

ALTO MAYO CONSERVATION INITIATIVE MONITORING & IMPLEMENTATION N°2 (2012-2014)



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CCBS SUMMARY PAGE - ENGLISH

- i. **Project Name:** Alto Mayo Conservation Initiative
- ii. **Project Location:** Peru, San Martin Department
- iii. **Project Proponent:** Conservation International – Perú
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- v. **Project Start Date:** June 15, 2008 and **GHG accounting period and project lifetime:** 20 years from project start date
- vi. **Project implementation period covered:** From June 15, 2012 to June 14, 2014
- vii. **History of CCBS status:** Validated, and 2008-2012 monitoring period verified in December 12, 2012
- viii. **CCBS edition:** second edition
- ix. **Project's Climate, Community and biodiversity benefits:** Over the last two years of project implementation significant results have been achieved in the effective management of the AMPF, as evidenced by a reduction in the rate of deforestation, increased capacity of the park staff, and strong working relationships with local communities. The project was able to avoid the emissions of 1.75 MtCO₂, conserve over 144,000 ha of forest, and provide direct benefits to over 600 families participating on the Conservation Agreements. This represents approximately 50% of the population within the AMPF who are actively engaged with the project. The impact also goes beyond the subscribers, as it was reported for example that non-subscribers of Conservation Agreements have learned how to prepare organic fertilizers from subscribers.

In addition to the direct benefits provided to coffee farmers through the Conservation Agreements, the project has also served to build dialogue and trust between the settler community and the AMPF Head Office. The AMPF has seen a dramatic shift in these attitudes since work began in 2008, when many of the local settlers did not recognize the authority of the State over the AMPF, and the settler-government relationship was marked by confrontation and distrust. These attitudinal changes that have been catalyzed as a result of the project activities are laying an important foundation of enabling conditions, and, they can be used as a basis for developing a dialogue about further community social and economic development needs and priorities, which would otherwise not have been possible. As an example, the project was able to stabilize the socio-environmental conflicts of Aguas Verdes, and implement the agreement with the *rondas campesinas*.

Since the project began, awareness and attitudes in the area have changed rapidly and trust between stakeholders has been steadily built, largely as a result of the platform that conservation agreements provide.

The Alto Mayo project has invested heavily in sustainable coffee production both as a way of reducing deforestation in the project area and also as a way of providing tangible economic benefits to local settlers. The impact on livelihoods is notable given the backdrop of the widespread coffee rust disease that has negatively affected almost all coffee production in the area. The techniques and assistance delivered through conservation agreements have improved the resilience of participating settlers in the face of environmental stresses. With the support of the project, the area of coffee under agro-forestry system has increased almost 300% compared with 2012 numbers and approximately 1/3 of the subscribers have noticed an improvement on their revenues, in spite of the pest occurrence.

The project recognizes that there is a range of social and economic development needs within both the project area and the buffer zone. In conjunction with the support for improved coffee production through the conservation agreements and the resulting enhanced income, the project is working to deliver a variety of social and economic benefits, including:

- Employment: From 2012-14, nearly US \$1 million paid in direct wages to 124 local people to assist with project activities including day laborers, rangers, and technical assistance experts.
- Education: The project is working closely with the regional government to obtain commitments for investments of US \$1.8 million in education facilities and US \$0.7 million in healthcare infrastructure in the buffer zone.
- Safer cooking: Improved cook stoves that reduce smoke within homes, improve household health, and decrease the use of firewood have been installed in the homes of 97 families. 550 families who are Conservation Agreement subscribers have started using coffee tree pruning as a source of firewood.
- Infrastructure: The project has been assisting the *rondas campesinas* to negotiate for improved infrastructure such as roads, bridges and schools in the buffer zone. Additionally, improvements were achieved in the management capacity of the AMPF Head Office, with the acquisition of equipment, hiring and training of staff, installation of control check points and visitor and educational centers.

Important impacts were also achieved regarding the conservation of biodiversity and natural resources of the AMPF:

- Primates: The continuous monitoring of primates was able to record two new species *Cacajao calvus* (red uakari monkeys) and *Ateles belzebuth* (spider monkeys) that were not observed in the baseline studies, and could be considered an indicator of the good health of the forest.
- Reforestation: The project also has contributed to the gradual recovery of ecosystem through the establishment of agroforestry and silvopastoral systems. Over 185 ha were

reforested using native species of 2012-2014, including important areas for conservation such as headwaters and riverbanks.

- **Patrolling:** The increased effort in communications and environmental awareness has contributed to the recognition by the local population of the importance of AMPF and its environmental services, as for instance, while in 2012, 95% of subscribers expressed that they used firewood, this percentage decrease to 26% in 2014. However the threats to AMPF and its biodiversity are still present. A large number of findings and interventions associated to threats within the AMPF were registered in this monitoring period. This increase can also be considered an indicator of the greater patrolling efforts.

Furthermore, during this reporting period the signature of the Administration Contract between CI-Peru and SERNANP on behalf of the AMPF was finalized. This contract is a technical, legal and financial mechanism sustained by the laws of natural protected areas, which SERNANP has delegated to CI-Peru. It is also the framework that underpins all project activities and the instrument by which the project is allowed to retire carbon credits for SERNANP.

Golden Level criteria: The project is opting for Exceptional Biodiversity Benefits: AMPF has been identified in many conservation priority analyses as being of exceptional importance for the protection of global biodiversity. Over 1,200 species of plants distributed over 118 family and 378 genera have been identified in the Alto Mayo forests. This number includes 59 species of orchids, among them is the endemic to Alto Mayo orchid (*Phragmipedium peruvianum*). The project area is also habitat of 25 species categorized by the International Union for Conservation of Nature (IUCN) as Critically Endangered (CR) and Endangered (EN), and other 21 categorized as Vulnerable.

- x. **MIR developed by:** Conservation International, Version: 1.0 completed on Sept 19, 2014

CCBS SUMMARY PAGE - ESPAÑOL

- i. **Nombre del proyecto:** Iniciativa de Conservación del Bosque de Protección Alto Mayo
- ii. **Ubicación del proyecto:** Departamento de San Martín, Perú
- iii. **Proponente del proyecto:** Conservación Internacional – Perú
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- v. **Fecha de inicio del proyecto:** 15 de Junio del 2008 y Periodo de contabilidad de GEI y
Duración del Proyecto: 20 años desde la fecha de inicio.
- vi. **Periodo de reporte de implementación del proyecto:** Desde 15 de junio del 2012 al 14 de Junio del 2014
- vii. **Historia del estado de CCBS:** Validado y verificado para el periodo de reporte 2008-2012 el 12 de Diciembre del 2012
- viii. **Edición del CCBS:** Segunda edición
- ix. **Beneficios del proyecto sobre el Clima, la Comunidad y la Biodiversidad:** En los últimos dos años de la implementación del proyecto se han conseguido resultados significativos en el gestión efectiva del BPAM, ello se refleja en la reducción de la tasa de deforestación, en el fortalecimiento de las capacidades del equipo de la gestión del área y en el importante esfuerzo realizado conjuntamente con la población local. El proyecto ha logrado evitar la emisión de 1, 750 million de toneladas de CO₂, conservadas en más de 144.000 ha de bosque y beneficiar directamente a más de 600 familias, suscriptoras de los Acuerdos de Conservación, que representan aproximadamente el 50% de la población asentada dentro del BPAM que son aliados activos de la gestión de esta importante área. Estos impactos benefician también a las familias no suscriptoras, quienes por ejemplo han aprendido a preparar *bokashi* (abono orgánico) gracias a las enseñanzas de sus vecinos y parientes suscriptores.

Más allá de los beneficios tangibles otorgados a los suscriptores para la mejora de sus cafetales, el proyecto ha contribuido significativamente a construir canales de comunicación y estrechar los lazos de confianza entre la Jefatura del BPAM y la población local asentada en su interior. Desde que comenzó el proyecto en el 2008, los cambios en la actitud de la población ha sido enormemente favorable para la gestión del BPAM, basta recordar que en esos años, la población local no reconocía la autoridad de la Jefatura dentro del Areas Naturales Protegidas y sostenía una relación mas bien tensa, de desconfianza y hasta cierto punto no amigable. Estos cambios se han logrado gracias al apoyo del proyecto y al enfoque de las estrategias para establecer y crear las condiciones sociales idóneas para gestionar esta área; estas estrategias han servido

incluso para establecer canales de diálogo que puedan ayudar a gestionar la satisfacción de las necesidades básicas de la población local, sustentadas en un desarrollo sostenible, éste contexto no se hubiera dado sin la presencia del proyecto. Por ejemplo, el proyecto ha ayudado enormemente a estabilizar y plantear soluciones concretas al mayor conflicto socioambiental del BPAM en Aguas Verdes, que incluye apoyar en el diseño e implementación del acuerdo entre la Jefatura del BPAM y 19 rondas campesinas asentadas dentro de esta área.

Desde los inicios del proyecto y con el apoyo de nuestros socios estratégicos, la sensibilización y los cambios de actitudes en la población local cambiaron rápida y sosteniblemente, creando una sólida confianza gracias a los acuerdos de conservación.

La fuerte inversión del proyecto en la mejora productiva de los cafetales tiene como objetivos reducir la deforestación en el área del proyecto y generar beneficios económicos tangibles a la población local. La asistencia técnica brindada en la implementación de los sistemas agroforestales con café ha ayudado en gran medida a minimizar los efectos negativos de la roya del cafeto, fortaleciendo las capacidades de la población suscriptora de los Acuedos de Conservación para enfrentar tal contexto. Con el apoyo del proyecto, el área de estos sistemas agroforestales con café aumentaron casi 300% comparado con las estadísticas del 2012 y aproximadamente 1/3 de los suscriptores son testigos de las mejoras en sus cafetales, incluso con el ataque de la roya.

El proyecto no es ajeno a las necesidades de desarrollo socioeconómico presentes en el BPAM y en su zona de amortiguamiento. Paralelamente al apoyo en la mejora de los cafetales en el marco de los acuerdos de conservación, se está desarrollando un paquete de beneficios socioeconómicos que incluyen:

- Empleo: durante el periodo 2012-2014, cerca de un millón de dólares han sido pagados directamente a 124 personas de la localidad sea como jornales, guardaparques o técnicos.
- Educación: el proyecto está coordinando permanentemente con el Gobierno Regional para lograr la inversión de US \$1.8 millones en la construcción de escuelas y US \$0.7 millones en la construcción de centros de salud, todo ello en la zona de amortiguamiento.
- Salud en la cocina: se ha beneficiado a 97 familias con la construcción de cocinas mejoradas, las cuales reducen el humo dentro del hogar, mejorando la salud de la familia y disminuyendo el uso de leña. En adición, 550 familias suscriptoras de los acuerdos de conservación están utilizando los restos de la podas de café como leña.
- Infraestructura: El proyecto ha brindado asesoría a la Jefatura del BPAM en la negociación de la construcción de puentes, mejoramiento de caminos y mejoramiento de escuelas que benefician a las rondas campesinas. Adicionalmente, se ha fortalecido las capacidades propias de la Jefatura, mediante su equipamiento, contratación y capacitación del personal, construcción e instalación de puestos de control y la adquisición de áreas para la futura construcción de centros de interpretación y educación ambiental.

Así mismo, se han generado importantes impactos a nivel de la conservación de biodiversidad y del manejo de recursos naturales del BPAM, tales como:

- **Primates:** El permanente monitoreo de primates ha logrado dos nuevos registros: *Cacajao calvus* (el guapo colorado) y *Ateles belzebuth* (el mono araña) que pueden ser indicadores del buen estado de conservación de sus hábitats.
- **Reforestación:** el proyecto también ha contribuido con la restauración gradual del ecosistema mediante el establecimiento de sistemas agroforestales y silvopastoriles. Durante el 2012-2014, más de 185 ha han sido reforestadas con especies nativas, que incluyen áreas de alta importancia ecológica como las cabeceras de cuencas y franjas ribereñas.
- **Patrullaje:** Los mayores esfuerzos en comunicaciones y educación ambiental contribuyeron a generar el reconocimiento sobre la importancia del BPAM y sus servicios ecosistémicos en la población local; por ejemplo, en el 2012, 95% de los suscriptores mencionaron que usaban leña extraída de los bosques, este porcentaje disminuyó a 26% en el 2014. Sin embargo, las amenazas al BPAM y su biodiversidad aún persisten. Durante el presente periodo de reporte, las estadísticas sobre los hallazgos e intervenciones realizadas dentro del BPAM aumentaron, pero esto también refleja el arduo esfuerzo de la labor de los guardaparques.

Adicionalmente, durante el periodo de reporte se concretó la firma del Contrato de Administración entre CI-Perú y el SERNANP. Este contrato es un mecanismo técnico, legal y financiero enmarcado en la ley de áreas naturales protegidas del Perú. Mediante las responsabilidades delegadas a CI-Perú, el SERNANP otorga las atribuciones necesarias para realizar todas las actividades del proyecto y es el instrumento que permite el retiro de los bonos de carbono.

- x. **Criterio del Nivel Oro:** El proyecto está optando por los Beneficios Excepcionales de Biodiversidad: El BPAM ha sido identificado en varios análisis de prioridades de conservación como una zona de alta importancia para la protección de la biodiversidad mundial. Más de 1,200 especies de flora distribuidas en 118 familias y 378 géneros han sido identificados en los bosques del Alto Mayo. Estos números incluyen 59 especies de orquídeas, entre ellas figura la *Phragmipedium peruvianum* como endémica del Alto Mayo. El área del proyecto es hábitat de 25 especies categorizadas por la Unión Internacional para la Conservación de la Naturaleza (IUCN en inglés) como Críticamente Amenazadas (CR) y Amenazadas (EN), además 21 especies adicionales están categorizadas en situación Vulnerable (VU).
- xi. **PIR desarrollado por:** Conservación Internacional, Versión: 1.0 completado el 19 de Septiembre del 2014.

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1 GENERAL

1.1 Summary Description of the Project (G3)

The Alto Mayo Protected Forest (AMPF) covers approximately 182,000 ha of land in the Peruvian Amazon of extremely high value for biodiversity conservation and watershed protection. Conserving the Alto Mayo forests is critical for mitigating global climate change, conserving biodiversity, and ensuring the provision of ecosystem services to the local population.

The Alto Mayo Forest Carbon Project helps to conserve the ecologically rich AMPF, which provides vital fresh water supplies to downstream communities, and is home to many threatened and endemic plant and animal species, such as the yellow-tailed woolly monkey (*Oreonax flavicauda*)

The AMPF was established as a protected area in 1987; however, even with this important designation, the protected area faces intense deforestation pressure from unsustainable farming practices. In 2000, the AMPF was ranked as having the second largest area of deforestation among Peruvian Natural Protected Areas.

In response, Conservation International and its allies in the region designed the Alto Mayo Conservation Initiative (AMCI), whose main goal is to promote the sustainable management of the AMPF and its ecosystem services for the benefit of the local populations and the global climate. To meet these goals the project initially developed five strategies, adding a sixth after the first monitoring period. The strategies now are:

- S1 - Improve the governance and enforcement capabilities of the AMPF local Head Office;
- S2 - Promote sustainable land use practices that will reduce deforestation and forest degradation within and beyond the AMPF's boundaries through the signing of Conservation Agreements with local communities;
- S3 - Promote change in the perception of the local population towards the importance of the AMPF by increasing its environmental awareness and involvement in the conservation of the Protected Area;
- S4 - Ensure the long-term sustainability of the AMCI by creating long-term financial mechanisms through carbon financing and other PES schemes;
- S5 - Integrate the AMPF in the broader policy agenda at the local, regional and national level, and more recently;
- S6 - Strengthen the relationship and consolidate the processes and mechanisms of participative management and conflict resolution with the communities in the project zone under a social management strategy.

For further details please refer to Section 1.8 of the VCS PD.

1.2 Project Location (G1 & G3)

The project area corresponds to the Alto Mayo Protected Forest (AMPF), an area of 182,000 ha in the northern Peruvian Amazon situated in the department of San Martín, between coordinates 5° 23' 21" S, and 77° 43' 18" W upper left corner and 6° 10' 56" S and 77° 12' 17" W lower right corner. While the AMPF comprises 182,000 ha of land, the VCS defines the project area as the forested area within the AMPF at the project start date, or 153,929 ha of forest.

The leakage belt, as described in detail in Section 2.3 of VCS PD, was estimated as the most probable areas where activities carried out by individuals and communities affected by the project could be displaced to. The leakage belt has a total area of 47,428 ha, and it will be monitored as described in the Section 5.

The project zone includes the communities impacted by the project, and matches the AMPF buffer zone, as defined in the master management plan. The AMPF buffer zone covers an area of 247,656 ha, and its boundaries are delineated to the north and west by the boundaries of the watersheds that originate in the AMPF. In the east it is delineated by the Fernando Belaunde Terry highway, the main access road to the Upper Mayo River Basin. Figure 1 illustrates the location of the project area and zone.

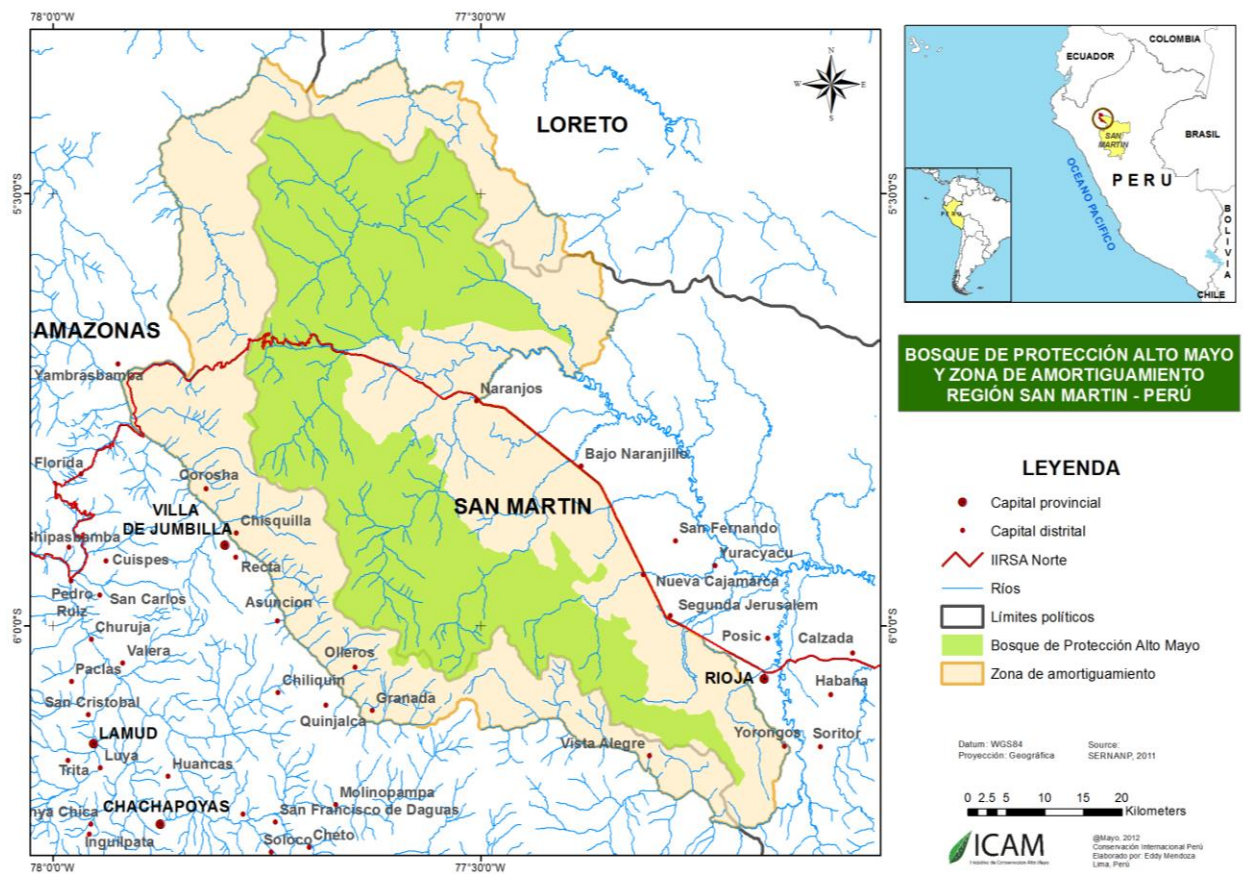


Figure 1- Location of the Alto Mayo Protected Forest and project zone

Geology and soils

The AMPF borders the Alto Mayo geological depression, a tectonic syncline located between the Sub-Andean belt to the northeast that has a large number of faults (such as the Cahuapanas Mountains), and an isolated branch that extends to the northwest of the Oriental Mountains (Cordillera Oriental) called the Ventilla Mountains or Piscohuañuna Mountains. The AMPF (the middle and southwest portion of the Cordillera Oriental) is formed by a sequence of pure marine gray limestone from the Triassic and Jurassic periods (250 to 145 million years BC) with extensive structural deformation and deeply dissected and integrated with sedimentary materials of sandstone quartz, gray clay sedimentary rock (shale), clay containing calcium and dark gray limestone.

The landscape is mountainous, as is the eastern part of the Cordillera Oriental that covers approximately 61% of the total area of the Alto Mayo basin. There are two predominant sub-landscapes that are directly related to the slope of the land, namely piedmont, which is characterized by slopes ranging from 20 to 30%, and mountains, which are characterized by slopes greater than 70%. The slope determines the extent to which the area is susceptible to erosion.

Much of the area is distinguished by residual soils that are the most predominant soil type in large hills and mountainous terrain with slopes exceeding 50%. The soil quality is related to the physiography of the area. Generally, soils are moderately deep to shallow, have low fertility and are at risk of erosion by rains. Given the mountainous conditions and the nature of the rocks and structural flaws in the area, there are diverse rocky outcrops and natural landslides which occur in addition to the landslides caused by the lack of natural vegetation.

Climate

The altitudinal gradient of the AMPF provides for a variety of climates that are characterized by fluctuations in average temperature, varying between 12°C and 25°C depending on the altitude. Annual rainfall ranges from 1,200 mm in the lower areas to more than 3,000 mm at altitudes of 1,200 meters above sea level. Rainfall is likely to exceed these levels at altitudes around 2,000 meters above sea level. There are two rainy seasons per year, the first being between September and December and the second occurring between February and April. In areas with permanent cloud cover, there is a unique microclimate with high saturation of humidity. Increased precipitation can be observed from Moyobamba to the headwaters of the Alto Mayo watershed on the Serranoyacu River. Peak rainfall is observed in March and October.

Hydrography

The Alto Mayo watershed extends over 794,000 ha. The upper reaches of the watershed, located in the far west where the Mayo River is formed, make up the AMPF. The Mayo River is the main river in the region and forms the central axis of the watershed. It flows from northwest to southwest and has a length of 300 km, 200 km of which fall within the AMPF forming several sub-watersheds.

1.3 Project Proponent (G4)

The project proponent is Conservation International Foundation (CI) through its Peru office (CI-Peru). CI-Peru is responsible for the implementation of the conservation strategies and has overall control and responsibility of the project. As per the Administration Contract, CI-Peru co-manages the AMPF together with the local Head Office of the National Service of Natural Protected Areas by the State (SERNANP). CI-Peru has the right of use of any greenhouse gas (GHG) emission reductions and/or removals arising during the contract period in connection with its performance of environmental services that generate GHG emission reductions and/or removals in the AMPF.

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1.4 Other Entities Involved in the Project (G4)

Servicio Nacional de Áreas Naturales Protegidas por el Estado (SERNANP)

The National Service for Natural Protected Areas Protected by the State (SERNANP) is the government agency responsible for establishing the technical and administrative criteria for the creation and protection of National Protected Areas in Peru. It manages Peru's National System of Natural Protected Areas (SINANPE, or *Sistema Nacional de Áreas Nacionales Protegidas por el Estado*) of which the AMPF is part of. SERNANP has a diverse array of conservation professionals with a wide range of areas of expertise that together make up the basis from which it manages the vast expanse of protected areas at the national level.

SERNANP participates in the project through the AMPF Head Office (*Jefatura*) which is its decentralized branch in charge of managing and protecting the AMPF in the field in accordance with an approved Master Plan. The AMPF Head Office is responsible for signing and monitoring Conservation Agreements with the local population, and is the ultimate authority within the AMPF.

SERNANP also supports the AMCI through its headquarters in Lima. For this project, the headquarters office has been particularly important for establishing the guidelines and legal framework for implementing Conservation Agreements within a Protected Area. It has also signed an Administration Agreement with CI-Peru which transfers the legal rights to CI to co-manage the area together with the AMPF Head Office through an Administration Contract. SERNANP is also interested institutionally in the possibility of the AMCI project becoming a model for financing the long-term management of an NPA through the valuation of its environmental services.

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Asociación para la Investigación y Desarrollo Integral (AIDER)

The Association for Research and Integrated Development (AIDER) is a Peruvian institution with over 18 years of experience in managing natural resource conservation projects in the Amazon. Its thirty-two staff members have extensive experience in REDD and other forestry related projects. AIDER has supported the successful validation and registration of the first Clean Development Mechanism reforestation project in Peru¹. It holds Administration Contracts for two NPAs in Peru, both of which are REDD projects undergoing VCS and CCB validation². AIDER is a technical advisor to the AMCI project, responsible for conducting the biomass inventory of the AMPF, doing background analysis of the agents and drivers of deforestation, supporting project implementation and contributing to the development of the Project Design Documents (PDD). Additionally, until May 2012, AIDER supported the project by hiring most of the AMPF Head Office personnel (specialists, park rangers and operational team).

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Sociedad Peruana de Derecho Ambiental (SPDA)

The Peruvian Society for Environmental Law (SPDA) is an organization dedicated to integrating environmental conservation into development policies to achieve a sustainable society. SPDA has extensive experience in legislation, environmental management, international treaties, international

¹ <http://cdm.unfccc.int/Projects/DB/TUEV-SUED1245856381.67/view>

² [Proyecto Reducción de la deforestación y degradación en la Reserva Nacional Tambopata y en el Parque Nacional Bahuaja Sonene del ámbito de la región Madre de Dios en Perú](#)

environmental law, and capacity building regarding legal principles and social responsibility. Specifically, the Forestry Program of SPDA has conducted extensive analyses on the regulatory aspects of REDD-plus in Peru on behalf of the Peruvian Government and other stakeholders. SPDA is a legal advisor to the AMCI project and provides crucial support on issues related to right of use, NPA law, land tenure, Administration Contracts, Conservation Agreements, and others.

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Asociación Ecosistemas Andinos (ECOAN)

The Association for Andean Ecosystems (ECOAN) is a Peruvian NGO with more than ten years of experience in implementing conservation projects and conducting research on flora and endangered bird species in Peru. In addition, ECOAN operates ecotourism initiatives and implements community development projects. These projects are located in six regions across Peru, several of which focus on sustainable forestry and forest conservation initiatives. ECOAN manages the Lechucita Bigotona biological station in the buffer zone of the AMPF and has ample experience working with communities living in and around its boundaries. Supported by the AMCI field staff and the AMPF Head Office, it will be responsible for working directly with local settlers to design and implement Conservation Agreements in the field.

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Asociación para la Investigación y Desarrollo de la Ecoregión Yungas Orientales Peruanas (Ecoyungas)

The Association for Research and Development of Western Peruvian Yungas is a young Peruvian NGO but formed by experienced professionals in developing and implementing socio-environmental projects in the Peruvian Amazon. The project has benefited from their experience in the past as their staff assisted in the implementation of the project when they were affiliated to other organizations. Ecoyungas is currently supporting the implementation of Conservation Agreements, developing and implementing a training plan on tropical crops with an emphasis on coffee management. In addition Ecoyungas will lead the implementation of the social management strategy, as well as monitoring the impact of Conservation Agreements, and identifying gaps and specific community needs at the Head Office level.

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**Proyecto Mono Tocón (PMT)**

Proyecto Mono Tocón is a local NGO with more than seven years of experience in primate conservation, with emphasis on the endangered and endemic primates in San Martín. PMT works all over San Martín and has implemented several projects to protect and preserve the habitat of the three Peruvian endemic primates, promoted the creation of “Morro Calzada” and “El Hombre de Piedra” Private Conservation Areas, and supported an extensive environmental awareness program. PMT has been implementing the primate monitoring since 2011 in all the watersheds where the Conservation Agreements are implemented.

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Additional stakeholders

The AMPF management committee was formally recognized in 2005 through Departmental Resolution N° 007-2005-INRENA-IANP, and since that date some modifications have occurred to guarantee the participation of local stakeholders in the management of the protected area. It currently consists of 82 representatives (23 additional representatives since 2012) from local governments and population centers, regional government, public and private sector institutions, and other organizations with an interest in the management of the Protected Area.

In the last two years the profile of the Management Committee was adapted to better represent the social complexity of the AMPF. The new advisors and structure have resulted in a stronger and more active Committee, with better engagement with the rural associations (*rondas campesinas*). Among others, the major contributions of the new Management Committee to the AMPF management are:

- Active participation in the settlement of Aguas Verdes, by promoting a technical roundtable and supporting the AMPF Head Office in the general meeting with *rondas campesinas* to prevent the conflicts;
- Establishment of dialogue opportunities with key political leaders in Alto Mayo and local authorities, contributing significantly to the awareness and positioning the AMPF regarding their rights and obligations;
- Cooperation between the AMPF Head Office and the Administration Contract executor on the promotion and implementation of a government services hub (or functional hub) in Aguas Verdes;
- Leadership on community engagement process, including with key *rondas campesinas* leaders (through individual meetings and participation at their Regional, Provincial and District Assemblies);
- Active participation in the Monitoring Committee of the Administration Contract, under which the scope of the contract is assessed and new modalities are proposed so as to better achieve its objectives and the overall management of the AMPF.

In addition, the project recognizes that individual settlers that sign Conservation Agreements with the AMPF Head Office also represent key stakeholders in the AMCI initiative. Currently 731 Conservation Agreements have been signed with individual settlers.

As described above, the size and complexity of the project requires collaboration among a broad range of partners and local actors with different roles and responsibilities within the project. Figure 2 illustrates the institutional structure of the AMCI REDD project identifying the Project Proponent, its main partners, and the key stakeholders involved. Note that, as the ultimate authority responsible for the management of NPAs in Peru, SERNANP and the AMPF Park Service are identified as both a Project Participant and a key Project Stakeholder.

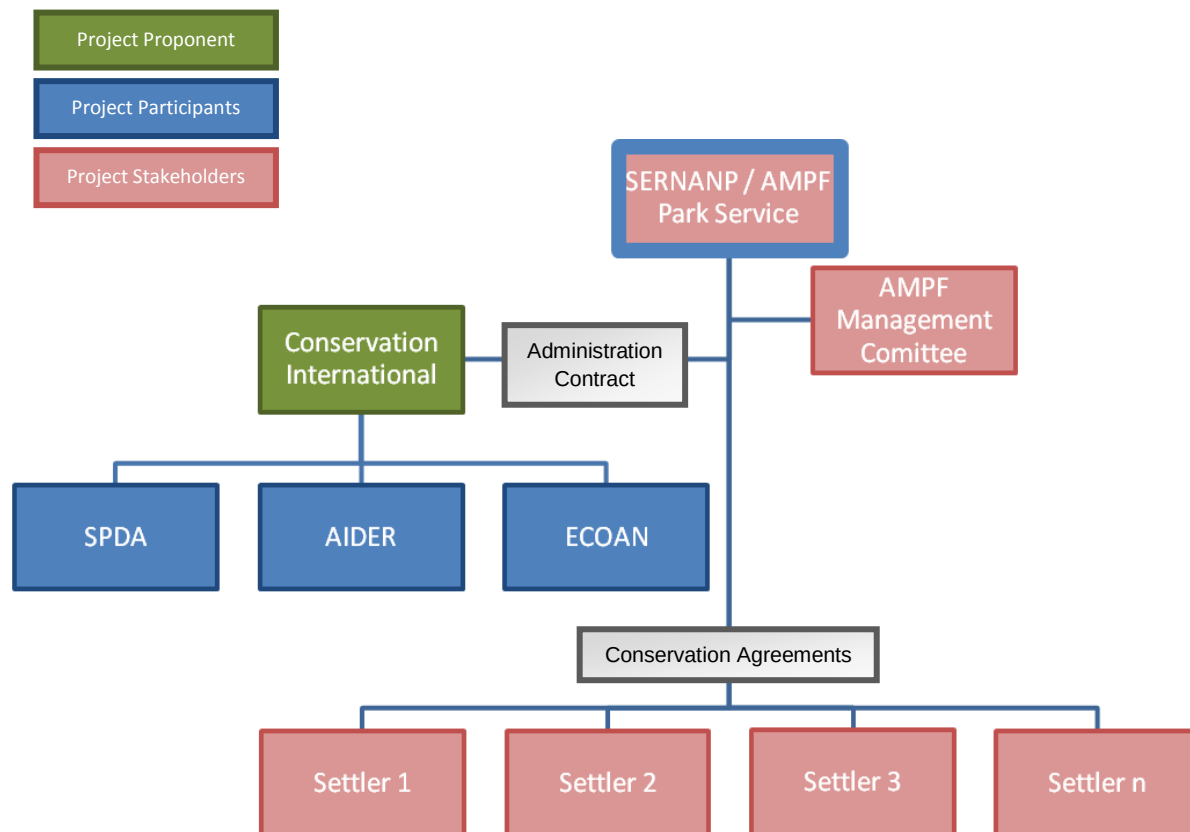


Figure 2 - Institutional Structure of the Alto Mayo project

For a detailed description of the experience of the management team, please refer to the supportive information (Sup.Inf_nprt_01).

1.5 Project Start Date (G3)

The start date of the project was June 15, 2008. This monitoring period started on June 15, 2012 and ended on June 14, 2014.

1.6 Project Crediting Period (G3)

The start and end date of the project crediting period are, respectively: June 15, 2008 to June 14, 2028, for a total of 20 years. The project crediting is subject to renewals. Project lifetime coincides with the dates of the project crediting period.

The project was validated and underwent its first verification under the VCS and CCBS standards in 2012. The project aims to have verifications every two years and will update the baseline in 2018. Table 1 shows the implementation schedule.

Table 1 - Project implementation schedule 2008-2028

Strategy / Activity	Year																					
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
Strategy 1: Improve governance and enforcement capabilities of the AMPF local Head Office																						
Strengthening operational capacity of AMPF local Head Office																						
Control and surveillance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Hiring additional staff				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Capacity building		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Communication			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Donation of field equipment , computers and vehicle			X	X					X					X			X			X		
Construction of infrastructure			X		X	X													X			
Strengthening the Management Committee																						
Support to assemblies and meetings		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Capacity building			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Strengthening operational management			X	X	X	X	X															
Administration Contract																						
Preparation of technical proposal					X					X					X					X		
Signature (renewal) of Administration Contract					X					X					X					X		
Implementation of Administration Contract					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Master Plan																						
General update						X					X					X					X	
Zoning update						X					X					X					X	
Strategy 2 : Promote sustainable use practices aligned with AMPF objectives																						
Conservation Agreements																						
Guideline development			X	X																		
Development, implementation and monitoring	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Renewal					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Restoration of degraded ecosystems																						
Agroforestry systems SAF				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Restoration of grassland with SAF						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Reforestation of critical areas					X	X	X	X	X													

Strategy 3: Establishment of long-term funding mechanism to ensure the sustainability of AMPF management																				
Carbon (REDD)																				
Forest inventories , preparation of PDDs	X	X	X	X	X															
Validation					X															
Registry					X															
Monitoring (VCS & CCBS)					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Verification					X		X		X		X		X		X		X		X	
Baseline revision											X									X
Other ecosystem services																				
Ecosystem services mapping				X	X															
PSH pilot project in Yuracyacu					X	X	X	X												
Implementation of PSH in Yuracyacu									X	X	X	X	X	X	X	X	X	X	X	X
Strategy 4: Communications and public awareness strategy																				
Communications																				
Institutional positioning AMPF			X	X	X															
Coordination of AMPF with local population		X	X	X	X	X	X		X		X		X		X		X		X	X
Environmental campaigns					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
School communicators				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Network of environmental journalists				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Strategy 5 : Integrate AMPF in regional policies and processes																				
Recognition of AMPF as a model of developing health and sustainable economies																				
Promotion of production models promoted by the project				X	X	X	X	X	X											
Promotion of AMPF as development model in Alto Mayo basin					X	X	X	X	X	X	X									
Promotion of AMPF to regional and national development process							X	X	X	X	X	X	X	X	X					
Strategy 6. Implementing AMPF social management strategy																				
Development of conflict management protocol						X	X													
Development, implementation and monitoring of mgmt. conflict						X	X	X	X	X	X	X								
Protocol community engagement						X	X													

Design, implementation and monitoring of community engagement protocol						X	X	X	X	X	X	X	X								
Advocacy and contribution to the implementation of Aguas Verdes functional hub							X	X	X	X	X	X	X	X	X	X					
Technical support to the development of stakeholder-based projects							X	X	X	X	X	X	X	X	X	X					
Management activities for the development of the BPAM buffer zone							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

2 IMPLEMENTATION OF DESIGN

The project has fully implemented its climate, community and biodiversity activities as described in the PDD and project monitoring plan. A description of the implementation of activities is detailed below.

2.1 Sectorial Scope and Project Type

The Alto Mayo Conservation Initiative (AMCI) promotes activities to reduce emissions from deforestation in the Alto Mayo Protected Forest (AMPF) of the Peruvian Amazon. Therefore, it falls within the *Avoided Unplanned Deforestation and/or Degradation (AUDD)* VCS sectorial scope 14: AFOLU (Agriculture, Forestry and Other Land Uses) category. The AMPF meets the most current definition of frontier configuration, as deforestation occurs in fronts along the routes and rivers in the region that provide access to the forest. The project is not a grouped project

2.2 Description of the Project Activity (G3)

Implementation Status of the Project Activity

In order to achieve the project's goal to promote the sustainable management of the AMPF and its ecosystem services for the benefit of the local populations and the global climate, specific activities were implemented for each of the project strategies. The implementation status of the project activity is reported in the sub-sections below.

The progress and impact of the activities in the project area and zone are monitored according to the monitoring plan. The project developed and tracks over 100 socio-economic impact indicators, in addition to the GHG emissions variables (see VCS PD for further details). The specific results are detailed in the Sections 6, 7 and 8 of this report and are based on the responses given by 189 Conservation Agreement

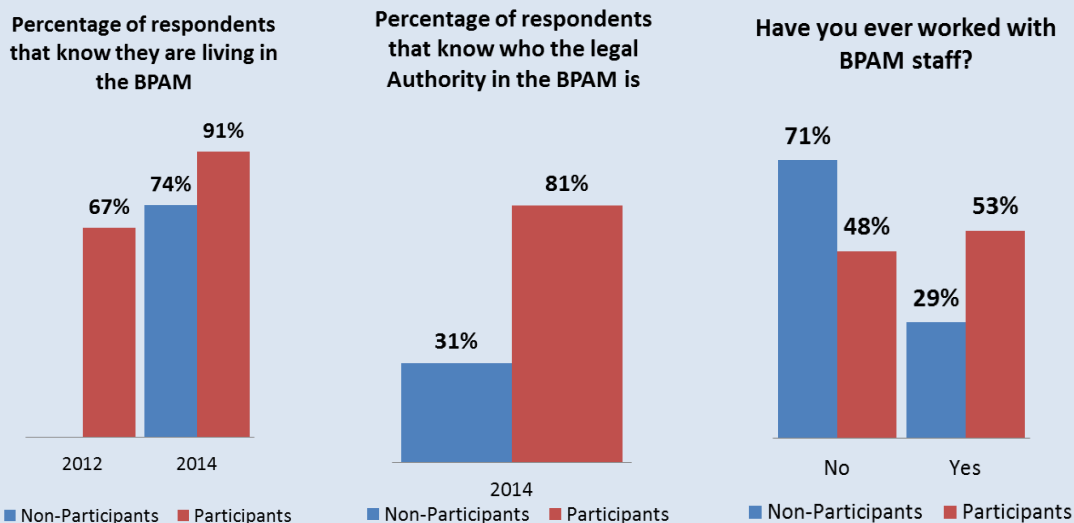
participants and 193 non-participants that were surveyed in April 2014. The overall impact of the project is summarized in the Box 1.

Box 1 – Overall Impact of the ICAM project.

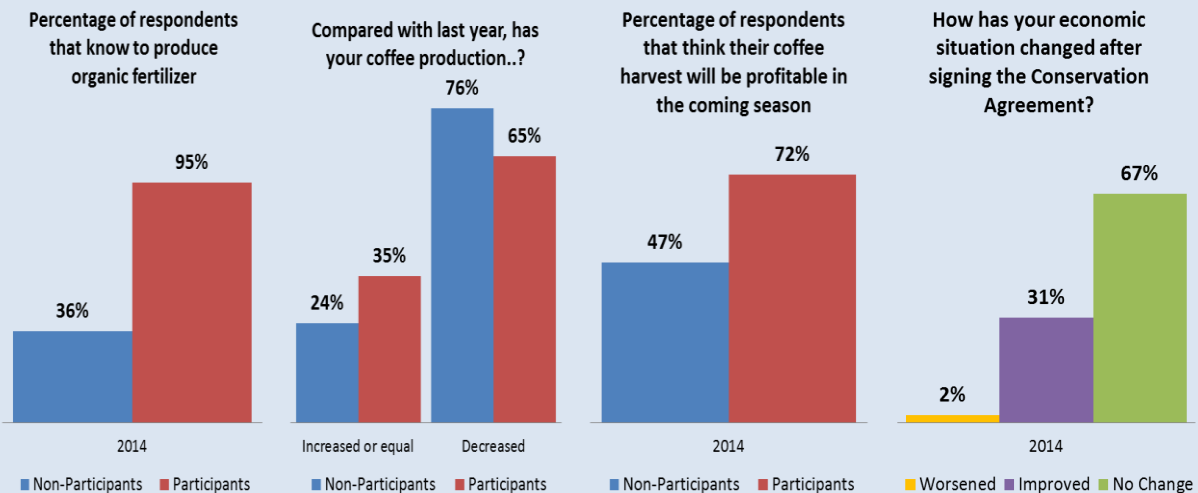
Over the last two years of project implementation significant results have been achieved in the effective management of the AMPF, as evidenced by a reduction in the rate of deforestation, increased capacity of the park staff, and strong working relationships with local communities. The project was able to avoid the emissions of 1.75 MtCO₂, conserve over 144,000 ha of forest, and provide direct benefits to over 650 families participating on the Conservation Agreements. This represents approximately 50% of the population within the AMPF who are actively engaged with the project. The impact also goes beyond the subscribers, as it was reported that non-subscribers have learned how to prepare organic fertilizers from subscribers or other associations.

In addition to the direct benefits provided to coffee farmers through the Conservation Agreements, the project has also served to build dialogue and trust between the settler community and the AMPF Head Office. The AMPF has seen a dramatic shift in these attitudes since work began in 2008, when many of the local settlers did not recognize the authority of the State over the AMPF, and the settler-government relationship was marked by confrontation and distrust. These attitudinal changes that have been catalyzed as a result of the project activities are laying an important foundation of enabling conditions. In the future, they can be used as a basis for developing a dialogue about further community social and economic development needs and priorities, which would otherwise not have been possible. As an example, the project was able to stabilize the socio-environmental conflicts of *Aguas Verdes*, and implement the agreement with the *rondas campesinas*.

Since the project began, awareness and attitudes in the area have changed rapidly and trust between stakeholders has been steadily built, largely as a result of the platform that conservation agreements provide.



The Alto Mayo Project has invested heavily in sustainable coffee production both as a way of reducing deforestation in the Project Area and also as a way of providing tangible economic benefits to local settlers. The impact on livelihoods is notable given the backdrop of the widespread coffee rust disease that has negatively affected almost all coffee production in the area. The techniques and assistance delivered through conservation agreements appears to have improved the resilience of participating settlers in the face of environmental stresses.



The project recognizes that there is a range of social and economic development needs within both the project area and the buffer zone. In conjunction with the support for improved coffee production through the conservation agreements and the resulting enhanced income, the project is working to deliver a variety of social and economic benefits, including:

- **Employment:** From 2012-14, nearly US \$1 million paid in direct wages to 124 local people to assist with project activities including day laborers, rangers, and technical assistance experts.
- **Education:** The project is working closely with the regional government to obtain commitments for investments of US \$1.8 million in education facilities and US \$0.7 million in healthcare infrastructure in the buffer zone.
- **Safer cooking:** Improved cook stoves that reduce smoke within homes, improve household health, and decrease the use of firewood have been installed in the homes of 97 families. 550 families who are conservation agreement subscribers have started using coffee tree pruning as a source of firewood.
- **Infrastructure:** The project has been assisting the *rondas campesinas* to negotiate for improved infrastructure such as roads, bridges and schools in the buffer zone.

Important impact were also achieved regarding the biodiversity and natural resources of the AMPF

- **Primates:** The continuous monitoring of primates was able to record two new species *Cacajao calvus* (red uakari monkeys) and *Ateles belzebuth* (spider monkeys) that were not observed in

the baseline studies, and could be consider an indicator of the good health of the forest.

- Reforestation: The project also has contributed to the gradual recovery of ecosystem through the establishment of agroforestry and silvopastoral systems. Over 185 ha were reforested using native species of 2012-2014, including areas important areas for conservation such as headwaters and riverbanks.
- Patrolling: The increased effort in communications and environmental awareness has contributed to the recognition by the local population of the importance of AMPF and its environmental services, as for instance, while in 2012, 95% of subscribers expressed that they used firewood, this percentage decrease to 26% in 2014. However the threats to AMPF and its biodiversity are still present. A large number of findings and interventions associated to threats within the AMPF registered in this monitoring period is also an indicator of the greater effort rangers.

Furthermore, during this monitoring period the signature of the Administration Contract between CI-Peru and SERNANP on behalf of the AMPF was finalized. This contract is a technical, legal and financial mechanism sustained by the laws of natural protected areas, which SERNANP has delegated to CI-Peru. It is also the framework that underpins all project activities and the instrument by which the project is allowed to retire carbon credits for SERNANP.

S1. Strengthening of the governance and enforcement capabilities of the AMPF Head Office

In 2014, 36 people were working directly for the Head Office of the AMPF, an increase of 28 people from 2008. Five staff were hired during this monitoring period, including:

- One monitoring and surveillance specialist;
- One monitoring and surveillance assistant; and
- Three communication specialists.

The new hires were based on the need to strengthen the monitoring and communication strategies. Since the project start date, the geographic scope of the activities was extended to areas more remote and into regions where settlers did not have recognition or relationship with the AMPF Head Office. The increased number of staff also involved a substantial effort in training and capacity building. Twenty-four trainings were performed during this monitoring period, compared to eight conducted by 2012. The trainings were designed to strengthen the capacity of field staff to deal with the increasing threats to the AMPF. As many control and surveillance, and communication field staff were new, more telecommunications equipment were provided (and further training) to the AMPF central office in Rioja, and the control points in Venceremos.

Additionally 18 guidance documents, specifically regarding control and surveillance activities, were developed or updated during 2012-2014. These constitute a technical framework for more efficient field activity implementation, achieving greater staff commitment to the management objectives of the AMPF.

SERNANP donated two land areas to the project. The first one is a one-hectare area located in Rioja

where the AMPF main office is being constructed. The new building will have infrastructure to accommodate over 70 professionals. The second area is in Chisquilla, in the Amazon region, where a new Ranger Center was built (see Figure 3). The Ranger Center increased the presence and improved AMPF management in this part of the buffer zone, tackling the growing threats in that region in places like Villa Hermosa.

Two other areas located in Aguas Verdes were acquired by the project, where a Visitors Interpretation Center and a plant to store the coffee production harvested in the Conservation Agreement areas, will be installed (see Figure 3). These activities are representative of the goodwill and collaboration the project has managed to achieve between stakeholders, and would not have been previously possible due to social-environmental conflicts and a general lack of trust between AMPF authorities and local populations in Aguas Verdes.

Additional progress made during the reporting period to strengthen the governance and enforcement capabilities of the AMPF Head Office were:

- The control and monitoring, and communications activities have been greatly strengthened over the past two years, both in human and equipment resources. As a result, the local community and partners of the AMPF were empowered in illegal activities and socio-environmental conflict resolution. In addition, AMPF Head Officers for the first time were able to access remote and unsafe areas, more specifically Candamo and Candamito. These areas were unsafe due to social conflicts with the AMPF, but the improvement in communication elucidated their concerns and collaboration is being established.
- With project support, the AMPF Management Committee was renovated, leading to a substantial increase in the actions taken by the Committee as described in the stakeholders section.
- The signing of the Administration Contract was a turning point for the management of the AMPF and allowed the project to have a greater impact on decision making and to generate more opportunities for coordination, not only with the AMPF Head Office and its Management Committee, but also with the various political actors directly affected by the project.
- The revision process of the AMPF Master Plan began in 2013 with the creation of a socioeconomic registry of families living inside the AMPF. This information clarified the population size, their distribution within the protected area, and socio-economic practices. This information also provided an input to reorient and guide field activities.
- All the information collected during the socio-economic survey, as well as any data collected in the field (e.g. patrolling, biodiversity surveys...), is combined into a database – Integrated Database System (SID for its Spanish acronym). SID is an information management software that allows systematizing and analyzing the information, including a cartographic database, audio-visual, and digital documentation. This is the first tool of this type and dimension that has been developed for the NPA system in Peru.

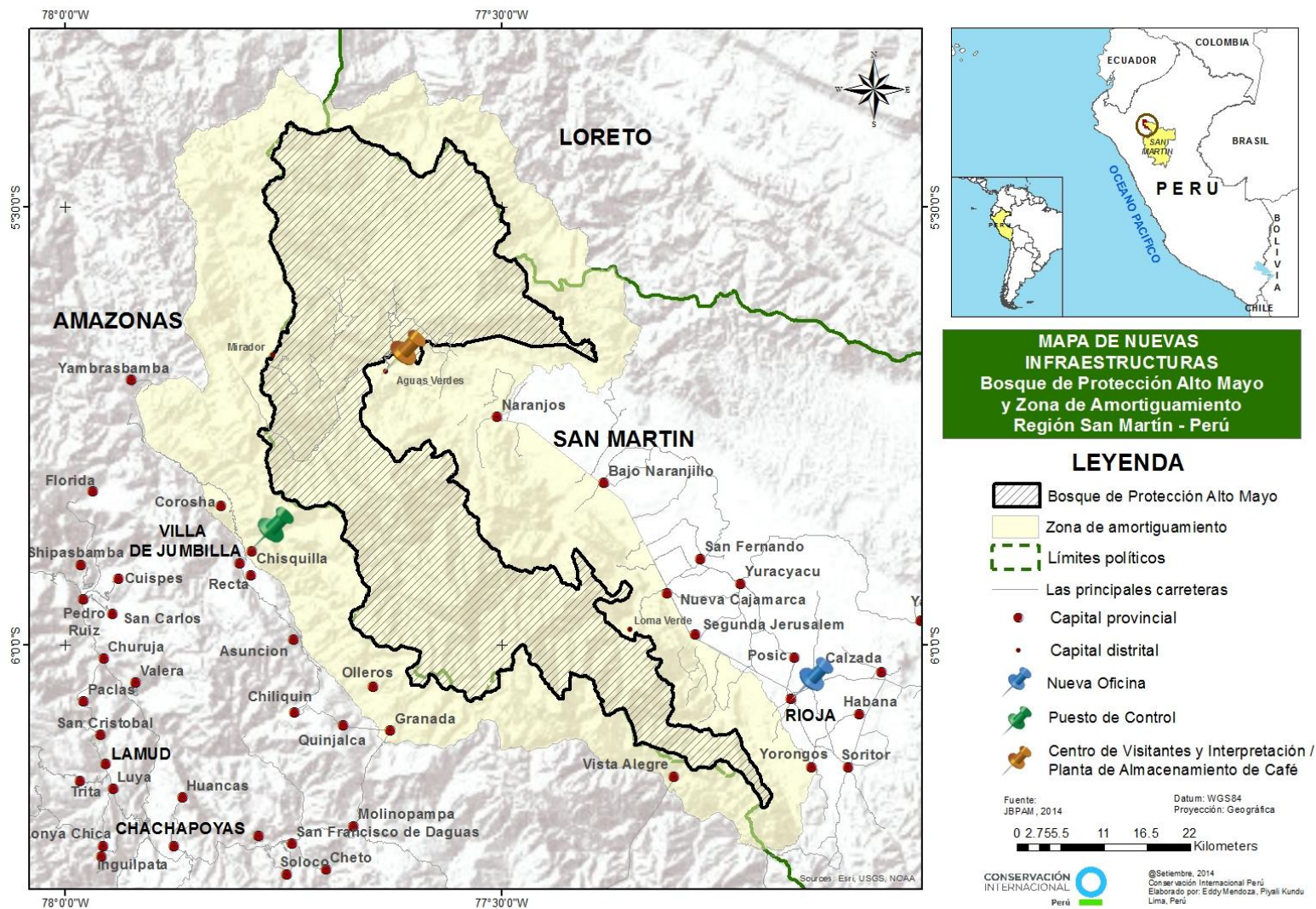


Figure 3 - Map of new infrastructure implemented in the project zone

S2. Promoting sustainable land use practices through Conservation Agreements

The project achieved its fourth year of implementing Conservation Agreements and this strategy has proven to be the ideal tool for joint management with local people of the AMPF. Presently, 731 individual Conservation Agreements have been signed in over 50 sectors of the AMPF, covering eight major watersheds. A summary of the status of the project's Conservation Agreements is presented in Table 2, and a map showing their geographic distribution is shown in Figure 4.

Table 2 – Conservation Agreements signed in 2012-2014 period per sector

N°	Sector	Watershed	2012	2013			2014		
				Total	Cancel	Active	Total	Cancel	Active
1	Los Cedros	Aguas Verdes	2	4	1	3	4	3	1
2	Perol	Aguas Verdes	18	18	5	13	20	12	8
3	Alto Cenepa	Aguas Verdes					3		3
4	Aguas Verdes	Aguas Verdes	0	28		28	12	1	11
5	Barrios Altos	Amangay-Mirador	13	31		31	35	7	28
6	Barrio San Juan	Amangay-Mirador	12	15	1	14	14	2	12
7	Juan Velasco	Amangay-Mirador	39	87	8	79	87	15	72
8	Vista Alegre	Amangay-Mirador					3		3
9	Amangay	Amangay-Mirador		7		7	7		7
10	Tailandia	Naranjillo	2	3	1	2	7	2	5
11	Perla de Oro	Naranjillo	14	14	6	8	14	8	6
12	Sol de Oro	Naranjillo	23	28	7	21	24	8	16
13	San Agustín	Naranjos	14	15	8	7	15	11	4
14	Oriente Nuevo	Naranjos	23	23	6	17	23	6	17
15	Limón	Río Huasta	0	22		22	23		23
16	Nuevo Edén	Río Huasta	0	9		9	9		9
17	Santa Rosa	Río Huasta	0	27		27	19		19
18	Pamapa Venado	Río Huasta					4		4
19	Quebrada Honda	Río Huasta					4		4
20	La Esperanza	Río Huasta	45	51	11	40	49	14	35
21	El Carmen	Río Huasta	7	27	1	26	27	6	21
22	La Perla	Río Huasta	0	13		13	16		16
23	Nuevo Jordania	Río Huasta	0	16		16	16	1	15
24	Nuevo Jaén	Río Huasta	0	5		5	6		6
25	El Paraíso	Río Huasta	0	50		50	46		46
26	Vista Alegre	Río Huasta	0	16		16	13		13
27	La Libertad	Río Huasta					1		1
28	El Triunfo	Río Huasta	0	12		12	12		12
29	Las Palmeras	Río Huasta	0	6		6	6		6
30	Alto Valle	Río Huasta	0	12		12	12		12
31	Vista Hermosa	Río Huasta	0	13		13	13		13
32	César Vallejo	Río Huasta	0	6		6	6		6
33	Las Flores	Río Huasta	0	1		1	1		1

34	Alto S. Juan Mayo	Río Huasta	0	11		11	11		11
35	Nueva Zelanda	Río Negro	0	25		25	25		25
36	Kovachii	Serranoyacu					2	2	0
37	Playa Azul	Serranoyacu	6	11	2	9	15	5	10
38	Afluente	Serranoyacu	1	30		30	29	2	27
39	Venceremos	Serranoyacu	4	4	1	3	3	1	2
40	Alto Nieva	Serranoyacu	1	1	1	0	1	0	1
41	Jorge Chávez	Serranoyacu	9	13	6	7	13	6	7
42	San Pablo	Serranoyacu	0	12		12	12	1	11
43	El Silencio	Serranoyacu	0	6		6	6	3	3
44	Tambora	Serranoyacu	0	8		8	12		12
45	Las Piedras	Yuracyacu	1	1	1	0	1	1	0
46	Loma Verde	Yuracyacu	19	31	4	27	32	4	28
47	Los Cristales	Yuracyacu	6	7	4	3	7	4	3
48	Perla Escondida	Yuracyacu	3	4	1	3	3	1	2
49	Las Palmas	Yuracyacu	0	3		3	3		3
50	Tiwinza	Yuracyacu	0	3		3	3		3
51	Selva Alegre	Yuracyacu	0	2		2	2		2
Total			262	731	75	656	731	126	605

Compared with the previous monitoring period there was a 279% increase in the number of Conservation Agreements signed. Other important results are:

- Area under coffee agroforestry systems increased from 70 ha in 2012 to 220 ha in 2014;
- Over 61,000 seedlings of native species were produced and planted in the field, three times more than in 2012;
- Over 192 tons of organic fertilizer incorporated into the soil of BPAM, three times more than in 2012;
- About 200 trainings were given in this monitoring period, compared to 10 implemented by 2012;
- More than 12 thousand hours of field technical assistance given to subscribers of Conservation Agreements.

In addition to these direct outputs the Conservation Agreements strategy has proved to be:

- A very effective tool for mitigating social conflicts in the AMPF;
- An important tool for increasing cooperation and changing negative behavior towards the AMPF Head Office, as well as for building trust between the local population;
- The main mechanism of communication with the local population;

- An efficient mechanism of field demonstration that conservation and economic development can and should be aligned.
- An efficient benefit distribution mechanism

The monitoring of Conservation Agreements has also revealed other benefits that have led to improved living conditions, the creation of alternative livelihoods and the improvement of human well-being of local communities. Different benefits include the installation of efficient cookstoves, implementation of organic gardens, bird watching tourism-related activities, fishfarms, and the development of copuazu and pitajaya (AMPF's native crops with significant market value) pilot projects. More specifically, some results achieved in 2012-2014 include:

- 31 organic gardens established;
- Over 18 thousand fruit trees were produced and planted in the field;
- 77 additional efficient cook stoves were installed, totaling 97 since project start date;
- 244 people have perceived an increase in income generated by the project, five times more than in 2012.

Forest conversion to coffee plantation is still the main driver of deforestation in the AMPF. From mid-2012, and increasing in 2013, coffee plantations in Alto Mayo were affected by one of the most detrimental pest species in the history of the Alto Mayo coffee industry. The rust fungus (*Hemileia vastatrix*) has significantly diminished the coffee production areas in the region, causing some families to lose their only source of income. There was no report that the rust fungus has affected vegetation other than the coffee plants, including the forests of the project area. However, the environmentally friendly techniques proposed and implemented by the project through Conservation Agreements have demonstrated more resistance to the pest, and created a competitive advantage over other producers. As a result, it encouraged other subscribers to keep their commitments, and stay in compliance with the strict recommendations provided by the technicians. At this reporting period is premature to affirm whether the rust has caused further deforestation, as coffee producers are trying to restore their crops with rust resistant coffee seedlings. It was observed that those farmers that lost all their crops were working for daily wages in other plantations.

In light of this situation, a new challenge to the project arose regarding the differentiation of organic products produced by the Conservation Agreement subscribers from the products created using traditional practices, specifically the market access of coffee that is resistant to pests. To address this, a technical proposal is being analyzed by SERNANP, whose chief has expressed his willingness to approve the steps necessary to create a unique label of coffee from the AMPF. In parallel, CI-Peru, in partnership with local organizations, started the process of linking the organic coffee from subscribers to international markets.

In addition, it is observed that the techniques of sustainable coffee production, disseminated through the Conservation Agreements, are being replicated by subscribers in areas previously covered by pasture, or integral restoration of abandoned coffee areas. The replication is additional and voluntary without adding any cost to the project.

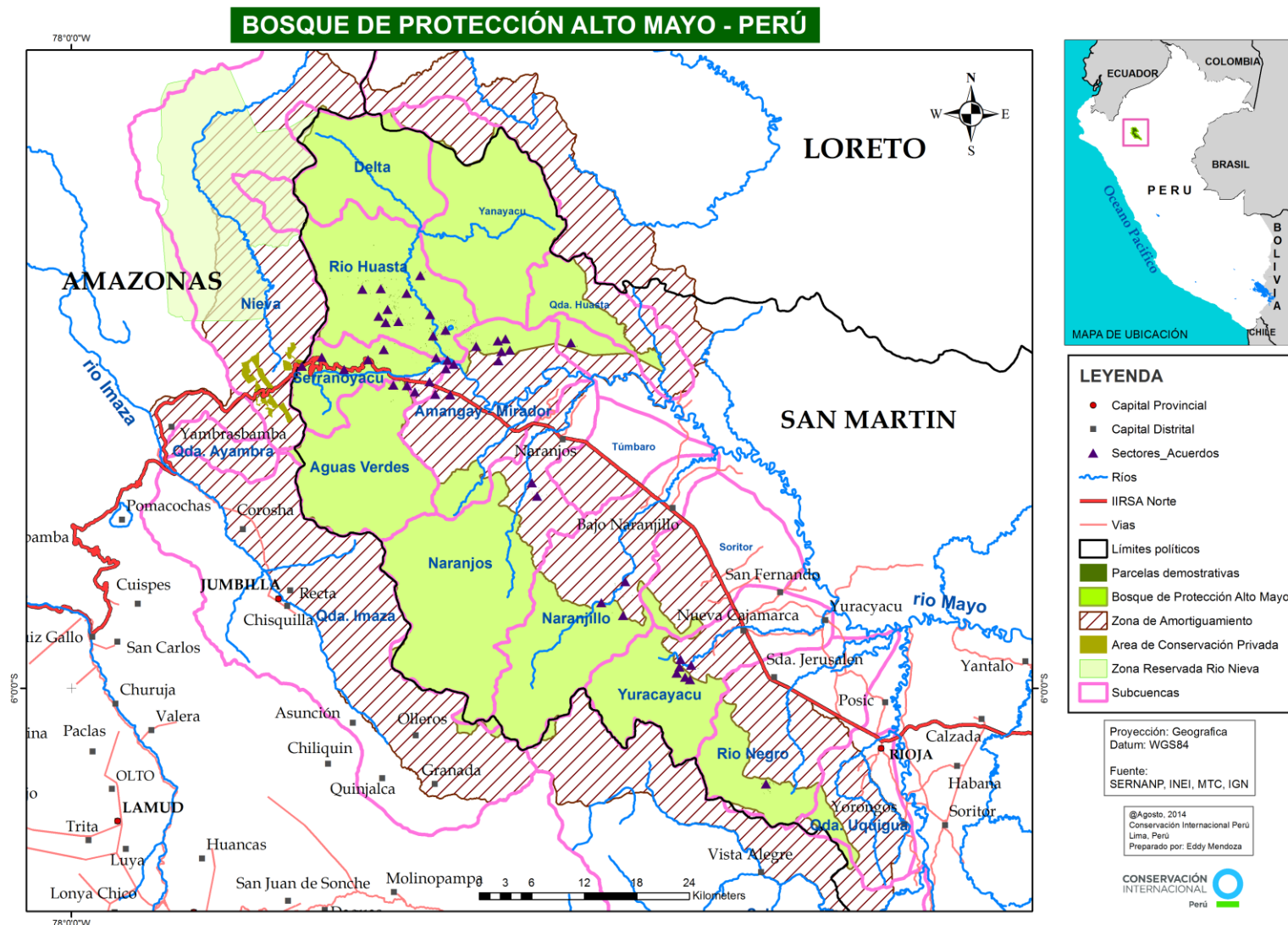


Figure 4 - Distribution of Conservation Agreements signed in the AMPF since the project start date (2008- 2014)

S3. Increasing the environmental awareness and involvement of the local population

During this monitoring period, communications were the most developed strategy. Positive results obtained in the first period set the proper foundation for exponential growth of this strategy.

The major activities of this strategy are summarized below:

- Development of communications and environmental education strategy of the AMPF;
- Formation of the AMPF communications team, including the hiring of three communications professionals, who had constant support from CI-Peru's communication coordinator. The project intends to complete the communications team by hiring another communications assistant in 2014;
- Development of over 12,000 outreach materials, including brochures, posters, radio spots, videos, inserts, and booklets, among others. The material was focused on the following topics: importance of the AMPF, protected areas legislation, technical material on coffee management, role of the AMPF Head Office staff, the Administration Contract, ecosystem services, and the water cycle;
- Completion of over 80 training sessions to *rondas campesinas*, a population settled within the AMPF and buffer zone;
- Execution of over 75 environmental education events for school communicators, students, and environmental journalists;
- Three events on the cleaning of rivers and streams that involved the participation of 143 people.

The work of the communications and environmental education team has greatly contributed in changing the perception of the local population about the importance and fragility of the AMPF. Many sectors have managed to internalize the concepts in their daily routine and have influenced positive change in the attitude of the AMPF's inhabitants. The local population proactively developed activities that demonstrate the shift in behavior, for instance, with the installation of signs about forest conservation, care of water sources, and site-specific installation of solid waste disposal.

Additionally in this strategy, several radio and video spots, and the close communication with local government and politicians have contributed to the recognition of the AMPF Head Office as the main and sole authority within the AMPF. Recurring false promises of building infrastructure and other basic services inside the AMPF made by political candidates, which used to increase expectations among settlers, were minimized. According to the environmental legislation, the AMPF is a conservation area with full protection where the development of infrastructure is not allowed. The lack of knowledge about rights and obligations previously caused tension between the population settled inside AMPF and the Head Office. The communication activities also improved the coordination between the AMPF and public and private organizations, preventing social conflicts and implementing joint actions for the conservation of the protected area and development of communities in the AMPF and the buffer area.

The number of professionals working for AMPF management has been increased substantially. Currently, over 70 professionals carry out field activities and are supported and advised by another 30 professionals from Lima and Washington DC.

S4. Ensuring the long term financial sustainability of the AMPF

This component is one of the main pillars of the project. Positive results were achieved during this reporting period regarding the implementation of a sustainable financial mechanism. To date, more than 1.5 million carbon credits (VCUs) from the 2.84 million credits verified in the period 2008-2012 were sold. This commercialization generated revenue for the project, which is funding the implementation of various strategies and activities of the Administration Contract.

As stated in the financial proposal of the Administration Contract, CI-Peru is committed to a minimum investment of S/17 million (approximately US \$6.2 million) by 2017. The project investments for 2014 were S/5.4 million (~US \$2 million), and an additional S/3.3 million (~US \$1.2 million) was invested in 2013, totaling more than S/13 million (~US \$4.7 million) invested since the project start date. This extra effort was considered as a priority to the project to ensure the consolidation of management strategies and avoid deforestation of AMPF primary forests.

During this reporting period, CI-Peru also initiated studies for the design and implementation of the payment for ecosystem services scheme, more specifically payment for water provision in the Yuracyacu watershed. This is a pilot project aiming to contribute to AMPF financial sustainability and, if viable, will be replicated in other watersheds in the region.

Additionally, CI-Peru was able to fundraise and implement projects that are aligned and complement the AMPF strategies thus diversifying the portfolio of donors and developing a holistic approach for the conservation of the landscape. These complementary projects/funds include:

- Ensemble Foundation, supporting mainly in the implementation of complementary Conservation Agreements benefits;
- RARE + Global Conservation Fund, supporting projects in marketing and design scheme payment for water services in the Yuracyacu watershed;
- Embassy of Finland, funding complementary research related to the implementation of payment for water services in Yuracyacu; and,
- USAID, assisting the implementation of public-private partnerships for the development of a green economy model in the upper Mayo landscape.

S5. Integrating the AMPF into broader development and political processes

The recognition of the AMPF Head Office as the authority of the protected area by the local population, political candidates, and other stakeholders has been instrumental in consolidating its institutional

positioning. The constant support from the Administration Contract executor and the Management Committee board contributed significantly to strengthen the relationship with *rondas campesinas*. The close dialogue avoided the disruption of this social organization and reestablished partnership to jointly solve the problems, especially in Aguas Verdes.

Considerable effort was made by the AMPF management team in strengthening relations with the *rondas campesinas* settled inside the AMPF. The activities implemented by the consultant expert in community relations and conflict resolution resulted in major behavioral changes of community leaders. The local leaders now recognize the need to maintain dialogue with the State and to work together in finding solutions for problems in the community. This achievement is crucial for the sustainability of AMPF management where there are at least 1,100 families living and working inside the protected area, according to the socioeconomic survey. The constant field visits and meetings between the local population, the Chief of the AMPF Head Office, and the project team increased environmental awareness in all the sectors. This close dialogue also resulted in good opportunities of development and implementation of Conservation Agreements, specifically regarding the agreement with *rondas campesinas*.

In parallel, the project is working with local governments and various agencies of the regional Government of San Martin, whose government services are necessary to meet the basic needs of the local population. The government services hub aims to centralize multi-sectoral investments from agencies of the Regional Government of San Martin into a key geographical area. Jointly, the investments from health, education, agricultural production, sanitation, and land tenure will be applied into this (core) area, aiming to optimize the social and economic development of local populations.

Several meetings to advance the discussion of the implementation of government services hubs in the AMPF were held between the project and regional governmental agencies. The process is currently being supported by Congresswoman Esther Saavedra, who has recognized the importance of functional hubs and is now promoting the implementation of a core area in Aguas Verdes, within the Ministries of Agriculture, Environment and Social Inclusion.

The project maintains close coordination with the Department of Anti-Narcotics Tactical Operations and the Direction of Executive Administration and Conservation of Natural Resources of the Government of San Martin. Together with those agencies, the project plans and conducts operations to stop trafficking of timber and land inside the AMPF and buffer zone.

Elections for local and regional government will be held in 2014, and as pointed out in the analysis of the agents and drivers of deforestation, false promises of infrastructure and other benefits are commonly made by candidates attracting more people to settle inside the protected area. The AMPF has restricted use, and construction of certain infrastructures is not allowed, therefore the lack of information caused some social tension towards the AMPF Head Office. Anticipating this issue, the project started the implementation of concrete actions to inform the candidates about the importance of protecting AMPF natural resources, and the legislation and regulatory framework that affects public and private investment in that area. These preventive actions are being carried out with both candidates and the local population to promote better understanding and improve awareness of election promises that can generate false expectations of development.

S6. Implementing AMPF social management strategy

Peruvian legislation restricts and in many cases prevents public and private investments in basic services, such as health, education, or transportation infrastructure within protected areas. As a result, the population living inside the AMPF is devoid of basic services, and to some extent are the main causes of social conflicts.

Recognizing this situation, the project is adapting and extending to include a social management strategy. The first proposal of the social management strategy document was expanded on and now includes a protocol of community relations, conflict resolution, and outlines essential thematic strategies to promote the implementation of basic services in strategic areas located in the buffer zone.

Under this strategy, the project contracted consultants with experience in community relations and conflict resolution to collaborate with the Chief of the AMPF Head Office and the Administration Contract Manager to design and implement activities and strategies to fulfill the community's needs for basic services. As explained in the strategy "Integrating the AMPF into broader development and political processes", the efforts are focused on supporting the implementation of the functional hub in Aguas Verdes, which is vital to complement and consolidate the sustainability of AMPF management.

Among the activities carried out in this strategy, it should be highlighted that this was the first visit by a Chief of the AMPF Head Office to the Candamo sector. Candamo is located more than 10 hours walking distance from the last car-accessible point in Aguas Verdes, and currently has the highest deforestation rates within the AMPF. Furthermore, the Chief has been constantly involved in various meetings of the *rondas campesinas* and its district assembly (*Ronda Campesina Distrital de Aguas Verdes*). This close coordination with the local population and *rondas campesinas* has allowed for the reduction of social conflicts in order to avoid similar situations in other sectors of the AMPF and buffer zone.

2.3 Management of Risks to Project Benefits (G3)

Since most of the AMPF biodiversity threat is habitat loss due to change of land use, many of these risks and mitigation activities also apply to benefits generated by the project on biodiversity. The risks are summarized in Table 3, and for more details on the risk assessment, see "Non-Permanence Risk Analysis – Report 3".

Table 3 – Factors analyzed in the Non-Permanence Risk Assessment

Non-Permanence Risks		
Internal	External	Natural
Project Management	Land Tenure	Torrential flows and flood
Financial viability	Community Engagement	Landslides
Opportunity costs	Political support	Geological risks
Project longevity (permanence)		Pest, disease outbreaks

		Forest fires and droughts
		Extreme weather

Additional risks that could prevent the expected benefits regarding Community and Biodiversity aspects were identified. Among them are risks posed by the coffee diseases, such as coffee rust (*Hemileia vastatrix*); lack of livelihood alternatives, particularly the dependence on coffee as the sole source of income; and, the long-term sustainability of technical assistance, social conflicts, and effects of climate change. For each of these risks we have identified specific actions, described below, that will be developed and implemented in a participatory manner with project beneficiaries to increase their level of resilience to these potential risks.

Diseases to coffee, (coffee rust *Hemileia vastatrix*)

During the period of 2012–2014, coffee plantations in the region were severely affected by a major pest species of coffee rust (*Hemileia vastatrix*). The disease was much more aggressive than expected, and according to the *Junta Nacional del Café*, was considered the worst outbreak in San Martín's history. In some farms, the impacts to the coffee plantations affected 100% of the production. Coffee varieties of higher quality, for instance *típica*, *caturra*, or *nacional* were on average the most affected varieties. Precautionary measures, adapted to the Conservation Agreements since early 2012, resulted in some resistance to the attack of rust. Although there were some losses in production, the Conservation Agreements subscribers could sustain their businesses through the implementation of good agricultural practices. The agricultural best practices implemented in their plantations were:

- Production and use of organic fertilizers;
- Introduction of rust resistant varieties, such as *castillo* and *gran colombia*;
- Preventive and curative control of the rust;
- Introduction of forest species in coffee plantations (shaded agroforestry system), combined with pruning for shade, moisture and aeration control;
- Identification of the rust fungus;
- Preparation and use of *bokashi* for soil restoration.

It should be noted that the coffee plantations located in degraded soils that did not use best agricultural practices were the most affected areas with the rust.

In addition to the mitigation measures described above, the following practices are being incorporated and intensified to avoid further losses in case of future outbreaks:

- Identification of non-sensitive coffee seedlings that were resistant to the rust outbreak, especially varieties of higher quality, such as *nacional*, *típica*, *caturra*, *borgón*, among others. This natural

selection of coffee trees helps to have genetic material naturally adapted to resist future outbreaks and ensure good quality coffee;

- Replication of rust resistant coffee varieties to ensure the maintenance of coffee production for subscribers, generating income to support their families, even in the event of future rust outbreaks;
- Increased production of *bokashi* and incorporation of nitrifying trees in the agroforestry system in order to accelerate the process of soil restoration;
- Maintenance and renewal of rust resistant coffee varieties provided by the project and the coffee trees species that survived the pest;
- Amplification of the benefits of the Conservation Agreements by adding rust preventive inputs.

Lack of alternative livelihoods

It was identified during the coffee rust outbreak period that there exists a strong economic dependence of subscribers and farmers to a single crop which increases the risk of not having an alternative income source. The lack of significant production due to the pest caused many families to leave the region in search of other income opportunities. According to the local people, most of these families migrated to coastal cities or their areas of origin in hope of finding work. A smaller portion stayed in the region and worked for daily wages on coffee plantations in the indigenous communities or at Stevia One facility – one of the leading producers of *Stevia rebaudiana* and manufacturer of sugar substitute products.

Subscribers who received complementary coffee benefits, and those who replicated the system in other areas, were able to resist the strongest part of the economic crisis. In addition, the project generated wages in agroforestry nurseries, benefiting about 300 people, including subscribers and their family members.

The project started expanding and implementing a variety of benefits that are included in the Conservation Agreement package. The subscribers are implementing the following activities to complement their income:

- Copuazú and pitajaya pilot crops;
- Birds watching tourism pilot project;
- Biogarden;
- Improved cookstoves;
- Benefits post-harvest (solar tents, fermentation, management of *honey water*...)

Linkages to specialty markets and obtaining of certifications for agricultural exports

The progress made to date in improving the benefits of Conservation Agreements, mainly in coffee agro-forestry systems, needs to be consolidated through the formal articulation of subscribers' production to special markets in order to ensure economic return and the sustainability of economic activities.

In this regard, the international markets where the subscribers' products could be sold have been identified. It is necessary then, to promote the establishment of an organization of subscribers capable of obtaining the necessary certifications for agricultural exports that international markets demand. All this must be done with the approval of SERNANP.

The steps towards the formalization of their business involve the implementation of comprehensive pilot integrated management farms where all the activities demanded by the various certification standards for agricultural exports are made. This implies a holistic management of the entire area possessed by the subscriber under permaculture criteria; i.e., to make all anthropic activity compatible with environmental sustainability criteria, such as the management of all types of waste (liquid, solid, organic or not), implementation of latrines, water management, home sanitation, food security, and others.

These pilots require economic support from both the project and the subscriber so that the subscriber is more empowered by the investment made and motivates their neighbors as a role model. For this purpose, internal internships will be promoted for these farms and they will showcase conservation and economic development.

Long-term sustainability of technical assistance

The building of capacities in all AMPF managerial personnel increases their competitiveness and professionalism, making them more visible to other organizations and other projects, which is reflected in an increase in labor demand. Without any doubt, the possible departure of key personnel could affect the planning process. Therefore, considerable effort is being put into generating attractive working conditions for the staff. At the same time, they are building specific capacities in their possible successors. In addition, all managerial strategies are being socialized with all the individuals responsible for each strategy, so as to empower them technically and promote concrete synergies that lead to a comprehensive integration of all strategies.

Currently, 731 Conservation Agreements have been signed since the project start date, of which 605 are still active. For the active Conservation Agreements, the project provides daily technical assistance in the field. Considering the personnel capacity and the costs to provide technical assistance, the project started developing a strategy to ensure long-term sustainability of technical assistance. During 2013, the project started the training of trainers (or *promotores*), and the vast majority of subscribers have learned best management practices of coffee and are able to replicate the techniques. In addition, the technical staff has been strengthening their skills and knowledge in specific topics during 2014. As a result, several subscribers implemented the techniques in other areas outside the Conservation Agreements, and specific techniques were developed to combat coffee rust. Internal internships have contributed greatly to improving the learning and understanding of the concepts of good agricultural practices. Based on the results achieved so far, the long-term sustainability of technical assistance can be considered as low risk.

In addition, in order to retain the sustainability of the benefits delivered through the Conservation Agreements, it is fundamental to commercialize the coffee for a fair price. However, currently certification and formal marketing of coffee produced within the AMPF is not permitted since it does not have the formal permission from SERNANP. Under this scenario the middlemen remain the major buyers and beneficiaries of the coffee trade originated in the AMPF. In order to invert this situation, and make the producers the main beneficiary, the project is discussing a system to formalize the trade of organic coffee inside the AMPF with SERNANP. SERNANP has demonstrated support, and this system would be the first experience of this kind at the national level. Some activities are required to be implemented in the field in order to receive the certification, including organic coffee certification, fair trade, as well as the creation of the association of Conservation Agreement subscribers and the development of guidelines for the production and marketing of coffee produced in the AMPF. All these activities are being presented to SERNANP for approval and implementation.

Consolidation of financial sustainability

The project is financially dependent on the sale of carbon credits; this implies that a possible reduction in the price of carbon credits or a significant demand for offsets would affect the projected financial sustainability.

Under this framework, the project is generating strategies to consolidate the relationship with buyers, such as Disney, that could ensure significant purchases for the following years. At the same time, the mechanism of financial sustainability for the AMPF is being identified together with SERNANP. This would be the first protected natural area (PNA) to develop and implement these mechanisms.

Continuity of the Administration Contract

For the project to continue operating normally, the Administration Contract would need to be renewed in 2017, yet it is envisioned that in the long term the AMPF would eventually be managed by a local organization as capacities increase over time. The achievements of this first five-year period of the contract will greatly help in the negotiations for its renewal.

Social conflicts

The AMPF was created in 1987; however, it was not until early 2001 that the State appointed the first Chief of Head Office. Later, around 2005, this Head Office, with the support of donations, obtained the necessary funds for minimum operation within the area. Unfortunately, this state of neglect led to the settlement of people inside the AMPF and the incursion of land and timber dealers that generated a front of opposition to authority and thus, to the preservation of the area.

The attempts to restore the principles of authority and conservation produced, as expected, reactions from the population settled in the AMPF that led to various social conflicts. The conflicts that occurred in *Naciente de Río Negro* in 2010 and in *Aguas Verdes* in 2011 were the ones which had the greatest

negative impact on management effectiveness. They were both generated by the illegal construction of cart tracks in the AMPF.

The implementation of several actions in the AMPF to minimize and avoid social conflicts is producing positive results. Through the joint efforts of the project team and the AMPF Head Office staff, disagreement situations in Aguas Verdes were successfully diffused, and dialogue was established between the *rondas campesinas* and various public institutions, and local, regional, and national political actors. In addition, the project was able to restore the technical committee for conflict resolution of Aguas Verdes.

Other regions with potential risks regarding social conflicts were identified by the project, and the activities to mitigate them are summarized below. Further details are described in the Social Management Strategy document.

- Government services hub in Aguas Verdes: Success in solving social conflicts in this region is likely to meet health and short-term education needs. Protected area legislation restricted the provision of services within the AMPF boundaries; therefore the project began the negotiation with the Government of San Martin and the respective agencies to assure the implementation of a functional hub in the town of Aguas Verdes. The town is located in the AMPF buffer zone and should bring a resolution of this social conflict.
- Land speculation in Candamo: The sector Candamo is located at the headwaters of the Rio Mayo in the north-central part of the AMPF. This region has been speculated by land trafficking as the majority of the population settled in this region was deceived by land dealers who illegally sold the land. Thus the local population is still reluctant to hold open dialogue with the AMPF Head Office or implement activities in coordination with the project. There are still some dealers that intimidate the locals and avoid contact with the State. As a consequence, the project is working towards minimizing this risk by strengthening the relationship with the *rondas campesinas* in Candamo; intensifying the surveillance and control strategy; improving the coordination among institutions and local authorities, and political actors; and, seeking support from others state agencies to implement joint operations in the area.
- Establishment of a trail in Villa Hermosa: The sector of Villa Hermosa is located in the buffer zone in the region of Amazonas, and a group of illegal land traders promoted the construction of an illegal trail from the Fernando Belaunde Road to the village of Villa Hermosa. Although the trail was opened in 2012 in the buffer area of the AMPF, it was confirmed with locals that the intention was to enter into the AMPF core zone and attract more people to the region. Therefore, since 2013 actions have been carried out in collaboration with various authorities in the region that aim to avoid the continuation of the construction of the illegal trail. Additionally the project is implementing special patrols in the region whose observations confirmed the settlement of a few families in Villa Hermosa. The special patrol units are expected to maintain the monitoring of land trafficking in that sector and coordinate with the relevant authorities to prevent possible illegal activities within the AMPF.

Effects of climate change

Risks of climate change will be present throughout the project lifetime. Changes in rainfall patterns were observed in this monitoring period and could be considered an example of the effects of climate change. The intensity of rainfall above the expected levels for the region, separated by intense sunny days, was the perfect combination for the outbreak and breeding of coffee rust, and generated conditions for the occurrence of other pests such as *ojo de pollo* and *la poma*.

Several technical actions to mitigate the risks associated with the effects of climate change on coffee production are being implemented in the field and are described in above subsections. Furthermore, the permanent presence of project staff in the field and the constant monitoring of the demonstration plots ensure that actions would be taken immediately after the observation of any disease outbreak and avoid significant losses. In addition, the technical staff responsible for the implementation of Conservation Agreements is skilled in developing and performing preventive and curative actions to avoid outbreaks of new coffee diseases.

Impact of electoral campaigning

Regional (including, districts and provinces) and presidential elections will be held during 2014 and 2015 which makes these years special. Historically, election years have been a source of social conflict within the AMPF. Most of the candidates have offered actions that could not be legally performed within the AMPF. These offers only guaranteed votes for the candidates. The most representative conflict in the AMPF (illegal cart track in Aguas Verdes) was a political offer of a regional candidate.

Based on these lessons learned, a systematic work on informing current authorities (mostly candidates for the next period) about the regulations that would sanction candidates should they offer/execute illegal works in the AMPF started two years ago. Also, the communications and social management teams with the support of the management committee will visit the candidate during the last two months of campaign and will also visit the winners of the district and provincial elections.

At the same time, various villages in the AMPF are being visited. The purpose of these visits is to clarify any electoral offer they may have received by the candidates. They also intend to raise awareness of voting so that the candidates do not easily deceive the population.

2.4 Measures to Maintain High Conservation Values (G3)

With the implementation of the Administration Contract, three strategies were developed aiming to preserve High Conservation Values areas within the AMPF: a) Control and Surveillance, b) Conservation Agreements c) Communications and environmental education. These strategies are being implemented in locations that were selected using the results from the established baseline and first monitoring of primates done by *Proyecto Mono Tocón*. There are three endemic species of primates in the AMPF: Mono choro cola amarilla (*Oreonax flaviculada*), the tocón andino (*Callicebus oenanthe*) and the mono nocturno (*Aotus miconax*) (see Table 26).

Patrols were also concentrated in areas of greatest threat to the forests of the AMPF. Estimation of effort and impact of the patrolling is described in Section 8. The control and surveillance strategy was complemented by the expansion of different benefits from the Conservation Agreements and the implementation of awareness-raising and environmental education activities. This joint effort has succeeded in reducing the threats in the southern watershed and in some northern parts of the AMPF.

Additionally, the strategy of Tourism Use in the AMPF is prioritizing activities (i.e. development of pilot Conservation Agreements for eco-tourism), with a focus on the avifauna tourism. In 2013 and 2014, the AMPF participated in the International Rally of Bird Tourism, and was identified as the Northeast corridor hotspot for bird tourism. These actions contribute to the recognition of the importance of the AMPF and to the enhancement of financial resource to the local population, as well as to eco-tour operators and public institutions related to this activity.

2.5 Project Financing (G3 & G4)

Upon the signature of the Administration Contract in 2012, CI-Peru was allowed to commercialize carbon credits derived from the conservation of the AMPF, and it has been the main source of funding. The technical and financial proposal approved extends the Administration Contract for 5 years and requires a minimal investment of S/17 million by the project for the implementation of the following objectives:

- Objective 1: Reduce the current rate of deforestation in the AMPF by at least 20% during the Administration Contract period;
- Objective 2: Promote, regulate and normalize the activities regarding the use of renewable natural resources within the AMPF, reducing the negative impacts to the NPA considering zoning established in the Master Plan;
- Objective 3: Formalize the tourist activity, generating a net positive economic flow for the AMPF management and extending the benefits to local people;
- Objective 4: The AMPF will become a nationally recognized place for research with the capacity to provide basic services and infrastructures for researchers;
- Objective 5: Conservation Agreements are signed with people located within the AMPF and its buffer zone;
- Objective 6: Promote the implementation of at least one mechanism of payment for environmental services to contribute to the financial sustainability of the AMPF;
- Objective 7: Update the AMPF Master Plan;
- Objective 8: Management and monitoring of the Administration Contract.

Details of project financing are described in the financial analysis of the Non-Permanence Risk Report N°3 and its annexes, which includes project revenue and costs associated with its implementation. The financial health of CI and other related documents are made available to the verifiers upon request.

In order to minimize the pressure on natural resources in the buffer zone, and therefore, contribute to the objectives of the AMPF, the project work will intensively obtain additional funds to implement sustainable development projects in the Upper Mayo watershed. The objective of these projects is to establish a comprehensive landscape management plan and the promotion of green economies.

2.6 Employment Opportunities and Worker Safety (G4)

The hiring of new staff for the AMPF Head Office and for the various partners of the Administration Contract, as well as for CI-Peru followed the guidelines established and described in the CCBS PD and verification report for 2008-2012. Therefore, employment opportunities have been generated considering only the capabilities of the candidates for the required skills and knowledge to perform the job without any exclusion or discrimination.

Induction Protocol

All new staff of the AMPF, regardless of the organization that hires them, receives an induction orientation from their supervisor. This orientation aims to contextualize the new employee on the AMPF management, the current context, and the expected contribution from the professional as well as their rights and obligations. In cases that are needed, depending on the degree of responsibility of the position, the AMPF Chief of Head Office or Administration Contract Manager (or both) will conduct further dialogue with the new staff in order to reinforce the high importance of their responsibilities within the management area.

Training Plan

Conservation Agreements Technical Team

In 2012, based on the achievements obtained, a training plan on the strategy of Conservation Agreements was developed and implemented for the technical team. This plan included, in addition to the professionals involved in the implementation of the strategy, a group of more than 30 promoters who are considered the best conservation agreement subscribers, and whose fundamental role is to technically assist other subscribers in their own sectors.

The technical training plan was divided into two main themes. The first theme related to the technical management of coffee in agro-forestry systems, focused on adult training. The second theme related to basic concepts on business administration that every coffee farmer must handle. Two local NGOs were leading these processes; Ecoyungas trained on coffee management issues and ACAC on business concepts.

A total of 27 training sessions were given to technical staff, totaling over 150 effective hours of capacity building.

The evolution of the Conservation Agreements strategy involves the articulation of the subscribers' production to special international markets. In order to achieve this, it is necessary to create an organization of subscribers, to obtain the different certifications there are for agro-export products and to achieve the acceptance of SERNANP to formalize the marketing of these products. Therefore, this 2014, a training plan is being developed by the Conservation Agreements team in order to complement the one there is now in relation to market articulation; including the topics mentioned above and also, coffee sampling, traceability processes, partnerships and others.

This complementary plan will also be aimed at Conservation Agreements promoters and the heads of the management team.

Monitoring and Surveillance Technical Team

The dynamics of the threats to the AMPF led to the strengthening of the capacities of the forest rangers staff on conflict management and community relations; in addition, we continued with the technical training related to field team management, mapping, on the field survival, protected natural areas and others. In total, 24 training sessions on monitoring and surveillance were offered to the staff during 2013 and 2014. It should be mentioned at this point that, in addition to the training plan, the project has funded the travel expenses of forest rangers to be trained in events sponsored by the SERNANP or other bodies on themes related to the management of protected natural areas.

Likewise, the legal adviser to the AMPF, funded by the project, has done ongoing training on the implementation of legal tools of protected natural areas and administrative procedures for the AMPF. These trainings have been provided at the request of the AMPF Chief of Head Office and those responsible for the monitoring and surveillance strategy.

In June 2014, the biannual assessment of progress in the management of the AMPF will be conducted. Based on these results, new themes will be raised in order to complement the training provided so far to the monitoring and surveillance team so as to consolidate the strength it needs to face the current threats to the AMPF.

The AMPF Head Office

The current Chief of the AMPF Head Office started his formal functions in mid-2012. This involved a special induction on the context of the AMPF and specific training sessions on specific subjects relating to Protected Natural Areas (PNAs) management such as the mechanism of Conservation Agreements, REDD+ and the work done with population living in the area. In addition, as the training for the technical and ranger staff (depending on the subject being dealt with) was being implemented, the Chief of Head Office participated in specific training sessions especially in those related to social issues such as conflict prevention and community relations. He also participated in training sessions on legal aspects relating PNAs.

The dynamics of the management of the area led to an increase of the staff team. Although they are paid by the project, many of them report directly to the AMPF Head Office; with this understanding, the SERNANP is developing a certification program on Strategic Management for various heads of PNAs, one of which is the AMPF Chief of Head Office. This systematic strengthening of the capacities of the AMPF Chief of Head Office greatly helps to improve his management skills and be more in accordance with the current context of the AMPF.

Security protocol

At the suggestion of the AMPF Head Office staff, some points requiring modification were identified during the implementation of the security protocol, which was reported in a previous verification. This management document was updated based on that. Its implementation is necessary especially for the staff whose work scheme demands more time and staying overnight in camp.

To date, the risks in the development of the work of the management team have been minimized thanks to the implementation of the security protocol; even with the increasing threats to the AMPF.

2.7 Stakeholders (G3)

This report was uploaded into the Climate, Community and Biodiversity Alliance's website for public comments. The public comment period will be at least 30 days. The project informed the stakeholders with internet access of the website and the opportunity to comment of the document. For people living in the project zone without internet access, information regarding the content of the document was communicated through the Management Committee, park rangers, and Conservation Agreement technicians with information on how to submit their comments. Hard copies of the document were available for public viewing and comment during the public comment period at the AMPF Head Office as well as at Conservation International's offices in Rioja, allowing local, regional and national stakeholders to provide feedback on the document.

In addition, key information about the project and the main results of the monitoring report was translated into Spanish and organized in a poster to facilitate the comprehension of local population. The poster was displayed in various parts of the AMPF and major towns in the project zone.

Although the project has taken specific actions to disseminate the results of the PIR and facilitate the submission of comments to CCBA, the engagement with stakeholders happened throughout the monitoring period. The last two years of the project have marked a milestone in the management of the AMPF. For the first time, a socioeconomic register of the population settled in the northern part of this area was made. The management team has held in-camp meetings in most of the villages. This meant obtaining a real understanding of the AMPF occupancy level as well as getting to know the various groups conducting activities in the area and improving the relationship with them. Throughout the reporting period the project has engaged with the following key stakeholders:

Rondas Campesinas

Most of the population living in the AMPF is organized in *rondas campesinas*, a type of social organization protected by Law No. 27908 and its regulations. None of these patrol groups settled in the AMPF is officially registered with the *Superintendencia Nacional de Registros Públicos* (the national entity that holds public records in Peru) - SUNARP (from its acronym in Spanish). All peasant patrol groups should be registered with SUNARP in order to comply with the law. However, in practice, these rounds omit this essential step from their actions, and even then, they are supported by the various levels of organization that establish this mechanism. This means that the district, provincial, regional and national

patrols acknowledge and support the *rondas campesinas* settled in the AMPF even without complying with the formality of law.

In order to defuse and resolve the socio-environmental conflicts produced by the invasions carried out in the area, the AMPF Head Office started a coordinated work with the *rondas campesinas* which led to the signing of an agreement between the AMPF Chief of Head Office and two *rondas campesinas* which included 19 of the 26 villages settled in the AMPF. This agreement demonstrates the good willingness and disposition of the *rondas* who have listened to the proposals and suggested solutions in favor of the population and the protected natural area they live in.

The groups of *rondas campesinas* who signed the agreement with the AMPF Head Office are being benefited by individual Conservation Agreements, and by other benefits at the village level. These help improve the living conditions of the local population, such as the improvement of schools, the payment of teachers and other benefits that aim at fixing the alliance between the State and the local people in order to achieve the socio-economic and environmental development of these villages.

The groups of *rondas campesinas* who did not sign the agreement are located in the area of Candamo where land trafficking and deforestation has concentrated in the past two years. Although the AMPF Head Office has visited and spoken to these peoples, they are very reluctant to accept government authority and are implementing actions that are contrary to the conservation of forests in the area of the AMPF. The firm position of the AMPF Head Office is to exhaust all mechanisms to maintain the dialogue with these populations, establishing actions to prevent the deforestation of this highly important area (the source of the Mayo River) and in turn, avoid worsening this socio-environmental problem.

Technical Advisory Group (*Mesa técnica*)

Due to the construction of an illegal trail that runs from the town of Aguas Verdes (buffer zone) to El Triunfo (within the AMPF), the population organized and created the *Frente de Defensa de los Intereses de los Poblados de Aguas Verdes* (Front for the Defense of the Interests of the Villages of Aguas Verdes) which, as in the case of the *rondas campesinas*, has not been registered with SUNARP either. However, the AMPF Head Office has been coordinating with this front for more than two years in search of solutions to their proposals, which are contrary to the regulations of NPAs and the wholesomeness of AMPF.

The Technical Advisory Group for the resolution of this conflict was created as a result of the dialogue with the Front for the Defense and with the *rondas campesinas* settled in the AMPF. The Technical Advisory Group is a body that brings together not only these actors and the AMPF Head Office, but also representatives of the Regional Government of San Martín, the local governments of Miguel Pardo Naranjos, Rioja and Moyobamba, the Ombudsman Office, Conservation International and others.

The Advisory Group is the highest instance for dialogue between local people and the State. All the complaints from the local population are brought there, but also their aspirations for development, generating proposals that meet these aspirations without reducing the AMPF.

One of the main achievements of this group was the implementation of the Aguas Verdes Functional Hub. This is a political strategy from the Regional Government aimed at concentrating the multi-sectorial investment in a strategic point in the buffer zone where health and education services will be provided to

generate competitive capabilities in the young generations of the population living within the AMPF. Furthermore, this strategy implies that the population fulfils the conservation commitments assumed with the AMPF Head Office, generating a suitable mechanism for the final solution of this social conflict, a mechanism which is necessary to consolidate the management of the area.

This instance is strongly supported by the project. It is understood that this is the most representative inter-institutional platform ever created to address issues related to the management of the AMPF; in that sense, the project impacts are entirely positive.

Subscribers and promoters

Conservation Agreements have significantly increased in the past two years. This implies that this group of stakeholders is the main actors from the local communities with whom we work as a project and as a comprehensive management for the AMPF.

Since its inception, technical staff is constantly maintained in different sectors where these agreements are implemented. This facilitates the flow of communication between the population and the technicians who serve as spokesmen for the concerns, disagreements, and suggestions of the subscribers. However, the regular monitoring of the implementation of Conservation Agreements is one of the main reasons for complaints from this group of actors. These complaints are answered immediately, and are assumed by the head responsible of the implementation in the field in support of a specialist from the AMPF Head Office. In specific situations, meetings between subscribers, the AMPF Chief of Head Office and the Manager of the Administration Contract are encouraged in order to promote transparency and to solve the most critical complaints from the subscribers.

It is noteworthy that the team formed by the person responsible for the implementation of Conservation Agreements and the specialist from the AMPF Head Office promote and participate in meetings with the subscribers in each of the sectors. They are constantly feeding back to the management team on the advances made under the strategy and any issues or problems arising from the subscribers.

Since 2013, the promoters of Conservation Agreements have made great contributions which are worth mentioning. Even though their primary role is purely technical, they function (at their own initiative) as conciliators and communicators of the AMPF management. They retransmit any question that local people may have (be thy subscribers or not) to the technician or to any personnel from the management team.

Meetings with local people

The meetings with local people were identified as the best mechanism for the collection of complaints against the activities of the project and the management in general. The mechanism proposed during the first verification was also maintained. In this regard, most of the local population avoids making complaints in writing. However this does not mean they are fearful about the mechanism, it is not common practice of the population to make written complaints. In order to adapt to this cultural nuance, it was decided to promote meetings with various communities settled in the AMPF.

Over the past two years, the AMPF management team has held more than 100 field meetings with the local population from the AMPF. This was achieved thanks to its various strategies: communications, Conservation Agreements, community engagement, monitoring and surveillance, and institutional impact.

The Administration Contract, which encompasses all the components of the project, has been explained in all the villages during the initial meetings. Additionally, all sort of institutional individualization of the management of the AMPF is avoided. Therefore, the presentation of professionals always claims to be part of the management team of the area.

Most complaints about the project refer to the increase in Conservation Agreements benefits. Details of the benefits package mechanisms and budgetary constraints have been explained to the villagers who seem to understand this context. However, the project has been able to generate balances and raise small funds to implement supplemental benefits to coffee in response to the request of the subscribers as well as to increase the benefits package of coffee in some cases.

Awajún Indigenous Communities

As identified in the first verification, it has been confirmed in the last two years that the project does not generate any negative impact on Awajún indigenous communities since they do not maintain traditional use of resources or territory within the AMPF.

It is noteworthy that the ongoing projects with some Awajún indigenous communities are considered a plus in the intervention strategy of CI-Peru. The periodicity in the implementation of these projects helps to socialize the intervention in the AMPF and to be aware of any comments that may arise on the part of the indigenous communities about any concern or benefit attributable to the project. To date, the technical staff of the project in in Awajunes communities have not received or heard of any adverse comment about the AMPF management.

3 LEGAL STATUS

3.1 Compliance with Laws, Statutes, Property Rights and Other Regulatory Frameworks (G4 & G5)

An extensive analysis of laws, statutes and regulations that are applicable to the project, including worker's rights, was done and is described in detail in the Section 1.11 of the VCS PD and Sections G4.5 and G5.1-2 of the CCBS PD. Since the last monitoring period, there were no changes in the laws and statutes listed in the PDs. On January 2014, a new regulation regarding the commercialization of rights from conservation projects of natural ecosystems within natural protected areas of national administration (RP. 26-2014-SERNANP) was enacted.

This presidential regulation establishes procedures to obtain the authorization from SERNANP to develop, implement and commercialize from the conservation of natural ecosystems generated within a

natural protected area, including carbon credits from REDD projects . A non-profit organization can obtain the rights through an Administration Contract.

3.2 Evidence of Right of Use (G5)

In November 8, 2012 CI-Peru signed the Administration Contract with SERNANP. The Administration Contract gives CI-Peru co-management authority over the AMPF and vests CI with the right of use over any greenhouse gas emission reductions or removals within the AMPF, in order to support the effective implementation of the PA's Master Plan. The regulation (RP. 26-2014-SERNANP), provides a specific legal framework to obtain the right from SERNANP to commercialize carbon certificates generated within a natural protected area. Evidences of the procedures followed by CI-Peru to obtain this right in accordance with the resolution enacted by SERNANP were made available to the verifiers.

3.3 Emissions Trading Programs and Other Binding Limits (CL1)

Peru does not currently have any binding commitments and/or obligations to reduce GHG emissions from the Land Use, Land Use Change and Forestry (LULUCF) sector.

3.4 Participation under Other GHG Programs (CL1)

The project has not been registered and is not seeking registration under any other GHG program.

3.5 Other Forms of Environmental Credit (CL1)

The project has not and does not intend to generate any other form of GHG-related environmental credit for GHG emissions reductions or removals claimed under the VCS Program. The only GHG-related environmental credit generated by the project will be under the VCS.

3.6 Projects Rejected by Other GHG Programs (CL1)

The project has not been rejected under any other GHG program.

3.7 Respect for Rights and No Involuntary Relocation (G5)

The legal and related contexts explained in the previous verification are kept up to date. There is no variation in the Peruvian or international legislation which requires a re-evaluation of this issue.

It is worth mentioning that the basic needs and the development projection of the local population living in the AMPF are impossible to implement within this NPA because they are officially considered illegal by the State. However, we are aware that the natural evolution of the management of the AMPF involves creating opportunities for these populations. As explained in Section 2.7, the project supports the Technical Table for the solution of the socio-environmental conflict in Aguas Verdes. This table is the reason why so much effort is put in the implementation of the Aguas Verdes Functional Hub where local people will have access to basic services such as health, education and others that need to be implemented within the AMPF, but this is legally infeasible.

At the same time, the management of the AMPF, with the support of the project, is implementing social benefits aimed at improving the living conditions of the people who have voluntarily committed to become allies of the AMPF management. These benefits are materialized in the payment of teachers in the areas of El Carmen and Nuevo Eden. Also, the project is fully implementing 10 pilots of integrated agricultural management farms under organic practices. This includes providing technical assistance to subscribers throughout their productive area regardless of the type of crops they produce, i.e. coffee, grass, agricultural basic goods, or permanent crops. As a complement, the subscriber is trained so as to implement concrete actions on home health including: the improvement in the distribution of home spaces, solid waste management, gray water management, latrines, and others. The objective of these pilots is to generate family management models compatible with their environment ensuring improvements in living conditions.

3.8 Illegal Activities and Project Benefits (G5)

No project benefits are derived from any illegal activity. The project has been working closely with the AMPF Head Office to control and halt any illegal action might that occur in the project area. During the last monitoring period, for example, although fewer patrols have been conducted, they have been much more effective, generating eight lawsuits and 9 prosecutions during 2013 and the first quarter of 2014 compared to the 10 lawsuits and 25 prosecutions made in the previous 4 years. In addition, the Conservation Agreements explicitly mention that no illegal activity would be accepted.

The most significant achievements of the management, such as the First Subscribers Meeting and the inclusion of the AMPF within the circuit of the Birding Rally Challenge are highlighted by the media in national newspapers, the AMPF fan page, and on the SERNANP website. These mechanisms are established to permanently inform the local population and other stakeholders on the progress in the management of AMPF.

Additionally, videos related to the progress of the project and the contribution it involves as an innovative experience in the management of NPAs, have been developed. The following is highlighted in the videos:

- The video made between CI-Peru and the Ministry of Environment: "*Perú hacia un camino verde*" (Peru towards a green way) in which the REDD+ experience is emphasized, is being implemented in the AMPF. The documentary was broadcasted nationwide. Several copies were distributed to various public and private institutions at regional and national level. This video was also shown to the local population in the First Subscribers Meeting.

- Conservation Agreements in the AMPF: the vision of the people. Video for internal use, broadcasted in meetings and in workshops on communications and Conservation Agreements with the population living within the AMPF.
- The AMPF Documentary: Released in "*Cine en tu Plaza*" (movies in the park) in the city of Rioja on June 5, 2014 as part of the celebrations for Environment Day. Press releases were written about this event to be published on local and regional newspapers and to be posted later on the fan page and the SERNANP website.
- Subscribers meeting: a video that summarizes the implementation of the First Subscribers Meeting to be aired on local and regional television and to be posted in the AMPF fan page and the SERNANP website.

Also, the implementation of Conservation Agreements is being systematized as part of the dissemination mechanisms. A document will detail the achievements and lessons learned in the more than six years of implementation of this important and innovative management strategy with the population that lives within a NPA.

Audiovisual material will be produced during the second half of 2014 highlighting the achievements in the management of the AMPF. This material will mainly be disseminated in local and regional media. There will be press notes to cover these releases which will be posted later on the AMPF fan page and the SERNANP website.

4 APPLICATION OF METHODOLOGY

4.1 Title and Reference of Methodology

The project applies the "Methodology for Avoided Unplanned Deforestation" (VM0015, Version 1.0) approved by the VCS on July 12, 2011.

4.2 Deviations from the Monitoring Plan

There were no deviations from the monitoring plan during this monitoring period.

4.3 Project Boundary (G1)

The project boundary, including spatial, temporal, carbon pools, and sources of GHG emissions, did not change since the validation. The same carbon pools and GHG sources were considered in the baseline and project scenario, and only include above- and below-ground biomass. Refer to Section 2.3 of the validated VCS PD for full description.

4.4 Baseline Scenario (G2)

The most likely land use scenario in the absence of the project is the continuation of deforestation through forest conversion to other uses, mainly coffee and pasture. This scenario has been identified through a participatory consultation process and followed the steps of the VCS methodology (see Section 2.4 of the VCS PD and Steps 4-5 of the Methodological Annex). The justification and description of the range of potential scenarios of land use are shown in the analysis of additionality (see Section G.2.2 of the CCBS PD). The analysis of the direct causes of GHG emissions is included in the report: "Analysis of agents, direct causes and underlying causes of deforestation in the Forest of Alto Mayo Protection" (see Step 3 of Annex Methodological the VCS PD).

The deforestation likely to occur in the baseline scenario will have severe consequences for the well-being of communities within the project zone as well as to biodiversity. Since the last monitoring period, there was no major change in the causes and agents of land use change in the project, and therefore the baseline analysis remains valid. The effects of the baseline scenario on the communities and biodiversity are detailed in Sections G2.1-5 of the CCBS PD.

4.5 Additionality (G2)

The project activities are highly additional since the benefits for climate change mitigation, biodiversity conservation, and the sustainable development of local communities would not have occurred without the project. In addition, the project offers the only realistic solution to overcoming the barriers that have prevented the success of prior initiatives in reducing deforestation in the AMPF. The project used the VCS Tool VT0001 "Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities" (Version 1.0) in order to demonstrate the additionality of the project.

In the absence of the REDD project, the major barriers (lack of sustainable investment from Peruvian government to improve protected area management capacity, lack of skills and knowledge on production of organic coffee) will continue to prevent effective reductions in the deforestation rate in the AMPF. The project combines improving the governance of the AMPF, promoting sustainable agriculture practices, improving environmental awareness, and consolidating participatory management mechanisms, while integrating AMPF policies into regional process and establishing a long-term financial mechanism through carbon credits.

5 MONITORING DATA AND PARAMETERS

5.1 Description of the Monitoring Plan (CL3, CM3 & B3)

A full description of the monitoring plan is detailed in the biodiversity and socio-economic protocols as part of the CCBS PD, and in the Section 4.3 of VCS PD. Below is a description of the implementation of the protocols for this monitoring period, and in the Sections 8 and 9 are the descriptions of the results.

The results of the monitoring period were widely publicized in the local language to the communities and other stakeholders, and comments received were incorporated in the report. In addition the Project Implementation Report was submitted to CCBA for a 30-day public comment period, and any relevant observation will be addressed.

Climate

Since the date of validation and verification, no regional, national, or jurisdictional monitoring system of land-use and land-cover change was in place. Therefore, the project proponent was responsible for implementing the land-use and land-cover change component of the monitoring plan for the project area and leakage belt. The analysis covered the monitoring of forest land converted to non-forest. In order to assure consistence and high quality analysis the monitoring plan closely followed the methods, rules, and procedures used in the last monitoring period and specified in Conservation International's standard change detection methodology (See Sup.Inf_Meth_03a-c).

The land cover and change maps were produced following the technical steps described below and detailed in Sup.Inf_Meth_03a-c, including quality assurance procedures. Accuracy assessment as described in Steps 2.4 and 2.5 of Part 2 of the AMCI Methodological Annex was performed. The estimated accuracy of the final 2012 classification was 93%, above the minimum accepted accuracy of 80%.

1. Landsat images with minimal cloud cover were acquired online from the United States Geographical Survey website. Multiple images were used in the verification to fill areas obscured by clouds, as listed in MR Table 1.a:

MR Table 1.a. Data used for monitoring LU/LC change analysis

Vector (Satellite or airplane)	Sensor	Resolution		Coverage (km ²)	Acquisition date (DD/MM/YY)	Scene or point identifier	
		Spatial	Spectral			Path / Latitude	Row / Longitude
Landsat 8	OLI/TIRS	15-30m	0.43 - 12.5 µm	170 x 185 km	12-Jul-14	8	64
Landsat 8	OLI/TIRS	15-30m	0.43 - 12.5 µm	170 x 185 km	18-Feb-14	8	64
Landsat 8	OLI/TIRS	15-30m	0.43 - 12.5 µm	170 x 185 km	20-Apr-13	8	64
Landsat 8	OLI/TIRS	15-30m	0.43 - 12.5 µm	170 x 185 km	4-Aug_14	9	64
Landsat 7	ETM+	30m	0.45 - 12.5 µm	170 x 183 km	9-Jun-14	9	64
Landsat 8	OLI/TIRS	15-30m	0.43 - 12.5 µm	170 x 185 km	16-Jul-13	9	64

2. All of the images used in the analysis were cloud masked and orthorectified.
3. The images were classified in two-date image stacks (2012/2014) using decision tree analysis

(RandomForest), the process was repeated for those areas obscured by cloud in 2012, stacking 2006/2014 images;

- a. Map classes include: 1=forest, 2=non-forest, 4=water, and 5=cloud.
 - b. Training sites were selected to represent both change and non-change areas.
 - c. Training sites included numerous sub-classes for each land-cover and change class, to incorporate the full range of spectral variability within the image.
4. The final classification was filtered in ERDAS using a neighborhood majority filter 3x3. Then the map product was processed using Clump and 0.5-hectare Eliminate.
 5. Areas of change from forest to non-forest were extracted from the final 2012-2014 land-cover change map and overlayed on the forested area from the original 2012 classification to create the updated 2014 land-cover map. Thereby minimizing the amount of erroneous transitions and reducing the map agreement error.
 6. Areas of cloud in the 2012 land cover map were updating using a two-date images stack from 2006-2014, and then updated following the same methods described in steps 3-5. Areas that were obscured by clouds in 2014 were excluded and will be updated in future monitoring periods.

As no high resolution images circa 2014 (i.e. spatial resolution of 5m or higher) and cloud free in the project area and leakage belt were available, the final product was validated with ground-surveyed points. Data collected on deforestation by the park rangers in 2013 and 2014 were compiled and overlaid to the classification map. This process was used to measure the omissions from the final forest cover/change map. In order to assess the false alarms (i.e. areas deforested in the classification, but not in the field), 100 points were distributed over the observed 2012-2014 deforestation in the satellite images and checked on the ground. These points were allocated randomly using a GIS tool. Park rangers visited the location of these points and made notes regarding the actual land cover class. Some points were not able to verify due to the accessibility. The result of the error matrix (or confusion matrix) was above the required 80% accuracy from the VM0015 methodology.

Biodiversity

The methodological framework used to estimate the net positive impact of the project on biodiversity is detailed in the *Protocolo de Monitoreo de la Biodiversidad*. The indicators were designed to measure the positive and negative impact inside and outside the project zone. The Table 4 summarizes the expected impacts on the biodiversity.

During the monitoring period of this report 2012-2014, there was no deviation in the data collection and analysis from the methods and procedures described in the *Protocolo de Monitoreo de la Biodiversidad*. Most of the information was collected in the field through patrolling and biodiversity transects, complemented by GIS and remote sensing analysis. The technician of the AMPF Head Office collects and systematizes the data gathered by the park rangers during the monthly patrolling. Every trimester, *Proyecto Mono Tocón* reports the results from the monitoring of primates to CI's ecosystem services

coordinator, who analyzes and approves the report. The results of each indicator are described in the Section 8 of this report.

Table 4 - List of impact on biodiversity inside and outside the project

	Expected Impacts on Biodiversity	
	Positives	Negatives
Inside Project Zone	1. Conservation of the habitat of high importance species for the biodiversity of the AMPF 2. Habitat fragmentation of high importance species for the biodiversity of the AMPF is avoided 3. Maintenance and/or enhancement of High Conservation Value Areas of the AMPF 4. Maintenance and / or recovery of populations of endemic and threatened species above its critical level 5. Pressure reduced to ecosystems of the AMPF through the promotion of sustainable use practices by local people 6. Strengthening of operational capacity of the AMPF Head Office, improving the response to the pressures on the area 7. Restoration of degraded ecosystems of the AMPF through the implementation of reforestation and agroforestry systems 8. Locals recognize and value biodiversity and ecosystem services of the AMPF and are an ally in their conservation 9. Reduction of illegal extraction of wildlife in the AMPF	N/A
Outside Project Zone	1. Maintenance of the connectivity of the Conservation Corridor Abiseo-Cóndor-Kutukú – CCACK 2. Maintenance and improvement of ecosystem services of the AMPF (water and soil) for the benefit of population outside project zone 3. Recognition and valuation of biodiversity and ecosystem services by AMPF natural resources stocks outside project zone 4. Technology transfer to improve coffee production	1. Displacement of deforestation to the habitat of the species of high importance for biodiversity in the leakage belt 2. Displacement of illegal extraction of flora and fauna out of the project area creating additional pressure on forests in the buffer zone

systems outside project zone	
5. Leverage new projects for the conservation of biodiversity in the Alto Mayo	

Community

The methodological framework used to estimate the net positive impact of the project on communities is detailed in the *Protocolo de Monitoreo Socioeconomico* and are based on the results chain analysis of the project strategies. The indicators were designed to measure the positive and negative impact inside and outside the project zone. Table 1Table 5 summarizes the expected impacts on the communities.

During the monitoring period of this report 2012-2014, there was no deviation in the data collection and analysis from the methods and procedures described in the *Protocolo de Monitoreo Socioeconomico*. Most of the information was collected in the field through patrolling and biodiversity transects, complemented by GIS and remote sensing analysis. The technician of the AMPF Head Office collects and systematizes the data gathered by the park rangers during the monthly patrolling. Every trimester, *Proyecto Mono Tocón* reports the results from the monitoring of primates to CI's ecosystem services coordinator, who analyzes and approves the report. The results of each indicator are described in the Section 8 of this report.

Table 5 - List of impact on community inside and outside the project

	Expected Socioeconomics Impacts	
	Positives	Negatives
Inside Project Zone	1. Strengthen governance of the AMPF 2. Improve production systems of the local population and promote coffee associations in connection to special markets 3. Capacity building and knowledge among local people for sustainable management of their production systems 4. Improve living conditions of the local population in harmony with the objectives of the AMPF 5. Generate economic alternatives for the population through conservation actions aligned with AMPF management 6. Maintenance and improvement of ecosystem services of the AMPF (water and soil) for the benefit of population in the project zone	1. Decrease economic opportunities from illegal activities 2. Decrease provision of basic services within the AMPF 3. Improved control over the expansion of the agricultural frontier 4. Less support from land holders to their families in the area of origin

	7. Sustainable management of natural resources within the BPAM by the local population 8. Empowerment of the partnership between the local population and the AMPF Head Office for conservation	
Outside Project Zone	1. Maintenance and improvement of ecosystem services of the AMPF (water and soil) for the benefit of the population outside the project zone 2. Technology transfer to improve coffee production systems outside project zone 3. Leverage new projects for sustainable development of the Alto Mayo watershed	1. Demand for conventional coffee practices are displaced to native communities increasing unsustainable land use in areas rented by them 2. Customary uses of the native communities could be affected by increased surveillance and control program of the PNA

5.2 Data and Parameters Available at Validation (CL3)

No changes were made to the data and parameters presented to the validators during the validation process. Please refer to the VCS PD Section 4.1 for the list of data and parameters, also publicly available at the [VCS website](#).

5.3 Data and Parameters Monitored (CL3, CM3 & B3)

Climate

Data Unit / Parameter:	Forest Cover and Change Map (2012-2014)
Data unit:	Map
Description:	Digital map of forest cover in 2014 and change 2012-2014 in the project area and leakage belt (Figure 5)
Source of data:	Landsat (MR Table 01.a.)
Description of measurement methods and procedures to be applied:	Satellite imagery-based forest cover change classification using decision tree and see5 methods.
Frequency of monitoring/recording:	At every verification period
Value applied:	2 ha of forest patch as minimum threshold

Monitoring equipment:	ERDAS 10.0 and ArcGIS 10.2
QA/QC procedures to be applied:	Quality Control and Assurance procedures are detailed in the Methodological Annex. The overall map accuracy is above the 80% required by the VM0015
Calculation method:	n/a
Any comment:	Raster format – 30m resolution – projection system UTM zone 18S – datum WGS84. GIS files provided to the verifier.

Data Unit / Parameter:	ABSLPAi,t
Data unit:	ha yr ⁻¹
Description:	Annual area of observed deforestation in the project area for the period 2012-2014
Source of data:	GIS processing
Description of measurement methods and procedures to be applied:	Results of overlaying the forest cover map with the project area boundaries
Frequency of monitoring/recording:	At every verification period
Value applied:	GIS files of the project boundary
Monitoring equipment:	Computer and ArcGIS 10.0 software
QA/QC procedures to be applied:	Projection system and datum was kept consistent. Clear and detailed documentation and independent desk review to assure consistency and accuracy of the GIS procedures
Calculation method:	Spatial Analysis tool (tabulate area in zonal statistics toolbox)
Any comment:	n/a

Data Unit / Parameter:	ABSLKLi,t
Data unit:	ha yr ⁻¹
Description:	Annual area of observed deforestation in the leakage belt for the period 2009-2012

Source of data:	GIS processing
Description of measurement methods and procedures to be applied:	Results of overlaying the forest cover map with the leakage belt boundaries
Frequency of monitoring/recording:	At every verification period
Value applied:	GIS file of the leakage belt
Monitoring equipment:	Computer and ArcGIS 10.0 software
QA/QC procedures to be applied:	Projection system and datum was kept consistent. Clear and detailed documentation and independent desk review to assure consistency and accuracy of the GIS procedures
Calculation method:	Spatial Analysis tool (tabulate area in zonal statistics toolbox)
Any comment:	n/a

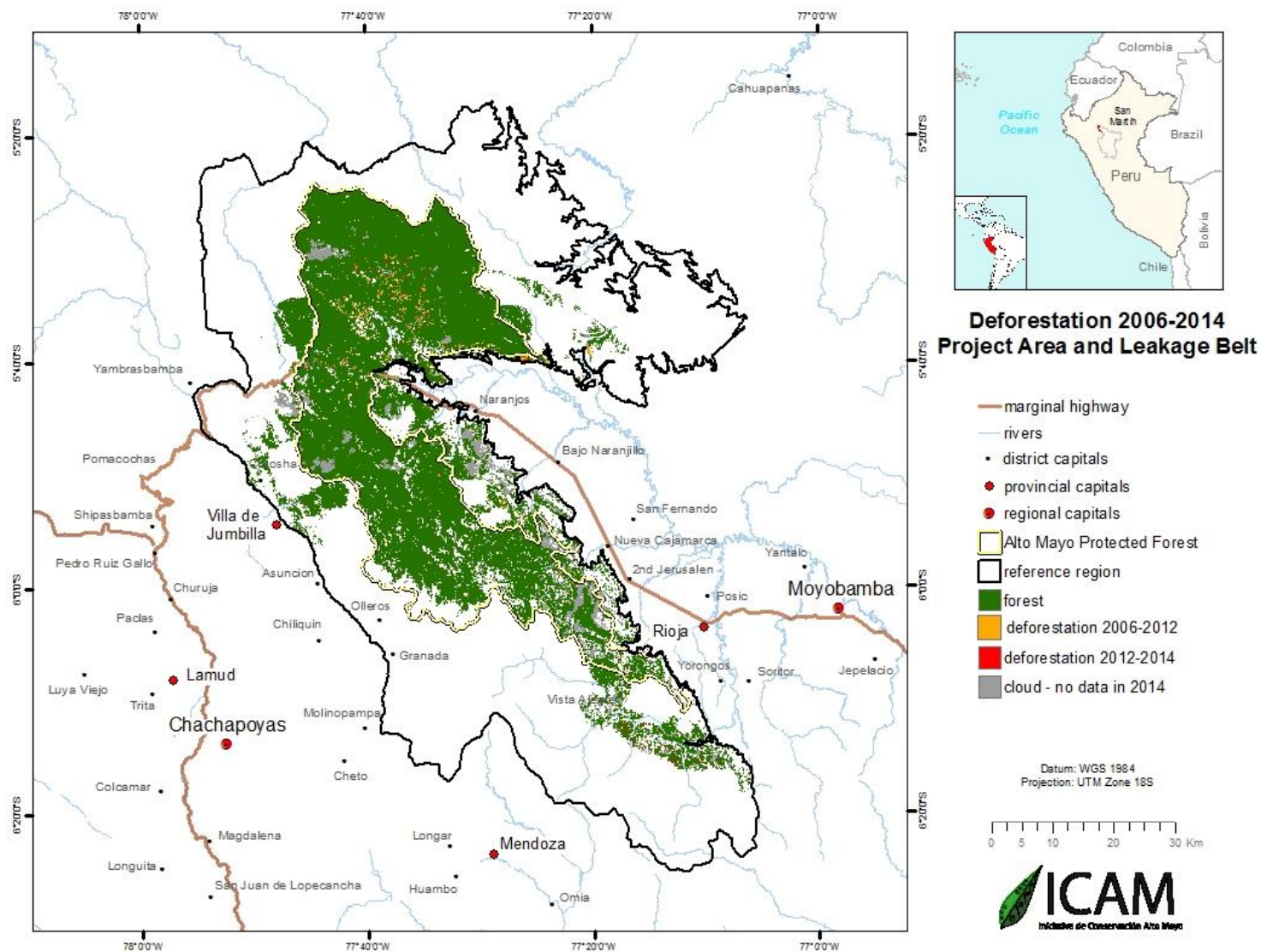


Figure 5 - Deforestation map 2006-2012. It shows the observed changes between forest and non-forest classes within the project area and leakage belt.

Biodiversity

Please refer to the Biodiversity Protocol for a full description of the data and parameters monitored. The table below reports only the parameters that have changed. The frequency and abundance of primates (indicator 7a and b of the Biodiversity Protocol) was initially set to be monitored trimesterly, considering that a participatory monitoring system would be implemented; however, due to the great need of environmental awareness building, the participatory monitoring system is being implemented gradually. Meanwhile, *Proyecto Mono Tocón* is monitoring this indicator biannually.

Data Unit / Parameter:	Frequency and abundance of primates
Data unit:	Number of species, number of individuals per species
Description:	Number of individuals and species of primates reported and encountered within each sub-watershed of AMPF
Source of data:	Surveys and field observations
Description of measurement methods and procedures to be applied:	Interviews of local population; execute transects and paths for later identification of species based on visual observations and vocalization analyses
Frequency of monitoring/recording:	Biannual
Value applied:	-
Monitoring equipment:	Photographic camera, reflex and zoom lenses, digital video camera, GPS units, tripod, binoculars 10x42
QA/QC procedures to be applied:	Revision of reports by the coordinator of ecosystem services
Calculation method:	-
Any comment:	-

Community

Please refer to the Biodiversity Protocol for a full description of the data and parameters monitored.

6 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS (CLIMATE)

6.1 Baseline Emissions (G2)

The baseline carbon stock changes in the initial (pre-deforestation) forest classes in the project area during the monitoring period are shown in MR Table 02.a. The baseline carbon stock changes in the single final (post-deforestation) non-forest class considered by the project during the monitoring period are shown in MR Table 02.b. The total baseline carbon stock changes in the project area during the monitoring period are shown in MR Table 02.c. Note that, areas covered by clouds in the 2014 land cover map have been temporarily excluded from this monitoring report and therefore the numbers in the MR Tables 02.a, b and c differ from those shown in VM Tables 15.a, b, and c, respectively. In addition areas that were temporarily excluded from the previous monitoring period (2008-2012) but observed in 2014 were included in this report.

MR Table 02.a. Baseline carbon stock changes in pre-deforestation (forest) classes in the project area during the monitoring period (2014 cloud free)

Project year t	Baseline carbon stock changes in initial (pre-deforestation) forest classes in the project area						Total baseline carbon stock changes in initial forest classes in the project area	
	ID_{icl} $ABSLPA_{icl,t}$	premont $C_{tot_{icl,t}}$	ID_{icl} $ABSLPA_{icl,t}$	cloud $C_{tot_{icl,t}}$	ID_{icl} $ABSLPA_{icl,t}$	dwarf $C_{tot_{icl,t}}$	annual $\Delta C_{BSLPA}_{i,t}$	cumulative ΔC_{BSLPA}_i
	ha	tCO ₂ -e ha ⁻¹	ha	tCO ₂ -e ha ⁻¹	ha	tCO ₂ -e ha ⁻¹	tCO ₂ -e	tCO ₂ -e
2009	0	399	80	520	0	88	41,832	41,832
2010	0	399	101	520	0	88	52,609	94,442
2011	0	399	137	520	0	88	70,941	165,383
2012	0	399	174	520	0	88	90,301	255,684
2013	2	399	2,146	520	0	88	1,115,885	1,371,568
2014	2	399	1,961	520	0	88	1,019,788	2,391,356

MR Table 02.b. Baseline carbon stock changes in post-deforestation (non-forest) classes in the project area during the monitoring period (2014 cloud free)

Project year t	Baseline carbon stock changes in final (post-deforestation) non- forest classes in the project area		Total baseline carbon stock changes in final non-forest classes in the project area	
	ID_{fcl} $ABSLPA_{fcl,t}$	= non-forest $C_{tot_{fcl,t}}$	annual $\Delta C_{BSLPA}_{f,t}$	cumulative ΔC_{BSLPA}_f
	ha	tCO ₂ -e ha ⁻¹	tCO ₂ -e	tCO ₂ -e
2009	81	93	7,515	7,515
2010	101	93	9,446	16,961
2011	137	93	12,737	29,698
2012	174	93	16,213	45,911
2013	2,148	93	200,388	246,300

2014	1,963	93	183,142	429,442
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MR Table 02.c. Total baseline carbon stock changes in the project area during the monitoring period (2014 cloud free)

Project year t	Total baseline carbon stock changes in initial forest classes		Total baseline carbon stock changes in final non-forest classes		Total baseline carbon stock changes in the project area	
	annual	cumulative	annual	cumulative	annual	cumulative
	$CBSLPA_{i,t}$ tCO ₂ -e	$CBSLPA_i$ tCO ₂ -e	$CBSLPA_{f,t}$ tCO ₂ -e	$CBSLPA_f$ tCO ₂ -e	$\Delta CBSLPA_t$ tCO ₂ -e	$\Delta CBSLPA$ tCO ₂ -e
2009	41,832	41,832	7,515	7,515	34,317	34,317
2010	52,609	94,442	9,446	16,961	43,164	77,481
2011	70,941	165,383	12,737	29,698	58,204	135,684
2012	90,301	255,684	16,213	45,911	74,088	209,772
2013	1,115,885	1,371,568	200,388	246,300	915,496	1,125,269
2014	1,019,788	2,391,356	183,142	429,442	836,646	1,961,915

6.2 Project Emissions

The ex-post actual carbon stock changes in the initial (pre-deforestation) forest classes in the project area during the monitoring period are shown in MR Table 03.a. The ex-post actual carbon stock changes in the single final (post-deforestation) non-forest class considered by the project during the monitoring period are shown in MR Table 03.b. The total ex-post actual carbon stock changes in the project area during the monitoring period are shown in MR Table 03.c. In addition areas that were temporarily excluded from the previous monitoring period (2008-2012) but observed in 2014 were included in this report.

MR Table 03.a. Ex-post actual carbon stock changes in pre-deforestation (forest) classes in the project area during the monitoring period (2014 cloud free)

Project year t	Ex-post actual carbon stock changes in initial (pre-deforestation) forest classes in the project area						Total ex-post carbon stock changes in initial forest classes in the project area	
	ID_{icl} premont		ID_{icl} cloud		ID_{icl} dwarf		annual	cumulative
	$APSPA_{icl,t}$ ha	$Ctot_{icl,t}$ tCO ₂ -e ha ⁻¹	$APSPA_{icl,t}$ ha	$Ctot_{icl,t}$ tCO ₂ -e ha ⁻¹	$APSPA_{icl,t}$ ha	$Ctot_{icl,t}$ tCO ₂ -e ha ⁻¹	$\Delta CPSPA_{i,t}$ tCO ₂ -e	$\Delta CPSPA_i$ tCO ₂ -e
2009	0	399	8	520	0	88	4,010	4,010
2010	0	399	8	520	0	88	4,010	8,020
2011	0	399	8	520	0	88	4,010	12,030
2012	0	399	8	520	0	88	4,010	16,040
2013	1	399	232	520	7	88	121,324	137,364

2014	1	399	232	520	7	88	121,324	258,688
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MR Table 03.b. Ex-post carbon stock change in post-deforestation (non-forest) classes in the project area during the monitoring period (2014 cloud free)

Project year t	Ex-post actual carbon stock changes in final (post-deforestation) non-forest classes in the project area		Total ex-post carbon stock changes in final non-forest classes in the project area	
	ID_{fcl} = non-forest		annual	cumulative
	$APSPA_{fcl,t}$ ha	$Ctot_{fcl,t}$ tCO ₂ -e ha ⁻¹	$\Delta CPSPA_{f,t}$ tCO ₂ -e	$\Delta CPSPA_f$ tCO ₂ -e
2009	8	93	720	720
2010	8	93	720	1,440
2011	8	93	720	2,160
2012	8	93	720	2,880
2013	240	93	22,353	25,233
2014	240	93	22,353	47,587

MR Table 03.c. Total ex-post carbon stock change in the project area during the monitoring period (2014 cloud free)

Project year t	Total ex-post carbon stock changes in initial forest classes		Total ex-post carbon stock changes in final non-forest classes		Total ex-post carbon stock changes in the project area	
	annual	cumulative	annual	cumulative	annual	cumulative
	$\Delta CPSPA_{i,t}$ tCO ₂ -e	$\Delta CPSPA_i$ tCO ₂ -e	$\Delta CPSPA_{f,t}$ tCO ₂ -e	$\Delta CPSPA_f$ tCO ₂ -e	$\Delta CPSPA_t$ tCO ₂ -e	$\Delta CPSPA$ tCO ₂ -e
2009	4,010	4,010	720	720	3,290	3,290
2010	4,010	8,020	720	1,440	3,290	6,580
2011	4,010	12,030	720	2,160	3,290	9,870
2012	4,010	16,040	720	2,880	3,290	13,160
2013	121,324	137,364	22,353	25,233	98,971	112,131
2014	121,324	258,688	22,353	47,587	98,971	211,102

6.3 Leakage

The total baseline carbon stock changes in the leakage belt during the monitoring period (2014 cloud free) are shown in MR Tables 04.a, b, and c. In addition areas that were temporarily excluded from the previous monitoring period (2008-2012) but observed in 2014 were included in this report.

MR Table 04.a. Baseline carbon stock changes in initial (pre-deforestation) forest classes in the leakage belt during the monitoring period (2014 cloud free)

Project year t	Baseline carbon stock changes in initial (pre-deforestation) forest classes in the leakage belt						Total baseline carbon stock changes in initial forest classes in the leakage belt	
	ID_{icl}	premont	ID_{icl}	cloud	ID_{icl}	dwarf	annual	cumulative
	$ABSLLK_{icl,t}$	$Ctot_{icl,t}$	$ABSLLK_{icl,t}$	$Ctot_{icl,t}$	$ABSLLK_{icl,t}$	$Ctot_{icl,t}$	$\Delta CBSLLK_i$	$\Delta CBSLLK_i$
	ha	tCO ₂ -e ha ⁻¹	ha	tCO ₂ -e ha ⁻¹	ha	tCO ₂ -e ha ⁻¹	tCO ₂ -e	tCO ₂ -e
2009	0	399	567	520	0	88	294,660	294,660
2010	0	399	517	520	0	88	268,659	563,319
2011	0	399	427	520	0	88	221,989	785,308
2012	0	399	396	520	0	88	205,575	990,882
2013	0	399	1,263	520	14	88	657,203	1,648,085
2014	0	399	1,427	520	30	88	743,952	2,392,037

MR Table 04.b. Baseline carbon stock changes in final (post-deforestation) non-forest classes in the leakage belt during the monitoring period (2014 cloud free)

Project year t	Baseline carbon stock changes in final (post-deforestation) non-forest classes in the leakage belt		Total baseline carbon stock changes in final non-forest classes in the leakage belt	
	ID_{fcl}	= non-forest	annual	cumulative
	$ABSLLK_{fcl,t}$	$Ctot_{fcl,t}$	$\Delta CBSLLK_f$	$\Delta CBSLLK_f$
	ha	tCO ₂ -e ha ⁻¹	tCO ₂ -e	tCO ₂ -e
2009	567	93	52,906	52,906
2010	517	93	48,237	101,143
2011	427	93	39,858	141,001
2012	396	93	36,911	177,911
2013	1,276	93	119,052	296,963
2014	1,457	93	135,904	432,867

MR Table 04.c. Total baseline carbon stock change in the leakage belt during the monitoring period (2014 cloud free)

Project year t	Total baseline carbon stock changes in initial forest classes		Total baseline carbon stock changes in final non-forest classes		Total baseline carbon stock changes in the leakage belt	
	annual	cumulative	annual	cumulative	annual	cumulative
	$\Delta CBSLLK_i$	$\Delta CBSLLK_i$	$\Delta CBSLLK_f$	$\Delta CBSLLK_f$	$\Delta CBSLLK_i$	$\Delta CBSLLK_i$
	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e
2009	294,660	294,660	52,906	52,906	241,754	241,754
2010	268,659	563,319	48,237	101,143	220,422	462,176
2011	221,989	785,308	39,858	141,001	182,131	644,307

2012	205,575	990,882	36,911	177,911	168,664	812,971
2013	657,203	1,648,085	119,052	296,963	538,150	1,351,122
2014	743,952	2,392,037	135,904	432,867	608,048	1,959,169

The total ex-post actual carbon stock changes in the leakage belt during the monitoring period (2012 cloud free) are shown in MR Tables 05.a, b, and c.

MR Table 05.a. Ex-post carbon stock changes in initial (pre-deforestation) forest classes in the leakage belt during the monitoring period (2014 cloud free)

Project year t	Ex-post actual carbon stock changes in initial (pre-deforestation) forest classes in the leakage belt						Total ex-post carbon stock changes in initial forest classes in the leakage belt	
	ID_{icl} premont		ID_{icl} cloud		ID_{icl} dwarf		annual	cumulative
	$APSLK_{icl,t}$	$Ctot_{icl,t}$	$APSLK_{icl,t}$	$Ctot_{icl,t}$	$APSLK_{icl,t}$	$Ctot_{icl,t}$	$\Delta CPSLK_i$	$\Delta CPSLK_i$
	ha	tCO ₂ -e ha ⁻¹	ha	tCO ₂ -e ha ⁻¹	ha	tCO ₂ -e ha ⁻¹	tCO ₂ -e	tCO ₂ -e
2009	0	399	48	520	0	88	24,797	24,797
2010	0	399	48	520	0	88	24,797	49,593
2011	0	399	48	520	0	88	24,797	74,390
2012	0	399	48	520	0	88	24,797	99,186
2013	0	399	115	520	6	88	60,253	159,440
2014	0	399	115	520	6	88	60,253	219,693

MR Table 05.b. Ex-post actual carbon stock changes in final (post-deforestation) non-forest classes in the leakage belt during the monitoring period (2014 cloud free)

Project year t	Ex-post actual carbon stock changes in final (post- deforestation) non-forest classes in the leakage belt		Total ex-post actual carbon stock changes in final non-forest classes	
	ID_{icl} = non-forest		annual	cumulative
	$APSLK_{icl,t}$	$Ctot_{icl,t}$	$\Delta CPSLK_f$	$\Delta CPSLK_f$
	ha	tCO ₂ -e ha ⁻¹	tCO ₂ -e	tCO ₂ -e
2009	48	93	4,452	4,452
2010	48	93	4,452	8,904
2011	48	93	4,452	13,357
2012	48	93	4,452	17,809
2013	121	93	11,299	29,108
2014	121	93	11,299	40,408

MR Table 05.c. Total ex-post actual carbon stock changes in the leakage belt during the monitoring period (2014 cloud free)

Project year t	Total ex-post actual carbon stock changes in initial forest classes		Total ex-post actual carbon stock changes in final non-forest classes		Total ex-post actual carbon stock changes in the leakage belt	
	annual	cumulative	annual	cumulative	annual	cumulative
	$\Delta CPSLK_{it}$ tCO ₂ -e	$\Delta CPSLK_i$ tCO ₂ -e	$\Delta CPSLK_{ft}$ tCO ₂ -e	$\Delta CPSLK_f$ tCO ₂ -e	$\Delta CPSLK_t$ tCO ₂ -e	$\Delta CPSLK$ tCO ₂ -e
2009	24,797	24,797	4,452	4,452	20,344	20,344
2010	24,797	49,593	4,452	8,904	20,344	40,689
2011	24,797	74,390	4,452	13,357	20,344	61,033
2012	24,797	99,186	4,452	17,809	20,344	81,378
2013	60,253	159,440	11,299	29,108	48,954	130,331
2014	60,253	219,693	11,299	40,408	48,954	179,285

The total ex-post actual net carbon stock changes in (i.e. above the baseline) in the leakage belt during the monitoring period are shown in MR Table 06. According to the methodology, if the cumulative sum of ΔCLK_t within a fixed baseline period is > 0 , ΔCLK_t shall be set to zero. Therefore no credits were discounted due to leakage during this monitoring period.

MR Table 06. Total net carbon stock changes in the leakage belt in the project scenario above the baseline during the monitoring period (2014 cloud free)

Project year t	Total baseline carbon stock changes in the leakage belt		Total ex-post actual carbon stock changes in the leakage belt		Total ex-post actual net carbon stock changes in the leakage belt	
	annual	cumulative	annual	cumulative	annual	cumulative
	$\Delta CBSLLK_t$ tCO ₂ -e	$\Delta CBSLLK$ tCO ₂ -e	$\Delta CPSLK_t$ tCO ₂ -e	$\Delta CPSLK$ tCO ₂ -e	ΔCLK_t tCO ₂ -e	ΔCLK tCO ₂ -e
2009	241,754	241,754	20,344	20,344	221,410	221,410
2010	220,422	462,176	20,344	40,689	200,077	421,487
2011	182,131	644,307	20,344	61,033	161,787	583,274
2012	168,664	812,971	20,344	81,378	148,320	731,593
2013	538,150	1,351,122	48,954	130,331	489,197	1,220,790
2014	608,048	1,959,169	48,954	179,285	559,094	1,779,884

6.4 Summary of GHG Emission Reductions and Removals (CL1 & CL2)

The ex-post estimated net anthropogenic GHG emission reductions were estimated similarly to the ex-ante calculation using the equation below (adapted from Equation 23 of the VM0015 methodology):

$$\Delta REDD_t = (\Delta CBSLPAt) - (\Delta CPSPAt) - (\Delta CLK_t + ELK_t) \quad \text{Eq (23)}$$

Where:

$\Delta REDD_t$	Ex-post estimated net anthropogenic greenhouse gas emission reduction attributable to the AUD project activity at year t ; tCO ₂ e
$\Delta CBSLPA_t$	Sum of baseline carbon stock changes in the project area at year t ; tCO ₂ e
$\Delta CPSPA_t$	Sum of ex post estimated actual carbon stock changes in the project area at year t ; tCO ₂ e
ΔCLK_t	Sum of ex post estimated leakage net carbon stock changes at year t ; tCO ₂ e
ELK_t	Sum of ex post estimated leakage emissions at year t ; tCO ₂ e
t	1, 2, 3 ... T , a year of the proposed crediting period; dimensionless

The ex-post estimation of total net GHG emissions reductions generated by the project and the calculation of ex-post Verified Carbon Units (VCUs) generated in the monitoring period of 2012-2014 are summarized in MR Table 07.

MR Table 07. Ex post estimated net anthropogenic GHG emission reductions ($\Delta REDD_t$) and Voluntary Carbon Units (VCU_t)

Project year t	Baseline carbon stock changes		Ex post project carbon stock changes		Ex post net carbon stock changes		Ex post leakage carbon stock changes		Ex post net anthropogenic GHG emission reductions		Ex post buffer credits*		Ex post VCUs tradable	
	annual	cumulative	annual	cumulative	annual	cumulative	ann.	cum.	annual	cumulative	annual	cumulative	annual	cumulative
	$\Delta CBSLPA_t$	$\Delta CBSLPA$	$\Delta CPSPA_t$	$\Delta CPSPA$	$\Delta CPSPA_t$	$\Delta CPSPA$	$\Delta CL K_t$	$\Delta CL K$	$\Delta REDD_t$	$\Delta REDD$	VBC_t	VBC	VCU_t	VCU
	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂	tCO ₂	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e	tCO ₂ -e
2009	34,317	34,317	3,290	3,290	31,027	31,027	0	0	31,027	31,027	3,103	3,103	27,925	27,925
2010	43,164	77,481	3,290	6,580	39,874	70,901	0	0	39,874	70,901	3,987	7,090	35,886	63,811
2011	58,204	135,684	3,290	9,870	54,914	125,814	0	0	54,914	125,814	5,491	12,581	49,422	113,233
2012	74,088	209,772	3,290	13,160	70,798	196,612	0	0	70,798	196,612	7,080	19,661	63,718	176,951
2013	915,496	1,125,269	98,971	112,131	816,526	1,013,138	0	0	816,526	1,013,138	81,653	101,314	734,873	911,824
2014	836,646	1,961,915	98,971	211,102	737,675	1,750,813	0	0	737,675	1,750,813	73,768	175,081	663,908	1,575,732

*Ex-post buffer credits are calculated based on a 10% Risk Factor (RF) attributed to the project based on the VCS non-permanence risk tool

6.5 Climate Change Adaptation Benefits (GL1)

Not applicable. The project did not include the optional climate change adaptation benefits criterion in the project description.

7 COMMUNITY

7.1 Net Positive Community Impacts (CM1)

Expected socio-economic positive impacts in the project area

Impact 1: Strengthening governance in the AMPF

The results for each indicator are described in Table 6:

Table 6 - Indicators on AMPF governance strengthening

ID	Indicator	Results
1-a	Total staff at the AMPF Head Office	25 forest rangers working in the AMPF are reported in 2014
1-b		The number of specialists increased from 4 in 2012 to 7 in 2014. The specialists had the following positions: legal advisor, environmental specialists (2), Communicator, Communications Assistant, GIS specialist and monitoring and surveillance specialist.
1-c		
2	Technical training to the AMPF staff	During this monitoring period 32 technical training workshops have been given (and recorded) to staff members of the AMPF, which were adequate to improve the management of the area. These have covered topics such as PNAs and conservation, conflict management and community relations, mapping and GIS, environmental crimes, training for trainers, biodiversity information management, and others.

3	AMPF Operating facilities	Eighteen types of key operational equipment for the operation of the AMPF have been delivered and registered from 2012 to 2014, for example: - Vehicles: 5 Honda Motorcycles CGL125. - Computer equipment: 3 laptops, 3 PCs, 2 printers, 1 projector, 1 external hard drive. Also, the 360 pieces of equipment provided during the previous monitoring period are still being used: vehicles (truck, motorcycles), field equipment (digital cameras, backpacks, GPS units, tents, flashlights, etc.), and computer equipment (notebooks, PC, printers, etc.).
4-a	Signage (information signs) in the AMPF	During the monitoring period 11 new information signs have been installed at strategic points and 2 others have been refurbished. These have contributed to a better recognition of the limits of the AMPF, which is reflected in the polls By 2014, 92% of Conservation Agreements subscribers recognized that they are settled in the AMPF. This is considered a significant improvement compared to the 67% recorded in 2012. Also, 32% of subscribers recognize the limits of the AMPF, compared to the 15% recorded in 2012, which, despite being still insufficient, indicates a sustained improvement in the recognition of the limits of the Protected Natural Area.
4-b		
4-c		
5	Control checkpoints in the AMPF	The number of installed control checkpoints (4) has been maintained during this monitoring period. It should be noted that the construction of the Chisquilla control checkpoint in the Amazon region (western flank of the buffer zone of the AMPF), made use of the land donated to the SERNANP by the Chisquilla District Municipality; thus, the management effectiveness of the AMPF has improved in that area. The control checkpoints currently in operation are: Yuracyacu, Sol de Oro, Venceremos and Chisquilla.
6-a	Monitoring and surveillance	The increase in the ranger staff is reflected in the number and coverage of patrols: in the period 2012-2014, there have been 377 patrols in the AMPF. The coverage was extended from 10 to 16 basins compared to March 2012. As a comparative, it can be mentioned that from April 2012 to December 2013 there were as many patrols as in the period 2008-2012.
6-b		

6-c		Also, 9 prosecutions for land use change in the AMPF have been reported during the monitoring period and 10 complaints on environmental crimes committed by local people were made by the AMPF Head Office.
6-d		One of the legal proceedings initiated in the previous monitoring period has resulted in an effective prison sentence issued during the current monitoring period.
7	Processing of management documentation	During this monitoring period, 19 aspects of the management of the AMPF have been addressed, by preparing documents to be adopted by the AMPF Head Office. Of these, 12 management documents are currently being implemented. Some of the documents are: - Communications Strategy - Monitoring and surveillance strategy - Implementation Protocol for Conservation Agreements - Monitoring system of vegetation cover - Social management strategy - Safety Plan - Community engagement protocol Documents such as the Tourism Land Use Plan (<i>Plan de Uso Turístico</i>), the Integrated Data System (<i>Sistema Integral de Datos</i>), the Protected Natural Area Zoning Update and the design of a scheme for the payment of water services are in the process of drafting.
8	AMPF operating budget	In this monitoring period, the AMPF operating budget has increased from S/.1.3 million (US \$4.8 million) in 2012, to S/.6.6 million (US \$2.3 million) in 2014. The total budget for the years 2013-2014 totals S/.11.9 million (US \$4.3 million). During this monitoring period, the public budget for the AMPF has remained relatively constant, an average of about US \$115,000 annual allocation, while the amount invested by the project has been increasing up to an average of more than US \$2,200,000 annually.
9-a	Strengthening the	By 2014 the members of the Management Committee have

9-b	Management Committee	increased from 59, when the project began in 2008, to 82 members. During the monitoring period, there has been an Ordinary Assembly and 10 meetings of the Executive Commission. The impact of the project in the restructuring of the committee is noteworthy. The committee has now better schematized chairs for the support of the management of the AMPF. Additionally, the project proposed 11 management documents that were eventually adopted.
9-c		
10-a	Institutional positioning of the AMPF	The recognition of the AMPF Head Office as the sole authority in this NPA has permeated all other public institutions. This is noticed every time a request for technical advice is made before any work is carried out in the AMPF buffering zone. Furthermore, the signing of the agreement with the <i>rondas campesinas</i> of the north basin, has significantly positioned the management of the AMPF, preventing the execution of more road works, bridges or trails. In addition to this, a better corporate image helped to strengthen the ties with local governments. This led to the donation of a hectare of land by the Provincial Municipality of Rioja (where the AMPF Head Office is being built) and a plot in the square of Chisquilla District, donated by the Municipality where the Ranger Center has been built.
10-b		
10-c		
10-d		
10-e		

We continued working on strengthening the AMPF Head Office in order to improve its governance. Work continued with two main factors:

- *Increasing the presence of the AMPF:* As shown in Figure 6, there is a growing trend in recruiting personnel, specialists and rangers, who provided with the necessary logistics and adequate training to interact with the population, have succeeded in promoting governance and conservation actions. The actions have focused on increasing patrols, stopping and preventing environmental crimes and especially disseminating the importance of the AMPF for development.
- *Institutional positioning:* Institutional identification of the AMPF Head Office has significantly improved. Five public investment projects have been executed between 2013 and 2014. These projects were previously consulted to the AMPF asking for their technical opinion.

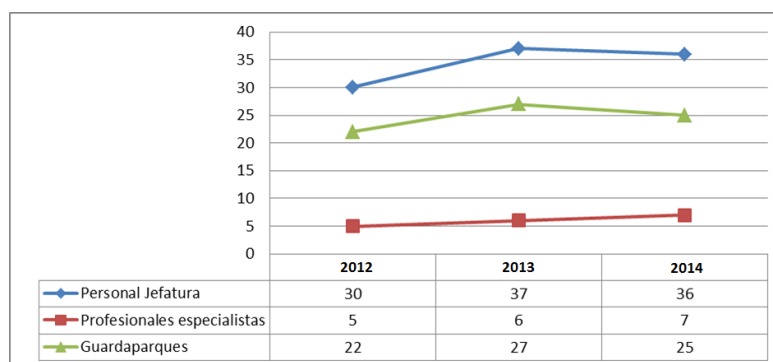


Figure 6 - Recruitment flow chart of the AMPF

Due to budget constraints, it was not possible to hire an NGO to strengthen the AMPF Management Committee. Therefore, this work was assumed by the AMPF Head Office and Conservation International. In this context, a reorganization of the Executive Committee and its chairs was done resulting in a more proactive management committee. Political incidence actions were made; for instance, Congresswoman Esther Saavedra was approached in order to ask for her support in activities favoring the AMPF; also, the dialogue with the *rondas campesinas* was improved.

Impact 2: Improvement of local population practices for sustainable use and articulation to coffee associations linked to special markets

Table 7 - Indicators on sustainable practices and market access

ID	Indicator	Results
11	Signature of Conservation Agreements	By 2014, 731 Conservation Agreements have been signed, 605 out of those are active.
12	Hectares of coffee under agroforestry and silvopastoral systems	By 2014, there are 219 ha of coffee under agro-forestry systems, representing an increase of 298% compared to the number of hectares managed with good agricultural practices during the previous monitoring period. This is explained by the good results obtained in the first demonstration plots and the project communications strategy, all of which has overcome distrust and resistance of large numbers of people settled in the AMPF, raising interest in signing Conservation Agreements.
13	Seedlings produced	The number of seedlings produced in nurseries built in the AMPF totaled 81,710 seedlings at the end of the first quarter of 2014. These are native species seedlings.

14-a	Number of supplies delivered to subscribers to implement improved practices of coffee	In the period 2012 - 2014, 1,171 tools to implement improved practices of coffee have been delivered. The tools are; digger, curved pruning saw, pruning shears, rake. It should also be noted that each of the subscribers has produced, by the end of 2013; at least 1,000 kg of <i>bokashi</i>, a Japanese technique that helps break down organic matter in 30 days which is used in coffee fertilizers and in organic gardens and nurseries. In the period 2012 - 2014, 251,714 pounds of organic fertilizers have been delivered to implement improved practices of coffee. Organic fertilizers consist of island guano, rock phosphate, Sulpomag, Potassium Sulfate, Zinc Sulfate, Copper Sulfate and Fertibagra.
14-b		
15	Access to special markets	In 2012, 30% of subscribers were either members of cooperative associations or they were linked to coffee trading companies. Out of this percentage, 95% were aware that these associations and companies traded specialty coffees. In 2014, taking into consideration that Conservation Agreements increased, 25% of subscribers mentioned they belong to an association or they are articulated to a coffee trading company and 75% claimed to know that these associations or companies traded specialty coffees. Also, the situation reported in 2012 is maintained. These associations and companies do not compensate with a significant premium for the activities of good practices of coffee. While 30% of subscribers are members of associations, cooperatives or coffee companies, and 95% out of that percentage is articulated to special markets, the vast majority is hinged to a company that does not pay them a significant premium for the activities of good practice of coffee. Access to special markets depends on certification processes that cannot be undertaken by coffee producers who are within the project area, because this is a protected natural area. A document containing the proposed formalization of coffee production within the AMPF is being prepared. This document will be submitted to the SERNANP for revision and approval. Also, the actors involved in the process of exporting the coffee produced by the subscribers have been identified.
16	Annual production of organic coffee per hectare	The project is working with SERNANP on a system to formalize the production and trade of organic coffee inside the AMPF. As the organic certification depends on this formalization, no organic

	among subscribers	production is reported in this monitoring period.
17	Annual production of conventional coffee per hectare among subscribers	In the monitoring period, the subscribers' conventional coffee production was 6,276 qq. Also by the end of the previous monitoring period, the effects of pests and diseases on the production of organic and conventional coffee continue. By 2014, 65% of subscribers and 76% of non-subscribers said that coffee production had decreased compared to the previous year. 99% of subscribers and 98% of non-subscribers mentioned that their coffee plantations had been affected by pests and diseases. The main ones were the Coffee Rust (<i>Hemileia vastatrix</i>) and Broca (<i>Hypothenemus hampei</i>). Information regarding the production in 2014 is not included in this monitoring report as the coffee harvest is usually in mid-year.
18-a	Access to credit	With regard to how subscribers and non-subscribers fund their economic activities, by 2014, 80% of subscribers have been financed with their own funds and 12% through donations. With respect to non-subscribers, 94% were also funded with their own funds and 6% through loans. With respect to loans requested from a lender, 50% of subscribers and 27% of non-subscribers mentioned having requested loans. 62% of subscribers and 52% of non-subscribers requested a loan to AGROBANCO and 7% of subscribers and 10% of non-subscribers requested one to Caja Luren. These are the two main credit institutions to which they applied. With respect to loans granted, 27% of subscribers and 14% non-subscribers reported having received loans from lenders. The financial institutions that granted loans to subscribers were, mainly, AGROBANCO and Cooperativa Cristo de Bagazan. The financial institutions that provided loans to non-subscribers were, mainly, AGROBANCO and Caja Luren. Regarding the level of indebtedness of subscribers, 25% said to have a debt higher than S/.5,000; 22% mentioned their debt was between S/.3,000 and S/.5,000. 25% of subscribers did not specify. Regarding the level of indebtedness of non-subscribers, 30% say they have a debt between S/.1,000 and S/.3,000. 26% expressed they had a debt of more than S/.5,000 and 22% did not specify.
18-b		
19	Increase in the production of coffee due to the implementation of good	According to the socioeconomic survey conducted in 2014, 65% of the subscribers indicate that coffee production has declined; only 20% indicate that production increased while 15% said it stayed

	practices in the management of coffee within the framework of Conservation Agreements	the same. With respect to non-subscribers, 76% said that the coffee production declined, the 13% indicated that it remained the same and 11% indicated it increased. But, if we analyze the group of subscribers and non-subscribers who said that coffee production had increased compared to the previous season, we can see that in the group of subscribers the reasons for the increase were the Conservation Agreements, i.e. the set of activities such as technical assistance and training provided to the AMPF in the framework of the agreements. Another remarkable fact is that only 8.6% said that the increase in the production was due to the installation of new coffee plantations. With respect to non-subscribers, 50% said the increase in production was due to the installation of new coffee plantations, i.e. new lands added for coffee production with the consequent impact on the forest. A remarkable fact is that 17% of this group of non-subscribers said their production had increased because of Conservation Agreements, i.e. they were the indirect beneficiaries of the agreements. In 2012, an increase in production of 1-3 tons/ha was reported. In 2013, an increase in production of 4.5 qq/ha was reported. This evidenced a significant increase in the subscribers' productivity. In 2014, against a backdrop of pests and diseases in the region, 71% of subscribers said the increase in production was due to coffee Conservation Agreements and only 9% said it was due to the installation of new coffee plantations. Also, 17% of non-subscribers said the increase in production was due to coffee Conservation Agreements. In 2012, only 25% of the subscribers felt that they would have an increase in production thanks to Conservation Agreements. 96% of subscribers said the signing of Conservation Agreements allowed them to learn techniques that helped them manage their coffee.
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In 2014, net positive impacts are evident in the improvement of sustainable use practices of Conservation Agreements subscribers. The number of Conservation Agreements increased significantly. There are 605 active agreements at the present time. Coffee growing areas have become agroforestry systems leading to provide ecosystem restoration. A total of 252 Kg of organic fertilizers and 81,710 seedlings of native species have been produced. Additionally, 219 ha of coffee have been improved with agroforestry systems and good agricultural practices to increase productivity. 25% of subscribers belong to associations of producers and sell their coffee through them, keeping the same trend as in 2008-2012.

The marketing system is still limited because prices do not generate higher returns to subscribers. In this sense, it is necessary to improve the marketing systems; which means having a sustainable and certified production supply. The project is currently working on developing this

Impact 3: Capacity and knowledge building among local people for sustainable practices that respect the objectives of creation of the AMPF

Table 8 - Indicators on capacity building on sustainable practices

ID	Indicator	Results
20-a	Technical training on improving coffee breeding practices	During 2012-2014 there have been 237 training practices on the sustainable improvement of coffee. These benefited 656 subscribers of Conservation Agreements. According to the survey conducted in 2014, 96% of the subscribers believe that the signing of Conservation Agreements has allowed them to learn techniques that will help them manage their coffee plantations.
20-b		
21	Ongoing technical assistance	In 2012 - 2014 there have been 15,163 hours of technical assistance on improving coffee breeding practices. The results of the survey conducted in 2014 show the progress of the project on capacity building for coffee growing: 60% of subscribers said that they had learned the techniques of organic management of their coffee thanks to the constant technical assistance in the framework of Conservation Agreements, compared to 31% who said they had learned it in the association or cooperative of which they are members.
22-a	Effectiveness of technical assistance	By 2014, 28% of subscribers used solar tents for drying their coffee, of which 67% obtained them as part of the benefits of Conservation Agreements. In 2012, only 8% of subscribers used solar tents, of which 88% obtained them from Conservation Agreements. However, most subscribers (72%) still use drying beds for coffee. By 2014, 19% of subscribers said they had invested in organically improving their coffee plantations, compared to only 13% of subscribers in 2012. The average amount invested was approximately the same as in 2012, keeping the same trend. The main reasons that led to investing were: the higher price of organic coffee, the results of Conservation Agreements and being a member of an association or cooperative that commercializes
22-b		
22-c		
22-d		

22-e		coffee.
22-f		In 2014, the subscribers reported a humidity level of 13% when using a solar tent and a humidity level of 19% without a solar tent. In 2012, a humidity level of 20% was reported when using a solar tent, and a level of 13% without a solar tent. In 2014, 25% sell their coffee as organic, maintaining the same trend from 2012 (26%) In 2012, 100% of subscribers implemented actions for the sustainable management of coffee, while only 14% of non-subscribers performed these activities. In 2014, 100% of subscribers continue to make actions for the sustainable management of their coffee, giving equal weight to all of them (control of pests and diseases, pruning, organic fertilization and post-harvest handling). It is also observed that 100% of non-subscribers also implement sustainable actions for the management of their coffee, but since they do not receive the best technical assistance, they are prioritizing pruning and post-harvest handling. By 2014, 30% of subscribers and non-subscribers say they have participated in reforestation activities, 31% of subscribers and 16% of non-subscribers reported having planted timber trees in their coffee plantations before the project. In comparison to 2012, 35% of subscribers said they had planted more trees in their coffee plantations. This is a higher percentage than in 2012 when 30% of subscribers reported having planted trees in their coffee plantations. By 2014, 64% of subscribers said that the project had given support for the planting of timber. By 2014, 64% of subscribers say they have eventually used chemical inputs in their crops. This tendency is similar to 2012 (64%). 83% used it for weeding. 91% of the subscribers said they would not continue using chemical inputs. Regarding the reasons why they would or not use chemical inputs, the subscribers mentioned that: 73% of them would continue using chemical inputs mainly because they are labor-saving. 67% of subscribers said that they would not use chemical inputs because they harm the crop and 26% said that organic inputs are better. With respect to sales, 2014 conventional coffee was sold for S/. 241/qq. Some improvement was observed compared to 2012 when the price was S/.230/qq. With respect to organic coffee, this was sold for S/.327/qq in 2014. There was a significant improvement compared to the price of 2012 when it was sold for
22-g		

		SI.280/qq. It should be noted that the prices are the average to May 2014.
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The results of the survey conducted in 2014 show that 28% of subscribers use organic fertilization, 28% carry out pruning, 26% control pests and diseases with organic inputs and 17% deal with post-harvest handling. In this context we note that the four activities are prioritized by subscribers for the improvement of coffee plantations. We also note that prior to the signing of Conservation Agreements, emphasis was on pruning and post-harvest handling. Instead, with respect to non-subscribers, it is observed that they place a greater emphasis on pruning and controlling pests and diseases.

Also, 95% of subscribers have developed the ability to prepare compost by the Japanese technique known as *bokashi*. 73% of non-subscribers indicate that they also know how to prepare it. 99% of subscribers say they have learned how to prepare *bokashi* thanks to the project, while non-subscribers have learned thanks to the support of another subscriber (42%), of the project (33%) or of their association (24%).

There have been significant advances in the construction and capacity building process. As shown in Figure 7, the largest number of technical training, producers trained, and technical assistance hours were concentrated between 2012 and 2013

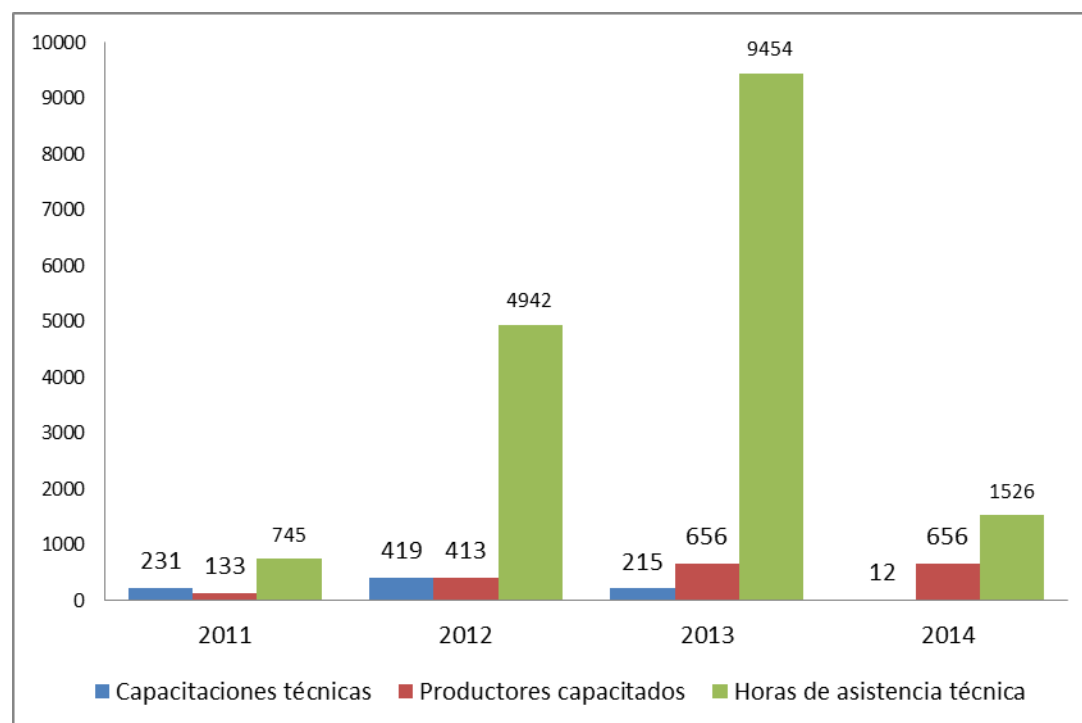


Figure 7 - Training and Technical Assistance

This has had a positive impact because the indicators show that subscribers have been empowered by the technical proposal as evidenced in the improving of coffee growing under sustainable production systems, as described below:

Impact 4: Improvement of living conditions of local population in harmony with the objectives of the AMPF

Table 9 - Indicators on human well-being improvement

ID	Indicator	Results
23-a	Villagers who improve their diet by raising guinea pigs, installing organic gardens and planting fruits	By 2013, there were 31 biogardens installed. Between 2008 and 2012, 8 biogardens for vegetable production were installed. By 2014, 33% of subscribers said they had a biogarden. 92% of subscribers said they had used <i>bokashi</i> for their biogardens. Of the vegetables grown in the organic garden, 92% were for own consumption and 8% for consumption and sale. In 2014, 18,432 fruit trees have been planted. The most planted species were guava, avocado and banana.
23-b		
23-c		
23-d		
23-e		
24-a	Change in the diet of the settlers living in the AMPF	By 2014, the top 5 foods consumed by the respondents were rice, noodles, oil, cassava and beans. 95% stated that they still use the same food in their consumption. They have increased the use of products such as vituca (a kind of root similar to sweet potato), eggs, fish, cheese, milk and chicken. In general, an improvement in the diet of subscribers is observed.
24-b		
25-a	Population that benefits from the use of improved stoves	In 2012-2014, 97 improved stoves have been built by the project in addition to the 20 stoves built up to 2012. 23% of the subscribers reported having improved stoves. 79% of subscribers said the stove was built by the project. 64% of subscribers perceived a reduction in respiratory diseases. 63% reported using 2 to 3 loads of firewood for cooking. 67% said they previously used between 3 to 6 loads of firewood a week. A significant improvement is observed in the use of firewood. 98% of subscribers indicated that they are happy with the improved stoves. 550 subscribers use the pruning of coffee as firewood. 42% of the firewood needed is covered by the pruning of coffee. This reduces the pressure on the forest.
25-b		
25-c		
25-d		
25-e		
25-f		
25-g		
25-h		
26-a	Change in income	By 2014, 31% of subscribers said their economic situation had

26-b		improved, 67% indicated that it stays the same or change is not noticeable yet. In these last two years the Conservation Agreements increased from 262 to 731, and there is a time lag between the implementation and the return in income.
27-a	Changes in income sources of the settler living in the AMPF	Growing coffee is the main source of income for 52% of the subscribers. 28% generates revenue from wages and 13% from selling livestock. 30% of the subscribers perceive that the changes in their economic situation are due to variations in coffee production, 26% indicate that they are due to the variations in the quality of coffee, and 17% to the variation in coffee prices.
27-b		
27-c		
28-a	Poverty Index (USAID)	By 2014, families living below the national human poverty line are 62%, showing a slight improvement over 2012 that was 64%.
28-b		

A positive impact on poverty reduction is evident. In 2012, 64% of subscriber households lived below the poverty line. By 2014, a significant improvement is evident since the line has declined to 62%.

As in 2012, by 2014 the main sources of economic income are still coffee, wages and selling livestock.

Impact 5: Generation of economic alternatives and wages for the population through conservation actions that favor management of the AMPF

In 2014, a positive impact in the generation of economic alternatives and wages is noticeable, as evidenced in the following table:

Table 10 - Indicators on livelihood alternatives

ID	Indicator	Results
29-a	Population that received an income for performing a conservation action	S/.35,792 were recorded in the generation of 292 wages for developing primates monitoring activities, nursery and reforestation work, benefiting 223 people, of which 139 are subscribers; the rest are mainly the families of subscribers, women and youth.
29-b		
29-c		

Impact 6: Maintenance and improvement of the AMPF ecosystem services (water and soil) for the benefit of the local population of Alto Mayo

Table 11 - Indicators on improvements of environmental services inside AMPF

ID	Indicator	Results
30-a	Population that perceives improvements in the quality and the quantity of water	By 2014, 54% of subscribers and 50% of non-subscribers perceive improvements in the quality of water. 60% of subscribers and 54% of non-subscribers perceive improvements in the water quantity.
30-b		
31	Population perceiving greater protection against soil erosion	By 2014, 52% of subscribers and 47% of non-subscribers perceive a greater protection against soil erosion.
32	Reforestation of degraded areas of the AMPF with native species	Between July 2012 and March 2014, 184 ha have been reforested with native species, representing an increase of 260% over the previous monitoring period.
33-a	Population benefiting from projects based on ecosystem services provided by the AMPF	During the monitoring period, local governments developed the profiles of three projects for public investment, aimed at taking advantage of the AMPF ecosystem services (water and sanitation) to benefit 8,818 people (approximately 1,764 families). It is necessary to continue positioning the AMPF so that local governments in the watershed understand its importance for the viability of these projects. In addition, CI-Peru has implemented five projects aimed at benefiting the entire population of the Alto Mayo watershed, totaling 221,642 people.
33-b		

Positive impact is evident in this indicator, as shown in Figure 8, both subscribers and non-subscribers have carried out reforestation activities mainly in grassland headwaters and riverbanks.

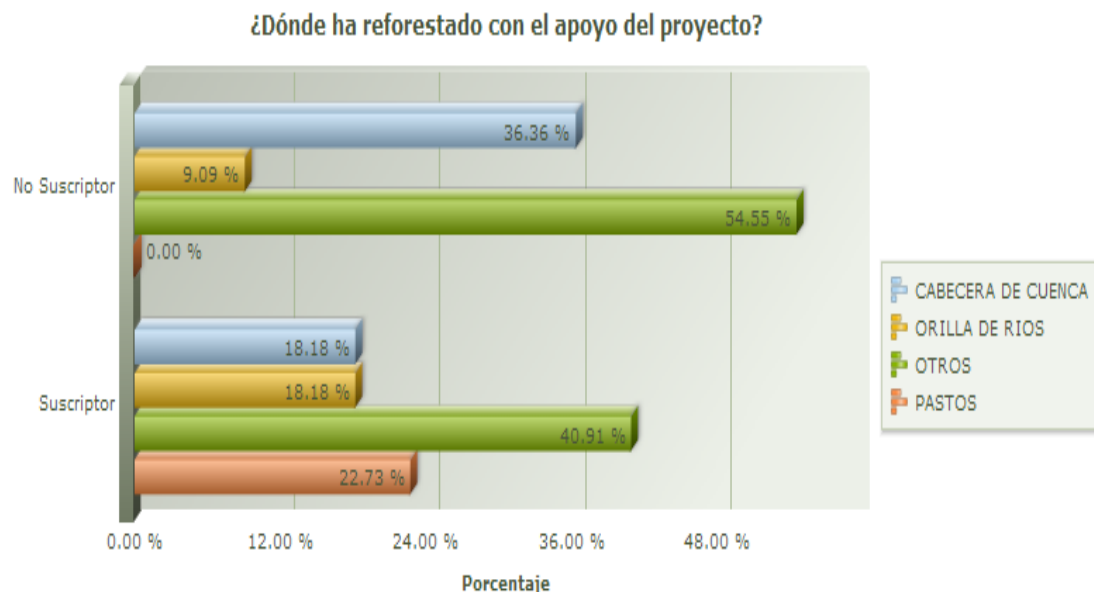


Figure 8 - Reforestation areas

Impact 7: Sustainable management of natural resources by the local population within the AMPF

Table 12 - Indicators on natural resources sustainable management

ID	Indicator	Results
34-a	Settlers aligned with the legal technical requirements for the use of resources of the AMPF for commercial and subsistence purposes	In 2013, 3 records for the use of natural resources were submitted to the AMPF Head Office. The 4.7% of subscribers say they have eventually submitted an application for the use of these resources.
34-b		
34-c		The use of forest resources by the population is evidenced by the surveys: 73% of subscribers reported using firewood, round timber, lumber and medicinal plants (in 2012, it was 95%).
34-d		37% of subscribers and 29% of non-subscribers reported having repaired their homes last year. 88% of subscribers and 81% of non-subscribers said they use wood to repair their homes. 81% of subscribers and 67% of non-subscribers said timber was obtained by self-extraction, while 19% of subscribers and 33% of non-subscribers obtained wood by purchasing it. 73% of subscribers and 75% of non-subscribers perceive that logging has decreased in the AMPF.

Positive impacts are evident in the sustainable management of resources by subscribers according to Figure 9. The trend for the period 2008 - 2012 remains the same in terms of forest products most widely used: firewood, lumber and round timber. However, a decrease in their demand is observed. For example, in 2012, 95% of subscribers expressed that they used firewood. This percentage decreased to 26% in 2014

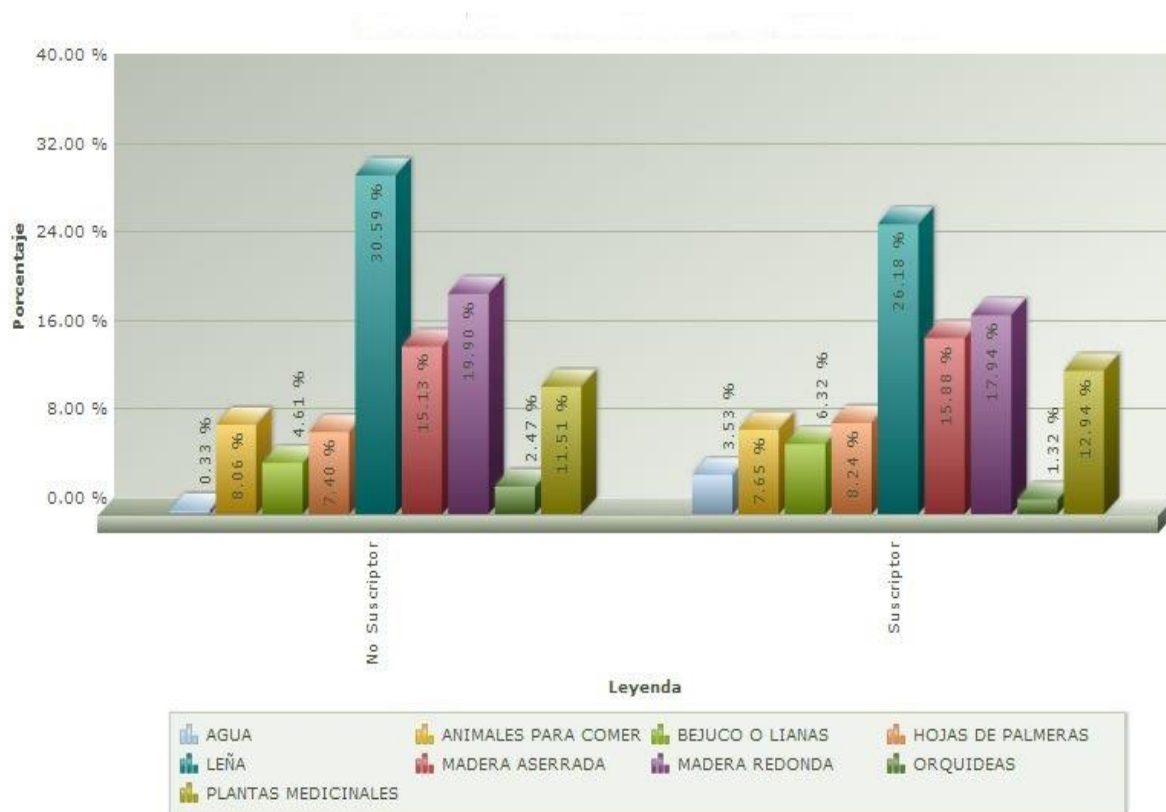


Figure 9 - Use of natural resources within the AMPF

Requests for the use of natural resources have already been submitted by the local population as a result of the work done by the AMPF Head Office. It is necessary to continue strengthening this activity.

Impact 8: Empowerment of the alliance between local people and the AMPF Head Office to favor conservation

The following describes the main indicators with respect to communication, training and actions taken by the community in alliance with the AMPF Head Office for conservation:

Table 13 - Indicators on the partnership between local population and the AMPF Head Office

ID	Indicator	Results
35	School communicators	During the monitoring period, there have been 16 events to raise awareness among young people in the area on the importance of protected areas and forest conservation.
36	Environmental education: environmental journalists, schools	During this monitoring period, 24 environmental education events with local people were performed, mainly training for students from educational institutions on the importance of forests and biodiversity.
37	Training for <i>rondas campesinas</i> and leaders	During the monitoring period, 34 training courses were conducted for <i>rondas campesinas</i> , leaders and public in general. The training focused on the management of NPAs, so that gradually the recognition of the status of the Natural Protected Area will increase and prevent the commission of environmental offenses.
38	Promotional, informative and educational material on the AMPF	In this monitoring period, 12,529 promotional, informative and educational materials on the AMPF have been produced and distributed. These materials consisted of t-shirts ("I care for the AMPF" - "Chorito"), folders, brochures and institutional pens, leaflet about birds of the AMPF, training file card on water cycle, training file card on environmental crimes, Stickers ("Chorito") and others.
39-a	Cleaning of rivers and ravines	During the monitoring period, 3 events have been conducted with local people to perform cleanup actions of rivers and ravines. These involved a total of 143 people including settlers, students, teachers and parents. One of these events was conducted by forest rangers from PC Sol de Oro with the population of Santa Rosa del Alto Mayo, while the other two were part of the campaign for the conservation of the sub-basin of the river Yuracyacu.
39-b		
40-a	Settlers who perceive that the AMPF is important for their development	98% of subscribers and 97% of non-subscribers consider that the forest is important for their development. The 5 major benefits that the AMPF grants are: water, firewood, clean air, wood and medicine. 67% of subscribers said they learned of the benefits provided by forest conservation through Conservation Agreements.
40-b		
41-a	Population that acknowledges the AMPF Head Office and wants to be an ally of the conservation of this PNA	In 2014, only 2 social conflicts were recorded in the AMPF and 5 in 2013. Since the implementation of the project in 2008, 41 social conflicts were recorded. 92% of subscribers and 74% of non-subscribers recognized that they are within the AMPF. By 2012, only 67% of subscribers
41-b		
41-c		

41-d		recognized this. 32% of subscribers and 10% of non-subscribers know the limits of the AMPF. By 2012, only 15% of subscribers knew these limits. This shows an improvement in this indicator.
41-e		81% of subscribers and 31% of non-subscribers recognize the AMPF Head Office as the administrative entity of the AMPF, while in 2012, 60% of subscribers and 42% of non-subscribers recognized it. An improvement in the subscribers regarding this indicator is observed. By 2014, 68% of subscribers know the AMPF is registered in the public records, and 86% admit that it is registered for the state. 93% of subscribers and 85% of non-subscribers recognize that buying or selling land within the AMPF is a crime. A significant improvement in these indicators is observed compared to 2012.

This indicator shows positive progress in strengthening the alliance of the AMPF Head Office with the local population thanks to the training processes and the communication strategies that have been developed and implemented. Figure 10 shows a similar trend in the previous period where subscribers and non-subscribers value the importance of water, air and firewood as the main benefits provided by the forest and for which it is necessary to preserve and keep a sustainable management.



Figure 10 - Perception of the importance of benefits provide by the forest

These achievements were mainly due to the support received by the project, not only in financial terms which has ensured the implementation of field activities, but also through the committed partnership and involvement of more than 100 professionals who directly contribute to the management of the protected area.

Expected socio-economic negative impacts in the project area

Impact 1: Decreased economic opportunities arising from illegal activities

By 2014, it appears that a significant percentage of subscribers within the AMPF are leaving aside activities such as: coffee day laborer, wood carrier, or chainsaw operator and are being employed in other activities in the surrounding urban areas. They have also stopped sending remittances, which shows a decrease of economic activities within the AMPF.

Table 14 - Indicators on illegal activities

ID	Indicator	Results
42-a	Wages from illegal activities that are no longer implemented due to the improvement in the monitoring and surveillance of the AMPF	With respect to activities that subscribers have ceased to perform over the previous year, 44% of subscribers say they were "coffee day laborers," 12% said "wood carrier" and 7% chainsaw operators. The trend is similar for non-subscribers. 79% of subscribers stopped sending remittances because they did not generate more revenue for respecting Conservation Agreements. 48% of subscribers perceive that their average wages are the same over the previous year, while 38% say they have decreased. In terms of non-subscribers, 55% say that their average wages are the same over the previous year, and 37% indicate they have declined.
42-b		
42-c		
42-d		

Impact 2: Decrease in the provision of basic services within the AMPF

The trend of this indicator remains the same as the previous period. In 2014, populations are increasing their demand and access to basic services. However, the increase probably responds to small installations made by the same families to access services rather than to public investment.

Table 15 - Indicators on provision of basic services

ID	Indicator	Results
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43-a	Population with access to basic services illegally built within the AMPF	75% of subscribers said that they have access to primary schools and 25% to secondary schools. 92% of subscribers mention they have access to a dispensary and only 8% to a health center. An improvement of these indicators is observed compared to 2012 when 66% claimed to have access to primary education and 55% to a medical post or dispensary.
43-b		
43-c		
43-d		Regarding the level of project intervention in improving health services and education, 53% of subscribers mention these services remain the same, 34% do not relate it to the project and 13% say it has improved.

Impact 3: Further monitoring on the expansion of the agricultural frontier

This indicator shows significant progress with respect to the average cropping area which has decreased significantly to 1.3 ha on average per subscriber. The deforested area in 2014 also decreased significantly and so did the requirement of larger cropping areas, as shown in the following table:

Table 16 - Indicators on the deforestation expansion

ID	Indicator	Results
44	Average of the total area of crops per respondent	In 2014, on average, each subscriber mentioned to have 1.3 ha of coffee crops and 1 ha of pasture; while in 2012, each subscriber had 3 ha of coffee and 1 ha of pasture. In 2014, on average, non-subscribers reported to have 1 hectare of coffee and 0.5 ha of pastures, while in 2012 they had 2 acres of pasture and 1 of coffee. It should be noted that these data are based on verbal statements of the interviewees and not in quantitative data.
45	Area deforested for the installation of new crops, reported by the AMPF staff	It has been identified, during the systematization of data, that not all patrol reports record the spatial information needed to quantify the surface that is illegally operated, so it is presumed that the deforested area that has been registered during patrols is underestimated. The deforested area that was actually recorded during the monitoring period was 87 ha.
46	Population that requires installing new crops to	By 2014, 75% of subscribers believe they need more coffee or grass areas to meet the basic needs of their families, this trend

	meet their basic needs	remains similar to that in 2012 which was 76%.
47	Average crop area projected to be installed by respondent in order to supply their immediate needs	In 2014, on average, each subscriber responds that it is necessary to install 2 acres of pasture and 1 of coffee to meet their basic needs. This trend remains the same compared to 2012 which was 3 ha.
48	Settlers who gave up installing new crops because of the increased productivity of existing crops	By 2014, 25% of subscribers said they do not require installing new crops to meet the basic needs of their families. In 2012 this indicator was 21%.

Impact 4: Less support from holders to their families located in their area of origin

This indicator shows significant progress, as can be evidenced in the tables, a high percentage of subscribers and non-subscribers say they have no intention of bringing their families in to the AMPF. This shows more understanding about the protected natural area and the legal implications that discourages migration to the AMPF.

Table 17 - Indicators on the support of immigrants

ID	Indicator	Results
49-a	Population within the AMPF that wants to bring their families	By 2014, 69% of subscribers do not want to bring their families, while 32% want to do it. With respect to non-subscribers, 72% do not want to bring their families while 28% want to do it.
49-b		
50-a	Average remittances from the AMPF to source areas of migration	40% of subscribers said they had not brought their families because they are better where they live, while 27% say it is because there is a monitoring and surveillance plan.
50-b		
50-c		13% of subscribers said they had helped one family member to come to the area and 8% of non-subscribers did the same.
50-d		
50-e		By 2014, 73% of subscribers manifested that they do not send remittances to their families while 27% said they do it. Subscribers send on average of S/.256, and non-subscribers S/. 257 on a monthly basis. The maximum amount of money that subscribers can send is S/.2,000.

Expected socio-economic positive impacts outside the project area***Impact 1: Maintenance and improvement of ecosystem services in the AMPF (water and soil) for the benefit of the people outside the project area***

AMPF basins provide important ecosystem services to local communities, including water and genetic resources; and to the global population through climate stabilization. Run-off from the Alto Mayo forests provides clean and plentiful water for local communities and the development of the various economic activities in the watershed of the Mayo River. Advances in this indicator are described below:

Table 18 - Indicators on improvements of environmental services outside AMPF

ID	Indicator	Results
51	Water regulation	In surveys to housewives in the basin of the Yuracyacu river, 65% (202 people out of a total of 356 respondents) said that the benefit of conserving forests in the upper part of the basin would be to have cleaner water. An increase in the awareness of the role of forests in regulating water is also evidenced. 55% of respondents (195 people) would be willing to voluntarily pay a small amount of money on the monthly bill for water and sanitation service to care for the forests in the upper part of the basin.

52	Extreme events	The following results were obtained in 377 surveys representing the upper basin of the Mayo River. The surveys were made to different social groups (urban/rural population, female/male population mestizo/migrant population) covering the provinces of Moyobamba and Rioja: • Over 80% said that the amount of water had been reduced during the dry season in the last 10 years. • Over 40% said that the amount of water had been reduced during the rainy season in the last 10 years • Regarding water quality, about 70% said that water has been more turbid during the rainy season in the last 10 years. According to an interview with the representative of the National Water Authority (entity that works under the Ministry of Agriculture and Irrigation), recurrent floods strike various sectors of the upper basin of the Mayo River with increasingly destructive effects (including death of people and damage to agricultural plots). There are serious problems with storm flow reservoirs, which can be directly related to the silting of rivers due to excess in transported sediments. During the monitoring period, especially during 2013-2014, the rainfall has been notoriously anomalous; inclusive, according to the testimony of a leader of El Triunfo (Huasta basin), it must have been the strongest rainy season in the last 10 years. These circumstances have affected water quality and helped to increase the severity of extreme events, with the consequent economic loss (flood rice, favorable conditions for the attack of coffee leaf rust) and risks to life and health.
53-a	Conservation of Strict Protection Zone (Project scenario)	By 2014, 40 ha or 0.1% of the total area comprising the strictly protected zone have been deforested compared to the 1800 ha of forest loss outside the strict protection zone.
53-b		

Impact 2: Transfer of technology to improve coffee production systems outside the project area

Significant improvements in this indicator are demonstrated through processes for strengthening technical capacities to improve coffee cultivation, as described in the following table:

Table 19 - Indicators of technology transfer

ID	Indicator	Results
54-a	Technical training in coffee breeding practices	An extension work experience was done in Huembo (Bongará province, Amazonas region) at the beginning of the monitoring period. During this experience, the farmers responsible for the coffee plots available in the Servidumbre Ecológica de Huembo (Huembo Conservation Easement) (administered by ECOAN) were advised to apply a technical package similar to the one implemented in the Conservation Agreements of the AMPF for the improvement of coffee production carried out on an area of 1.5 ha. From this experience, the staff of the Huembo Conservation Easement has replicated the training at a demonstration level in four Peasant Communities in the Amazonas region: Pomacochas, Shipasbamba, Cocachimba and Progreso. Approximately 50 copies of technical material have been distributed in this training. Also, under the training cycle "Indigenous instructors for climate change and the role of forests", 8 indigenous technicians were trained on improvement of coffee breeding practices. They also received technical material.
54-b		
55	Technical material distributed outside the project area	An educational workshop was held in the city of Nueva Cajamarca with a total of 90 participants. An equal number of teaching materials was also distributed. An interesting phenomenon that has been occurring is the conversion of some subscribers of AMPF Conservation Agreements into disseminators of the technical package for the improvement of coffee inside and outside the project area, as it is the case of Mr. Eli Vargas. The project "REDD+: facilitating the distribution of benefits" is being implemented in Shampuyacu Native Community (outside the project area). This project includes the implementation of a technical package similar to one contained in the Conservation Agreements of the AMPF. It also includes the distribution of technical material on coffee growing.

Impact 3: Leverage of new projects for the conservation of biodiversity in Alto Mayo.

As the previous year, this indicator has a positive trend and has achieved the leverage of financial resources, as detailed in the following table:

Table 20 - Indicators on the development of new conservation projects

ID	Indicator	Results
56-a	New projects articulated by the ICAM outside the project area	Four new projects outside the project area have been launched in the monitoring period accumulating a sum to invest in conservation shares of approximately S/.11.3 million. Also, 3 projects which started in the previous monitoring period (which totaled approximately US\$ 5.8 million throughout their life cycle) are still in execution.
56-b		

7.2 Negative Offsite Stakeholder impacts (CM2)

Expected socio-economic negative impacts outside the project area

Impact 1: The demand for a conventional management of coffee moves into Native Communities (NC) increasing the unsustainable use of land due to land renting in the communities

The trend for renting lands by the NCs is declining, as a result of the activities done by a number of institutions which, for some time now, have been sensitizing NCs regarding the inadequate conditions of the rental contracts. The Regional Government of San Martin and NGOs have worked on the subject. There is also the contribution of the activities of the AMPF Head Office on this issue.

Table 21 - Indicators on impact of the project in indigenous communities

ID	Indicator	Results
57-a	Variation in the amount of land rented in NCs	According to the Regional Government of San Martin, the Awajun NC settled in Alto Mayo owns approximately 140,000 ha. According to information obtained in a recent consultation conducted by engineer Darvin Gil Ríos for Conservation International in Shampoyacu NC, 40% of the land may have been rented today.
57-b		
57-c		
58-a	CA Subscribers who rent land in NCs.	By 2014, no subscriber has expressed interest in renting land from native communities to grow coffee, whereas the 3.8% of non-subscribers say they have no intention of doing so. In general this
58-b		

58-c		indicator is low.
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Impact 2: The customary uses of NCs could be affected by an increase in the monitoring and surveillance program of the PNA

There are no actions concerning this indicator. Generally, the NCs are performing their usual activities in their territory and there is no evidence that they are affecting the AMPF.

Table 22 - Indicators on conflicts with indigenous communities

ID	Indicator	Results
59-a	Conflicts between settlers of NCs and staff of the AMPF	During this monitoring period, there have been no recorded conflicts between settlers of Native Communities and staff of the AMPF due to customary practices within the protected area.
59-b	Findings of customary traditions of NCs in the AMPF	During this monitoring period, the AMPF staff has not registered findings of signs, people, or traces of activities on customary traditions of native communities within the AMPF.

7.3 Exceptional Community Benefits (GL2)

Not applicable as the project did not include the optional exceptional community benefits criterion in the project description.

8 BIODIVERSITY

8.1 Net Positive Biodiversity Impacts (B1)

Positive expected impacts on biodiversity in the project zone

Impact 1. Conservation of the habitat of high importance species for the biodiversity of AMPF

Table 23 presents the results of forest habitat monitoring in project area. It indicates the status of these ecosystems which are the priority areas for biodiversity conservation. These indicators were estimated through the analysis of change in forest cover for the period 2012-2014 using Landsat satellite imagery, following the methodology used for carbon monitoring.

Table 23 - Indicators on habitat status of endemic and endangered species in AMPF (2012-2014)

ID	Indicator	Results
1-a	Forest cover (with project scenario)	In 2014, 144,478 ha of intact forest remain in the project area (with project scenario). The area was estimated by analyzing the forest change in the period 2012 - 2014. The annual deforestation for that period was assumed to be distributed equally. The forest area in 2014 is slightly higher than observed in 2012, as the project was able to classify the land cover in areas covered by clouds in 2012.
1-b	Forest cover (without project scenario)	In 2014, 129,381 ha of intact forest would remain in the project area (without the project scenario). The area was estimated by modeling future deforestation based on historical analysis (1996-2006). The model predicts annual deforestation for the baseline period (2008-2018). Forest loss in 2012-2014 was determined only for areas without clouds in 2014, identified in the analysis of satellite images.
1-c	Avoided deforestation	Between 2012 and 2014, has been avoided deforestation of 3,622 ha. The area was estimated using the difference of the total loss of forest cover for scenarios with and without the project, in areas cloud free in 2014.
2-a	Deforestation rate (with project scenarios)	Between 2012 and 2014, the observed annual deforestation rate was 0.17%/y, equivalent to 240 ha/year. There was a reduction in 28% in the annual deforested areas when compared with deforestation in 2008-2012.
2-b	Deforestation rate (without project scenarios)	Between 2012 and 2014, the projected annual deforestation rate was 1.6%/y (without project scenario).
2-c	Reduction of deforestation rates	Between 2012 and 2014, the annual deforestation rate was reduced to 0.89%.

The indicators regarding the habitat conservation of high importance species for biodiversity show a considerable reduction in the deforestation rate in the actual scenario compared to a scenario without the project or baseline scenario. In the last 2 years deforestation dropped 1,816 ha/y when compared with

baseline scenario and 92 ha/y in relation to the last monitoring period. These indicators confirm the importance of the project to conserve important habitat for the conservation of biodiversity.

Impact 2. Habitat fragmentation of high importance species for the biodiversity of AMPF is avoided

Table 24 presents the results of the main indicators regarding the level of fragmentation avoided in the AMPF. The indicators also complement the status of the habitat of endemic and endangered species to the AMPF

Table 24 – Indicators on the fragmentation of high importance habitat for biodiversity

ID	Indicator	Results
3-a	Fragmentation – edge effect (with project scenario)	In 2014, in the project scenario, 24% of the habitat in the project area is located within 100 m of a non-edge habitat.
3-b	Fragmentation – edge effect (without project scenario)	In 2014, in the baseline scenario, 20% of the habitat in the project area is located within 100 m of a non-edge habitat.
4-a	Fragmentation – isolation (with project scenario)	In 2014, in the project scenario, 2.3% of habitat in the project area is in patches smaller than 100 km ² .
4-b	Fragmentation – isolation (without project scenario)	In 2014, in the baseline scenario, 3.0% of habitat in the project area is in patches smaller than 100 km ² .

Unlike conservation indicators of forest cover, we found a slight improvement in the case of forest fragmentation between the baseline scenario and the present (with project). This is because the AMPF still behaves as a large block of forest where, despite a high rate of deforestation, it is adjacent to its edges and consequently there is a low rate of fragmentation inside. However, we have seen that with the project the edge effect increases slightly (24% of the forest habitat of the AMPF is found within 100 m of a non-habitat edge in the project scenario while without the project this holds at 20%). This is due to the difference between the distribution of deforestation in the spatial projection model vs current deforestation. While the spatial model has a low stochasticity and therefore most of the deforestation "expands" from non-forest areas with high probability of deforestation, current deforestation (observed) is more sporadically distributed within these areas, occurring in isolated patches within areas of high probability of deforestation and thus generating a greater edge effect compared to the scenario without the project. However, we anticipate that this situation will change in the following monitoring period, to the extent that deforestation in the scenario without the project would move within the AMPF.

For indicator 4, without the project, the proportion of forest habitat in the AMPF found in patches of less than 100 km², or in forest fragments which are too small to support suitable habitat for biodiversity, is

slightly higher (3.0%) compared to the current project scenario (2.3%). Although fragmentation in the AMPF is not a current threat to the habitat of important species for the conservation of biodiversity, we will continue to monitor these indicators of forest fragmentation due to the importance of maintaining continuous areas of forest for endemic and endangered species such as the yellow-tailed woolly monkey. Forest fragmentation will also be monitored as an indicator of forest health in the future.

Impact 3. Maintenance and/or enhancement of High Conservation Value areas of AMPF

Table 25 shows the results of the indicators that are associated with the maintenance of High Conservation Values. The effectiveness of the project strategies to maintain or improve these High Conservation Values is evaluated by monitoring deforestation in the Strict Protection Area within the AMPF. This includes areas with species or ecosystems that are unique, rare or fragile, and require a high level of protection and isolation to stay pristine; and, the areas outside these. (Indicator 6a and 6b) It is also evaluated through the monitoring of deforestation within the habitats for species of greatest importance for the conservation of biodiversity in the AMPF, such as the yellow-tailed woolly monkey, the night monkey endemic to San Martin, the titi monkey and the spectacled bear. In this case, as it is necessary to evaluate the indicators for several different species, they are presented in the table below.

Table 25 - Indicators on maintenance of High Conservation Value area

ID	Indicator	Results
5-a	Deforested habitat of high importance species for biodiversity (with project scenario)	See The results of Table 26 show that the project strategies, particularly the efforts to strengthen monitoring and surveillance activities in the Strict Protection Area, have been successful since a very small percentage of this has been affected, this is significantly lower in relation to deforestation outside the Strict Protection Area. Table 26 summarizes the results on the habitat of species of high biodiversity significance which was obtained by superimposing the important areas of habitat for these species according to Rondinini et al. (2011) and the NatureServe maps on changes in forest cover. The subset of priority species has been selected based on the category of threat, endemism and its importance to the conservation targets of the AMPF Table 26
5-b	Deforested habitat of high importance species for biodiversity (without project scenario)	See The results of Table 26 show that the project strategies, particularly the efforts to strengthen monitoring and surveillance activities in the Strict Protection Area, have been successful since a very small percentage of this has been affected, this is significantly lower in relation to deforestation outside the Strict Protection Area. Table 26 summarizes the results on the habitat of species of high

		biodiversity significance which was obtained by superimposing the important areas of habitat for these species according to Rondinini et al. (2011) and the NatureServe maps on changes in forest cover. The subset of priority species has been selected based on the category of threat, endemism and its importance to the conservation targets of the AMPF Table 26
5-c	Preserved habitat of high importance species for biodiversity	See The results of Table 26 show that the project strategies, particularly the efforts to strengthen monitoring and surveillance activities in the Strict Protection Area, have been successful since a very small percentage of this has been affected, this is significantly lower in relation to deforestation outside the Strict Protection Area. Table 26 summarizes the results on the habitat of species of high biodiversity significance which was obtained by superimposing the important areas of habitat for these species according to Rondinini et al. (2011) and the NatureServe maps on changes in forest cover. The subset of priority species has been selected based on the category of threat, endemism and its importance to the conservation targets of the AMPF Table 26
6	Conservation in the Strict Protection Area	See indicators 53a and 53b of Community section

The results of Table 26 show that the project strategies, particularly the efforts to strengthen monitoring and surveillance activities in the Strict Protection Area, have been successful since a very small percentage of this has been affected, this is significantly lower in relation to deforestation outside the Strict Protection Area.

Table 26 summarizes the results on the habitat of species of high biodiversity significance which was obtained by superimposing the important areas of habitat for these species according to Rondinini et al. (2011) and the NatureServe maps on changes in forest cover. The subset of priority species has been selected based on the category of threat, endemism and its importance to the conservation targets of the AMPF

Table 26 - Deforestation of habitat of high importance species for biodiversity avoided

Scientific Name / Common Name	Deforested hectares (ha) in areas of high importance for biodiversity in the scenario with the project	Deforested hectares (ha) in areas of high biodiversity importance in the scenario without the project	Avoided deforestation hecta res (ha) in areas of high importance for biodiversity
<i>Aotus miconax</i> (Night Monkey) *	402	3,177	2,775
<i>Flavicauda Lagothrix</i> (yellow-tailed woolly monkey) **	105	770	665
<i>Callicebus oenanthe</i> (Titi Monkey)*	21	40	19
<i>Tremarctos ornatus</i> (Spectacled Bear)*	297	2,430	2,133

*Source: Rondinini et al. (2011);

**Source: NatureServe

The results in Table 26 show that the project activities to mitigate deforestation have managed to retain high value forests for biodiversity conservation.

Impact 4: Maintenance and/or recovery of populations of endemic and critically endangered species

The work initiated in the previous monitoring period with the NGO *Proyecto Mono Tocón* has continued. The baseline of primate species in the (AMPF) has been completed. This was done for the seven selected basins in which Conservation Agreements had been signed. At the same time, the monitoring of primate species in four sub-basins has also begun in order to assess the maintenance and recovery of these species that are key forest health indicators. This is the case of the Titi Monkey (*Callicebus oenanthe*) which is one of the 25 most endangered primates in the world.

The presence of five primate species within the AMPF has been confirmed by the baseline study. Also, thanks to data collected by the *Proyecto Mono Tocón* prior to the execution of the project, it is known that there are two other species that had not been recorded during the baseline study: *Cacajao calvus* (red uakari monkeys) and *Ateles belzebuth* (spider monkeys). Table 27 shows the observations made regarding primates during the baseline study performed in the AMPF.

Table 27 - Number of primate species and individual primates found and reported in the AMPF by sub-basin

Location (sub-basin)	Number of species reported in interviews	Number of groups of monkeys observed in the field	Species	Number of Individuals
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Naranjos	5	3	<i>Cebus albifrons</i>	10
			<i>Aotus miconax</i>	3
			<i>Lagothrix flavicauda</i>	1
Naranjillo	8	2	<i>Saguinus fuscicollis</i>	10
			<i>Cebus albifrons</i>	Vocalization
Aguas Verdes	7	1	<i>Lagothrix flavicauda</i>	Vocalization
Yuracyacu	9	2	<i>Saguinus fuscicollis</i>	10
			<i>Lagothrix flavicauda</i>	15
Serranoyacu	6	1	<i>Lagothrix flavicauda</i>	10
Huasta	7	3	<i>Lagothrix flavicauda</i>	20
			<i>Cebus albifrons</i>	6
			<i>Cebus apella</i>	4
Río Negro	9	2	<i>Cebus albifrons</i>	11
		2	<i>Lagothrix flavicauda</i>	2
		1	<i>Saguinus fuscicollis</i>	1

The activities for the monitoring of primates began in 2013. The results for Naranjos, Naranjillo, Aguas Verdes and Yuracyacu sub-basins came out in March, 2014. The results are presented in Table 28.

Table 28 - Number of primate species and individual primates found in the AMPF by sub-basin during the first monitoring of species

Location (subbasin)	Number of groups of monkeys observed in the field	Species	Number of Individuals
Naranjos	4	<i>Lagothrix flavicauda</i>	27
	1	<i>Cebus albifrons</i>	7

	2	<i>Aotus miconax</i>	5
Naranjillo	1	<i>Cebus albifrons</i>	6
	2	<i>Aotus miconax</i>	6
	1	<i>Lagothrix flavicauda</i>	5
Aguas Verdes	1	<i>Lagothrix flavicauda</i>	4
Yuracyacu	1	<i>Lagothrix flavicauda</i>	3
	4	<i>Lagothrix flavicauda</i>	Vocalization
	1	<i>Cebus albifrons</i>	3

Although most primate species are highly vulnerable to human impact, not all of them are considered as bio-indicators. The species selected for this purpose are: a) *Lagothrix flavicauda* (yellow-tailed woolly monkeys) for its characteristics as umbrella species (its protection instinct largely involves the protection of many other sympatric species sharing the same habitat); b) *Cebus albifrons* (white-fronted capuchin monkeys) and *Cebus apella* (brown capuchin monkeys) since they allow to evaluate the tolerance of the local population to the presence of species that generate an obvious annoyance to their economic interests.

Consequently, the presence of the above-mentioned species in the studied sub-basins during the development of the baseline and in the first monitoring results, confirm the existence of preserved and sufficiently large habitat to maintain groups of *Lagothrix flavicauda*.

Impact 5: Reduction of pressure to the AMPF ecosystems through the promotion of sustainable practices by local populations

Table 29 summarizes the main indicators that measure the impact of project activities on the promotion of sustainable practices. In the context of a Pressure-State-Response Scheme, these indicators quantify the progress of the project strategy to align the use of sustainable practices by local population with the AMPF's objectives. They are indicators that measure the project response or the management factors promoted by the project, in order to control the impact of threats to biodiversity. Therefore, as conventional production systems are incorporated into the process of recovery of ecosystem services through the implementation of agroforestry and silvopastoral systems, a double positive effect is obtained on biodiversity: the first is to avoid deforestation of new areas of primary forest, and the second is the gradual recovery of ecosystems through the establishment of agroforestry and silvopastoral systems.

Table 29 - Response and project strategy indicators to promote a sustainable use of systems, aligned with the objectives of the AMPF.

ID	Indicator	Results
10	Signature of Conservation Agreements	See indicator 11 of Community section
11	Hectares of coffee under agroforestry and silvopastoral systems	See indicator 12 of Community section
12-a	Technical training on coffee improvement practices	See indicators 20a and 20b of Community section
12-b		
13	Ongoing technical assistance	See indicator 21 of Community section
14	Delivery of tools to implement coffee improvement practices	See indicators 14a of Community section.
15	Application of organic fertilizers	See indicators 14b of Community section
16	Access to special markets	See indicator 15 of Community section
17	Annual production of organic coffee per hectare among subscribers	See indicator 16 of Community section
18	Annual production of conventional coffee per hectare among subscribers	See indicator 17 of Community section
19	Increased production of coffee thanks to the implementation of good practices in the management of coffee under Conservation Agreements	See indicator 19 of Community section

Progress achieved in relation to this impact is highly significant, not only for the 656 implementation agreements or the approximately 252,000 kg of compost added to the soil, but also for the nearly 83,000 native forest seedlings that have been planted in about 185 ha within the project area. In addition to the conceptual change of these peoples in relation to forest conservation, we are working to guaranty the protection and care of the remaining primary forests. Progress to date shows that the same population has internalized the importance of implementing good practices in the management of their production systems in order to gradually restore ecosystem services that have been degraded and provide vegetation coverage to their production areas. This will create better conditions in unnatural edge habitat areas of species of high importance for conservation.

With respect to non-subscribers, 46% said they had learned on their own initiative, 45% said they had learned because they were members of an association or cooperative and 7.7% learned from a subscriber of Conservation Agreements.

The results of the survey conducted in 2014 indicate that 28% of subscribers use organic fertilization, 28% do pruning, 26% perform pest and diseases control with organic inputs and 18% do post-harvest management. In this context, we should also mention that the four activities are prioritized by subscribers for the improvement of coffee plantations. We also noted that prior to the signing of Conservation Agreements the emphasis was given on pruning and post-harvest management. On the other hand, with respect to non-subscribers, it is noted that a greater emphasis is given to pruning and controlling pests and diseases.

Also, 95% of subscribers have developed the ability to prepare *bokashi*, and additionally 74% of non-subscribers indicate that they can also prepare it. 99% of subscribers say they have learned to prepare *bokashi* thanks to the AMPF project, while non-subscribers have learned through the support of a subscriber (42%), thanks to the AMPF project (33%) or the support of their association (24%).

Impact 6: Strengthening the operational capacity of the AMPF Head Office

Table 30 summarizes the main indicators that measure the impact of project activities on strengthening the management of the AMPF Head Office. In the context of the Pressure-State-Response Scheme, these indicators quantify the progress of the project strategy regarding the strengthening of the AMPF Head Office, in order to control threats to biodiversity. As in the previous case, those are response or management factor indicators promoted by the project.

Table 30 - Response indicators of the project strategies to strengthen the AMPF Head Office

ID	Indicator	Results
20	Total staff of the AMPF Head Office	See indicator 1c of Community section

21	Number of specialists of the AMPF Head Office	See indicator 1b of Community section
22	Number of forest rangers in the AMPF	See indicator 1a of Community section
23	Technical training of the AMPF staff	See indicator 2 of Community section
24	AMPF operating equipment	See indicator 3 of Community section
25	Signage (information signs) of AMPF	See indicators 4a – 4c of Community section
26	Control stations in the AMPF	See indicator 5 of Community section
27-a	Monitoring and surveillance	See indicator 6a – 6d of Community section
27-b		
27-c		
27-d		
28	Preparation of management documents	See indicator 7 of Community section
29	AMPF Operational Budget	See indicator 8 of Community section
31-a	Strengthening of the Management Committee	See indicators 9a – 9c of Community section
31-b		
31-c		
32-a	AMPF Institutional positioning	See indicators 10a – 10ec of Community section
32-b		
32-c		

32-d		
32-e		

Taking into account that the AMPF is an area of high conservation value (for its high levels of biodiversity and endemism as well as for providing critical ecosystem services such as soil protection, control of extreme events as floods, water supply and its extraordinary tourism potential), strengthening the AMPF Head Office is crucial so that they can respond effectively, and within an adequate time frame, to multiple threats and pressures, such as deforestation and illegal construction of infrastructure. Only by restoring the governance principle in the AMPF, it will be possible to restore the conservation principle within the area, and this will permit to achieve the goals set when this important PNA was established.

Undoubtedly, the greatest threat to biodiversity has been and is caused by disordered anthropic presence within the AMPF, which is due to limited resources to properly manage this PNA. However, during this monitoring period, the work to strengthen the management capacities and the partnerships with the local population in support of the objectives of the AMPF has continued. Thus, the current continuity and increase of the operational capacity of the AMPF Head Office will ensure appropriate responses to anthropogenic threats to biodiversity.

Impact 7: Restoration of the AMPF degraded ecosystems through reforestation and the implementation of agroforestry systems

Besides the conservation of forests in the AMPF, the project is working on the implementation of ecosystem restoration activities in areas that have been deforested in the past or are being degraded by anthropic activity. Table 31 summarizes the results of the main indicators that measure the level of the project response to promote the recovery of degraded ecosystem services in the AMPF, through reforestation and agroforestry systems. These activities will help mitigate the fragmentation of ecosystems caused by the installation of conventional production systems, and thus maintain the connectivity of species of birdlife. Due to the few studies conducted within the AMPF, there is no total record of the species that have been registered in the area, but an eventual ornithological research may confirm the Important Bird Area (IBA) categories existing in the Alto Mayo.

Table 31 - Response indicators of project strategies to restore the AMPF ecosystems through reforestation and agroforestry

ID	Indicator	Results
33	Seedlings produced	See indicator 13 of Community section
34	Reforestation of degraded areas with native species in the AMPF	See indicator 32 of Community section
35-a	Use of improved cooking	See indicators 25a - 25h of Community section

35-b	stoves	
36	Reduction in the use of firewood	See indicator 25a-25h of Community section
37	Time saved in collecting firewood for the use of improved cooking stoves	See indicator 25a-25h of Community section

The results show that significant progress has been made in the recovery of degraded areas and in mitigating the impact of firewood collection on these forests. For areas in the process of being restored, almost 83,000 seedlings of native tree species have been taken to the field and this has contributed to the restoration of more than 180 ha of forest. The implementation of these plantations is aimed at meeting the demands of the agroforestry system (protection and land recovery, provision of shade). It is also aimed at meeting the needs of the population (firewood, timber for construction) and thus to ensure the future contribution of these areas to the recovery and connectivity of local biodiversity and their care by local populations. An increase in the use of improved cooking stoves has also been observed. The project has promoted the use of up to 97 new improved cooking stoves in the area. The use of improved cooking stoves helps reduce pressure on forest fragments and remaining primary forests in areas close to the population. This will maintain the services provided to local people and the value of these habitats for biodiversity.

Impact 8: Local population recognizes and values the AMPF biodiversity and ecosystem services and is an ally in its conservation

One of the conditions to ensure the sustainability of the changes in behavior that are being promoted by the project is to raise awareness throughout the population, and to have them adopt and institutionalize these changes into their daily practices. Table 32 shows the response indicators promoted by the project to sensitize local population and institutionalize the future adoption of sustainable use practices among them. It is necessary that local population living in and around the AMPF understands the direct relationship between welfare and the level of conservation of the AMPF. As long as the AMPF is well preserved, it will provide good quality ecosystem services and will significantly contribute to the population sustainable socio-economic development.

Table 32 - Response Indicators of the project strategies to sensitize population to recognize and value the AMPF biodiversity and ecosystem services

ID	Indicator	Results
38	School communicators	See indicator 35 of Community section
39	Environmental education: environmental journalists, schools	See indicator 36 of Community section

40	Training for <i>rondas campesinas</i> and leaders	See indicator 37 of Community section
41	AMPF promotional, informative and educational material	See indicator 38 of Community section
42-a	Cleaning of rivers and ravines	See indicator 39a and 39b of Community section
42-b		

The results of the project response indicators to sensitize local populations about the value of the AMPF biodiversity and ecosystem services show a significant improvement from the project baseline. In that sense, they have been implementing activities with schoolchildren and population leaders to train them on the importance of ecosystem services provided by the AMPF, environmental legislation and management of PNAs, and other environmental issues. They have also produced over 12,000 communication materials. These efforts to train and disseminate the services provided by the AMPF and its importance as a place of high conservation value are generating awareness and sensitivity among local population towards the AMPF. Through promotional and informative materials, people are aware of the importance of the AMPF and its ecosystem services and they will start supporting activities that seek to reduce these pressures due to illegal activities in the area.

All these aspects support the AMPF management since the population begins to recognize the importance of this NPA not only in terms of biodiversity, but also as a source of the key ecosystem services required by the basin for its economic and social development. On the other hand, it is important to highlight the work being done with schoolchildren since they are the future generation who will directly influence the AMPF conservation.

Impact 9: Reduction of illegal extraction of wild flora and fauna in the AMPF

The specific natural conditions of the AMPF make this NPA an area rich in wild flora and fauna resources. Its peculiarity and beauty have transformed the AMPF into an area of pressure for the illegal trade of these resources, as in the case of the orchid *Phragmipedium peruvianum* or an increasing pressure for timber resources either for commercial purposes (which is prohibited by law) or subsistence.

Table 33 shows the results of the systematization and analysis of the reports from patrols carried out by the forest rangers of the AMPF. These results include various indicators regarding pressures on biodiversity in the AMPF, based on which project strategies have been articulated to strengthen the capacity of the AMPF Head Office to control the illegal extraction of wild flora and fauna in the area.

Table 33 - Pressure indicators of threats to biodiversity by the illegal extraction of wild flora and fauna in the AMPF

ID	Indicator	Results
43	Findings of illegal trafficking of flora	There have been 57 findings of illegal trafficking of flora during the monitoring period. Most of them (52) correspond to illegal extraction of timber; and the rest are findings related to the traffic of orchid species.
44	Findings of illegal trafficking of fauna	There have been 4 findings regarding illegal trafficking of fauna during the monitoring period.
45	Slash findings	There have been 69 findings of deforested areas for the installation of agricultural activities. Most of these findings (43) happened in 2013; three were done in the buffer zone of the AMPF. The number of findings can be explained by the increased number of rangers during the monitoring period, thereby increasing the management ability of the AMPF to detect deforested areas.
46	Other findings	Reports confirm up to 39 findings during the monitoring period, mainly opening of new roads in the AMPF, construction of wooden houses, places where solid waste is disposed and findings associated with illegal logging.
47	Use of chemical contaminants	During the monitoring period, there have been 2 findings of use of chemical contaminants (pesticides and herbicides) in the project area.
48	Illegal construction of infrastructure	During the monitoring period, the patrols have made 8 findings of infrastructure under construction without the knowledge of the AMPF Head Office.
49-a	Interventions made to illegal offenders	During the monitoring period 3 interventions were made to illegal loggers, which entailed complaints.
49-b		During the monitoring period 1 intervention led to the initiation of criminal proceedings before the Environmental Public Prosecution for threatening forests and others.

The results of the indicators in Table 33 show a growing presence and capacity of the AMPF Head Office to implement monitoring and surveillance activities. The largest number of findings and interventions associated to threats within the AMPF registered in this monitoring period is an indicator of the greater effort rangers (greater number and budget through the project - Figure 11) are placing on monitoring or intervening in these operations.

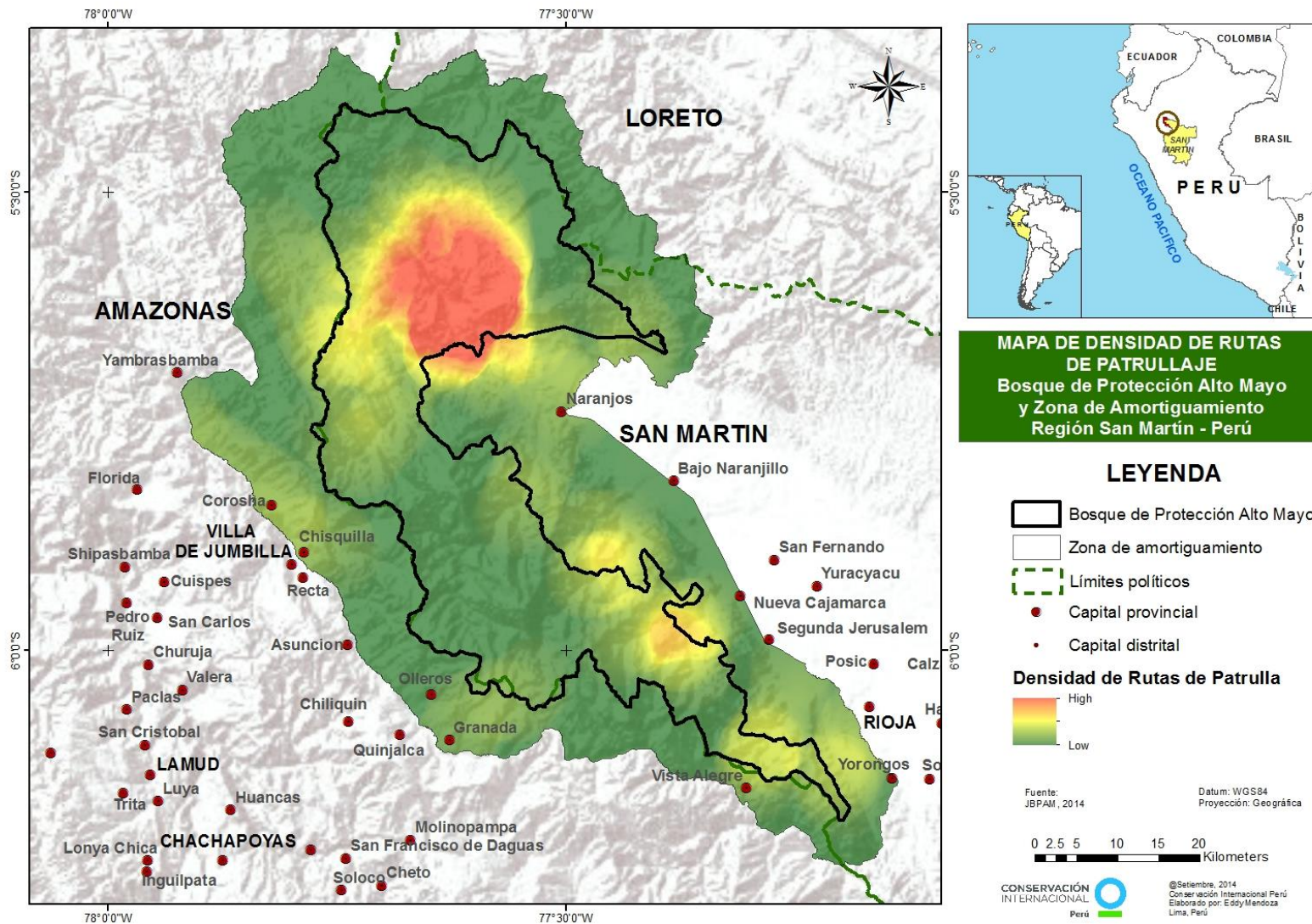


Figure 11 - Map of patrolling density

Positive expected impacts on biodiversity outside the project area***Impact 1: Maintaining Connectivity in the Conservation Corridor Abiseo-Condor-Kutukú - CCACK*****Table 34 - Contribution of the AMPF to the conservation of the CCACK**

ID	Indicator	Results
50-a	Forests of the AMPF remain intact	In 2014, 144,478 ha in the AMPF remain under intact forest cover in the project scenario, contributing to the connectivity in the Conservation Corridor Abiseo-Condor-Kutukú.
50-b		

The CCACK is one of the most diverse regions of the world, not only for its abundance of species, but also for its high degree of endemism. The project area is located in the center of the Conservation Corridor Abiseo-Condor-Kutukú (CCACK); this is a regional proposal to achieve the conservation and sustainable use of several important ecosystems in two priority areas for global conservation: the Tropical Andes hotspot in the eastern foothills and the Amazonian Great Wilderness Area in the Andean Amazon lowlands. The CCACK extends from the Sangay National Park in Ecuador to the Cordillera Azul National Park in Peru, in an area of approximately 13 million ha.

The conservation of over 144,478 ha of montane forests and continuous and primary pre-montane forests ensures the connectivity and conservation of High Conservation Values in the CCACK. This number is slight bigger than the number reported in 2012, as the project was able to observe forest in areas before covered by cloud in 2012.

Impact 2: Maintenance and enhancement of ecosystem services of the AMPF (water, land, tourism) for the benefit of people outside the project area

In addition to its high value for biodiversity conservation, the AMPF basins provide important ecosystem services to local communities, including water and genetic resources, as well as for the global population, through climate stabilization. Runoffs from the Alto Mayo forests provide clean and plentiful water for local communities and for the development of the various economic activities in the watershed of the Mayo River. For example, the sub-basin Yuracyacu provides water for the city of Nueva Cajamarca (35,718 registered inhabitants in 2007) and for the irrigation of more than 9,000 ha of rice. It is also important to protect the soil from water erosion, torrents and flooding in low-lying areas. Its role as a carbon reservoir is also recognized as well as the scenic beauty it holds. The conservation of the AMPF is therefore synonymous with development. The provision of its ecosystem services will provide sustainability for regional development, which is why it is necessary to ensure its full conservation.

Table 35 - Indicators of conservation of the AMPF ecosystem services for populations outside the project area

ID	Indicator	Results
51	Water regulation	See indicators 51 and 52 of Community section
52	Extreme events	

Impact 3: Recognition and valuation of biodiversity and ecosystem services of the AMPF by populations outside the project area

Although the population of Alto Mayo takes the forest for granted in their lives, they are mostly unaware of its importance and the close relationship there is between the forest welfare and their own. This has caused a high level of indifference in relation to what happens in the forest, especially in the AMPF, even to the point of labeling it as an "obstacle" for the development of the region.

However, considering the high profits brought by the AMPF for the development of the region, it is necessary for the project that people internalize the great importance that the conservation of the AMPF has and the adverse consequences that its deforestation would bring for their own development.

Table 36 - Valuation indicators on the importance of the AMPF by populations outside the Project area

ID	Indicator	Results
53-a	Environmental education events for people outside the project area on the importance of protecting biodiversity and SE of the AMPF: population, schools, community leaders-authorities, environmental journalists, etc.	Between 2012 and 2014, 18 events were developed on environmental education outside the project area as well as 1 awareness campaign for the conservation of the basin of the Yuracyacu river, in which 120 people participated. See indicator 36 of Community section.
53-b		
53-c		
54-a	Training of the population outside the project area on the importance of the AMBF	Between May 2012 and May 2013, a series of training called "Indigenous instructors on climate change and the role of forests", were conducted. These consisted of 12 workshops with a total of 10 participants who successfully passed the training. From this training cycle, indigenous technicians performed 3 similar workshops for native communities outside the project area, in which there were 178 participants.
54-b		
		Also, training on forest and water cycle was given in the town of Naciente del Río Negro with an indeterminate number of

		participants.
55	Informational, educative and promotional materials distributed outside the project area	Between 2012 and 2014, dissemination materials were distributed outside the project area to approximately 695 people. These materials consisted of: t-shirts and caps, flyers and educational cards.

The results of these indicators reflect the effort made as part of the communications strategy and awareness of the local population, which has contributed to some extent to the positioning of the AMPF at institutional level and among local population, emphasizing the high importance of this NPA. A campaign for the conservation of the Yuracayacu sub-basin made in conjunction with the District Municipality of Nueva Cajamarca is noteworthy. Despite having no relationship with the forest, the population of the urban area of Nueva Cajamarca strongly depends on the conservation of the AMPF to ensure the provision of water for human consumption. Similarly, it is expected that indigenous technicians replicate their training with the indigenous population of San Martin in terms of capacity building and awareness on the need for forest conservation, especially of the AMPF.

Impact 4: Transfer of technology to improve coffee production systems outside the project area

The results obtained in the implementation of Conservation Agreements have generated the first successful experience in managing coffee agro-forestry systems, despite the problems presented by the attack of leaf rust and other pests. This is important given that this experience begins to be replicated and therefore, knowledge is transferred to other farmers in the area, not only for the management of coffee plantations, but also for the propagation and production of native forest species that will help, to some extent, restore forest cover in the Alto Mayo Valley. This transfer of knowledge has even transcended the boundaries of the basin, reaching the adjacent Amazonas region.

Table 37 - Indicators of technology transfer for sustainable use practices outside the project area

ID	Indicator	Results
56-a	Technical training in coffee breeding practices outside the project area	See indicators 54a, 54b, and 55 of Community section
56-b		
57	Technical material distributed outside the project area	

Impact 5: Leverage of new projects for the conservation of biodiversity in the Alto Mayo**Table 38 - Leverage indicators for new projects that promote biodiversity conservation in Alto Mayo**

ID	Indicator	Results
58-a	New projects articulated by the AMPF	See indicators 56a and 56b of Community section
58-b	Administration Contract outside the project area	

According to Table 38 the project has leveraged approximately S/.11.3 million in addition to the amount the project has in order to promote conservation activities. Although most of these funds are being invested in locations outside the project area, the implementation of these projects will have important implications for the conservation of biodiversity in the AMPF. By promoting conservation activities in places adjacent to the project area, a belt of sustainable activities that are beneficial for connectivity and for the protection of the habitat and the species within the AMPF will be created. The promotion of sustainable activities in the buffer zone of the AMPF and surrounding areas (outside the project area), also ensures less pressure from the local population to natural resources within the AMPF.

8.2 Negative Offsite Biodiversity Impacts (B2)

Negative expected impacts on biodiversity outside the project area

As the principle of governance is restored in the project area, project strategies will pressure illegal environmental actors who, in case they do not respect the current legislation, could conduct their illicit activities beyond the project area, causing negative impacts in areas where we have no interference.

The following analysis was made based on this premise by determining the progress in the monitoring of the impacts and analyzing the mitigation measures that should be implemented if these indicators were registered.

Impact 1: Displacement of deforestation to the habitat of the species of high importance for biodiversity in the area of leakage**Table 39 - Indicators of deforestation using satellite imagery and spatial analysis in the area of leakage**

ID	Indicator	Results
59	Hectares deforested in the areas of leakage (with project scenario)	Deforestation in the leakage area over the baseline was 0 ha during this monitoring period.

60	Habitat of high biodiversity importance deforested in the leakage area (with project scenario)	During this monitoring period, deforestation in the habitat of high biodiversity importance in the area of leakage over the baseline was 0 ha.
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The indicators about the state of biodiversity, using spatial analysis with satellite images, show that the project has reduced deforestation in the area without significant negative impacts on the leakage belt. The implications for the conservation of biodiversity in the AMPF are several, including the maintenance of forest areas in the buffer zone to ensure the connectivity of the different populations of species as well as the maintenance of forests that provide refuge outside the project area when threats arise within the project area. Additionally, maintaining the habitat outside the project area creates conditions for the existence of flora and fauna, which may imply that the pressures on these species are kept outside the project area.

Similarly, deforestation in the habitat of species of high importance for biodiversity caused by the project in the leakage belt can also be considered 0 because it is lower than in the baseline. The maintenance of habitat for species of high importance for biodiversity in leakage areas ensures connectivity between populations of species within and outside the project area as well as the existence of habitat shelters outside the project area.

Impact 2: Displacing illegal extraction of flora and fauna out of the project area by creating additional pressure on forests in the AZ

Table 40 - Indicators of illegal exploitation of wildlife outside the project area

ID	Indicator	Results
61-a	Findings of illegal trafficking of wildlife outside the project area	In the period 2012-2014, the Regional Environmental Authority has made 131 seizures of wood illegally extracted. This value is considerably higher than the activities being carried out within the AMPF.
61-b		

Unfortunately, the only records available for the preceding monitoring period were for the year 2011 (128 findings of wildlife trafficking), so it is premature to make comparisons with results reported in the current period. It should also be noted that of the 131 records identified in the table above, it is not feasible to determine the place of origin of the resource, i.e. we cannot determine whether the resource came from the project area or from outside. However, the confiscation was made outside. It is necessary to obtain evidence from the staff performing these seizures to contextualize these statistics.

8.3 Exceptional Biodiversity Benefits (GL3)

The strategies of the project lead to the conservation of biodiversity in the project area, which is a site of global significance as shown in the Project Design Document (PDD).

The PDD includes the list of species found in the AMPF categorized by the International Union for Conservation of Nature (IUCN) as Critically Endangered (CR) and Endangered (EN), according to the requirements of the GL3.1.1 indicator. Table 41 shows the updated list of these species.

Table 41 - Species of fauna Critically Endangered (CR) and Endangered (EN) in the project area

Scientific name	Common name	Threat status (IUCN 2010 - II)	Threat status (2013.2 IUCN)
<i>Atelopus pulcher</i>	Harlequin frog	CR	CR
<i>Atelopus epikeisthos</i>	New species of Harlequin toad	CR	CR
<i>Atelopus seminiferus</i>	Upper Amazon stub foot toad	CR	CR
<i>Oreonax flavicauda</i>	Yellow-tailed woolly monkey	CR	CR
<i>Callicebus oenanthe</i>	Andean Titi monkey	CR	CR
<i>Zamia disodon</i>	Palm tree	CR	CR
<i>Zamia hymenophyllidia</i>		CR	CR
<i>Zamia macrochiera</i>		CR	CR
<i>Zamia urep</i>		CR	CR
<i>Hyloxalus azureiventris</i>	Poisonous frog	EN	EN
<i>Centrolene fernandoi</i>		EN	EN
<i>Cochranella saxiscandens</i>		EN	EN
<i>Telmatobius colanensis</i>		EN	EN
<i>Telmatobius truebae</i>		EN	EN
<i>Herpsilochmus parkeri</i>	Ash-throated Antwren	EN	EN
<i>Helianthus regalis</i>	Royal sunangel	EN	EN
<i>Loddigesia mirabilis</i>	Marvelous spatuletail	EN	EN
<i>Xenoglaux loweryi</i>	Long-whiskered owlet	EN	EN
<i>Grallaricula ochraceifrons</i>	Ochre-fronted antpitta	EN	EN
<i>Picumnus steindachneri</i>	Speckle-chested piculet	VU	EN
<i>Poecilatriccus luluae</i>	Lulu's Tody- Flycatcher	VU	EN
<i>Ateles belzebuth</i>	White-bellied spider monkey	EN	EN
<i>Ateles chamek</i>	Chamek spider monkey	VU	EN
<i>Pteronura brasiliensis</i>	Giant otter	EN	EN
<i>Virola surinamensis</i>	Baboonwood	EN	EN

The Project Design Document (PDD) includes the list of species found in the AMPF categorized by the IUCN as Vulnerable (VU), according to the requirements of the GL3.1.2 indicator. Table 42 shows the updated list of these species

Table 42 - Vulnerable species (VU) in the project area

Scientific Name	Common Name	Threat Status (IUCN 2010 - II)	Threat Status (IUCN 2013.2)
<i>Podocnemis unifilis</i>	Taricaya	VU	VU
<i>Ameerega cainarachi</i>	Cainarachi Poison Frog	CR	VU
<i>Ara militaris</i>	Guacamayo verde	VU	VU
<i>Dendroica cerulea</i>	Reinita cerúlea	VU	VU
<i>Touit stictopterus</i>	Periquito de ala punteada	VU	VU
<i>Leptosittaca branickii</i>	Perico de mejilla dorada	VU	VU
<i>Patagioenas oenops</i>	Paloma peruana	VU	VU
<i>Thripophaga berlepschi</i>	Rabiblando bermejo	VU	VU
<i>Aotus miconax</i>	Mono nocturno	VU	VU
<i>Lagothrix poeppigii</i>	Mono choro común	VU	VU
<i>Callimico goeldii</i>	Tití	VU	VU
<i>Thomasomys ischyryus</i>	Rata montaraz de Amazonas	VU	VU
<i>Dinomys branickii</i>	Machetero	VU	VU
<i>Priodontes maximus</i>	Armadillo gigante	VU	VU
<i>Dasyurus pilosus</i>	Armadillo peludo	VU	VU
<i>Pudu mephistophiles</i>	Sacha Cabra	VU	VU
<i>Tapirus terrestris</i>	Sachavaca	VU	VU
<i>Tremarctos ornatus</i>	Oso andino	VU	VU
<i>Myrmecophaga tridactyla</i>	Oso hormiguero	VU	VU
<i>Platyrrhinus ismaeli</i>	Murciélago de nariz ancha de Ismael	VU	VU
<i>Vampyressa melissa</i>		VU	VU

Table 43 shows the species that have been removed from the list submitted in the PDD, because the most recent IUCN categorization does not consider these species as Critically Endangered, Endangered or Vulnerable anymore.

Table 43 - Species removed from the list of Critically Endangered (CR), Endangered (EN) and Vulnerable (VU) in the project area

Scientific name	Common Name	Threat status (IUCN 2010 - II)	Threat status (2013.2 IUCN)
<i>Ameerega bassleri</i>		CR	NT
<i>Podocarpus oleifolius</i>	Romerillo	CR	LC
<i>Prumnopitys harmsiana</i>	Romerillo	CR	NT
<i>Larnax nieva</i>		CR	-
<i>Phragmipedium kovachii</i>		CR	-

<i>Luteolejeunea herzogii</i>		EN	LC
<i>Aiphanes spicata</i>		VU	-
<i>Lonchophylla hesperia</i>	murciéago	VU	NT
<i>Tropaeolum bicolor</i>		VU	-
<i>Fuchsia abrupta</i>		VU	-

In the Project Design Document (PDD) 17 bird species of restricted distribution were identified, according to the requirements of the GL3.2.1 indicator. Table 44 shows the updated list of these species.

Table 44 - Restricted-range bird species in the AMPF

Scientific Name	Common Name
<i>Xenoglaux loweryi</i>	Long-whiskered owlet
<i>Grallaricula ochraceifrons</i>	Ochre-fronted antpitta
<i>Helianthus regalis</i>	Royal sunangel
<i>Picumnus steindachneri</i>	Speckle-chested piculet
<i>Thripophaga berlepschi</i>	russet-mantled softtail
<i>Campylopterus villaviscensio</i>	Napo sabrewing
<i>Grallaria blakei</i>	Chestnut antpitta
<i>Grallaria przewalskii</i>	Rusty-tinged antpitta
<i>Hemitriccus cinnamomeipectus</i>	Cinnamon-breasted tody-tyrant
<i>Henicorhina leucoptera</i>	Bar-winged wood-wren
<i>Phlogophilus hemileucurus</i>	Ecuadorian piedtail
<i>Phylloscartes gualaquizeae</i>	Ecuadorian tyrannulet
<i>Xenerpestes singularis</i>	Equatorial greytail

Source: ICAM 2012, Birdlife International 2014

Four species (*Iridosornis reinhardti*, *Leptopogon taczanowskii*, *Myiophobus cryptoxanthus*, and *Ramphocelus melanogaster*) were removed from the list, since the updated information from Birdlife International indicates a distribution range higher than 50,000 km².

9 ADDITIONAL INFORMATION

The land cover and change analysis for this monitoring period was done based on the 2012 forest benchmark map. It was assumed that the rate of forest change was evenly distributed between the 2012-2014 period.

Areas identified as cloud in the 2014 land cover map were temporarily excluded from this monitoring period from both scenarios – baseline and project - and will be included in subsequent monitoring periods based on the availability of cloud-free images. Therefore the total baseline carbon stock changes in the project area during this monitoring period reported in MR Tables 02.a-c differ from the total baseline carbon stock changes in the project area reported on VM Tables 15.a-c of the AMCI Methodological

Annex, respectively. Similarly, the total baseline carbon stock changes in the leakage belt during the monitoring period reported in MR Tables 04.a-c differ from the total baseline carbon stock change in the leakage belt reported in VM Tables 29.a-c of the AMCI Methodological Annex, respectively. The 90% Confidence Interval value of the carbon stock was applied to the average carbon stock of pre-montane forest, dwarf forest and post-deforestation land use, as the uncertainty of the carbon estimate was above 10%.

Non-CO₂ emissions from forest fires and animal grazing were not monitored as they were not included in the baseline.

During this monitoring period, no natural disturbances or catastrophic events occurred in the project area and leakage belt.