

Forest Carbon Partnership Facility (FCPF) Technical Assessment of Final ER-PD of Nicaragua

I General Approach of the Review

The TAP received a draft ER-PD on November 6, 2017. A second draft was delivered on January 22, 2018, and a third draft of the ER-PD and its annexes were delivered on April 27, 2018. On request of the FMT, the TAP agreed to include the revision of the new carbon accounting approach, that was delivered to the TAP in draft on Friday May 25th 2018 and a version on May 29, 2018. On May 1, 2019 a revised version of the ER-PD was delivered and the latest version on May 17, 2019, which is the basis of this report. In total, seven versions of the ER-PD were assessed.

Each TAP member revised the parts of the ER-PD in relation to a series of criteria and indicators that are in accordance with his/her professional experience (see table below). One kick-off teleconference was held to explain the evaluation procedure and to clarify doubts and a few thematic teleconferences were held to clarify specific issues, such as carbon accounting and legal aspects. During the country visit, the TAP members met with government authorities of the ministry of Environment and Natural Resources, representatives of various autonomous regions and consultants. During the country visit, the government representatives explained the main characteristics of the ER-PD, the role of the autonomous regions and the process of program development. The TAP members explained in detail why they considered that certain criteria or indicators did not meet the requirements stipulated in the Methodological Framework and how these observations could be incorporated in a revised version of the ER-PD. Nicaragua agreed to submit an advanced draft version of the ER-PD at the end of December 2017 and later on it was agreed to deliver the second draft on January 22, 2018. Our first TAP report was based on the review of the second draft version and some additional documents that were made available on the internet and include references to comments that were based on the first and second draft version. This final report analyses to what extent the country attended the recommendations made by the TAP in the first report and the comments expressed by the Carbon Fund Participants (February 2018, https://www.forestcarbonpartnership.org/sites/fcp/files/2018/April/CFP%20Comments%20on%20Nicaragua_Advance d%20Draft%20ER-PD.pdf).

All qualifications of the first and second draft are included in this report to demonstrate the advances Nicaragua has achieved with the seven versions. Comments on these new sections are added to the TAP report that was delivered to the CF on May 29, 2018. On May 1, 2019 a revised version of the ER-PD was delivered to the TAP, with the request to assess the new approach of Nicaragua of the Carbon accounting, safeguards and program design and transactions and some details were added in the May 17, 2019 version of the ER-PD, which is the basis of this final report.

The four indicators that in the May 1. 2019 version still did not completely meet the requirements of the Methodological Framework are now covered with the additional sections included in chapter 18. The TAP now considers that the ER-PD complies with all indicators of the methodological framework.

PART 1 OF TECHNICAL ASSESSMENT: Summary

Date of Current Assessment: 21 of May, 2019, based on the Final May 17, 2019 ER-PD, received by the TAP on May 20, 2019.

Name of Assessment team members:

Person	TAP expertise	Criteria and indicators
Agustin Inthamoussu	Carbon accounting expert	10 – 22
Ben de Jong	Leader, Carbon accounting	1, 2, 3 – 9; 23, 27.1-27.2
Claudio Cabrera Gaillard	Local expert	Contribute to 27.1, 27.2, 28.1
Mario Nanclares	Safeguards expert	24-26.3, 29, 30.1, 31.1-32.1, 34.1-35.1

Joshua Lichtenstein Moritz von Unger	Safeguards expert Legal expert	Revision of the safeguards of ER-PD-1May2019 28.1-28.3, 33.1 and 36.1-36.3, 37.1-38.4			
The TAP received valuable inputs from Dr Olofsson on the remote sensing and accuracy assessment parts, which were taken into consideration in this report.					
<p>Summary Assessment of the Quality and Completeness of the ER-PD:</p> <p>The Nicaraguan government has done an excellent effort to develop a solid and interesting ER-PD. The proposal is of special interest as it intends to develop a regional program that implies dealing with a hierarchical governmental structure of the central government and various regional authorities from the autonomous regions. This implies that a decision making institution has to be in place that can cope with this organizational complexity. We congratulate the Nicaraguan government to develop this very interesting endeavor! Needless to say that some issues in the document still needs to be refined in order to meet the criteria and indicators of the methodological framework, which we hope will be attended before signature of the ERPA (in case the proposal is approved). All criteria and indicators of the sections on the Level of Ambition did meet the standard required by the methodological framework (MF) as of the first draft, although some aspects may be improved during ER-PA negotiations, but are not an impediment to accept the ER-PD. All other sections improved substantially between the second draft and the changes made to the Carbon Accounting section in the May 29 2018 version. The changes in the Carbon Accounting in the ER-PD, attend most of the recommendations made in the first TAP report and the CPF document. The new approach, made available to the TAP in draft format on May 25th 2018, include substantial improvements in the reference level and uncertainty analysis. In the section of Carbon Accounting 6 indicators changed from Non-Conformity to Conformity, whereas 9 still need more attention, many of which are correlated.</p> <p>In the section on Sustainable Program Design and Implementation all indicators were meeting the criteria and indicators of the MF already in the second draft. In the May 29 2018 version, the recommended improvements suggested by TAP and CFP have been taken well into consideration. In the section on Safeguards all indicators now comply with the MF and in the section on ER Program Transactions the TAP suggested improvements on two indicators in order to comply with the MF, that have been responded positively by the government of Nicaragua in the May 17, 2019 version, and now all indicators of this section also comply. Already during the country visit it was clear that the section on Carbon Accounting needed more time to be improved in order to meet the criteria and indicators, which have now all been successfully attended in the May 17, 2019 version of the ER-PD. TAP considers that Nicaragua complies with all indicators of the methodological framework.</p>	Indicators	1st Assessment	2nd assessment	3rd assessment	4th assessment
<p>II. Level of Ambition → Criteria 1 – 2, including issues relating to legal aspects</p> <p>The level of ambition of the project is important. The ER Program incorporates all six strategic pillars, as well as various of the 37 strategic actions of the national REDD+ Strategy. It focuses on the highest priority geographical area for reducing forest-based greenhouse gas emissions in Nicaragua - the Caribbean Coast. The accounting area is of significant scale and comprise about 54% of the national territory, 80% of the forests, the majority of indigenous populations and all indigenous and afro-descendant autonomous territories. It also accounts for the large majority of national deforestation. The ER Program has as the overall goal the reduction of forest-based</p>	<p>1.1 1.2 2.1</p>	<p>YES YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>

emissions from the accounting area by 14.3 Mt CO ₂ e (10.7 Mt CO ₂ e excluding the uncertainty/buffer) during 5 years.					
In this section, all 3 indicators are met					
III. Carbon Accounting	3.1	YES	YES	YES	YES
	3.2	YES	YES	YES	YES
III (a) Scope and methods → Criteria 3 - 6	3.3	NO	NO	NO	YES
III (b) Uncertainties → Criteria 7 - 9	4.1	NO	NO	NO	YES
	4.2	YES	YES	YES	YES
III (c) Reference Level → Criteria 10 - 13	5.1	YES	YES	YES	YES
III (d) Reference Level, Monitoring & Reporting on Emission Reductions → Criteria 14-16	6.1	NO	NO	YES	YES
	6.2	NO	NO	NO	YES
III (e) Accounting for Displacement (leakage) → Criterion 17	7.1	NO	NO	NO	YES
	7.2	NO	NO	NO	YES
III (f) Accounting for Reversals → Criteria 18 – 21	8.1	NO	NO	YES	YES
	8.2	NO	NO	YES	YES
III (g) Accounting for ERs → Criteria 22 - 23	9.1	NO	NO	YES	YES
	9.2	NA	NA	NA	NA
Scope and methods	9.3	NA	NA	NA	NA
Sources and sinks associated with any of the proposed REDD+ activities are accounted for in the ER program.	10.1	YES	YES	YES	YES
The definition of forest includes perennial crops with canopy cover of more than 30%.	10.2	NO	YES	YES	YES
In terms of activity data, in the first draft forest degradation was not considered as important, however after discussions with the TAP, the Nicaraguan Government agreed that forest degradation may be important and in the second draft, forest degradation has been recognized as an important source of emissions. In the May 29, 2018 version, degradation contributes to about 30% of the total forest-related emissions, although most of these are considered as non-anthropogenic. As such, degradation was in this version not included in the reference scenario of degradation.	10.3	NO	YES	YES	YES
The methodology applied to separate the two sources of emissions from degradation had some shortcomings, which in turn may have sub-estimated the contribution of anthropic emissions from forest degradation. As such, the Nicaraguan government included other sources of information to separate the two sources of degradation and in the April and May, 2019 version of the ER-PD emissions from anthropogenic degradation are now included in the reference scenario.	11.1	YES	YES	YES	YES
	11.2	YES	YES	YES	YES
	12.1	YES	YES	YES	YES
	13.1	YES	YES	YES	YES
	13.2	NA	NA	NA	NA
	13.3	NA	NA	NA	NA
	13.4	NA	NA	NA	NA
	14.1	NO	NO	NO	YES
	14.2	YES	YES	YES	YES
	14.3	NO	NO	NO	YES
	15.1	NO	YES	YES	YES
	16.1	YES	YES	YES	YES
Uncertainties	17.1	NO	YES	YES	YES
The calculation procedure to estimate uncertainties takes into account some of the uncertainties related to precision in activity data and emission factors. The new carbon accounting assessment presented in the April and May 2019 versions of the ER-PD is based on a systematic sampling approach, without taking into consideration the available land use maps. Statistically this is a correct approach, as it allows to estimate confidence intervals of each land use and land-use change category. However, without wall-to-wall land-cover change analysis, it will be difficult in the future to assign program compliance to specific ER activities carried out in the landscape, which is particularly important if the benefit sharing system will be based on carbon rights of the landowner or groups of landowners and also when other ER activities will take place in the accounting area.	17.2	NO	YES	YES	YES
	17.3	NA	NA	NA	NA
	17.4	NA	NA	NA	NA
	18.1	NO	NO	YES	YES
	18.2	NO	NO	YES	YES
	19.1	YES	YES	YES	YES
	20.1	NA	NA	NA	NA
	20.2	NA	NA	NA	NA
	21.1	NO	NO	NO	YES
	21.2	NA	NA	NA	NA
Reference Level	22	NO	YES	YES	YES

<p>In general terms, the criteria and indicators related to establishing the reference level have been well covered by Nicaragua, and all indicators in this section comply with the MF.</p> <p>Reference Level, Monitoring & Reporting on Emission Reductions The second draft improved somewhat with the addition of information about how the development of ER-PD is integrated in the national Forest Reference Emission Level, Forest Management Level or country's greenhouse gas inventory. Also, the reference period is now well defined.</p> <p>The sections that have not been accomplished are related to issues detected above, for example the exclusion of degradation in the reference level and as such in subsequent monitoring. The TAP suggest in indicator 14.3 to clarify if improvements of the emission factors will take place during MRV. In some sections, improvements of EF are contemplated, whereas de MRV section on EF explicitly states that these will remain the same throughout the program.</p> <p>Accounting for Displacement (leakage) and for Reversals Risk of displacement and reversals have been improved with more justifications, and made it more comprehensible for an external reader. All indicators are now ME.</p> <p>Accounting for ERs The calculation of total estimated ERs complies with the MF.</p> <p>This section improved substantially with the new analysis that was made available, with now all indicators MET in the May 17, 2019 version of the ER-PD.</p>	<p>23a 23b</p>	<p>NO</p>	<p>NO</p>	<p>YES NO</p>	<p>YES YES</p>
<p>IV. Safeguards</p> <p>Actions undertaken to meet WB and Cancun Safeguards → Criteria 24-26</p> <p>The document introduces an appropriate identification and interpretation of the safeguards promoted by the Program and its relationship with the country's regulatory framework.</p> <p>The Document includes an Environmental and Social Management Framework (ESMF) of the Program and identifies impacts, risks and mitigation measures.</p> <p>The ESMF covers the requirements for each of the safeguard policies applicable to the ERP accountability area and the procedures to reduce the environmental and social risks during intervention activities.</p> <p>The Program includes an Indigenous Peoples Planning Framework (IPPM), Procedural Rules for Involuntary Resettlement (IPPR) and the Feedback Mechanism that will allow stakeholders to gather information and register complaints or suggestions.</p> <p>Although an impact and risk analysis has been performed, it is considered that the Document needs to include more considerations on social risks derived from the existing tensions, between indigenous communities and third-party settlers in some territories where the Program will be located, because it is the TAP's understanding that the assessment of the situation with "terceros" is new; and that the whole issue of involuntary resettlement of terceros, managing the existing conflicts, dealing with new migrants coming in, who gets access to benefit sharing etc. are all key social issues in the ER Program, so good to flag for additional effort.</p>	<p>24.1 24.2 25.1 25.2 26.1 26.2 26.3</p>	<p>YES NO NO NA NO NO NO</p>	<p>YES YES YES NA YES NO NO</p>	<p>YES YES YES N.A YES YES YES</p>	<p>YES YES YES N.A YES YES YES</p>

<p>As concerns ER-PD consultation process, the design and implementation of the ER programs are based on and use transparent consultation and information exchange mechanisms between actors involved, in particular the affected local communities and indigenous peoples.</p> <p>A Mechanism of Communication Strengthening (MFC) for the ER-PD Program has been designed that integrates a variety of channels for the reception, attention, and feedback of complaints based on traditional and non-traditional communication channels.</p> <p>The April and May 2019 versions improved this section and now all indicators are met (6) or do not apply at this stage (1)</p>					
<p>V. Sustainable Program Design and Implementation</p> <p>V. (a) Drivers and Land Resource Tenure Assessment → Criteria 27-28</p> <p>V. (b) Benefit sharing → Criteria 29 – 33</p> <p>V. (c) Non-Carbon Benefits → Criteria 34 – 35</p> <p>Drivers and Land Resource Tenure Assessment</p> <p>This sections improved substantially from the second draft. At this stage, the key tenure positions, the drivers of deforestation, proposed actions and possible sources of funding and mechanisms to reward stakeholders are well integrated. The analysis includes an assessment of important policies that stimulate deforestation, among others the forest policy, the land policy, the investments policy and the agricultural policy. One of the strategic actions that will be carried out is directed towards harmonization of policies and improved institutional coordination and improved application of laws, policies, regulations, and norms.</p> <p>The financial section has also improved and other sources of financing identified. As such, the program is now less dependent on early payments of the ER-PD in order to comply with the ER goals.</p> <p>A tenure assessment has been led and appropriate levels of detail have been provided. A major land tenure related challenge that will require attention is how to address “third party” occupants in the program area. The May 29, 2018 and April and May, 2019 versions of the ER-PD come with an annex dedicated to this matter.</p> <p>Carbon rights are demonstrated as being linked to the right to the underlying resource (forest and soils) with the qualification that REDD+ contributions are a key factor for assuming ER title.</p> <p>Benefit sharing and Non-Carbon Benefits</p> <p>Initial sharing arrangements are comprehensively explained. Certain concerns remain and must be addressed as part of the program’s further development. All indicators in this section are now qualified as YES (10) or not applicable at this stage (4).</p>	<p>27.1</p> <p>27.2</p> <p>28.1</p> <p>28.2</p> <p>28.3</p> <p>29</p> <p>30.1</p> <p>31.1</p> <p>32.1</p> <p>33.1</p> <p>34.1</p> <p>34.2</p> <p>35.1</p> <p>35.2</p>	<p>NO</p> <p>NO</p> <p>NO</p> <p>NO</p> <p>NO</p> <p>YES</p> <p>NA</p> <p>NA</p> <p>NA</p> <p>NO</p> <p>YES</p> <p>NO</p> <p>NO</p> <p>NA</p>	<p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>NA</p> <p>NA</p> <p>NA</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>NA</p>	<p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>NA</p> <p>NA</p> <p>NA</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>NA</p>	<p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>NA</p> <p>NA</p> <p>NA</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>NA</p>
<p>VI. ER Program Transactions</p>	<p>36.1</p> <p>36.2</p>	<p>NO</p> <p>NO</p>	<p>YES</p> <p>YES</p>	<p>YES</p> <p>YES</p>	<p>YES</p> <p>YES</p>

VI (a) ERPA Signing Authority and Transfer of Title To ERs → Criterion 36	36.3	NO	YES	YES	YES
VI (b) Data Management and ER Transaction Registries → Criteria 37 - 38	37.1	NO	YES	YES	YES
	37.2	NO	NO	NO	YES
ERPA Signing Authority and Transfer of Title to ERs	37.3	NO	NO	NO	YES
Formal ERPA authorization has been demonstrated in the second and third draft, which	37.4	NO	NO	YES	YES
was not clear in the first draft. The ability to transfer carbon title is not fully	38.1	NO	YES	YES	YES
demonstrated. The Attorney General has issued an opinion to the effect that the	38.2	NA	NA	NA	NA
landowner is deemed as having title to the ERs generating on the relevant land plot.	38.3	NA	NA	NA	NA
This means that the Program entity would need to obtain the assignment of ER title	38.4	NA	NA	NA	NA
from all landowners in the Accounting Area in order to assume complete. ER title. The					
solution provided is that a number of ERs is set aside and not transferred (reserve					
solution). The actual number is calculated in proportion to the area size of land not					
under contract (a “subsidiary agreement”) with the Program entity.					
Data Management and ER Transaction Registries					
Preliminary decisions on a data management system and registry options have been					
made, and the applicable indicators are deemed met.					
Overall, in this section 8, all applicable indicators are met (3 are considered as not					
applicable at this stage).					
SUMMARY SCORE and overall comment:					
Nicaragua has steadily improved the quality of the ER-PD from the first draft with many					
sections non-compliant and 42 indicators as not MET, to the newest May 17, 2019 version, in					
which all indicators are completely met or do not apply at this stage of the ER-PD. Although					
no-conformities exist, there are 10 opportunities for improvement raised as OBSERVATIONS.					
It is recommended to address these prior the first verification.					
The general idea of the ER-PD is interesting and proposes novel ideas of how to develop a sub-					
national REDD+ program on a significant scale, incorporating many autonomous government					
structures and types of land tenure. The ER-PD is envisioned to be part of a national REDD+					
program. There are a few recommendations related to carbon accounting and carbon rights					
that can be resolved in due time.					

PART 2 OF TECHNICAL ASSESSMENT: DETAILED ASSESSMENT

<p>C. 1 The proposed ER Program is ambitious, demonstrating the potential of the full implementation of the variety of interventions of the national REDD+ strategy, and is implemented at a jurisdictional scale or programmatic scale.</p>	
<p>Ind. 1.1 The ER Program Measures aim to address a significant portion of forest-related emissions and removals</p> <p>[Ambition and strategic rationale for the ER Program – 2.2]</p>	<p>YES</p>
<p>As stated by the ER-PD, the ER Program has as the overall goal the reduction of forest-based emissions from the accounting area by 14,320 Mt CO₂e (10,722 Mt CO₂e excluding the uncertainty/buffer) during 5 years while improving food security and the conservation of biodiversity. According to INETER, approximately 80% (3.16 million ha) of Nicaragua’s forests are found in the accounting area (ENDE-REDD+, 2017). The area is undergoing high levels of deforestation, with almost 65% (2.8 million ha) of the 4.32 million ha of forests lost at the national level between 1983 and 2015 (Table 3). With time, the importance of the Caribbean as a source of deforestation has increased as the deforestation front has advanced from the Pacific coast to the country’s Central Region and then to the Caribbean Coast. Deforestation in the Caribbean region represented half of the national deforestation between 1983 and 2000, but grew to 70% in 2000-2005, 85% between 2005 and 2010, and more than 100% between 2010 and 2015 (the rest of Nicaragua seems to gain forests between 2010-2015, see Table 3).</p> <p>The indicator is considered as MET</p>	
<p>Ind. 1.2 The ER Program is ambitious, uses new or enhanced ER Program Measures to reduce Emissions or enhance removals, is undertaken at a jurisdictional scale and/or takes a programmatic approach (i.e., involves multiple land areas, landowners or managers within one or several jurisdictions), and reflects a variety of interventions from the national REDD+ strategy in a coordinated manner.</p> <p>[Ambition and strategic rationale for the ER Program – 2.2, 2.3]</p>	<p>YES</p>
<p>The ER Program incorporates all six strategic pillars, as well as various of the 37 strategic actions of the national REDD+ Strategy. It also focuses on the highest priority geographical area for reducing forest-based greenhouse gas emissions in Nicaragua - the Caribbean Coast. The latter includes the North Caribbean Autonomous Region (RACCN) and the BOSAWAS Biosphere Reserve (Sub-region 1) and the South Caribbean Autonomous Region (RACCS) and the Indio Maíz Biological Reserve (Sub-region 2).</p>	
<p>C. 2 The Accounting Area matches a government- designated area that is of significant scale</p>	
<p>Ind. 2.1 The Accounting Area is of significant scale and aligns with one or more jurisdictions; or a national-government-designated area (e.g., ecoregion) or areas.</p> <p>[Accounting Area of the ER Program – 3.1]</p>	<p>YES</p>
<p>The accounting area is of significant scale and comprises about 54% of the national territory, 80% of the forests, the majority of indigenous populations and all indigenous and afro-descendant autonomous territories. It also accounts for the large majority of national deforestation. The area contains 54% of the national territory and a large share of the national indigenous and Afro-descendant populations and has been singled out within the National Human Development Plan as a high priority area, due to the high poverty levels, vulnerable populations, and natural resource and forest wealth. The high biological value and richness of the BOSAWAS Biosphere Reserve in the RACCN and the Indio Maíz Biological Reserve in the RACCS have also been recognized internationally.</p>	

The indicator is considered as MET	
C. 3 The ER Program can choose which sources and sinks associated with any of the REDD+ Activities will be accounted for, measured, and reported, and included in the ER Program Reference Level. At a minimum, ER Programs must account for emissions from deforestation. Emissions from forest degradation also should be accounted for where such emissions are significant.	
Ind. 3.1 The ER Program identifies which anthropogenic sources and sinks associated with any of the REDD+ Activities will be accounted for in the ER Program [Description of Sources and Sinks selected – 8.1]	YES
Yes, all sources and sinks associated with any of the proposed REDD+ activities are accounted for in the ER program. The program includes Deforestation and Stock Enhancement. Forest degradation is now considered as an important source of emissions. Sustainable Forest Management is considered as a key alternative to avoid deforestation and as such is not considered as a separate REDD+ activity. Stock Conservation is not taken into account as a potential REDD+ activity for the country. The indicator is considered as MET	
Ind. 3.2 The ER Program accounts for emissions from deforestation. [Description of Sources and Sinks selected – 8.1]	YES
The ER-PD program accounts for both emissions from deforestation and removals of non-forestland converting to forestland. The program uses a systematic sampling approach to estimate all major land cover changes, including deforestation, forest gain and forest degradation. The activity data analysis (deforestation, forest gain, forest degradation) has been conducted using a systematic grid of visual assessment plots laid over the National Forest Inventory network of plots (10' x 10' grid). A 2005-2015 multi-temporal visual assessment exercise was performed (on ArcGIS and Collect Earth) using High-Resolution and Medium-Resolution imagery (from Google Earth and Bing Maps and other available collections: Spot and RapidEye) on a systematic grid of 2896 out of 3082 (regular grid) visual assessment plots of 90 x 90 m size (equivalent to a 3 x 3 Landsat pixels). The remaining plots could not be assessed due to the absence of images, cloud cover or the presence of bodies of water. The indicator is considered as MET	
Ind. 3.3 Emissions from forest degradation are accounted for where such emissions are more than 10% of total forest-related emissions in the Accounting Area, during the Reference Period and during the Term of the ER-PA. These emissions are estimated using the best available data (including proxy activities or data). [Description of Sources and Sinks selected – 8.1]	YES
The ER Program identifies the anthropogenic sources and sinks associated with emission reductions of deforestation and stock enhancement. Emissions from degradation were not included in the reference scenario in the first draft of the ER-PD, as forest degradation was considered as not-significant. But after discussions with the TAP during the country visit, the Nicaraguan government agreed to revise the data presented. In the second draft a new preliminary analysis indicated that emissions from degradation may be more than 20% of total forest-related emissions. In the second draft of the ER-PD, Nicaragua stated that it was planning to improve the estimation of emissions due to degradation, in which satellite images will be used to separate forests in two cover classes, for which biomass will be estimated based on forest inventory data. The forest degradation has been conducted using a systematic grid of visual assessment plots of 2896 out of 3082 (regular grid) visual assessment plots of 90 x 90 m size (equivalent to a 3 x 3 Landsat pixels). The remaining plots could not be assessed due to the absence of images, cloud cover or the presence of bodies of water. A 3 x 3 inner grid (within each 90 x 90 m plot) was used on 1391 sampling units, of which 654 are located in the area under anthropogenic influence, to measure coverage, that was used to estimate forest degradation and stock enhancement in forest remaining forest. Emissions from forest degradation have been assessed by relating	

forest cover loss to the loss of biomass (hence emissions) at these visual assessment points. In order to estimate biomass loss or gain associated with cover change in Broadleaf forest, INF forest plots were stratified into 3 categories based on forest cover: open forest, dense forest, and very dense forest. In each category, biomass was estimated using the equation of Chave et al (2014). Biomass was then related to forest cover using a linear regression shown in Figure 37 (p 178) of the ER-PD. This regression was subsequently applied at each visual assessment plot in order to estimate the loss or gain of biomass. Applying this new approach, net emissions from anthropogenic degradation are now estimated at about 15% of total forest-related emissions. Most of the emissions from degradation are considered as non-anthropogenic using a proxy approach to distinguish between the two sources of degradation (anthropogenic versus non-anthropogenic). The approach uses a buffer of 1 km along roads, rivers and villages and considers all degradation within this buffer as anthropogenic and all degradation outside the buffer as non-anthropogenic. In the May 2019, all observations of the TAP were taken into account and the estimations are now in accordance with the methodological framework.

The indicator is considered as MET

C. 4 The ER Program should account for, measure and report, and include in the ER Program Reference Level, significant carbon pools and greenhouse gases, except where their exclusion would underestimate total emission reductions.

Ind. 4.1 The ER Program accounts for all Carbon Pools and greenhouse gases that are significant within the Accounting Area, both for Reference Level setting and Measurement, Monitoring and reporting (MMR).

[Description of Carbon Pools and greenhouse gases selected – 8.2]

YES

Only aboveground and belowground biomass pools are taken into consideration, as no data are available to estimate potential emissions or removals from litter, dead wood or soil organic matter. Regarding greenhouse gases, only CO₂ is taken into consideration. The insignificance of methane and NO_x emissions from forest fires was not demonstrated in the ER-PD and as such their exclusion from the accounting was not yet justified. Now in the May 17 2019 version of the ER-PD the GoN explains that the information available on forest fires is representative at the national level, but not for the Accounting Area. Given that historical data on forest fires are not spatially explicit, it is not possible to estimate separately the effect of fires on forest lands converted to other uses nor on forests that remain as forests. Likewise, according to Nicaragua’s Third National Communication (2010), emissions of CH₄ and N₂O are estimated at 129,510 tCO₂e*yr-1. Thus the emissions of CH₄ and N₂O represent 1% of estimated emissions during the period of reference (15,630,067 tCO₂e*yr-1). As stated in the document, exclusion of these pools and gases may underestimate the emission reductions or removals, as such the omission does not influence negatively the final estimations of the ER-PD (see next indicator). As such, the TAP now considers that the estimation presented in the ER-PD, which are based on the best available data, complies with the request to justify the exclusion of these gases from the accounting.

The indicator is considered as MET

Ind. 4.2 Carbon Pools and greenhouse gases may be excluded if:

- I. Emissions associated with excluded Carbon Pools and greenhouse gases are collectively estimated to amount to less than 10% of total forest-related emissions in the Accounting Area during the Reference Period; or
- II. The ER Program can demonstrate that excluding such Carbon Pools and greenhouse gases would underestimate total emission reductions.

[Description of Carbon Pools and greenhouse gases selected – 8.2]

YES

- i) It is expected that the exclusion of methane of nitrogen oxide emissions from forest fires amount to less than 10% of total forest-related emissions in the accounting area during the reference period. Any reductions in the amount of areas affected by forest fires due to the ER-program will underestimate possible ERs.

<p>ii) The ER program demonstrates that the excluded pools are underestimating total emission reductions or stock enhancements.</p> <p>The indicator is considered as MET</p>	
<p>C. 5 The ER Program uses the most recent Intergovernmental Panel on Climate Change (IPCC) guidance and guidelines, as adopted or encouraged by the Conference of the Parties as a basis for estimating forest-related greenhouse gas emissions by sources and removals by sinks.</p>	
<p>Ind. 5.1 The ER Program identifies the IPCC methods used to estimate emissions and removals for Reference Level setting and Measurement, Monitoring and reporting (MMR).</p> <p>[Description of method used for calculating the average annual historical emissions over the Reference Period – 8.3]</p> <p>[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area– 9.1]</p>	<p>YES</p>
<p>Yes, the ER-PD mentions the application of IPCC guidelines throughout the document. In the estimation of LU-transitions, a systematic sampling approach was applied, which in general can be considered as Approach 3. Emission factors are based on the national inventory data, and as such can be considered as Tier 2 data, whereas the removal factors in the first draft were first based on IPCC tables, which are considered TIER 1, but in the second and subsequent versions of the ER-PD, these are based on published information from Nicaragua and as such can be considered as Tier 2. The emission factors are now based on the most recent general allometric equation of Chave (2014), which is considered as a significant improvement compared to the equation the country used in the first draft. Chave (2014) uses much more tree sample data, and allows adjustments of biomass estimations according to wood density (which is directly correlated to total biomass estimation) of individual species.</p> <p>OBSERVATION: The TAP suggests to consider the construction of national allometric equations in order to reduce the uncertainty of the generic equation.</p> <p>The indicator is considered as MET</p>	
<p>C. 6 Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country's or ER Program's policies exempt sources of information from being publicly disclosed or shared, the information should be made available to independent reviewers and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts should be made to make summary data publicly available to enable reconstruction.</p>	
<p>Ind. 6.1 The following methodological steps are made publicly available:</p> <ol style="list-style-type: none"> I. Forest definition; II. Definition of classes of forests, (e.g., degraded forest; natural forest; plantation), if applicable; III. Choice of activity data, and pre-processing and processing methods; IV. Choice of emission factors and description of their development; V. Estimation of emissions and removals, including accounting approach; VI. Disaggregation of emissions by sources and removal by sinks; VII. Estimation of accuracy, precision, and/or confidence level, as applicable; VIII. Discussion of key uncertainties; IX. Rationale for adjusting emissions, if applicable; X. Methods and assumptions associated with adjusting emissions, if applicable. 	<p>YES</p>

[Forest definition used in the construction of the Reference Level 9.2]
[Description of method used for calculating the average annual historical emissions over the Reference Period 8.3]
[Activity data & emission factors used for calculating the average annual historical emissions over the Ref. Period 8.3]
[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]

The data sources are available on the web side and have been provided to the TAP, which allowed the TAP to assess some of the calculation procedures. Also the LU classes and land-use change classes are simplified.

- i. The forest definition is publicly available and applied consistently throughout the carbon accounting. The controversial LU class “tacotal” is no longer used and as such the forest definition is more transparent and applied consistently in the carbon accounting procedure.
- ii. The definitions of forest classes are available and applied throughout the carbon accounting procedure. The LU maps are no longer used to estimate the reference scenario, which is now solely based on sampling.
- iii. The choice of activity data is available and consistently applied in the carbon accounting procedure.
- iv. A detailed description of the development of emission factors is available.
- v. The methodological steps to estimate emissions and removals are available. However, the exclusion of “open forest” in the estimation of emission factors may slightly over-estimate the emission factors of forests, as part of the open forest plots (with 30-40% canopy cover) should be considered as forest and as such included in the analysis of emission factors.
- vi. Emissions from deforestation are separated from removals due to stock enhancement of non-forest to forest transitions. Also in degraded forest emissions and removals from stock change to canopy change are estimated separately, based on the relation between canopy cover and biomass, derived from the inventory plots.
- vii. The estimation of uncertainty takes into accounts all sources related to activity data and emission factors
- viii. Key uncertainties of activity data have been incorporated in the analysis, as well as the most important factor that influence the uncertainty in EF. There are steps underway to improve the MRV (e.g. an update of the forest inventory to improve the EF, a wall-to-wall annual land cover change maps derived from HR satellite imagery).
- ix. Does not apply
- x. Does not apply

This indicator is now MET.

<p>Ind 6.2 For the following spatial information, maps and/or synthesized data are displayed publicly, and reasonable efforts are made to explain how these were derived from the underlying spatial and other data, and to make key data sets or analyses publicly available:</p> <ol style="list-style-type: none"> I. Accounting Area II. Activity data (e.g., forest-cover change or transitions between forest categories) III. Emission factors IV. Average annual emissions over the Reference Period V. Adjusted emissions <p>Any spatial data used to adjust emissions, if applicable.</p> <p>[Forest definition used in the construction of the Reference Level 9.2] [Description of method used for calculating the average annual historical emissions over the Reference Period 8.3] [Activity data & emission factors used for calculating the average annual historical emissions over the Ref. Period 8.3] [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]</p>	YES
<ol style="list-style-type: none"> i. Yes ii. The spatial information was not publicly available nor provided to the TAP. The TAP received an excel file with the results of the satellite interpretation and the subsequent analysis to estimate the reference scenario. The May 2019 version of the ER-PD provide a link to the sources of information used to develop the reference scenario, as such now comply with the indicator iii. Now all major data are available to the public iv. See iii and iv v. Does not apply <p>The indicator is considered as MET</p>	
<p>C.7 Sources of uncertainty are systematically identified and assessed in Reference Level setting and Measurement, Monitoring and reporting</p>	
<p>Ind 7.1 All assumptions and sources of uncertainty associated with activity data, emission factors and calculation methods that contribute to the uncertainty of the estimates of emissions and removals are identified.</p> <p>[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 8.3] [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1] [Identification and assessment of sources of uncertainty 13.1]</p>	YES
<p>In the uncertainty analysis, only errors associated to precision of activity data and emission factors were taken into consideration in the previous versions of the ER-PD. Due to the fact that many data sources were aggregated and not always consistently, many sources of uncertainty in relation to accuracy could be expected. In case an estimation of accuracy uncertainty is not feasible, the TAP suggested to take a conservative default value to include in the analysis.</p> <p>In the May 17, 2019, all major sources of uncertainty of activity data, emission factors and calculation methods that contribute to uncertainty are now included in the analysis. Disaggregated information is used in most cases, thus reducing significantly the systematic error, as pointed out in previous TAP reports. The TAP considers that the ER-PD now complies with this indicator.</p>	

<p>Ind 7.2 The sources of uncertainty identified in Indicator 7.1: are assessed for their relative contribution to the overall uncertainty of the emissions and removals. [Identification and assessment of sources of uncertainty 13.3]</p>	<p>YES</p>
<p>The sources of uncertainty that are identified by the country have been assessed for their relative contribution to the overall uncertainty of the emissions and removals.</p> <p>The indicator is considered as MET</p>	
<p>C 8 The ER Program, to the extent feasible, follows a process of managing and reducing uncertainty of activity data and emission factors used in Reference Level setting and Measurement, Monitoring and reporting.</p>	
<p>Ind 8.1 Systematic errors are minimized through the implementation of a consistent and comprehensive set of standard operating procedures, including a set of quality assessment and quality control processes that work within the local circumstances of the ER Program.</p> <p>[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period, 13.2] [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area]</p>	<p>YES</p>
<p>There are no SOPs or QA/QC procedures available at the time of this review. The uncertainty analysis in the May 17, 2019 version has improved significantly. Improvements of data or data collection procedures are mentioned, such as errors in RS analysis (forest cover estimations) among interpreters. LU maps are no longer used to estimate the reference scenario, as such the uncertainty analysis in the LU change analysis is now solely based on an un-biased error distribution of the sampling procedure. The uncertainty related to errors in RS interpretation is no longer based only on qualitative criteria, as there is now a quality control assessment of the sampling procedure used to estimate the land-use transitions and their confidence intervals. The discrepancy between map-based and sampling-based transition estimations are no longer pertinent.</p> <p>OBSERVATION: The elaboration of SOPs and QA/QC procedures are standard requirements for MRV and as such it should not be difficult to convert the applied and described procedures to SOPs and QA/QC procedures, and as such this indicator is now considered as MET but the country should prepare SOPs and QA/QC.</p>	
<p>Ind 8.2 Random errors and other uncertainties are minimized to the extent practical based on the assessment of their relative contribution to the overall uncertainty of the emissions and removals.</p> <p>[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 10, 13] [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1] [Identification and assessment of sources of uncertainty 13.1]</p>	<p>YES</p>
<p>The overall contribution of the random errors to the overall uncertainty has been assessed. A Monte Carlo analysis has been performed to analyze the total uncertainty for emissions from deforestation and stock enhancement, and it is clear which variables were included in the analysis and their respective type and level of uncertainty (error distribution, etc.). The assumption that the biomass densities in the land-cover types are normally distributed, is no longer used and their distribution is estimated and used in the Monte Carlo analysis.</p> <p>The indicator is now considered as MET.</p>	

C 9 Uncertainty of activity data and emission factors used in Reference Level setting and Measurement, Monitoring and reporting is quantified in a consistent way, so that the estimation of emissions, removals and Emission Reductions is comparable among ER Programs	
<p>Ind 9.1 Uncertainty associated with activity data and emission factors is quantified using accepted international standards, for example by providing accuracy, confidence interval, distribution of error, and propagation of error. Where errors in data and methods are considered large as defined in IPCC Guidelines, Monte Carlo methods (numerical simulations) should be used to estimate uncertainty</p> <p>[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 13.1]</p> <p>[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]</p>	YES
<p>The procedures applied to assess the uncertainties are according to accepted international procedures. The most important sources of uncertainties are included in the analysis. The distribution of error of each emission factor has been assessed and applied in the Monte Carlo analysis, using all available uncertainty data from activity data and emission factors. Using 10 000 simulations reduces the estimated confidence interval or standard error, as mentioned by Murray et al 2017 (McMurray A., Pearson T., & Casarim F. 2017. Guía para aplicar el enfoque Monte Carlo al análisis de incertidumbre en la contabilidad forestal y de gases de efecto invernadero. Winrock International. 27 pp).</p> <p>The overall uncertainty analysis is greatly improved in the May 17, 2019 version, and as such the overall procedure to assess the uncertainties according to international procedures is considered now as MET</p> <p>OBSERVATION: However, in line with the explanation of the uncertainty analysis in the Methodological Framework, the TAP suggests using the 5% and 95% quantiles of the distribution of the 10,000 simulations as the basis to estimate the uncertainty of the reference level, as this approach would guarantee with 90% probability that the reference level will fall within the estimated limits. This same approach should be used for Emission Reductions estimation.</p>	
<p>Ind 9.2 Uncertainty of the estimate of Emission Reductions is quantified using Monte Carlo methods. Underlying sources of error in data and methods for integrated measurements of deforestation, forest degradation and enhancements (e.g., as in a national forest inventory) are combined into a single combined uncertainty estimate and are reported at the two-tailed 90% confidence level</p> <p>[Quantification of uncertainty in Reference Level setting 13.2]</p>	N.A
Does not apply at this stage	
<p>Ind 9.3 Uncertainty of Emissions Reductions associated with deforestation, forest degradation and enhancements are reported separately if measured through separate (i.e., non-integrated) approaches and when degradation is estimated using proxy data.</p> <p>[Quantification of uncertainty in Reference Level setting 13.2]</p>	N.A
Does not apply at this stage	
C 10 The development of the Reference Level is informed by the development of a Forest Reference Emission Level or Forest Reference Level for the UNFCCC	

<p>Ind 10.1 The Reference Level is expressed in tons of carbon dioxide equivalent per year [Estimated Reference Level 9.7]</p>	<p>YES</p>
<p>The Reference level estimation methodology, activity data and emissions factors is presented in chapter 8 of the ER-PD. It considers the emissions from deforestation activity and enhancement of carbon stocks (conversion of non-forestland to forestland) and forest degradation.</p> <p>The Reference level is expressed in tons of carbon dioxide equivalent.</p> <p>In conclusion, the indicator is accomplished, and the reference level is expressed in tons of carbon dioxide equivalent per year, starting in 2005 and finalizing in 2015. In the first submission the reference level had the same value of 13,563,879.97 tCO₂/year for every year, but this was modified as per table 58 (page 179) of the ER-PD-version May 29. In the May 2019, the reference level varies between 14,756,417 and 16,503,717 tCO₂e/year (see also indicator 13.1).</p> <p>The indicator is considered as MET</p>	
<p>Ind 10.2 The ER Program explains how the development of the Reference Level can inform or is informed by the development of a national Forest Reference Emission Level or Forest Reference Level, and explains the relationship between the Reference Level and any intended submission of a Forest Reference Emission Level or Forest Reference Level to the UNFCCC [Relation between the Reference Level, the development of a FREL/FRL for the UNFCCC and the country's existing or emerging greenhouse gas inventory 9.8]</p>	<p>YES</p>
<p>Nicaragua has not sent a National Forest Reference Level to UNFCCC yet. But the country is working on it. The Emissions Reductions Program Document (ER-PD) states that Nicaragua is also working on the alignment of the National Reference Level, the National Greenhouse Gas Inventory, and the Reference Level of the ER-PD.</p> <p>They also explain that they will update its National Forest Reference Level and the National GHG Inventory taking into account the methodological improvements implemented for the construction of the Program's reference level. That means that the comments and observations done by the TAP in relation to carbon accounting and other topics will also serve as material for those other documents.</p> <p>Nicaragua presents a very useful table showing the correspondence among the national FRL, GHG Inventory and ER-PD reference level for: forest definition, forest categories, REDD+ activities, pools, gases, emissions factors allometric equations (the use of Chave et. al (2014) in all cases is an improvement in relation to the first draft), emission factors non-forest classes, removal factors, activity data, reference period, tier method and uncertainty analysis. Moreover, the second submission of the ER-PD to the TAP presents a more detailed roadmap to harmonize the Reference Level of the ER-PD with the National GHG Inventory, compared to the brief roadmap presented in the first draft. This new roadmap includes the tasks of each institution, its objectives, responsible institution and date.</p> <p>As it is stated in the ER-PD, Nicaragua believes that the REL/FRL of the Emissions Reduction Program will eventually be consistent with the REL/FREL of ENDE-REDD+ (which is still in preparation), since the same technical and methodological guidelines, as well as the information sources, will be used (input data, causes of deforestation and scope) by both.</p> <p>The indicator is considered as MET</p>	

<p>Ind 10.3 The ER Program explains what steps are intended in order for the Reference Level to achieve consistency with the country's existing or emerging greenhouse gas inventory</p> <p>[Relation between the Reference Level, the development of a FREL/FRL for the UNFCCC and the country's existing or emerging greenhouse gas inventory 9.6]</p>	<p>YES</p>
<p>Nicaragua has submitted three National Communications to the UNFCCC, the first in 2001 and the second in 2011 and the third in 2018. All Communications include a National GHG Inventory. At the moment they have not submitted a Biennial Update Report to the UNFCCC.</p> <p>As expressed in the previous indicator, the Emissions Reductions Program Document (ER-PD) states that Nicaragua is working on the alignment of the National Reference Level, the National Greenhouse Gas Inventory, and the Reference Level of the ER-PD.</p> <p>They also explain that they will update its National Forest Reference Level and the National GHG Inventory taking into account the methodological improvements implemented for the construction of the Program's reference level. That means that the comments and observations done by the TAP in relation to carbon accounting and other topics will also serve as material for the National GHG Inventory.</p> <p>In table 59 of the ER-PD, Nicaragua shows the correspondence among the national FRL, GHG Inventory and ER-PD reference level for: forest definition, forest categories, REDD+ activities, pools, gases, emissions factors allometric equations, emissions factors of non-forest classes, removal factors, activity data, reference period, tier method and uncertainty analysis. In relation to the allometric equations used to calculate the EF, the National GHG Inventory uses Chave et al. (2014).</p> <p>The TAP scored the indicator as a MINOR non-conformity in the first assessment and encouraged Nicaragua to complement this section with further information. The indicator is now accomplished, given the actualization done in the ER-PD and explained in the previous indicator. The indicator is considered as MET</p> <p>The TAP suggested to use the Chave et al (2014) equation in the ER-PD instead of Brown et al (1997), as it is more up to date and can be adjusted to trees species (wood density) and precipitation class. The modification was done accordingly.</p>	
<p>C 11 A Reference Period is defined</p>	
<p>Ind 11.1 The end-date for the Reference Period is the most recent date prior to two years before the TAP starts the independent assessment of the draft ER Program Document and for which forest-cover data is available to enable IPCC Approach 3. An alternative end-date could be allowed only with convincing justification, e.g., to maintain consistency of dates with a Forest Reference Emission Level or Forest Reference Level, other relevant REDD+ programs, national communications, national ER program or climate change strategy</p> <p>[Reference Period 9.1]</p>	<p>YES</p>
<p>The end-date of the Reference period is 2015, more specifically 1 January 2015.</p> <p>This end-date complies with the Methodological Framework requirements that establish that the end-date for the Reference Period is the most recent date prior to two years before the TAP starts the independent assessment of the draft ER Program Document and for which forest-cover data are available to enable IPCC Approach 3. The independent assessment of the ER-PD performed by the Technical Advisory Panel (TAP) started in November 2017.</p> <p>Areas of each of the activities data were obtained from reference points obtained from visual interpretation of high resolution images. The reference points are a systematic grid of sampling points lain over the grid of forest inventory plots.</p> <p>The indicator is considered as MET</p>	

<p>Ind 11.2 The start-date for the Reference Period is about 10 years before the end-date. An alternative start-date could be allowed only with convincing justification as in Indicator 11.1, and is not more than 15 years before the end-date.</p> <p>[Reference Period 9.1]</p>	<p>YES</p>
<p>The start-date of the Reference period is 2005, which is exactly 10 years before the end-date since 2015 does not include the whole year but it is until 1 January 2015.</p> <p>The indicator is considered as MET</p> <p>OBSERVATION: The country should clearly indicate the month and the year of the reference period and the reporting period to ensure that the number of years are correctly accounted.</p>	
<p>C 12 The forest definition used for the ER Program follows available guidance from UNFCCC decision 12/CP.17</p>	
<p>Ind 12.1 The definition of forest used in the construction of the Reference Level is specified. If there is a difference between the definition of forest used in the national greenhouse gas inventory or in reporting to other international organizations (including an Forest Reference Emission Level or Forest Reference Level to the UNFCCC) and the definition used in the construction of the Reference Level, then the ER Program explains how and why the forest definition used in the Reference Level was chosen.</p> <p>[Forest definition used in the construction of the Reference Level 9.2]</p>	<p>YES</p>
<p>The definition of forest used by Nicaragua in the context of the ER-PD is: a continuous area, equal to or greater than 1 hectare, with canopy cover equal to or greater than 30% and an average tree height of 4 meters or greater.</p> <p>As specified in the ER-PD, this definition includes ecosystems of bamboo, mangroves, natural palms, dry forests, perennial crops, scrub and riparian vegetation. Perennial crops with tree cover <30% (cacao and coffee) are considered as part of the non-forest in the ER-PD.</p> <p>The definition of forest was established for the National REDD+ Program (ENDE-REDD+) and is applied in the construction of Reference level of the ER-PD and it will be applied to the National GHG Inventory and National Forest Reference Level.</p> <p>For the second assessment of ER-PD, the definition of forest has been improved, as suggested by the TAP. In the latest version of the ER-PD, the definition has been applied consistently in all analysis.</p> <p>The ER-PD explains how this definition is translated into the identification of forest or non-forest area. Land cover categories together with forest types were identified using manual/visual interpretation of available high resolution imagery, Rapideye 2015, and Google Earth images. Categories were created based on national expert knowledge and key factors including color, shape, roughness and other spatial and physical features commonly used in manual photointerpretation. High resolution imagery with a minimum resolution of 10 m enabled interpretation of the minimum mapping unit of 1 hectare used in the definition of forest. A canopy threshold of 30% was interpreted through colors, the presence of shadows, roughness and other landscape information available. Auxiliary information such as National Forest Inventory plots and MAG (Ministry of Agriculture) field databases of land cover types were used to support the interpretation of average tree height in the imagery.</p> <p>The indicator is considered as MET</p>	
<p>C 13 The Reference Level does not exceed the average annual historical emissions over the Reference Period. For a limited set of ER Programs, the Reference Level may be adjusted upward by a limited amount above average annual historical emissions. For any ER Program, the Reference Level may be adjusted downward.</p>	

<p>Ind 13.1 The Reference Level does not exceed the average annual historical emissions over the Reference Period, unless the ER Program meets the eligibility requirements in Indicator 13.2. If the available data from the National Forest Monitoring System used in the construction of the Reference Level shows a clear downward trend, this should be taken into account in the construction of the Reference Level</p> <p>[Average annual historical emissions over the Reference Period 9.6, 13.2]</p>	<p>YES</p>
<p>The Reference level is the average annual historical emissions over the Reference Period, without. It uses a tendency of increasing carbon removal from stock enhancement, which is considered as an appropriate approach, as the country is planning to continue reforestation and as such the carbon removal will continue to increase. Even if the reforestation would stop at the start of the ER-PA, carbon removal will still be higher than the average of the reference scenario.</p> <p>This indicator is met</p>	
<p>Ind 13.2 The Reference Level may be adjusted upward above average annual historical emissions if the ER Program can demonstrate to the satisfaction of the Carbon Fund that the following eligibility requirements are met:</p> <p>(i) Long-term historical deforestation has been minimal across the entirety of the country, and the country has high forest cover (country or jurisdictional area);</p> <p>(ii) National circumstances have changed such that rates of deforestation and forest degradation during the historical Reference Period likely underestimate future rates of deforestation and forest degradation during the Term of the ERPA.</p> <p>[Explanation and justification of proposed upward or downward adjustment to the average annual historical emissions over the Reference Period, Quantification of the proposed upward or downward adjustment to the average annual historical emissions over the Reference Period 9.6].</p>	<p>N.A</p>
<p>NA</p>	
<p>Ind 13.3 For countries meeting the eligibility requirements in Indicator 13.2, a Reference Level could be adjusted above the average historical emission rate over the Reference Period. Such an adjustment is credibly justified on the basis of expected emissions that would result from documented changes in ER Program circumstances, evident before the end-date of the Reference Period, but the effects of which were not fully reflected in the average annual historical emissions during the Reference Period. Proposed adjustments may be rejected for reasons including, but not limited to:</p> <p>i. The basis for adjustments is not documented; or</p> <p>ii. Adjustments are not quantifiable.</p> <p>[Explanation and justification of proposed upward or downward adjustment to the average annual historical emissions over the Reference Period, Quantification of the proposed upward or downward adjustment to the average annual historical emissions over the Reference Period 9.6]</p>	<p>N.A</p>
<p>NA</p>	

<p>Ind 13.4 An adjustment of the Reference Level above the average annual historical emissions during the Reference Period may not exceed 0.1%/year of Carbon Stocks</p> <p>[Explanation and justification of proposed upward or downward adjustment to the average annual historical emissions over the Reference Period, Quantification of the proposed upward or downward adjustment to the average annual historical emissions over the Reference Period 9.6]</p>	<p>N.A</p>
<p>NA</p>	
<p>C 14 Robust Forest Monitoring Systems provide data and information that are transparent, consistent over time, and are suitable for measuring, reporting and verifying emissions by sources and removals by sinks, as determined by following Criterion 3 within the proposed Accounting Area</p>	
<p>Ind 14.1 The ER Program monitors emissions by sources and removals by sinks included in the ER Program’s scope (Indicator 3.1) using the same methods or demonstrably equivalent methods to those used to set the Reference Level.</p> <p>[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 10.1]</p>	<p>YES</p>
<p>As per section 9.1 of the ER-PD, the National Monitoring, Reporting, and Verification Systems (NMRVS) will be congruent with the methodologies and protocols used for the estimation of the Reference Level, which is based on IPCC 2006 guidelines. Thus, comparable and consistent measurements of performance during the periods evaluated are guaranteed.</p> <p>The ER-PD also presents a calendar for monitoring events and includes a summary table with the procedures for the generation of activity data, emissions factors, and removal factors (broadleaf and conifer forest).</p> <p>During the TAP field visit it was possible to appreciate the National Forest Monitoring System that Nicaragua has implemented and which has been included in the ER-PD. After the recommendation from the TAP, the ER-PD presents more clear information of:</p> <ul style="list-style-type: none"> • National Forest Monitoring System • National monitoring plan, • National inter-institutional MRV roundtable • National Forest Inventory, • Other topics <p>It was possible to understand the methodological congruence between the Reference level and monitoring events expressed in the ER-PD. The only issue to comment is that the emission factors are in the process of being updated, but until now it has not been possible to complete a new measurement of the total network of forest inventory plots.</p> <p>Degradation has now been included in the reference scenario. This is also reflected in the MRV that will use the same methods or demonstrably equivalent methods to those used to set the Reference Level, where degradation was assessed. The TAP considers that, as degradation is now included in the MRV, the indicator is now met.</p>	
<p>Ind 14.2 Activity data are determined periodically, at least twice during the Term of the ERPA, and allow for ERs to be estimated from the beginning of the Term of the ERPA. Deforestation is determined using IPCC Approach 3. Other sinks and sources such as degradation may be determined using indirect methods such as survey data, proxies derived from landscape ecology, or statistical data on timber harvesting and regrowth if no direct methods are available</p>	<p>YES</p>

<p>[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]</p>	
<p>Deforestation emissions and carbon removals will be estimated from activity data derived from the analysis of Landsat satellite images as well as those of higher resolution, via the application of national protocols for classification and quality control, as stated in the Program Document. Spatial monitoring will be performed annually but national reports of forest cover, deforestation, and carbon emissions and removals will be prepared on a biannual basis.</p> <p>The procedures for the generation of activity data during the monitoring period is presented in a detailed table in section 9.1 of the ER-PD, which includes, among other items: source of data, frequency of monitoring, monitoring equipment, QA/QC procedures applied, identification of sources of uncertainties and the process of managing and reducing uncertainty.</p> <p>At the moment of performing the first evaluation of the ER-PD, forest degradation was not considered as part of the program. In the second submission, it was included in the Program. The indicator is considered as MET.</p> <p>OBSERVATION: The TAP suggests clarifying in the MRV procedures that the spatial buffer that is used to separate anthropogenic-natural degradation may change over time, due to new infrastructure in the accounting area.</p>	
<p>Ind 14.3 Emission factors or the methods to determine them are the same for Reference Level setting and for Monitoring, or are demonstrably equivalent. IPCC Tier 2 or higher methods are used to establish emission factors, and the uncertainty for each emission factor is documented. IPCC Tier 1 methods may be considered in exceptional cases [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 10.1]</p>	<p>YES</p>
<p>Emissions factors that will be used for monitoring are exactly the same as the emission factors used for the construction of the Reference Level, which is currently considering deforestation, carbon stocks enhancement and degradation.</p> <p>As it was presented in previous criteria and indicators in this TAP assessment, emissions factors of carbon stocks in forest were obtained from the National Forest Inventory, carried out by INAFOR in 2007. It also explicitly states that during the implementation of the ER Program, the re-measurement of the National Forest Inventory is not considered, nor the establishment of temporary plots to update the emissions factors for the forest categories. In the May 2019, this has changed. The NFI is in the process of being updated, but it has not been possible to complete a new measurement of the total network of forest inventory plots. The development of allometric equations calibrated with national data, prior to the first monitoring event during the ERPA, is also anticipated. Therefore, emission factors may change as a result of future updates of NFI that will be made by INAFOR. Should changes be required during the reference period, these changes will be incorporated in the Reference Level as well as the reports generated.</p> <p>Emissions factors for degradation are also obtained from National Forest Inventory. INF forest plots were stratified into 2 categories based on forest cover. In each category, biomass was estimated using the equation of Chave et al (2014). Biomass was then related to forest cover using a linear regression. This regression was subsequently applied at each reference point in order to estimate the loss or gain of biomass.</p> <p>Since degradation is now included in the MRV, the TAP considers that the indicator is met.</p>	
<p>C 15 ER Programs apply technical specifications of the National Forest Monitoring System where possible</p>	

<p>Ind 15.1 ER Programs articulate how the Forest Monitoring System fits into the existing or emerging National Forest Monitoring System, and provides a rationale for alternative technical design where applicable.</p> <p>[Relation and consistency with the National Forest Monitoring System 10.3]</p>	<p>YES</p>
<p>The ER-PD states that Nicaragua has formulated the National Forest Monitoring System, which will monitor, administer, process, and supply information on forest cover, non-carbon benefits (biodiversity and food security) and safeguards during the implementation of the ER Program.</p> <p>The System is composed of 3 sub-modules: The Carbon Module, the Multiple Benefits Module and the Safeguards Module. The Carbon Module will measure, monitor, report, and verify (M-MRV) the state and condition of Nicaragua's forests, as well as deforestation and stock enhancement. It will report avoided emissions from deforestation as well removals that occur due transitions from non-forest to forest.</p> <p>The ER-PD also mentions the existence of the National Forest Inventory and that it is in the process of being updated, but until now it has not been possible to complete a new measurement of the total network of forest inventory plots. The Forest Monitoring System fits into the National Forest Monitoring System because additional funds of the FCPF will be used in the NFI network of plots to measure them, in order to update the EF and RF.</p> <p>The indicator is considered as MET</p>	
<p>C 16 Community participation in Monitoring and reporting is encouraged and used where appropriate</p>	
<p>Ind 16.1 The ER Program demonstrates that it has explored opportunities for community participation in monitoring and reporting, e.g., of ER Program Measures, activity data, emission factors, safeguards and Non-Carbon Benefits, and encourages such community participation where appropriate</p> <p>[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 10.1, 10.3]</p>	<p>YES</p>
<p>The ER-PD mentions that local communities will be involved in the field validation of the sampling points. Community-based monitoring involves the recruitment of local monitoring teams, the establishment of collaborative agreements with local organizations involved in this activity, and the preparation of simple monitoring protocols that will be validated by INETER or INAFOR. Finally, the data and information collected by the local teams will be registered in an electronic platform that will enable the subsequent evaluation of the accuracy of the sampling.</p> <p>When referring to organizational structure for measurement, monitoring and reporting, the ER-PD also says that Nicaragua has established an inter-institutional platform for forest and land use monitoring, consisting of the following institutions: INAFOR, MARENA, INTA, MAG, INETER, major municipalities, regional and territorial governments, and indigenous communities. Figures 39-41 (pages 199-201) of the ER-PD shows the relation between these actors in the organizational structure of the MRV and table 65 (pages 196-199) describes the responsibilities and functions of each institution, including Indigenous Territorial Governments (ITG).</p> <p>The TAP found during the country visit, that communities in general have also other functions when referring to forest monitoring. This is the case when reporting forest fires: any person detecting forest fires can communicate the incident. There is an android application (app) called ODK, which is a tool to facilitate community monitoring. The TAP encourages the country to include in the ER-PD a description of the current links and protocols with the various actors involved in the monitoring, including the particular cases of already existing community activities. The TAP acknowledges the improvement done in this section of the ER-PD.</p> <p>The indicator is considered as MET</p>	

C 17 The ER Program is designed and implemented to prevent and minimize potential displacement	
<p>Ind 17.1 Deforestation and degradation drivers that may be impacted by the proposed ER Program measures are identified, and their associated risk for displacement is assessed, as well as possible risk mitigation strategies. This assessment categorizes Displacement risks as high, medium or low.</p> <p>[Identification of risk of Displacement 11.1]</p>	YES
<p>The risk for displacement of deforestation and degradation drivers is almost inexistent in the Program, for the simple reason that the accounting area embraces almost all the forest area of the country.</p> <p>Notwithstanding, the ER-PD performs an analysis of the risk of displacement of the ER Program, analyzing the drivers of deforestation and degradation as: extensive cattle production and commercial and subsistence farming with an extensive approach; population growth and migration; forest degradation due to logging and firewood extraction; under valuated forest lands; low-priced local and regional markets undermining of product quality; institutional weakness in lands monitoring and control and forest fires. The risks are assessed as “low”, “medium” or “high”.</p> <p>The drivers of deforestation were already explained in chapter 4 of the ER-PD “Analysis of drivers and underlying causes of deforestation and forest degradation, and existing activities that can lead to conservation or enhancement of forest carbon stocks”. In the first submission of ER-PD, the TAP encouraged that the ratings of the risks of displacement as “low”, “medium” or “high” needs to be improved with more justifications, to make it understandable for an external reader. The TAP also requested the country to perform a deeper analysis for each of the deforestation drivers, focusing in non-sustainable livestock production is the main driver of deforestation. All this requests were fulfilled in the second submission of the ER-PD, which is now more complete and understandable for external readers.</p> <p>The indicator is considered as MET</p>	
<p>Ind 17.2 The ER Program has in place an effective strategy to mitigate and/or minimize, to the extent possible, potential Displacement, prioritizing key sources of Displacement risk.</p> <p>[ER Program design features to prevent and minimize potential Displacement 11.2]</p>	YES
<p>Continuing with the argumentation in previous criteria, the ER-PD also describes the activities aimed at minimizing the risk of displacement. The interventions incorporating positive incentives to mitigate deforestation are apt to diminish displacement, but decreased access to forests and greater enforcement (disincentives or control measures) may tend to displace farmers unable to participate in the economic benefits associated with more sustainable production systems. Despite all, the TAP finds that the risk of displacement is almost inexistent given the lack of forest outside the accounting area. Thus, the proposed mitigation activities are sufficient to diminish it.</p> <p>The indicator is considered as MET</p>	
<p>Ind 17.3 By the time of verification, the ER Program has implemented its strategy to mitigate and/or minimize potential Displacement</p>	N.A
<p>Only applicable at the time of verification.</p>	
<p>Ind 17.4 ER Programs are also invited to report on changes in major drivers in the ER Accounting Area, any Displacement risks associated with those drivers, and any lessons from the ER Programs’ efforts to mitigate potential Displacement</p>	N.A

Only applicable at the time of verification.

C 18 The ER Program is designed and implemented to prevent and minimize the risk of reversals and address the long-term sustainability of ERs

Ind 18.1 The ER Program has undertaken an assessment of the anthropogenic and natural risk of reversals that might affect ERs during the Term of the ERPA and has assessed, as feasible, the potential risk of reversals after the end of the Term of the ERPA
 [Identification of risk of Reversals 12.1]

YES

The ER Program has undertaken an assessment of the anthropogenic and natural risk of reversals that might affect Emissions Reductions during the Term of the ERPA in section 11 of the ER-PD.

In order to evaluate the risk of these reversals (non-permanence), the Carbon Fund tool for evaluating the risk of reversals was used. The risk factors analyzed include the following:

- Lack of comprehensive and sustained support of the relevant stakeholders
- Lack of institutional capacities and/or ineffective vertical/inter-sectoral coordination, which has been evaluated by the following indicators:
- Lack of long-term effectiveness in addressing the underlying causes of deforestation and
- Exposure and vulnerability to natural phenomena

Beyond the term of the ERPA, the Program will attempt to assure the long-term sustainability of the emissions reductions achieved during the Program by promoting new economic models (intensified production through trust arrangements), economic structural changes via the investment promotion, credit, and new market linkages, further consolidation of land rights and autonomy in the indigenous and Afrodescendant territories, increased knowledge and capacities of producers, and improved institutional capacities to better monitor and control of land use.

OBSERVATION: The TAP suggests to identify the institutions who will be in charge of conducting all these improvements beyond the term of the ERPA, where will the budget coming from, what will be the timeline of that, etc., although these comments do not influence the assessment of the indicator that is considered as MET.

Ind 18.2 The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals identified in the assessment to the extent possible, and will address the sustainability of ERs, both during the Term of the ERPA, and beyond the Term of the ERPA
 [ER Program design features to prevent and mitigate Reversals 12.2]

YES

The ER-PD has a complete section dedicated to the analysis of actions to prevent and mitigate reversals (chapter 11.2).

In previous chapter “identification of risk of reversals” it was clarified that reversals of emissions reductions are the product of changes in the conditions that underlie previously achieved emissions reductions. These changes can be anthropic or natural and can come from inside or outside the accounting area. However, in the analysis of the actions to prevent and mitigate reversals, the ER-PD focus it reversal efforts on preventing and mitigating risks endogenous to the accounting area.

The document presents a table with the measures that are considered to combat and prevent reversals, according to the risk factors mentioned in section 11.1 of the ER-PD.

<p>The TAP commends Nicaragua for improving the justification elements proposed as mitigation actions, as reference to other sections of the document, increasing the capacity of an external reader to understand the final score for set-aside percentage.</p> <p>The indicator is considered as MET</p>	
<p>C 19 The ER Program accounts for Reversals from ERs that have been transferred to the Carbon Fund during the Term of the ERPA</p>	
<p>Ind 19.1 During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options:</p> <ul style="list-style-type: none"> ▪ Option 1: The ER Program has in place a Reversal management mechanism (e.g., buffer reserve or insurance) that is substantially equivalent to the Reversal risk mitigation assurance provided by the ‘ER Program CF Buffer’ approach referred to in option 2 below, appropriate for the ER Program’s assessed level of risk, which in the event of a Reversal during the Term of the ERPA will be used to fully cover such Reversals. ▪ Option 2: ERs from the ER Program are deposited in an ER Program-specific buffer, managed by the Carbon Fund (ER Program CF Buffer), and based on a Reversal risk assessment. ERs deposited in the ER Program CF Buffer (Buffer ERs) will not be transferred to the Carbon Fund. In the event that a Reversal event occurs during the Term of the ERPA, an amount of Buffer ERs will be cancelled from the ER Pro <p>[Reversal management mechanism, Selection of Reversal management mechanism 12.3]</p>	<p>YES</p>
<p>Nicaragua has chosen to account for Reversals from ER using option 2: ERs from the ER Program are deposited in an ER Program-specific buffer, managed by the Carbon Fund (ER Program CF Buffer), and based on a Reversal risk assessment. ERs deposited in the ER Program CF Buffer (Buffer ERs) will not be transferred to the Carbon Fund. In the event that a Reversal event occurs during the Term of the ERPA, an amount of Buffer ERs will be cancelled from the ER Program.</p> <p>The indicator is considered as MET</p>	
<p>C 20 The ER Program, building on its arrangements put in place during the readiness phase and during the Term of the ERPA, will have in place a robust Reversal management mechanism to address the risk of Reversals after the Term of the ERPA</p>	
<p>Ind 20.1 At the latest 1 year before the end of the Term of the ERPA, the ER Program will have in place a robust Reversal management mechanism or another specified approach that addresses the risk of Reversals beyond the Term of the ERPA</p>	<p>N.A</p>
<p>Only applicable before the end of the ERPA term.</p>	
<p>Ind 20.2 If the ER Program has selected option 2 under Indicator 19.1, all or a portion of the Buffer ERs of the ER Program, subject to a Carbon Fund review of the Methodological Framework and a decision of the parties to the ERPA in 2019, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. If the ER Program fails to meet the requirements of Indicator 20.1, all remaining Buffer ERs in the ER Program CF Buffer will be cancelled</p>	<p>N.A</p>

Only applicable before the end of the ERPA term.	
C 21 The ER Program monitors and reports major emissions that could lead to reversals of ERs transferred to the Carbon Fund during the Term of the ERPA	
Ind 21.1 The ER Program Monitoring Plan and Monitoring system are technically capable of identifying Reversals [Monitoring and reporting of major emissions that could lead to Reversals of ERs 12.4]	YES
<p>As it is mentioned in the ER-PD, the ER Program is capable of detecting early significant reversals. This will be achieved through the vigilance of the occurrence of potential reversals carried out by the National Forest Monitoring System, within the framework of ENDE-REDD+.</p> <p>The National Forest Monitoring System has the capacity to detect early significant reversals via the early warning system combined with local monitoring. Monitoring events will detect early Reversals of ERs via biennial estimate of emissions from deforestation (as it was described in indicator 14.2). When reversals are detected, the Carbon Fund will be notified within the time limit described in the Methodological Framework.</p> <p>Despite that this section in the ER-PD is correct, the TAP considers it has to be improved. For example, linking this topic with other sections of the document: “definition of deforestation” and “community participation in monitoring and reporting”, etc. In the first case, deforestation definition must include the consideration of “temporary unstocked forest land” to differentiate the detection of a reversal from the temporary loss of carbon stocks in forest land. In the second, the ER-PD mentions that an early warning mechanism will be established, based on the periodic assessment of the institutional capacities for forest protection, promotion and development of local (Territorial Governments) and national agencies (MAG, INETER and INAFOR), but it does not consider the participation of communities in monitoring and reporting, which was understood by the TAP that this actually happens.</p> <p>In the previous version of the ER-PD, this indicator was not met, as degradation was not included. Now that monitoring degradation is included and the MRV system is technically capable of identifying reversal in degradation also, the indicator is now met.</p> <p>The indicator is considered as MET</p>	
Ind 21.2. The ER Program reports to the Carbon Fund within 90 calendar days after becoming aware of any emissions in the Accounting Area or changes in ER Program circumstances that, in the reasonable opinion of the ER Program, could lead to Reversals of previously transferred ERs by the next Monitoring event. The ER Program explains how the potential Reversals would be addressed by additional ER Program Measures or by the Reversal management mechanism described in Indicator 19.1.	N.A
Only applicable at the time a reversal occurs and at the time of verification.	
C 22 Net ERs are calculated by the following steps: <ol style="list-style-type: none"> 1. Subtract the reported and verified emissions and removals from the Reference Level 2. Set aside a number of ERs from the result of step 1, above, in a buffer reserve. This amount reflects the level of uncertainty associated with the estimation of ERs during the Term of the ERPA. The amount set aside in the buffer reserve is determined using the conservativeness factors for deforestation listed in the MF. For estimated emissions reductions associated with degradation, the same conservativeness factors may be applied if spatially explicit activity data (IPCC Approach 3) and high-quality emission factors (IPCC Tier 2) are used. Otherwise, for 	

proxy-based approaches, apply a general conservativeness factor of 15% for forest degradation Emission Reductions.

3. Set aside a number of ERs in the ER Program CF Buffer or other reversal management mechanism created or used by an ER Program to address Reversals

[Ex-ante estimation of the Emission Reductions 14.3]

YES

The total estimated net Emissions Reductions/carbon removals benefit (tCO₂/year) is calculated according to the procedure established in the Carbon Fund Methodological Framework.

The total estimated net emission reduction in five years is presented in the following table (slightly changed from page 250):

Net Reference emission level	Reference level annual GHG emissions+ (deforestation and degradation)	Reference level GHG removals	Estimation of expected emissions under the ER Program	Estimation of expected removals	Estimation of total expected emissions (incl. removals) under the ER Program	Total Estimated net Emission Reductions /carbon removal benefit [A]	Expected setaside to reflect the level of uncertainty associated with the estimation of ERs during the Term of the ERPA (4%) [B=A*0.04]	Expected setaside buffer to reflect the level of reversal risks (22%) [C=D*0.22]	Total Estimated net Emission Reductions /carbon removal benefit [D=(A-B)/1.22]
(tCO ₂ e/yr)	(tCO ₂ e/yr)	(tCO ₂ /yr)	(tCO ₂ e/yr)	(tCO ₂ e/yr)	(tCO ₂ e/yr)	(tCO ₂ e/yr) (without setaside)	(tCO ₂ e/yr)	(tCO ₂ e/yr)	(tCO ₂ e/yr)
15,630,067	16,600,789	-97,072	14,188,209	-221,739	13,966,470	1,663,597	66,544	287,993	1,309,060
15,630,067	16,600,789	-291,217	14,210,057	-665,217	13,544,841	2,085,226	83,409	360,983	1,640,834
15,630,067	16,600,789	-485,361	13,637,305	-1,108,694	12,528,611	3,101,456	124,058	536,908	2,440,490
15,630,067	16,600,789	-679,505	13,658,740	-1,552,172	12,106,567	3,523,500	140,940	609,970	2,772,590
15,630,067	16,600,789	-873,650	13,679,970	-1,995,650	11,684,321	3,945,746	157,830	683,067	3,104,850
78,150,334	83,003,944	-2,426,805	69,374,282	-5,543,472	63,830,810	14,319,525	572,781	2,478,921	11,267,823

The indicator is considered as MET

C 23 To prevent double-counting, ERs generated under the ER Program shall not be counted or compensated for more than once. Any reported and verified ERs generated under the ER Program and sold and/or transferred to the Carbon Fund shall not be sold, offered or otherwise used or reported a second time by the ER Program Entity. Any reported and verified ERs generated under the ER Program that have been sold and/or transferred, offered or otherwise used or reported once by the ER Program Entity shall not be sold and transferred to the Carbon Fund

(i) [Participation under other GHG initiatives 18.1]

YES

No other REDD+ initiatives are present or will be developed in the accounting area that will transfer emission reductions, thus there will be no problem with double-counting or double-transfer as long as this will be the case. If for some reason this condition may change, the registration system that will be developed needs to be able to cope with this change in conditions (from an exclusive ER right to an open ER system, which allows other REDD+ initiative to take place within the accounting area).

OBSERVATION: The TAP suggest to investigate if there are any legal restrictions to negotiate other REDD+ initiatives within the accounting area that may be considered as a guarantee that this exclusive condition will remain so in the future.

The indicator is considered as MET

(ii) [Data management and Registry systems to avoid multiple claims to ERs 18.2]	YES
<p>A data management system is not yet in place. According to the description of the section, a consultancy will be contracted to help the country design the data management system that will be closely aligned with the MRV system. It will register all information on transfer of carbon rights (such as contracts with land owners). The contracts with land-owners that participate in the program will state that carbon credits obtained from the activity of the program will not be transferred to other parties. The data management system that currently is proposed will be based on filling in specific forms by the land owner, requesting detailed information on carbon stocks, changes in forest cover, emissions and absorption. The design of the data management system requires transparency of carbon transactions and it has to be clear how the owner is able to provide this information, how the information will be checked, etc. The ER-PD provides certain details on the development of a national monitoring, a national registry, and international reporting. The envisaged systems are meant to trace all landholdings on which REDD+ activities are implemented and to ensure that ER generation is counted only once. The system design requires further work to include monitoring of areas where ERs are not transferred. The TAP considers that this is not an impediment to consider the indicator as MET at this stage.</p>	
<p>C 24 The ER Program meets the World Bank social and environmental safeguards and promotes and supports the safeguards included in UNFCCC guidance related to REDD+</p>	
<p>Ind 24.1 The ER Program demonstrates through its design and implementation how it meets relevant World Bank social and environmental safeguards, and promotes and supports the safeguards included in UNFCCC guidance related to REDD+, by paying particular attention to Decision 1/CP.16 and its Appendix I as adopted by the UNFCCC</p> <p>[Description of how the ER Program meets the World Bank social and environmental safeguards and promotes and supports the safeguards included in UNFCCC guidance related to REDD+ 15.1]</p>	YES
<p>Section 14.1 introduces an appropriate identification and interpretation of the safeguards promoted by the Program and its relationship with the country's regulatory framework.</p> <p>The safeguards included in Nicaragua's Emission Reduction Program are derived from the environmental and social management framework (ESMF) of Nicaragua's National REDD+ Strategy (ENDE-REDD+). The Environmental and Social Management Framework has been formulated and is included as an Annex of the ER PD document. The ESMF covers the requirements for each of the safeguard policies applicable to the ERP accountability area and the procedures to reduce the environmental and social risks during intervention activities.</p> <p>The ER Program safeguard instruments include an Indigenous Peoples Planning Framework (IPPM), Procedural Rules for Involuntary Resettlement (IPPR) and the Feedback Mechanism that will allow stakeholders to gather information and register complaints or suggestions. The Indigenous Peoples' Planning Framework contains a consultation and consensus protocol, which is a prerequisite for the implementation of any project involving indigenous and Afrodescendant peoples.</p> <p>A Social and Environmental Evaluation Strategy has been developed to integrate social and environmental considerations, to identify benefits and risks and propose actions to drive the former and reduces the risks. The SEES analysis includes the social problems related to the advance of the agricultural frontier to risks derived from the institutional capacity of the actors involved to carry forward the foreseen actions.</p> <p>Regarding Safeguards Plans implementation, it is established that the general process will be assumed by MARENA, in coordination with MHCP, MEFCCA, SDCC, INETER, INAFOR, and the regional and territorial governments, which will act according to their institutional mandates and their connection in the ER-PD, and the signing of an inter-institutional agreement will be promoted, once the ER-PD is approved, that defines the responsibilities of each institution in the fulfilment of the Safeguards.</p>	

The rural development activities will be under the responsibility of MEFCCA, and the activities related to silviculture will be under the responsibility of INAFOR. Monitoring will be directed by INETER and the forest management activities on a local level will be conducted in coordination between MARENA and the Regional Governments of the Caribbean Coast. The ESMF also mandates involvement of regional and territorial government entities in the implementation of safeguards. Capacity of these entities to undertake safeguard activities (screening, assessment, monitoring, etc.) should be assessed and a capacity building plan formulated prior to project effectiveness.

To define the framework that will guide good environmental and social management during the implementation of the Emissions Reduction Program, an analysis of the relation between activated safeguards and strategic lines was carried out.

Safeguards policies applicable to the ERP accountability area are shown, indicating which safeguards apply to each of the lines of intervention proposed in the ERP.

The indicator is considered as MET

Ind 24.2 Safeguards Plans address social and environmental issues and include related risk mitigation measures identified during the national readiness process, e.g., in the SESA process and the ESMF, that are relevant for the specific ER Program context (e.g., land tenure issues), taking into account relevant existing institutional and regulatory frameworks. The Safeguards Plans are prepared concurrently with the ER Program Document, and are publicly disclosed in a manner and language appropriate for the affected stakeholders

[Description of how the ER Program meets the World Bank social and environmental safeguards and promotes and supports the safeguards included in UNFCCC guidance related to REDD+ 15.1]

YES

An Environmental and Social Management Framework has been formulated that involves the integration of environmental and social considerations in the formulation and implementation of the ER-PD.

The analysis that has been performed includes social problems related to the advance of the agricultural frontier to risks derived from the institutional capacity of the actors involved to carry forward the planned actions.

It is considered that the negative impacts linked to the ER-PD will be low and mitigation measures have been foreseen, as well as the positive impacts associated with the implementation of the actions.

The document presents the Matrix of environmental and social risks and impacts of the Emissions Reduction Program and their mitigation measures.

The Safeguards Plan has foreseen different risk situations related to the activation of the safeguards and measures pointed out for the mitigation of possible negative impacts.

Specific risks and localities of the interventions and their potential mitigation or compensation measures are also being considered in the social and environmental safeguard instruments, in order to be included in the ER Program safeguard plan.

Faced with the pressure of migration and the actual or potential use of land due to demography, poverty and markets, institutional needs were identified regarding the management and control of land use and natural resources, increasing monitoring, control and regulation of the use of land and natural resources at the local (territorial and communal) and regional levels through better coordination and institutional capacities, as mentioned in the previous sections.

A Safeguards Plan is detailed, which indicates the degree of impact that each one will have on the Emissions Reduction Program and the measures to address their activation. Table 86 presents a risk analysis by each line of intervention.

Additional analysis was carried out in December of 2018 on the risks relating to conflicts between indigenous communities and third-party settlers indigenous in territories involved in the Program,. While this assessment does not quantify the number of third party settlers per territory nor their exact locations; it does give an indication of the severity of the problem and the territories where relations are tense or conflictive. The document also notes

that the updated development strategy for the Caribbean Coast outlines a number of strategic activities which would strengthen governance in the indigenous territories, including (among others):

- Strengthen the National Commission for Territorial Demarcation (CONADETI) as an entity that receives grievances, accusations, and resolution of conflicts of property.
- Updating the legal status of communal and individual lands.
- Manual for community co-existence as a mechanism from the world-vision perspective, applying a model of community justice.
- Create a single registry system for the communal properties.
- Updating the statutes and internal rules of the Indigenous and Afro-descendant Territorial Governments.
- Updating the plans for territorial development of the Indigenous and Afro-descendant Territorial Governments.
- Create a regional and territorial policy for the joint management of the Protected Areas.

Additionally, the ER-PD states (p.112) that the government is attempting to undertake:

- Actions to reorder or regularize the public property registries in order to assure the full exercise of the rights of communal property, including the potential indemnification of third parties.
- The recognition of agrarian reform titles emitted before 1987, but under the communal property regimen, i.e. land use by third parties is recognized, but land sales are prohibited except to the community.
- Accelerating the judicial processes involving the demands by third parties to communal properties.
- Mediation and conflict resolution involving groups without legal documents or titles, based on dialogue and consensus.

It would be important to incorporate priority actions from this list into the work of the ER Program and reflect them in the PCAS for the ER-PD. Additionally, the budget for implementation of safeguards activities in the ER-PD is unrealistically low; and needs to reflect the cost of activities outlined in the ESMF, Resettlement Framework and Indigenous Peoples Planning Framework.

As concerns ER-PD consultation process, the design and implementation of the ER programs are based on and use transparent consultation and information exchange mechanisms between actors involved, in particular the affected local communities and indigenous peoples (section 5).

The Framework of Environmental and Social Management Framework was widely consulted with the original and afro-descendant peoples and communities of the Caribbean Coast (section 5 and Annex 14).

In the analysis of social and environmental impacts, the Program considered the information generated in the broad process of dialogue and consultation with the various stakeholders involved, including farmers, cocoa producers, women, communicators, academics, leaders and community members of indigenous and Afro-descendant peoples (Section 5).

The Resettlement Framework notes that there will be no involuntary resettlement through the ER Program (p.9), i.e. no families will be displaced; but also notes that the regional and territorial governments are undertaking a process of “auto-saneamiento territorial” (p.9) in which colonists or “terceros” who do not have any rights from the Agrarian reform days may face eviction from lands they are illegally occupying. The framework concludes that the approach will be to “avoid, mitigate and in the ultimate instance compensate adverse impacts” (p.19). Given that actions are likely to be taken on the local level by GTI’s, but that it is MARENA who will be in charge of application of the RF and the development of RAP’s should the case arise, closer coordination will be needed to ensure that the ER program is not generating adverse impacts on “terceros” (rightfully) evicted from lands they are illegally occupying.

The participatory process undertaken involved a total of 94 workshops, of which 79 took place on the Caribbean Coast. Workshops were attended by leaders of indigenous groups, women, young adults, communities, universities, local government authorities and members of the Nicaraguan Army and National Police.

Consultations that took place in 2016 and 2017 included matters such as safeguards, mechanisms by which to strengthen communication and an analysis of proposals for strategic lines linked to causes.

The indicator is considered as MET

C 25 Information is provided on how the ER Program meets the World Bank social and environmental safeguards and addresses and respects the safeguards included in UNFCCC guidance related to REDD+, during ER Program implementation

Ind 25.1 Appropriate monitoring arrangements for safeguards referred to in Criterion 24 are included in the Safeguards Plans

YES

[Description of arrangements to provide information on safeguards during ER Program implementation 15.2 and 6.1]

It is established (section 6.1) that MARENA, in line with its institutional mandate, besides overall administrative oversight of the ER Program as well as its planning, coordination, and implementation, will also be directly involved in the monitoring of safeguards, and non-carbon benefits, communication of this information to stakeholders.

Section 14.2 states that MARENA, as the lead ER-PD institution, will be the Nicaraguan state entity charged with providing official information regarding the approach to and compliance with the Safeguards. MARENA will, establish collaborative agreements with the institutions that will participate in monitoring safeguard indicators. SINIA (Environmental National Information System) is the institution that will concentrate on following-up and reporting the environmental indicators and will be the agency charged with providing official information.

MARENA, through the National System of Monitoring, Reporting, and Verification, with the Sub-System of Safeguards, will monitor the compliance of the safeguards, in alliance with the Regional, Territorial, and Municipal Governments.

Since August 2016, the System of Safeguard Information (SIS) has been in the process of design, which is an integral part of the National System of Monitoring, Reporting, and Verification (SNMRV) of the Emissions Reduction Program. The principal objective of the National System of Safeguard Information (SIS), is to provide and manage the information regarding how the safeguards are approached and respected during the implementation of the ER-PD, in agreement with the local legal framework.

The SIS will permit the reporting of compliance of the safeguards, assuring the coverage of all actions and measures of REDD+, independently of the source of financing or of the initiative. Likewise, it will facilitate a framework of indicators that will serve to monitor the fulfilment of the safeguards on national, sub-national, and community levels.

The SIS will include exit strategies that will generate summaries or reports for the monitoring of the compliance of the activated safeguards. The SIS will generate summaries or reports required by the UNFCCC for the monitoring of the compliance of the activated safeguards. The first report on compliance with the UNFCCC safeguards is contemplated in early 2019.

Section 14.2 presents the structure for the SIS defined in sessions of the MRV and EESA working groups. Also, is presented indicators for the monitoring of compliance of the Safeguards during the implementation of the Emissions Reduction Program (Table 85). The information comprises indicators that will be monitored, responsibilities, procedures and frequency of data collection, sources of information and reports to be produced. Additional work to define the role of GTI and regional governments in monitoring safeguards implementation should be defined before or after ERPA signature, with appropriate training and budget available to support those activities.

The indicator is considered as MET

<p>Ind 25.2 During ER Program implementation, information on the implementation of Safeguards Plans is included in an annex to each ER monitoring report and interim progress report. This information is publicly disclosed, and the ER Program is encouraged to make this information available to relevant stakeholders. This information is also made available as an input to the national systems for providing information on how safeguards are addressed and respected (SIS) required by the UNFCCC guidance related to REDD+, as appropriate.</p>	<p>N.A</p>
<p>Only applicable at the time of verification.</p>	
<p>C 26 An appropriate Feedback and Grievance Redress Mechanism (FGRM) developed during the Readiness phase or otherwise exist(s), building on existing institutions, regulatory frameworks, mechanisms and capacity</p>	
<p>Ind 26.1 An assessment of existing FGRM, including any applicable customary FGRMs, is conducted and is made public. The FGRM applicable to the ER Program demonstrates the following:</p> <ul style="list-style-type: none"> i) Legitimacy, accessibility, predictability, fairness, rights compatibility, transparency, and capability to address a range of grievances, including those related to benefit-sharing arrangements for the ER Program; ii) Access to adequate expertise and resources for the operation of the FGRM <p>[Description of the Feedback and Grievance Redress Mechanism (FGRM) in place and possible actions to improve it 15.3]</p>	<p>YES</p>
<p>Section 14.3 summaries the local legal framework related to the right for Nicaraguans to submit complaints. Institutional experiences are briefly described, including MARENA and INAFOR practice in dealing with environmental or forest complaints. The information provided includes such about existing mechanisms in the indigenous and Afro-descendant territories of the Caribbean coast, for the administration of justice and the resolution of conflicts, which are in accordance with the obligatory uses and customs of the community members and are approved by the community assemblies. These norms are not written or codified but are transmitted orally and preserved by the collective memory. The ER-PD states (p 296): “The Whitas, Síndicos, and women leaders of the indigenous and Afro-descendant peoples, and forest rangers ⁴ will be trained regarding the functioning of the Mechanism for Communication Strengthening with ENDE-REDD+ so that they can subsequently replicate it in their communities. In this regard, capacities of a network of 80 leaders of the Indigenous Territorial Governments (36 from the RACCN, 20 from the RACCS, 12 from the Special Regime of Upper Wangki, and 12 from PI-PCN) will be strengthened relative to safeguards and the use of the website.” A training plan and appropriate budget should be put in place to execute these activities during the first year of the program.</p> <p>A Mechanism of Communication Strengthening (MFC) for the ER-PD Program has been designed that integrates a variety of channels for the reception, attention, and feedback of complaints based on traditional and non-traditional communication channels. An explanatory diagram of the proposed channels for receiving complaints is presented (Figure 48).</p> <p>Four entry points of communication are established for communication from stakeholders to the institutions responsible for attending, responding to, and following up on the complaints or suggestions:</p> <ul style="list-style-type: none"> a) Authorities and traditional leaders. b) Assemblies. 	

c) Boxes in institutional offices.

d) Electronic access (SINIA-MARENA web page). This access presently is limited in the most remote communities, but internet access is expected to increase in the future. An application for accessing the complaint/suggestion registry form by smartphones is also being developed.

All statements, complaints or complaints received will be registered centrally and regionally in the sub-system for Safeguards of the Monitoring and Verification System. The concerns received in the mailboxes, the electronic access and the report of the indigenous leaders and the assemblies will be registered in the same format, which will allow to standardize the follow-up and report. A diagram with the response procedures is shown (Figure 49).

The information provided in section 14.3 gives a very brief description of the existing mechanisms in MARENA and INAFOR, but it not includes the required assessment that allows to point to the existing capacity in the institutions involved to receive and handle grievances and to identify necessary adjustments and to how the MRR will build on them (or not). It is stated that experiences derived from mechanisms for complaints are being systematized, and a more in-depth analysis of the procedures involved is contemplated.

On the other hand, although it is stated that the "*Mechanism of Communication Strengthening*" objective is to provide options for the reception of and response to requests for information, questions, suggestions, and complaints from the interested parties related with the design and execution of the Program, is considered that the proposed name might generate confusion regarding its main objective. Even though is adequate to relate the development of a Feedback and Grievance Redress Mechanism with a strengthening communication strategy, the name for the mechanism fails to focus on its specific objective that is to offer a process for receiving, evaluating, and addressing project-related grievances from affected communities or stakeholders at the level of the community or project, region, or country.

The indicator is considered as MET

Ind 26.2 The description of FGRM procedures, included in the Benefit-Sharing Plan and/or relevant Safeguards Plans, specifies the process to be followed to receive, screen, address, monitor, and report feedback on, grievances or concerns submitted by affected stakeholders. As relevant, the Benefit-Sharing Plan and/or relevant Safeguards Plans and/or ER Program Document describe the relationship among FGRM(s) at the local, ER Program, and national levels

YES

[Description of the Feedback and Grievance Redress Mechanism (FGRM) in place and possible actions to improve it 15.3]

Section 14.3 describes the Mechanism of Communication Strengthening (MFC) for the ER-PD Program. Section 15.3 and 15.4 presents a description of the process for the development of the Benefit Sharing Plan and its legal framework. It is established that BSP will have the option of utilizing the MFC that provides options for the reception of and response to requests for information, questions, suggestions, complaints and grievances, from the interested parties related with the design and execution of the Program.

Section 14.3 (Response procedures) states that complaints or suggestions related to Safeguards and Benefit-Sharing Plans will be comprised by the MFC. The ER-PD states (p.301): "Compliance with Safeguards and Plans for Distribution of Benefits: comments related to non-compliance with safeguards and the ESMF (Indigenous and Afro-descendant Peoples' Plan, Involuntary Resettlement, amounts, periods and uses of benefits)" but additional detail on how complaints received by local territorial governments or assemblies will be handled by MARENA or other competent authorities within the inter-institutional commission, and which governmental body has jurisdiction for enforcing solutions should be clarified.

The indicator is considered as MET

<p>Ind 26.3 If found necessary in the assessment mentioned in Indicator 26.1, a plan is developed to improve the FGRM</p> <p>[Description of the Feedback and Grievance Redress Mechanism (FGRM) in place and possible actions to improve it 15.3]</p>	<p>YES</p>
<p>Although the document doesn't include an assessment of the existing Grievance Mechanisms in the involved institutions, it provides an overview of the functioning of a wide array of institutional mechanisms already in place to receive and address stakeholder complaints. The design process for the ER program Grievance mechanism is presented in the ER-PD (section 14.3) as complete, and states that it will begin operation in the second quarter of 2019 (p. 288). Information generated from the operation of the system and its reports will be used to improve the performance of the system as needed (p.287).</p> <p>The indicator is considered as MET</p>	
<p>C 27 The ER Program describes how the ER Program addresses key drivers of deforestation and degradation</p>	
<p>Ind 27.1 The ER Program identifies the key drivers of deforestation and degradation, and potentially opportunities for forest enhancement</p> <p>[Analysis of drivers and underlying causes of deforestation and forest degradation, and existing activities that can lead to conservation or enhancement of forest carbon stocks 4.1]</p>	<p>YES</p>
<p>The latest version of the EPRD proposes a very fine analysis of the direct drivers and the main causes of deforestation. In this last version it addresses in great depth the indirect factors and these are taken into account for the proposed actions. It seems important that the need for harmonization and coordination of policies related to natural resources be considered.</p> <p>As mentioned in the previous TAP report, outside the protected areas, one way to conserve a good part of the remaining forests is by making forests generate income for their owners. Otherwise, it is most likely that the forests are converted to agriculture, livestock or urban areas, since there are no legal restrictions for the change of land use, as is the case within protected areas.</p> <p>Forest management, as one of the options to reduce deforestation, is now included in the ER-PD. In this context, the area that could be incorporated in sustainable forest management and contribute to stop deforestation is 2 million hectares, however, currently there are only 53,000 hectares under forest management, which represents 2.7% of the potential area. The main disincentives to community forest management include the lack of capital, the lack of technical knowledge, the lack of appropriate norms, and according to Cabrera and Terrero1 (2016), also due to the disincentives that communities currently face to implement plans for forest management In this sense, the new version of the ER-PD is proposing community forest management (CFM), which addresses the recommendation of the TAP to promote sustainable forest management in areas, vulnerable to deforestation.</p> <p>Intervention 1b) Community Forest Management within the Forest Conservation Strategic Line, clearly explains the activities: i) Promotion of public-private partnerships; ii) incentives to reduce the transaction costs of forest management; iii) reduction of bureaucratic barriers; iv) legal, technical and administrative training; and v) Use of Forest Regents and external audits, with which the advance of the agricultural frontier can be avoided, by the same production of the forests. It also clearly explains funding sources to achieve them. In summary, the May 29, 2018 ER-PD version resolved the main doubts of the TAP about the funding sources, as the main budget was initially planned to be mainly covered from ER-PD payments.</p> <p>The indicator is considered as MET</p>	

<p>Ind 27.2 The ER Program identifies currently planned ER Program Measures and how they address the key drivers identified in Indicator 27.1, and the entities that would undertake them</p> <p>[Description and justification of the planned actions and interventions under the ER Program that will lead to emission reductions and/or removals 4.3]</p> <p>[Institutional and implementation arrangements 6.1]</p>	<p>YES</p>
<p>The May 29, 2018 version of the ER-PD includes a broader proposal than the observations made by the TAP. The document proposes in its Strategic Line 3 Institutional Enabling Conditions that encompasses the implementation of a comprehensive policy of land use to stabilize the current use of land and also proposes as a first point the harmonization of public policies especially in forestry, agriculture and environment. It also mentions the possibility of including the subject of transportation in such harmonization to reduce the impact of road construction, as an important underlying factor that promotes the migration of settlers and their consequent deforestation activities.</p> <p>Finally, Interventions 4e) and 4d) within Strategic Line # 4: Enabling Institutional Conditions, respond to the TAP's concern about the institutional strengthening of INAFOR to achieve better technical assistance and better monitoring of management plans and operational plans. But it also extends this strengthening for the other related institutions and local governments.</p> <p>The indicator is considered as MET</p>	
<p>C 28 The ER Program has undertaken and made publicly available an assessment of the land and resource tenure regimes present in the Accounting Area</p>	
<p>Ind 28.1 The ER Program reviews the assessment of land and resource tenure regimes carried out during the readiness phase at the national level (i.e., SESA) and, if necessary, supplements this assessment by undertaking an additional assessment of any issues related to land and resource tenure regimes in the Accounting Area that are critical to the successful implementation of the ER Program, including:</p> <ol style="list-style-type: none"> I. The range of land and resource tenure rights (including legal and customary rights of use, access, management, ownership, exclusion, etc.) and categories of rights-holders present in the Accounting Area (including Indigenous Peoples and other relevant communities); II. The legal status of such rights, and any significant ambiguities or gaps in the applicable legal framework, including as pertains to the rights under customary law; III. Areas within the Accounting Area that are subject to significant conflicts or disputes related to contested or competing claims or rights, and if critical to the successful implementation of the ER Program, how such conflicts or disputes have been or are proposed to be addressed; and IV. Any potential impacts of the ER Program on existing land and resource tenure in the Accounting Area. <p>The ER Program demonstrates that the additional assessment has been conducted in a consultative, transparent and participatory manner, reflecting inputs from relevant stakeholders</p> <p>[Description of land tenure systems, analysis of laws and regulatory framework 4.4 and 4.5, stakeholder consultation process 5.1]</p>	<p>YES</p>
<p>The ER-PD provides a good introduction in different land titles, the recent land reforms on titling of property for indigenous communities (now recognized as holders of communal property), and the difference between private property and communal property. It also gives a solid summary of constitutional provisions, environmental and nature protection laws, including details on enforcement, as well as regulatory mechanisms for individuals and groups to resolve land tenure conflicts on the ground, and a wide range of policy planning documents.</p>	

Concrete usages of land (e.g. smallholder farming, plantations, protected areas) are mapped and explained. Secured land titling levels are found to be high (98%), in part due to land reforms from the past decades which recognized traditional community titles for indigenous and Afro-descendant peoples and turned them into formal law positions.

More generally, rights of indigenous and Afro-descendant peoples appear widely protected through legal provisions, with high levels of self-governance ensuring substantial decision-making powers over natural resource development. Tensions stem from the occupation of communal land by “third parties”, a reference to groups with no ancestral or otherwise recognized original claim to the land. While the presence of these groups does not put in question the property situation *de iure*, it does create pressure on forests and planned land-use. Local authorities have been trying to address the situation by allocating land and issuing land lease contracts, among others.

The ER-PD lists a number of positive impacts that will emanate from the ER Program to further advance public efforts on law enforcement, institutional prowess, zoning and planning capacity, as well as conflict resolution strategies with respect to “third parties”.

Generally, on the side of stakeholder engagement, the document includes useful references to the consultative nature of the assessment process. During implementation, efforts should be made to broaden the scope of stakeholders so as to ensure that representatives of all groups affected by the program are engaged with. The May 29, 2018 revision of the ER-PD (added welcome geographic details on existing tenure conflicts (p. 93), as well as reference a particular “mining triangle”, and we understand that mining operations – having substantially increased in recent years – add to the pressure on forest land and traditional land-use. Details on these particular threats were neither presented, however, in the May 29, 2018 version, nor in the latest revision (30 April 2019) . The ER-PD concludes in general terms that land tenure rights as well as forest protection suffer from weak legal compliance, though few details are shared with respect to the types and nature of non-compliance and the agents (perpetrators). The presence of “settlers from the outside”, which occupy communal lands without the consent of traditional communities, is noted (page 32, version of 30 April 2019), yet the exact effects on deforestation and degradation, as well as strategies to mitigate this risk, remain vague. The lack of relevant information certainly is a weakness in this respect. The ER-PD contends that there is “little recent data regarding the presence of third parties in communal lands and the types of land use practiced by them”.

Likely as a consequence, the list of action points with which the ER Program tries to respond to particular legal challenges (e.g. illegal forest-to-pasture land conversion land, flora and fauna trafficking, or mining) appears quite abstract with little consideration of specific regulatory or compliance gaps and of suitable program benchmarks. The ER-PD, in its latest (2019) revision, establishes “improved forest and land-use governance” as a key intervention (page 59) and seeks to “[update] territorial development and land use zoning plans” and to “[improve] territorial and communal legal statutes, internal norms and regulations, and administrative and contractual procedures for forest and land use by community members or outsiders” (page 60).

While the main ER-PD text body, thus, remains somewhat vague, a new annex (“*Presence of third parties in communal lands of the original and Afro-descendent peoples in the area of the ER Program*”) contains useful data on migration-related tenure conflicts and formulates concrete interventions to combat and mitigate these conflicts. According to this annex, the migration-related conflicts are pre-eminent in several territories, namely Awastingni, Mayangna Sauni Bas (Sikilta), Tuahka, Mayangna Sauni Arungka, Tasba Pri, Wangki Tui Tasba Raya, Rama-Kriol. Encroachment and possession go hand in hand with non-authorized rental and sales agreements (often supported by ex-leaders and ex-representatives of communities concerned). As counter-measures, the annex suggests a package of measures, ranging from the creation of a single property registry for communal land to enhancing governance rules and enforcement procedures.

Assuming that the annex document is meant as a composite to the ER-PD, providing an in-depth analysis and a programmatic action list for the implementation of the ER Program, it adds significant substance to the Program design.

This said, the wider perspective of the Program retains elements of uncertainty, which may need to be considered in order to avoid impacts on the Program.

As we noted in our revision of May 29, 2018, it will be important, as a next step towards program implementation, to develop as soon as possible a *legal roadmap* that traces the regulatory context for, and implications from, competing land-use forms that depart from traditional forest stewardship – agriculture, obviously, but also mining, logging, natural resource trafficking, and other – extrapolate Program viability, and create an action list from the findings, with milestones/benchmarks and indicators for successful ER Program implementation. The various policies and legal provisions recognizing the value of sustainable forest management as featured in chapter 4.5 would then be paired with detailed information on conflicting regimes and/or concrete gaps in regulatory planning (including in terms of spatial planning) and law enforcement. It should be made clear whether or when the conversion of forest to non-forest land is either legal or prohibited and, if the former, what can be done to avoid or minimize the conversion.

OBSERVATION: The TAP suggest that such legal roadmap also should address land disputes with “third parties” and viable solutions including in terms of offering livelihood perspectives for migrant families concerned.

The indicator is considered as MET

Ind 28.2 The ER Program explains how the relevant issues identified in the above assessment have been or will be taken into consideration in the design and implementation of the ER Program, and in the relevant Safeguards Plan(s). If the ER Program involves activities that are contingent on establishing legally recognized rights to lands and territories that Indigenous Peoples have traditionally owned or customarily used or occupied, the relevant Safeguards Plan sets forth an action plan for the legal recognition of such ownership, occupation, or usage. Beyond what is required for the successful implementation of the ER Program, the ER Program is encouraged to show how it can contribute to progress towards clarifying land and resource tenure in the Accounting Area, where relevant.

[Assessment of land and resource tenure in the Accounting Area 4.4]

[Description and justification of the planned actions and interventions under the ER Program that will lead to emission reductions and/or removals 4.3]

YES

The document provides solid information on improving enabling conditions through the ERPA and, in particular, on setting robust safeguards to protect and enhance indigenous and Afro-descendant peoples. Nicaragua offers a welcoming institutional framework for safeguards management through its design of autonomous regions and the structures established by Law No 445 (Communal Property Regime of the Native Peoples and Ethnic Communities of the Autonomous Regions).

Of particular concern throughout the program implementation will be the settlement of conflicts, and the engagement with “third parties”. As advised above, it will be important to secure and enhance existing land titles, while addressing legitimate needs of third party groups, including through, as appropriate, granting legitimate lease contracts.

The indicator is considered as MET

Ind 28.3 The ER Program provides a description of the implications of the land and resource regime assessment for the ER Program Entity’s ability to transfer Title to ERs to the Carbon Fund

[Transfer of Title to ERs 18.2]

YES

While the “right to carbon” is not expressly addressed in the laws of Nicaragua, the ER-PD notes that there are numerous regulatory provisions concerning title to natural resources, including forest resources. All these provisions,

it is concluded in the ER-PD, point to an understanding that forest and soil resources are associated with land ownership. Title to ERs, it is suggested, may be treated as a forest and soil resource linked primarily to the landholders. This reading is based, among others, on Law No. 462 ("Law on Conservation, Development and Sustainable Development of the Forest Sector") and on Law No 28, which defines the Autonomy Statute of the Autonomous Regions of the Caribbean Coast on the forest sector. Law Now 462 establishes in its Article 2 that "to the proprietor of the land, corresponds the dominion of forest resources and their derived benefits corresponds to the land owner". Law No 28 lays down, in its Article 36, that "communal property is composed of the lands, waters, and forests that have traditionally belonged to the Communities of the Caribbean Coast..."

Since the last ER-PD version (May 2018), the reading has been confirmed by the Attorney General who has issued a legal opinion stating that ownership of ERs is associated with land property rights of individuals and communities. The legal opinion is summarized as follows (page 317):

"In its finding, the Office of the Attorney General noted that the Forestry Sector Conservation, Promotion and Sustainable Development Law (Law 462) and the Environmental and Natural Resources Law (Law 217) contain sufficient elements and regulatory definitions to determine that the owners of the carbon emissions reductions are those who legitimately own the real estate on which the forest resource is located that generates the aforementioned environmental services."

The indicator is considered as MET

C 29 The ER Program provides a description of the benefit-sharing arrangements for the ER Program, including information specified in Indicator 30.1, to the extent known at the time.

Description of benefit-sharing arrangements [16.1 in ER-PD of 15 Jan. 2016]

YES

Although the Benefit Sharing Plan (BSP) does not have to be in place at the time of ER-PD finalization, section 15 and Annex 10 presents a description of their arrangements to the extent known at the time and a roadmap for the process of the BSP completion.

As part of the preparation of the ENDE-REDD+ Strategy, several options for the distribution of benefits derived from the results-based payments of the Carbon Fund have been discussed. It is presented one option in which benefits are distributed among institutions and actors that participate in the Program at different levels. This potential arrangement includes compensations monetary and non-monetary for the reduction of deforestation and forest restoration (i) by institutions, (ii) in indigenous territories, and (iii) in private property.

This preliminary arrangement seeks to ensure the sustainability of the activities of the ER Program through institutional strengthening, and direct investment in activities that promote sustainable land use, natural regeneration, and forest protection. It is foreseen that approximately a third of the resources would be used to cover the institutional operating costs associated with the Program, including the implementation of the MRV System, regional coordination, promotion of the involvement of the private sector, the operation of the productive trusts, and the mechanism to be used to transfer potential resources to private actors who do not participate in the trusts. Institutional actors involved in operating the Benefit Sharing Mechanism would include: the central government, the regional governments, and the indigenous territorial governments, municipal governments.

The indicator is considered as MET

C 30 The Benefit Sharing Plan will elaborate on the benefit-sharing arrangements for Monetary and Non-Monetary Benefits, building on the description in the ER Program Document, and taking into account the importance of managing expectations among potential beneficiaries

<p>Ind 30.1 The Benefit-Sharing Plan is made publicly available prior to ERPA signature, at least as an advanced draft, and is disclosed in a form, manner and language understandable to the affected stakeholders for the ER Program¹². The Benefit-Sharing Plan contains the following information:</p> <p>The categories of potential Beneficiaries, describing their eligibility to receive potential Monetary and Non-Monetary Benefits under the ER Program and the types and scale of such potential Monetary and Non-Monetary Benefits that may be received. Such Monetary and Non-Monetary Benefits should be culturally appropriate and gender and inter-generationally inclusive. The identification of such potential Beneficiaries takes into account emission reduction strategies to effectively address drivers of net emissions, anticipated implementers and geographical distribution of those strategies, land and resource tenure rights (including legal and customary rights of use, access, management, ownership, etc. identified in the assessments carried out under Criterion 28), and Title to ERs, among other considerations.</p> <p>Criteria, processes, and timelines for the distribution of Monetary and Non-Monetary Benefits.</p> <p>Monitoring provisions for the implementation of the Benefit-Sharing Plan, including, as appropriate, an opportunity for participation in the monitoring and/or validation process by the Beneficiaries themselves</p> <p>[Description of benefit-sharing arrangements 16.1]</p>	<p>NA</p>
<p>Nicaragua is preparing a mechanism for the distribution of benefits that will provide incentives to stakeholders involved in sustainable forest management in the accounting area. Section 15 presents the relationship between drivers of deforestation, interventions, and potential elements of benefit sharing.</p> <p>The majority of the resources will be distributed among communal and private land owners or users, including farmers (of agroforestry and silvopastoral systems), forest owners, cooperatives, indigenous communities, private businesses, and private associations of reforesters.</p> <p>These resources will be used to finance community development plans, with emphasis on actions that result in greater value of forests in indigenous communities. The remainder would be utilized to provide incentives for the avoidance of deforestation and forest restoration in private property, through the financing of the silvopastoral and agroforestry trusts aimed at small and medium-sized farmers as well as incentives for avoided deforestation on farms larger than 200 hectares.</p> <p>Section 15 presents the existing distribution mechanisms that are being used in the involved institutions (direct transfers to regional, municipal and territorial governments and distribution of results-based benefits to actors directly involved in the avoidance of deforestation and increased forest cover) and the principles that will guide the distribution of benefits (joint responsibility, the “buen vivir” and the common good philosophy, gender equity, interculturality, citizen participation, transparency, due process, cost-benefit effect).</p> <p>Potential eligible beneficiaries and activities are identified, as the conditions to receive benefits.</p> <p>The preliminary proposal and roadmap for the BSP definition includes:</p> <ul style="list-style-type: none"> - The use of participative methodologies to design the distribution of benefits. - Analysis and consideration of the requirements of the Methodological Framework (MM) regarding the distribution of benefits. - Review of the legal and policy framework. - Dialogue and consultations with different potential beneficiary groups. <p>The indicator is considered as MET</p>	

C 31 The benefit-sharing arrangements are designed in a consultative, transparent, and participatory manner appropriate to the country context. This process is informed by and builds upon the national readiness process, including the SESA, and taking into account existing benefit-sharing arrangements, where appropriate

Ind 31.1 The Benefit-Sharing Plan is prepared as part of the consultative, transparent and participatory process for the ER Program, and reflects inputs by relevant stakeholders, including broad community support by affected Indigenous Peoples. The Benefit-Sharing Plan is designed to facilitate the delivery and sharing of Monetary and Non-Monetary Benefits that promote successful ER Program implementation. The Benefit-Sharing Plan is disclosed in a form, manner and language understandable to the affected stakeholders of the ER Program

NA

[Description of stakeholder consultation process 5.1]

[Summary of the process of designing the benefit-sharing arrangements 16.2]

In line with the provisions of criterion 30 about managing expectations of the potential beneficiaries, it is stated that the definition of the Benefit Sharing Plan will be concluded prior to the signature of the Emission Reductions Payment Agreement (ERPA).

The roadmap presented in Annex 10 for the development of the BSP were reviewed and analyzed in detail with the SDCC, MARENA, and representatives of the Regional Governments. The implementation of the road map will allow MARENA and the participating entities to advance in the definition of benefit sharing for the accounting area in the BOSAWAS Biosphere Reserve, the Indio Maíz Biological Reserve, RACCS, and RACCN prior to the signing of the ERPA. It is established that the elaboration of the Benefit Sharing Plan will consider regional instruments and national laws and policies as well as customary rights, recognizing the indigenous and Afro-descendant populations in the accounting area.

Section 15.2, 15.3 y 15.4 presents concrete actions for the development of a participative process in the formulation of the BSP. Key characteristics of the process include the use of participative methodologies to design the distribution of benefits (identification of actors in the participative process, community mobilization, participatory workshops for the definition of local agreements for the distribution of benefits, validation and execution of the agreements, and execution and control of the plan of distribution of benefits).

It is established that dialogue and consultations with different potential beneficiary groups will be continued in order to facilitate the identification of actions and shared priorities for different types of beneficiaries in the communal, territorial, and regional contexts. These consultations will provide beneficiaries the opportunity to negotiate detailed terms for benefit arrangements and ensure the harmonization of the mechanism of distribution of benefits with the territorial and communal development plans.

Strategic decisions regarding design elements (e.g. potential beneficiaries, benefits, criteria, monitoring, access to benefits, and the form of the agreements between the regional and territorial governments as well as with the beneficiaries (e.g. through the signing of agreements) will be consulted, under the responsibility of Group 2.

Dialogue and consultations with potential beneficiaries will be led by the Regional governments, with support from Working Group 2. Models for benefit distribution arrangements will be the responsibility of Working Groups 2 and 3, but it is established that at present requires greater technical discussion and inputs from potential stakeholders. The consultations will be carried out in four stages during a period of six months.

Participants will include different entities (government institutions, traditional forms of government of the indigenous and Afro-descendant peoples), the communities, territories, environmental organizations, producers, via the different working groups established during the national process of Readiness Preparation.

The processes of consultation, dialogue, consensus and agreements on the territorial plans of the specific plans related to deforestation and carbon emissions, will be guided by the following requirements established in Law 28 and Law 445, respectively:

- The agreements must be approved by the corresponding communal / territorial assemblies, and
- Afterwards, they must be approved by the Regional Governments of the North and South Caribbean and in the Case of the Upper Wangki and Bocay, by the respective assemblies.
- In the case that the sector is not indigenous, it will follow the process through the respective Regional Governments.

The beneficiaries have the option of utilizing the mechanism of Communication Strengthening for the RE Program, that will provide options for the reception of and response to requests for information, questions, suggestions, complaints and grievances, from the interested parties related with the design and execution of the Program for the Reduction of Emissions by deforestation and forest degradation.

The indicator is considered as MET

C 32 The implementation of the Benefit-Sharing Plan is transparent

Ind 32.1 Information on the implementation of the Benefit-Sharing Plan is annexed to each ER Program monitoring report and interim progress report and is made publicly available [16.1]

N.A

Only applicable at the time of verification.

C 33 The benefit-sharing arrangement for the ER Program reflects the legal context

Ind 33.1 The design and implementation of the Benefit-Sharing Plan comply with relevant applicable laws, including national laws and any legally binding national obligations under relevant international laws

YES

[Description of the legal context of the benefit-sharing arrangements 16.3]

Chapter 15 summarizes the state of play concerning the development of the benefit sharing plan (BSP). The BSP planning is at an advanced stage. Though specific investment guidelines and an exact methodology for the distribution of benefits are still missing, core principles have been formulated and received broad – if conditional – approval by stakeholders.

From a legal point of view, the BSP must ensure that all stakeholder who actively contribute to the program must be offered a share in the benefits as well as granted a mechanism to accept or reject such offer. Conversely, stakeholders negatively affected by a program through restrictions of legitimate land tenure use or other may claim compensation through the BSP, and a mechanism must be provided that allows them to participate in the decision-making process before the action can be implemented. A separate BSP objective may consist in setting incentives for other affected parties (who do not hold a legitimate tenure claim); this is a matter of effectiveness and efficiency, however, rather than law.

The latest of the BSP meets the relevant legal thresholds. First, it identifies a wide set of beneficiaries, namely territories and communities (23 recipients), small- and medium-scale producers (flexible number of recipients), autonomous governments (2 recipients), the Special Development Regime of the Upper Wangky and Bocay (1 recipient), and the National Protected Area System (1 recipient). This list covers all established communities within the Accounting Area and autonomous/special governments, and – potentially all – small- and medium-scale farmers through agro-forestry and silvopastoral investment trusts, farmers organizations, and direct farmer-involvement for non-organized farmers.

Participation in the ER Program is voluntary, with the BSP setting out the terms and procedure for participation. Each participant/recipient will conclude an agreement (referred to as “subsidiary agreements”, in the following “SA”) with the Program entity, it being understood that each potential participant is free to reject participation, with the ER Program committing to the principle of free, prior and informed consent and the application of the safeguards mechanisms in place (section 15.7, page 301).

The SAs will define the type and quantity of reward, the mechanism for distribution, and they will assign the title to ERs from the participants/recipients to the Program entity. The SAs will be adopted at the level of community assemblies, as well as municipal and by regional governments, and for small-scale and medium-scale farmers at the level of producer groups and organizations (*ibidem*), or with individual farmers, when these are not organized (section 15.4, page 294).

Certain questions remain, with potential implications for the legal coherence of the BSP as a whole. The distribution key for the net ERPA proceeds is not wholly coherent. (10% are taken from the gross proceeds to pay for operations such as monitoring and safeguards (5% in total) and to pay for a reserve fund designated to compensate high-performing participants in case of an overall output shortfall (also 5%)). According to one calculation, 77% of net proceeds benefits are foreseen for indigenous and Afro-descendant peoples and 23% for small-scale farmers. According to another calculation, these shares are 69% and 20%, with the remaining 11% being distributed to the regional governments and SINAP.

Then, it seems not yet decided which institution will be in charge of receiving and channeling the ER proceeds. This is an important detail informing the robustness and transparency of Nicaragua’s benefit sharing model as a whole. Previous versions of the ER-PD included several options (Option 1 would give MARENA and the Ministry of Finance (MHCP) joint responsibility; under Option 2, MHCP would distribute directly to Indigenous and Afrodescendant peoples (via the regional governments), while the National Forestry Development Fund (FONADEFO) would channel funding into investment vehicles for participating farmers; Option 3 would consist in establishing a central national fund/trust for the management of all funds or mandating an existing fund/trust with that task. The latest ER-PD version no longer provides any information on the specifics.

Process aside, proceeds will be used to pay participants/recipients in cash or allow for investments (in goods, supplies, technologies, etc.). However, the proceeds will only materialize on the basis of ERs achieved. Where investments are needed to implement the deforestation/degradation targets (not all investments are used directly with this aim; community investments, in particular, may be used for community purposes at large), a funding gap may materialize, an issue not addressed at the level of the BSP. In this context, it is also important to attune benefit distribution to the actual financing needs. As the ER Program is to support improved legal compliance and control (cf. section 4.3 and the annex document on tenure, referenced under Indicator 28.1 above), Program proceeds may need to be earmarked, and investments scheduled, accordingly. From chapter 15 in its current form, it is difficult to identify whether ERPA proceeds are used for this purpose or whether third funding will be made available.

Furthermore, it is not clear whether the ER Program will technically be able to trace the ER contribution of each participant, this contribution being the basis for the participant’s share in the proceeds (cash and in-kind), see section 15.6, page 299. The ER-PD states that INETER will construct and update biannually maps of ground cover with high-resolution images (RapidEye) and that the generated information will permit monitoring of the spatial distribution of deforestation and increases in cover generated in the indigenous and Afro-descendant territories and the private areas (section 15.7, page 300). However, at least for non-community areas, reporting of ER results per participant/recipient is probably not feasible.

Finally, the ER-PD does not include a timetable for the finalization of the BSP.

While these concerns are deemed material, they are not in the way of finding that the BSP is expected to be legally compliant. Altogether, the ER-PD demonstrates a promising BSP model which responds to the underlying legal requirements and implications. This said, it is understood that the concerns raised must be addressed in the final BSP. Clarity on the timing and the timetable for completion should be provided ahead of ERPA negotiations.

The indicator is considered as MET	
C 34 Non-Carbon Benefits are integral to the ER Program	
<p>Ind 34.1 The ER Program outlines potential Non-Carbon Benefits, identifies priority Non-Carbon Benefits, and describes how the ER Program will generate and/or enhance such priority Non-Carbon Benefits. Such priority Non-Carbon Benefits should be culturally appropriate, and gender and inter-generationally inclusive, as relevant</p> <p>[Outline of potential Non-Carbon Benefits and identification of Priority Non-Carbon Benefits 17.1 in the reviewed ER-PD of 15 January 2016]</p>	YES
<p>The document identifies (section 16.1) potential non-carbon benefits that can be promoted through the Program: improved livelihoods and food security, mitigation of climate change, increase climate resilience of human populations, the protection and recuperation of watersheds and conservation of biodiversity. Within this context, Nicaragua has selected biodiversity and off-farm employment in the accounting area as priority environmental and socioeconomic co-benefits, due to their importance in the National Human Development Plan and considering the existing private and institutional capacity for their monitoring.</p> <p>The subject of biodiversity and its loss has been raised by local stakeholders during the consultation workshops and sessions of the SESA working group.</p> <p>On the other hand, the selection of off-farm employment as an important non-carbon benefit is based on its importance as a cross-cutting element within the National Plan of Human Development as well as government policies aimed at the integrated development of the Caribbean Coast.</p> <p>Special attention will be paid to organized women’s conservation organizations and youth groups in the indigenous and Afro-descendant territories due to their active role in the ER Program’s dialogue and participation process as well as their future potential to promote community forestry management practices that create employment while conserving biodiversity. Women’s organizations will receive special attention for activities related to training and leadership strengthening, while youth groups will be targeted by awareness campaigns in schools as well as conservation field days.</p> <p>The indicator is considered as MET</p>	
<p>Ind 34.2 Stakeholder engagement processes carried out for the ER Program design and for the readiness phase inform the identification of such priority Non-Carbon Benefits</p> <p>[Description of stakeholder consultation process 5.1]</p>	YES
<p>Sections 5 and 16 demonstrates the linkages between non-carbon benefits that have been prioritized by the Program, particularly biodiversity and off-farm employment, and the Consultation and Participation Process.</p> <p>The subject of biodiversity and its loss has been raised by local stakeholders during the consultation workshops and sessions of the SESA working group. These stakeholders have expressed the importance of monitoring biodiversity due to their concern regarding the reduction of useful species important for subsistence and their habitats. As part of their worldview, they consider that these changes in the patterns of biodiversity are related to ecosystem level changes associated with rainfall and natural habitat degradation.</p> <p>OBSERVATION: The TAP suggest to further consult the stakeholders as part of the Consultation and Participation Process, to obtain more information about the prioritized Non-Carbon Benefits.</p> <p>The indicator is considered as MET</p>	
C 35 The ER Program indicates how information on the generation and/or enhancement of priority Non-Carbon Benefits will be provided during ER Program implementation, as feasible.	

<p>Ind 35.1 The ER Program proposes an approach utilizing methods available at the time to collect and provide information on priority Non-Carbon Benefits, including, e.g., possibly using proxy indicators. If relevant, this approach also may use information drawn from or contributed as an input to the SIS [Approach for providing information on Priority Non-Carbon Benefits 17.2]</p>	<p>YES</p>
<p>The document identifies methods that will be used to monitor biodiversity and off-farm employment. In the case of biodiversity, avian biodiversity will be used as an indicator of overall biodiversity. Its monitoring will be carried out between MARENA and INAFOR through the establishment of a base line and 371 permanent plots will be chosen due to their importance for conservation and the areas of implementation of the project. This information will be complemented with that from 28 bird monitoring stations of the Biodiversity Directorate of MARENA. In relation with data gathering methods, the Program considers: captures, sampling along linear transects and points, quadrants and plots and analysis of satellite imagery. Variables that might be monitored in relation with avian biodiversity are: avifauna diversity and abundance, presence or absence of indicator species and vegetation index. Although the information provided regarding methods available to collect information on avian biodiversity is appropriate, it is not clear how that information is going to be reported and delivered during the Program implementation and who are going to be the recipients of it. With regards to the creation of off-farm employment, indicators being considered are:</p> <ul style="list-style-type: none"> • The creation of jobs in forestry and agroindustrial businesses in the accounting area, and • The number of workers in the forestry and agroindustrial sectors in the accounting area who are registered in the Nicaraguan Institute of Social Security (INSS). <p>PRONicaragua investment promotion program will provide direct and indirect employment data related to the establishment of new businesses in the accounting area. This information will be provided to MARENA on an annual basis under a formal cooperative agreement. The results will be published on SINIA’s website and will be available to the general public.</p> <p>In the case of employment data originating with the INSS, the Central Bank of Nicaragua has monthly registers of the actives participants in the Social Security system which can be used to prepare annual estimates of the number of workers in the forestry and agroindustrial sectors.</p> <p>It is anticipated that the final design of the indicators and their monitoring will incorporate inputs from the consultations that will be carried out during 2018.</p> <p>OBSERVATION: The TAP suggest to indicate how the information of non-carbon benefits will be delivered to the different actors involved in the Program implementation (indicating responsibilities, mechanisms, institutional arrangements).</p> <p>The indicator is considered as MET</p>	
<p>Ind 35.2 Information on generation and/or enhancement of priority Non-Carbon Benefits will be provided in a separate annex to each ER Program monitoring report and interim progress report, and will be made publicly available</p>	<p>N.A</p>
<p>Only applicable at the time of verification.</p>	
<p>C 36 The ER Program Entity demonstrates its authority to enter into an ERPA and its ability to transfer Title to ERs to the Carbon Fund</p>	

<p>Ind 36.1 The ER Program Entity demonstrates its authority to enter into an ERPA with the Carbon Fund prior to the start of ERPA negotiations, either through:</p> <ul style="list-style-type: none"> i. Reference to an existing legal and regulatory framework stipulating such authority; and/or ii. In the form of a letter from the relevant overarching governmental authority (e.g., the presidency, chancellery, etc.) or from the relevant governmental body authorized to confirm such authority. <p>[Authorization of the ER Program 18.1]</p>	<p>YES</p>
<p>The document identifies MARENA as the authorized body to enter into the ERPA for and on behalf of the government of Nicaragua. MARENA has subject authority for the implementation of the ERPA and has been specifically granted authorization for ERPA negotiation and signature through Presidential Agreement 21-2018 (copy attached in Annex 11).</p> <p>The indicator is considered as MET</p>	
<p>Ind 36.2 The ER Program Entity demonstrates its ability to transfer to the Carbon Fund Title to ERs, while respecting the land and resource tenure rights of the potential rights-holders, including Indigenous Peoples (i.e., those holding legal and customary rights, as identified by the assessment conducted under Criterion 28), in the Accounting Area. The ability to transfer Title to ERs may be demonstrated through various means, including reference to existing legal and regulatory frameworks, sub-arrangements with potential land and resource tenure rights-holders (including those holding legal and customary rights, as identified by the assessments conducted under Criterion 28), and benefit-sharing arrangements under the Benefit-Sharing Plan</p> <p>[Transfer of Title to ERs 18.2]</p>	<p>YES</p>
<p>The ER-PD states that ownership of ERs is associated with land property rights of individuals and communities (see also above, Indicator 28.3). A legal opinion from the Attorney General is summarized as follows (page 317):</p> <p><i>“In its finding, the Office of the Attorney General noted that the Forestry Sector Conservation, Promotion and Sustainable Development Law (Law 462) and the Environmental and Natural Resources Law (Law 217) contain sufficient elements and regulatory definitions to determine that the owners of the carbon emissions reductions are those who legitimately own the real estate on which the forest resource is located that generates the aforementioned environmental services.”</i></p> <p>The implications of this conceptual approach to ER rights are significant. In principle, it means that landowners will have a claim to ERs irrespective of whether they actively contribute to the Program or not. It also means that the Program entity will require specific authorization from all landowners to transfer title to the ERs. This may be less of a challenge for community landholdings, as all communities (23 indigenous and Afrodescendant territories in the RACCS, RACCN, as well as Alto Wangki and Bocay) are involved in the ER Program. Yet, for privately held plots within the Accounting Area, the approach may prove challenging. The final ER-PD (version April 2019) states that agreements will be signed with “producer organizations, as representatives of individual producers in the [Accounting Area]” (page 315). It makes clear, at the same time, that it is an unlikely scenario that the producer organizations under contract will account for <i>all land plots outside community land</i>.</p> <p>The final ER-PD plans, therefore, to place a percentile of ERs – equal to the ratio of [unaccounted land / total Accounting Area] into a reserve, on the understanding that this reserve represents the number of ERs for which title cannot be demonstrated.</p> <p>In the opinion of TAP, this approach is both sound and necessary. As long as Nicaraguan law implies title to ERs to be an accessory to land, without making any further qualification (for a possible qualification, see below), complete</p>	

title to ERs can only be guaranteed if agreements are in place with *all* landowners. This is so because the monitoring system does not allow for a calibration to the effect that it traces ERs on those land plots only, which have an authorization agreement with the Program entity in place. ER monitoring will happen for the entire Accounting Area as a whole.

In the view of TAP, the proposed metrical approach to calculate the percentile of ERs is also adequate. As the Methodological Framework makes clear, ERs are defined as the verified “difference” between the GHG emissions reference scenario – the likely course of events for the program area in the absence of the program actions – and the GHG project emissions. As long as there is a single reference scenario for the entire Accounting Area, number of ERs are distributed proportionate to the area size.

An alternative solution – that may still take shape depending on the results of a new consultation with the Attorney General that is underway – would consist in designing a legal environment that requires a combination (or ‘nexus’) of land ownership and actual, voluntary contribution to the ER Program to create title to ERs. This land-cum-activity approach to ER would be implemented through a mutual agreement between program entity and landowner. In this case, title to ERs would not be created *in abstracto* – benefiting all landowners regardless of their active contribution to the ER Program – but only as a result of such contribution as evidenced through specific participation agreements.

Provided this alternative approach becomes recognized under Nicaraguan law – through a new legal instrument or new legal guidance from the Attorney General – there would no longer be a need for an ER reserve as currently foreseen under the ER-PD.

The indicator is considered as MET

Ind 36.3 The ER Program Entity demonstrates its ability to transfer Title to ERs prior to ERPA signature, or at the latest, at the time of transfer of ERs to the Carbon Fund. If this ability to transfer Title to ERs is still unclear or contested at the time of transfer of ERs, an amount of ERs proportional to the Accounting Area where title is unclear or contested shall not be sold or transferred to the Carbon Fund
[Transfer of Title to ERs 17.2]

YES

The final ER-PD states that all agreements to transfer title (from indigenous and Afro-descendant communities as well as from individual landowners) will be concluded prior to ERPA signature (section 15.7, page 301):
“The negotiation, consulting and signing process for the subsidiary agreements will be performed prior to the signing of the Reduction of Emissions Payment Agreement (ERPA).”

The process and the procedure suggested for the transfer of title are adequate. On the need for building a reserve of ER, as title remains unclear for a portion of the total ERs, see Indicator 36.2.

The indicator is considered as MET

C 37 Based on national needs and circumstances, the ER Program works with the host country to select an appropriate arrangement to avoid having multiple claims to an ER Title.

Ind 37.1 Based on national needs and circumstances, the ER Program host country has made a decision whether to maintain its own comprehensive national REDD+ Program and Projects Data Management System, or instead to use a centralized REDD+ Programs and Projects Data Management System managed by a third party on its behalf. In either case of a country’s use of a third party centralized REDD+ Programs and Projects Data Management System, or a country’s own national REDD+ Programs and Projects Data Management System, the indicators below apply
[Data management and Registry systems to avoid multiple claims to ERs 18.2]

YES

<p>The methodological framework does not require that a sufficient system is in place at the time of the ER-PD. Certain preparatory actions or decisions will suffice. Under the present indicator, it should be demonstrated that the host country has assessed national needs and circumstances in order to make the decision whether a national system or a third-party system will be established.</p> <p>Over the latest versions, the ER-PD has much improved. Data management and registry functions are clearly defined, and roles have been allocated. Nicaragua chooses to operate the data management system at the national level and the registry system at the international level. The role of the Ministry of Finance remains somewhat vague, in this context.</p> <p>The indicator is considered as MET</p>	
<p>Ind 37.2 A national REDD+ Programs and Projects Data Management System or a third party centralized REDD+ Programs and Projects Data Management System needs to provide the attributes of ER Programs, including:</p> <ul style="list-style-type: none"> i. The entity that has Title to ERs produced; ii. Geographical boundaries of the ER Program or project; iii. Scope of REDD+ activities and Carbon Pools; and iv. The Reference Level used. <p>An ER Program for the Carbon Fund should report its activities and estimated ERs in a manner that conforms to the relevant FCPF Methodological Framework C&Is</p> <p>[Data management and Registry systems to avoid multiple claims to ERs 18.2]</p>	<p>YES</p>
<p>While the data management system does not yet have to be in place, conceptual approaches need to be explored and guarantees given concerning the scope and comprehensiveness of information (see further Ind. 37.1). The document does provide certain a number of details on the data design of the future system. Reference is made to different data sets. The MRV system located at the national level (“national scope”) is referenced as tracing “forest coverage and biomass”, while for the “international scope” an administrative report is envisaged, which contains relevant project/program data, including concerning geographic boundaries, title to ER, reference levels applicable, and activities covered.</p> <p>The indicator is considered as MET</p>	
<p>Ind 37.3 The information contained in a national or centralized REDD+ Programs and Projects Data Management System is available to the public via the internet in the national official language of the host country (other means may be considered as required).</p> <p>[Data management and Registry systems to avoid multiple claims to ERs 19.2]</p>	<p>YES</p>
<p>The ER-PD notes that the information of the data management system will be made publicly available on the internet (in the Spanish language), and that the relevant platform will be managed by MARENA. A consultancy is under way on the specific design of the platform and the relevant administrative procedures.</p> <p>The indicator is considered as MET</p>	
<p>Ind 37.4 Administrative procedures are defined for the operations of a national or centralized REDD+ Programs and Projects Data Management System; and an audit of the operations is carried out by an independent third party periodically, as agreed with the Carbon Fund</p> <p>[Data management and Registry systems to avoid multiple claims to ERs 18.2]</p>	<p>YES</p>

<p>The latest ER-PD version contains preliminary information on administrative processes and auditing operations (to be determined in the ERPA).</p> <p>The indicator is considered as MET.</p>	
<p>C 38 Based on national needs and circumstances, ER Program host country selects an appropriate arrangement to ensure that any ERs from REDD+ activities under the ER Program are not generated more than once; and that any ERs from REDD+ activities under the ER Program sold and transferred to the Carbon Fund are not used again by any entity for sale, public relations, compliance or any other purpose</p>	
<p>Ind 38.1 Based on national needs and circumstances, the ER Program host country has made a decision whether to maintain its own national ER transaction registry, or instead to use a centralized ER transaction registry managed by a third party on its behalf</p> <p>[Data management and Registry systems to avoid multiple claims to ERs 18.2]</p>	<p>YES</p>
<p>The document seems to refer to both the data system and the registry architecture as a single instrument. On that assumption, the two-step approach explained above under Indicator 37.1 is valid for both the data management system and the registry.</p> <p>Additionally, the risk for double-claiming between the ER Program and the (future) NDC may be explored or – if information on NDC commitments are still unknown – it may be noted that any such risk will be addressed through dedicated registry functions.</p>	
<p>Ind 38.2 The national or centralized ER transaction registry reports ERs for the Carbon Fund using the accounting methods and definitions described above in the MF</p> <p>[Data management and Registry systems to avoid multiple claims to ERs 19.2]</p>	<p>NA</p>
<p>It is assumed that the methodological approach will be MF-compliant. The assumption is to be verified, when the registry is available.</p> <p>This indicator may be considered as not-applicable at this stage</p>	
<p>Ind 38.3 An independent audit report certifying that the national or centralized ER transaction registry performs required functions is made public.</p> <p>[Data management and Registry systems to avoid multiple claims to ERs 19.2]</p>	<p>NA</p>
<p>All reporting – presumably also the registry functions – will be subject to internal and external audits.</p> <p>This indicator may be considered as not applicable at this stage.</p>	
<p>Ind 38.4 Operational guidance exists, or is in advanced stage of preparation, that clarifies the roles and responsibilities of entities involved in the national or centralized ER transaction registry, as well as rules for operation of the registry.</p> <p>[Data management and Registry systems to avoid multiple claims to ERs 19.2]</p>	<p>NA</p>
<p>In the latest ER-PD version, administrative responsibilities are well defined, though the specific function of the Ministry of Finance may need to be cross-checked against its overall role in the program.</p> <p>This indicator may be considered as not-applicable at this stage.</p>	

Annex 1 to the TAP technical assessment