



CONSERVATION LANDSCAPE PROGRAM
CONSERVATION OF DRY FOREST ECOSYSTEMS IN THE CARIBBEAN
QUARTERLY PERFORMANCE REPORT

1. PROJECT FACT SHEET

1.1 NAME OF THE PROJECT: Conservation Landscapes Program - CLP Dry Ecosystem Conservation in the Caribbean.

1.2 DATES (START/FINISH)

Agreement/Contract

4/12/2013 to 29/04/2016

Report period

01/04/2015 to 30/06/2015

1.3 PRIME

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1.7 USAID MECHANISM NUMBER: AID-514-A-09-00004

1.8 OVERALL PROGRAM DESCRIPTION: The Caribbean region (13 million hectares), encompasses more than six million ha. of tropical dry forest ecosystem (TDFE) in Colombia, of which 82% has been affected by deforestation. TDFE conservation is a priority for USAID and Colombia, thus, the CLP objective is improving TDFE's governance, biodiversity and the preservation of natural resources in the Caribbean region and strengthening environmentally sustainable livelihoods for the associated communities. Remaining forest patches coupled with existing protected areas and communities will be the center of conservation efforts. The focus will be to implement land use management tools at the landscape level, restoring connectivity with a biodiversity-friendly productive matrix and ecological corridors. Improved smallholder agroforestry practices, installing connectivity tools in larger agricultural areas, implementing silvo-pastoral systems and sustainable use of natural resources will guarantee ecological integrity by enhancing connectivity, covering soils to prevent erosion, promoting watershed protection and maintaining species diversity. GOC's regional environmental authorities will be strengthened through the Regional Protected Area System - SIRAP Caribe. Main beneficiaries are the indigenous, campesino communities and local organizations associated with the target areas. NGO's will develop proposals combining economic, environmental and social components, addressing the main threats on TDFE with community participation and capacity-building. Public/private alliances will be fostered for sustainable production and other public stakeholders will be engaged for better decision-making related to TDFE conservation. Caribbean TDFE will benefit from improved management of protected areas and especially from connectivity strategies to counter fragmentation as main tools for conservation. Improved access to water and production systems' management seek to

enhance productivity and livelihoods, especially for women in charge of obtaining water for daily use. Involving the private sector through off-setting mechanisms, Social Corporate Responsibility programs or green economy measures will benefit TDFE conservation by protecting ecosystem services.

2. Achievements Overview

This quarter's four new agreements were signed for a total amount of COP 101.159.101. Such agreements have the following objectives: (i) Agreement with Minka-Dev for COP 51.331.101, with the objective of: *“Developing a series of triangulated models that will serve as a roadmap for the control and implementation of a business model and/or massification of clean cookstoves designed by Patrimonio Natural in the municipality of San Juan Nepomuceno”*, (ii) Agreement with Geoimagen Colombia S.A.S for COP 30.500.000, which aims to *“Update the geographic information available on the geo portal of the consultation system of the SIRAP Caribbean and develop geoportals associated with the conservation of biodiversity, and systems of sustainable production around protected areas in several categories or areas of environmental importance in the Caribbean.”*, this work will allow to add new layers of information to the geo portal developed the previous year through the Agreement with Fundación para la Conservación y el Desarrollo Sostenible (FCADS-DOI), as well as to carry out training activities with Corporaciones Autónomas Regionales (CAR), which are part of SIRAP Caribbean in using these tools, and (iii) Agreement with Yo Viendo Llover S.A.S. for COP 19.828.000 that has the objective of *“Production of a video about the tropical dry forest of approximately 7 minutes of length in La Guajira in high definition”*, which will allow to disclose the strategic importance of birdwatching activities as an income generating alternative for the population in the area of influence of the Santuario Nacional de Fauna y Flora Los Flamencos (Guajira).

Regarding the production-conservation corridors which include agroforestry systems, the main achievements were: (i) in Nodo Guajira, the activities with F. Cerrejón were accomplished with the expansion and improvement to water access with (4) reservoirs coated with Ferro-cement and (5) plastic tanks of 2.000 liters of capacity which benefit approximately 90 people; the isolation with wire fences of 9 km in different sectors of the Paladines micro-basin; the installation of (5) electric fences to divide paddocks, five (5) irrigation systems by dripping, (5) by sprinkling, and (5) to optimize the use and water management as well as the livestock productivity, (ii) in the seven (7) municipalities of Nodo Cesar F. Carboandes continued with the maintenance and reproduction of (5) nurseries and the propagation by planting of 1500 tree species in the riparian buffer zone of Tocaimo river, (iii) in Nodo El Salado, farm planning processes undertaken with 51 families linked to the agreement with Fundación Semana were completed, including specific activities on organic agriculture or silvo-pastoral systems; (iv) in Nodo Colorados (F. Herencia Ambiental), progress and completion of isolation activities were made, as well as adjustments to the design and implementation silvo-pastoral systems aiming to privilege or prioritizes the presence of forager

native species therein, and (v) In Nodo Hibacharo, due to the delay of the rainy season, adjustments regarding soil sampling and activities within the demonstrative plots were necessary and taken upon.

In all Nodos, the persistence of drought in the Caribbean region throughout the first semester of 2015 required the adjustment of all rain-dependent activities, for instance prioritizing planting areas in places where it is possible to have access to irrigation (in the case of Guajira and Magdalena Nodos) and to postpone some activities related to the establishment of silvo-pastoral systems (Nodo Colorados).

As mentioned in the previous report, the silvo-pastoral systems that will be planted by the next rainy season include: fodder banks, isolated trees in pastures in line and/ or in the perimeter as natural fences, and trees in band, also, rotation pastures and diversity of forestry species which provide other products and benefits to the system in addition to fodder, and which benefit native species of the TDF.

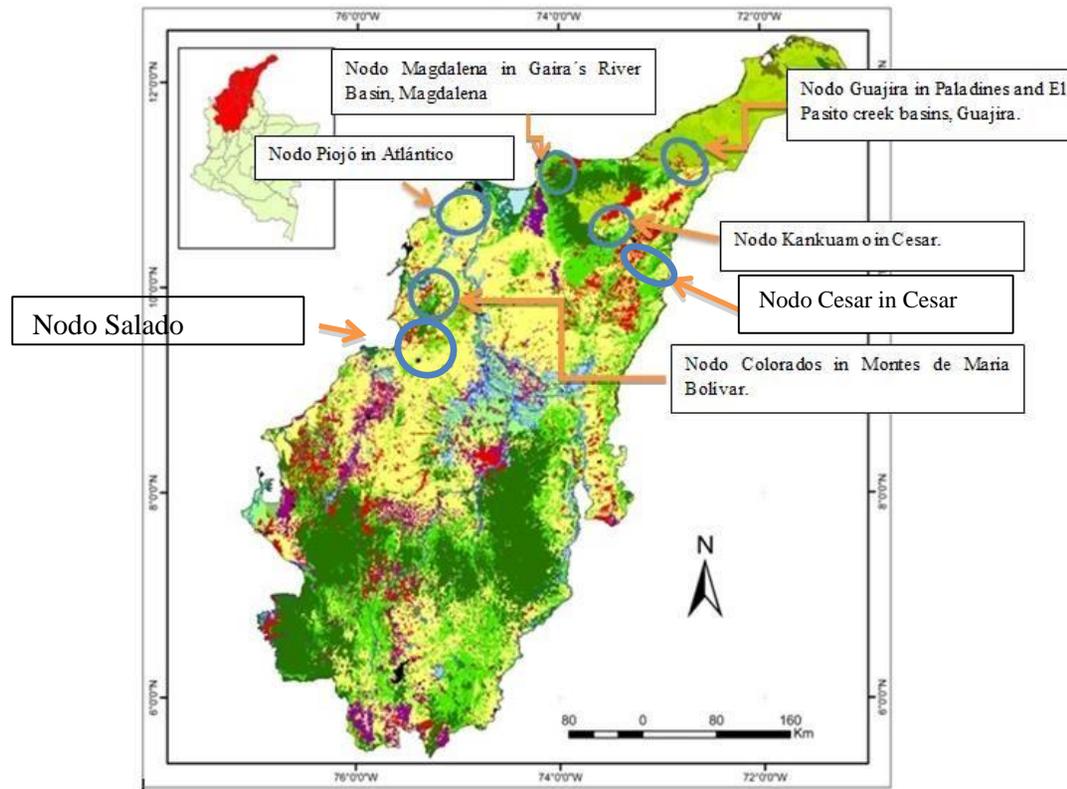
In terms of the program indicators, the main achievements were the implementation of 1.310 new hectares corresponding to areas of biological significance and/or under improved natural resource management (indicator DO4-001), reaching an accumulated value of 4.794 hectares, equivalent to 57% of the new goal proposed for this indicator in the frame of the PMP program update. Most of these new hectares (98%) correspond to the work that has been done through Fundación Cerrejón Agua para la Guajira (Nodo Guajira); significant advances in relation to this indicator will be reported during the next quarter, along with the results of the work done by the operators in the Nodos Colorados, Cesar y El Salado. Likewise, it is important to highlight the progress in the implementation of training and technical assistance to the community. Indicator F 4.8.1-29 had an increase of 1.546 hours during the quarter, increasing 62% from the total target. Additionally, it is important to mention that the cost share expenditures during this quarter reached 75% (USD 826,806) of the program's target.

The clean cookstoves strategy is moving forward. This quarter, an agreement was signed With Minka-Dev having the following objective: *“Developing a series of triangulated models that serve as a roadmap for controlling and implementing the startup and/or massification of clean cookstoves designed by Patrimonio Natural in the municipality of San Juan Nepomuceno.”* Additionally, crucial strategic alliances were agreed with the public sector. One of the alliances was made with ANSPE, a governmental organization that aims to overcome extreme poverty throughout the country. The alliance was established with the purpose of working collectively with social agents (cogestores) in order to teach the general rural population how to improve their livelihood with easy cooking solutions. Moreover, an alliance was established with SENA, specifically with its program *“Jóvenes rurales emprendedores,”* with the objective of creating work options for young entrepreneurs in rural areas with off-grid energetic solutions. In order to achieve this, a technical round table was

held with crucial actors and stakeholders such as the Ministry of Environment and Sustainable Development, and members of the academic community, having now developed a curricular program that could be taught in different SENA institutions across the country.

In addition to this, the stove design has continued to evolve in order to create a bundle of products that will provide sustainability to the startup. The program has now a wider range of products that span from a basic 45 USD stove to a stove with a chimney for temperate climate; as a result, it has been possible to satisfy the demand of stoves from other Programs in Patrimonio Natural. 22 stoves have been sold to date, plus 15 more stoves that have been sold through entrepreneur women in San Juan Nepomuceno. These alliances are beginning to give sustainability to the startup.

Furthermore, the design has proved to be successful in the promotional events where it has been showed. Specifically, in the *Pioneros menos co2* event, where two big enterprises are installing stoves as an environmental compensation strategy, a new market niche has been discovered and the program is currently working towards the addition of this niche to the marketing and sustainability strategy. In the upcoming trimester, the discovery driven strategy for the business model pilot currently being implemented in San Juan Nepomuceno will enable a deep knowledge of the cookstoves demand in the Montes de Maria region and will help the program to validate the current hypothesis on which the pilot is built. With this additional knowledge, the program will be able to adjust the business model and to prove its feasibility. The challenge is to sell 50 stoves in the region by the end of the pilot stage.



Map 1. Locations of the program's Nodos.

2.1 Components

2.1.1 Component 1 –Improved licit and Sustainable Livelihoods

Currently, there are seven locations where the production-conservation corridors are taking place: Nodo Colorados, Nodo Salado, Nodo Guajira, Nodo Magdalena, Nodo Cesar, Nodo Piojó, and Nodo Kankuamos.

In Nodo Guajira the agreement with F. Carrejón was completed during this quarter. During this period, the following actions and results were achieved: (i) a direct supply of water for domestic consumption for 90 people through the expansion and improvement of capture and storage systems (water harvesting in ceilings and 2,000-liter tanks for a total storage of 36,000 liters of stormwater), this activity comprised various actions, such as improving covers (ceilings) and gutters for capturing and transporting stormwater from the ceilings, and promoting best practices for the efficient use, sanitation, and decontamination of water under solarization methods in order to improve the quality of water for consumption, (ii) the expansion and improvement of access to water for agricultural consumption allowing for a potential storage volume of 185,000 liters of storm water through ten (10) capture and storage systems with coated reservoirs, which benefit approximately 50 people; water stored in these reservoirs will be used for domestic consumption, crop irrigation, and consumption by domestic animals, and for carrying out other productive practices such as building hedges, producing fertilizers, and for agroforestry systems. (iii) isolation with a total length of 9 km of wire fences in different sectors of the Paladins micro-basin to protect riparian creek buffer zones and water sources, as well as to facilitate passive dry forest restoration in these sectors (iv) the installation of five (5) electric fences to divide pastures, five (5) drip irrigation systems and five (5) sprinkling irrigation systems which are expected to contribute in the medium and long term to optimize the use and management of water and livestock productivity of Paladines farms, and (v) 54 conservation agreements with the project's participants were signed in order to ensure the sustainability of the process in the long term.

During this period in Nodo Gaira, as a result of an agreement's amendment with F. Bachaqueros, progress in the implementation of 15 additional agroforestry systems was made. Such systems are equivalent to the number of families from two of the communities involved in the project plus another family who showed its interest in participating and is actually strategic to promote TDF connectivity corridors in terms of its location. Since the regular April rainy season did not happen, the presence of isolated rain episodes had implications for the establishment of the new agroforestry systems pilots. However, progress was made in enriching the areas defined in previous designs with plant material propagated in nurseries.

The projection for the next quarter involves completing the implementation of 15 agroforestry system pilots for families recently enrolled in the program, thus properly fulfilling this agreement, reaching a total of 50 signed conservation agreements, which will include 962 hectares under improved management, with 50 installed agroforestry system pilots and enrichments with dry forest species that are currently scarce in all the Caribbean region.

In Nodo Piojó (FES agreement), activities that do not require rain as a prerequisite have been developed on schedule. Hence, the students from Nariño and La Guajira Universities adjusted the sampling and activities within the demonstrative plots in order to avoid the lack of

rain limiting their field work and later analysis. In this sense, the training for 12 participant producers or beneficiaries in the Nodo was achieved, with a total of 228 hours per person, including topics such as the construction of trenches, infiltration ditches, and raised and depressed contour lines, as well as a validation in the field of such practices, which make part of the agreed model for recovering and managing soils. Prospectively, CLP anticipate the implementation of 12 agroforestry systems during the next semester, according to the designs that were approved by the community, as well as the construction of alternative solutions for water gathering in ten (10) of the farms of the program's participants (reservoirs' inceptions adequacy and water harvesting). This latter solution will contribute to the sustainability of agroforestry systems and will improve the quality of life of the population. Similarly, there will be monitoring of the main indicators of soil management and recovery that have been proposed so far.

The types of plots and activities that have been defined under the agreement signed with the F. FES contemplate: (i) Plot design in producers' farms, which include the association of fruit trees and crops that serve as hedgerows, infiltration ditches and worm compost, (ii) with regard to tests made in depleted soils, work to establish control measures for erosion is initiating, as well as soil stabilization with terraces and stake fences with testing species and local materials to assess effectiveness and costs; the proposal is to implement and take the first data on losses and establishment of plant species as hedges for revegetation, and (iii) indicators assessment (physical, chemical to assess soil function) in different types of land use (clean pastures, wooded pastures, subsistence crops and forest), traditionally used by producers to assess impact by hedges lost in TDF soil conditions, and propose a baseline for monitoring and local assess with producers. In this context, all producers will sign conservation agreements for all actions taken on their properties, in order to ensure continuity and sustainability of the CLP.



Pictures 1, 2, 3 y 4. Types of demonstrative plots in Nodo Piojo for depleted soils

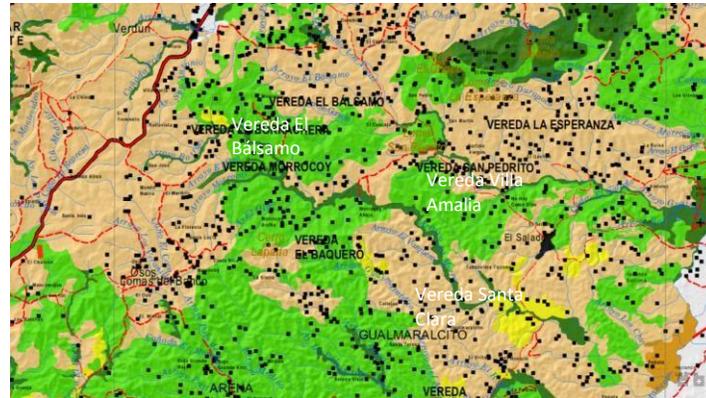
In **Nodo Cesar** the progress made by Fundación Carboandes among the Nodo's (7) municipalities could be summarized in the maintenance and reproduction of five nurseries and the planting of 1500 trees in the riparian buffer zone of Tocaimo river. During the next semester CLP team project reaching the registry of Reservas de la Sociedad Civil, which covers nearly 300 Ha of TDF, establishing

nearly 1.500 Ha under improved environmental management conditions, protecting 5 linear kilometers of the basin of the Tocaimo river, and implementing five (5) silvo-pastoral systems covering nearly 25 Ha.

Montes de María is a geographical region where CLP has two areas of intervention known as **Nodo Colorados** and **Nodo Salado**. In **Nodo Colorados**, activities are focused in finishing the isolation activities to connect Los Colorados Fauna and Flora Sanctuary with Cerro Maco in Bolivar department, as well as in the design adjustment and establishment of the silvo-pastoral systems that will be implemented in farms on the following rainy seasons (August and September 2015).

Regarding the agreement of **Nodo Salado** with Fundación Semana, the 51 families enrolled in the project have land planning and design of comprehensive management actions. After the work regarding land planning, in 20 of the 51 farms, families have begun implementing permaculture techniques related to the establishment of curve lines infiltration ditches for a more efficient use of stormwater, and in 40 of them beneficiaries have prepared and used inputs such as bocashi, boil, and garlic pepper and ash broths for pest control. As a strategy to face drought conditions in the area, it was found that families who used organic preparations indicated for the cultivation of tobacco and yuca were ultimately the only ones who were able to effectively handle the drought during the first months of 2015; in areas like the Poesía settlement, these practices allowed for crops to survive the harshest weather. Likewise, it is reported that over 30 families have already gated for growing fodder banks and forest isolates that will consolidate a corridor for biological connectivity around the Morrocoy stream, having an approximate length of 6 km (see Map 2). In the following months, as of August, we expect to be able to complete the projected tree plantation, taking into account the fact that during the last quarter, 5.000 trees had been planted.

During the last quarter, CLP team have started talks with other organizations with presence in the region of Montes de María, such as the foundation Crecer en Paz of Grupo ARGOS and F.Semana, in order to expand the coverage area of intervention with the 51 previously mentioned families, extending activities to 37 additional families in the rural area of El Salado and also increasing the length (4 km) of the biological connectivity corridor that is being built around the Morrocoy stream In this regard, during the next quarter we will sign a new Agreement with F. Semana and Crecer en Paz, with a projected contribution by the CLP of nearly COP 180,000,000.



Map 2. Nodo Salado (Morrocoy stream indicated by white arrows)



Pictures 5 and 6. Planting design considering the curve lines method for water retention in soils and properties



Picture 7. Preparation of micro-broth dilution and organic fertilizers

Among other activities, 12 workshops were held with the community, the life stories of families were collected, 2 monitoring visits were made by land and hardware materials and some of the fruit trees were delivered. The rest of the plant material will be delivered with the arrival of the second rainy season, which is expected to be in August.

The main challenge in this quarter has been the delay on completing the implementation of Nodo Bachaqueros' agroforestry systems for the new beneficiaries by the month of July, as well as the silvo-pastoral systems that favour native species in Nodo Colorados. These activities will be completed maximum in October 2015. The strategy to achieve these results in Nodo Colorados has been to privilege the presence of forage native species, adapted to the BST conditions, into the design of the agroforestry systems, mitigating the effect of scarce rains. As for Nodo Bachaquero, pending silvopastoral systems have been prioritized in areas or zones in the farms having the best access to superficial water sources.

2.1.2 Component 2 - Institutional Strengthening and Governance

Regarding the study carried out by Universidad Nacional about native palms, the most significant advance during this quarter is the generation of the final versions of the management plans of the following palms of the Caribbean: corozo de lata (*Bactris guineensis*),

palm mat (*Astrocaryum malybo*), sara palm (*Copernicia tectorum*) and bitter palm (*Sabal mauritiiformis*), developed by Universidad Nacional de Colombia. These management plans will be validated and disseminated nationally by the Ministry during the second semester of 2015. In addition, a series of documents in scientific paper format were produced, containing information and analysis about the yearly growth rates, phenology, productivity in various associations, and the effect of harvesting on vital rates for the species *Bactris guineensis* (Corozo de lata) and *Sabal mauritiiformis* (Palma Amarga), as well as identifying opportunities for the Sará palm regarding the flood and drought buffer ecosystem services in the relevant places within the Caribbean region. To prevent the existing populations of these palms –decreased by expansion of the agricultural frontier– from disappearing in the future, it is necessary to implement relevant corrective actions to management practices in production systems and establish measures to preserve relicts where healthy natural populations still grow. These recommendations and measures are set out in the Conservation, Management, and Sustainable Use Plans previously mentioned, which are currently under review by the MADS. These plans are intended to build the roadmap for public or private institutions and the civil society, allowing them to identify actions that require their participation in order to preserve these promising species. Also, following these practical recommendations, once CLP is completed, it is expected to establish pilot areas for the management of each species in selected farms of the region

As part of the clean cook initiatives, the CLP team is working collectively with the private sector in order to promote the efficient stove as an efficient means of environmental compensation. On the other hand, progress has been made in the agreement with Minka- Dev. The consultancy presented its work plan for June and projected for the next quarter the development of the Triangulated Models Roadmap, together with the CLP group, as well as the basis for the social business model for the stoves.

According with the updating and information dissemination contained in the geoportal of Tropical Dry Forest initially developed within the framework of FCDS-DOI for tropical dry forest patches connectivity analysis in the Colombian Caribbean, a contract was signed with Geoimagen Colombia S.A.S to include new information layers on this tool related to cartography at a 1:25.000 scale, generated by the Caribbean region's CAR as part of the formulation process of River Basin Planning and Management Plans, and to provide training workshops for some of the regional autonomous corporations that are part of SIRAP Caribbean.

2.1.3 Component 3 - Social Capital and Community Participation

Community participation is at the heart of the program since territorial and farm planning, conservation strategies, monitoring activities, commercial relations, and cook stoves strategies are built with the active participation of local communities.

During this quarter there have been significant advances in the agreement that was signed with F. Tropenbos. The main result was the development of a table of contents for each teaching material that will be produced by Tropenbos and disseminate by SENA in middle vocational Education courses in the Colombian Caribbean, where all the required sub themes are included in the material. In this sense, the design and validation of didactic material has been planned in the following topics: integral water management, timber trees, traditional seeds, recovery of timber species in danger of extinction, organic and agro-ecological production, native blades in agroforestry systems and communitarian ecotourism. This was provided through a participatory workshops that were held on all Nodos, in the workshops local and regional actors participated from their technical, educational and/or governmental level. Due to the importance and the role of silvo-pastoral systems and plant restoration in the dry forest, these topics should be included as central topics for an addition to the agreement with Tropenbos.

In the development process of commercial co-creation that has been established with Crepes & Waffles in Nodo Colorados, it has been possible to interact with producers involved in the program (associations ECOAGRO and ASOGRO from Raicero community and APROMIL from Media Luna community) and buyers (team C & W). Additionally, a replication model of the exercise of commercial co-creation has been proposed. As a result of this process, during the second quarter of 2015 quantities of selected products that include: tomato, lemon, eggplant, peppers, mandarin, cucumber, zucchini, green plantain, mango Tomy, lemongrass, cilantro, fresh basil, pineapple, guava, black-eyed beans, devil bean, cuarentano red beans and honey has been defined. On the other hand, a harvest product calendar was made in order to ensure the indicated quantities sold to C & W.

As a result of the agreements made with the producers in Nodo Colorados and despite the low rain conditions in the region, C & W has started to buy, as of June, avocado, coriander and mangoes (see the report in Table 1 for the period between June 11th and July 31st, 2015, amounting to 953 kg and COP 2,354,275). It should be noted what C&W's sale and purchase price for producers is significantly higher than the market price, as in the case of avocado, where the paid value of COP 3,850 per kilogram is 157% higher than the regular market price (COP 1,500 per kilogram).

Similarly, in El Salado several products were identified by C&W as potential products with favorable prices for the producers (basil, peppermint, lemongrass, passion fruit, pumpkin, white beans, pepper, and sesame). However, the main opportunity for C&W is to acquire differentiated products from local diversity; these products are: cuarentano beans, black beans, diablito beans, caraota, sweet pepper and eggplant, which are adapted since they respond to local seeds. The Producers who have been considered for the vegetable gardens (vegetables and aromatic herbs) are five (5). On The other hand, the work carried with Minka-Dev is the analysis of the decisions that have been taken in order to link producers with C&W.

Table 1. RATIO OF FRUIT AND VEGETABLE PURCHASE, SAN JUAN SUPPLIER (Nodo Colorados)													
JUNE 1st - JULY 31st, 2015													
Product	Unit of Measure	Jun 11	Jun 19	Jun 26	03 Jul	Jul 18	Jul 22	Jul 24	Jul 28	Jul 31	TOTAL KILOS	UNIT PRICE	TOTAL PRICE
AVOCADO	Kilos	50	45.1	60	60	0	60	50	0	0	325.1	3,850	1,251,635
CORIANDER	Kilos	10	0	10	15	0	20	11	6	5	77	4,300	331,100
MANGO	Kilos	59.2	72.9	60	60	52	42	50	90	65	551.1	1,400	771,540
TOTAL (COP)													2,354,275

During the last quarter, the CLP's strategy aiming to both save and preserve the agricultural biodiversity of the Caribbean region has focused on the nodos of El Salado and San Juan Nepomuceno, as well as on the following aspects: first, the process of identifying and characterizing the region's heirloom seeds; and second, the construction of a seed catalogue seeking to inform urban dwellers and potential consumers about edible products derived from biodiversity. Both aspects have been addressed simultaneously and are expected to be completed by the end of next quarter.

With regard to the catalogue, researching into heirloom seeds has drove the Program to acknowledge a new dimension related to biodiversity's edible spectrum; that is, tropical dry forest trees that produce wild fruits or seeds, and which rural people eat. In this respect, although it is still under decision if such dimension will be part of the catalogue, it is giving off novel insights not only on the role of biodiversity and the importance of conservation efforts like the connectivity corridors, but also on capitalizing this dimension as part of an awareness-raising campaign about the forest resources.

In addition to the above, assembling the catalogue has pushed the Program to envisage its concept, taking into account that its understanding of seeds intends to go beyond an inventory and actually involves their uses, selection, conservation, growing practices, and of course their keepers. Put differently, it acknowledges the reciprocal relationship between biodiversity and cultural memory. Under

this perspective, the catalogue will possibly adopt the form of a multimedia, by which to be able to link information on agricultural seeds or products with that on farmers, their production systems and even recipes in a dynamic way.

Ultimately, in the following quarter, it will be fundamental to continue working on researching and compiling the catalogue in order to validate it with the farmers of San Juan and El Salado, as well as with a target group of consumers that represent niche markets. Furthermore, this effort will seek to be in dialogue with the work Minka-Dev is conducting, in the sense that the business model they are building may be complemented with the catalogue's initiative.

Additionally, in order to widen and strengthen seed keepers' knowledge and practices with regard to seed conservation, throughout the next quarter workshops on seed conservation methods will be held. Such workshops, which will be carried out mainly in San Juan and El Salado Nodos, are thought to guarantee seed germination, reduce risk of loss, and improve the productivity of the productive system as a whole. As a result of the workshops and a strategy for reaching an ampler public, an educational material about seed conservation methods would also be designed and published. Moreover, it may be distributed in educational institutions, grassroots organizations, and governmental agencies. Finally, in relation to the catalogue, finding allies like the "Red de semillas libres" is crucial to scale up and turn into a collective effort the initiative of characterizing the region's agro-biodiversity.

During the reporting period and within the framework of the agreement signed with S. Audubon training activities began in the three Nodos that have been previously defined (Besotes, Santa Marta and Camrones). Main results include the training of 60 people as birdguides (22 Wayuu individuals, 6 afro-Colombian individuals, and 32 individuals of mixed race). Similarly, local stakeholder groups were identified for training as Birdwatching Guides, who started attending English classes with the purpose of learning basic terms, allowing them to communicate and understand the needs of customers who come from other countries. This has been complemented by capacity building with regard to the identification of bird families that are present in the Caribbean Coast. For this, training sessions have been imparted on the physiology and taxonomy of bird families. Additionally, a birdwatching session was held with the use of practical tools like binoculars, telescopes, laser and field guides.



Picture 8- Birdwatching practice



Picture 9- Birdwatching practice– Regional workshop

Moreover, the Regional Workshop in which the members of the three Nodos shared their experiences and expectations towards birdwatching, took place. The main objective of the workshop was to apply methodologies and technical criteria for the supply of touristic information services focused on birdwatching. This workshop addressed concepts related to birdwatching theory and practice, and equipment (binoculars and telescopes) were provided to the three groups. The main achievements of the workshop include: (i) the exchange of knowledge and skills among participants, (ii) the exposure of participants to different views and information on methodologies, market, and ethics by three types of Birdwatching Guides: an international guide, a national/regional guide, and a local guide (iii) the creation of partnerships to promote the consolidation of a group of local birdwatching informers for the Colombian Caribbean birdwatching route.

There was also progress in the English classes taught weekly in each locality, where basic concepts of guidance and bird names in English are studied, allowing participants to increase their chances to work as birdwatching informers with the groups of foreigners that come from countries like the United States and England. During this period, we also made important agreements with SENA by Agreement 039/2011 SENA – Parques Nacionales Naturales and with Universidad Popular del Cesar (UPC) to formally certify participants through an organization authorized by the Ministry of Education. For the Santa Marta and SFF Los Flamencos–Camarones groups, SENA will issue a birdwatching guide certificate (supplementary training course) and for the Valledupar group, UPC will issue a birdwatching diploma certificate. These certificates are supported by official educational institutions nationwide, and will allow participants to formally

prove their competence to work as birdwatching informers in their localities. This is expected to be a first step in the process of training students, who can later decide to take additional courses to become certified professional tour guides.

In the coming period CLP team expect to: (i) continue training participants to consolidate the group of Caribbean birdwatching informers, (ii) build a group of operators interested in promoting birdwatching products and hold a birdwatching marketing workshop with them, (iii) develop a business plan for Ecoparque Los Besotes, which will be a tool to support birdwatching sustainability once the program is completed, (iv) strengthen the brand and itinerary to promote the Colombian Caribbean birdwatching route internationally, and (v) develop related promotion products for the route: a video, a brochure, and an article in Audubon Magazine (December 2015).

Starting in the second quarter of 2015, the program has carried out a series of actions related to the recognition of the traditional knowledge of producer families on agrobiodiversity in dry tropical forest ecosystems, by gender and generation. The purpose is to include these "knowledge and skills" in decision-making processes regarding land planning and its impact on the conservation, management and use of native seeds, and in general, on the use of resources of the tropical dry forest. Thus, these actions have been focused toward the recognition and participation of a group of (12) twelve young people has been strengthened in order to acquire and learn about traditional knowledge and skills related to the production systems, traditional culinary, oral tradition, agricultural practices, material culture, and traditional food as articulating elements to understand the cultural importance in a conservation strategy. These activities have been undertaken at the family level with the project producers and others from surrounding areas who have been integrated in activities such as workshops, discussions relating to seeds, food traditions and the use of agro-biodiversity resources

In the municipality of San Juan Nepomuceno, the activities involve families from Raicero, Media Luna, town and San José del Peñon (characterized by its cultural, social and environmental tradition). While in El Salado, families from Santa Clara and El Bálsamo communities have been involved from "*Encounters by the fire*" where families gather to share, create and reflect on various topics related to their production systems, lifestyles, while they prepare and eat communally traditional food with the participation of adults and children.



Pictures 10 and 11. Farmers at Raicero (Nodo Colorados) with traditional meals



Pictures 11. Families at El Balsamo (Nodo Salado)

In summary, during this quarter a local research work has been done and has allowed the achievement of the following results: (i) implementation of 10 meetings of traditional cuisine with the participation of 281 people in different communities of San Juan and El Salado, (ii) 105 life stories associated with the culinary and agricultural systems according to a distinction of roles, gender and generation, (iii) 50 young people and children interacting with their elders at the gatherings by the fire, (iv) documentation of about 35 traditional recipes according to the knowledge of men and women, with their hand drawings, preparation of traditional meals and photographic record. In training new topics have been successfully introduced: (i) awareness of the importance of Gender / Generation on biodiversity conservation, (ii) the importance of safeguarding intangible culture for conservation (e.g., agricultural practices, seed conservation, consumption of agro-biodiversity) and (iii) training process with 7 local co-researchers in research of life stories and documentation and systematization of culinary systems.

Finally, regarding the inclusive business model of Corozo de Lata developed within CLP and taking into account the Minimum Viable Product (MPV), initial financial modeling has been made in various scenarios based on real costs of Corozo de Lato pulp processing by CUDESAC to Selva Nevada and Lafarbe. These Analyzes took into account the initial processing and the delivery made to Selva Nevada firm for a total amount of 1000 kg of Corozo pulp in the pulping plant installed in Sincelejo by CUDESAC, considering the initial purchase of 400 kg reported in the previous quarter. The main conclusions from this modeling process are related to the recovery of projected investments in terms of the expansion (vehicles for transportation) and improvement of production plant facilities, a variable that, when analyzed against the current sale price agreed with Selva Nevada, can make the model unfeasible in the short term. In this sense, CUDESAC and CLP team must expand the analysis timeframe for the recovery of these investments and consider the need for a higher sales price in a future negotiation.

2. Summary

The main achievements in terms of the CLP indicators are: (i) implementation of 1,116 new hectares (100% in Nodo Guajira) corresponding to areas of biological significance and/or natural under improved natural resource management reaching an accumulated value of 5,910 hectares (90.69% of the total target), and (ii) progress in the implementation of training and technical assistance to the community with an increase of 2,154 hours during the quarter reaching an accumulated value of 9.601 hours which implies that the established target has been overcome (106% with regard to the total target) and the execution in the progress of cost share resources for USD 1935,806 (indicator DO4-015)

3. Challenges and Adjustments

The main challenge in this quarter will be to ensure the efficient implementation of the activities that remain to conclude the signed agreements in Nodo Colorados, Nodo Pioj6, Nodo Cesar and Nodo El Salado, which are related to pending agroforestry plantings and / or silvo-pastoral systems. In all the nodos, sowings plants / seedlings that are still pending are expected to take place in the months of July (F. Bachaqueros) August, September and October (F. Herencia Ambiental, F. Semana, FES). As mentioned above, the strategy for overcoming the issues related to low levels of rain have involved privileging the presence of native forage species adapted to the BST conditions in the design of agroforestry systems, which will allow to mitigate the effects of scarce rain; as for uncultivated systems, prioritizing them in areas or zones in the farms having the best access to superficial water sources, incorporating the use of organic preparations for pest control; and, in general, considering the need to modify cultivation conditions, making them better equipped to face seasonal rainfalls, typical of the Colombian Caribbean.

In terms of budget projection it is necessary to define with USAID the destination under the Contracts and Grants Category and within the program objectives of remaining funds of approximately USD 260,000. Those resources has been generated as a result of exchange rate differential.

During the next quarter the efficient stoves program Business Model should be defined. This will be supported in a scheme of social empowerment at a local level in the area of Montes de Maria. Similarly, regarding to the inclusive business model of Corozo de Lata the final financial model projections will be available involving the investment decisions regarding expansion over the medium term.

5. List of Annexes

1) Program indicator progress.

Indicator	FY 2014			FY 2015			Total Advance	% accum. advance	Total goal
	Advance 2nd.Q	Advance 3rd. Q	Advance 4th. Q	Advance 1st. Q.	Advance 2nd. Q.	Advance 3rd. Q.			
DO4-001 Number of hectares of biological significance and/or natural under improved natural resource management as a result of USG assistance (F4.8.1-26)	10.08	553.15	1312.21	1608.2	1310.2	1116	5909.84	90.68	6,517

Indicator	Advance 3rd. Q.	Total advance	% accum. Advance	Total goal
DO4-003 Number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance.	132	132	10.9	1212

Indicator	Cumulative advance	Advance 3rd. Q.	Total advance	% accum. Advance	Total goal
DO4-012 Number of communities and other stakeholders adopting sustainable practices to improve biodiversity conservation.	10	5	15	42.9	35

Indicator	2014				2015			Total advance	% cum. advance	Total goal
	Advance 1st.Q	Advance 2nd. Q	Advance 3rd. Q	Advance 4th. Q	Advance 1st.Q	Advance 2nd.Q	Advance 3rd.Q			
F 4.8.1-29 Number of person hour of training in natural resources management and/or biodiversity conservation supported by USG assistance.	480	908	2317	726	1470	1546	2154	9601	106.21	9,040

2) Monitor Report.



TOTAL INDICATOR PROGRESS Years: FY2015 FY2014 QUATERLY PROGRESS

Project: All

Type: All

Type	D	QY
Indicator	O	

IR	Indicator	Project	FY2014		FY2015		Grand Total		
			Total	FY/Total	Total	Total	Project	Project	
			Actual	FY / Target	FY/ Actual	FY / Target	Total / Ac	Total / Target	
IR 4.2	DO4-011 Climate chan	Number of beneficiaries with improved clean energy services due to USG assistance.	2,500	2,500		200	2,500	2,700	
IR 4.3	CLP-01 Conservation	Number of person hour of training in natural resources management and/or biodiversity conservation supported by USG assistance (F 4.	4,431	4,520	5,170	4,520	9,601	9,040	
	DO4-012	Number of communities and other stakeholders adopting sustainable practices to improve biodiversity conservation.		6	15	9	20	15	35
IR 4.4 Not Apply	DO4-001	Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG	1,875	3,200	4,034	3,317	5,909	6,517	

	DO4-002 Number of institutions/public and private organizations with improved capacity for effective environmental resource management	10	16		10	10	26
	DO4-003 Number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result			132	612	132	1,212
IR N.A4 No Apply	FPN-1 (PPC) Number of families benefited by the sustainable systems for conservation supported by the PPC.		150	98		98	300
	FPN-3 (PPC) Number of hectares in the process of sustainable production.		400	98		98	500