The Forest Carbon Partnership Facility (FCPF)
Readiness Plan Idea Note (R-PIN) Template

March 8, 2008

Guidelines:

1. The purpose of this document is to: a) request an overview of your country's interest in the FCPF program, and b) provide an overview of land use patterns, causes of deforestation, stakeholder consultation process, and potential institutional arrangements in addressing REDD (Reducing Emissions from Deforestation and Forest degradation). This R-PIN will be used as a basis for the selection of countries into the FCPF by the Participants Committee. Information about the FCPF is available at: www.carbonfinance.org/fcpf
2. Please keep the length of your response under 20 pages. You may consider using the optional Annex 1 Questionnaire (at the end of this template) to help organize some answers or provide other information.
3. You may also attach at most 15 additional pages of technical material (e.g., maps, data tables, etc.), but this is optional. If additional information is required, the FCPF will request it.
4. The text can be prepared in Word or other software and then pasted into this format.
5. For the purpose of this template, "Deforestation" is defined as the change in land cover status from forest to non-forest (i.e., when harvest or the gradual degrading of forestland reduces tree cover per hectare below your country's definition of "forest." "Forest degradation" is the reduction of tree cover and forest biomass per hectare, via selective harvest, fuel woodcutting or other practices, but where the land still meets your country's definition of "forest" land.
6. When complete, please forward the R-PIN to: 1) the Director of World Bank programs in your country; and 2) Werner Kornexl (wkornexl@worldbank.org) and Kenneth Andrasko (kandrasko@worldbank.org) of the FCPF team.

Country submitting the R-PIN:
Date submitted:

1. General description:

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b) List authors of and contributors to the R-PIN, and their organizations:

National Forestry Financing Fund (FONAFIFO)

National System of Conservation Areas (SINAC)

National Forestry Office (ONF)

Foundation for the Conservation of the Central Volcanic Range (FUNDECOR)

Tropical Agronomic Research and Higher Education Center (CATIE)

Costa Rica Institute of Technology (ITCR)

Costa Rican Office for Joint Implementation (OCIC)

Conservation International (CI)

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c) Who was consulted in the process of R-PIN preparation, and their affiliation?

National Forestry Financing Fund (which besides being the operational branch of the PES Program, is also leaded by an Executive Board composed by a mixed representation from public and private sector. The Ministries of Agriculture and Environment and the National Banking System are represented as well as a representative from each, the forest industrials and small landowners. Each representative has their own mechanisms for consultation and feedback to the Board decision-making process), National System of Conservation Areas (SINAC), Costa Rican Office for Joint Implementation (which at the same time is the National Designated Authority for CDM) , National Strategy for Climate Change (a multi-stakeholders process involving several public, private and social sectors who have been consulted regarding the proposed objective of making Costa Rica a carbon-neutral country, leaded by the National Climate Change Strategy Office, linked to the Ministry of), Foundation for the Conservation of the Central Volcanic Range, Tropical Agronomic Research and Higher Education Center (CATIE), Costa Rica Institute of Technology, (ITCR), National University (UNA), Costa Rican Forestry Chamber (CCF), Commission for Forestry Development of San Carlos (CODEFORSA), Ministry of Foreign Affairs and Worship, National Geographic Institute (IGN), Ministry of Agriculture and Livestock (MAG), Conservation International (CI), Presidency of the Republic through the Peace with Nature Initiative and the National Forestry Office (Please note that the NFO is not equivalent to the Forestry Administration. In Costa Rica this office is legally established by the Forestry Law as a mechanism to facilitate the dialogue among the Government and the relevant actors of the forestry sector. It is leaded by an Executive Board exclusively composed by non governmental representatives from the sector appointed by different election processes: they represent the Medium and small scale forest land owners, the industry sector, the Forestry Chamber and the Environmentalist Sector as well as the Academia) . The Ministry of Finance was invited to a discussion workshop on the initiative, but they did not participate; however, the proposal was submitted and we are awaiting their feedback. Some other NGO´s were also invited but could not attend (TNC, ACICAFOC, etc.). All these actors would be clearly invited to engage into the R-PLAN process as well as other entities representing the indigenous peoples and rural peasants at more specific scales (Development Associations). The private forest sector was invited to participate in a workshop for the preparation of the R-PIN through the participation of JUNAFORCA, CODEFORSA and the ONF which ones are base organization with a large participation of small and medium farmers.

A gap that is also going to be solved in the next stage is the full involvement of the Ministry of National Planning and Economic Policy which is the leading institution regarding formal national planning processes as well as the relevant Planning Units from other Ministries.

2. Which institutions are responsible in your country for:

a) forest monitoring and forest inventories:

The National System of Conservation Areas (SINAC, which is the biggest Unit within the Ministry of Environment and Energy, has among its responsibilities the implementation of national policies related to biodiversity conservation The Ministry of Finance was invited to a discussion workshop on the initiative, but they did not participate n, overall management of the Protected Areas System, Forestry Public Administration and wildlife): it is responsible for conducting the country's forestry inventory, It is expected that in 2008 the elaboration of a new inventory with the financing of FAO and the Support of the Permanent Parcels Red which is compose for institutions who have this investigation units in the country, such as FUNDECOR, Universidad Nacional, Organization for Tropical Studies, SINAC, Costa Rica Institute of Technology (ITCR), and others. Through the Readiness Plan it is expected to establish an permanent inventory and identify its financing.

The National Forestry Financing Fund (FONAFIFO): it is responsible for monitoring the country forest cover, by using satellite images combined with field verification. This function is performed through cooperative agreements with the University of Alberta (Canada), the Center for Tropical Studies and the National Biodiversity Institute (INBIO) for biodiversity monitoring. It is expected that by using new resources deriving from the ECOMARKETs II Project (World Bank-GEF) and the readiness project, the monitoring system would become permanent and its funding will be secured in the long-term.

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b) forest law enforcement:

The Ministry of the Environment and Energy has the primary responsibility and it is executed through the following units:

- National System of Conservation Areas (SINAC): Manages the country's protected areas and provides overall monitoring and control of sustainable forest management outside protected areas, including the issuance of logging permits and supervision as well as the application of the "Guidelines and Principles for Sustainable Forest Management" .
- National Forestry Financing Fund (FONAFIFO): Executes the Payment for Environmental Services Program including the monitoring of the contracts signed with forest owners to conserve forests.
- National Technical Environmental Division: Responsible for defining the criteria and standards for avoiding or

diminishing environmental impacts deriving from different economic activities, including in forest resources.
- Administrative Environmental Court: Responsible for hearing the cases that infringe the environmental law at the administrative level
- Environmental Comptroller: Regulating body that oversees compliance with the environmental law and present cases for further analysis by the Administrative Environmental Court.
- Judicial Power (government attorney's office, Courts): Apply the laws and sanctions to law-breakers, with the support of the judicial and administrative police.

In summary, there are two levels: the administrative one and the judiciary, involving many different actors.

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c) forestry and forest conservation:
- - National System of Conservation Areas (SINAC): Manages the country's protected areas and provides overall monitoring and control of sustainable forest management outside protected areas, including the issuance of logging permits and supervision as well as the application of the "Guidelines and Principles for Sustainable Forest Management" and define national strategies against illegal logging. It is organized in 11 regional main offices and some sub-regional.

National Forestry Financing Fund (FONAFIFO): Is responsible of the overall management of the Program of Payment for Environmental Services as a financial mechanism implemented by the Government of Costa Rica to promote forests cover recovery in private-owned lands with the aim of guaranteeing the maintenance and improvement of the environmental services provided by forests and other ecosystems (greenhouse gas mitigation, landscape beauty, biodiversity and water resources protection)

These two main entities constitute the specific institutional frame dealing with forest management and conservation in the country and they work in a coordinated manner. A representative of the Ministry of Environment has a seat assigned in the FONAFIFO Executive Board in order to ensure policy coherence between both.

d) coordination across forest and agriculture sectors, and rural development:
There are different inter-institutional commissions such as the Agriculture Sector Commission and regional commissions (sub-nationals) coordinated between the Ministry of Agriculture and Livestock (MAG) and the Ministry of the Environment and Energy (MINAE), which are the Ministries responsible for the forestry and agricultural sectors. In the case of rural development, the responsible entity is the Institute for Agrarian Development (IDA) which is part of the Agriculture Sector within the structure of the sector division of the Executive Power and it is under the coordination of the Ministry of Agriculture and Livestock. Furthermore, there is also the Planning Secretariat of the Agriculture Sector (SEPSA) as sectorial entity of planning and coordination among all the entities of the sector and for the coordination with other sectors of national planning. Through this mechanism, the Environmental and Agriculture Inter-sectorial Agenda has bee under implementation during the last three years as a pilot experience to link policy and action in these two closed-linked areas. For the time being, sub-regional processes are ongoing in some of the most relevant geographic regions in the country and the mechanisms includes the joint development of regional strategies for sustainable development and the participation of major actors.. Likewise, the Government created the National Commission on Bio-fuels, which links the agricultural, industrial and environmental sectors with national policy regarding bio-fuel raw material production. More recently the Government, through the Peace with Nature Initiative and with the lead of the Vice-President, has started a process for defining a National Land-use Planning Policy. It is currently under final revision and it states a clear responsibility for policy guidance and coordination in the Government Council (the gathering of all State Ministers jointly with the President) and also states the guiding principles. After completion and approval of the Policy, a process towards designing a National Land Use Plan will begin. Such Plan will then lead to national strategic decisions on the future of land use for different economic activities and its rol within the broader frame of national development. All institutions involved in land use planning activities, such is the case of the Ministry of Environment, SINAC and FONAFIFO, would need to be articulated with the Plan and surely it will also serve as an ideal platform to continued dialogue regarding any future REDD strategy. This effort is been complemented with the development of a brand new land title (property rights) and registry scheme, a national effort to consolidate land use planning at the municipal level and (more than 60% of land use municipal plans are under construction) and a process to identify and solve existing conflicts relating to land property rights in areas of special importance such as protected areas, indigenous reserves and coastal areas. This project is funded through a loan with the Inter-American Development Bank and managed by an Executive Office under the supervision of the Ministry of Finance.

3. Current country situation (consider the use of Annex 1 to help answer these questions):

a) Where do forest deforestation and forest degradation occur in your country, and how extensive are they? (i.e., location, type of forest ecosystem and number of hectares deforested per year, differences across land tenure (e.g., national forest land, private land, community forest, etc.)):

Costa Rica is a country with positive net deforestation rates. During the period 2000-2005 the gross loose of forest cover was 23,689 ha which is equivalent to approximately 4,600 ha per year (0.09%) while forest cover recovery showed an increase of 169,000 ha in the national territory, representing approximately 33,980 ha per year (0.66), The net deforestation then was of +0.57% per year during that period, according to the Forest Cover Monitoring Study of Costa Rica 2005 (FONAFIFO, 2007). This study also located the main geographic areas of deforestation in the San Carlos, Tortuguero regions; the middle watershed of the Tulin River in Parrita and Coto Brus. Specific figures per Conservation Area are as presented in Table 1.

Table 1. Costa Rica: Gross deforestation per Conservation Area (2000-2005)

Conservation Area	Hectares
Arenal Huetar Norte	4.812
Arenal-Tempisque	17
Central Volcanic Range	2.604
Guanacaste	7
La Amistad Caribe	20
La Amistad Pacífico	6.516
Osa	1.710
Central Pacific	4.200
Tempisque	1
Tortuguero	3.801
Total	23.689

Source: FONAFIFO (2007)

According to Holdrige's classification in Costa Rica there are 33 life zones. The areas where deforestation occurs includes tropical moist, pre-montane moist, lower montane moist, tropical moist forest, and montane and lower montane rainforests and consist mainly of private owned forest lands There is also come data about the evolution of the deforestation process both nationally and locally which is more dispersed.

Table 2. Evolution of the deforestation process at the national and local level (Carfix Region) during the 1940-2000's period.

Source	Level of Study	Year	Forest (km^2)	Parks and Reserves (km^2)	Forests outside Parks and (km^2)	Period (years)	Deforestation			
							Excluding Parks and Reserves		Including Parks and Reserves	
							Equation 1	Equation 2	Equation 1	Equation 2
1	Country	1910	50990							
1	Country	1940	34206	5370	28836					
1	Country	1950	28642	5370	23272	10	2.1%	1.9%	1.8%	1.6%
1	Country	1961	23035	5370	17665	11	2.5%	2.2%	2.0%	1.8%
1	Country	1977	16154	5370	10784	16	3.0%	2.4%	2.2%	1.9%
1	Country	1983	8711	5370	3341	6	17.7%	11.5%	9.8%	7.7%
2	Country	1986	10442	5370	5072					
2	Country	1991	8190	5370	2820	5	11.1%	8.9%	4.7%	4.2%
3	Guápiles	1910	39.53							
3	Guápiles	1952	33.37			42	0.4%	0.4%		
3	Guápiles	1960	28.88			8	1.8%	1.7%		
3	Guápiles	1972	13.73			12	6.0%	4.4%		
3	Guápiles	1981	46.39			9	11.4%	7.4%		
3	Guápiles	1984	22.39			3	21.6%	17.2%		
4	ACCVC	1992					7.3%			
4	ACCVC	1996					6.0%			
5	ACCVC	2000					5.9%			

ACCVC: Conservation Area of the Central Volcanic Range

$$\textbf{Ec1}\ d = 1 - \left(\frac{B_f}{B_o}\right)^{\frac{1}{n}} \qquad \textbf{Ec2:}\ d = \frac{1}{n}\frac{\left(B_o - B_f\right)}{B_o}$$

Ec1 and Ec2= Equation
d= Percentage of deforestation
Bf= Final forest
Bo=Initial Forest
n= years

1. *SADER, S., AND A. JOYCE. 1988. Deforestation rates and trends in Costa Rica, 1940 to 1983. Biotropica 20: 11–19.*
2. *Sanchez-Azofeifa, G. A., R. C. Harriss, and D. Skole. 2001. Deforestation in Costa Rica: a quantitative analysis using remote sensing imagery. Biotrópica 33:378–384.*
3. *Veldkamp, E., Weitz, A.M., Staritsky, I.G., Huising, E.J., 1992. Deforestation trends in the Atlantic Zone of Costa Rica: a case study. Land Degrad. Rehab. 3, 71–84.*
4. *Rodríguez, J Ch, Velásquez S M. 1998. Report of the digital classification of Landsat TM Images of 1996 for the elaboration of vegetable cover of the work area of the Foundation for the Conservation and Development of the Central Volcanic Range (FUNDECOR). Laboratory of Geographic Information Systems. CATIE. Turrialba. Costa Rica.*
5. *Pedroni, L. 2000. Report on the digital classification of Landsat TM image (Path 15, Row 53) of February 2000. Laboratory of Geographic Information Systems. CATIE. Turrialba. Costa Rica.*

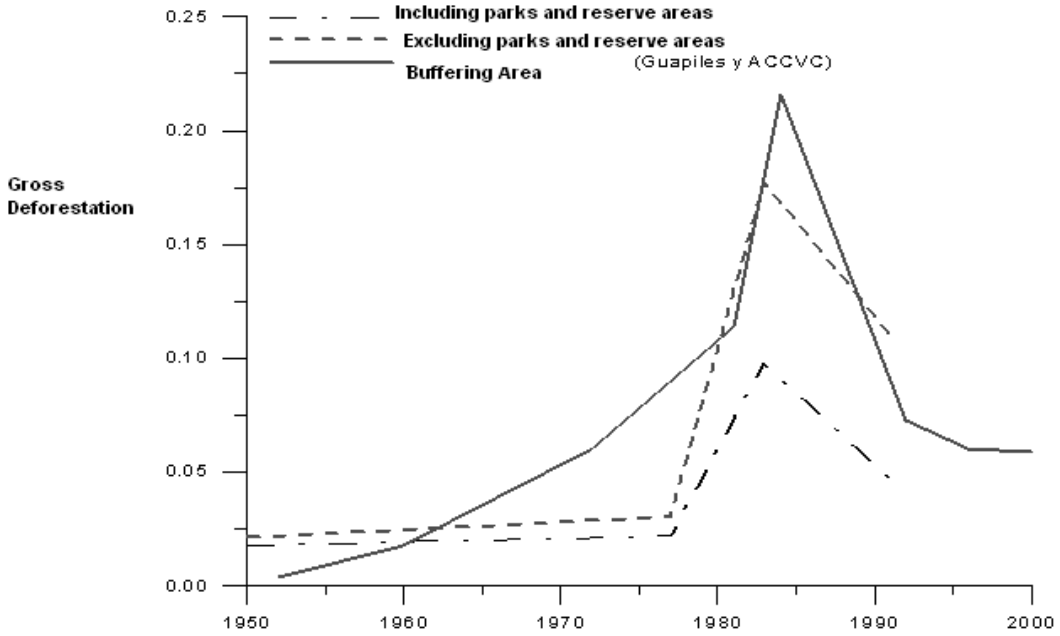
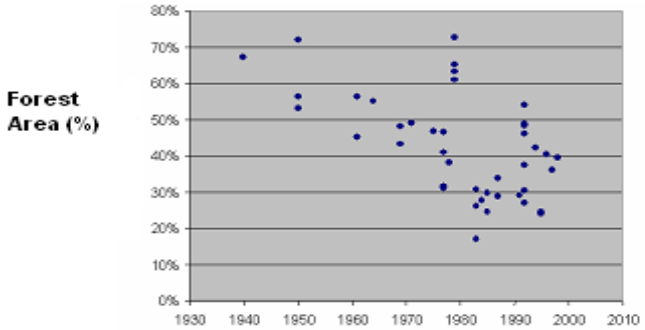


Figure 1 Evolution of the gross deforestation (using Ec1) in the CARFIX Project area from 1950 to 2000 based on different studies of change of soil use conducted in the zone and the whole country. Source: Sader and Joice, 1988; Veldkamp et al, 1992; Rodríguez and Velásquez, 1998; Pedroni, 2000 and Sanchez-Azofeifa et al, 2001. The X axis represents the years and the Y axis, the percentages of deforestation in absolute terms.

In the year 2000, CATIE (Kleinn, 2000) conducted a wide bibliographical review of the country's forest cover which can be summarized as follow:
Deforestation strongly decreased in the last decade as compared to previous decades; however, as can be observed in Figure 2, the country does not currently have a series of historical data produced using a consistent methodology. Therefore, the estimates in the forest cover change and consequently, the existence of carbon, are rather uncertain, probably unknown and rather wide.
Studies suggest that the country is recovering large extensions of forests; however, the age of these new forests and their carbon capture rate have yet to be studied.

There are indications of forest degradation processes in the country, which could affect the existence of carbon, but there is still little information and it is not possible to provide reliable estimates.

Figure 2: Forest cover in Costa Rica according to the bibliographical review of Kleinn (2000)
(Each dot on the figure represents an estimate of the country's forest cover in a published study)



That is the reason why, through the Readiness initiative, we expect to generate studies and more reliable and comparative data on the state of forest cover and its composition (physical as well as biological), growth, etc.

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b) Are there any estimates of greenhouse or carbon dioxide emissions from deforestation and forest degradation in your country? If so, please summarize:

The country boasts different bibliographical sources, which indicate that during the 60's and beginning of the 70's, the deforestation rate was 55,000 ha/year; and that towards the end of the 70's, the rate increased to 60,000 ha/year, at that time, less than a third of the national territory. These levels of deforestation led the country to lose almost 70% of its forest cover.

The changes in carbon stock due to deforestation, degradation and forest recovery are not well known and must be estimated reinforcing the current country's capacity to conduct inventories. The most recent data are only projections made by the Carbon Compensation Project for Private Areas (PFP), prepared in 1997. Estimates were made on the emissions of the different forest ecosystems by life zones up to 2010 and are presented in the following table. It is expected that these figures will be improved and updated using the REDD readiness project.

Year	Primary Forest (he)	Deforested (he)	Emissions - TMC	Emissions TMC02	Secondary Forest (he)	Deforested (he)	Emissions - TMC	Emissions TMC02	Saldo TMC	Saldo TMC02
1980	2.459.186	79.377	5.536.575	20.319.230	665.988	159.848	5.438.043	19.957.616	10.974.618	40.276.846
1981	2.379.809	76.815	5.357.866	19.663.368	506.140	121.482	4.132.823	15.167.462	9.490.689	34.830.830
1982	2.302.993	74.336	5.184.925	19.028.675	384.658	92.324	3.140.878	11.527.023	8.325.803	30.555.698
1983	2.228.657	71.936	5.017.566	18.414.469	292.334	70.165	2.387.016	8.760.349	7.404.583	27.174.818
1984	2.156.721	51.699	3.605.987	13.233.972	222.169	-34.475	-692.938	-2.543.082	2.913.049	10.690.889
1985	2.105.022	50.459	3.519.548	12.916.740	256.644	-39.824	-800.463	-2.937.701	2.719.084	9.979.039
1986	2.054.563	49.250	3.435.181	12.607.113	296.468	-46.004	-924.674	-3.393.554	2.510.507	9.213.560
1987	2.005.313	48.069	3.352.836	12.304.908	342.472	-53.142	-1.068.159	-3.920.143	2.284.677	8.384.766
1988	1.957.244	46.917	3.272.465	12.009.948	395.614	-61.389	-1.233.909	-4.528.444	2.038.557	7.481.503
1989	1.910.326	45.792	3.194.021	11.722.057	457.003	-70.915	-1.425.378	-5.231.138	1.768.643	6.490.919
1990	1.864.534	44.695	3.117.457	11.441.068	527.918	-81.919	-1.646.559	-6.042.871	1.470.898	5.398.197
1991	1.819.839	43.623	3.042.729	11.166.814	609.837	-94.630	-1.902.061	-6.980.564	1.140.668	4.186.251
1992	1.776.216	17.567	1.225.288	4.496.807	704.467	-7.045	-1.921.082	-7.050.369	-695.793	-2.553.562
1993	1.758.649	17.393	1.213.170	4.452.334	711.512	-7.115	-1.940.292	-7.120.873	-727.122	-2.668.539
1994	1.741.256	17.221	1.201.172	4.408.300	718.627	-7.186	-1.959.695	-7.192.082	-758.524	-2.783.782
1995	1.724.035	17.051	1.189.292	4.364.702	725.813	-7.258	-1.979.292	-7.264.002	-790.000	-2.899.301
1996	1.706.984	16.882	1.177.530	4.321.535	733.071	-7.331	-1.999.085	-7.336.642	-821.555	-3.015.108
1997	1.690.102	16.715	1.165.884	4.278.794	740.402	-7.404	-2.019.076	-7.410.009	-853.192	-3.131.214
1998	1.673.387	16.550	1.154.353	4.236.477	747.806	-7.478	-2.039.267	-7.484.109	-884.913	-3.247.632
1999	1.656.837	16.386	1.142.937	4.194.578	755.284	-7.553	-2.059.659	-7.558.950	-916.723	-3.364.372
2000	1.640.451	16.224	1.131.633	4.153.093	762.837	-7.628	-2.080.256	-7.634.539	-948.623	-3.481.446
2001	1.624.227	16.064	1.120.441	4.112.019	770.465	-7.705	-2.101.059	-7.710.885	-980.617	-3.598.866
2002	1.608.163	15.905	1.109.360	4.071.351	778.170	-7.782	-2.122.069	-7.787.994	-1.012.709	-3.716.643
2003	1.592.258	15.748	1.098.388	4.031.085	785.952	-7.860	-2.143.290	-7.865.874	-1.044.901	-3.834.788
2004	1.576.511	15.592	1.087.525	3.991.218	793.811	-7.938	-2.164.723	-7.944.532	-1.077.197	-3.953.315
2005	1.560.919	15.438	1.076.770	3.951.744	801.749	-8.017	-2.186.370	-8.023.978	-1.109.600	-4.072.233
2006	1.545.481	15.285	1.066.120	3.912.661	809.767	-8.098	-2.208.234	-8.104.218	-1.142.113	-4.191.556
2007	1.530.196	15.134	1.055.576	3.873.965	817.864	-8.179	-2.230.316	-8.185.260	-1.174.740	-4.311.295
2008	1.515.063	14.984	1.045.137	3.835.651	826.043	-8.260	-2.252.619	-8.267.112	-1.207.483	-4.431.461
2009	1.500.079	14.836	1.034.800	3.797.717	834.303	-8.343	-2.275.145	-8.349.783	-1.240.345	-4.552.067
2010	1.485.243	14.689	1.024.566	3.760.157	842.646	-8.426	-2.297.897	-8.433.281	-1.273.331	-4.673.124
Total		**1.414.929**	**98.691.315**	**362.197.128**	851.073	**25.246**	**-27.419.333**	**-100.628.954**	**71.271.982**	**261.568.174**

Assumptions: a negative rate of deforestation (reforestation) in secondary forests of 1% beginning in 1992. Biomass per hectare in primary forest.: 155 TM, carbon in biomass: 45%, relation of carbon in biomass: 3,67. Biomass per hectare in secondary forest: 77,5 TM (50% de BP) capacity of annual fixation in secondary forests: 6 TM of biomass, 2,7 TM of carbon
Sources: Map of 1965: FAO.ITCO.IGCR; Map 1979: IMN-MAG-IGN-DGF; Map 1984: IGN; Map 1992:IMN-MAG-IGN-DGF; Map 1997: CIEDES-CCT

Therefore, it is very important to be able to identify the potential of the different types of cover present in the country through the national inventories and in that manner, the potential for mitigation, under a continuous monitoring system.

In FONAFIFO have been realized sceneries about the different cove of the country, and with this have been estimated the accumulate absorption in this changes of cover. The data used is an estimated of the cover change from 1987 compare with 2005 where the forest appears like recuperation areas. This data exclude plantation zones, swamps, palms, moor and secondary forest. In accordance with the localization of this areas in the life zones that exist in the country, it estimates that a total of 30 millions of tones in 2005. Is important to note that this data will be verified and analyzed deeply with the REDD resources and because of that this data can not be taken as real because is necessary to determinate

which amount of this area still exist in the country and in which succession state it is.

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c) Please, describe what data are available for estimating deforestation and/or forest degradation. Are data published? Describe the major types of data, including by deforestation and forest degradation causes and regions if possible (e.g., area covered, resolution of maps or remote sensing data, date, etc.).

The existing information befote 1997 for the studies of cover in Costa Rica was scattered and not systematic, in this stage this kind of studies were elaborated with different methodologies but they did not accept its comparison, which made the in charge entities to re-evaluate this and then to elaborate it with the purpose of establish an improvement in the processing of the information in order to have an reliable information, and because of that in this moment the cover studies for the year 2000 and 2005 have been elaborated with the same methodology, using Landsat satellite images. Nowadays, it is expected to realize a new study of cover but using SPOT images because the Landsat satellite is damage.

The sources for the data available on deforestation are produced mainly by the National System of Conservation Areas (SINAC), the Tropical Agronomic Research and Higher Education Center (CATIE), the Costa Rica Institute of Technology (ITCR) and the Foundation for the Development of the Central Volcanic Range (FUNDECOR). Furthermore, FONAFIFO conducts periodic cover studies since the year 2000.

At the same time, there are forest statistics published by the National Forestry Office (ONF) and reports prepared within SINAC, such as: audits, studies, projects, etc., which make it possible to estimate the rate of deforestation and to have an idea of the gradual degradation that has been taking place in the forest areas. The latter, added to other existing studies, have made it possible to prepare a sequence of the loss and recovery of cover, as shown in Table 3.

Table 3. Dense forest cover in Costa Rica 1940 - 2005.

Year	Percentage of National Forest Cover, including protected wildlife areas.
1940	75%
1950	72%
1961	53%
1977	31%
1983	26%
1987	21%
1997	42%
2000	47%
2005	51%

Likewise, the National Center of High Technology (CENAT) and the National Aeronautics and Space Administration (NASA) of the United States launched the CARTA Mission Project 2003 in the frame of a bilateral agreement of cooperation. The objective was to renew the geographic, atmospheric and environmental information of Costa Rica using, among others, remote sensors to cover 70% of the national territory. For the year 2005, the first objective of the CARTA Mission Project was to cover the remaining 30% of the country, which during the first phase of the project was covered by clouds, in order to elaborate a complete data base with updated geographic information.

In the last years, the country has made an effort to identify the main factors that influence deforestation through strategies and national actions, currently having a strategy in place to control illegal logging, which will likely be strengthened if it is linked to a gas emission program through REDD, among others. However, it is necessary to expand the information on drivers of deforestation and the appropriate policy options to overcome the social and economic conditions leading to deforestation.

Is because of that and thanks for the studies elaborated in the country by the CATIE and FUNDECOR that an alarm was given about the principals factors which cause the deforestation, and this generated the elaboration and implementation of a National Strategy for the Illegal harvesting which identified the legal, economical, social and institutional aspects which made the deforestation process in the forest of the country.

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d) What are the main causes of deforestation and/or forest degradation?

Deforestation in Costa Rica is the result of a series of political, institutional, legal, cultural, social and economic factors, which interact and evolve in a rather complex manner.

It is precisely in the frame of the implementation of the National Plan of Forest Development 2001-2010, that was created the Commission for Follow up the National Plan of Forest Development, and worry about the phenomenon of the illegal harvesting and its transcendence in the country, request to the Tropical Agronomic Research and Higher Education Center (CATIE) the preparation of an Report about the illegal harvesting in Costa Rica, which will be the base of the discussion for the people and institutes of the forest sector, with the goal of find solutions to contribute to solve this kind of problem. Among the main causes of deforestation are:

Socioeconomic

1. The need of money in a short term.
2. The cost of opportunity of the land is greater when there is no forest; therefore, there is great pressure to change the use for crops that have a higher cost of opportunity such as: pineapple, palm, banana, or, tourism and urbanism including cattle-raising as well which has been recently benefited by incentives. Any domestic or international politics that affects the payoff of forests will have a direct effect on the country's deforestation.
3. The market demand for "cheap wood" also has an influence and the tempting offers received by the resource owners from some timber dealers.
4. In remote rural areas, it is also possible that a portion of wood may be used for fuel and raw material for housing but the data is not accurate.
5. It is also possible that the land tenure regulations induce owners (especially squatters) to take advantage of the existing resources when faced with eventual possibility of losing their rights.
6. Few knowledge about forest management and a low conviction about the management profitability.
7. Increasing in the sustainable forest management cost due to the requirements and steps to follow for its approval.
8. Unfair competition and not incentive for the wood from forest management plans under sustainable criteria and legally made
9. Deterioration of the wood resource and this in the medium term will reduce the offer of forest wood for the forest industry and its contribution in the local and national economy. Reduction of the productive value of those lands with forest which the land use is for forest and because of that will reduce the contribution to the actual and potential economy, such as the reduction in the quantity and quality of the environmental services of the forest, particularly the water, and derivate of that an increase in the costs for the provision to the society.
10. Bad image inside and outside the country which could affect the investments in the forest sector (ej. Forest products demand) and others such the tourism.
11. Incomes reduction for the Government in payments for taxes and other obligations.
12. Increase in the expenses of the Government for investigation, audits and administrative and judicial proceeds.
13. Reduction in the efficiency and growing in the economy of the country and its competitiveness (the resources shall be address to attend other needs like technologic innovation, institutional strengthen and human capital, markets, etc.)
14. More conflicts and more pressure from the costarican and international society to the forest sector both public and private to implement radical measures like forbid the cut of trees, etc.
15. The option to built a forest culture based in a multifunctional concept of the forest could be lost, like it exists in the development countries with a stable or increasing forest coverage and a economically important forest sector.
16. The corruption and the illegal activities continue growing in the values system of the costarican society, which can contribute to the inoperability of the country.
17. The credibility of the country in its national institutions and decision is loss.
18. Breach of the country with the international agreements like Agenda 21, Biologic Diversity Convention, etc.

Political

1. Restrictive politics over the use of the forest resource.
2. Lack of policies enhancing the forestry sector to promote the sustainable use of the resource, competition for high profit agricultural products.
3. On the other hand, the payment for environmental services, although they have evolved in trying to make the payments competitive, they are not attractive enough to compete with other land use alternatives especially in zones with a rapid growth of certain export crops (pineapple, banana) or realty expansion (coastal marine zone).

Institutional and legal

1. With respect to legal and institutional aspects, the greatest problem is that the State does not have sufficient

resources to support its capacity of control and technical assistance over forest resources management and the processes to obtain the legal harvesting permits are complex and complicated.
2. Similarly, land owners of protected areas who still have not received the corresponding indemnification from the State, feel it is their right to take full advantage of the resource present in their property and take the illegal path.
3. Deficiency in the legal and juridical frame, in relation with the forest definition, illegal harvesting and crimes for illegal harvesting and the sanctions that it imposes on the offender.
4. A complex paper requirements to obtain a harvesting permit.
5. Absence of legal documents of land property, which affect to obtain the permits.

Cultural

1. From a social-cultural point of view, deforestation is favored by an agricultural and livestock culture, which is deeply rooted in Costa Ricans where the sustainable use of the forest is practically non-existent. Many owners perceive the forest as a system that has little use and is rather unproductive.

Environmental

2. More danger to the ecological functions of the protected areas and the National Forest Zones, and because of that to the all National System of Conservation Areas.

2. Increase in the deforestation rates (in forest with probability of land change) and its effects in the soil erosion, pollution and water regulation, and loss of biodiversity due the fragmentation and forest isolation.

3. More degradation in the forest due the harvesting of trees without sustainability criteria.
4. Reduction in the ecological function of the forest in protected zones in private property
5. increase in the degree of threat to forest species in danger in the population of species with low abundance or species for many uses and for some species which have relation with fauna.

It can be said that one of the more appropriate spaces to develop REDD strategies consists precisely in forest degradation of which there are no specific details available or universally accepted criteria which have been applied to evaluate its occurrence in the national territory, this being of the areas where the greatest investment needs to be made.

That is why a REDD strategy could help to better understand the relation between agents and the chain of events of immediate causes and underlying causes of deforestation and identify which would be the more accessible mechanisms and of interest which could help reduce the levels of national deforestation.

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e) What are the key issues in the area of forest law enforcement and forest sector governance (e.g., concession policies and enforcement, land tenure, forest policies, capacity to enforce laws, etc.?

Costa Rica developed a participative process of consultation to many sectors involved in the forest resources management and due this in 2011, the National Plan of Forest Development (PNDF) 2001-2010 was launched, and in this plan they identified 6 big areas of action in which the country has to address its actions to seek and reach the sustainable development. Each one of these areas establishes activities and indicators which built the framework and in these ones the country has to direct efforts toward the established goals. The identified areas were: the classification of forest lands, the competitiveness and positioning of the forest sector, the follow up, control and evaluation of the sustainability; instruments and financing mechanism, information system; and the strengthen and coordination between institutions. The first three areas involved the conceptual planning of what has to be done and where has to go the Costa Rican forest sector. The others are mechanism which will support the technical, conceptual and commercial goals of the forest sector. To implement this national framework of policies is a big need under REDD.

Aspects of governance exist in relation with the forest sector and this has to be strengthen through REDD, for example:

Territorial Classification: SINAC-MINAE, Conservation Areas, Municipalities, these are the institutions in charge to make official the territorial classification proposal of forest lands according to PNDF. Nowadays with a BID grant they are making the cadastral for especial lands (conservation areas, territories in protected areas, indigenous territories, etc).

Instruments and financing mechanism: FONAFIFO – MINAE, SINAC, Control of the Illegal Harvesting Strategy, Engineers' college Agronomists, CATIE, these ones provide the strengthen of the systems for the financing of the forest sector, they will optimize the collection and payments for the environmental services and the resources collection to develop productive initiatives for the sector.

Develop capacities exist through the execution of the projects Ecomarkets I and Ecomarkets II and that has allowed a good coordination with the Finance Minister who has understood that the resources destined to the PSA program are an investment with market value and that one of the mechanism of return these resources could be REDD. We don't have to forget that since Costa Rica instrument the PSA in 1997 it was expected a retribution from the environmental service who has provided in a local and global level.

The weaknesses in the system with respect to governance are in the application effectiveness of:

Policies
Absence of clear policies with respect to use and ordering of natural resources.
Lack of support for the promotion of the forestry industrial activity.

Institutional
Shortage of personnel in the institutions that conduct the controls make it impossible to follow-up logging permits, the types of forests where the extractions will take place and preventive activities.

Legal
Applicability of legislation related to the prohibition in the change of land use; this requires laws with stronger punishing measures (prison, fines, etc.) and clearer state policies that favor the rational use of forests. The practice of the *socola* (gradual elimination of understorey species) as the technique applied in the change of land use has become more and more frequent.

Absence of preventive activities
Despite the prohibition on the change of land use, a tree-felling activity (or tree-cutting) of the forest has been implemented and the burying of material where no evidence is left behind as to be able to place the corresponding claim.
High transaction costs. (ECTI, 2006).

Excessive and onerous legality faces by land owners; in order to conduct any process, they must prove their ownership making it a tedious process that promotes the use of illegal mechanisms for such process.

4. What data are available on forest dwellers in lands potentially targeted for REDD activities (including indigenous peoples and other forest dwellers)? (e.g., number, land tenure or land classification, role in forest management, etc.):

At the national level, there is plenty of information and location of indigenous reserves (inhabitants and area) as well as the management given by these communities to their territory from a communal, physical and legal point of view.

With respect to the lands located in wildlife protected areas, the State has an inventory of the protected areas under its jurisdiction as well as lands, which are still in private hands and have not been expropriated but with use limitations.

With respect to the lands, which are in private hands, it is possible to identify which ones they are as well the land tenure characteristics through the study of record histories and their role in the forest management are defined in the forest law and its regulation. A part of these private owners is found in the Payment for Environmental Services (PSA).

Currently the country is conducting a cadastral plan of all the areas with special categories in the country such as lands belonging to the Agrarian Development Institute, Protected Areas and Indigenous Territories. This project is including forest areas although additional resources will be required to roll-out the program nationwide to delimit and mark boundaries and consolidate the entitlement of rights by MINAE. It is responsible for the management of the State's Natural Heritage. These lands still have discrepancies due to property rights since many areas have been invaded or plans have been issued in someone else's name.

5. Summarize key elements of the *current* strategy or programs that your government or other groups have put in place to address deforestation and forest degradation, if any:
a) What government, stakeholder or other process was used to arrive at the current strategy or programs?

Costa Rica in the beginning developed a strategy of command and control in which one through the legislation the change of the land use was prohibited, but at the same time establish financing mechanism to compensate to the land owners that limitation in the use of their lands-

The Payment for Environmental Services become in a real alternative of land use, because is a direct incentive for the farmers or land owners that can include this services in the decisions of classification of their lands, and this have a consequence in the land use, as a result efficiency in the land use and in their properties, promoting the rural development and improving the familiar economy. Is because of this that through the REDD Strategy the PSA will be use.

The current strategy –which started several years ago- is based in two main policy guidelines oriented to reduce deforestation and enhance forest cover recovery through: a) the implementation of a system of incentives and b) the creation of a system of protected areas, which became successful mechanisms to raise awareness in the population regarding the forest resource. Furthermore, the forest sector was strengthened and organized by creating a series of forest organizations that support the execution of programs and strategies as well as base organizations such as the National Forestry Office acting as intermediary between the State and the forest private sector.

This was mainly a political decision taken at the government level as a result of demands from the civil society to take urgent action against deforestation and no formal consultation or dialogue process was promoted with this specific objective but it has received a general approval and support from the national society.

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b) What major programs or policies are in place at the national, and the state or other sub national level?

Beside the legal framework, the most representative strategic planning instrument for the Forest Sector are the National Forestry Development Plan and the National Biodiversity Strategy, which resulted of a broad consultation and dialogue process involving several stakeholders. The NFDP and NBS build on the most successful institutional frames and policies and provides a structured way of addressing all relevant issues deriving from national as well as international priorities and agenda. (i.e, CBD, UNFF, UNFCCC). At a more specific level, there are other planning and strategic official policy documents such as:

National Payment for Environmental Services Program – National
Strategy for the Control of Illegal Felling - National
PCT FAO Project for the Management of Natural Forests with Small Owners – National
Program to Monitor and Conserve Biodiversity (PROMEC) – National.
National Network of Monitoring Parcels (decree draft) - National.
National Strategy for the Management of Fires in Costa Rica – National.
National Environmental Strategy – National.
National Strategy for Climate Change - National.
National Action Program for the Fight Against Desertification - National.
National Research Strategy in Biodiversity and Cultural Resources - National.
Gruas II Project- (Land-use planning proposal for biodiversity conservation) National.
National Program of Biological Corridors – National
National Strategy for Environmental Education - National.
Presidential Initiative “Peace with Nature” – National.
Program to Monitor Biodiversity (PROMEC) – National.
Project for the Regularization of the National Official Record of Real State and its ABRE Zone components - National
Debt swap for nature program between the government of the United States and the government of Costa Rica

At the local level: Protection of forest patches in zones with aquifer reloading by ASADAS or Municipalities, other public entities (ICE, ESPH, CNFL, AyA, SENARA) or municipal forests (Atenas, San Carlos), Municipal Regulatory Plans, regional sustainable development strategies or plans, etc.

Most programs and policies are nationally designed due to the characteristics of the political and administrative structure of the country which is Executive-oriented and highly centralized.

6. What is the current thinking on what would be needed to reduce deforestation and forest degradation in your country? (e.g., potential programs, policies, capacity building, etc., at national or sub national level):

Costa Rica developed a participative process of consultation to many sectors involved in the forest resources management and due this in 2011, the National Plan of Forest Development (PNDF) 2001-2010 was launched, and in this plan they identified 6 big areas of action in which the country has to address its actions to seek and reach the sustainable development. Each one of these areas establishes activities and indicators which built the framework and in these ones the country has to direct efforts toward the established goals. The identified areas were: the classification of forest lands, the competitiveness and positioning of the forest sector, the follow up, control and evaluation of the sustainability; instruments and financing mechanism, information system; and the strengthen and coordination between institutions. The first three areas involved the conceptual planning of what has to be done and where has to go the Costa Rican forest sector. The others are mechanism which will support the technical, conceptual and commercial goals of the forest sector. To implement this national framework of policies is a big need under REDD.

Thanks to these established limits in the plan as the big framework, there have developed different action with which the politics has played an important role to take decisions. In 2001 they put special attention over one of the areas like the follow up and control and begin the construction with a scientific base of a strategy that identified the main causes of the deforestation in Costa Rica and it proposes corrective actions to prevent and correct the problem source. This strategy contents important actions for strengthen and implement to guarantee the rational use of the natural resources, that consist from an analysis of the legal framework until the incorporation of technology for the follow up and control, as the institutional strengthen and the participation of the society.

Other important aspect is the National Strategy of Competitiveness, this one is based in the analysis of the forest sector environment in terms of competitiveness, resource potentiality, and the teamwork that allows to identified the strengths, limitations and opportunities of the sector. In reference of the financing mechanisms of the Payment for Environmental Services Program (PSA) it has turned out to be an successful mechanism for the improvement and prevention of the ecosystem degradation and the protection of this ones, generating options for the land use of the properties of the farmers with areas with forest cover.

Nevertheless, in spite of the processes that they have come generating is important to take actions about other relevant aspects such as the strengthen of the National System of Conservation Areas (SINAC), that allow to direct the actions in the seek and identification of priorities of conservation for the maintenance and the conservation of the ecosystems and its components, but also has to keep a balance between the production needs and the development of the country, as well the compensation for the limitation of the property, generating participative and sustainable alternatives from the level of farms.

The institution strengthening and the administrative management of this ones is another factor to consider for the REDD Strategy, because this will allow to define the frames of action of each one from the forest administration of the State until the local management represented in levels of take participative community decisions that decentralize the national actions.

These can be abstract in actions like:

- Develop policies around the use and ordering planning of natural resources
- Develop and strengthen policies that support the promotion of the forestry activity and prevention of in the unsustainable use of forestry the resources.
- Strengthen existing institutions and programs in the promotion of the forestry activity.
- Strengthen human resources and operational capacities in the institutions in charge of controlling and promoting the forestry activity.

- Develop precise studies on the causes of deforestation and forest degradation particularly in zones where important centers of deforestation have been identified as well as tools and theoretic methodological frames to determine the level of forest degradation including the analysis of costs to apply available methodologies.
- Develop legislation related to the prohibition of the change in land use where stronger punishment measures and fines are established.
- Enhance Governmental policies that allow the rational use of forests, but that at the same time, avoid the excessive regulation in forest use, which increase the costs to access legality.
- Increase the feasibility and acceptance of the different land owners to become involved into the different promotional programs and rational use of natural resources.
- Identify the needs of public policies with the intent of solving the problems identified as the main causes of deforestation and forest degradation, its costs and implication for public expense and the progress toward the achievement of sustainable development goals including the need of institutional capacities for the implementation and follow-up those policies may have.
- Identify the worth of environmental goods and services that make the conservation of forests more competitive through the generation of appropriate public policies and incentives, as well as improvement of the access to markets by those goods and services including ways to internalize those costs.
- Strengthen the System of Protected Areas through, among others, the consolidation of public property rights in areas that are pending indemnity and strengthening of monitoring capacities and management of protected areas.
- Strengthen and guarantee the long term financial sustainability of the Payment for Environmental Services system to avoid the loss and degradation of forests including the increase in the funds allotted for the protection of forests.
- Improve the profitability of the forest promoting the sustainable use and therefore, produce goods alongside the production of the environmental services.
- Ensure the application of the natural forest management to guarantee the production of sustainable environmental goods and services (minimize negative effects).
    - ✓ Apply the principles, criteria and indicators for forest management, Manual of Procedures and Code of Practices for the polycyclic management.
    - ✓ Control of cutting cycles through the historical record keeping of the operations of the forest management units.
    - ✓ Control of the forest permanence and cutting cycles through the geographic record of management units.
    - ✓ Implement the Gruas II Project and the National Program of Biological Corridors – Monitoring Program for the Conservation of Biodiversity.
- Strengthen the Strategy for the Control of Illegal Felling.
- Reactivate the reforestation to avoid pressure over the forest produced by the wood de-supply suffered by the country.
- Successfully implement the strategies elaborated in MINAE's dependencies in order to cover the actions that tend to correct environmental degradation problems.
- Strengthen the capacities in the management of high-end technology to monitor forest cover.
- Implement the National Forest Development Plan especially in the component of forest land-use planning and Follow-up, Control and Evaluate the sustainability, competitiveness and positioning of the forest sector and follow-up, control and evaluate the sustainability.
- Development of a specialized entity to monitor the cover at the regional level to count carbon, among others.
- Improve existing financial tools and develop new ones to maintain and increase country's forest cover.
- Develop and maintain a permanent national forest inventory.

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a) How would those programs address the main causes of deforestation?

With the Ecomarkets II project, it is expected to achieve the institutional strengthening and the market develop, as well to improve the access to t he small and medium landowners to the PSA, with this and join with the Project of Regularization of Register and Cadastre with the BID who has the objective of increase the juridical security in the country and guarantee the rights of real-estate property of all the citizen, and the Strategy for the Control of Illegal Harvesting, will allow to attack the main reasons of the deforestation in the country. For this is necessary to obtain updated information, improving the counting processes of data (unifying them), making the information available, strengthening the institutions responsible to carry out the programs, offering profitable financial alternatives to forest owners, improve the entry of environmental goods and services into the markets, but above all, through the improvement of public policy processes which make it possible to better reach development objectives in soil use and improving the government's capacity to tend to the social economic needs of the populations involved in the deforestation and forest degradation processes. Specific measures are to be

identified during the planning phase.

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b) Would any cross-sector programs or policies also play a role in your REDD strategy (e.g., rural development policies, transportation or land use planning programs, etc.)?
There are some programs considered as cross-sectorial which would have a special importance in the implementation of a REDD strategy, such as:

- ✓ Land use planning as a base to define the country's development strategies so that clear guidelines, principles and criteria can be provided on land use for the development of different productive activities and to enhance the overall application of current instruments regarding environment sustainability.
- ✓ The development of a REDD strategy would be implemented within the frame of the National Strategy for Climate Change which is expected to produce reductions that would enable the country to reach neutrality go emissions in 2021.
- ✓ Strengthen the national planning system responsible for public policies and introducing the sustainability of forest resources as an integral part of sectorial and institutional development in the different public dependencies.
- ✓ National Agriculture and Environment Program (coordinated by SEPSA-MAG)
- ✓ Strategy for the Sustainability of the Production of Goods and Services from Forests and Forestry Plantations in Costa Rica.
- ✓ Strengthening the joint planning and implementation process of the agricultural and environmental agenda.

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c) Have you considered the potential relationship between your potential REDD strategies and your country's broader development agenda in the forest and other relevant sectors? (e.g., agriculture, water, energy, transportation). If you have not considered this yet, you may want to identify it as an objective for your REDD planning process.

As was previously mentioned, the reduction of emissions due to deforestation and forest degradation has complex social and economic roots and these causes can only be approached through national development policies and strategies; many of the solutions will not fall within the legal competencies of the forestry public sector entities and necessarily require a different approach to institutional or sectorial planning. It is very likely that many of these deforestation control actions are related to competencies of other public entities such as the Ministry of Agriculture and Transportation, among others.

It is important to highlight the fact that Costa Rica will coordinate the actions with these public entities through the execution of the National Strategy for Climate Change since within that strategy, each one of the sectors will have a percentage of emission reduction to comply with in order to reach the neutrality of 2021 and it is the forestry sector, with a positive balance, which could become the strategic ally for the transportation, industrial and agricultural sector, among others. Additional instruments or mechanisms to increase the feasibility for implementing cross-cutting policies and actions would be identified during the R-planning process.

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d) Has any technical assistance already been received, or is planned on REDD? (e.g., technical consulting, analysis of deforestation or forest degradation in country, etc., and by whom):

Not specifically to approach the reduction of emissions due to deforestation and forest degradation but rather by strengthening programs that aim to conserve the forests and protected biodiversity resources, or isolated activities. However many initiatives are close linked to the national goals of forest conservation and forest cover enhancement, such as the Ecomarkets II Project (GEF-WB-GOCR), Addressing Barriers to increase the conservation objectives in Protected Areas (GEF-GOCR), Increasing tourism opportunities in Protected Areas (IBD-GEF-GOCR), etc.

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7. What are your thoughts on the type of stakeholder consultation process you would use to: a) create a dialogue with stakeholders about their viewpoints, and b) evaluate the role various stakeholders can play in developing and implementing strategies or programs under FCPF support?

The mechanism for consulting that will be use are the establishment of dialogues to know the opinion of the people involved and the evaluation of the role that this people has in the implementation of this Strategy, for this the existent structures will be use in both levels local and national.

At the local and regional level there is:

a) Through the activation of the Regional Councils of Conservation Areas that are conformed for the society and they analyzed the forest problems of the region in each conservation areas, also they help to the control and forest protection, as well they participate in the conception, formulation and follow up of the incentives policies for the reforestation and others.
b) Inter-institutional Councils of the Agriculture Sector and other formally existing instances, so that the Public Sector has an integral presence.
c) A first phase should focus on the socialization and consensus with respect to the diagnosis of the causes behind deforestation and the social economic impact expected to correct them from the point of view of public policies including existing programs that must be strengthened and new options to resolve the identified problems.
d) National Network of Biological Corridors,
e) Watershed Units (coordinated by ICE),
f) Watershed Commission from MAG, Agro-environmental Sector (Agriculture Sector),
g) COVIRENAS,: these are committees of alertness of the Natural Resources
h) Voluntary Brigades of Forest Fires,
i) Regional and Local Emergency Committees (coordinated by CNE) with the difference that a joint or mixed mechanism must be established to follow-up the impact of the adopted measures. Logically, specific responsibilities will have to be assigned to the different actors, which in the case of the public sector will be through the analysis of the legal competencies corresponding to each one of the actors.
j) The Associations of Integral Development: About the participation of the indigenous territories the costarican legislation preview the realization of this with its associations which the indigenous delegate their communal decisions to the chosen representatives.
k) Private Reserves Red

At the national level, the National Forestry Office will be the entity that represents the interests of the social groups in coordination with the other identities which could be later identified the measures coming from the local and regional diagnosis must be linked and translated into national policies, possibly transversals, through the reactivation of sectorial and inter-sector planning processes stipulated in the National Planning Law.

The institutional structures mentioned above will be use to make activities such:

a. Training
b. Promotion
c. Extension
d. Citizen participation
e. Elaboration of informative material
f. Radio programs with stations located in rural areas.
g. Use the most visited commercial establishments in rural areas to provide information
h. Field visits to meeting of community development association meetings, etc. .

This ones will allow the transmission and sharing of the information and will establish dialogues, as well will define the roles that will play the different sectors of the society in the REDD Strategy.

a) How are stakeholders normally consulted and involved in the forest sector about new programs or policies?

An entity is the intermediary (National Forestry Office) between the private forest sector and the government's entities, which coordinates all the consultation processes for new programs or policies. In the past, it has coordinated the development of the National Forestry Plan and its implementation.
On the other hand, in the public sector, the coordination with stakeholders is conducted through the SINAC. Both institutions have significant summoning power nationwide. Likewise, the Agriculture Sector and other social development institutions (IMAS, IDA; DINADECO, etc) maintain regular consultation processes in different geographic levels of the country,

Both entities conduct promotional, consultation, and training workshops with the stakeholders involved in each one of the processes or subjects related to the areas of impact. Regional councils are also used with the purpose of seeking an equal participation of those involved in the processes, usually, community leaders who will transmit the information to communities and interested parties.

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b) Have any stakeholder consultations on REDD or reducing deforestation been held in the past several years? If so, what groups were involved, when and where, and what were the major findings?:

Yes, a national process was held to launch the Strategy for the Control of Illegal Felling, based on an independent study contracted by MINAE which would serve as an objective base to establish the magnitude of deforestation and the country's illegal felling; from that process, where different interested parties participated, control actions to be implemented were designed including the role of some of the groups involved in the conservation of the country natural resources, in particular. Institutions such as Network of Private Reserves, Costa Rican Federation for Conservation, APREFLOFAS, etc participated. This process was developed in 2002 and its objectives were:

- Guarantee, with the participation of society, the adequate control procedures at the national level which would minimize the impact of illegal felling and its consequences.
- Promote and strengthen a technical, administrative and legal structure that facilitates the control of forest use activities.
- Improve the instruments of control and record necessary to monitor the social behaviour over the use of the forest resource.
- Strengthen the management capacity of the Conservation Areas to fight illegal felling actions nationwide.
- Promote, coordinate and ensure the active and efficient participation of civil society in the prevention and control of illegal felling.

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c) What stakeholder consultation and implementation role discussion process might be used for discussions across federal government agencies, institutes, etc.?

The National Forestry Office (ONF) who is the interlocutor by law between the private sector and the government, and as well have the representation of different organizations of the civil society of the forest sector.

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d) Across state or other sub national governments or institutions?

There are no other formal structures of political power which have competencies in forestry matters; it is concentrated on the Executive Power through the Ministry of the Environment and Energy.

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e) For other stakeholders on forest and agriculture lands and sectors, (e.g., NGOs, private sector, etc.)?

In this case, there are also consultation and participation spaces such as the agro-environmental commissions and interinstitutional.

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f) For forest-dwelling indigenous peoples and other forest dwellers?

For the coordination with indigenous territories, there are organizations which represent them such as the National Commission for Indigenous Affairs, Integral Development Associations, the Agroforestry Communitarian Indigenous association Coordinating (ACICAFOC), etc.

8. Implementing REDD strategies:

a) What are the potential challenges to introducing effective REDD strategies or programs, and how might they be overcome? (e.g., lack of financing, lack of technical capacity, governance issues like weak law enforcement, lack of consistency between REDD plans and other development plans or programs, etc.):

1. Have a trained judicial system with strengthened legal tools.
2. Have laws that establish strong fines and sentences that dissuade people from making bad use of the forest.
3. Have a National Strategy for Avoided Deforestation and Forest Degradation with clear policies and goals with respect to the use of the forestry resource, with financial mechanisms that motivate the sustainable use of forestry resources.
4. Governmental institutions strengthened with human capital overseeing the control and promotion of the forestry activity at the national level. .
5. Have information on the causes of deforestation and forest degradation, methodologies to evaluate cover,

emissions, monitoring which make it possible to develop all those components of the National Strategy on Avoided Deforestation and Forest Degradation.
6. Have laws that make it possible to access compensatory mechanisms for land owners with forest cover.
7. Conduct a study on existing public policies and its gaps with the purpose of solving the problems identified as the main causes of deforestation and forest degradation, its costs and implications for the public expense and the progress towards achieving the sustainable development objectives including the need for institutional capacities for the implementation and follow-up of the impact of said policies and develop an action plan.
8. Conduct a study on the existing financial mechanisms and at the same time, propose improvements, modifications or identification of alternate mechanisms (reactivation of reforestation, forest management, purchase of wood in advance, increase the amount of PES, etc).
9. Have a consolidated system of protected areas.
10. The design of the REDD strategy must include the current strategies which intend to correct the problems of forest degradation.
11. Have institutions that are specialized and strengthened in the use and management of high-end technology for the monitoring of forest cover and forest degradation.
12. Have an entity that is strengthened and specialized in monitoring at the regional level for carbon counting, among others (which could be, among others, CATHALAC).

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b) Would performance-based payments though REDD be a major incentive for implementing a more coherent strategy to tackle deforestation? Please, explain why. (i.e., performance-based payments would occur after REDD activities reduce deforestation, and monitoring has occurred):

We expect that the REDD Strategy establish a mechanism of fair billing and front payments to be able to implement the Strategy and produce reductions. It could be that the country's efforts in reduction be recognized because of political actions, mechanisms, financial and national strategies. This will allow the Strategy to have the initial financing to implement and produce the annual reductions and perform the actions that allow it to generate credit for the improvement of degraded forests. It is unlikely that the country would have the capacity to finance the pre-investment costs of REDD projects due to limited financial capacities of the public budgets, thus it is or major importance to identify a mechanism that allow receive front payments that could be later on reduce from the amounts of credits generated.

The payments based in REDD would be the complement of the Ecomarkets II Project to give sustainability to the PSA Program, which is a finance mechanism that Costa Rica has used to reduce the deforestation and help the increasing the forest cover. Also through the REDD resources will finance process of financing the legislation, lands classification, institutional strengthening, divulgation of the information and sensitization, and others.

9. REDD strategy monitoring and implementation:

a) How is forest cover and land use change monitored today, and by whom? (e.g., forest inventory, mapping, remote sensing analysis, etc.):

Since 1997, FONAFIFO conducts forest cover studies using remote sensors (Landsat images) every 5 years; furthermore, FUNDECOR conducts periodic studies of the area of influence of the Conservation Area of the Central Volcanic Range using Spot satellite images. CATIE and ITCR also conduct forest cover studies using Landsat satellite images.
Elaboration of forest inventories.

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b) What are the constraints of the current monitoring system? What constraints for its application to reducing deforestation and forest degradation? (e.g., system cannot detect forest degradation of forest stands, too costly, data only available for 2 years, etc.):

The financing of a prevention system that includes:The downside of the monitoring of the cover with Landsat satellite images is that there are always a lot of cloud cover and this limits having good images of the more important parts from a forest point of view; for example, the northern region. On the other hand, there is no deforestation-preventing monitoring just only when the damage is done. Preventive monitoring is carried out only in those areas under the Payment for Environmental Services Program, which just recently began to include the areas of regeneration or in the early stages of succession , areas that are at high risk of being deforested given its condition.

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c) How would you envision REDD activities and program performance would be monitored? (e.g., changes in forest cover or deforestation or forest degradation rates resulting from programs, using what approaches, etc.)

1. The program execution and activities could be monitored through the forest cover studies and by implementing an overall management and monitoring system for the REDD process,
2. Forest inventories that determine the forest quality,
3. Field verification
4. Independent audits
5. Mixed evaluation and follow-up mechanism for the implemented policies and actions.
6. Implementing a system to allow measuring the impacts of the program at the socio-economic level in rural populations more closely related to unsustainable use of forests particularly in high deforestation areas.

10. Additional benefits of potential REDD strategy:

a) Are there other non-carbon benefits that you expect to realize through implementation of the REDD strategy (e.g., social, environmental, economic, biodiversity)? What are they, where, how much?

Since deforestation is the result of social economic conditions, which induce inhabitants to incur in inappropriate use practices, any approach to the problem must include elements and will have an effect in areas beyond the reduction of carbon concentrations in the atmosphere generating improved conditions for populations with respect to access to goods and services (energy, health, food, recreation, etc.). The levels of impact will depend a lot on the appraisal of the relative weight of each one of the causes of deforestation and the measures taken and which should definitely concentrate on the geographic areas where the greatest levels of deforestation are found. On the other hand, as an immediate effect of the conservation of the forest cover, the protection of fundamental elements of biodiversity will be achieved including genes, species and ecosystems, and more importantly, the goods and services derived from said ecosystems, such as water, food, climate regulation, etc. That is why, with this strategy, we expect to strengthen the payment for environmental services, which is implemented considering the zones with the highest rates of poverty and high biodiversity. To contribute to the financing sustainability of the Payments for Environmental Services Program.

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b) Is biodiversity conservation being monitored at present? If so, what kind, where, and how?

Currently, besides some specific research conducted by academic entities such as Universities and the National Institute for Biodiversity, the only criteria followed to monitor biodiversity is through the monitoring of forest cover; however, the start-up of the Ecomarkets II project will require the monitoring of biodiversity using bio-indicators. This monitoring mechanism will be conducted nationwide for those areas that receive the payment for environmental services and its design and implementation is expected to begin at the end of this year.

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c) Under your early ideas on introducing REDD, would biodiversity conservation also be monitored? How?

We consider that it can be monitored using the same mechanism of bio-indicators which will be used for the Payment of Environmental Services. Is important to indicate that in the Ecomarkets II Project a methodology for monitoring the biodiversity has been realized, and this has demonstrated to be effective in the results. As well because the PSA is used as a tool for the implementation of REDD, the conservation and maintenance of the biological corridors, it guarantees the conservation of the ecosystems. With the REDD resources we have planned the develop of a methodology of degradation of forest that allow to orientate the actions towards the sustainability in the future.

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d) Are rural livelihood benefits currently monitored? If so, what benefits, where, and how?

Not specifically to measure impacts of forestry related programs in livelihoods, however some specific studies have been conducted. It will be required an important investment to reorient the national statistics system and the mechanisms (variables and indicators) used for this purpose. The current measures are done on non permanent basis through national home surveys but the incidence of each specific program is not measured. Under the Ecomarkets 2 project, FONAFIFO is preparing to monitor social benefits, which will possibly begin at the end of the year. Some measures that will be taken in this project are to facilitate the access of small owners into the PES, eliminating some obstacles and strengthening organizations so that they can support small owners. Also, improve communication channels with the property owners and offer them better information, identifying obstacles in the payment process of the environmental services.

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d) Under your early ideas on introducing REDD, would rural livelihood benefits also be monitored? How?

A mechanism must be included for that effect since, at the end of the investment, what is relevant is to determine the level of attention the causes of deforestation are receiving from the perspective of public policies in order to improve the population's conditions. Initially, it could be through a system coordinated with the national system of statistics focusing attention on the populations neighbouring the main areas identified as focus of deforestation and using surveys and other techniques appropriate to the characteristics of the area of influence. Greater difficulties could eventually be faced when measuring throughout the country.
The Ecomarkets II project include the social impact monitoring of the PSA Program, and this can be adapted to be used for the mechanism of monitoring inside the REDD Strategy.

11. What type of assistance are you likely to request from the FCPF Readiness Mechanism?

- **Identify your early ideas on the technical or financial support you would request from FCPF to build capacity for addressing REDD, if you are ready to do so. (Preliminary; this also could be discussed later.)**
- **Include an initial estimate of the amount of support for each category, if you know.**
- **Please refer to the Information Memorandum and other on-line information about the FCPF for more details on each category:**

a) Setting up a transparent stakeholder consultation on REDD (e.g., outreach, workshops, publications, etc.):

The develop of a REDD Strategy for Costa Rica could have the following components:

1. Develop and Strengthening of capacities.

Capacities to establish a dialogue with the stakeholders.

Definition and strengthening of the roles.

Capacities for the land classification

Strengthening of the institutional capacities.

2. Definition and development of the concept of deforestation and forest degradation for Costa Rica

. 3. Develop of the metric system.

- Determine the rate of deforestation and degradation and its causes in a more precise manner nationwide.

- Quantify the reduction of emissions of deforestation and forest degradation in Costa Rica: for this, it is necessary to have the support to purchase images.

- Design and develop a Reference Scenario or base line for both degradation and forest quantification: Reconstruction of historical flows: It is necessary to reconstruct past carbon flows using one methodology for the different historical periods and consistent with the IPCC guidelines. Besides Carbon, the study could incorporate other variables of interest for the country (for example, biodiversity), which would make it possible to generate information for the evaluation and definition of policies in different key themes for the country (climate change, biodiversity, etc).

- Calculate the emissions projection of the forest sector and estimate the potential of the forest sector for the mitigation of gases: Prospective study. Objectives such as the country's carbon-neutrality requires a good understanding of the potential of emission reduction and carbon capture of the country's forests. Through a prospective study, it is intended to generate different scenarios which would make it possible to analyze future changes in the existence of carbon and emission flows of greenhouse effect gases in relation to different political, economic development and forestry scenery scenarios.

4. Perfect the existing financial instruments and develop new ones, which would allow, among other things, to guarantee its financing.

Support for the elaboration of policies and strategies: It is important to harmonize the different policies and initiative existing in the country surrounding the Network (PES, Carbon Neutrality, Peace with Nature, etc.).

Elaboration of information tools to identify with precision those deforestation and forest degradation forest areas and it a cause.
Creation of a comprehensive mechanism which involves the relevant stakeholders in the discussion and consensus on the

causes of deforestation and the political measures to be used to solve the social economic problems which generate these causes.

- Consulting with experts
- Consulting workshops
- Information publications and strategies

5. Development of a permanent monitoring system

Although there are numerous historical studies and a monitoring study of the forest cover made by different institutions,, there is no national forest monitoring system in the country capable of estimating the changes of carbon existence in the forest. The historical data, which we currently have not generated based on consistent methodology through time, nor were they gathered and analyzed with the purpose of estimating changes in the existence of carbon. Currently, national communications, specifically the inventory of greenhouse effect gases, are being done independently with little use of the forest information gathered by different institutions, universities and study centers, which exist in the country.

For the monitoring, the following is proposed: Create or strengthen a Regional Center for the monitoring of forests, both in degradation and cover quantification. Costa Rica proposes a regional approach, which would make it possible to have scaled economies in some matters relative to obtaining and processing satellite data, equations and factors by default. The small size of the Central American countries makes it possible that a good portion of satellite images necessary to analyze the forest cover of one country also covers part of the bordering countries. The cost of purchasing and processing images could be reduced significantly by adopting a regional focus. The country also suffers a frequent cloud cover which leaves important extensions of territories without information for variable periods of time.

Furthermore, a permanent forest inventory is also proposed for the country, which would make it possible to determine the forest growth, structure and composition.

6. Divulgation and sensitization of the REDD Strategy

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b) Developing a reference case of deforestation trends: Assessment of historical emissions from deforestation and/or forest degradation, or projections into the future.

-Consultancies
-Purchase of satellite images – aerial photographs and its interpretation
-Purchase of equipment
-Field Identification Actions
-Training

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c) Developing a national REDD Strategy: Identification of programs to reduce deforestation and design of a system for providing targeted financial incentives for REDD to land users and organizations (e.g., delivery of payments, governance issues, etc.):

-Consultancies
-Workshops
-Training
-Publications
System of mechanisms and tools to de-motivate the use of forest resources
Information campaigns using massive communication media

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d) Design of a system to monitor emissions and emission reductions from deforestation and/or forest degradation:

- Consultancies
-Workshops
-Publications
-Equipment
-Purchase of images –photographs and its interpretation
-Hiring personnel
-Training
-Exchange of experiences with other countries

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e) Other?:

12. Please state donors and other international partners that are already cooperating with you on the preparation

of relevant analytical work on REDD. Do you anticipate these or other donors will cooperate with you on REDD strategies and FCPF, and if so, then how?:

- Ecomarkets II, which is a loan that will allow the country to develop markets for environmental services for the conservation and promotion of the forestry activity in Costa Rica.
- National Strategy on Climate Change, by opening a national market for the reduction of emissions where the price per tons of CO2 is expected to improve with lower transaction costs. This will make it possible to increase the PES prices to better compete with more alternative uses of the land.

-Debt for Nature Swap with the Government of the United States of America, with which the National System of Protected Areas is expected to be strengthened with the purchase of private lands.

13. Potential Next Steps and Schedule:
Have you identified your priority first steps to move toward Readiness for REDD activities? Do you have an estimated timeframe for them yet, or not?

Activity	Time in months											
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Development and Strengthening of capacities:	**X**	**X**		**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Definition and development of the concept of deforestation and forest degradation for Costa Rica	**X**	**X**	**X**									
Development of the metric system				**X**	**X**	**X**	**X**	**X**	**X**	**X**		
Perfect the existing financial instruments and develop new instruments which would make it possible, among other things, to guarantee its financing.				**X**	**X**	**X**	**X**	**X**	**X**	**X**		
Development of a permanent monitoring system						**X**	**X**	**X**	**X**	**X**		
Develop the REDD National Strategy									**X**	**X**	**X**	**X**
Divulgation and sensitization of the REDD Strategy	**X**	**X**		**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**

14. List any Attachments included
(Optional: 15 pages maximum.)