MINAET
MINISTRY OF ENVIRONMENT,
ENERGY AND TELECOMMUNICATIONS

FONAFIFO

""You can live two months without food and two weeks without water, but you can live only a few minutes without air. Earth is not a legacy from our parents, but a loan from our children. Love is the greatest force in the universe, and if there is an environmental chaos in it, it is because of lack of love for it. There is enough in the world to cover all the necessities of men, but not to satisfy their greed."

Mahatma Gandhi

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INTRODUCTION

Since the Summit of the Earth in Rio de Janeiro, Brazil in 1992, Costa Rica undertook a series of steps that turned into public policies aimed at the conservation of biodiversity. These policies have allowed our country, at the present date, to have a 62.4% of its territory with forestry coverage, and to give support to the forestry sector, so it can continue to produce assets and environmental services to society.

Since then, and due to the efforts carried out through history, we have advanced towards the construction of a development model, characterized by the search for environmental sustainability. It provides a larger social involvement in decision-making, the development of educational and environmental projects, the creation of a rigorous legal platform, the consolidation of institutions, and specially, the establishment of strategic alliances oriented to the optimization of resources, of a growing involvement of the private sector and of our citizens in the protection of our natural patrimony. These actions and opportune policies, as shown by world socio-economic indicators, our country has placed itself in competitive positions, similar in many cases to those of developed countries.

In this context and in search of the well being for the present and future generations, FONAFIFO has committed itself to the attainment of a country with an economy of low emissions, to the differentiation of forestry products with a higher aggregate value, a low environmental footprint and of a great social impact. For this reason, we continue to generate innovative proposals for a forestry sector that has a catalyzing role in the attainment of an environmentally sustainable development that in addition to producing wood, it avoids deforestation and protects biodiversity.

We have been walking for 15 years with the satisfaction of knowing that we are fulfilling our objective, and that we count on many committed allies in the protection of Costa Rica's natural wealth, which places us in the list of the top 20 mega diverse countries.

Jorge Mario Rodríguez
General Director

Jorge Mario Rodríguez

For Environmental Sustainability

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FONAFIFO finances the payment of environmental services. reforestation and recovery of denuded areas. among others.

In view of the worry to stop the illegal felling of trees and the incessant deforestation, the country turned to the approval of several laws, one of which must be mentioned, law 4465 of November 25, 1969, in which the State makes the commitment to establish programs to recover the forest coverage. Later, in 1986, the second Forestry Law No.7032 is passed to establish the system of Forest Fertilizer Certificate.With it, the participation of farmers in the reforestation program, the sustainable management of forests, and the protection of these forests, was boosted.

In 1990, Law 7174 was passed then 1996 Law 7575. Under the protection of this last law, the “Fondo Nacional de Fianciamiento Forestal”, FONAFIFO (National Fund for Forestry Funding) is born.

It is the origin of an innovative proposal. It would offer inancial incentives to farmers and forest farm owners so instead of felling trees, they would preserve biodiversity; attain a sustainable management of assets and services generated by trees in forests, plantations and agro-forestry systems. To attain this goal, Article 24 would establish trust funds which would back up what in the beginning might seem absurd when paying for an intangible, and until then, an unappreciated asset.

Trough the above-mentioned law, financial support would be granted to FONAFIFO in order to finance, through loans or other mechanisms of promotion the payment for environmental services offered through forests, reforestation and recovery of spoiled areas, including forestry development activities executed by the private sector.

FONAFIFO would be authorized to carry out any kind of lawful, non-speculative
businesses for due management of heritage resources. To achieve this goal, it endowed with a heritage consisting mainly of State financial grants; donations, International Agencies’ loans, and financial gains obtained from credits and investments, 40% of the amount of the proceeds derive from the timber tax bond and the issuance of forestry bonds, among others (Law 7575, Article 47).

Likewise, it is considered part of the heritage “(…) the resources resulting from the conversion of the foreign debt as well as the payments by Environmental Services, for their management executed by forestry organizations in the private forestry sector.

Since its creation, FONAFIFO is administered by a Board of Directors in charge of issuing general directives, rules for credit or others, whenever the case may be, and of approving financial operations. Furthermore, it establishes the types of guarantees in accordance with the amounts to be financed, the periods of payment,
the interest rates, and any other terms and conditions of the loans to be granted.

The Board of Directors is composed of five members: two representatives of the private sector designated by the Board of Directors of the National Forestry Office (“Oficina Nacional Forestal”),
where one of them must necessarily be the representative of the small and medium forestry producer’s organizations. Another member is from the industrial sector, and three from the public sector, designated one by the Minister of the Environment and Energy, another by the Minister of Agriculture and Cattle Industry, and the third by the National Banking System. They serve for a period of two years.

After working for several years with the figure of Trust, in attention to dispositions of the General Comptroller of the Republic and by MINAE Resolution R-536-2007 (published in the National Gazette No. 13 of 18 January 2008), a new organizational structure was implemented that includes a General Management and five subordinate Management Offices, namely: Environmental Services Directorate; Directorate of Forestry Promotion; Directorate of Development and Commercialization of Environmental Services; Directorate of Legal Affairs and, Directorate of Financial Management.

For a better customer service, FONAFIFO has eight regional offices and three budget programs. The first focused on institutional operation, and the second on the trust funds. Since 2012, a program aimed at the development of special projects is formed. In that same year, a process of strategic planning begins, which endeavors to continue attending to the country’s commitments and and social demands up to the year 2021.

2.1 Direction and Institutional Management Program

It includes the budget destined for the activities for institutional support carried out by the Board of Directors, the General Management Office, the Administrative-Financial Management Office, and the Legal management Office.
Mission: to execute the administrative process in the management, logistical and technological aspects, which will allow the National Fund for Forestry Funding to carry out the objective established in the Forestry Law No. 7575.

2.2 Forestry Finance Program

It includes the budget destined for the institutions own activities, carried out by the Offices of Forestry Promotion Management, Development and Commercialization of Environmental Services Management, Environmental Services, and Regional Offices
Mission: to carry out the planning, execution and control of the policies and strategies for financing and promotion of the forestry sector, which will allow the National Fund for Forestry Funding to carry out the objectives established in the Forestry Law No. 7575

2.3 Special Projects Program

During the year 2011 and the exercise in planning 2012, this program was added. It contains the budget destined to projects formalized by the country where FONAFIFO and the Trust Fund act as the executive unit, and that are financed by resources from international cooperation.

At the present moment, two projects are included: Eco-Markets II, related to a donation by GEF (Global Environmental Facility) of the United Nations Program for Development, and the REDD+ Strategy (for its Spanish initials) Strategy (Reductions in Degradation, Deforestation, Conservation, and Sustainable Management of forests and augmentation of the forest's carbon reservoirs), financed by the Forest Carbon Partnership Facility (FCPF). The World Bank underwrites both projects.
Mission: to execute the programmed actions to achieve the objectives established in the projects in order to contribute and strengthen forest promotion and financing.

Proposed goals in the Eco-Markets II Project:

- At least 288,000 hectares of land with ESP contracts generating environmental services, with local, national or global interests.
- At least half of the area under contract is financed by funds from the end users of the environmental services.
- Improve the efficiency of the Environmental Services Program, measured by services indexes generated by expended dollar.
- 50% increase in the area under contract to small and medium owners participating in the ESP program.
- At least 190,000 hectares of land with environmental services contracts in buffer zones for protected areas and biological corridors that connect them.
- Effective preservation of biodiversity in areas of importance at the global level, measured by the vegetation coverage and the indicators of biologically important species.

Financing: An awakening of the forestry sector 3

In 1984, with the creation of the Trust Fund 178, a new way to encourage the creation and recovery of the forests, conservation of soils and other environmental activities starts in Costa Rica, since for the first time loans are offered to the forestry sector.

At that time, when FONAFIFO was created (1996), three trust funds and three committees that promoted forestry credits, and approved the requests for financial resources for the execution of projects and the aid to the micro and small producers were established.

In this manner, hand in hand with the Payment for Environmental Services (PES), financing is approved for nearly one thousand projects for reforestation, industry, forest management, and agro-forestry, among others. These caused a positive impact in the recovery of the forest coverage and the generation of jobs in the rural areas of the country.

3.1 More than just credit

In 2009 the Office for the Management of Forestry Promotion was created with the objective of planning, directing and carrying out the promotion of forestry activities in the country thus, the Credit Department was fused into a new department to work in a manner that would complement the achievement of the goals of the institution.

The Directorate is integrated by the Department of Credit Management and the Department of Forestry Promotion. Both are in charge of financing, promoting and monitoring the projects. Additionally, they apply the financial and technical instruments, and contribute to the development of the information through periodical studies and research, designed to know the present situation in order to be able to propose and carry out actions for the benefit of the Costa Rican forestry sector.

The Department of Forestry Development promotes the production and consumption of wood through the following means:

a) Diagnosis of the main causes of rejection and withdrawal of reforestation projects during the entry process into the program of Payment for Environmental Services 2009-2011.
b) Financial proposal for the establishment of short term forestry plantations for the pallet industry.
c) The Sylvopastoral systems as a tool to increase the profitability of forestry plantations in Costa Rica.
d) Promotion of tree planting jointly with crops and pastures.

Research:

It is aimed to the use of residual matters to generate alternatives such as renewable energy sources. A diagnosis of the existence of forest residues in the Northern Huetar area is currently being done. This area is a a historic landmark in the country's forestry activities.

Good behavior in the presence of fire. Lumber generates an external carbonized layer that allows it to consume slowly and to collapse less easily than other materials that are easily deformed at high temperatures.
It is the most sustainable material. It is renewable, recyclable, biodegradable, consumes little energy and, above all, it is natural. Employing lumber instead of other materials with a great carbon footprint avoids 2.1 tons of CO2 by cubic meter, for more than 75 years.
According to data from the National Forestry Office (NFO), in Costa Rica 22% of the lumber produced is used by the construction industry; if this figure were higher—for instance, in the United States 50% of lumber is used for residential construction—it would mean a significant effect in the reduction of the carbon footprint of the country. If in 2010 Costa Rican housing had been built with lumber, the emission into the atmosphere of 978,336 tons of CO2 would have been avoided…" (For reference see http://vivelamadera.com/2012/09/07/construya-con-madera/).

Better Service:

When National Bank of Costa Rica (Banco Nacional de Costa Rica) was recruited the FONAFIFO clients could avail themselves of the bank's platform of branches and agencies, both for disbursements and payments of their loans. The organization also serves as a guarantor of the fulfillment of the norms and procedures established by the Board of Directors. It contributes in the collections management and loan arrangements.

Moreover, in this case a restructuring period of the credit program occurs. Four subprograms emerge with different characteristics regarding to terms, interest rates and needs to be fulfilled (Figure 1). These subprograms include diverse activities for its financing.

a. **Promotion of Productive Forestry:** forestry farms, cultivation of woods in any of its stages, agro-forestry systems, lumber processing for producers with forestry plantations[1], innovative and environmentally friendly projects (use of residual matter, solar driers, other), "bridge" credits, protection and/or forest management.
b. **Forestry Industry:** All those activities related to the primary or secondary processing of lumber (purchase of equipment and machinery, raw materials, infrastructure, etc.)
c. **Forestry Commerce:** merchandising of forestry products
d. **Promoting Development:** Supplementary activities to the forestry resources that improve the socio-economic conditions of beneficiaries (ecotourism, sylvopastoral systems, other).

[1]The activity of timber processing plantations corresponds specifically to primary processing activities and secondary of wood plantations for producers, who benefit from the plan established in the Promotion of Productive Forestry subprogram.

Chart 1.

Product conditions, need to satisfy, rate of interest and term for sub-program of 2009-2012.

SUB-PROGRAM	PRODUCTS	NEED TO SATISFY	TERM	% INTEREST
Productive Forestry Promotion	Conventional Credit	Investment	1 to 15 years	6%
	Revolving line of credit	Working capital	1 to 5 years, line at 12 months sub-loan	
Lumber Industry	Revolving line of credit	Working capital	1 to 5 years, line at 12 months sub-loan	9%
	Conventional Credit	Investment	1 to 8 years	
Forestry Trade	Revolving line of credit	Working capital	1 to 5 years, line at 12 months sub-loan	12%
	Conventional Credit	Investment	1 to 8 years	
Foresting Development	Revolving line of credit	Working capital	1 to 5 years, line at 12 months, sub-loan 1 to 12 years	9%
	Conventional Credit	Investment	1 to 12 years	

Note: the term sub-loan refers to the Revolving line of credit for working capital, where the deadlines are from 1 to 5 years, but these are disbursed as loans or small lines of small loans to be paid annually (within 12 months). Once canceled, the amount can be requested again to continue investing during the established term.

Promotion:

The Congress and the Forestry Fair "Live the Lumber and C Neutrality 2011" generated a dialogue and a space to exchange experiences for the strengthening of the forestry sector and, contributed to promote policies to support sustainable production and use of lumber. The event had the active participation between speakers, organizations, producers (reforesters, artisans, industrialists, and others) and the general public. The media attendance allowed for greater dissemination, and initiated further repositioning of the use of wood as an important material in the carbon neutral strategy.

"Sustainable construction includes within its principles the use of friendly materials with the environment and low pollutant materials. Wood is one of them. This is the only material capable to mitigate carbon, instead of releasing it, from its production process. This offers great benefits when used as a substitute for other products with a greater carbon footprint. Hereinafter we detail some of its many advantages:

Lightness and portability. Wood is used in prefabricated modular construction systems due to its malleability, security and portability, but above all for its lightness. It has been demonstrated that wooden buildings invest less time – up to three times less than with other materials.

Beauty and aesthetics. Beauty is one of its most important features. The natural diversity in tones, streaks, shapes and even its unmatched aroma blends-in in any space and creates cozy architectural environments.

Thermal advantage. By employing resources such as eaves and cross-ventilation, it has a very favorable behavior in any type of climate. Due to its porous condition it allows to control the humidity and sunlight. With adequate treatment and maintenance, wood is practically immune to moisture and even to insects.

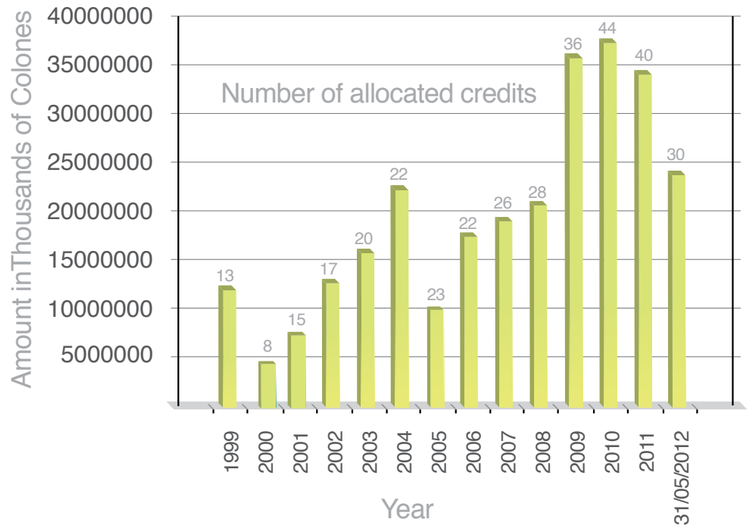
It is anti-seismic. Its great resistance and flexibility allows lighter building structures in case of earthquakes. Wood is approximately 80% lighter than concrete."

Source: http://oficinaforestalcr.org/

We can deduce that the changes have been successful up to date, as these allowed to diversify the productive activities to be financed, associated to the forest sector and to promote their sustainable and integral development.

Internally, the improved organization for projects management throughout the process was improved, which favored the increase in placing credits (Figure 1), the evaluation process and the follow-up of formalized projects. Moreover, it motivated an efficient recovery of the credit portfolio, promoted employment in rural areas, and increased forest coverage, among others.

Figure 1.
Allocated amount and number of financed projects through FONAFIFO credits during the period 1979 up to May 31st, 2012.



3.2 Credit Offering: Numerous advantages

By listening to the needs of our clients contributed with the analysis of the supply of credit, to show a number of advantages.

Interest rates: These consistent with the national forestry activity, in amounts ranging between 6% and 12%, fixed in Colones.

Terms: In general, the forestry activity implies the maturity of projects at the medium and long-term. Conscious of this situation, FONAFIFO grants the terms adequate to the needs of each specific project.

Payment: This sector has periods of production and of income well-defined especially those related to forest plantations, forest nurseries and forest management activities, therefore forms of payment coincide with the projects' income period.

The basic requirements are those inherent to any loan, varying if it is a corporation or an individual. An investment plan is established through which the project is analyzed as well as the further follow-up and the evaluation of the financed activities.
The support provided to potential and active customers is essential to achieve an impact on the development of the sector.

Commitment: Possibly to maintain a credit program during long years would not have been possible without the existence of a permanent institutional commitment. FONAFIFO was created with the objective to support, through credits and other foment mechanisms the small and medium size producers.

Vive la Madera Fair 2011

3.3 Numbers that talk

- **Financing.** A total of 1,000 projects were financed by FONAFIFO since the inception of its trust fund. Moreover, in the last ten years, it disbursed nearly ₡2,400 million a little more than 300 projects of different modalities, like forest industry, reforestation, forest management, forest plantations, etc.

- **More opportunities.** Many were benefited from credits becausethere was a growth of approximately 45% in loans approved since 2009 (Figure1). During this period an average amount of ₡355 million annual trend continued during the first half of 2012, when it reported more than half of the amount, about ₡237 million.

- **Healthy Investment.** The credit portfolio as of July 31 2012 was made up by 132 current projects, whose balance of capital is ₡1,022 million. Said capital is being recovered within a period of 3 to 4 years, and being invested continuously. Moreover, the default rate has been kept historically under 3% and as of July 31, 2012, it is about 1.65%

- **Development.** The positive impact of a more efficient operation in the management and promotion of forestry credit, as a tool for the development od the sector through this period of time, is evident. It is satisfying, above all, that from the social point of view, more than half of the present portfolio correspond to the financing of micro enterprises with credits lower than $9 thousand per project, and in relation to cultivated area, to an average of between 20-25 hectares per initiative.

- **Employment.** According to the indicators measured during the first semester of 2012, the impact of the credit program on the Costa Rican society allowed for the generation of 150 job posts, and it impacted on the maintenance and continuity in the generation of goods and services with 1,650 hectares of forest and forestry plantations. 20% of the funds allocated correspond to forestry plantations (the equivalent of 100 hectares), 13% to farm management activities, approximately 20% to industry and 30% to the processing of cultivated wood.

Since 2009, the loan approval rate grew by approximately 45%.

- **Promotion.** During the last four years, a raise in the positioning of the activity of lumber processing from plantations has been seen (figure 2). This reflects that the producers have included an additional component in the chain of production, due to the advantages in the terms for credits for the development of their projects.

- **Added Value.** In general terms, the processing of wood from plantations has financed the construction of solar ovens for drying, and primary and secondary equipment for the processing of lumber, giving added value to its product.

These activities represent additional sources of income in rural areas, which means an important contribution in the social, economic and environmental development of the country in general. In this venue, the object is to propel the execution of projects to achieve a productive linking and a higher profitability in them.

FONAFIFO thinks in the present and in the future, in order to continue providing goods and services to society, one of these goods is wood, which is carbon fixing and holds it during long periods of time in the products or constructions in which it is used. This is one way to avoid the emission of gases with greenhouse effect on the environment and to prevent the problem of climate change.

4 A clean business for society

A prize for the environment

In May 2012, the CATIE [for its initials in Spanish] (Centro Agronómico Tropical de Investigación y Enseñanza), or the Agronomical Tropical Center for Education and Research (ATCER) presented unanimously to FONAFIFO, the Medal of Merit for the Sustainable Management of Natural Resources and Environment. This was a first acknowledgement to its Payment for Environmental Services (PES) policy, apart from being recognized as the best known organization for the development and implementation of policies and incentives to further the recovery of forests and the preservation and provision of eco systemic services.

Dr. José Joaquín Campos, Director General of CATIE, awards the Merit Medal to Jorge Mario Rodriguez, Director of FONAFIFO. He is accompanied by Mr. Jhonny Mendez, FONAFIFO Board member.

The term **eco systemic services** or **environmental service**[2] is the name with which we acknowledge and know the intangible assets that derive from all natural means. These are classified in three main categories: provision, regulation, and cultural services, besides, another support category for the production of all the other services.

These vary from a “hands-off” attitude up to the use of regulatory instruments like command and control (laws and prohibition, national parks and expropriation) projects integrated with development and preservation, purchase of lands, bilateral agreements and, more recently, market mechanisms such as Payment for Environmental Services (PES).

The Payment for Environmental Services Program (PESP) is an innovative method to stimulate the owners of forests to exchange the commercial felling of trees for the preservation of them. The citizens, through the government, offer owners a financial reward to promote the use of the soil, reforestation and maintenance of forests. This is reflected directly on society as an ecological benefit.

PES achieves extra benefits with contributions to impact mitigation to the global environment. The key to this program is to increase economical profitability for those who offer environmental services jointly with traditional practices of management and impact of their personal resources, which, at the same time, allows for the temporal and permanent accomplishment of the model.

[2]The terms environmental services and ecosystem services are conceptualized here as being equivalent.

This is feasible because the country has favored conditions for:

- Financing
- Regulatory framework
- Governance
- Participation of the different social sectors
- Monitoring, to make the program a success

The implementation of each project varies according to each EPS formalized. It is voluntary, but answers to conditional payment, to the provision of the environmental service per se, and to the fulfillment of accompanying actions to guarantee the recognized idea of protection and/or renowned promotion.

A successful model

The excise tax on fuel, the internal payment by water cannon and the international sale of carbon are PESP financing sources.

Chart 2

The ESP Platform revenues derive from the tax on fuels and the Water Harvesting Canon. Period from 1998 - 2012.

Year	Tax on fuels, amount in Colones	Water Canon, Amount in Colones
1998	1.269.000.000	
1999	2.406.000.000	
2000	2.098.250.000	
2001	2.345.127.500	
2002	3.066.900.000	
2003	1.399.300.000	
2004	1.511.200.000	
2005	1.511.200.000	
2006	5.600.000.000	
2007	6.160.000.000	18.314.349
2008	6.529.600.000	95.714.269
2009	6.921.400.000	78.723.928
2010	11.218.900.000	924.301.336
2011	11.779.800.000	551.821.570
2012 (*)	6.408.297.352	340.965.145
TOTAL	¢70.224.974.852	2.009.840.597

Source: Financial-Accounting Department FONAFIFO
(*) Transference of resources to 07/ 31/2012.

"That a small country like Costa Rica decided to pay for environmental services amazed the world"

The model starts in 1997, by adopting sustainable development as an integral part of the national development strategy, and implemented in the context of The Agenda 21 and the Declaration of Principles for Sustainable Development, promulgated in the United Nations Conference in Rio, Brazil.

Which was known up to that moment as the Certificate of Forestry Fertilization (CAF) changes to Payment for Environmental Services,
constituting the "Third Generation of Financing". In
it also is included the modality of timber purchases in
advance, which consists of a system implemented by the Foundation for the Development of the Central Volcanic Mountain Range (FUNDECOR)
in financing small owners associated to it.

Although currently the PESP is a successful model of the use of market instruments to support the transition towards a Green Economy, it had many ups and downs and was the focus of numerous
studies and of international interest, promoting various adaptation and replication efforts.

- Up to 2012, more than 11,000 ESP Contracts. These contracts
- not a one to one with the number of families. In the case of Indian Territories one contract favors various communities and consequently several families, because the land is owned by the group.
- Nearly 900 thousand hectares generating environmental services.
- More than 4 million planted trees

The Payment for Environmental Services is given as retribution to the owners and those in possession of forests that wishes to establish forest plantations, or recover the forestry coverage by means of natural regeneration. The Forest Law 7575 recognizes four services that generate the forest ecosystems.

a) **Mitigation of greenhouse effect gas emissions (reduction, absorption, fixing and storage of carbon):** Mitigation of greenhouse effect gas emissions (reduction, absorption, fixing and storage of carbon): it is produced by forests and forestry lands. The country obtained the option in the recognition of this service when the market was triggered, as much as much as in the framework of the Clean Development Mechanism of the Kyoto Protocol as in the setting of the voluntary market for gasses of greenhouse effect emissions.

b) **Protection of water for urban, rural or hydroelectric use:** This service is of great importance in the case of Costa Rican, because of the ways it is used. Domestic consumption, irrigation in areas with defines dry periods, and the generation of energy.

c) **Protection of the biodiversity to preserve it and the sustainable, scientific and pharmaceutical use, the research and genetic improvement, the protection of ecosystems, forms of life.** We have to preserve producing and produce preserving. It is in this manner that we recognize that private forest areas protect a biodiversity that could become the source of inspiration and production of pharmaceuticals, genes and research that obtain a new option for income to its owners.

d) **Natural scenic beauty for tourism and scientific purposes:** for Costa Rica tourism became of vital importance in the last few years, given the increase in visitors and the generation of foreign currency for the country. Nearly 80% of foreign tourists enjoy the natural attractions provided by the forest ecosystems, private or state-owned, a situation that has caused that Wild Protected Areas to generate 8% of GNP in the framework of ecotourism.

By verifying theTechnical Requirements the viability of the projects is ensured. The establishment of measuring parcels in a project subject to the PSA of Reforestation with Tectonagrandis in Abangares, Guanacaste can be seen. Photo V. Madrigal. (2011)

4.1 Reasons for the success of PES

Between 1997 and 2008, FONAFIFO disbursed more than US $ 200 million between corporations (40%) and individuals (31%), global contracts (14% - valid until 2002), indigenous groups (11%) and associations.

Chart 3

Areas in hectares (has) and trees under the FONAFIFO Payment for Environmental Services Program (PESP) during the period between 1997 to 2011.

Year	Forest Protection (has)	Forest Management (has)	Reforestation (has)	Established Plantations	Natural Regeneration (has)	Total (has)	Agro-forestry Systems (trees)
1997	88,83	9,325	4,629	-	-	102,784	-
1998	47,804	7,62	4,173	319	-	59,916	-
1999	55,776	5,125	3,156	724	-	64,781	-
2000	26,583	-	2,457	-	-	29,04	-
2001	20,629	3,997	3,281	-	-	27,907	-
2002	21,819	1,999	1,086	-	-	24,904	-
2003	65,405	-	3,155	205	-	68,765	97,381
2004	71,081	-	1,557	-	-	72,638	412,558
2005	53,493	-	3,602	-	-	57,095	513,684
2006*	19,972	-	4,586	-	279	24,838	380,398
2007*	60,567	-	5,07	-	755	65,638	541,531
2008	66,474	-	4,083	-	1,66	72,217	656,295
2009	52,017	-	4,017	-	1,5	57,535	370,187
2010	59,644	309	4,185	-	1,274	65,414	536,839
2011	65,527	478	3,895	-	2,309	72,211	594,883
Total	775,621	28,853	52,932	1248	7,777	865,683	4103,756

Source: MINAET, National Fund for Forestry Financing (FONAFIFO for its initials in Spanish), Information system www.FONAFIFO.go.cr, may 2012

The latter chart reflects a considerable growth of companies associated to the PES program, since for 2008 contracts with firms reached almost 50% of the funds, against 20% in 1997. In that year, 60% of the contracts were global, in its majority with individuals—small and medium owners of land and indigenous groups.

Outstanding is the tendency to convert individual property into company property, as evidenced in these percentages, this for the reason of taxes and management, or because the mode of payment stimulates the change.

The success of the EPS program in Costa Rica is linked to the governance and governability in such a way that, applying a greater scientific and technical knowledge, shall maximize the disposition of the environmental services, in such a manner that the rich and the poor should directly or indirectly benefit. This must be a continuous effort from FONAFIFO part.

Since it was created FONAFIFO has shown creativity in fundraising, although it is clear that the main source remains the funding by the State through the fuel tax and the tax for water use. However, the amount of unmet EPS contracts underscores the need to expand and to diversify these funding sources that provide long-term solutions. Therefore, it requires a strong level planning process at the landscape level, with the participation of ecological, economic and social professionals.

Chart 4.

Distribution of the contracted hectares in the Payment for Environmental Services, by Modality, period 1997-2011. Up to August 16th, 2012

Year	Modalidades de PSA (Hectáreas / Árboles)							Number of contracts
	Forest Protection	Forest handling	Reforestation	Established Plantations	Natural Regeneration	Total Hectares	Agro-forestry Systems	
1997	88,830.00	9,325.00	4,629.00	-	-	102,784.00	-	1,200.00
1998	47,804.00	7,620.00	4,173.00	319.00	-	59,916.00	-	597.00
1999	55,776.00	5,125.00	3,156.00	724.00	-	64,781.00	-	622.00
2000	26,583.00	-	2,457.00	-	-	29,040.00	-	271.00
2001	20,629.00	3,997.00	3,281.00	-	-	27,907.00	-	287.00
2002	21,819.00	1,999.00	1,086.00	-	-	24,904.00	-	279.00
2003	65,405.00	-	3,155.00	205.00	-	68,765.00	97,381.00	672.00
2004	71,081.00	-	1,557.00	-	-	72,638.00	412,558.00	760.00
2005	53,493.00	-	3,602.00	-	-	57,095.00	513,684.00	755.00
2006*	19,972.00	-	4,586.70	-	279.30	24,838.00	380,398.00	619.00
2007*	60,567.50	-	5,070.90	-	755.10	66,393.50	541,531.00	1,180.00
2008	66,474.00	-	4,083.30	-	1,660.00	72,217.30	656,295.00	1,103.00
2009	52,017.70	-	4,017.50	-	1,500.20	57,535.40	370,187.00	796.00
2010	59,644.50	309.70	4,185.40	-	1,274.60	65,414.20	536,839.00	1,111.00
2011**	65,967.30	478.60	4,116.40	-	2,309.80	72,872.10	598,683.00	1,126.00
Total	776,063.00	28,854.30	53,156.20	1,248.00	7,779.00	867,100.50	4,107,556.00	11,378.00

Source: Department of Environment Services Management, Reports WEB-SIAP

**: Separated from Natural Reforestation and Regeneration*

***: EPS 2011Contracts still are being processed, the information can be updated later on.*

Chart 5.

Additional revenues into the EPS Program from financing or commercialization of environmental services generated in the farms under the EPS program.

Year	Amount in Colones
2001	86.481.318
2002	102.014.870
2003	189.232.826
2004	156.599.097
2005	225.392.180
2006	256.529.669
2007	255.926.816
2008	249.252.084
2009	193.783.848
2010	256.065.744
2011	135.942.471
2012 (*)	46.035.162
TOTAL	2.153.256.085

Source: FONAFIFO Financial – Accounting Department
(*) Transference of Resources up to 07/31/2012

Chart 6.

FONAFIFO Financial input from Loans from the World Bank: Eco market Projects I & II

Year	Eco Markets I Amount in Colones	Eco Markets II Amount in Colones
2001	655.400.000	
2002	2.946.690.576	
2003	2.960.722.973	
2004	3.536.000.000	
2005	3.436.921.762	
2006	2.813.182.608	
2007		
2008		
2009		1.189.808.643
2010		1.519.017.198
2011		2.661.688.195
2012 (*)		1.515.000.000
TOTAL	16.348.917.919	6.885.514.036

Source: FONAFIFO Financial – Accounting Department
(*) Transference of Resources up to 07/31/2012

Chart 7.

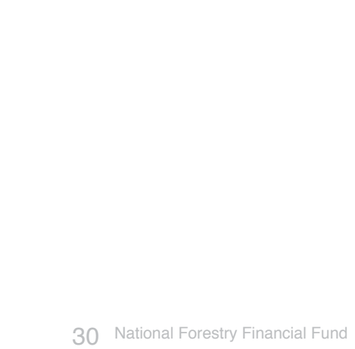
FONAFIFO revenues are provided by the Financial Contribution Agreement: (KfW, GEF – Global Environmental Facility)

Year	Amount in Colones
2003	1.714.503.195
2004	810.942.757
2005	1.008.873.797
2006	850.298.210
2007	661.309.033
2008	500.624.764
2009	913.227.942
2010	0
2011	158.498.801
TOTAL	6.618.278.499

Source: FONAFIFO Financing- Accounting Department

The ESP Program is under great pressure of social responsibility to demonstrate that the services being paid have been really generated. In the case of water, for instance, prioritization must be more pronounced. According to the Decree Law No. 36935-MINAET, placement of contracts to protect important water areas is only 7% of total hectares demand.

"The EPS Program is under great pressure for social responsibility since it is financed with State funds"



4.2 Causes of rejection or filing of requests to the EPS Program

Being a public institution, FONAFIFO must safeguard the interests of citizens and implement mechanisms so that people who fulfill the requisites which insure the investment made receive EPS resources.

With this in mind, the process of document control and validation of pre- applications was established, to ensure safeguarding the transparency of the admission process into the program. The information given is of utmost importance to make up the file to be used as technical-legal back up for the payment of Environmental Services.

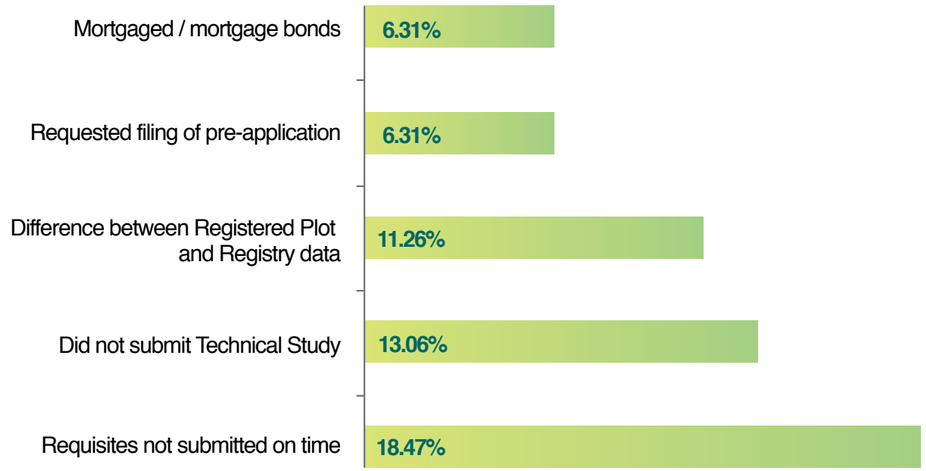
However, approximately 9% (the equivalent of 222 pre-requests) cannot continue with the procedure to insure the corresponding payment because they "lack of or non conformities or requirements". These pre-requests are filed by category. The highest percentage corresponds to those where the beneficiary does not meet the deadline for submitting documents. (18, 47%)

In second place (13.06%) are those who, once the initial formal requisites are approved, do not submit the technical studies that back up the execution of the project. The third issue deals with discrepancies between the land registry information and the Public Records Office, and to the non-compliance with the deadlines established for the explanation of such matters (11.26%)

Such discrepancies plus the request to file by the beneficiary, as well as the problem with mortgages or mortgage bonds, causes the waste of administrative resources in vetoing the process, having to eventually abandon them.

Identifying the main causes for filing or suspending the process (registered as of the incidence of non-conformities, or omitted technical operative issues) applied to each of the pre-requests under consideration, allows for a substantial improvement of the program.

Figure 2.
Five main causes of filing applications to be admitted into the EPS Program



FONAFIFO August 2012

Many of the causes of pre filing of applications submitted to date is due directly to the interested party responsibility when these are submitted, and less or no responsibility from the regional offices, as these provide the corresponding deadlines in accordance with the current Procedures Manual. We can mention three main reasons: Due to legal problems; because the beneficiary has pending debts or obligations and, because of placement problems.

Chart 8.

Distribution of pre-applications 2012, filed due to present legal problems. August 2012.

Causes/Modality	Area	Trees	Amount of Pre-applications
	Has	Units	
Incorrect Modality	22.5		1
Notation in property transfer	34		1
Ordinary legal suit	30		1
Real estate page not corresponding	22		1
Power of attorney does not allow to mortgage	10.9		1
Administrative warning	20		1
Expropriation notation	0		1
Incorrect civil status	0	1000	1
Pre application lacking information	42		1
Pending lease contract	0	5000	1
Did not sign PSA contract	10		1
Co-owners not of legal age	0	2500	1
Did not submit special power of attorney	31		2
Overlap with JAPDEVA	176.9		2
Pending authorization from creditor	45		2
Incorrect legal capacity	48.2		2
Incorrect I.D. number	93.1		3
Folio Real page closed	91.5		3
Requesting person is not the owner	47.7	4700	3
Authorization from the Shareholders Assembly	42.6		3
Registry notations	121	1000	4
Embargo	191		4
Incomplete ownership requirements	214.9		7
Discrepancies in forestry coverage	1353.3		7
Totals	2647.6	14200	54

Data from D.G.S.A – FONAFIFO.August 2012

Chart 9.

Distribution of pre-applications 2012 filed due to Pending Obligations problems. August 2012

Causes/Modality	Area	Trees	Amount of Pre-applications
	Ha	Units	
IDA Debt	10		1
Owes taxes to public companies	173	8000	4
Other Pending obligations	1323.9		12
Totals	1,506.90	8000	17

FONAFIFO. August 2012

Chart 10.

Distribution of 2012 pre-applications filed due to Location Problems. August 2012

Causes/Modality	Area	Trees	Amount of Pre-applications
	Ha	Units	
Location Problems	311	5500	8
Area committed to EPS	638.5		9
Property Overlap not solved	612.7	1000	11
Totals	1562.2	6500	28

FONAFIFO. August 2012

To optimize the use of economic resources, as these are limited, the quota allocation model was transferred to an allocation quota by each Regional Office, to evaluate each one of the pre-applications or projects according to a points classification matrix (Chart 10), established under technical criteria of importance by location, condition and quality of the environmental services bidders.

Chart 11.

Matrix Criteria for the Prioritization of pre-applications. August 2012

Criteria Number	Prioritization Criteria	Point to qualify
1	Forests in farms located in areas defined as Preservation Vacuums. Forests within the indigenous Territories of the country.	85
2	Forests in farms located within the officially established Biological Corridors. Forests that protect the water resource (with footnotes from ASADA, A y A, municipalities, FONAFIFO or MINAET, where the importance of forest protection is demonstrated).	80
3	Forests in farms located within the Protected Wild Areas and that have not yet been bought or expropriated by the State.	75
4	Forests outside any of the aforementioned priorities.	55
I	Woods for forest protection that comply with what is stated above, where contracts for payment of environmental services have been undersigned in previous years, as long as they comply with the additional requirements established in the Manual of Procedures for the Payment of Environmental Services, and ends its period of validity in the same year in which the new request is submitted. The validity of the new contract will begin the day after the expiry date of the previous contract.	10 additional points
II	Forests located in districts with a Social Development Index (SDI) lower than 40%, according to the MIDEPLAN resolution (2007).	10 additional points
III	Forests in any of the aforementioned priorities, with a request to enter PESP in areas less than 50 hectares. These points only apply if the farm area is equal to or less than 50 hectares.	25 additional points

This effort, together with the date and time of documentary receipt, promotes the transparency of the process under the precept of affiliation and payment of projects with better consideration; assigned qualification for the purposes of each case, by the responsible technical professional in each receiving office.

When situations arise where two or more projects share an identical qualification, in the first instance the date and hour of the presentation should be confronted (whoever delivered first shall maintain the first incorporation advantage). If the tie should remain, the comparative technical aspects should be compared, and priority shall be given to those previous applications which foresee a bigger amount of Environmental Services, as well as formal requirements that must be included.

4.3 Evaluating the EPS impact

Several authors particularize the need to perform impact assessments to eliminate bias, particularly the control of factors that affect the coverage and quality of the forest and which are not the direct obligation of EPS (Arriagada 2008, Pfaff, et al., 2008, Robalino et al. 2008a, Sills et al. 2008).

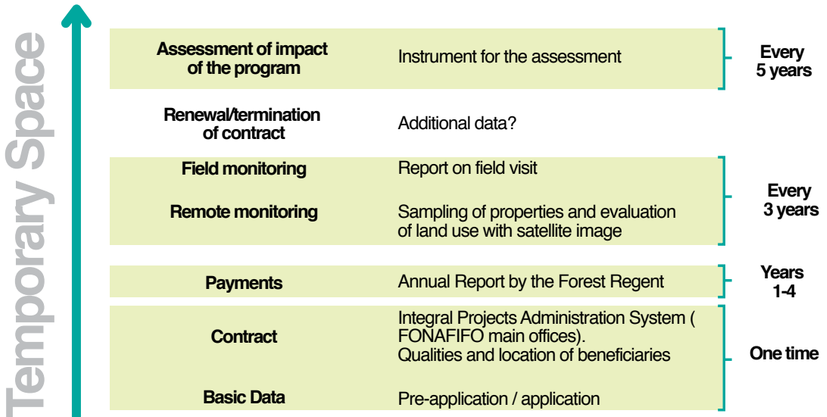
To understand the line of causality and impact, it is proposed to use the method of evaluation “Before-After; Control-Intervention” (ADCI). This methodology uses baseline data for a control group (farms without EPS) and an intervention group (farms with EPS). Both groups are further assessed through statistical tools which shall allow isolate the specific effect of the EPS in the given variable (e.g. conservation).

These groups can also be used to measure how other economic and/or social characteristics, affect the environment outcome; for example, isolating the effect of legal entity (indigenous group, corporation), or the economic group (small producer, farm owner).

At this moment, determining the appropriate control group is extremely difficult, especially with regard to the legal status of the participants. The biophysical data collection, economic and social intervention and control from the group, would mean additional costs to both, the EPS contracting enterprises and to FONAFIFO.

“Gmelina Arborea” Forest Plantation located on a farm from the south under EPS, where a production diversification is shown with alternative crop production between lanes. Photo C. Mendez (2010)

Figure 3.
Examples of data gathered by FONAFIFO and how these come into the evaluation process



Furthermore, there are various methodologies used for the definition and measurement of social impacts of projects and policies.
By law and social interest groups emphasize that the social priority for EPS are the indigenous territories, as well as small and medium producers.

The challenge for FONAFIFO, as Administrator of the Program, is to identity directly these groups, as well as the necessary indicators to measure the performance of the Program.

Any indicator serve as a participatory approach and to evaluate the Program must have two main features: Measurable relatively easily and have a demonstrable chain of causation. In the case of EPS in Costa Rica, the indicators can be either at aggregate or individual levels.
The evaluation program has been done mainly by international organizations that provided resources namely (WB World Bank, Global Environmental Facility GEF from Germany, Life Gate of Modena Italy, Bio Carbon Fund), although local assessments are performed as projects monitoring, implementation and funds administration, etc. To this end, FONAFIFO contracts local consulting companies who evaluate, by sampling, the overall program performance. The supervision is done by the staff of FONAFIFO, which has been structured as a unit responsible for the regional works related with EPS.

Forest coverage in Costa Rica is 52.38% according to FONAFIFO data 2010

4.4 More environmental consciousness, more forests

The area covered with forests in Costa Rica is 52.38% according to 2010 data from FONAFIFO. This figure confirms the forest trend recovery in the territory which in 2005 the figure was 51.4%. This information supports the effectiveness of the different mechanisms and policies assumed by the country during past decades, by showing an increase in forests and recovery which has been continuously and increasingly documented since 1997.

When the PESP began, the proportion of forests in the country was at its lowest level (just over 20%). However, since 1994, the true belief was there and the strategy to reverse the land use, lied on taking the leadership by entering the environmental services market, which was perceived from the Framework of the Convention on Climate Change.

Had been concluded, and the conviction existed that forests were cut down because they were not competitive in the use of the land, as it was the farming for exports of pineapple and melon.

In Costa Rica the PESP is directly related to the forest. The tacit assumption inherent to the Program is that the conservation and sustainable use of the forests shall impact the protection of biodiversity and water resources, the scenic beauty and the storage of gases with greenhouse effect.

The ESP Program has motivated parallel actions from organizations devoted to conservation. Thus, in October 2010 FUNDECOR creates a trust fund which finances 2258 Has in the Sarapiquí area; the producers receive $58 per ha/year. This type of initiatives Solidarity ESP is complementary to the official ESP Personal communication, Herrera. C, Executive Director, Foundation for the Development of the Central Volcanic Sector, FUNDECOR, San Jose, April 16th, 2006).

4.5 Contributing to preserve biodiversity

With the **TOW II (GRUAS II)** project, the types of vegetation are identified, freshwater ecological and marine systems, as well as species that are not adequately represented in the existing network of protected areas (defined as “gaps” in the system of conservation in Costa Rica).

Based on preliminary estimates, it is necessary to fill conservation gaps of up to 14% of the national area, and increase the EPS for old-growth forests on 113.000 ha.

FONAFIFO defined positive incentives to support the responsible management and risk minimization in the change of use of the land which recovered its forested areas. These areas are selected taking into account factors such as currency risk, international commitments and the availability of information and technology tools available.

The EPS program is a strategy which complements the development and consolidation of the system for the conservation of wild protected areas (ASP). The proposed land use planning is promoted by the National System of Conservation Areas (SINAC), and is the basis on which the strategies to be followed in the future shall be built on.

The EPS is particularly relevant when it becomes the vehicle to adapt the network of biological corridors and therefore the connectivity between the protected areas that allow movement of the species and ecosystems, resulting from the alterations in rainfall patterns and temperature associated to climate change.

The program must continue with the consolidation of the Network of Private Reserves and the areas of high income index, such as timber production forests. To this end, FONAFIFO is expanding the coverage of the EPS to natural forests under sustainable forest management (poly cyclic operation), in order to avoid perpetuating the imbalance between EPS systems in favor of the protection, and prevent exacerbating the wood deficit in the domestic market.

Beneficial

According to the National Meteorological Institute (IMN, 2000), it is estimated that between 1999 and 2005 EPS prevented the deforestation of 108 thousand ha, of which 72 thousand ha (67%) are of high conservation value of biodiversity, and 37 thousand ha (34%) are of high value in water.

By 2005, about 270 thousand hectares were under some mode of protection included in EPS (Pagiola 2008), and approximately 1.3 million hectares were in ASP (647 thousand ha in national parks and biological reserves).

The aforementioned demonstrates the contribution that the Program has provided, particularly in cases where the farms of importance due to its location within ASP or buffer areas surrounding the same, could have not been expropriated and retain their private status, therefore the incentive of recognition of conservation and protection of its resources is necessary to maintain the connectivity and/or environmental resources.

A good early indicator of success is that the country has increased the knowledge on species: the total number identified is closed to 95 thousand. This represents 4.75% of biodiversity described in the world (near to 2 million). It is worthwhile to mention that in Costa Rica, every two days on average, a new species is identified and, since November 2009, we have the Costa Rican System of Biodiversity Information (CRBio).

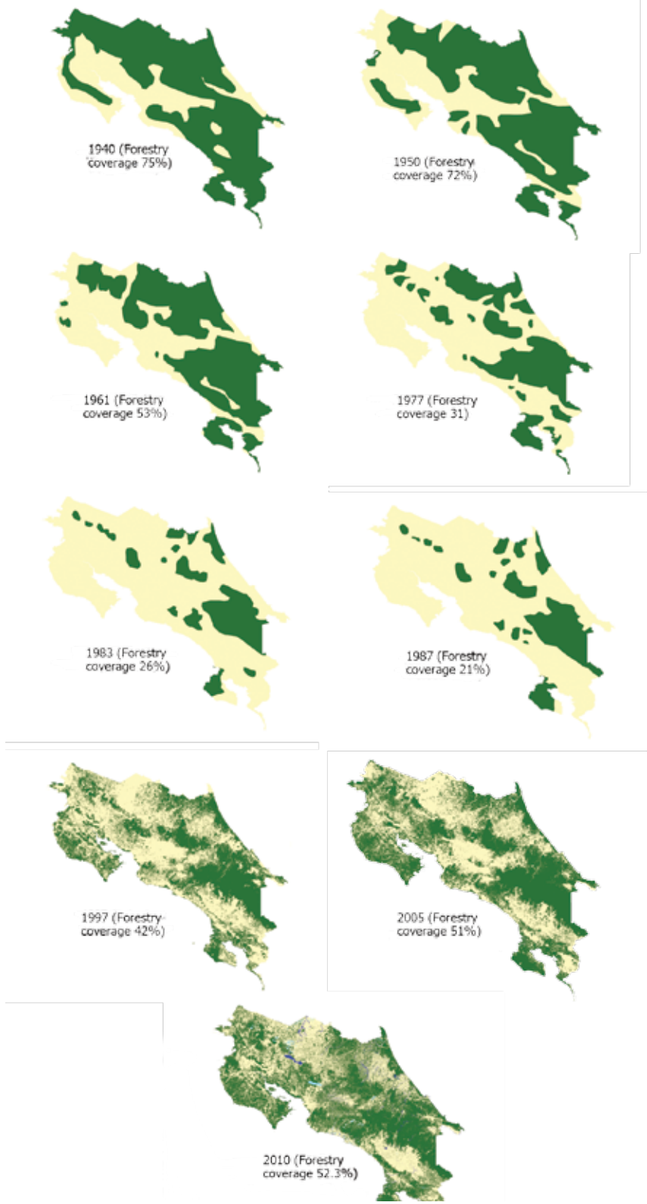
The EPS has come to be regarded as an adaptation measure for the conservation of biodiversity and the provision of goods and services of terrestrial ecosystems facing climate change (GFA-FUNDECOR, 2010).

The recovery effort made to date, together with the protection, management and sustainable production, allow us to participate to the world that Costa Rica continues to be among the richest countries in biodiversity per unit area, and ranks among the 14 countries with more than 20% of its territory under some category of protection (26.2% of its land area and 0.19% of its coastal marine jurisdiction).

Through the applied development scheme, the state protected areas are one of the largest conservation efforts that the country has made in the last four decades.

“The EPS has come to be considered as a measure for the preservation ofbiodiversity”

The process of deforestation coverage and of recovery in Costa Rica



By the transcendence of the innovations and recognition to which the country has been subject to worldwide, there is not doubt to think that the Law 7575 becomes the turning point and an efficient instrument to cope the challenges of the global market and of a greater environmental awareness on the part of the society. But the Law is also a step forward to a new strategy.

BUILDING
A NEW DEVELOPMENT
BENEFITING SOCIETY AND THE PLANET

"Hundreds of entrepreneurs financed their forestry projects through the FONAFIFO Credit Program"

José is a farmer who spent many years of his life farming in the Northern Zone of Costa Rica. One day he decided to change his activity and started a producing and planting trees business, which proved to be a success. However, the increase in demand caused the need for expansion and hence the urgency of funding. This need became a problem for Don José, because banks financed the purchase of livestock, planting crops, but not the forestry activity of his interest.

But don José, as a person accustomed to the daily struggle did not give up. He kept on looking and one day a neighbor told him about the FONAFIFO Credit Program, which funds nurseries. Within a few days of having submitted his application, Jose had the money to expand his business and this is how he became a major timber producer in the Northern Region of the country.

As Don José, many producers have found in FONAFIFO an ally in their businesses because:

- Provides funding in a timely and appropriate manner, with reasonable interest rates.
- Understands that a forest trees nursery does not produce trees during the summer and therefore is willing to expect payments related to credit until the time of production.
- Understand that a plantation takes some years to produce and receive dividends.
- Knows that these producers are people who do not require subsidies or donation of funds, but instead is struggling people who are willing to take risks in order to achieve their goals.

Mrs. Violeta was one of the witnesses of all these advantages after looking in other financial institutions and finding out that they always gave her a NO as an answer. Fortunately for her, FONAFIFO had designed a system of adequate funding for investment as in the case of Mrs. Violeta plantations. Today, her farm, product of a family heirloom, is producing for the benefit of her whole family.

Don Fernando is another case that daily keeps busy the Development Division. From his youth opted to trade in timber plantations, replacing thus the livestock, but the time came that he needed machinery and tools. It was then that Don Fernando went to FONAFIFO to apply for credit.

Just as Don Jose, Doña Violeta and Don Fernando, hundreds of entrepreneurs have financed their forestry projects through the FONAFIFO credit program. This program facilitates that the Forestry development be an economical profitable alternative contributing to the reduction of illegal logging and deforestation.

Through dreams and desires to achieve them, relationships between small entrepreneurs and FONAFIFO are started every day. The funding allows them to increase the areas for plantation, improve their industrial equipment, and in many cases, face the financial crisis and continue to grow.

A supportive service

As the credit program, the payment for PSA Environmental Services has been implemented under the State' banner of solidarity as compensation for environmental services on direct holders of natural resources. The initiative generates cash recognition, by those receiving these services, to make the program sustainable and ensure its preservation.

System that combines market mechanisms together with social objectives, because the benefits are not limited to conservation "per se" but also affect, positively, the welfare of those who qualify and the communities in general.

This solidarity principle has led largely that the PSA program involving more than 8,500 families, creating jobs and an investment which surpasses $200 million in rural areas, and an average investment of US$3 million annually in Indigenous Territories (FONAFIFO, 2011).

There is a tendency from owners of properties who apply to PSA, which ownership is registered in the name of some company (73%). The remaining amount is for women 7%, and 20% men. (FONAFIFO 2012)

Even though this is not Program to reduce poverty, the PSA is of utmost importance especially in rural areas where has enhanced the rural development. It contributes to the reduction of illegal logging, in vegetation recoveries, reverses loss of biodiversity and hinders the changes in use of land.

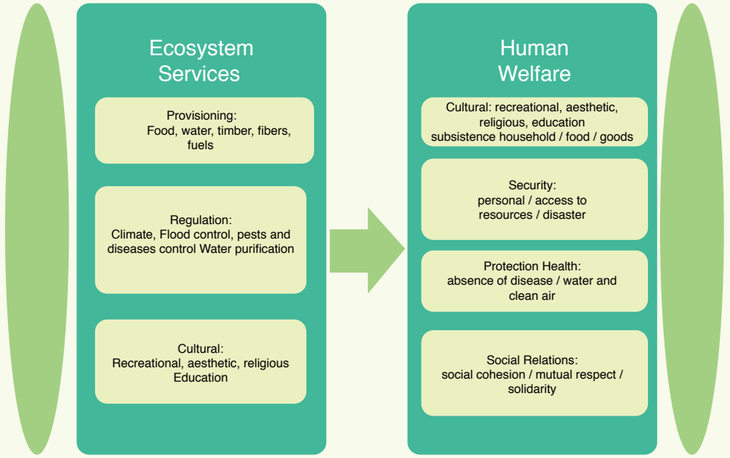
The program's success depends on the consensus of society about the value of nature, of the information services available regarding the generator services that are linked to various applied forms for a proper institutional structure and financing possibilities. The adaptability to different scenarios and environmental services makes that the PSA can be applied to a large number of rural contexts of our country, playing an important role by including small and medium landowners.

Through the conservation of ecosystems, the PSA helps them to maintain production methods of small and median time scale to achieve stop its degradation. To allow production sustainability along time, under any form of PSA, is "produce by preserving and preserving by producing ".

The conceptual framework of the Ecosystem Services related to PSA, shows the interaction of the different support services (provisioning, regulating and cultural) to the human welfare (materials, safety, health and social relationships) in order to be able to create opportunities (freedom of choice and action).

"The PSA includes over 8.500 families, creating jobs and an investment above US$200 Millions in Rural Areas"

Conceptual framework for assessment of the ecosystem services and PSA



Reference:
OEA. (2005). payment for environmental services. WORKSHOP AND EXPERTS ABOUT THE SUPPORT TO THE DEVELOPMENT THROUGH SUSTAINABLE AGRICULTURE, THE SYLVICULTURE AND TOURISM. department of sustainable development, Organization of American States. Pages 1 to 5.

Thinking in citizens, thinking in societies

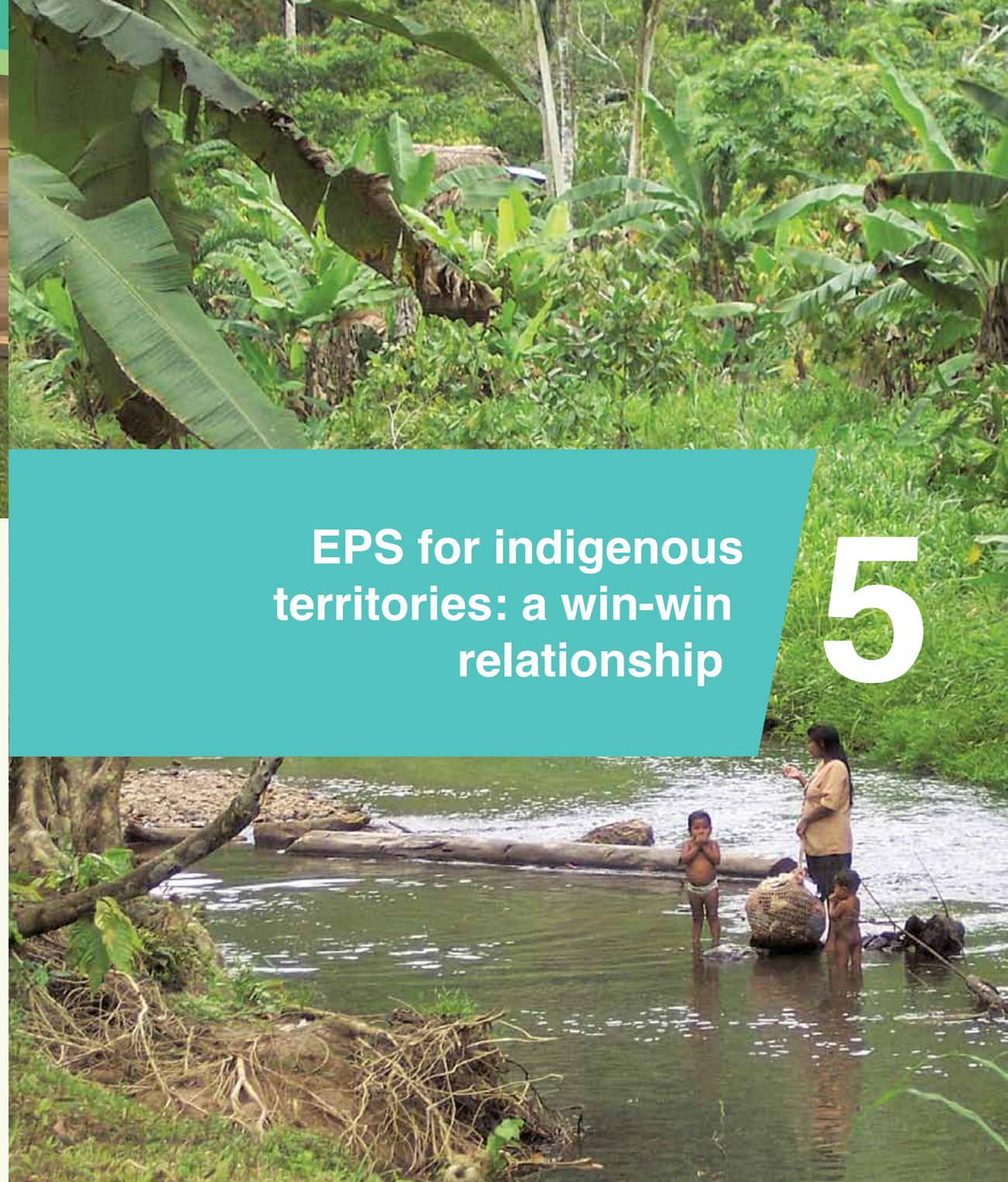
FONAFIFO is a key player in achieving the country's sustainable development. The environmental services which protects and to the credit which offers sustainable forestry coverage reached in 2010, 53.4%. This territorial extension covers biodiversity and substantial resources, which added to the natural wealth marina, generates social and economic benefits, establishing for Costa Rica indexes similar to those of developed countries.

Sustaining the environmental assets and services translates into mechanisms to mitigate the emissions of polluting gases into the atmosphere, which are trapped by the trees that are located on farms benefited from substantive programs managed by FONAFIFO. These trees produce oxygen that all citizens and visitors breathe.

Also, the richness of the nature and the landscape are the foundation on which a new tourism concept has been developed recognized worldwide, called eco-tourism, which in turn generates income for the country, providing jobs and shows the environmental and democratic values of our people to the world.

Costa Rica has been launched to the international level through FONAFIFO, and for this reason, other institutions come to learn from our institution, seeking to replicate this innovative model of conservation and development.

FONAFIFO is its people, citizens who work thinking about the welfare of each one of the inhabitants of this wonderful country. People who place at Costa Rica disposition their creativity and ongoing effort, people who think on a production environmentally amiable and who wishes to continue aggrandizing our country, ensuring the benefits of the environment, both to the present and future generations.



5 EPS for indigenous territories: a win-win relationship

Indigenous territories protected over 41 thousand hectares of forests between 2007 and 2011

Economic instruments such as the EPS should be evaluated from the perspective of its ability to protect and provide environmental services, from which depends on a large number of sectors least benefit of the economy, providing opportunity to benefit.

That is why the EPS causes a greater social impact in remote areas such as the indigenous territories, where it becomes one of the major sources of cash for many participants. Moreover, these type of programs can directly impact the lifestyles of the individuals, when this financial resource translates into education and organizational strengthening.

While it is true that this program is not the solution to poverty, it has a social and economic character. Since its inception, the EPS was proposed in part as a mechanism promote a process for redistribution process (especially for small and medium size farmers and to the indigenous communities through local initiatives and voluntary agreements (Camacho et al. 2003).

The main social criteria used (as priority criteria and for assessing the impact) for the EPS Program so far are the Social Development Index (SDI). This indicator was introduced by the Program to meet the Millennium Development Goals, especially to prioritize the allocation of the PSA in territories under SDI.

This is an indicator produced regularly by the Ministry of Planning, separated at district and canton level. It consists of four dimensions: education, participation, health and economic aspects (Miranda et al., 2003, Zbinden and Lee, 2005).

In the country there are eight Indian ethnicities, divided into 24 reservations or territories and legally represented by Indigenous Associations [3] (Solano Salazar, 2002). By legal mandate FONAFIFO signs the contracts with these Associations which in turn shall be responsible for the fulfillment of the contract but, they are autonomous in their decision how to distribute or invest the resources given by the EPS.

[3]The areas under indigenous territories are inalienable, not prescribing, not transferable and exclusive for the indigenous people (Indian Law 7162 signed in 1977). As such, cannot be sold, although it is estimated that up to 40% of these lands are held by non-indigenous persons (National Indian Roundtable 2011). An Executive Decree in 1978 introduced the Indigenous Development Associations as a single administrative body, taking the place formerly occupied by local governments (Meland Rød 2010).

Chart 12.

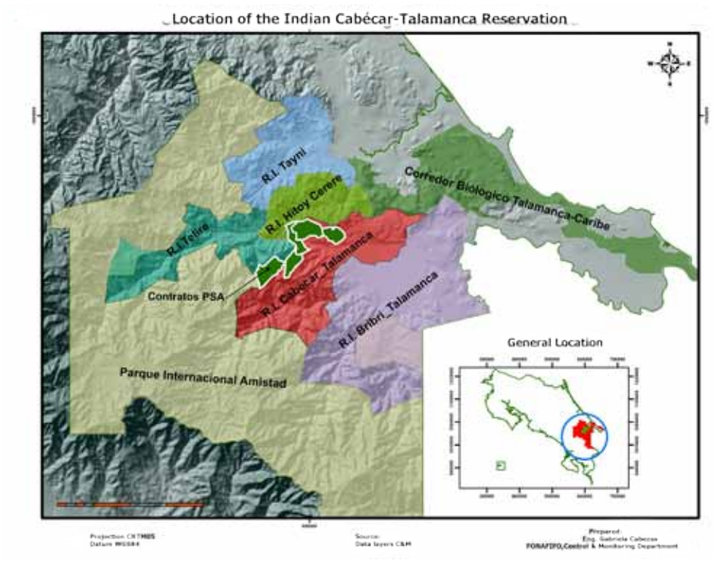
Payment distribution in Indian territories, according to EPS method and economic amount associated. Period 1997-2011.

Year	Hectares Contracted Protection	Colones Amount of EPS Contracts	Hectares Contracted Reforestation	Colones Amount of EPS Contracts	Contracted Hectares Natural Regeneration	Trees Contracted Saf	Colones Amount of EPS Contracts
1997	1.118	55.900.000	-	-	-	-	-
1998	1.308	78.480.000	-	-	-	-	-
1999	1.142	74.160.000	-	-	-	-	-
2000	3.723	240.180.000	50	8.450.000,00	-	-	-
2001	4.199	304.847.400	-	-	-	-	-
2002	2.550	201.858.000	-	-	-	-	-
2003	6.888	599.909.960	-	-	-	-	-
2004	7.014	671.941.200	-	-	-	58.350	20.539.200
2005	6.600	-	40	-	-	161.343	-
2006	2.900	-	-	-	-	86.000	-
2007	6.555	-	-	-	150	112.519	-
2008	12.400	-	-	-	252	155.000	-
2009	8.930	-	-	-	600	45.000	-
2010	9.049	-	-	-	-	45.000	-
2011**	11.006	-	-	-	500	25.000	-
TOTAL	85.384	2.227.276.560	90	8.450.000,00	1.502	688.212	20.539.200

Gathering benefits:

The indigenous territories are relevant within the EPS Program as they represent at national level a 7% of the area (over 350 thousand hectares) of which approximately 70% is covered with forest (Herrera and Pérez 2012).
From the annual budget of FONAFIFO for the EPS, these territories received on average $3 million United States currency annually in the period 2007-2011, and in return they protected over 41 thousand hectares of forest which correspond to a 21% of the total hectares within the program for the indicated period.

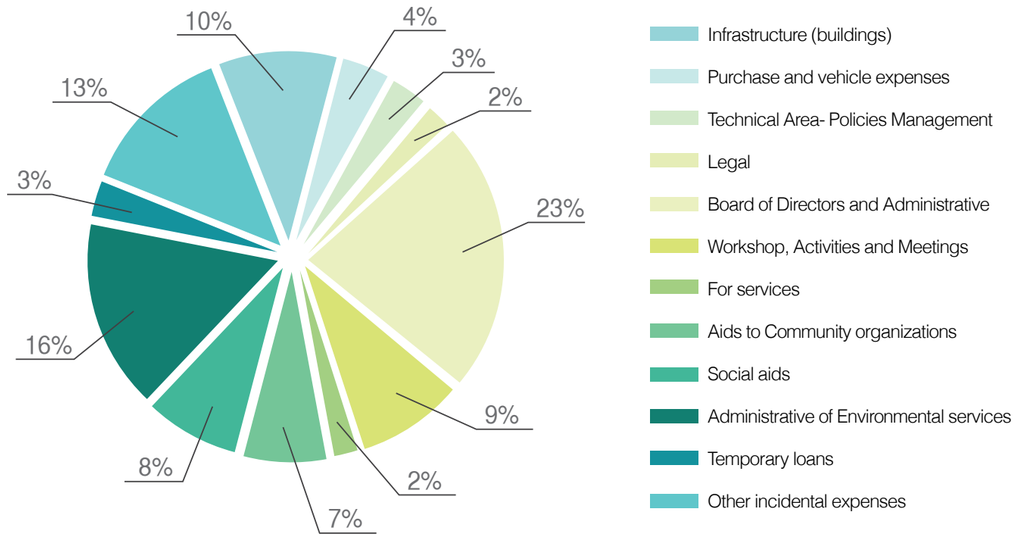
An example of the socioeconomic impact of EPS in these areas is shown in a study conducted in the Cabécar territory (Herrera and Perez, 2012) with the objective of identifying also the contributing factors to the good governance of the Association.
The studied area was the Cabécar Indian Country, located in the Province of Limon, Talamanca Canton. Inside this Indian Cabécar territory the Kekoldi, Talamanca Bribri, Cabecar Talamanca, Telire and Tayni Indian reservations are located.



According to the System of Indicators on the Sustainable Development (SIDES), of the MIDEPLAN (2007), Talamanca was classified as the poorest canton of the country,
with a social canton development index of 0 (zero) (IDS).

Only in the Cabécar territory, the EPS Program injects little more than $1 million per year, and in exchange the country receives environmental services generated in approximately 3,600 hectares of forest.
The revenue collected is administered by the local government of the Association for Integral Development of the Indian Cabécar country (ADITICA) of Talamanca,
legal entity which according to Costa Rican legislation has the legal faculties for its execution.
The 80% of the resources perceived by the local government come directly from the Payment Program for Environmental Services according to the analysis carried out by Herrera and Perez, 2012.
A 15% is associated with specific projects implemented and monitored by NGOs and other agencies, and the remaining 5% is the product of forest permits and recovery of temporary credits granted by ADITICA.
ADITICA distributes the resources in each of the 10 populations represented in Local Community Support Councils (one per each town) before the Board of Directors of the Territory, through its annual work plans. These plans include six areas, namely: infrastructure, environment, governance, economic development and security, management and social recreation.

Figure 4.
Percentage distribution of major expenditures incurred by the ADITICA with funds from the EPS Program during the period 2007-2011.



Source: ADITICA Financial Statements, 2011

The EPS impact depends of the organizational level

ADITICA has allocated 40% of its budget for public management, thereby improving its negotiation capabilities of leadership as shown in the study. The EPS also becomes a negotiation tool for the development of proposals and attracting investment with other public and private entities, such as improvements in health care by opening health care centers (EBAIS), a modern clinic in The Progress community, school- teaching positions, construction of housing, improvement and construction of roads.

Additional to the resources from the period, a 19% has enabled skills training, grant scholarships, bonds, grant aids for medical appointments, support to the disabled and elderly persons and, funerals among others. These resources have also been invested in permanent legal advice for the defense of indigenous rights and interests of both the Board of Directors as well as all based social structures which operate in the Cabécar territory.

The study by Perez and Herrera (2012), provides a tool for socioeconomic and environmental indicators, and demonstrates that provided the Association is organized and has a sense of community, the resources can be applied in the socioeconomic development, thanks to the decision of indigenous territories to protect the environmental services of the forests for the benefit of the Costa Rican society and the planet.

- During the period 2007-2011, 80% of the resources who entered the Indian Territory came from the EPS (470.7 million colons in the period).
- 40% was applied in strengthening the governance.
- 20% in social development within the territory.
- 10% was applied to infrastructure.
- 16% was applied to environmental activities

FONAFIFO an ally to competitive ecological and socially responsible enterprises

6

Creativity for the sustainability

Due to the social, economic and ecological impact of FONAFIFO programsthe importance to obtain resources from different sources to sustain at long term the areas of importance to the country, has been evidenced throughout the years. In this matter, the legal framework offers to FONAFIFO the possibility to obtain funds from different sources, which has allowed designing projects or products according to the interests or needs of the citizens or organizations. FONAFIFO therefore has entered into agreements with organizations that finance the payment for environmental services in areas of their interest, for example: hydro-electric companies using large volumes of water in their production processes, or others that plant trees on agriculture or livestock projects.

Up to 2012 the private sector, public institutions and contributors, provided $10 millions to the Payments Program for Environmental Services to offset their environmental or carbon footprint

Chart 13.

Revenues obtained through agreements and purchase-sale contracts for environmental services established with private and public organizations. Period 1997-2001.

Year	Amount in Thousands of US$
1997	100
2000	5442
2001	272
2002	9
2003	697
2004	37
2005	577
2006	588
2007	468
2008	104
2009	262
2010	368
2011	132

Source: FONAFIFO May 2012.

Commitment. Between 1997 and 2004, several agreements were signed for water service protection, specifically with three hydroelectric companies (Global Energy, Platanar, and CNFL) and, additionally, with Florida Ice & Farm. These contracts were precursors of funds derived from the Water Harvesting Canon, and not only revealed the availability to pay for environmental services but stressed the civil environmental responsibility and public recognition of program.

The various agreements satisfy interests of enterprises using the resource in their production processes and seek to compensate to the society for the use of a public asset, such is the case of water.

On the other side, the Forestry Law and its Regulations allow the FONAFIFO to commercialize the environmental services generated in farms under EPS contracts, whose owners transferred their marketing rights. In this manner the PSA program obtains additional resources that allow maintaining, in a longer period, the services of the farms of interest to the country, or expand the coverage area.

Green Tools. In attending own functions, FONAFIFO is focused thru the Directorate of Development and Marketing of the Environmental Services, to create new proposals or products by which they will capture additional resources for the EPS program.

In this manner and partly to reduce the transaction costs and to expedite the administrative process, FONAFIFO created the Certificates of Environmental Services- (CFS) (In Spanish CSA), which represent a hectare of forest conservation and are sold directly on the open market.

Currently, there are three emissions of CFS (in Spanish CSA), located in sites of high cultural and ecological value which include communities with low indexes of social development, therefore the EPS represents a valuable revenue to their economy.

Moreover, FONAFIFO commercializes **the service of mitigation of greenhouse gases,** produced in PSA farms under the reforestation mode, natural regeneration and agro-forestry systems. The specialists, using internationally approved methodologies, estimate the carbon fixed tons and sell them to the interested parties who wish to offset their carbon footprint.

The service of greenhouse gas mitigation is also commercialized in the form of Clean Flight in the page www.fonafifo.com, where every conscious traveler acquires the tonnage required to offset carbon emissions produced by the trip. This has been a scheme adopted by citizens and organizations who want to travel with climate consciousness.

Up to 2011, approximately $10 million entered into the PESP through agreements with organizations for the financing of the Payment for Environmental Services in geographic areas of their interest; by contracts with companies seeking to compensate their mark, or through the purchase of the Certificates of Environmental Services (CES).

6.1 Searching for Carbon Neutrality

In its aspiration to become a leader in the development of the new carbon market, Costa Rica took the decision in 1995 to create the Costa Rican Office of Joint Implementation (OCIC) and the Costa Rican Carbon Fund.

Today, Costa Rica has a leading role in discussions about the carbon market, which was ratified in Kyoto and the proposals presented by the country.

In Kyoto (1997) three basic objectives were achieved: 1) create the demand: 2) authorize the offer, 3) and include the Forestry Sector. Nonetheless, the Protocol has seen its importance diminished for the non-participation of the United States in the market and in the targets in the reduction of emissions. In the second extension of the Protocol, countries such as Canada announced their non-integration, which will further limit the effectiveness of the existing mechanisms.

To enter the carbon market, the countries should had to ensure credibility through good
inventories, forest and adequate energy policies and a transparent institutional framework to manage the program (OCIC - FONAFIFO - SINAC). Costa Rica has already negotiated carbon projects at the international level by complying with those conditions.

As an additional input, the FONAFIFO created the Sustainable Biodiversity Fund-SBF- (FBS in Spanish) consisting of a patrimonial fund incorporating financial resources to sustain, in the long term, the payment for the environmental services in areas of high biodiversity. With the revenues obtained by this, the environmental services in them will be paid.

Due to the transcendence of the innovations and the recognition to which the country has been subjected worldwide, there is no doubt that Law 7575 is a turning point and an effective tool in facing the challenges of the global market and a growing environmental awareness on the part of the society in general. But also the Law is a step towards a new strategy.

As part of this strategy to value the forest resources, a first draft in 1997 is issued about the international sale of carbon fixation services, through titles. Under this scheme, the sale of 200 thousand tons of Carbon was negotiated with the Government and the private sector of the country of Norway, at US$10/ton for a total of US$2 millions. Therefore Costa Rica began exploring a new worldwide market under the Framework of the Convention on Climate Change.

At present, carbon markets CDM (in Spanish MDL) (Clean Development Mechanism) are saturated with supply and prices declined steadily (in May 2012, the price per ton was U.S. $9 on average), but as of 2012, only the European Union maintains the interest in the mechanisms of the Kyoto Protocol.

On the other side, the voluntary market has generated different standards that come to satisfy the development of projects of interest to the industry, because they are linked to corporate social responsibility or with environmental management systems or integrated, as well as certification programs. Similarly, a growing number of countries in the tropical belt of the world work with the program known as REDD +, which replicates and evolves the ideas experienced in Costa Rica.

The goal of Carbon Neutrality involves the integration of policies and national development plans within which the participation of the forestry sector is essential to become a Neutral Country in emissions by 2021. According to the agreements of the Convention on Climate Change, held in November 2011 in South Africa XVII COP, all countries shall submit their goals and reduction policies for the year 2015, and begin its implementation in the year 2020.

In addition, the country has advanced towards the registration of a C-Neutral Trade Mark in the Public Registry, and in the development of a country's policy which offers, to the interested organizations, the standard requirements. Additionally, the designing process for a legal, technical and financial platform has been initiated, for the implementation of this policy.

In this outline, and taking into consideration the experience of Costa Rica, as a compensation mechanism the Costa Rican Carbon Units (UCC) have been included in the local environment, which occupy a place of similar quality to the credit certificates according to international standards. The mechanisms for UCC registration of projects are being designed by the Directorate of Climate Change MINAET, in order to ensure methodological strictness and traceability of the units involved.

To operate the granting of the Trade Mark, the MINAET on June 19, 2012 formalized the Program Country for the C-Neutrality, which defines FONAFIFO as the governmental entity authorized to sell tons of carbon as compensation while the domestic market is opened (Article 5, transitory 3). This market, in which all those projects that meet the methodological and administrative requirements being asked for by the national platform, opens new opportunity windows to the forestry projects, first nationally, and potentially to international spheres.

To this date, FONAFIFO has project areas which include EPS contracts in the modalities of reforestation, natural regeneration and agro-forestry systems, from which the tons of fixed carbon are obtained to answer to the marketing of the service of mitigation of greenhouse emissions. These projects are available in web page: www.fonafifo.go.cr

Under the 36-MINAET Agreement, the Directorate for the Development and Marketing of Environmental Services has a record with the details of the project area. The ESP Program, on its side, generates and integrates information (technical, administrative, legal) which allows monitoring the PSA contract included within the area of the proposal which responds to the commercial marketing. Also, the Department of Proposal performs the measuring in the farms.

Compensation schemes accepted by INTE Standard 12-01-06:2011 Management System to demonstrate the C-Neutrality: Requirements, Costa Rica.

compensation schemes for emissions of greenhouse gases	Third Party Verifier	
	National	International
1. CER´s (Certified Emission Reduction)		
Mechanisms for Clean Development (Certified Emission Reductions)		X
2. VER´s (Voluntary Emission Reduction)		
2.1 Gold Standard 2.2 Voluntary Carbon Standard		X
3. UCC (Costa Rican Carbon Unit)	X	-
Note: Other compensatory schemes could be recognized when these are approved by the competitive official entity.		

Source: INTECO
September 2011

7 A Fund for the Biodiversity

Costa Rica is among the richest countries in biodiversity per unit of area and shares near 80% of its biological wealth with the countries of Central America, which is considered a hotspot and mega diverse in biodiversity. The country is placed within 14 in the world where more than 20% of its territory is under some type of protection category. Up to 2010 the declared protected areas by the state reach the number of 169, which in its totality represent 26.3% of the continental surface, a 17% of the territorial sea and 0.09% of the Exclusive Economic Zone. (SINAC, 2009).

The country has eleven wetlands of international importance (Ramsar sites), two biosphere reserves, three world natural heritage sites and officially recognized a total of 45 biological corridors, that agglutinate 1 174.554 hectares (about 23% of the national continental surface).

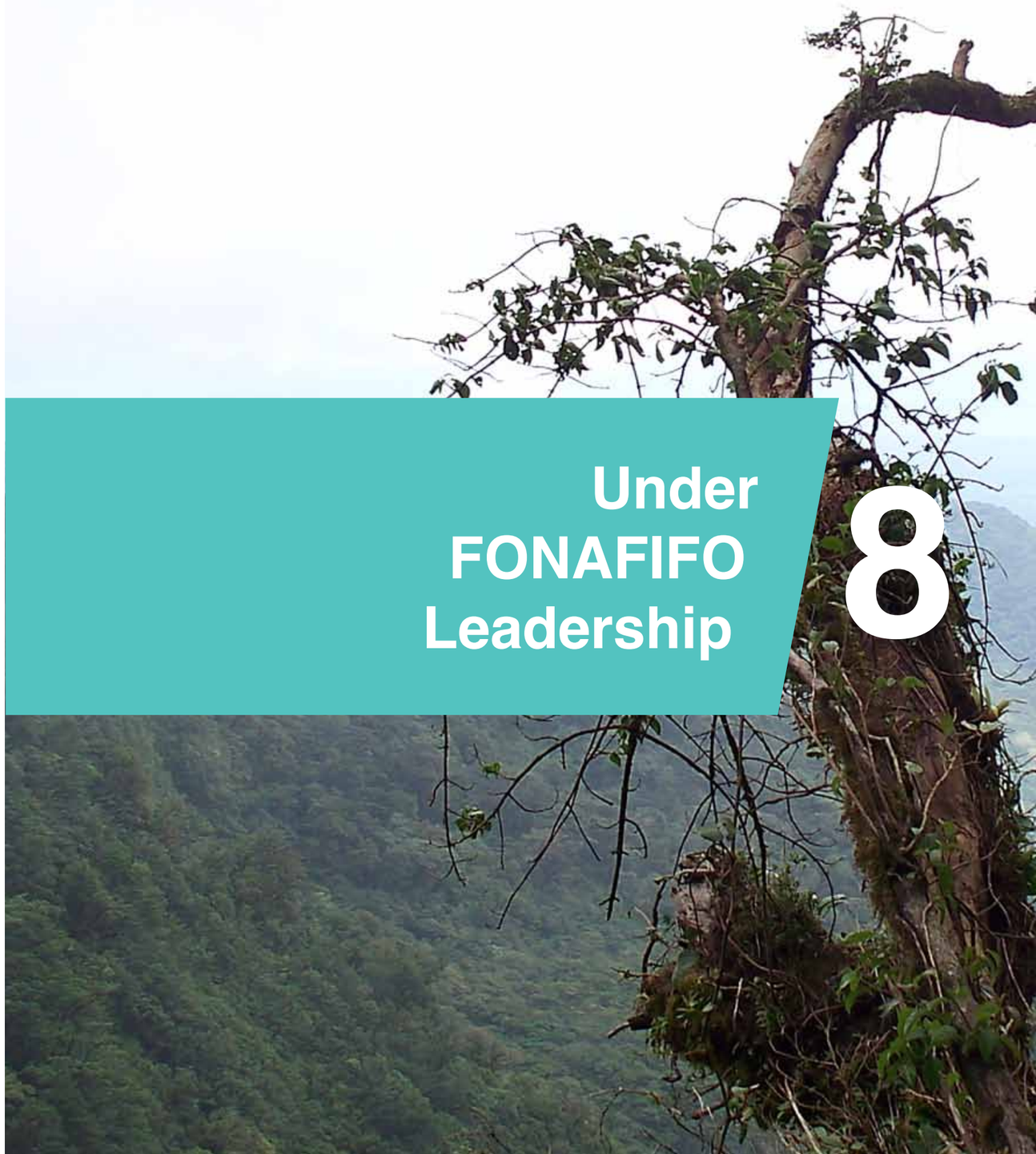
The Fund for the Sustainable Biodiversity, known by its acronym FBS is an innovative initiative which allowed to generate newly fresh resources to sustain, in the long term, the payments for environmental services in areas of high biodiversity. The FBS is a patrimonial fund, administered by a trust, which shall only apply to conservation the obtained revenues.

It was created by FONAFIFO, within the frame of Law 8640, and adds to a list of diverse and innovative financial mechanisms, implemented in the forestry and environmental sectors of Costa Rica.

In order to obtain resources for the FBS, in addition to donations received, the Directorate for Development and Marketing of Environmental Services has designed products that the organizations and general public can purchase For example, the Green Card and the Servibanca Ecomarchamo, both commercialized through the relationship FONAFIFO- National Bank of Costa Rica since December 2010.

Servibanca Card: A debit card that operates under the mark Master Card of National Bank. The entity shares the revenues derived from the commission earnings by depositing 10% of it into the FBS.

The BN-Ecomarchamo: Through its acquisition citizen mitigates CO_2 emissions generated on average by one vehicle per year. Emissions are offset by fixed carbon stored on the EPS farms which transferred their rights to FONAFIFO (Articles 63 and 65 of the Forest Law Regulation).



Under FONAFIFO Leadership

8

REDD+ is a voluntary mechanism to which Costa Rica opted in order to avoid deforestation and enhance carbon reserves

The development of instruments and policies over the last years, prepared the country to meet the challenge of REDD + (Reducing emissions from deforestation and forest degradation) and help to stop climate change, phenomenon not caused by our countries but which affects us and everyone equally.

In the fight against Climate Change and the accelerated forest loss in the world,
REDD + arises as the opportunity for developing countries in partially offset the emissions produced by industrialized countries.

REDD + is a voluntary mechanism to which Costa Rica opted due to its 15 years of successful implementation of positive incentives to avoid deforestation and enhance carbon reserves; but the country has failed to obtain fair compensations for their taken mitigation actions.

The country's expectations regarding REDD + are many, but not all them necessarily associated with the performance of the policies that REDD + establishes which allows to recognize that the forest has a value beyond the wood and carbon, these are co-benefits such as biodiversity, the water and the social value.

In the thirteenth session of the Conference of the Parties, in the Convention Framework on Climate Change of the United Nations (UNFCCC) (In Spanish: CMNUCC), held in Bali, the Carbon Cooperative Fund (FCPF for its acronym in English) was launched in order to strengthen the capacity of developing countries in tropical and subtropical regions and to enable them to reduce emissions as the result of deforestation and degradation of the forests and to exploit any future systems of incentives for REDD +.

In some of these countries, by reducing the rate of deforestation and forest degradation, they will be provided with an incentive per each ton of carbon dioxide emissions decreased by means of specific programs of emissions reduction.

Work sessions with indigenous territories in the frame of the REDD+ Project

Costa Rica applied to FCPP and was selected to execute the Readiness Plan or the Preparation Plan for Reducing Emissions by Deforestation and Forest Degradation. This project was approved for its implementation phase in July 2010, thru Resolution PC2008 / 2 and, makes the country creditor to US$3.6 millions for its execution through the grant No.TF012692. The Readiness Plan seeks to achieve 4 fundamental products:

a. A plan for the organization, consultations and complaints
b. Development of the REDD +Strategy
c. Development of a reference level
d. Development of a monitoring and verification system.

In order to achieve these goals, Costa Rica additionally received the cooperation from the REDD-CCAD-GIZ Program, which shall support the development of some of these activities, in the amount of US$1.7 millions, within a period of two years.

8.1 Towards a Costa Rican REDD + Strategy

The REDD +Strategy allows to propose a new concept that integrates, displacement of products carbon retention with a high carbon mark, the increase in wood consumption, the sustainable management of forests, the increase of carbon reservoirs and the major provision of raw material for the forest industry.

All of the above makes that the strategy REDD+ becomes of greater importance in the national challenges to be faced in the development of a low carbon economy, therefore the proposed objectives are:

a. Implement the activities contained in the Cancun agreements of the Convention Framework of the United Nations for Climate Change, complying with the safeguards and implementing positive incentives.

b. To assist in achieving Carbon Neutrality for the country in 2021 to contribute with the mitigation of global climate change and an advance to the commitments that each nation must implement as of 2020.

c. Positive incentives funded by public and private funds to ensure long term sustainability.

d. Recycling and reuse of carbon.

REDD + strategy consists of 4 key components:
1. Consultation, participation and complaints mechanisms: which guarantees. Transparency and participation required by the process.
2. Preparation of REDD Strategy based on 10 strategic actions described below which include a social-environmental assessment system.
3. Development of a baseline scenario of reference.
4. Development of a Monitoring System that must include monitoring of the social- environmental impacts

REDD + process, Negotiation Indigenous Plan

The strategy is built on 10 strategic axes, some of them transversal, such as financing, land tenure and control of illegal logging. Monitoring the social-environmental impacts shall be performed by using a system of socio-environmental assessment during the development phase of the REDD + Strategy and, a socio-environmental management system during the implementation phase of the Strategy.

The SESA (Strategic Assessment Social and Environmental) aims to identify and integrate in the design of REDD +, key considerations in the environmental, social, legal and of policies areas which are directly related and are relevant to the development of the National REDD + Strategy.

SESA is based on a participatory process to create an interactive platform which makes contributions in the design of the national strategy of REDD + and, through the work plan of SESA opening a space to discuss greater risks to later on evolve to ESFM, and establish therefore the operational procedures.

The proposed strategic actions are:

1. **Reduction of the deforestation rates:** This requires keeping EPS coverage. In order to maintain the current level of deforestation FONAFIFO must ensure the coverage observed up to 2005 (about 212 thousand ha).

2. **Expand coverage of PSA:** FONAFIFO requires expanding the EPS coverage to old-growth forests on 113 thousand ha. This increase should be adjusted every five years in order to maintain an adequate level of coverage that shall allow decreasing the deforestation. FONAFIFO must ensure that by 2030 the EPS will maintain at least 256 thousand hectares per annum**.**

3. **Implement positive incentives to retain the regeneration for the management of secondary forests:** FONAFIFO must make available to the owners of regenerated areas, 20 thousand hectares and preserve them annually with additional positive incentives to the effort of the EPS in the current program, in order to maintain in the period 2011-2030, a total of 40 thousand hectares.

4. **Strengthen SINAC management in control of illegal logging:** The SINAC must develop a digital system allowing quick field checks, carry chain of custody procedures and render reports of works performed. Besides of strengthening the fire control strategy to prevent CO2 losses by forest fires.

5. **Strengthen the control management of CIAgro:** It is necessary to establish a sustainable financing scheme to ensure adequate oversight of the forestry activity by the CIAgro. Immediately it is required that CIAgro attends the lag in their control obligations, which could be affecting the control of illegal activities.

6. **Maintenance of the reserves and increased carbon sequestration.**

   a. Integrating carbon sequestration in national parks and biological Reserves into the REDD + strategy: FONAFIFO must integrate into the REDD+ strategy the carbon sequestration projects that are Protected Areas PAP, and which are interested in selling carbon rights produced in national parks and biological reserves. This could partially replace the biological. Through this the budget required by SINAC could be supplied.
   b. Implement positive incentives to retain generation and reforestation as well as for the management of secondary forests: FONAFIFO must make available to landowners of farms with ability to be planted but that devoid forests, around 8500 hectares of additional positive incentives to the current effort of the EPS program, to induce regeneration and establishment of forest plantations for the period 2011-2030.

Transference of knowledge of the PSA Program to different interested groups, national and international.

7. **Promoting the production and consumption of sustainable wood from natural primary, secondary and reforestation forests:** A successful implementation of the REDD + strategy, requires to be prepared to place sustainable timber production in local or international markets but with highly specialized niches and which would give great aggregated value to the wood. For this purpose, it is necessary to promote the consumption of wood, which would have other benefits for the country as on one side carbon storage would increase in buildings and properties and, secondly, would decrease the consumption of large footprint materials like cement, steel or aluminum.

8. **Create fresh funds, predictable and of long-term to finance the implementation of the REDD strategy:** Resources.

9. **Coordinate and support the initiative of Plot Registration and Regularization of Special lands, among them, the indigenous lands.**

Through these strategic axes it is expected to maintain coverage and increase the forest carbon reservoirs, creating jobs with high added value products. Another purpose is to raise the culture of using wood as an alternative to address the causes of climate change.

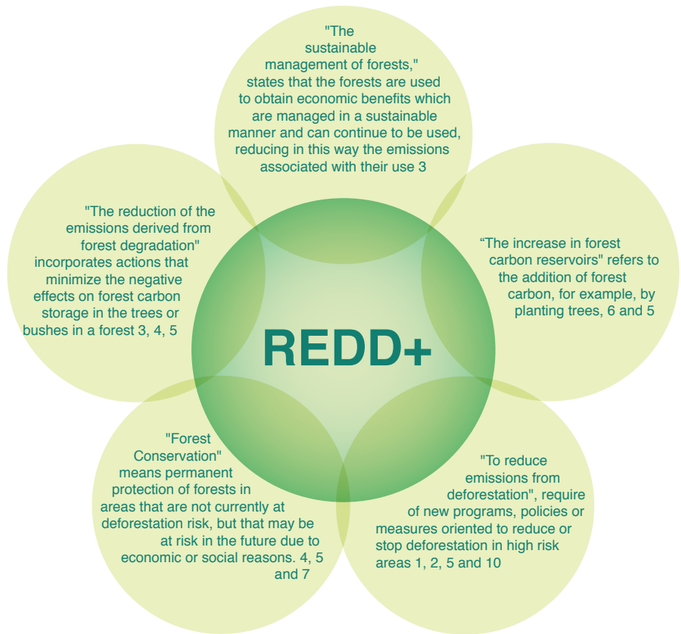
However, the REDD + agreements involved, the monitoring, the verification and reporting of changes in land use, has been one of the more resistance elements between countries capable of providing large areas to protect, regenerate or plant trees.

Costa Rica and Mexico monitoring models, those of verification and reporting suggest that these are activities essential for the transparency, international credibility and environmental integrity of the forestry projects around the world.
.
Various sources estimate as necessary an investment of around US$5-6 billions annually, to replicate in the tropical belt of the world, a system similar to the Costa Rican EPS and get an increment of forest coverage in those countries. This possibility is one of the incentives for the developed world to promote REDD + and probably the net result could save tropical forests from its virtual disappearance.

Indigenous groups claim in turn, a greater participation in decision-making. Little by little they have been organized in a better way and to date obtained a seat at the negotiations table for the Strategy REDD +. As a result of their involvement in the EPS, organized indigenous groups have created the organizational structure at national level which shall allow them to actively participate in the decision making REDD+ and bring information to the bases[4].

Figure 5.

The relation between the activities of REDD+, the agreements of the Convention Framework of the United Nations for Climate Change and, the strategic actions of the project REDD+.



[4] The structure proposed by the Indigenous Territories for REDD+ is founded on the principles of their worldview, Indigenous Right and territoriality. The first level is established at the level of Indigenous Territorial Organizations (OTI) which are 24 in total. A second level is divided into regional territorial blocks (BTR) which cluster the OTIs of one geographical area. Finally, an Indigenous Technical Secretariat is established that will assess and serve as liaison between the BTRs and the indigenous representation in the work group (Sucre, Leví January 2012

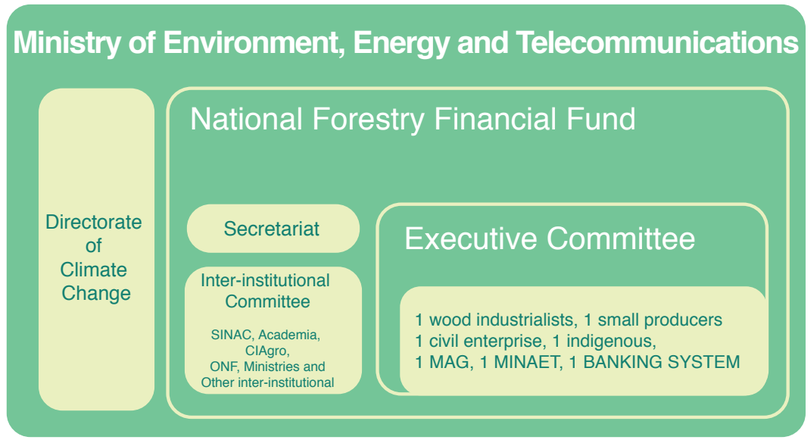
8.2 Implementation Partners

Name of the institution	Strategic Action	Main Activities
National System of Conservation Areas SINAC	4 and 7[a]	Control of illegal logging, fire controls
College of Agricultural Engineers CIAgro	5	Strengthen the system of professional and of projects supervision
National Forestry Office ONF	6,8	Consumption increase of wood and of reforestation
National Financial Forestry Fund FONAFIFO	1, 2, 3, 7b,9 and 10	Positive incentives, financing and land ownership

8.3 REDD GOVERNANCE

The Governance of REDD+ is summarized in the following chart:

Figure 6.
Governance scheme of the Costa Rica REDD+ strategy



Duties of the Secretariat:

1. Support the creation of the Executive Committee.
2. Develop a communication strategy.
3. Preparation and implementation of workshops with groups involved relevant, especially with rural communities and Indians.
4. Develop a preparation and consultation plan.
5. Plan the development of the strategy of REDD+ carrying out studies of land use, land use, forest policies and governance, including dynamics of use of the land, degradation and forest restoration and opportunity costs or alternative land use.
6. Document of the Strategy REDD+.
7. Develop studies to design a strategy to finance the REDD+ Strategy.
8. Support the establishment of the implementation framework of the REDD+ Strategy.
9. Execute a socio-environmental assessment strategy (SESA) of future activities, projects or tactics REDD +.
10. Development of a reference level for carbon stocks, conducting studies and field work.
11. Designing a system for measuring, reporting and verification of changes in carbon stocks and co-benefits of REDD+, considering the social and environmental impacts of the Program Payments for Environmental Services.Being the focal point and represent the country to the Fund Cooperative of Forests, REDD + project of German Cooperation (GIZ), and any other project that comes in to support the REDD + Strategy.
12. Keeping track of donations accounted for REDD + and to report to the volunteer database for these effects the Forest Cooperative of Forests maintains.
13. Decide the essential aspects of the strategy according to the best national interests.
14. Search for future financing of the strategy.
15. Prepare the final version of the REDD + Strategy and submit it to be approved by the Minister of Environment, Energy and Telecommunications.

Role of the Executive:

1. Recommendation of policies for REDD+.
2. Resolution of Conflicts in the context of the Preparation Proposal of REDD+.
3. Ensure the participation of substantial and consistent stakeholders involved.
4. Exchange and information between coherent and transparent relevant stakeholders.
5. Support the design, development and implementation of national policies pertaining to REDD+, including all sectors and at different government levels.
6. Approval of technical studies required for the Preparation Proposal of REDD+.
7. Monitoring the Social Environmental Management System (SESA).
8. Monitoring the consultation processes in all sectors and channeling the results.
9. Develop and approve the Regulation in a workgroup.
10. Guarantee proper attention is given to complaints and its responses.
11. Guarantee the proposal of the REDD + strategy, to be consulted and participatory.
12. Make judgements on the Document of REDD + strategy.

Functions of the Institutional Commission:

1. Coordinate the drafting of the policies.
2. Recommend consensus policies.
3. Coordinate inter-institutional activities.
4. Support the Executive Committee.
5. Guarantee its inclusion in national development plans and other strategies.

Chart 14.
Expected revenues from the Project REDD+ Strategy

Constituent	Stakeholders	
Organization, consultation and complaint	ONF (National Forestry Office) ACICAFOC (Coordinating Association of Indigenous and Central America Farmers of Community Agro-forestry)	4 products of the Strategy consulted and approved
REDD+ Strategy	SINAC (National System of Conservation Areas) CIAGRO (College of Agriculture Engineers) ONF - CCF (Costa Rica Forestry Chamber) FONAFIFO- Promoting Indigenous Territories	1 document with the REDD+ Strategy
MRV: monitoring, report, verification	SINAC-FONAFIFO Inter-institutional Committee	1 Monitoring System
Baseline	FONAFIFO	Established Baseline

Safeguards for the social and environmental achievements.

During the year 2007, the Intergovernmental Panel on Climate Change (IPCC, for its acronym in English) recognizes that the reduction of the deforestation of the tropical forests represents an important role in reducing global carbon emissions. Since then, the mechanism of Reduction of Emissions from Deforestation and Degradation (REDD) has been gaining a central space in the international debate, becoming an important strategy for the short and medium term to reduce the harmful effects of climate change.

Due to the concerns that the topic arouses, during the discussions of the COP-15 United Nations Convention Framework for Climate

change, held in Copenhagen on December 2009, the working Negotiators group who addresses the long-term cooperative actions (LCA) began to discuss the social-environmental safeguards considering that these must be respected in any REDD + activity. On this topic, it has been established coincidence in the scope of other Conventions such is the case of the Convention on Biological Diversity, which at its tenth meeting the COP 10 requests for the Secretary Executive.

Therefore, in order to preserve the achieved successes, the Government is aware that must be careful in the design of the REDD + Strategy, ensuring that all international and national initiatives shall join the ranks of the challenge to improve and expand our forest coverage procuring the long-term welfare of society and of the ecosystems. It has been concluded that the country must count with the definition of the safeguards to ensure that REDD + actions shall be effective on the climate, on the preservation of biodiversity, on local populations and in minimizing the risks of these actions.

A construction project of safeguards becomes a window of opportunities by generating a tool which integrates the benefits of other country actions. Similarly, a learning platform is created the integration of skills and actions of the various actors in order to ensure for the country benefits through a REDD + Strategy. Or else, their results would allow to channel or guide decisions on investment topics of resources.

The safeguards, its principles, criteria and indicators would allow prevent social conflicts and socio-environmental impacts, making decisions about the scope of the REDD+ Strategy on the commitments that may or should be assumed and, guide the definition of positions to be submitted to the different conventions.

FONAFIFO, to this end is working on the development of a safeguards system that shall integrate the efforts of various institutions in the country to measure the status of the natural resources, as well as the social and economic aspects. This system should allow the measurement of the impact of the REDD + strategy at different levels: national, regional and local levels. About the latter, the process therefore in defining the indicators, as well as its implementation, shall involve the organized groups.

FONAFIFO facing 2021

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"For the IT plan 2011-2014. FONAFIFO has a solid infrastructure and technology platform"

The use of Information and Communication Technologies (ICT) (in Spanish TIC), transformed the organizations in their operation and development, and FONAFIFO does not escape from this reality. Due to this during the last twelve years incorporated the ICT as a very important tool in their daily work.

Now days these technologies become a means in decision making and also facilitate the expeditious and transparent service in the management of external and internal users. To FONAFIFO, maintaining a reliable and available technology most appropriate to the development level is one of the Institution's goals and priorities.

It should be noted that since its creation in 1996, FONAFIFO began a modernization process in its technology platform. Seven years later, has new equipments with their corresponding licenses-Windows, Office. In addition, a SIAP system was implemented (Integrated System of Project Management), specific for the substantial process of the institution as is the Program of Payments for Environmental Services, the administrative control -budgeting, accounting, procurement and accounting-under the specific World Bank requirements, all as part of the execution of the project Eco markets I.

Eco markets I supported the technological modernization of FONAFIFO. However, this modernization process must be continuous, thus through the computer plan for the period 2007-2010, the reinforcement of infrastructure as well as the update of the technological platform was included.

For the 2011-2014 computerized planning FONAFIFO has the infrastructure and the solid technology platform as follows:

Management. To date, the management of the ICT in the institution is one of the priorities of the Directorate General of FONAFIFO, which is evident in the updating and strengthening performed during the last years and the investment in the procurement of communications equipment allowing easier and faster connectivity. Additionally, an investment will be made in training and updating in technology matters focusing on the technical and professional computer personnel, therefore providing qualified and capable personnel to assist and support in professional and technical solutions that contribute to the institutional objectives, as well as Institution' every day work.

Technological architecture. Computers, storage devices, communication infrastructure and software of the processes for support and the substantive technological architecture are FONAFIFO' main components of its technological architecture.

Communications. FONAFIFO has a local network with access capability on the part of officials to the computer system, internet and email. Due to the technology development
and the importance of providing a prompt service, fast and reliable, it is necessary that the institution evolves taking advantage of the potentials offered by ICT, and thus make management more expeditious in the different procedures.

Computer Systems. FONAFIFO has an automate computer system of the supporting processes and the substantial process of the Payments for Environmental Services (EPS).

For the year 2014. Besides maintaining reliable technologies, the Institution is in the process of automating key processes (Program Payment for Forest Environmental Services and forestry Credit) as well as the support processes, and all management administrative-financial through the information system of the institution. This includes:

- At the individual user level, significantly increasing the training and put at the service of these own systems and of third parties, hat facilitate the every day work.
- Promote the optimization of the external and internal resources; unifying the information system and the organization of information resources; increase the security of the information; reducing the vulnerability of the whole system.
- The growth and development levels of the computer systems, stimulate, strengthen and upgrade the technical and professional capacity of the officials in the informatics area, in a manner that they effectively support and coordinately the interests of the institution.
- Develop and implement a regulation on the use of ICT to orient and guide the proper use of the institutional technology.

The advances in the execution of the information technology plan, shall strengthen the infrastructure and technological platform that will allow the simplification of procedures, the efficiency and the institutional modernization.

The manufacturers and technology developers are betting on products environmentally friendly, also they hope to find a mechanism that strengthens the energy saving in their use. In this matter, Costa Rica is experiencing new forms of technology acquisition, such as hiring providers who provide infrastructure and applications services. FONAFIFO can not sit back and should venture into these new modes such is the case of Cloud Computing.

Thus, institutional priorities shall be strategic commitments that help focus on resource allocation and guide the management, in order to respond to the demands of the citizens.

By virtue of the foregoing, in FONAFIFO, as shown in its strategic plan 2013-2021 they have committed to the following objectives:

- Have a program of payment for environmental services that contributes in a growing manner to the generation of the environmental services. A challenge for the future years is to develop schemes that will continue contributing to the achievement of a Green Economy. To this end, the implementation of schemes of the EPS will be pursued to facilitate the creation of integrated farms and the development of a holistic vision in the production.
- Maintain us as the leading institution financing the national forestry development.
- Becoming technologically strong for the optimal management of the resources and the timely, simplified and accessible management of the services.
- Develop new financial mechanisms and other instruments promotion tolls to expand the offer for the financing programs.
- Implement more marketing projects of assets and environmental services aimed at companies and institutions interested in improving their environmental performance.
- Having in place a Strategy for Reducing Emissions from Deforestation and Forest Degradation in forests in development and consolidation process.
- Continue to participate in the discussions of climate change at the national and internationally level, with the purpose of contributing with the design of mitigation and adaptation strategies that will allow to society to address the impacts of this new global challenge.
- To become a support benchmark for businesses and organizations that want to mitigate or offset its environmental footprint.
- Transfer our knowledge to other institutions and countries to assist them create mechanisms for biodiversity conservation to achieve an environmentally sustainable development.
- Strengthen governance of groups and organizations to be empowered in the struggle for the improvement and environmental protection.

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