por fraude ou erro.

### Responsabilidade dos auditores independentes

Nossa responsabilidade é a de expressar uma opinião sobre essas demonstrações financeiras com base em nossa auditoria, conduzida de acordo com as normas brasileiras de auditoria. Essas normas requerem o cumprimento de exigências éticas pelos auditores e que a auditoria seja planejada e executada com o objetivo de obter segurança razoável de que as demonstrações financeiras estão livres de distorção relevante.

Uma auditoria envolve a execução de procedimentos selecionados para obtenção de evidência a respeito dos valores e divulgações apresentados nas demonstrações financeiras. Os procedimentos selecionados dependem do julgamento do auditor, incluindo a avaliação dos riscos de distorção relevante nas demonstrações financeiras, independentemente se causada por fraude ou erro. Nessa avaliação de riscos, o auditor considera os controles internos relevantes para a elaboração e adequada apresentação das demonstrações financeiras do Instituto para planejar os procedimentos de auditoria que são apropriados nas circunstâncias, mas não para fins de expressar uma opinião sobre a eficácia desses controles internos do Instituto. Uma auditoria inclui, também, a avaliação da adequação das práticas contábeis utilizadas e a razoabilidade das estimativas contábeis feitas pela administração, bem como a avaliação da apresentação das demonstrações financeiras tomadas em conjunto.



Acreditamos que a evidência de auditoria obtida é suficiente e apropriada para fundamentar nossa opinião.

**Opinião sobre as demonstrações financeiras**

Em nossa opinião, as demonstrações financeiras referidas no primeiro parágrafo apresentam adequadamente, em todos os aspectos relevantes, a posição patrimonial e financeira do Instituto do Homem e Meio Ambiente da Amazônia - IMAZON, em 31 de dezembro de 2011, o desempenho de suas operações e os seus fluxos de caixa para o exercício findo naquela data, de acordo com as práticas contábeis adotadas no Brasil.

Manaus, 11 de maio de 2012

KPMG Auditores Independentes  
CRC SP-014428/O-6 F-AM

Luciano Medeiros  
Contador CRC SP-138148/O-3 T-AM

# Acronyms

ACT Brasil	Amazon Conservation Team Brazil
Agropec	State Display of Products from the Countryside
Aimex	Association of Timber Exporting Industries in the State of Pará
APEF	Pará Association of Forest Engineers
ARA	Amazon Regional Articulation
CAR	Rural Environmental Registry
CGI	Imazon Geotechnology Center
CI	Conservation International
Cesep	Center for Educational Services of Pará
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLUA	Climate and Land Use Alliance
CMN	National Monetary Council
CNS	National Council of Extractive Populations
Coiab	Coordination of Indigenous Organizations in the Brazilian Amazon
COP	UN Conference of the Parties on Climate Change
CSF/ Brasil	Conservation Strategy Fund / Brazil
CTSF	Câmara Técnica Setorial de Floresta do Estado do Pará
Defra	Department for Environment, Food and Rural Affairs of the United Kingdom
Eesc	School of Engineering in São Carlos
Emater	Technical Assistance and Rural Extension Company
Esalq	Luiz de Queiroz Higher School of Agriculture
Facinter	International College of Curitiba
FAP	College of Pará
Feapa	College of Advanced Studies in Pará
Fiepa	Industrial Federation of Pará
Flona	National Forest
Flota	State Forest
FSC	Forest Stewardship Council
GCF	Governors' Climate and Forests Task Force
GEE	Greenhouse Gases
GIS	Geographic Information System
GPS	Global Positioning System
GTA	Amazon Working Group
Ibpex	Brazilian Institute for Graduate Studies and Extension
ICV	Center of Life Institute
Ideflor	Institute for Forest Development of the State of Pará
Idesam	Institute for Conservation and Sustainable Development of Amazonas
IEB	International Education Institute of Brazil
Iesam	Institute for Higher Studies in the Amazon
IFPA	Federal Institute of Pará
IFT	Tropical Forest Institute (Brazilian subsidiary of Tropical Forest Foundation – TFF)
Imaflora	Institute for Forest and Agricultural Management and Certification
Imazon	Amazon Institute of People and the Environment
Inpa	National Institute for Amazon Research
IPCC	Intergovernmental Panel on Climate Change
Ipea	Institute for Applied Economic Research

ISA	Socioenvironmental Institute
ITTO	International Tropical Timber Organization
MMA	Ministry of the Environment
MPE	State Public Prosecution Service
MPEG	Emílio Goeldi Museum of Pará
MPF	Public Prosecution Service
Naea	Nucleus for Higher Studies of the Amazon
NGO	Non-Governmental Organization
OC	Climate Observatory
ODK	Open Data Kit
OSCIP	Civil Society Organization in the Public Interest
Pamflor	Public Program for Supporting Forest Management
PL	Draft of Proposed Law
PMF	Project for Forest Management
PRAD	Plan for Recuperation of Degraded Areas
Psol	Socialism and Liberty Party
PV	Green Party
REDD	Reducing Emissions from Deforestation and Forest Degradation
RSPO	Roundtable on Sustainable Palm Oil
SAD	Deforestation Alert System
Samflor	System for Supporting Forest Management in the Amazon
Sebrae	Service for Supporting Micro and Small Companies
Sema	Secretariat of the Environment
SFB	Brazilian Forest Service
SPRP	Rural Producers' Union of Paragominas
SPVS	Society for Wildlife Research and Environmental Education
TNC	The Nature Conservancy
UC	Conservation Unit
UE	European Union
UEPA	State University of Pará
UFAM	Federal University of Amazonas
UFMA	Federal University of Maranhão
UFMS	Federal University of Mato Grosso do Sul
UFPA	Federal University of Pará
UFPR	Federal University of Paraná
UFRA	Federal Rural University of Pará
UFRJ	Federal University of Rio de Janeiro
UFV	Federal University of Viçosa
Unama	University of the Amazon
UNB	University of Brasília
UN	United Nations Organization
USAID	United States Agency for International Development
USP	University of São Paulo
WRI	World Resources Institute
ZEE	Ecological-Economic Zoningno



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