



COMPLETION REPORT

**“MONITORING DEFORESTATION, LOGGING AND LAND USE CHANGE
IN THE PAN AMAZONIAN FOREST – PANAMAZON II”**

(RED PD 029/09 REV.1F)

Host Government: ABC Brazil in representation of ACTO Member Countries

Name of the Executing Agency: AMAZON COOPERATION TREATY ORGANIZATION (ACTO)

PROJECT NUMBER: RED-PD 029/09 REV.1 (F)

Starting date of the Project: June 2011

Duration of the Project (month): 48 months

Project costs (US \$):

<u>SOURCE</u>	<u>CONTRIBUTION IN US\$</u>
ITTO	1.124.784
ACTO	1.389.600
ACTO MEMBER COUNTRIES	3.748.400
TOTAL (2011)	6.262.784

<u>ADDITIONAL FUNDS</u>	<u>CONTRIBUTION IN REALES</u>
BNDES/Fundo Amazonia	23.7 millions
TOTAL (2013)	23.7 millions*

* Exchange rate 31.10.2013: 1 UDS = 2 R\$

The ordinal number and type of the Report: **COMPLETION REPORT**

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EXECUTIVE SUMMARY

The Amazon Region occupies an area of approximately seven million of km² distributed across eight countries: Bolivia, Brazil, Colombia, Ecuador, Guiana, Peru, Suriname and Venezuela; and an overseas territory of France (French Guiana). The eight sovereign countries belong to the Amazon Cooperation Treaty Organization (ACTO), and host a population of approximately 33 million inhabitants at the Amazon Basin.

The Amazon presents a complex and delicate ecosystem where the conservation and preservation of the climatic and ecological processes in the region contribute to the stability of global environmental mechanisms since all its elements (climate, soil, fauna and flora) are closely related. In spite of the above, during the last decades the Amazon has been experiencing changes due mainly to socioeconomic processes that have promoted population growth, the expansion of economic activities and the development of infrastructure. All this has led to significant changes in land use in the region, which has led to fragmentation of ecosystems, deforestation and loss of biodiversity.

The extension of the Amazonian Region considered in RED PD 029/09 rev1F project is almost 1,8 times the size of the European Union territory, but its population is sparsely distributed and when compared to the European population roughly reaches 7%. These numbers show the importance of remote sensing and satellite technology for monitoring such large and sparsely occupied region.

With the aim to promote regional joint actions in favor of the Amazon, Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela, signed in 1978 the Amazon Cooperation Treaty (ACT). Later, in order to speed up the implementation of the ACT, the Amazon Cooperation Treaty Organization (ACTO) was created in 1998. Subsequently its Permanent Secretary was installed in Brasilia, Brazil, to promote joint regional initiatives of cooperation.

In 2005 -2006, ACTO with the technical and financing support of the Brazilian Cooperation Agency (ABC) coordinated the Amazonian Common Agenda Project, where its *Pan-Amazonian* component was designed to support forest monitoring of the Amazon region. The component looked to disseminate the low cost and high benefits of available technologies for forest cover monitoring, focusing on the benefits of the *freeware systems* developed by INPE to process remote sense images and GIS data.

The concept of the common agenda project emerged after an ACTO cost benefit analysis regarding the existing technologies at the time for forest cover monitoring. The study indicated that the existing software and methodology developed by the Brazilian Space Agency (INPE) was appropriate for the region requirements. To that extent training by INPE covered all aspects of satellite forest cover monitoring.

The "Monitoring of Deforestation, Forest Harvesting and Changes in Land Use in the Pan Amazonian Forest –PANAMAZON II" - RED PD 029/09 rev1F Project, represents a second phase of PANAMAZON I. The main objective of the PANAMAZON II project is to support all ACTO Member Countries on the development of a national monitoring system to promote increasing governance in the Amazon Region. As main outputs, the project focuses on: (i) preparation of plans for the development of participatory Forest Cover National Monitoring

Systems; (ii) implementation of the prepared National Plans; and (iii) strengthening of the existing platforms for regional dialogue and coordination on forest management, with focus on forest cover monitoring.

Among the programs and initiatives developed by the PS/ACTO at the national and regional levels, the "**Monitoring Forest Cover in the Amazonian Region**" Project / **Monitoring of Deforestation, Forest Harvesting and Changes in Land Use in the Pan Amazonian Forest-RED PD 029/09 Rev1F** stands out. Executed in the context of the Amazonian Strategic Cooperation Agenda of ACTO (2010), the project implements programs and initiatives at regional level with a view to promote actions aimed at the preservation, protection and conservation of the Amazon forest. For this purpose, it provides "comprehensive and sustainable forest management for its conservation, which reflects into real benefits for the local population."

In execution since 2011, the Monitoring Project promotes *(i) the development of real-time information on the extent and quality of the Amazonian forest cover, as well as (ii) the preparation of national monitoring plans for forest cover.*

The Panamazonia II Project was developed to provide technical cooperation for ACTO Member Countries and to support a Subregional Forest Cover Monitoring System. Therefore the project planned to (i) carry on forest cover monitoring training courses; (ii) transfer of INPE's monitoring technology; and (iii) generate, integrate and provide a database on Georeferenced forest cover information for one baseline year.

- **Planned and realized Project Implementation (Adjustments made in the course of the implementation phase):**

Knowledge sharing is part of this process built and developed by the Project which is contextualized in the South-South cooperation process aiming at strengthening Brazil's capabilities and technology transfer to the other countries that make up the Amazon basin.

The project exceeded the achievement of its initial objectives focused mainly on the training of national technicians in monitoring techniques developed by INPE. Besides the exchange of knowledge in the countries, there was also a process of incorporation and transformation, which varied in relation to the situation and the needs of each country.

The decision to develop the products, the Regional Maps and the National Forest Coverage Monitoring Plans in each country introduced a moment of change in the exchange of knowledge. The mode of exchange has shifted from knowledge transfer to co-creation. This decision linked the development of national capacities to the development of a collaborative product at regional level. Therefore, it was possible to create a benefit at both levels, linked to one another.

- **Prevailing situation after Project completion, compared to the pre-project situation; including the target beneficiaries; and indicates the post- Project sustainability:**

At the beginning of the project (2011 -2012), the key objective was technical training. It started from the reflection that the very moderate progress in monitoring in some Member

Countries was due to the lack of trained human resources in the use of effective methodologies of remote sensing systems for the monitoring of deforestation. With INPE as a strategic partner and considering the great experience of Brazil in forest monitoring, the project had at the beginning the idea to transfer the Brazilian knowledge in the monitoring of forests to the other countries.

But soon, in addition to the exchange of knowledge in the countries, there was also a process of incorporation and transformation, which varied in relation to the situation and the needs of each country. The most visible incorporation effects were produced in the systematization of the monitoring; in the expansion of the monitoring areas and themes; intensifying exchanges with other sectors and actors; and the commitment to elaborate and deliver regional products such as maps of deforestation, land cover and land use in the original project review.

- **Post- Project Sustainability:**

The sustainability of forest cover monitoring in the different ACTO MCs depends fundamentally on three factors: political commitment, technical capacities and economic resources. In turn all of them are influenced by the conditions and characteristics of each country.

An indicator of the different commitments is the existing institutional structure at the national level (participation of key organizations, with specific responsibilities); the situation of the OR; and the existing legal framework.

- **Political Commitment**

The mandates received by ACTO to confront the problem reflect the consensus and commitment of the countries regarding the need to develop national systems of monitoring of forest cover, compatible at the regional level that increase governance and contribute to reduce deforestation and forest degradation. By implementing national forest cover monitoring systems and by improving regional dialogue, an effective framework is provided for consultation, international cooperation, and collaboration among countries on policies regarding the Amazon Region.

The last meeting of the Ministers of Foreign Affairs (Ecuador, December 2017 specifically instructed the PS/ACTO to continue with the process of coordination and formulation of the Project Forests and Climate Change for presentation to the Amazon Fund.

- **Technical Capabilities**

The corresponding instances in the ACTO MCs, such as the Forest Authorities and the Focal Points of the Monitoring Project, have taken important measures in favor of the sustainability of the monitoring either strengthening the national institutional framework, articulating others the work of the entities responsible for the generation, analysis, processing and monitoring of information on forest cover; and/or promoting adequate regulatory frameworks in favor of the institutionalization of national forest cover monitoring units based on what the Observation Rooms of the Monitoring Project were. The latter because there is consensus that the Observation Rooms have a high installed technical capacity, to continue providing high quality information related to

deforestation, forest fires, natural hazards and other activities related to the use of space remote sensing technologies.

Institutional Structure and ACTO Monitoring Project National Observation Rooms.

COUNTRY	INSTITUTIONAL STRUCTURE
Bolivia	The "Forest Information and Monitoring Unit" responsible for implementing the Forest Information and Monitoring System -SIMB of the MMAyA is made up of the Observation Room of the Project ACTO Monitoring (DS 2914. 2016).
Colombia	The SINCHI has taken over the Observation Room of the Project ACTO Monitoring , since, March 2017).
Ecuador	The Observation Room of the ACTO Monitoring Project integrates the National Forest Monitoring System (SNMB) that is part of the Unique System of Environmental Information of the Ministry of the Environment (4-3-019-BRA / 2017, March 2017).
Guyana	The "Monitoring Reporting & Verification -MRV" System, which already exists in the Guyana Forestry Commission (GFC) and of which the Observation Room of the Project ACTO Monitoring is a part, has experienced significant changes that influence forest management.
Perú	With the purpose of implementing the National Forest Cover Monitoring System (SNMCB), an inter-institutional technical team comprised of MINAM, MINAGRI and the Observation Room of the Project ACTO Monitoring has been formed.
Surinam	The Forest Cover Monitoring Unit was established in 2012 in the Foundation for Forest Management and Production Control (SBB) with the participation of the Observation Room of the ACTO Monitoring Project .
Venezuela	Oficina de Bosques del Ministerio del Poder Popular para el Ambiente y Agua (MINEA)

Project actions will continue after its closure since its institutional structure, in one way or another still operates in ACTO MC. In four countries monitoring units are been implemented (Bolivia, Ecuador, Peru and Surinam); and in other three, they are part of their national structures (Colombia, Guyana and Venezuela).

- **Financial Resources**

Strengthening and sustainability of forest cover monitoring systems requires **financial resources** to ensure, among others, the competent human resources that carry out forest cover monitoring activities, being a possibility to incorporate the technical staff of the OR into the proposed national units.

In this sense, it is known that countries are covering these needs with resources of a different order such as those of the national treasury (own funds); international cooperation; and/or specific projects.

• **Relevant Outcome of the Analysis of the Project implementation:**

The first year of the project, 2011-2012, was marked by the installation of the Observation Rooms in each country and by INPE's technical trainings in Belém. The first regional map was discussed during the 1st Project Steering Committee (PSC), held in Bolivia in 2012, after a

year of project existence. The parameters for the elaboration of the map were defined and agreed at the 1st Meeting of the Members of the Observation Rooms, held in Lima, Peru in October 2012.

In subsequent meetings, the elaboration of the Regional Map of Deforestation provoked intense debates. There was a fear that countries' capacities were still not enough and there were concerns about the right of ownership of the data and what area to include. At the end, solutions were found that led to the approval of the map and the dissemination of results.

- **Lessons learned and recommendations**

In practice, the implementation of forest cover national monitoring systems, and the strengthening of existing platforms for regional dialogue and coordination on forest management, has focused on problems identified by the REDDES Program as causes of the current level of inadequate capacity in the region to maintain and enhance environmental services of tropical forests.

These are: (i) lack of assessment and monitoring of forest resources; (ii) lack of appropriate technology and adequate knowledge; (iii) inadequate capacity to make informed decisions on maintenance of environmental services; (iv) lack of trained human resources; and (v) lack of awareness of, and access to, appropriate technology.

1. PROJECT IDENTIFICATION

The mandate given to ACTO/PS to prepare this project proposal reflects the regional consensus and commitments regarding the need identified to develop harmonized national forest cover monitoring systems at regional level. In this sense, no specific additional approaches were necessary to build ownership for the project implementation.

RED PD 029/09 rev1F is relevant to all ACTO Member Countries policies beyond monitoring only deforestation. An issue promoted by the project is the capacity to monitor the quality and use of the existing forests in the Amazon Region. More specifically, the project deals directly with the process of eliminating insufficiencies on monitoring capacity and on promoting timely corrective actions. It is also in that sense that the project increases governance and contributes to the main ITTO REDDES thematic focus, which is the reduction on deforestation and forest degradation.

The main issue identified during the preparation phase was the fact that each country has specific and particular institutional frameworks. Consequently, the project design considered the development of specific strategies and plans for each country, as well as, for the set of institutions involved. In terms of technology and compatibility with existing national mapping strategies in ACTO MC existing baseline information has to be in accordance with the national approved database. The commitment of ACTO countries and the participation of the Brazilian Space Agency were very important for the approval of the project.

1.1 Context

In 1995, ACTO Member Countries discussed in Tarapoto (Peru) a regional proposal of Criteria and Indicators for the sustainability of the Amazon Forest and their interest to count with a common agenda for sustainable forests management (SFM) among their countries. In 2001, Tarapoto, concluded that the forest cover is relevant and fundamental for the application of national forest policies, as well as orienting the regional agenda. The consensus was to address indicators of: (a) extension of the areas by forest type; (b) forest conversion rate; (c) proportion of environmental protection areas compared to permanent production areas; and (d) contribution to the conservation of biological diversity.

ACTO countries also agreed in 2005 to launch the Amazonian Common Agenda Project. Therefore between 2005 -2006, ACTO, with the technical and financing support of the Brazilian Cooperation Agency (ABC), coordinated the Amazonian Common Agenda Project. There the *Pan-Amazonian* component was designed to support forest monitoring of the Amazon region. It look forward to disseminate Brazilian INPE's low cost and high benefits of available technologies for forest cover monitoring, focusing on the benefits of the *freeware systems* to process remote sense images and GIS data.

The Common Agenda project showed that the software and methodology developed by the Brazilian Space Agency – INPE was the most appropriate for the region requirements focusing on the development of regional awareness regarding forest cover monitoring by sharing with ACTO MC the Brazilian experience accumulated with the Real Time Forest Cover Monitoring System – DETER. One of the components of the Agenda strongly emphasized satellite forest cover monitoring and looks to disseminate the low cost and high benefits of available technologies for forest cover monitoring, focusing on the benefits of the freeware systems developed by INPE to process remote sense images and GIS data.

Its expected main results were the generation, integration and provision of a database on georeferenced forest cover information for one baseline year; forest cover monitoring training courses; transfer of technology; purchase of computers equipment's; and a preliminary forest cover status analysis for each amazon country. The dialogue held with the support of ITTO, FAO and ACTO, by the forests sectors of the Amazonian countries, was also backed by the highest political ACTO authorities.

To that end, the decision-making bodies of ACTO highlighted on several occasions the importance of **monitoring forest cover** with actions at the national and regional levels. Among others they recommended to PS/ACTO:

- *"Implement a coordinated regional system for monitoring forest cover "(Meeting of Presidents, Brazil 2009); and*
- *"Institutionalize the monitoring of forest cover as a priority for regional action in the context of the new Amazonian Strategic Cooperation Agenda - AECA" (X Meeting of Ministries of Foreign Affairs, Peru 2010).*

For this purpose, the PS/ACTO promoted an initiative aimed at developing a project to monitor the forest cover in the Amazon and strengthen the existing regional coordination platforms for forest management. The ACTO Monitoring Project was financed by the

International Tropical Timber Organization (aprox. one million USD) - ITTO/German Cooperation - BMZ/GIZ and the Netherlands – DGIS (aprox. one million USD); as well as by the Amazon Fund of the National Bank of Economic and Social Development of Brazil – BNDES (eleven point seven million of reales).

The **Pan-Amazonian II** or “**MONITORING DEFORESTATION, LOGGING AND LAND USE CHANGE IN THE PAN AMAZONIAN FOREST – RED PD 029/09 rev1F Project**” is an outcome of these first steps, since it attends all national requirements for the efficient and effective monitoring of large scale forested areas. The “Panamazonia II” builds on the Brazilian DETER development process and the use of cost-free products and the Landsat GeoCover dataset to implement efficient monitoring systems. Therefore, the Pan-Amazonian II or RED PD 029/09 rev1F project extends the steps taken on developing tools to increase the monitoring precision of the forest cover in all ACTO Member Countries with efficient resources and highly effective impacts and the development of a common methodology for forest cover monitoring.

1.2 Origin and Problem

The Amazon Region occupies an area of approximately seven million of km² distributed across eight countries: Bolivia, Brazil, Colombia, Ecuador, Guiana, Peru, Suriname and Venezuela; and an overseas territory of France (French Guiana). The eight sovereign countries belong to the Amazon Cooperation Treaty Organization (ACTO).

During the nineties, FAO studies shown that there was an overall lack of reliable and updated information on forests resources among the Amazon countries. To have information, evaluate and process it is essential to prevent, detect, control, notify and investigate the forest cover, especially its illegal operations. By doing so, governments are able to adopt corrective measures and guarantee a better application of forest laws. However, information is not always used properly, neither exchanged with the responsible official organizations nor interested parts.

On the other hand, the Pan Amazon I project developed between 2005 -2006 found in general ACTO MC had insufficient capacity to monitor deforestation, land use change and logging in the Amazon Region. It also identified the latter mostly due to: (i) insufficient commitment and participation of decision making institutions responsible for monitoring forest cover in the Amazon regions; (ii) different levels of access to forest cover monitoring technologies; and (iii) variable and insufficient institutional capacities to assess large scale land use changes in the region.

The asymmetry in technology access and insufficient capacity to assess forest cover and land use changes are caused mainly by the use of (i) different monitoring technologies; and (ii) absence of a harmonized institutional framework to deal with forest issues in all ACTO country members. Vital to this process is the proper identification of unsustainable processes of land occupation and use in the region to avoid de depletion and illegal use of natural resources. The most efficient identification tools available are satellite monitoring systems regarding deforestation, land use change and logging. The insufficient implementation of these tools in ACTO MC is considered the key problem.

Therefore, the precise objective of improving the monitoring capacity in each Country is to alleviate the consequences of not having these capacities. The main consequence, obviously, is poor governance on deforestation, land tenure and land use change due mainly to the lack of sufficient information and good quality data. Specifically these weaknesses result in: (i) inadequate governmental presence and action in key areas; (ii) ineffective and inefficient law enforcement capacity; and (iii) the development of a legal framework and policy not totally comprehensive to deal with the deforestation problem.

In a broader sense, the most observable consequences, common more or less to all ACTO, are law enforcement difficulties; illegal occupation of public forests; and increasing levels of deforestation. At the time OTCA believed that its monitoring deforestation initiative could reduce significantly the insufficiencies identified in the key problem and will promote a concerted action among ACTO country members that will finally lead to better governance of forests and land use in the Pan Amazon Region.

2. PROJECT OBJECTIVES AND IMPLEMENTATION STRATEGY

The Pan Amazonia II or RED PD 029/09 rev1F project addressed constraints that limit the use of the indicator of forest cover by implementing national monitoring systems as a key element to increase the governance in the Amazon. The systems can look to the technology platform developed by Brazil and the methodology adopted in this country since 1988.

Furthermore, the project has contributed to the improvement of knowledge in the sector, by sharing the existing technologies in other ACTO MC promoting lines of action for regional cooperation. In order to facilitate countries interaction the project has strengthened the dialogue and coordination platforms linked to the Amazon Cooperation Treaty Organization (ACTO).

The main objective of the PANAMAZON II project is to support all ACTO member Countries on the development of a national monitoring system; with the specific objective to provide data on the extent and quality of forest cover. The project consists of three components and its respective activities:

1. Development of Forest Cover National Monitoring Systems.
 - 1.1 Install National and Regional Coordination Unit
 - 1.2 Methodological Guidance and Strategic Coordination
 - 1.3 Formulation of National Plans of Forest Cover Monitoring
2. Implementation of Forest Cover National Monitoring Systems
 - 2.1 Reinforce Institutional Capacities and Training
 - 2.2 Accompanying Regional and Promoting Exchange
 - 2.3 Full Operation of the National Observation Rooms
3. Strengthening of the existing platforms for regional dialogue and coordination on forest management, with focus on forest cover monitoring
 - 3.1 Participatory Planning and Management Agenda Logistics Forum

2.1 Project Implementation Strategy

The project was designed to be initiated in 2011 with ITTO funds; German -Netherlands Cooperation resources; and the already available counterpart funds from ACTO. Additional funds from Fundo Amazonia/BNDES were also expected to increase the project scope including additional capacities and technical assistance in the countries with direct impact in its sustainability (Table 01).

ITTO resources contributed mainly to fund the project administration and its National Observation Room setup and networking staff plus informatics and video equipment and internet services. On the other hand, the German -Netherlands Cooperation were used in the formulation and validation of the Monitoring Forest Cover National Plans; and training country experts at INPE's /CRA in Belem. Latter, the additional funds available from by AF/BNDES, allowed for more and new training: building institutional capacities; technical support; visiting and sharing local experiences; and preparation of regional products.




2.1.1. Operative Structure

The Project's implementation structure is based on the procedures habitually adopted by ACTO to execute regional projects. These are implemented with national instances and regional support units. On the one hand there are the ACTO Countries at the national level and the PS/ACTO at the regional level. Both of them interrelate in the Project Steering Committee (PSC)¹ that has the responsibility of the project technical coordination and where ACTO provides the services of a Permanent Secretariat.

At the national level (Table 02) one has eight (08) national coordination units of a technical nature constituted by a National Focal Point (NFP) and a National Coordinating Institution (NCI); plus seven (07) Rooms of Observation entrusted to monitor the deforestation. The units of national coordination are as follows:






¹ ITTO PSC: Cochabamba, Bolivia (May 2012); Georgetown, Guyana (March 2013); Brasilia (June 2017); and Brasilia (September 2018)

Table 01: PROJECT IMPLEMENTATION TIMETABLE (JUNE 2011 –SEPTEMBER 2018)

2010	2011		2012		2013		2014		2015		2016		2017		2018	
2nd*	1st	2nd	1st	2nd	1st	2nd	1st	2 nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd*
 <p>BMZ (GIZ)/DGIS: "Monitoring Deforestation, Logging and Land Use Change in the Pan Amazon Forest" (Approx. USD 1 million).</p>																
		<p>ITTO: "Monitoring Deforestation, Logging and land Use Change in the Pan Amazon Forest" RED PD 029/09 Rev.1F (Approx. USD 1 million).</p> <p>Components of the Project:</p> <ol style="list-style-type: none"> 01. National Plans for Monitoring Forest Cover 02. Implementation of the National Monitoring Systems 03. Project Forum for Exchange and Agreement 														
							<p>Amazon Fund/BNDES: " Monitoring Forest Cover in the Amazon Region " (23.7 million Brazilian reales)</p> <p>Actions of the Project:</p> <ol style="list-style-type: none"> 01. Installation and Commissioning of the National Observation Rooms 02. Formulation of National Forest Cover Monitoring Plans 03. Training in Monitoring Technologies 04. Strengthening of the Observation and Research Rooms 05. Support for Regional Cooperation to Combat Illegal Deforestation 06. Monitoring, Accompaniment and Supervision of the Project 									

* Methodological Workshop (November 2010). ** Project closure (September 2018).

Table Nº 02: National Coordination Entities

Country	National Focal Point	National Coordination Institution
 BOLIVIA	 BRASIL	 COLOMBIA
 ECUADOR	 GUYANA	 PERÚ
 SURINAM	 VENEZUELA	
Bolivia	Ministry of Environment and Water (MMAyA)	General Directorate of Forest Management and Development (DGGDF)/MMAyA
Brazil	Department of Northern and Western South America (DASSO) Ministry of Foreign Affairs	Department of Forests and of Combat the Deforestation Ministry of Environment (MMA)
Colombia	Ministry of Sustainable Environment Development (MADS)	Institute of the Colombian Amazon Research (SINCHI)
Ecuador	Ministry of Environment (MAE)	National Directorate of Forest / MAE
Guyana	Guyana Forestry Commission (GFC)	Guyana Forestry Commission -GFC
Peru	Ministry of Environment (MINAM) Ministry of Agriculture (MINAGRI)	Forest and Wildlife Service -SERFOR/ MINAGRI.
Suriname	Ministry of Physical Planning	Foundation for Forest Management and Production Control (SBB).
Venezuela	Ministry of People's Power for the Environment and Water (MINEA).	General Directorate of Forest Heritage / MINEA

At the national level the local Observation Room (Table 03) where coordinated by the national designated institution with the support of a technical coordinator; a technical assistant; and a geographic information systems analyst. Moreover the national designated institution was responsible for allocating counterpart resources, including the time set aside by its permanent staff, physical infrastructure (rooms and labs with corresponding facilities), and infrastructure and equipment maintenance costs. The technical team was contracted in consonance with the terms of reference approved by the national designated authority and by the ACTO/PS:

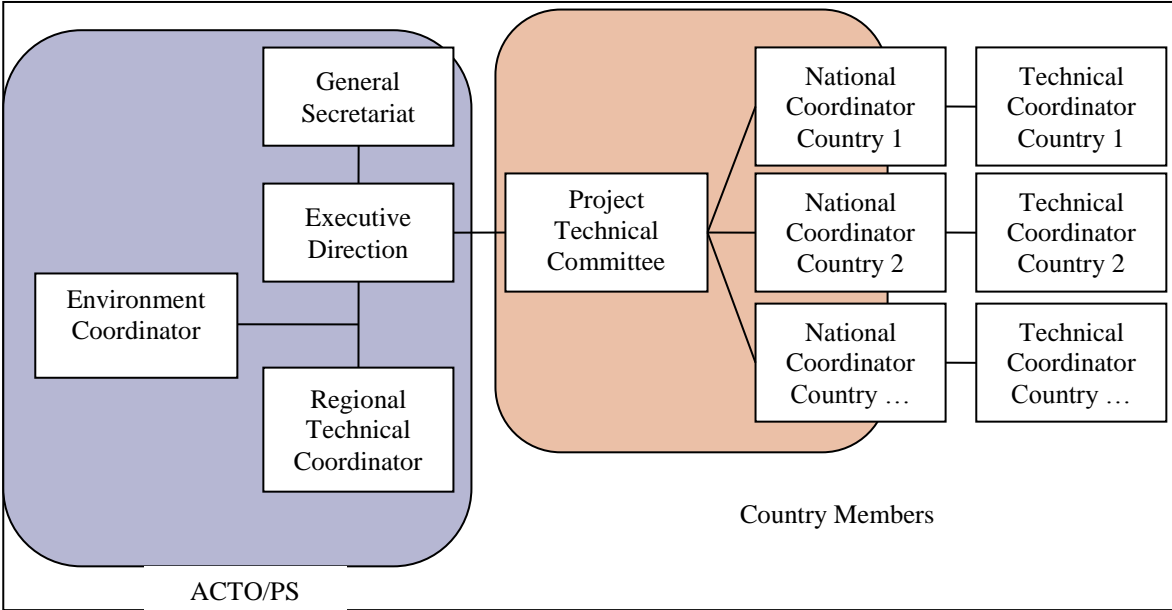
Table 03: ACTO MC NATIONAL OBSERVATION ROOM

COUNTRY	NATIONAL OBSERVATION ROOM
La Paz, BOLIVIA	Ministerio de Medio Ambiente y Aguas (MMAyA) Dirección General de Gestión y Desarrollo Forestal (DGGDF)
Bogotá, COLOMBIA	Instituto de Investigaciones de la Amazonia Colombiana (SINCHI)
Quito ECUADOR	Ministerio del Ambiente (MAE)
Georgetown, GUYANA	GIS Laboratory Guyana Forestry Commission (GFC)
Lima, PERU	Facultad de Ciencias Forestales (FCF) Universidad Nacional Agraria La Molina (UNALM)
Paramaribo, SURINAME	Foundation for Forest Management and Production Control (SBB)
Caracas, VENEZUELA	Oficina de Bosques del Ministerio del Poder Popular para el Ambiente y Agua (MINEA) Instituto Forestal Latinoamericano (IFLA), adscrito al MINEA en la ciudad de Mérida

Regionally, PS/ACTO (Brasilia) acts as the leading executing agency with a Technical Unit for Regional Coordination (UTCR) in charge of supporting regional coordination and administrative-financial support; and a second one installed in the Regional Amazon Center of the National Institute of Space Research (INPE) of Brazil (Belem) in charge of the training and technical support activities for the ACTO MC. The Regional Coordination Unit will follow the strategic guidelines set by ACTO country parties and according to the project document and procedures.

Both the national (PFN, INC) and the regional (PS/ACTO, UTCR), interact in the Project Steering Committee (PSC) responsible for evaluating the progress of the same; approve the annual operating plans; recommend measures to improve their implementation and identify possible regional products such as maps on deforestation and forest cover and land use. Representatives of ITTO, German –Netherlands Cooperation and FA/BNDES are also members of the PSC. The Permanent Secretariat has act as regional coordination unit and as executive secretariat of the Project Technical Committee.

FIGURE 01: ORGANIZATION CHART



3. PROJECT PERFORMANCE (PLANNED AND IMPLEMENTED PROJECT ELEMENTS)

During the implementation of the project (2011-2018), the following can be highlighted: the strengthening of a common dialogue among the Member Countries; the training of national personnel in monitoring techniques; the installation of National Observation Rooms (OR) in charge of monitoring deforestation; regional products: Maps on Amazon Deforestation and Coverage and Land Use; as well as the formulation of national plans to monitor forest cover.

- Strengthening ACTO Member Countries Dialogue**

The project has promoted a space for dialogue and continuous interaction among the MCs in a regional context involving the same national authorities responsible for local policies and

strategies for the monitoring of deforestation; and technical instances in charge of methodologies, techniques and concepts related to the use of forest Cover monitoring systems applied in each country.

This exchange of knowledge and experiences has facilitated opportunities for regional cooperation in various areas such as monitoring deforestation and degradation, illegal deforestation, and forest fires.

- **Training of National Personnel in Monitoring Techniques.**

Transfer of knowledge and experience of Brazil was promoted in programs and development systems by INPE, while INPE has been developing the monitoring and quantification of the deforestation in the Brazilian Amazon Region, since 1988, utilizing satellite images.

All of these activities by the agreements between PS/ACTO and INPE: Letter of Undertaking (July 2010) and Cooperation Agreement (July 2013). The development of monitoring capacity for deforestation and land use in the Amazon region was a priority of the project. To that end, opportunities for high-quality training in the use of remote detection technologies to monitor forest cover were facilitated.

With INPE as a strategic partner, in five (05) Training Programs ²during 2011-2017, more than 255 national technicians from ACTO Member Countries have been trained in the Amazon Regional Center in Belem. The courses available to the ACTO MCs have been in techniques developed by the INPE for the monitoring of deforestation (**Terra Amazon System**); fires, using satellite images; land use and Cover of already cleared areas (Terra Class System / INPE); and use of radar images (2016). In 2017, the first virtual course was given using the Capacitree System of INPE/CRA.

Table 04: Training Program in INPE/CRA (Belem, Brazil)

TRAINING PROGRAM		DATE
I	Amazon Forest Monitoring -Terra Amazon (version 2.1)	10.2011, 02 and 03.2012
II	Terra Amazon System/ PRODES	04, 05 and 08.2014
	Fire Monitoring by Satellite	12.2014
III	Fire Monitoring by Satellite	03.2015
	Amazon Forest Monitoring for Acedemic Entities	05.2015
	Terra Class/ Introduction to Radar	07, 08 and 09.2015
IV	Amazon Forest Monitoring (Terra Amazon, Terra Class, Fires)	05, 06 and 07.2016
	Images of Radar	10.2016
V	Tropical (Amazon) Forest Monitoring	04*, 07 and 08.2017

Terra Amazon/ PRODES:

Training in cartography, geo-processing, image processing and remote sensing; preparation of updated data banks; as well as disseminate and share experiences on methodologies,

² Training Program: 2011/2012, 2014, 2015, 2016 and 2017.

techniques and concepts related to the use of monitoring systems for deforestation. It uses the digital DETER and PRODES support programs developed by INPE for the monitoring of forest Cover in the Brazilian Amazon.

- **Real-Time Deforestation Detection System -DETER**

Inspection and control system through which the INPE publishes monthly a map of alerts, with areas larger than 25 hectares, which indicate areas totally deforested (clear-cutting) and in the process of deforestation due to progressive forest degradation. (<http://www.obt.inpe.br/deter/>).

- **Program for the Calculation of Deforestation in the Amazon -PRODES**

Monitoring program for forest cover, measures annual rates of deforestation since 1988, for deforested areas exceeding 6.25 hectares. (<http://www.obt.inpe.br/prodes/index.html>).

- **Installation and start-up of the National Observation Rooms (OR)**

Between 2012 and 2013, by coordination of national institutions of the ACTO MCs, seven Observation Rooms (Bolivia, Colombia, Ecuador, Guyana, Peru, Surinam and Venezuela) were installed to monitor deforestation in the Amazonian region. In Brazil, it was not necessary because the Regional Center of Amazon already had been in charge of the monitoring of amazon region (see Table 03).

The locations and the space facilities were of national responsibility, while the project, according to the needs required by each country for monitoring, provided in computer equipment, video conference equipment, internet services, personnel trained in INPE/CRA and, if necessary, technical support for its start up.

Once installed, periodic technical meetings were held to discuss issues related to the operation of the rooms and to define regional products. For this purpose, Regional Meeting of Observation Rooms was started since 2012.³

- **Research Activities**

Originally planned as independent units to the Observation Rooms, during the implementation of the project, most of the countries were in favor of integrating the operation of these two rooms or merging as an academic entity.

In this sense, the rooms have been carrying out (i) research on methodologies and new monitoring techniques; as well as (ii) studies on the influence of socio-economic phenomena.

- **Regional Products: Maps on Amazon Deforestation, Cover and Land Use**

The first regional maps on deforestation; were agreed in the I PSC (Bolivia 2012) and land use and forest cover in the IV PSC (Ecuador 2014). Their technical details were discussed at the OR Regional Meetings in Lima, Peru (October 2012) and Bogotá, Colombia (October 2014) respectively.

³ Lima, Peru (October 2012); Paramaribo, Suriname (November 2013); Bogotá, Colômbia (October 2014); and Santa Cruz, Bolivia (November 2015).

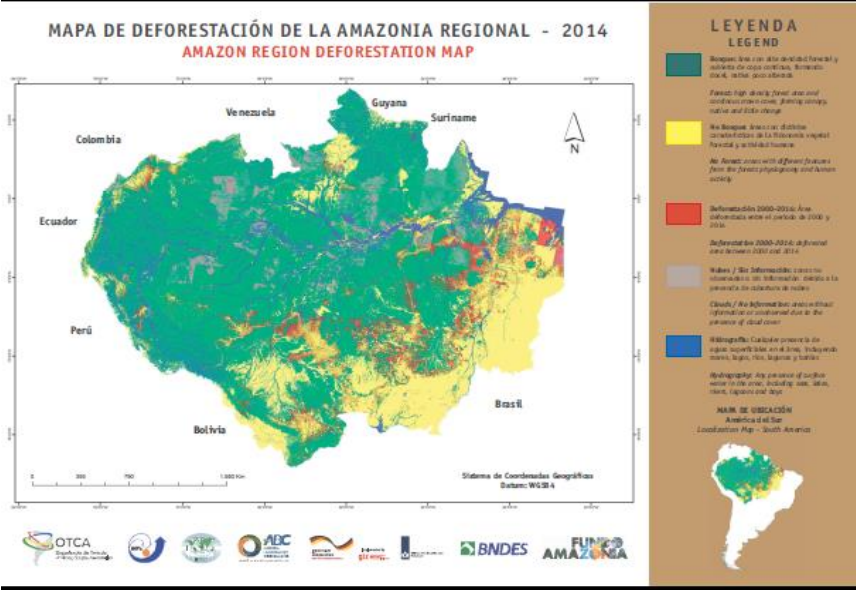
The regional maps have protocols or technical standards previously defined and are developed from national data delivered by the ACTO MCs based on formats, scale, and details pre-established and agreed by the countries. This information is then systematized, processed and worked in the INPE / CRA (Belem).

- Maps on Amazon Deforestation

The first Regional OR Meeting (October 2012) was held in 2000 as a base year. In order to facilitate the integration of the each country’s results about regional product, according to the countries, the national data are sent to Regional Amazon Center of INPE, in Belem, Brazil to compilation and edition of the respective proposal of regional map. After that, the proposal of regional map is submitted to the countries for consultation according to the official corresponding channels of the ACTO for final approval.

In total five regional maps on deforestation have been produced at INPE/CRA: 2000 - 2010, 2010 -2012, 2013 -2014, 2014 -2015 and 2015 -2016. The first three of them have been presented at the 20CC COP (December 2014) and the rest of them at the 11 UNFF (2015) and 12 UNFF (2017) to show the ACTO MC commitments to fight against amazon de forestation.

3rd Regional Map on Amazon Deforestation 2014

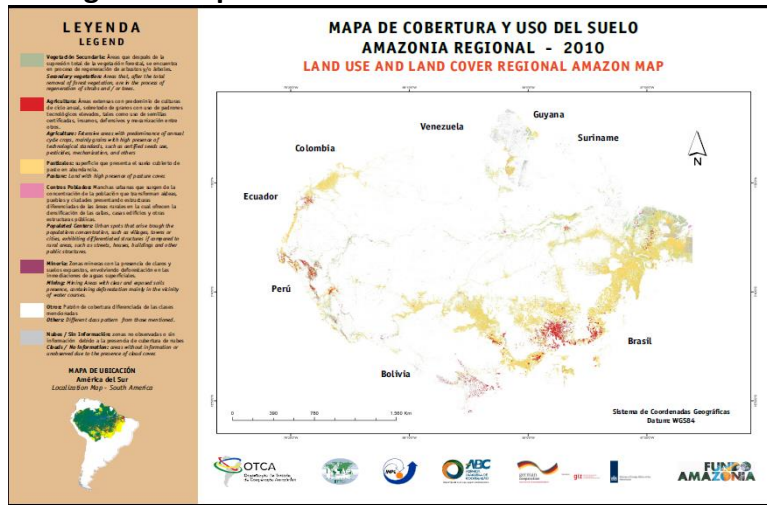


- Maps on Forest Cover and Land

Utilizing the information of the maps on amazon deforestation, in 2015 the countries agreed to prepare new regional maps on cover and land use, understanding that this information is relevant in the monitoring process due to its relation with the process of forest conservation.

Three are the regional maps for forest cover and land use: 2000-2010, 2010-2012 and 2012 -2014.

1st Regional Map on Cover and Land Use 2010



- **National Forestry Cover Monitoring Plans (NP_FCM)**

Agreed by the ACTO MCs, the objective is *"Promote the conservation and sustainable use of Amazon forests through the development and participatory implementation of national systems for monitoring forest cover; as well as the strengthening of existing platforms for dialogue at national and regional level."*

They had the following specific objectives:

- Spread in the ACTO MCs the existing information regarding infrastructure and monitoring technologies of the forest cover that can be adopted, disseminated and used effectively thanks to national plans developed adequately by all the Member Countries of the ACTO.
- Promote the incorporation of knowledge and experiences developed in the region according to local particularities.
- Support the development of a regional information system for the monitoring of forest cover and the promotion of a mechanism that institutionalizes dialogue at the sub-regional level as action priorities.

The plans formulation highlights that each country has its own geographical characteristics (amazon region, monitoring area, forest cover etc.); as well as socio-environmental conditions that define and guide the field of its action (policies, legal framework, involved population, etc.).

National Validation Workshops

The preparation of the plans began in 2013 and with the exception of one year of the countries, which did it a year later, the workshops culminated in 2014. Every workshop was carried out within the framework of participatory process conducted by national authorities responsible for forest cover monitoring.

Internally carried out consults had priority of strengthening the joint work among the organizations/governmental entities responsible for forest cover monitoring; as well as identifying opportunities of regional cooperation through implementation of programs and projects in regional scale. At the end of the national processes, the results were validated in national workshops.

Table 05: National Validation Workshops

NATIONAL WORKSHOP	LOCATION	DATE
Bolivia	Santa Cruz	May 2014
Colombia	Bogotá	August 2014
Ecuador		
Guyana		
Perú	Lima	October 2013
Surinam	Paramaribo	May 2014
Venezuela	Sartenejas, Baruta	November 2015
REGIONAL WORKSHOP	Lima, Perú	August 2014

Regional Workshop (2014)

With the participation of the eight ACTO Member Countries, the Regional Workshop was held to present the plans formulated in Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela. The objective was to know in detail and discuss about actions identified in the plans that address national and regional challenges with significant consequences for the sustainable development of the region.

The plans highlighted the importance of forest monitoring to set the bases of forest management; coordination among the responsible entities to the control for deforestation; achievements in aspects of national quantification of deforestation and carbon monitoring; and pressure on natural heritage as a base to define public policies to guarantee its sustainable management, conservation and restoration.

They also pointed the needs to: implement a technical and political structure that is gradually implemented and ensures the sustainability of the National System of Forest Cover Monitoring and the articulation among the various entities of the State at national and regional level; consider the national monitoring plan as multifunctional and useful for as many factors as possible; build a forest monitoring system in a coordinated manner for the planning of forest management and comply with the international commitments, as well as the need for permanent training were mentioned.

At the end of the workshop, the participant delegates of the ACTO MCs agreed on the following: (i) prioritize the implementation of **National Monitoring Systems**; (ii) strengthen and institutionalize the monitoring of forest Cover by consolidating the **Monitoring Units** installed by the Monitoring Project; (iii) design and implement **Systems for Information Management** (Annex 01); (iv) develop **Personnel Training** programs in monitoring

techniques; as well as (v) have an appropriate *Technological Platform* for the monitoring of forest cover (Annex 02).

4. PROJECT OUTCOME, TARGET BENEFICIARIES INVOLVEMENT

One can identify two types of beneficiaries: direct and indirect. The first ones are countries itself and its Amazonia Region in particular since RED PD 029/09 rev1F Project will provide more information on the forest resources, deforestation and land tenure, land use change and logging among the Amazon countries leading to enhance decision-making processes and creating an appropriate normative framework.

The Monitoring Project enabled achievements and results within each Member Country to support the continuity of governmental initiatives related to deforestation monitoring and land use change. The National Coordination Unit installed in each of the Member Countries facilitated the agreements related to the development of monitoring systems in the Amazon region.

The National Coordination Units installed in each of them facilitated the agreements related to the development of monitoring systems in the Amazon region. Such a system will get the necessary political and social support only if it creates a benefit for the largest number of actors: government, academy, civil society and the private sector. The success of the system lies on a variety of institutional, political and social agreements.

On other hand, the inhabitants of the Amazonia, even though indirectly but most certainly have also been benefit from the project since they live not only on the region but live as well of the forest products. Now ACTO MC are better equipped and dispose of better knowledge to monitor and conserve the Amazon ecosystem. The introduction of monitoring systems will improve the ability to safeguard the subsistence contribution of forests within the rural economy and enhance the quality of life of the Amazonian population, but also contributed to the current problems of deforestation, erosion, sedimentation, and water pollution, with concomitant impacts on human health and welfare.

Finally, the world itself will be benefited since it is known that the Amazon biome represents approximately 30% of all the tropical forests left in the world and is essential for the environmental stability of the planet. More than one hundred trillion tons of carbon is sequestered in the region. Its plant mass releases approximately seven trillion tons of water into the atmosphere per year through evapotranspiration, while its rivers discharge close to 20% of the all fresh water that flows into the oceans.

In the Member Countries, there were many reasons to join the project and some of them mainly were related to existing capacities and levels of progress in environmental monitoring in the country. There was the attraction on the offer of the technical installation of the Observation Room, including its staff financed by the project and under the strategic guidance of each country. There was also the interest in knowing in detail and having access to the technology of the Brazilian deforestation monitoring system.

5. ASSESSMENT AND ANALYSIS

The Monitoring Project is an ACTO initiative (Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela) responding to countries' political mandate for the Permanent Secretariat to intensify its efforts for the implementation of a coordinated regional system for "*the identification of actions to reduce and monitor deforestation ...*" (Manaus, Brazil, November 2009). ACTO initiative looks at developing and implementing systems for monitoring forest cover in the Amazon; and strengthen existing regional coordination platforms for forest management.

Its main objective was to contribute to governance regarding deforestation and land use issues in the Amazon region, providing information on the extent and quality of forest cover. Its implementation was possible thanks to the cooperation of the International Tropical Timber Organization (ITTO) and the German –Netherlands Cooperation; as well as those of the National Bank for Economic and Social Development of Brazil - BNDES/Fundo Amazonia. As important as their funds has been the technical support of the National Institute for Space Research of Brazil (INPE), since its beginning in 2011 until the project closure on April 2018.

Like any ACTO regional project, the Monitoring project has national and regional actions carried out in coordination with the competent national authorities. Working closely together with them as well as donors and strategic partners like INPE, during its implementation the project has achieved important results:

- Seven (07) Observation Rooms (2012-2013).
- Seven (07) National Plans developed for Monitoring Forest Cover (2013-2014).
- Five (05) Training Programs at INPE/CRA in Belem (2011 -2017) for monitoring deforestation (Terra Amazon); land use (Terra Class); forest fires; and radar images.
- Eight (08) Regional Maps: 05 on Deforestation and 03 Forest Cover and Land Use (2012 -2018).
- Research activities in deforestation degradation and forest fires (2015 -2018).
- Regional Cooperation Opportunities in illegal deforestation, forest degradation and forest fires (2014 -2017).

6. LESSONS LEARNED

Achieving unanticipated results at the outset of the project as the commitments to produce the regional level of maps of deforestation, land cover and land use are largely due to the linkage of progress in a strategy at regional level, with benefits for each country respecting the sovereignty of each of them. The training of the professionals and the institutional agreement in each country on the location of the ORs resulted in the good use of the individual knowledge within the national institutional arrangement and finally the interaction with the diplomatic level through ACTO.

The success of the project is due to multiple factors including the project's performance at the diplomatic, political and technical levels as well as linking their performance in political dialogue, support for institutional arrangements and support for capacity building. The

role of facilitator was assumed by ACTO, which supported and monitored processes in the countries without direct interference. But without a doubt, the success has been beyond the diplomatic or political decisions and encompassed the performance of the technical level and the capacity of collaborative production.

Throughout the project, the roles of those involved have been transformed. The Observation Rooms have assumed a more active role, contributing with proposals and suggestions for their work plans and for the definition of the goals within reach. These are integrated processes in the area of interaction under the facilitating roles of project management in the Permanent Secretariat of ACTO.

The processes of incorporating knowledge, in addition to creating results in ACTO Member Countries, have led to changes in the institutions' approach, which are the platforms of the knowledge exchange process, in addition to ACTO, INPE, and Observation Rooms of the Monitoring Project. These were:

- **IN ACTO MEMBER COUNTRIES**

In the Member Countries there were many reasons to join the project and some of them were mainly related to existing capacities and levels of progress in environmental monitoring in the country. There was the attraction of the offer of the technical installation of the Observation Room, including its staff financed by the project and under the strategic guidance of each country. There was also the interest of knowing in detail and having access to the technology of the Brazilian deforestation monitoring system.

The Monitoring Project enabled achievements and results within each Member Country to support the continuity of governmental initiatives related to deforestation monitoring and land use change. The National Coordination Unit installed in each of the Member Countries facilitated the agreements related to the development of monitoring systems in the Amazon region.

- **IN THE ACTO**

The received political support has facilitated the strong consensus needed. From the perspective of the Permanent Secretariat, the Monitoring Project created its model of cooperation and serves as a successful model for future projects. According to analyzes, the combination of the political-diplomatic process together with actions of the technical scope and permanent networking created a visible and rapid benefit.

The Secretariat considers the strong political will, the identification of needs and funding opportunities as the main catalysts of the arrangement. Therefore, the exchange of knowledge in future projects should be composed of at least three elements: information exchange, knowledge sharing and capacity building.

- **IN INPE/CRA**

INPE-CRA responded to the new demands expressed by the representatives of the Member Countries with changes in their approach and the provision of training. The CRA promoted trainings in the management of Brazilian systems, but considers these as an offer and

inspiration of dialogue that motivates other countries to continue developing their monitoring systems, applying what they find useful.

In addition, INPE shares its knowledge about other systems developed beyond Terra Amazon, which serve the most demanded applications, such as fires, hot spots, degradation and land use. With respect to the CRA, the project has contributed to broadening and deepening its own regional perspective, especially the importance of regional strategies in technical and political aspects.

The knowledge of INPE as well as the Brazilian government in monitoring was undoubtedly and is still of great attraction and gave important impetus to the formation of knowledge in each country according to the each one's needs. Therefore, the forms of knowledge exchange were broadened.

- **IN THE OBSERVATION ROOMS**

The decision to draw up the regional map shortly after the installation of the Observation Rooms caused them to begin production rapidly. The great acceptance of the regional maps by the international community was a motivating and encouraging element to continue the agreement in 2012 with the elaboration of regional maps of deforestation and to begin in 2015 those of land use and cover.

At the same time, it triggered a dynamic development of the rooms, making them assume a new role in the project. The production of updated reports on the situation of deforestation in the country by ORs has created an immediate and visible benefit. Therefore, the forms of knowledge exchange were broadened.

7. CONCLUSIONS AND RECOMMENDATIONS

During the six years of its implementation (06.2011 -08.2017) the ACTO Monitoring Project required from its eight ACTO Member Countries: (i) consensus (ii) a consultation processes; (iii) a regional dialogue; (iv) support for national and regional implementation; and (v) commitment to engage in regional products (deforestation and forest cover maps).

The project has contributed to a collaborative and collective work of national entities regarding the production of information on the Amazon forests on deforestation. Support has improved significantly for country management decision-making by strengthening existing forest platforms for regional coordination. It also has improved interaction between the Amazon countries allowing joint actions within the framework of dialogue and coordination platforms; capacity building is an essential tool for forest governance in the Amazon; and design specific instruments to address the challenges of the region such as the preparation of regional maps of the Amazon deforestation and forest cover.

In more than one opportunity ACTO MC representatives, project donors like PRA/GIZ and BNDES/ Amazonia Fund, as well as strategic partners have declared their satisfaction with the achievement of project objectives. On the one hand the Extraordinary Meeting of the Amazon Cooperation Council -CCA (Cochabamba, Bolivia. September 2016); the IV Forest Authorities Meeting (Brokopondo, Suriname. March 2017); and the XIII Foreign Relations

Ministers of ACTO MC (Tena. Ecuador. December 2017), have pointed the importance of project activities at the national level helping countries in monitoring deforestation and the strengthening of Institutional commitments.

They also expressed their “..... satisfaction for the successful implementation of the Project Forest Cover, which is an example of South South Cooperation, and coincided in the importance of going further through a new project that deals with issues not yet considered as those related to the relationship between Climate Change and Forest”, are not strange.

Also donors like PRA/GIZ and Fundo Amazonia /BNDES, have favorable comments. Documents like “Knowledge Sharing in the Framework of multilateral Regional Cooperation” (BSB. August 2015) recognize how the project has respond to countries need for capacity strengthening and ACTO MC demands of regional initiatives and actions for sustainable development in the Amazonia.

Moreover there is certainty that the sustainability of the activities at the national level regarding monitoring deforestation will continue after the closing of the project in September 2018 due to the after project institutional structure. Important to point out that in the near future new actions at the regional level regarding deforestation and forest degradation and its relation to climate change are expected to continue and expand under a new South -South cooperation with FA/BNDES from Brazil through the Project “Forests and Climate Change”

7.1 Recommendations

Monitoring the deforestation of the Amazon rainforest by its own characteristics is an innovative project. It touches areas of great sensitivity at the national level of each country and needed a consensus and commitment among eight countries with very different characteristics and governments with different political orientation.

Thanks to ACTO's support of organizational processes and political exchanges, a phase of development was achieved, where the backlog of knowledge produced by project impulses or central instances of the project should be taken more into account. Some protagonists affirm that their knowledge could contribute more to the joint advance, which shows the importance of creating spaces and forums for these circular dynamics. During its implementation, the project promoted trust and transparency among the actors; with consideration of the particular characteristics of all countries, which facilitate their adaptability and flexibility.

- **Trust and Transparency**

The Project had benefits for each country with the respect of the sovereignty of each one of them. The progress of the project was the catalyst for building trust, because it reinforced the vision of joint effort on a theme of great relevance. Unquestionably, the continuity of the personnel involved favored the creation of trust.

For the ORs, the technical language shared by all was also a favorable factor because it reinforced the vision of joint effort in a theme of great relevance. Unquestionably, the continuity of the personnel involved favored the creation of trust.

- **Adaptability and Flexibility**

The Monitoring Project developed a regional consensual strategy. Thanks to the flexibility of all parties involved in project implementation, especially partners and donors, the knowledge exchange approach can be broadened and modified by introducing new themes, formats and elements, thus gaining greater momentum.

This flexibility was a key element in providing timely support to address the knowledge exchange approach at the different levels involved.

Responsible for the Report

Name: Carlos Salinas M.

Position held: Project Coordinator

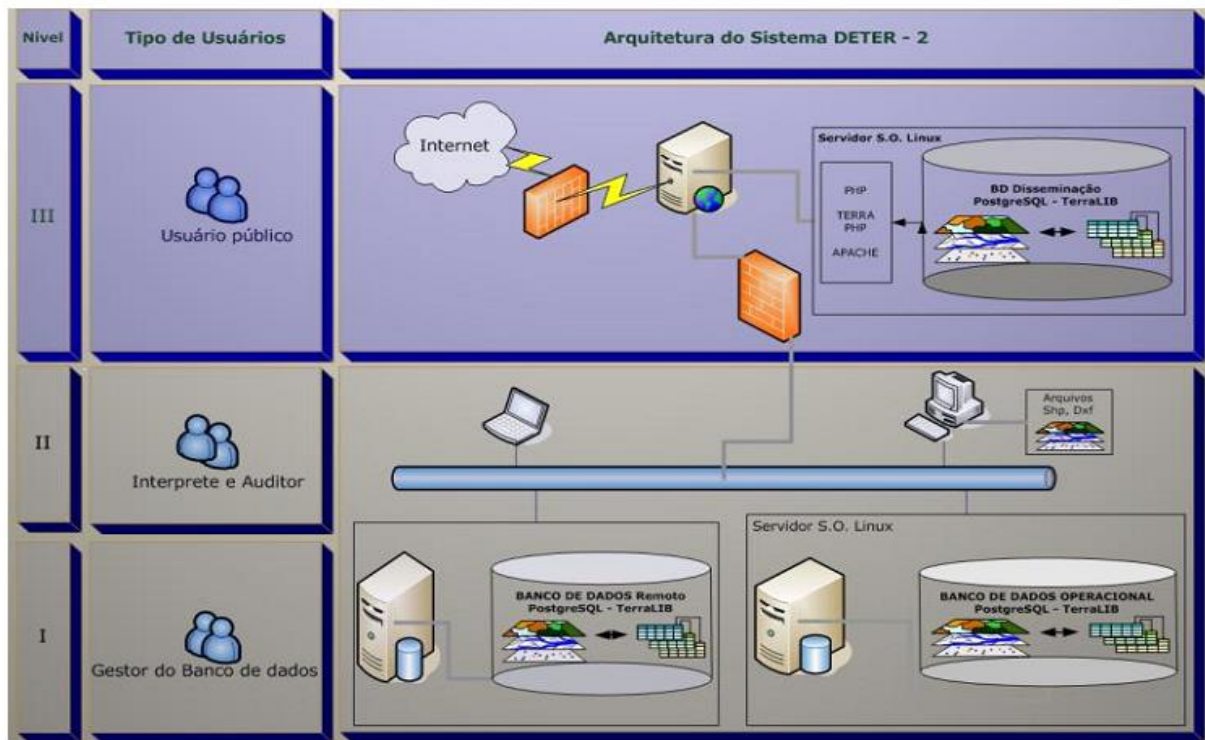
Kelly Nishikawa (Financial Statements)

Date: December 27th, 2018.

Annex 01: Information Systems for the Forest Cover Monitoring

COUNTRY	INFORMATION SYSTEM FOREST COVER MONITORING
Bolivia	<p>Information System and Forest Monitoring-SIMB It generates information from various periods to analyze and understand deforestation trends, and therefore build management processes with an information base (DS 2914. 2016).</p>
Colombia	<p>National System of Environmental Monitoring–SINA (IDEAM): Since 2013, annual information on the rate of deforestation and quarterly bulletins of early warning of deforestation has been provided.</p> <p>Earth Cover Monitoring System in the Colombian Amazon-SIMCOBA (SINCHI): Responsible for the management of environmental information in the Colombian Amazon regarding the "monitoring" of the environment and natural resources. It also designs: GIS geographic information systems applications; analysis and modeling of geo-referenced information, thematic, digital and printed cartography, databases, processing and interpretation of satellite images, land evaluation, environmental indicators, and methodologies for the integral analysis of the territory and support for information management processes.</p>
Ecuador	<p>National Forest Monitoring System -SNMB (Ministry of Environment -MAE): Conceptualized in 2013, the SNMB is currently in the process of institutionalization. The system is operational and its main objective is to generate up-to-date and official information on forests as a basis for the ordering and land management</p>
Guyana	<p>System “Monitoring Reporting & Verification -MRV” (Guyana Forestry Commission -GFC):</p>
Perú	<p>National System of Environmental Information -SNIA (Ministry of the Environment) / National Forest and Wildlife Information System -SNIFFS (Forest and Wildlife Service of the Ministry of Agriculture SERFOR): The Forest Cover Monitoring Module is part of the SNIA (Ministerial Resolution 324-2015-MINAM) and SNIFFS (Legislative Decree DL 1220). Generates joint official information between MINAM / MINAGRI on forest loss (deforestation), degradation, early warnings, forest cover and land use change. The data on deforestation are worked annually among the National Program of Conservation of Forests for the Mitigation of Climate Change (PNCB of MINAM and MINAGRI).</p>
Surinam	<p>The Forest Monitoring Unit (FCMU) was established in 2012 within the Foundation for Forest Management and Production Control (SBB). With the participation of the Observation Room of the ACTO Monitoring Project, the REDD + Strategy has been worked on and the regional forest monitoring platform strengthened. The intention is to produce deforestation maps annually</p>
Venezuela	<p>No information was reported.</p>

Annex 02: INPE's Technological Platform



Annex 3 Project Financial Statement

Annex 4 Project Cash Flow Statement