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

# I General Approach of the Review

TAP team (Technical Advisory Panel) for reviewing Mexico's ER-PD (Emission Reductions Program Document) is composed of 5 professionals/experts: 1.Dr. Julian Gonzalo: Lead Reviewer and Carbon Accounting Expert, 2.Mr. Agustin Inthamoussu: Carbon Accounting Expert, 3.Mr. Mario Nanclares: Social and Environmental Safeguards Expert, 4. Dr. Alejandro Guevara: Country Expert and 5.Mr. Ludovino Lopez: Legal Expert.

On June 8<sup>th</sup>, 2016, CONAFOR delivered the first draft of the ER-PD, and the process of reviewing by the TAP team hired by the FCPF, started. As part of the evaluation process, the TAP conducted a Desk Review of the draft ER-PD and supporting documents, highlighting a list of questions indicating aspects of the draft ER-PD that would need further clarifications and preparing a country visit agenda jointly with CONAFOR and WB.

The distribution of indicators' review from the methodological framework between the TAP members was made as follows during the Desk Review. After discussion a joint agreement was achieved in all phases.

TAP Leader was directly responsible for overall supervision and coordination and preparing the description of the technical assessment and the summary assessment of the quality and completeness of the ER-PD. TAP leader reviewed and drafted the assessment of the following indicators: Carbon Accounting 9.1, 14.1, 14.2, 14.3, 15.1, 16.1, 23, Drivers and Land Resource Tenure Assessment 27.1-27.2 and Data Management and ER Transaction Registries 37.1-38.4. Tap leader also provided supplementary analyses for the rest of the Carbon Accounting indicators 3.1-23.

Country Expert was directly responsible for reviewing and drafting the assessment of the following indicators: Level of Ambition 1.1-2.1, and Benefit sharing 29.1-30.1. Country expert also provided supplementary analyses for Scope and methods indicators 3.1-3.3, 4.1-4.3, 5.1, 6.1-6.2.

Carbon accounting expert was directly responsible for reviewing and drafting the assessment of the following Carbon Accounting indicators: Scope and methods 3.1-6.2, Uncertainties 7.1-8.2, 9.2, 9.3, Reference Level 10.1-13.4, Accounting for Displacement (leakage) 17.1-17.4, Accounting for Reversals Criteria 18.1-21.2, and Accounting for ERs 22. Carbon accounting expert also provided supplementary analyses for Carbon accounting indicators 9.1, 14.1, 14.2, 14.3, 15.1, 16.1, 23.

Social and environmental safeguards expert was directly responsible for reviewing and drafting the assessment of the following indicators: Safeguards. Actions undertaken to meet WB and Cancun Safeguards 24-26.3, Benefit sharing 31.1-32.1, and Non-Carbon Benefits 34.1-35.2. Social and environmental safeguards expert also provided supplementary analyses for indicators: Carbon Accounting 16.1, Drivers and Land Resource Tenure Assessment 28.1-28.2, Benefit sharing 29.

Legal expert was directly responsible for reviewing and drafting the assessment of the following indicators: Drivers and Land Resource Tenure Assessment 28.1-28.3, Benefit sharing 33.1, and ERPA Signing Authority and Transfer of Title to ERS 36.1-36.3. Legal expert also provided supplementary analyses for indicators: Carbon Accounting 23, Benefit sharing 30.1 and Data Management and ER Transaction Registries 37.1-38.4.

TAP conducted a country visit at the headquarters of the CONAFOR in Guadalajara, from 4 to 8 July 2016. During that week, CONAFOR teams presented the main chapters of the ER-PD in detail, providing all kinds of methodological clarifications to the TAP team and identifying additional information as needed. The level of compliance of the ER-PD against the CF methodological framework was evaluated, focusing on those key issues that were identified and highlighted

during the desk review. The FMT / WB team accompanied discussions verifying the mutual understanding between the TAP and CONAFOR.

As a result of the discussions held throughout the mission, the TAP provided and presented (July 8<sup>th</sup>, 2016) a preliminary assessment (indicator by indicator) along with a series of observations on the implementation of the IRE, that would guide the reprocessing of the Advanced draft ER-PD.

After the country visit, CONAFOR prepared and submitted the advanced draft ER-PD to the FMT and to the TAP team (July 26<sup>th</sup>, 2016). The Assessment Report (AR) of the that advanced draft ER-PD, included a description of the changes that occurred from draft ER-PD to advanced draft ER-PD as a result of the preliminary assessment process, and it was prepared (August 8<sup>th</sup>, 2016) and sent (August 14<sup>th</sup>, 2016) to the CONAFOR and WB's teams.

Once the assessment report was analyzed by the FMT and CONAFOR teams, minor modifications were prepared and the final version was submitted for publishing on August 28<sup>th</sup>,2016.

A series of explanatory thematic calls were organized with the aim of clarifying some comments and notes to several indicators and providing a clear orientation for the improvement of the final ER-PD document. In particular, the calls held between working teams were: on August 26<sup>th</sup>, 2016, concerning to the Reference Level and MRV System, on September 2<sup>nd</sup>, 2016, with reference to the Benefit Sharing Plan, on September 6<sup>th</sup>, 2016, regarding the ERs Registry, on September 7<sup>th</sup>, 2016, with respect to Safeguards elements, on September 30<sup>th</sup> and October 7<sup>th</sup>, 2016 concerning Legal issues and finally on October 12<sup>th</sup>, 2016, about the processes of generating and transferring titles.

On October 26<sup>th</sup>, 2016, the TAP received an updated and preliminary version of the ER-PD document, in the absence of a review of the information related to the Environmental and Social Management Framework (MGAS) and the Safeguards Plans (workshop on November 3<sup>rd</sup> and 4<sup>th</sup>, 2016) and Annex 5, incorporating comments by the REDD + Working Group.

On November 11<sup>th</sup>, 2016, CONAFOR sent the MGAS (adding the results of the workshop held in Mexico City), requesting TAP feedback, which was provided on November 15<sup>th</sup>, 2016. Finally on November 17<sup>th</sup>, 2016, ER-PD final version (in Spanish and English) and its Annexes, were sent to the TAP for its assessment. This updated Technical Assessment was completed and submitted on November 20<sup>th</sup>, 2016.

# **PART 1 OF TECHNICAL ASSESSMENT: Summary**

Date of Current Assessment: November 20th, 2016

Date of Current ER-PD version: Final ER-PD, November 17th, 2016

#### Name of Assessment team members:

- 1. Dr. Gonzalo, Julian (Lead Reviewer and Carbon Accounting Expert): General coordination, text editing, carbon accounting, program Design and Implementation and ER program transactions, (section 3, section 5, section 6).
- 2. Dr. Guevara, Alejandro (Country Expert): Level of ambition and program Design and Implementation (section 2, section 5).
- 3. Mr. Inthamoussu, Agustin (Carbon Accounting Expert): Carbon accounting (section 3).
- 4. Mr. Lopez, Ludovino (Legal Expert): Program Design and Implementation and ER Program transactions, (section 5, section 6).
- 5. Mr. Nanclares, Mario (Social and Environmental Safeguards Expert): Safeguards and program Design and Implementation (section 4, section 5).

Even though the Benefit Distribution Plan has not yet been prepared, it was included an extended description of the participatory construction process to be conducted and any arrangements for its formulation and execution. The only question to solve is still that ER Program doesn't address the description how Benefit Sharing Plan will be in accordance and compliant with the international legal framework.  Non-carbon benefits (social and environmental benefits) to be generated by the Program were adequately identified and described.  Finally, there is a strong and consistent initiative to design and implement an efficient and transparent ER Transaction Registry. The Forest Registry, the web platform currently in testing period, will become operational from the first quarter of 2017.  Only certain legal aspects related to the demonstration of the ability of the ER Program Entity to transfer to the Carbon Fund Title to ERs, should be addressed.  II. Level of Ambition → Criteria 1 – 2, including issues relating to legal aspects  The ER-PD focuses on five Mexican States that account for 36% of total deforestation in Mexico. These  YES  YES  YES  YES  YES  YES  YES  YE		1	T	
substantially improved compared to the previous advanced version. The expert groups from COMAFOR have completed all the required sections of the document (program design and implementation, carbon accounting, safeguards, ER program transactions etc.) with a high level of adequacy to the FCPF Carbon Fund Methodological Framework, improving many of the sections, with the results from their own ongoing processes and the recommendations from the TAP.  The ER-PD focuses on five Mexican States with the highest deforestation rates (36% of the national rate); Campeche, Chiapas, Jalisco, Quintana Roo and Yucatan, on 11 specific areas of intervention, where detailed activities under the umbrella of long-term planning innovative instruments; investment Programs (PI), will be implemented.  Key drivers and underlying causes of deforestation and forest degradation in the accounting area and the major barriers to face them were identified and analyzed. The selection of the activities included in these investment Programs, was conducted through a participatory process and it was sufficiently justified that the described activities are capable of, overcoming the risks, facing drivers and underlying causes.  In general, a very commendable and rigorous analysis was conducted in the carbon accounting section, although it is still expected an improvement in this final version; to complete some analysis that have not yet been entirely made (AD uncertainty analysis and a sensitivity analysis to assess the relative contribution of each variable to the total uncertainty analysis and a sensitivity analysis to assess the relative contribution of each variable to the total uncertainty analysis and a sensitivity analysis to assess the relative contribution of each variable to the total uncertainty analysis and a sensitivity analysis to assess the relative contribution of each variable to the total uncertainty analysis and a sensitivity analysis to assess the relative contribution of each variable to the total uncertainty analysis and a sen	Summary Assessment of the Quality and Completeness of the ER-PD:			
Management (MGAS, in Spanish). Safeguards Plans will be developed for each one of the IRE's States in a participated process identifying the mechanisms for implementation and coordination through which the measures and procedures oriented to mitigate risks identified in the MGAS will apply. It is still recommended to include information on institutional arrangements to ensure the institutional capacity and the resources necessary to comply with the implementation and monitoring of the environmental and social safeguards, and to make the MGAS document available (to create operational links in the ER-PD).  Even though the Benefit Distribution Plan has not yet been prepared, it was included an extended description of the participatory construction process to be conducted and any arrangements for its formulation and execution. The only question to solve is still that ER Program doesn't address the description how Benefit Sharing Plan will be in accordance and compliant with the international legal framework.  Non-carbon benefits (social and environmental benefits) to be generated by the Program were adequately identified and described.  Finally, there is a strong and consistent initiative to design and implement an efficient and transparent ER Transaction Registry. The Forest Registry, the web platform currently in testing period, will become operational from the first quarter of 2017.  Only certain legal aspects related to the demonstration of the ability of the ER Program Entity to transfer to the Carbon Fund Title to ERs, should be addressed.  II. Level of Ambition → Criteria 1 – 2, including issues relating to legal aspects  The ER-PD focuses on five Mexican States that account for 36% of total deforestation in Mexico. These  The ER-PD focuses on five Mexican States that account for 36% of total deforestation in Mexico. These	substantially improved compared to the previous advanced version. The expert groups from CONAFOR have completed all the required sections of the document (program design and implementation, carbon accounting, safeguards, ER program transactions etc.) with a high level of adequacy to the FCPF Carbon Fund Methodological Framework, improving many of the sections, with the results from their own ongoing processes and the recommendations from the TAP.  The ER-PD focuses on five Mexican States with the highest deforestation rates (36% of the national rate); Campeche, Chiapas, Jalisco, Quintana Roo and Yucatan, on 11 specific areas of intervention, where detailed activities under the umbrella of long-term planning innovative instruments; Investment Programs (PI), will be implemented.  Key drivers and underlying causes of deforestation and forest degradation in the accounting area and the major barriers to face them were identified and analyzed. The selection of the activities included in these Investment Programs, was conducted through a participatory process and it was sufficiently justified that the described activities are capable of, overcoming the risks, facing drivers and underlying causes.  In general, a very commendable and rigorous analysis was conducted in the carbon accounting section, although it is still expected an improvement in this final version; to complete some analysis that have not yet been entirely made (AD uncertainty analysis and a sensitivity analysis to assess the relative contribution of each variable to the total uncertainty of the emissions reductions) and to materialize the AD Monitoring System for Mexico (MADMex) as the selected system for monitoring, measuring and		essment	essment
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adequately identified and described.  Finally, there is a strong and consistent initiative to design and implement an efficient and transparent ER Transaction Registry. The Forest Registry, the web platform currently in testing period, will become operational from the first quarter of 2017.  Only certain legal aspects related to the demonstration of the ability of the ER Program Entity to transfer to the Carbon Fund Title to ERs, should be addressed.  II. Level of Ambition → Criteria 1 − 2, including issues relating to legal aspects  The ER-PD focuses on five Mexican States that account for 36% of total deforestation in Mexico. These  YES  YES  YES  YES  YES  YES  YES  YE	formulation and execution. The only question to solve is still that ER Program doesn't address the			
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States bear different jurisdictions, and different environmental and social contexts. The Strategy considers aspects to bring into line interests of owners/users of the land in which the Program will be	States bear different jurisdictions, and different environmental and social contexts. The Strategy			YES

implemented. However, two main potential risks in implementing the program were detected; (i) the replicability of the best practices of the APDTs and (ii) the effective involvement of SAGARPA (the Mexican Ministry of Agriculture) in the Program, and a future opportunity to its extension to other States that currently are not part of the IRE (evaluating the convenience based on a deforestation risk index prepared by a federal agency; INECC. The level of compliance of the ER-PD against the CF methodological framework in this section was evaluated with a 100%. 3.1 YES YES III. Carbon Accounting 3.2 **YES YES** III (a) Scope and methods → Criteria 3 - 6 3.3 **YES YES** 4.1 NO YES III (b) Uncertainties → Criteria 7 - 9 4.2 NO **YES** III (c) Reference Level → Criteria 10 - 13 5.1 **YES YES** III (d) Reference Level, Monitoring & Reporting on Emission Reductions -> Criteria 14-16 6.1 NO **YES** 6.2 NO **YES** III (e) Accounting for Displacement (leakage) → Criterion 17 7.1 NO **YES** III (f) Accounting for Reversals → Criteria 18 – 21 7.2 NO NO 8.1 **YES YES** III (g) Accounting for ERs → Criteria 22 - 23 NO 8.2 NO 9.1 NO NO The document presents, in general, a very detailed analysis in this section. The work is commendable 9.2 N.A N.A and rigorous in almost all criteria. 9.3 N.A N.A Mexico's ER-PD has considered emissions from deforestation and forest degradation. Other activities **YES** 10.1 YES are not part of the plan and the TAP understands and agrees with the justifications provided. The majority of carbon pools are taken account for the estimation of the Forest Reference Level and 10.2 YES **YES** MRV. The only carbon pool not considered is soil organic carbon and its exclusion is coherent with the 10.3 YES YES Methodological Framework and comparable with other documents. 11.1 **YES YES** Displacement and reversals related to Mexico's ER Program are well treated and considered in the 11.2 NO **YES** document. 12.1 **YES YES** Great advances have been made since the first versions of the document and in particular, in 13.1 YES **YES** comparison with the result of the evaluation of the Advanced ER-PD (the level of compliance of that 13.2 N.A N.A version of the ER-PD against the CF methodological framework in this section was evaluated with a 13.3 N.A N.A 63.6%). However, TAP encourages responsible teams to conclude with the progress made: implementing the 13.4 N.A N.A AD uncertainty analysis (following the correct methodological procedures presented) and performing 14.1 **YES YES** the sensitivity analysis to assess the relative contribution of each variable to the total uncertainty of 14.2 NO **YES** emissions and reductions (also following the procedure described in the ER-PD). Finally although the 14.3 YES **YES** proposals for improvement of EFs and AD during the ERPA period have been concreted and 15.1 **YES YES** substantially improved, we must insist that both should be necessarily implemented to achieve the 16.1 **YES** YES reporting requirements. 17.1 **YES YES** The level of compliance of the Final ER-PD against the CF methodological framework in this section was **17.2 YES YES** evaluated with a 90.9%. **17.3** N.A N.A 17.4 N.A N.A 18.1 YES **YES** 18.2 **YES YES** 19.1 YES **YES** 20.1 N.A N.A 20.2 N.A N.A

	24.4	VEC	VEC
	21.1 21.2	YES N.A	YES N.A
	22	NO NO	YES
	23	NO	YES
N/ Cofee and	24.1	NO	YES
IV. Safeguards	24.2	NO	YES
Actions undertaken to meet WB and Cancun Safeguards→ Criteria 24-26	25.1	YES	YES
Mexico conducted a Strategic Environmental and Social Assessment (SESA), which resulted in a	25.2	N.A	N.A
Framework of Environmental and Social Management (MGAS, in Spanish), which is the instrument that		YES	YES
includes the principles, guidelines and procedures to address, prevent and minimize the adverse risks/impacts and enhance the social and environmental benefits associated with the implementation	26.2	YES	YES
of the ENAREDD+ and the IRE according to the environmental and social safeguards of the UNFCCC and the World Bank.	26.3	YES	YES
Safeguards Plans will be developed for each one of the IRE's States in a process led by the governments			
of the different States in coordination with the Federal Government, adjustment themselves in terms			
of the specificities of each State. For the development of these Plans, the participation of key actors – such as leaders of indigenous peoples – will be promoted from the onset to ensure viability and risk			
mitigation, and these plans will be built integrating the gender perspective as well as considering the local experience in governance terms.	ļ		
The Plans will be effective during IRE's implementation and will be updated periodically to incorporate			
any measures and procedures necessary to ensure compliance with safeguards upon implementation of the different stages of the investment programs' activities.			
Safeguards Plans will identify the mechanisms for implementation and coordination through which the measures and procedures oriented to mitigate risks identified in the MGAS will apply.			
It is recommended to include information on institutional arrangements in Section 6 of the ER-PD to ensure the institutional capacity and the resources necessary to comply with the implementation and monitoring of the environmental and social safeguards.  The level of compliance of the ER-PD against the CF methodological framework in this section was evaluated with a 100%.			
V. Sustainable Program Design and Implementation	27.1	YES	YES
	27.2	YES	YES
V. (a) Drivers and Land Resource Tenure Assessment → Criteria 27-28	28.1	YES	YES
V. (b) Benefit sharing → Criteria 29 – 33	28.2	NO	YES
V. (c) Non-Carbon Benefits → Criteria 34 – 35	28.3 29	NO YES	YES YES
	30.1	NO	YES
The document displays a great work identifying and analyzing key drivers and underlying causes of	31.1	YES	YES
deforestation and forest degradation and assessing the major barriers to face them. The conceptual	32.1	N.A	N.A
framework of investment programs is clearly described and it is sufficiently justified that the described	33.1	NO	NO
activities are capable of, overcoming the risks, facing drivers and underlying causes. The identification of the activities included in the Investment Programs has been conducted through a participatory	34.1	YES	YES
process which was appropriate and inclusive from the cultural and gender viewpoints, and included the	34.2	YES	YES
development of local and regional workshops.			
	35.2	N.A	N.A
Even though the Benefit Distribution Plan has not yet been prepared, it is included an extended description of the participatory construction process to be conducted and any arrangements for its			

formulation and execution. The only question to solve is still that ER Program doesn't address the description how Benefit Sharing Plan will be in accordance and compliant with the international legal framework.

Non-carbon benefits to be generated by the Program are identified and described (Social benefits: those related to the protection and improvement of livelihoods, participation of any stakeholder, improvement of forestry governance, strengthening of social capital, etc., and Environmental benefits: those related to the protection, conservation and restoration of biodiversity and ecosystems, adaptation to climate change, diversification of landscape structures, fire prevention, water environmental services, among others).

The level of compliance of the ER-PD against the CF methodological framework in this section was evaluated with a 91.7%.

36.1

36.2

36.3

37.1

37.2

37.3

37.4

38.2

38.3

38.4

YES

NO

NO

**YES** 

YES

NO

NO

**YES** 

N.A

N.A

N.A

YES

NO

NO

**YES** 

YES

**YES** 

**YES** 

**YES** 

N.A

N.A

N.A

# VI. ER Program Transactions

- VI (a) ERPA Signing Authority and Transfer of Title To ERs → Criterion 36
- VI (b) Data Management and ER Transaction Registries → Criteria 37 38

The document reflects a great activity related to the creation of an efficient and transparent ER Transaction Registry. Although still not operational, important advances are being made in this regard; both ERs Initiative's Registration System for itself and for the registration framework under it will be included or linked (the Forest Registry and the National Emissions Registry, ReNE). In particular, the 38.1 Forest Registry, will become operational from the first quarter of 2017. Although the complete operational manual could not still be shared as an annex, due to the contract clauses for its elaboration, the main information elements and procedures were described in the ER-PD.

The main risk detected in this registration system, that could serve also as a national REDD+ Program and Projects Data Management System, is the voluntary nature of the norm (second component of the Forest Registry; NMX-AA-173-SCFI-2015 section, Mexican regulation for recording Forest Carbon Projects on international standards belonging to the voluntary market that contribute to increasing carbon stocks). This Forest Registry does not provide, on a mandatory basis, information on other projects able to transfer ERs to other GHG mitigation initiatives.

In this final ER-PD version, and in order to avoid the risk of an emission reduction unit is transferred more than once in the IRE intervention area, a reviewing process of the national and international carbon project standards records has been added to the four processes and functions (operating check, serial numbers, geographic verification and links to other internationally recognized standards) that were planned to reduce the risk of double counting of reductions of emissions. However it is still recommended to improve the concreteness and writing of this proposal.

On the other hand, certain legal aspects should be solved. It still should be demonstrated the ability of the ER Program Entity to transfer to the Carbon Fund Title to ERs, while respecting the land and resource tenure rights of the potential rights-holders in the Accounting Area, through e.g. a reference to existing legal and regulatory frameworks. In that sense a recommendable solution will be, in the absence (or until the absence of the specific legal framework) to search for an "independent legal reputable opinion" on the subject to be part of the final argumentation of the country on the accomplishment of the requisites of the 36.2 and 36.3 indicators.

The level of compliance of the ER-PD against the CF methodological framework in this section was evaluated with a 75.0%.

# **SUMMARY SCORE and overall comment:**

The document reflects the great work done by a large group of CONAFOR's expert teams in all its aspects; program design and implementation, carbon accounting, safeguards, program's registry, legal aspects, etc.

Largely many of the objections raised by the TAP members in the assessment of the previous ER-PD versions obtained an adequate and better justification, of a work already done. In some cases, new analysis or the results from activities that were being implemented, completed the requirements. Only in a few cases, performing unimplemented tasks that hamper chains of objections is still required.

The global level of compliance of this final ER-PD version against the CF methodological framework was evaluated with a 90.3%. This is a very remarkable improvement over the assessment of the previous ER-PD version (Advanced Draft ER-PD) that was evaluated with a 64.5%.

# PART 2 OF TECHNICAL ASSESSMENT: DETAILED ASSESSMENT

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.

**Ind. 1.1** The ER Program Measures aim to address a significant portion of forest-related emissions and removals

YES

[Ambition and strategic rationale for the ER Program – 2.2]

It does because the strategy focuses on the Mexican States with the highest deforestation rates. These account for a significant share of total deforestation in Mexico (36%). We recommend to evaluate with the deforestation risk index from the INECC (Instituto Nacional de Ecología y Cambio Climático) and the land use and vegetation information from INEGI (Instituto Nacional de Estadística y Geografía) if other States could be incorporated at later stages of the Strategy.

**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.

YES

[Ambition and strategic rationale for the ER Program – 2.2, 2.3]

The Strategy is ambitious and uses measures that aim to align the interests of the owners/users of the land with the general goals of the Program. The Strategy includes areas from different jurisdictions.

We identified two potential problems: (i) the effectiveness and replicability of the best practices of the APDTs (public agents of land development) and (ii) the actual and not only the stated incorporation of SAGARPA in the implementation of the Program. We recommend to evaluate to what extent the interests of SAGARPA are aligned with the actions derived from the Program. Because of the budget importance of SAGARPA and its significant presence at local communities' level, a lack of effective involvement could put at risk the effectiveness of the Strategy. We recommend to look for binding agreements that are included in the rules of operation of the programs that are managed by SAGARPA (e.g. silvopastoril practices and other options considered in the Strategy).

Furthermore, we perceive that the APDTs are very heterogeneous: in the state of Jalisco, inter-municipality associations with a long tradition, history and confirmed effectiveness are predominant. However, this is not the case for other States, whereby a lower level of maturity of these agents is observable. The Strategy could include more arguments or evidence in favor of this kind of organizations by showing examples of achievements in other areas where there are inter-municipality councils that work as APDTs. In the case of the Mesoamerican Biological Corridor there is an advantage that stems from the support of a federal institution, yet there is still a lack of the necessary local capabilities to allow local communities to appropriate the Program (or if is not the case, the Strategy should present evidence on the contrary).

# C. 2 The Accounting Area matches a government- designated area that is of significant scale

**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.

YES

[Accounting Area of the ER Program – 3.1]

The Strategy includes five different Mexican States that account for 36% of total deforestation in the country. These States are diverse in terms of social, economic and ecosystem conditions and involve different governmental jurisdictions. The spatial distribution of these States shows this diversity.

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

YES

[Description of Sources and Sinks selected – 7.1]

The ER Program considers emissions from deforestation and forest degradation.

Deforestation is described as the process of converting forest land to other land use. A gross deforestation was considered, meaning that it does not subtract out the carbon sequestration that is taken up by forest growth after deforestation occurs. Deforestation emissions accounts for 15,440,886 tCO<sub>2</sub>-eq./year and represents 64% of total emissions in the estimated Reference Level (2001-2011).

Degradation is considered as the loss of carbon in forest land remaining forest land, when changing from primary forest to secondary forest (definition obtained from the General Law of Climate Change). Degradation represents 31% of total emissions -7,525,317  $tCO_2$ -eq./year-. The remaining 5% corresponds to degradation from emissions of forest fires with 1,045,828  $tCO_2$ -eq./year.

Total average emission in Reference Level is 24,012,031 tCO<sub>2</sub>-eq./year with a total uncertainty level of 4%

Other REDD+ activities such as Enhancement of forest carbon stocks, conservation of forest carbon stocks and sustainable management of forest are not included in the Program. A concise and correct explanation of their exclusion is presented in the ER-PD. Enhancement of forest carbon stocks was not considered in this Emissions Reduction Initiative (IRE, in Spanish) but is considered and activity that may be of interest for landowners in Mexico, thus, it is encouraged with Mexican Standard for registration of Forest Carbon Projects and Certification of Enhancement of Carbon Stocks (NMX-AA-173-SCFI-2015) where they can implement such projects. The government of Mexico does not have the ownership of these removals and therefore it is not included in the IRE.

**Ind. 3.2** The ER Program accounts for emissions from deforestation. [Description of Sources and Sinks selected – 7.1]

YES

The ER Program considers emissions from deforestation and forest degradation.

The definition of forest used in the construction of the Reference Level is consistent with the definition used for the construction of the National Forest Emission Reference Level, and it was established following the IPCC Guidelines and considering as an input the definitions included in Mexico's regulatory framework, mainly in the General Law of Sustainable Forest Development (LGDFS).

In LGDFS the definition of "forest land" includes all land covered by "forest vegetation" and is defined as "the set of plants and fungi that grows and develop naturally, forming forests, jungles, arid and semi-arid zones and other ecosystems, leading to the development and balanced coexistence of other resources and natural processes in larger areas between 1,500m² and 1ha. Considering this definition, in the Reference Level under the Initiative, "forest" is defined as all "forest land" with canopy coverage over 10%, with trees with a total high superior to 4 meters –or trees able to reach that height *in situ*- and a minimum mapping unit of at least 50 ha. Minimum mapping unit was defined according to the official cartography inputs from INEGI (Instituto Nacional de Estadística y Geografía). This data does not meet with the definition of the LGDFS, however the Country is developing new initiatives such as MADMex to reach

at least 1 ha as the minimum mapping unit. Forest land does not include land that is predominantly under agricultural or urban use.

The same definition was used for the construction of the National GHG Inventory, which was included in the Biennial Update Report, submitted to UNFCCC in October 23<sup>rd</sup>, 2015. Also, the definition of forest is consistent with the progress of REDD+ at a national level and responds to comments made by various stakeholders participating in the process.

In light of the definition made, deforestation is described in the IRE as the process of converting forest land to other land use. A gross deforestation was considered, meaning that it does not subtract out the carbon sequestration that is taken up by forest growth after deforestation occurs. The information for the evaluation of deforestation and forest degradation was obtained from the official cartography of Land Use and Vegetation, scale 1:250.000 of the National Institute of Statistics and Geography (INEGI). A total area of 2,454,013 ha was deforested in the accounting area during the period 1993 to 2012 (between Serie II and V – INEGI). The State of Chiapas is the one with the largest area under deforestation and degradation.

Deforestation emissions accounts for  $15,440,886 \text{ tCO}_2$ -eq./year and represents 64% of total emissions in the estimated Reference Level (2001-2011).

Deforestation drivers are identified and discussed in chapter 4.1 of the ER-PD "Analysis of drivers and underlying causes of deforestation and forest degradation and existing activities that can lead to the preservation or enhancement of forest carbon sinks". Direct causes of deforestation and forest degradation are anthropogenic such as expansion of agriculture. Indirect causes could be social induced such as population dynamics or agriculture legislation.

**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).

YES

[Description of Sources and Sinks selected – 7.1]

The ER Program considers emissions from deforestation and forest degradation. Degradation is considered as the loss of carbon in forest land remaining forest land, when changing from primary forest to secondary forest. This definition was obtained from the General Law of Climate Change (LGCC). As it is specified in the ER-PD, degradation in LGCC is understood as reducing the carbon content in natural vegetation or soil ecosystem due to human intervention, relative to the same ecosystem vegetation or land if there has not been such intervention. It also adds that degradation is understood as the process of reduced ability of forest ecosystem to provide environmental services and productive capacity.

The main input used for the development of the Reference Level is the "Series Land Use and Vegetation" (from INEGI) for the activity data and data from two cycles (2004-2007 and 2009-2014) of the National Forestry and Soil Inventory for emissions factors.

Degradation contributes with 31% of total emissions as an average of the annual emissions during the period 2001-2011: 7,525,317  $tCO_2$ -eq./year-.

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).

YES

[Description of Carbon Pools and greenhouse gases selected – 7.2]

The ER-PD presents the justification for the inclusion or exclusion of different carbon pools within the Emissions Reductions Initiative in chapter 7.2 "Description of carbon pools selected", as it is described below.

- Aboveground biomass: woody vegetation. Data obtained from National Forestry and Soil Inventory (field
  measurements done between 2004 and 2007. 226 different allometric models were used, at species, genus and
  vegetation type level, appropriate for the country in ecological, statistical and spatial terms, complemented with
  37 allometric models from international sources, in order to estimate the biomass contained in every living
  woody plant.
- Aboveground biomass: shrubs and herbs. The National Forestry and Soil Inventory does not consider these pools, the activity data was obtained from official statistics and the emission factors from scientific national literature and was used for degradation by fires.
- Belowground biomass: roots. For quantification of belowground biomass, Cairns et al. (1997) allometric equations were used, which are a function of woody biomass, by type of ecosystem. This is the default equation in IPCC Guidelines.
- Deadwood. Woody biomass that is not rotten; includes material of more than 7.5 cm over the ground. The National Forestry and Soil Inventory does not consider these pools, the activity data was obtained from official statistics and the emission factors from scientific national literature and was used for degradation by fires.
- Litter: fresh litter and decaying litter. Dead biomass of less than 7.5 cm over the ground. The National Forestry and Soil Inventory consider these pools, but the activity data was obtained from scientific national literature and was used for degradation by fires.
- Soil Organic Carbon. Is not considered in the Program.

Different pools were considered under different activities. Carbon emissions in deforestation activity considers aboveground and belowground biomass. Degradation as a passage of primary forest to a secondary forest includes aboveground and belowground biomass. Degradation due to forest fires considers aboveground biomass (only shrubs and herbs), deadwood and litter pool. Soil organic carbon was not considered under any activity.

The main source of information for the construction of the Reference Level, which will also be used to monitor the emissions reductions during the implementation, is the National MRV system that includes information from the National Forestry and Soil Inventory (used to develop Emission Factors), and the INEGI Series (used to develop Activity Data). The ER-PD clarifies that the process for obtaining emissions factors and activity data, follows protocols and tools designed to allow its implementation in a systematic, repeatable and with the possibility of making adjustments to improve calculations as input information improves. If there is a change in inputs for the improvement of Monitoring, Reporting and Verification System (SMRV), the reference level is recalculated. An example would be the inclusion of activity data (MAD-Mex system) with higher spatial and temporal resolution. Also, there is information arising from the National Forestry and Soil Inventory that are not yet processed and were not used in the construction of the reference level, which could be included in the future. At the moment, the system provides a flexible way that permits the inclusion of different inputs.

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

YES

- 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 – 7.2]

The ER-PD presents the justification for the inclusion or exclusion of different carbon pools within the Emissions Reductions Initiative in chapter 7.2 "Description of carbon pools selected", as it is described below.

- Aboveground biomass: woody vegetation. Data obtained from National Forestry and Soil Inventory (field measurements done between 2004 and 2007. 226 different allometric models were used, at species, genus and vegetation type level, appropriate for the country in ecological, statistical and spatial terms, complemented with 37 allometric models from international sources, in order to estimate the biomass contained in every living woody plant. Aboveground biomass: shrubs and herbs. The National Forestry and Soil Inventory does not consider these pools, emission factors were obtained from national literature and was used for degradation (forest fires)
- Belowground biomass: roots. For quantification of belowground biomass, Cairns et al. (1997) allometric equations were used, which are a function of woody biomass, by type of ecosystem. This is the default equation in IPCC Guidelines.
- Deadwood. Woody biomass that is not rotten; includes material of more than 7.5 cm over the ground. The National Forestry and Soil Inventory does not consider these pools, emission factors were obtained from national literature and was used for degradation (forest fires).
- Litter: fresh litter and decaying litter. Dead biomass of less than 7.5 cm over the ground. The National Forestry and Soil Inventory does not consider these pools, emission factors were obtained from national literature and was used for degradation (forest fires).
- Soil Organic Carbon. Is not considered in the Program.

Different pools were considered under different activities. Carbon emissions in deforestation activity considers aboveground and belowground biomass. Degradation as a passage of primary forest to a secondary forest includes aboveground and belowground biomass. Degradation due to forest fires considers aboveground biomass (only shrubs and herbs), deadwood and litter pool. Soil organic carbon was not considered under any activity.

Soil organic carbon emissions in mineral and organic soils was not considered under any activity and it has neither been considered in the National Forest Reference Level submitted to UNFCCC. Based on the Protocol for Estimation of Emissions and Removals of Greenhouse Gases (CO<sub>2</sub>) resulting from the Soil Organic Carbon Concentration in Mineral Soils (Protocolo de Estimación de Emisiones y Remociones de GEI (CO<sub>2</sub>) derivadas de la Concentración de Carbono Orgánico en los Suelos Minerales), the Party concluded that carbon emissions from soil organic carbon are three percent of total carbon emissions in deforested area and are not considered significant. The TAP considers that the exclusion of the soil organic carbon pool is adequately justified by Mexico.

It is said in the ER-PD that the country has used the information of aboveground and belowground biomass arising from the two first cycles of the the INFyS. The methodology and information necessary for the estimation of other pools will be properly evaluated and its integration analyzed with the information of the third cycle of the INFyS 2015-2020 and subsequent Inventories.

The TAP acknowledge the inclusion of further justification of the exclusion of deadwood, litter and aboveground biomass (shrubs and herbs) in deforestation activity in the Final ER-PD.

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.

**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).

YES

[Description of method 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]

The Reference Level is elaborated with Mexico's Monitoring, Reporting and Verification (MRV) System for REDD+, which is also used to measure and monitor emissions and emissions reductions occurring in the framework of the Emissions Reductions Initiative (IRE).

The construction of the Reference Level was done using the same methodological approach as the National Forest Emissions Reference Level (NNREF) submitted to UNFCCC:

- i. Use of 2003 IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry, with the same assumptions, criteria and methodologies as the NNREF and BUR-2015 approaches
- ii. Use of the same inputs for the development of activity data and emissions factors as in the NNREF:
  - a. Land Use matrix was elaborated for each State based on national activity data.
  - b. Emissions factors were estimated at a State level with the information of the National Forestry and Soil Inventory (INFyS). In cases where data were not available, information from a neighbor State with the same eco-region or national values were used.

In the ER Program Document of Mexico, the methodology provided in the Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance for Land Use, Land-Use Change and Forestry is used as a basis for estimating changes in carbon stocks in living biomass from conversion of forest land to other land-use categories.

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.

Ind 6.1	The following	methodologica	l stans ara ma	de nublicly available:
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YES

- 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.

[Forest definition used in the construction of the Reference Level 8.2]

[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 8.4] [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]

Forest definition is presented in the ER Program in a specific chapter, mentioning that forest definition used for the construction of the Reference Level is consisted with the definition used in the National Forest Emission Reference Level submitted to UNFCCC and was established following the IPCC Guidelines and Guidance and using as input the current legislation in Mexico, mainly the General Law of Forest Sustainable Development.

In LGDFS the definition of "forest land" includes all land covered by "forest vegetation" and is defined as "the set of plants and fungi that grows and develop naturally, forming forests, jungles, arid and semi-arid zones and other ecosystems, leading to the development and balanced coexistence of other resources and natural processes in larger areas between 1,500m² and 1ha. Considering this definition, in the Reference Level under the Initiative, "forest" is defined as all "forest land" with canopy coverage over 10%, with trees with a total high superior to 4 meters —or trees able to reach that height *in situ*- and a minimum mapping unit of at least 50 ha. Minimum mapping unit was defined according to the official cartography inputs from INEGI (Instituto Nacional de Estadística y Geografía).

In section "Description of method used for calculating the annual average historical emissions during the reference period" a complete description of different classes of forest is presented. It is also explained the classification and correspondence of the Land Use and Vegetation from INEGI to the IPCC categories. In this same section it is included the methods and process of estimation of the activity data and emissions factors used and in following sections the information needed to have enough transparency to enable the reconstruction of the Reference Level.

The estimation of the uncertainty of the emissions factors used in the construction of the Reference Level is presented adequately in the corresponding sections. Values vary between activity (deforestation, forest degradation or forest fires), State or type of forest. However, the uncertainty associated to activity data (land-use change from INEGI Series) is only presented as a proposal for its evaluation: the implementation of a Stratified Random Sampling (MAE). This method will be developed for each of the periods analyzed, i.e. for the changes generated between Series II - Series III (1993-2002), Series III - Series IV (2002-2007) and Series IV - Series V (2007-2011). This design has the peculiarity that is flexible in the distribution of samples in areas of change (Olofsson, 2013), uses Mapping Minimum Unit that allows sampling small land-use changes and is relatively easy to implement.

The TAP acknowledges the improvements made in relation to the explanation of the methodology to estimate uncertainty in activity data. The first version of the ER-PD considered the cartography as an official product and there is no estimate of uncertainty, it was considered to be accurate data since INEGI performs validation and verification processes with field inspection of a percentage of the sampling sites. There was no transparency in this regard. Notwithstanding, the Final ER-PD presents a proposal (more elaborated than in the Advanced ER-PD) to evaluate the uncertainty of the activity data, which is appropriate. However, the uncertainty was not calculated and not used to estimate the overall uncertainty. Since this indicator is focused in the presentation of methodologies to estimate accuracy, precision and/or confidence level, the TAP understands it is in line with the FCPF methodological framework.

**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:

**YES** 

- 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

Any spatial data used to adjust emissions, if applicable.

[Forest definition used in the construction of the Reference Level 8.2]
[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 8.4]
[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]

The accounting area of the Emissions Reduction Initiative corresponds to five States in Mexico where REDD+ Early Actions are taken place: Campeche, Chiapas, Jalisco, Quintana Roo and Yucatán. These five States comprise nearly 15% of the total territory and have a forestry area of 88,078,158 ha, 45% of the total area of the five States.

The spatial information, land-use, land-use change maps and synthesized information is displayed publicly through different sections of the ER-PD. Emission factors are obtained from the National Forest and Soil Inventory. The ER-PD describes in detail the process of obtaining such information, as well as its quality control process, how the information is handled and treated (stored in databases, etc.), information of allometric models and their appropriateness for the estimation of overall emissions and removals, among other information. The values of the emission factors are also included in the ER-PD in section 8.4.2

A new entire chapter is dedicated to the estimation of emissions from degradation caused by forest fires in sensitive areas. The analysis of the area affected by fires was carried out with the official data of CONAFOR for the period 1995 to 2013, as well as with spatially georeferenced information of the areas affected by forest fires during the period 2009-2013. It was inferred the behavior of spatial distribution of the affected areas for the whole period. The areas with firesensitive vegetation types were evaluated, which are determined by Official Mexican Standard NOM-015-SEMARNAT/SAGARPA. The determination of the factors of consumption and available mass were generated with own information of the country and the factors of combustion and emission were compiled from the existing bibliography. The estimation is based in the methodology recommended by the general equation corresponding to the guidelines of the IPCC 2003 and applied for INEGEI 1990-2013.

Average annual emissions over the Reference Period (2001-2011) are presented in the ER-PD by year and REDD+ activity, differentiating emissions from forest degradation as a passage of primary to secondary forest and emissions from forest fires. The uncertainty (%) is also included per year and REDD+ activity. It is suggested to include the Forest Emission Reference Level by State in addition to the year and activity breakdown.

C.7 Sources of uncertainty are systematically identified and assessed in Reference Level setting and Measurement, Monitoring and reporting

**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.

**YES** 

[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 8.4]

[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 12.1]

All the assumptions and sources of uncertainty associated with activity data, emissions factors and calculation methods that contribute to the uncertainty of the estimates of emissions and removals are identified and assessed, but not all of them have been calculated.

In the first version of the ER-PD, Series INEGI were considered a source of information of land-use and land-use change (activity data) for the calculation of the Reference Level and Monitoring Reporting and Verification of the ER Program as an official source of information and it does not have uncertainty estimation. It was considered to be accurate as INGEI performs data validation and verification with field review of a percentage of the sampling sites. The Advanced Draft ER-PD is now presenting a proposal to evaluate the uncertainty of the activity data, but it was not calculated and the overall uncertainty does only consider the uncertainty of the emission factors.

Mexico provides estimates of uncertainties associated with the emissions factor for each of the vegetational cover classes, following the methodology in the 2006 IPCC Guidelines. All the basic information to determine uncertainty in these pools arises from the National Forestry and Soil Inventory. According to Chave (2004) this carbon pool is subject to four sources of uncertainty arising from measurement errors, allometric models, sampled area and sampling error. In the case of this initiative, only the uncertainty of the emission factors associated with sampling error was considered. Important efforts to quantify the uncertainties from measuring and allometric models have been made. Estimate of uncertainty of the allometric models and measurement errors are recent and are not able to include in the results of this initiative.

According to the ER-PD, the propagation method used is the analytical method (Method 1: Propagation of error) of the IPCC (2006) because it is an easy method to implement and is suitable for emission factors currently available and the lack of uncertainty of activity data. MonteCarlo is also used to estimate uncertainty by forest type.

The TAP acknowledges the improvements made regarding this indicator in the Advanced ER-PD and now in the Final ER-PD, specifically in relation to uncertainty of activity data.

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 12.1]

NO

All the assumptions and sources of uncertainty associated with activity data, emissions factors and calculation methods that contribute to the uncertainty of the estimates of emissions and removals are identified, but not all of them have been calculated.

As it is mentioned in the ER-PD, the propagation of uncertainty was done in parallel with the estimation of total emissions and removals process. Therefore, the process followed to propagate the uncertainty began with the estimation of the uncertainties of the emission factors and conceptual development of the calculation of the uncertainty of activity data, given that it has not been considered yet. Then, the level of emissions and removals per forestry cover

class with their respective propagation of uncertainty of the emission factor, is obtained using the analytical method and Monte Carlo method.

According to the IPCC Good Practice Guidelines (2006) it is necessary to quantify all sources of uncertainty when estimating emissions and removals of GHG. In the case of forestry, the estimation of GHG emissions and removals starts with considering activity data and emissions factors, where both components are subject to various sources of uncertainty.

The emissions factors are mainly obtained from estimates of aboveground biomass, and according to Chave (2004) this carbon pool is subject to four sources of uncertainty: measurement errors, allometric models errors, sampled area error and sampling error. In this initiative, only the uncertainty of the FE associated with sampling error was considered.

Emissions and removals uncertainties associated to carbon in aboveground and belowground biomass in each state is presented in the ER-PD, differentiating deforestation and forest degradation activities. The lower values are always related to deforestation, with a maximum value of 12% as per the analytic method and MonteCarlo method in Chiapas for aboveground biomass, if excluded Yucatán which showed an unusual value of 23% of uncertainty in deforestation for aboveground biomass. Emissions from forest degradation showed in all cases higher values, with a minimum of 49% in belowground biomass in Jalisco and a maximum value of uncertainty of 91% for aboveground biomass in Yucatán.

In the case of the activity data, the uncertainties are typically associated with misclassification of maps coverage in landuse change. In the case of this initiative, this source of uncertainty is not quantified. However, the ER-PD presents a complete proposal to assess the uncertainty of the activity data used in the program. The TAP encourages the Party to assess the uncertainty arising from the INEGI series (activity data) as proposed in the ER-PD and include it results in future version of the ER-PD.

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.

**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.

YES

[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period, 8.4]

[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area, 9.1]

The Forest Emission Reference Level proposed by Mexico in this ER-PD uses data from the National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía (INEGI)) and the National Forest and Soils Inventory (Inventario Nacional Forestal y de Suelos (INFyS)) elaborated by the National Forestry Commission (Comisión Nacional Forestal (CONAFOR)).

The land-use and vegetation maps of INEGI (hereinafter referred to as "Series") cover a broader time frame than the reference period, but only data from series II, III, IV and V have been used in the construction of the FREL.

Series of INEGI have a need to generate reliable information with quality in the shortest time possible. As part of the elaboration of the information contained in all Series of INEGI, it is always included a step of verification on field. Once the preliminary interpretation of the satellite images is done, the following step is the planning of the field visit, for which a set of different point is visit for:

Verification: sites where information is collected in order to document a change in vegetation cover.

- Observation: places where observations are made to confirm a detection in the preliminary interpretation situation
- Monitoring: sites that correspond to specific ecological situations and corresponding to Natural Protected
  Areas, ecological protection zones, areas of relict vegetation, and that a visit in each update of information is
  recommendable, in order to monitor its behavior.

Other steps during the elaboration of the INEGI Series are described along the ER-PD when referring to activity data, that shows the process to diminish uncertainty and increase accuracy in the information obtained. Despite of what is mentioned, the uncertainty associated to activity data is not considered in the ER Program, but there is a plan to calculate and include it in the future.

The National Forestry and Soil Inventory of Mexico have implemented several controls and activities to ensure the quality of the collected data. While these activities have evolved, there are three components that are consistent over time: i) internal supervision, ii) external supervision and iii) desk revision.

The information presented in the ER-PD by Mexico, which included standard operating procedures to minimize systematic errors, is considered by the TAP as complete and valid to demonstrate the quality assessment and quality control of the data used in the Reference Level and MMR, noting that all of these characteristics can work properly within the local circumstances of the ER Program.

**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.

NO

[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 8.4]

[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 12.1]

The Forest Emission Reference Level proposed by Mexico in this ER-PD uses data from the National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía (INEGI)) and the National Forest and Soils Inventory (Inventario Nacional Forestal y de Suelos (INFyS)) elaborated by the National Forestry Commission (Comisión Nacional Forestal (CONAFOR)).

As part of the elaboration of the information contained in all Series of INEGI, it is always included a step of verification on field. Once the preliminary interpretation of the satellite images is done, the following step is the planning of the field visit, for which a set of different point is visit for verification, observation and monitoring.

Other steps during the elaboration of the INEGI Series are described along the ER-PD when referring to activity data, that shows the process to diminish uncertainty and increase accuracy in the information obtained. Despite of what is mentioned, the uncertainty associated to activity data is not considered in the ER Program, but there is a plan to calculate and include it in the future.

The National Forestry and Soil Inventory of Mexico have implemented several controls and activities to ensure the quality of the collected data. While these activities have evolved, there are three components that are consistent over time: i) internal supervision, ii) external supervision and iii) desk revision.

Management of random errors are not explicitly mentioned in the ER-PD, but it is understood that mitigation of this type of errors have been considered in both major sources of information: INEGI series and National Forestry and Soil Inventory. However there is one situation where the Program has implemented a procedure to minimize it: to systematize and automatize the process of assigning a specific emission factor depending on the State, canopy coverage and type of activity, while propagating uncertainties with both methods (error propagation and Monte Carlo). For that

purpose, an algorithm in the R statistical software was developed, which also allowed documenting processes of estimation and propagation of uncertainty. It is worth to mention that, even though uncertainty of activity data is not yet considered in overall uncertainty, the statistical software "R" does consider this variable and once calculated it can be included in the overall uncertainty propagation process.

In the Final ER-PD, the country considers performing a sensitivity analysis during October and November 2016. As a result of this, further explain how it will be minimized, as far as practically possible, random errors and other uncertainties.

Despite all, the TAP encourages the Party to take one further step and provide explanations about how the results of such sensitivity analysis will be used to minimize, to the extent practical, random errors and other uncertainties.

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

**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

NO

[Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 8.4]

[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]

Uncertainty associated with activity data used for calculating the average annual historical emissions over the Reference Period still was not quantified in this final version of the ER-PD.

The justification provided in section 8.4 about INEGI products' accuracy based on internal (not public) data validation and verification processes, remains in this new version and it is not considered appropriate. Nevertheless, the comprehensive proposal (based on Olofsson *et al.*, 2013) for the estimation of the uncertainty associated with historical activity data in the IRE, that was included in the Advanced Draft ER-PD, has been improved. The number of control points to be checked by land use change category or stratum (stratified random sampling) was calculated and this assessment could be implemented soon for the determination of the overall accuracy, user's accuracy (commission error), producer's accuracy (omission error) and area of each class of land use change.

Because it is therefore considered necessary to implement the proposal for the estimation of the uncertainty associated with activity data used for calculating the average annual historical emissions over the Reference Period, the indicator remains as not achieved.

Regarding the proposed solution for the quantification of uncertainty associated with activity data during the IRE period (M&MRV component) refers, as in the Advanced Draft ER-PD, to section 8 of the ER-PD, so it is assumed that in the absence of improvements the referred proposal for the estimation of the uncertainty associated with activity data will be used.

Regarding the potential improvement in collecting and processing activity data, the proposal focuses on a single alternative, more realistic and much better documented (image processing and changes detection) than in the previous ER-PD version: using the AD Monitoring System for Mexico (MADMex), which includes an automated process for uncertainty calculation following a similar workflow than the one described in 8.4.

Uncertainty associated with emission factors was satisfactorily clarified from the advanced Draft ER-PD.

**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

N.A

[Quantification of uncertainty in Reference Level setting 13.2]

This indicator is "Not Applicable" (N.A.) at this stage since it is requesting to calculate the uncertainty of the emissions reductions of the Program, which did not occur yet.

**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.

N.A

[Quantification of uncertainty in Reference Level setting 13.2]

This indicator is "Not Applicable" (N.A.) since it is requesting to report separately the uncertainty of the emissions reductions from deforestation, forest degradation within the Program. Up to now, the emissions reductions did not occur yet.

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

Ind 10.1 The Reference Level is expressed in tons of carbon dioxide equivalent per year

YES

[Estimated Reference Level 8.6]

The Reference Level includes deforestation and forest degradation REDD+ activities in five States in Mexico: Chiapas, Campeche, Quintana Roo, Yucatán and Jalisco. The result is expressed in tons of carbon dioxide equivalent per year from 2001 to 2011 and the final value is an average of 24,012,031 tCO2-eq./year. The overall uncertainty is 4%.

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

YES

[Relation between the Reference Level, the development of a FREL/FRL for the UNFCCC and the country's existing or emerging greenhouse gas inventory 8.7]

Mexico submitted the first reference level to the UNFCCC in December 2014; it was then adjusted according to the review of experts of the UNFCCC and finally published in November 2015. This reference level was elaborated based on the methodology and estimations done in the National GHG Inventory for Land Use, Land-Use Change and Forestry sector in the Biennial Update Report.

The methodology followed to estimate the Reference Levels at a State level has been the same as in the national level, with the consideration that emission factors were estimated with this subnational level; allowing more representative calculations at the State. It will be intended that the States make their GHG Inventories with the same methodology, procuring for consistency in National and sub-national level.

Also, in section "Organizational structure for measurement, monitoring and Report" it is explained in detail the organizational structure within the country, that will permit the direct relation between the development of a national Forest Reference Level, Forest Reference level at a State level or Forest Reference Level to the UNFCCC.

**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

YES

[Relation between the Reference Level, the development of a FREL/FRL for the UNFCCC and the country's existing or emerging greenhouse gas inventory 8.7]

Mexico submitted the first reference level to the UNFCCC in December 2014; it was then adjusted according to the review of experts of the UNFCCC and finally published in November 2015. This reference level was elaborated based on the methodology and estimations done in the National GHG Inventory for Land Use, Land-Use Change and Forestry sector in the Biennial Update Report.

The methodology followed to estimate the Reference Levels at a State level has been the same as in the national level, with the consideration that emission factors were estimated with this subnational level; allowing more representative calculations at the State. It will be intended that the States make their GHG Inventories with the same methodology, procuring for consistency in National and sub-national level.

Also, in section "Organizational structure for measurement, monitoring and Report" it is explained in detail the organizational structure within the country, that will permit the direct relation between the development of a national Forest Reference Level, Forest Reference level at a State level, Forest Reference Level to the UNFCCC and existing Greenhouse Gas Inventory.

#### C 11 A Reference Period is defined

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

YES

[Reference Period 8.1]

According to the Methodological Framework of the Carbon Fund in the Forest Carbon Partnership Facility, 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. In the case of Mexico that date would be 2014.

As discussed in the corresponding sections, the assessment of the land-use and land-use change dynamics of the forestry area in Mexico have been estimated with the cartographic information of the Land Use and Vegetation Series (INEGI), which cover a period of 1993 (Serie II) to 2011 (Serie V). 2011 is the last year with official land use map coverage in Mexico, thus the end date of the Reference Period is 2011.

The alternative presented by Mexico is justified, because the end date corresponds to the official and precise information obtained from INEGI.

**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.

YES

[Reference Period 8.1]

The start date for the Reference Period is exactly 10 years before the end date: 2001.

The Forest Reference Emission Level proposed by Mexico is a historical average of the emissions associated with gross deforestation and forest degradation at national level from 2001 to 2011, using data from the National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía (INEGI)) and the National Forest and Soils Inventory (Inventario Nacional Forestal y de Suelos (INFyS)) produced by the National Forestry Commission (Comisión Nacional Forestal (CONAFOR)).

Series of iNEGI have the following characteristics:

	Serie II	Serie III	Serie IV	Serie V
Year of publication	1996	2005	2010	2013
Date of remote sensing	1993	2002	2007	2011
Date of field information	1993-1998	2002-2003	2007-2008	2012-2013
Scale	1:250,000	1:250,000	1:250,000	1:250,000
Minimum mapaing unit (vegetation)	50 na		50 ha	50 ha
Resolution	50 m per pixel	27.5 m per Pixel	10 m per Pixel	27.5 m per Pixel
Data Printed maps georreferenciated		LANDSAT TM (30 m)	SPOT 5 (10 m)	LANDSAT TM (30 m)
Methodology	Methodology Analogic technology		Digital technology	Digital technology
Information	5 layers	14 layers	13 layers	14 layers

The single value for the annual emissions from deforestation and forest degradation used for the year 2001 was based on INEGI series II and III, the single value used for all the years in the period 2002–2006 was based on INEGI series III and IV and the value for the years 2007–2010 was based on INEGI series IV and V.

The National Forestry and Soil Inventory (INFyS) is collected with a frequency of 5 years at a national level (20% of the samples per year). The first cycle of the INFyS (2004-2009) and the second cycle of the INFyS (2009-2013) is used in the construction of the Reference Level.

To consistently report the period 2001-2011, annualized activity data values have been used, e.g. the value of the year 2001 arises from the annualized estimate of the period 1993-2001 (see table above), the values of the period 2002-2006 of the annualized estimate of the same period and 2007-2011 values of the annualized estimate of the period 2007-2011. This linear progression approach was recommended to Mexico by the UNFCCC panel of experts. In the case of emission factors values, the values from 2001 to 2004 were extrapolated from the first cycle of the INFyS (2004-2009) assuming that they behave steadily before and after the INFyS period. Different approaches would imply using risky assumptions.

The TAP concludes the start date of the reference period is in line with the Methodological Framework of the FCPF.

# C 12 The forest definition used for the ER Program follows available guidance from UNFCCC decision 12/CP.17

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.

YES

[Forest definition used in the construction of the Reference Level 9.2]

The definition of forest used in the construction of the Reference Level is consistent with the definition used for the construction of the National Forest Emission Reference Level, and was established following the IPCC Guidelines and considering as an input the definitions included in Mexico's regulatory framework, mainly in the General Law of Sustainable Forest Development (LGDFS).

In LGDFS the definition of "forest land" includes all land covered by "forest vegetation" and is defined as "the set of plants and fungi that grows and develop naturally, forming forests, jungles, arid and semi-arid zones and other ecosystems, leading to the development and balanced coexistence of other resources and natural processes in larger areas between 1,500m<sup>2</sup> and 1ha".

Considering this definition, in the Reference Level under the Initiative, "forest" is defined as all "forest land" with canopy coverage over 10%, with trees with a total high superior to 4 meters —or trees able to reach that height *in situ-* and a minimum mapping unit of at least 50 ha. Minimum mapping unit was defined according to the official cartography inputs from INEGI (Instituto Nacional de Estadística y Geografía). This data does not meet with the definition of the LGDFS, however the Country has developed a step-wise approach that permits the continuous improvement of the Reference Level.

The Country is developing new initiatives such as MADMex to reach at least 1 ha as the minimum mapping unit in forestry cover maps. This system is specific for monitoring deforestation at national and subnational levels. A complete description of it, is presented in section 9 of the ER-PD: "Monitoring, Reporting and Verification".

Forest land does not include land that is predominantly under agricultural or urban use.

The same definition was used for the construction of the National GHG Inventory, which was included in the Biennial Update Report, submitted to UNFCCC in October 23<sup>rd</sup>, 2015. Also, the definition of forest is consistent with the progress of REDD+ at a national level and responds to comments made by various stakeholders participating in the process.

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.

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

YES

[Average annual historical emissions over the Reference Period 8.6, 13.2]

The Reference Level does not exceed the average annual historical emissions over the Period. Neither the RE Program for Mexico propose any adjustment to the Reference Level.

The Reference level is determined by accounting the emissions and removals in REDD+ activities: deforestation, and forest degradation (including forest fires) in five States in Mexico: Chiapas, Campeche, Quintana Roo, Yucatán and Jalisco. The final value is 24,012,031 tCO<sub>2</sub>-eq./year.

There is no evidence the National Forest Monitoring System used in the construction of the Reference Level shows a clear downward trend.

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:  (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);  (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.  [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 8.6].	N.A
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:  i. The basis for adjustments is not documented; or ii. Adjustments are not quantifiable.  [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 8.6]	N.A
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  [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 8.6]	N.A
C 14 Robust Forest Monitoring Systems provide data and information that are transparent, consistent over are suitable for measuring, reporting and verifying emissions by sources and removals by sinks, as determined to suitable for measuring, reporting and verifying emissions by sources and removals by sinks, as determined to suitable for measuring, reporting and verifying 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.	

[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]

As in the previous version of the ER-PD, Section 8.3. was completed with a description of methods (AD and EFs) used for calculating the annual average historical emissions during the reference period and Section 9.1. (MRV component during ERPA period) was completely redrafted and two new subsections describing potential EFs and AD estimation improvements were added. These proposals have been refined and significantly improved in the new document. The National System for Monitoring, Reporting and Verification (SNMRV) for REDD, operating since July 2015 and based on the same methods described in 8.3 will be used during the ERPA period. From this point of view and, as it was stated in the previous assessment report, the ER Program will monitor emissions using the same methods to those used to set the Reference Level.

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

**YES** 

[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]

The proposal for improvement in collecting and processing activity data, in this Final ER-PD, focuses on a single alternative, more realistic and much better documented (image processing and changes detection) than in the previous ER-PD version: using the AD Monitoring System for Mexico (MADMex). From 2011 and on an annual basis, CONAFOR acquires and processes RapidEye images to generate coverage maps and changes detection, so the monitoring component could significantly improve the temporal and spatial resolution of the AD analyses (MMU from 50 ha to 1 ha in forest cover maps). In any case (Landsat or RapidEye imagery) changes detection in the MADMex system is based on the bitemporal comparison of images and it is implemented through the Phyton-based iMAD algorithm (Multivariate Alteration Detection transformation) and a post-processing based on the MAF algorithm (Maximum Autocorrelation Factor transformation).

Given that the proposal for improvement covers the reporting requirements periodicity and it has been concreted and substantially improved, it has been decided to change the indicator to achieved. In any case, we must insist that this proposal should be necessarily implemented to achieve the reporting requirements, otherwise It is not still clear how the SNMF could produce the required cartographic analysis at least twice over the project life period using INEGI series (INEGI series are produced every 5 years with a time-lag of two years compared to the year reported). Still, a clearer wording at the beginning of this section (9.1) would be recommended.

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

YES

[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1]

From the Advanced Draft ER-PD, Section 8.3. was completed with a description of methods used for calculating the EFs during the reference period and Section 9.1. (MRV component during ERPA period) was completely redrafted and a new subsection describing potential EFs improvements was added. It was stated that the National System for Monitoring, Reporting and Verification (SNMRV) for REDD, operating since July 2015 and based on the same methods described in 8.3, will be used during the ERPA period.

We still recommend that the 'potential EFs improvements' indicated in the third INFyS cycle (started in 2015) aimed to properly assess the biomass and carbon pools that were not measure during previous cycles, should appear in the document as the real planned method on EFs calculations. In that case efforts were aimed to complement the information on Stand Dead Trees, Stumps, Dead Organic Matter, and Soil Organic Carbon. Some results of these efforts can be consulted through a link in the text.

# C 15 ER Programs apply technical specifications of the National Forest Monitoring System where possible

**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.

YES

[Relation and consistency with the National Forest Monitoring System 9.3]

From the advanced version of the ER-PD, it was explained in Sections 9.1 (approach for Measurement, Monitoring and Reporting to estimate the emissions under the ER Initiative in the accounting area) and 9.2 (organizational structure for Measurement, Monitoring and Reporting), that Mexico will use the National Monitoring, Reporting and Verification System (SNMRV) to measure, monitor and report GHG emissions resulting from the implementation of the Initiative for Reducing Emissions.

Section 9.1. (MRV component during ERPA period) was completely redrafted and now it was clear that the National Monitoring, Reporting and Verification System (SNMRV), operating since July 2015 was based on the same methods described in 8.3 for calculating the annual average historical emissions during the reference period and in 9.1 for estimating emissions occurring under the ER Program within the accounting area.

It should still be noted that the methodological improvements proposed (AD/EFs) in point 9.1 must be implemented (to fulfil the reporting requirements during the ERPA period) and therefore also affect the SNMRV.

# C 16 Community participation in Monitoring and reporting is encouraged and used where appropriate

**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

YES

[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 9.1, 9.3]

The section 9.4 on Community-based Monitoring that was included in the advanced ER-PD, described different initiatives favored by the country to promote and strengthen the communities' capacities to monitor its natural resources. The most noteworthy was the implementation of the initiative for Strengthening of Community-based Monitoring Capacities in Mexico in five communities (pilot project) which had allowed to identify priority natural resources to be monitored by the communities themselves.

Also, it was expressed that although opportunities and challenges had been studied for the integration of community-based monitoring with the Monitoring, Reporting and Verification system ("White paper: Opportunities and challenges for integrating CBM into MRV systems for REDD+ in Mexico"), the direct connection between community-based monitoring activities being executed in the country with the Monitoring, Reporting and Verification system was not considered. However, there was potential for exploring in the future opportunities for integrating information coming from the community-based monitoring through Technical Groups of Monitoring, Reporting and Verification (GT-MRV).

The work conducted enables to study different opportunities during the program execution to encourage community participation in the Monitoring, Reporting and Verification system, described in Table 18 "Main opportunities and challenges for the inclusion of CBM in the MRV system for REDD+ in Mexico" of the document mentioned above.

# C 17 The ER Program is designed and implemented to prevent and minimize potential displacement

**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.

YES

[Identification of risk of Displacement 10.1]

Mexico has identified and assessed the main drivers of deforestation and forest degradation adequately in section 4.1 of the ER-PD. All of them were properly evaluated according to its displacement risk as "high", "medium" and "low" along with an explanation for the level assigned in section 10.1 "Identification of risks of displacement".

What is worth to mention is that monitoring of emissions reductions under Mexico's initiative, "Emissions Reduction Initiative", will take place at a State level. This means that, in the case displacement of emissions outside the Emissions Reduction Initiative area of intervention, they will only be accounted as leakage if moved outside the State.

Direct causes of deforestation and forest degradation are anthropogenic such as expansion of agriculture. Indirect causes could be social induced such as population dynamics or agriculture legislation. None of these causes act or operate independently and have no linear relationship. Deforestation or forest degradation can identify different combinations of various drivers according to different historical and geographical contexts. Some are common to large geographic areas, but most are specific to regions or smaller territories (Geist and Lambin, 2002).

In the following table, it is presented the drivers of deforestation and forest degradation identified by Mexico.

Deforestation y degradation drivers	Risk of displacement
Livestock extensively grazed (relevant in Chiapas, Campeche, Quintana Roo, Yucatán, Jalisco)	Low
Traditional agriculture (relevant in Chiapas, Quintana Roo, Yucatán, Jalisco)	Low
Cash crops (soya, frutales, etc.) (relevant in Campeche, Yucatán)	Medium
Coffee crops (relevant in Chiapas, Jalisco)	Low
Timber extraction (for firewood, construction sector, carbon, illegal) (relevant in Chiapas, Yucatán, Jalisco)	Low

**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.

YES

[ER Program design features to prevent and minimize potential Displacement 10.2]

After the country identified, assesses and ranked the drivers of deforestation and forest degradation, the ER Program presents the elements in the Emissions Reduction Initiative (Investment Programs -"Programas de Inversión") to prevent and minimize the potential displacement.

The initiatives to mitigate or minimize the potential displacement are not presented individually against the main drivers of deforestation or forest degradation, given that the effect of the Investment Programs in its participants or in their possibility of moving to another State is holistic.

The Investment Programs that will be implemented in Early Actions Areas integrates in an articulate way and with a local perspective, the drivers of deforestation and forest degradation combining sources of assistance to rural sector. One of the conditions to design of the Investment Programs is that they cannot diminish the production level of the

participants. Another important characteristic is that the Investment Program arises from a participatory consultation process with local actors through which they propose and select measures that will be implemented in their communities and "ejidos".

These characteristic of the design of the Investment Programs are key to reducing the risk of displacement of emissions considering that, as a rule, this happens as a result of i) reduction of production levels, incomes or livelihood of participants; ii) significant reduction in the supply of products by participants to the market; and iii) the rejection by the participants of the imposed mitigation measures.

**Ind 17.3** By the time of verification, the ER Program has implemented its strategy to mitigate and/or minimize potential Displacement

N.A

Only applicable at the time of verification.

**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

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

YES

[Identification of risk of Reversals 11.1]

Mexico's ER Program has identified natural and anthropogenic sources of reversals of non-permanence that might affect Emissions Reductions during the Term of the ERPA and beyond it in section 11.1 of the ER-PD: "Identification of risks of reversion".

Risk factors that are analysed results of the application of the Tool for the Evaluation of Reversals towards the Emissions Reduction Initiative and are presented in the ER-PD:

- A. Lack of comprehensive and sustained support by relevant actors, which was evaluated by the following indicators:
  - ✓ Involvement of stakeholders in the design of the Emission Reduction Initiative
  - ✓ Existence of accessible and effective mechanisms for dealing with complaints
  - ✓ Existence of effective legal tools and frameworks for resolving conflicts related to land ownership.
  - ✓ Maintenance or improvement of income levels and / or production of participants in the long-term.
  - ✓ Existence of mechanisms for distribution of benefits
- B. Lack of institutional capacities and / or vertical coordination, which was evaluated by the following indicators:
  - Lack of ineffective institutional capacities and / or vertical / sectoral coordination "
  - ✓ Experience in developing policies and programs.
  - ✓ Experience in intersectoral cooperation

- ✓ Experience of collaboration between different levels of government.
- C. Lack of long-term effectiveness in addressing the underlying causes, which was evaluated by the following indicators:
  - Existence of experiences dissociation of deforestation and forest degradation of economic activities.
  - ✓ Existence of a conducive environment for the objectives of REDD + legal and regulatory context.
- D. Exposure and vulnerability to natural disasters
  - ✓ Propensity and vulnerability to forest fires
  - ✓ Propensity and vulnerability to tropical cyclones

Each risk factor is assessed in its level of risk for causing regression (with a percentage value) following the ER Program Buffer Guidelines. The default risk percentage value is 10% or 5% (depending on the factor) and if the risk factor is categorized as "high" there was no discount, if the risk factor is categorized as "medium" there was 5% or 2% discount (depending on the factor) and if the risk factor is categorized as "low" there was a 10% or 5% discount (depending on the factor), ending in 10%, 5%, 3% or 0% reversal risk set-aside percentage, depending on the risk factor and its evaluation. Risk factor "A" (above) is low (0%), "B" is medium (5%), "C" is medium (3%) and "D" is medium 3%. A correct justification of each evaluation and corresponding discount is presented in the ER-PD.

Considering that the Emission Reduction Initiative —which is articulated through the Investment Programs- is a 5-year program and that the second stages activities are not yet defined, the TAP encourages the Country to extend the risk of reversals analysis after the end of the Term of the ERPA.

**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

YES

[ER Program design features to prevent and mitigate Reversals 11.2]

Mexico's ER Program has identified natural and anthropogenic sources of reversals of non-permanence that might affect Emissions Reductions during the Term of the ERPA in section 11.1 "Identifying risks of reversion".

The default risks factors in the ER Program Buffer Guidelines are used to describe the main risks factors of the ER Program: lack of broad and sustained stakeholder support, lack of institutional capacity and/or ineffective vertical/cross-sector coordination", lack of long-term effectiveness in confronting underlying factors and exposure and vulnerability to natural disturbances".

In order to prevent and minimize the risk factors of reversions mentioned above, the ER Program proposes a set of measures under each risk factor in chapter 11.2. For the existing future reversals, the ER Program proposes to monitor these emissions, using the same methodologies as in the Reference level setting and MRV system.

The risk assessment of reversals presented shows that the most vulnerable points are mainly related to the decrease of the operational capacities of implementing agencies and their abilities to coordinate vertically and intersectoral. Therefore risks arise from doubts about the institutional, technical and economic capacity of the APDT (Agentes Públicos de Desarrollo Territorial) as all levels of government understand and support it, both politically and economically. Consequently, a critical point for a strategy to reduce the possibility of reversions lies in ensuring adequate and sustained support for the establishment, consolidation and strengthening of the APDT as well as for long-term operation. Other vulnerable points are presented.

Despite that the Country does not specifically address the sustainability of ERs beyond the Term of the ERPA, the TAP understands that many of the mitigation measures that are proposed against the reversal risks are long-term initiatives, and will contribute with the sustainability of emissions reductions beyond the term of the ERPA.

# C 19 The ER Program accounts for Reversals from ERs that have been transferred to the Carbon Fund during the Term of the ERPA

**Ind 19.1** During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options:

YES

- 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

[Reversal management mechanism, Selection of Reversal management mechanism 11.3]

During the Term of the ERPA, the ER Program accounts for reversals from Emissions Reductions using the second option: "ERs from the ER Program are deposited in an ER Program-specific buffer, managed by the Carbon Fund (ER Program CF Buffer), 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 CF Buffer equivalent to the amount of transferred ERs affected by the Reversal event."

Mexico proposes using the ER Programme CF Buffer to bank credits associated with the risk of uncertainty and regression: 21% of the emissions reductions. This value was obtained from the summatory of:

- Default risk: 10%
- Lack of comprehensive and sustained support by relevant actors: 0%
- Lack of institutional capacities and / or vertical coordination: 5%
- Lack of long-term effectiveness in addressing the underlying causes: 3%
- Exposure and vulnerability to natural disasters: 3%

The way in which the number of emission reduction to be placed in the Buffer will be determined, is presented in the document "ER Programme Buffer Guidelines" of the FCPF.

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

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

N.A

Only applicable before the end of the ERPA term.

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

N.A

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

YES

[Monitoring and reporting of major emissions that could lead to Reversals of ERs 11.4]

Mexico's ER Program has identified natural and anthropogenic sources of reversals of non-permanence that might affect Emissions Reductions during the Term of the ERPA in section 11.1 "Identifying risks of reversion".

The default risks factors in the ER Program Buffer Guidelines are used to describe the main risks factors of the ER Program: "lack of broad and sustained stakeholder support", "lack of institutional capacity and/or ineffective vertical/cross-sector coordination", "lack of long-term effectiveness in confronting underlying factors" and "exposure and vulnerability to natural disturbances".

In order to prevent and minimize the risk factors of reversions mentioned above, the ER Program proposes a set of measures under each risk factor.

For the existing future reversals, the ER Program proposes to monitor these emissions, using the same methodologies as in the Reference level setting and MRV system. In case reversions are detected, CONAFOR will notify the Carbon Fund within a period of no more than ninety days after taking notice of this reversion.

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:

- 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 13.1]

YES

Mexico has calculated the net Emissions Reduction considering the Forest Emission Reference Level in the accounting area in relation to the period 2001-2011 and assuming a 20% of emission reductions over a period of five years, and following these assumptions:

- The intervention areas would have proportional emissions to those at the State level to which they belong, according to the amount of forest in INEGI Serie V
- Emissions are reduced by 80% during the first four years of the Emissions Reduction Initiative at a rate of 20% per year; in the fifth year 80% is maintained.
- Only emissions from deforestation and degradation will be reduced, no forest fire emissions will be reduced in the ex-ante calculations. However, during the ERPA, emissions reductions arising from avoidance of forest fires will be considered.
- It is assumed that the uncertainty is the same as the historical period (as a proxy) and only obtained depending on the area where emission reductions occur

The total uncertainty for expected reductions is 4% so that an adjustment to the expected emission reductions is not done.

The following table summarizes the emissions reduction target of Mexico.

ERPA	Reference	Estimation of	Estimation of	Estimated	Estimated	Estimated
term year	level (tCO <sub>2-</sub>	expected	expected set-	Emission	Emission	Emission
t	<sub>e</sub> /yr)	emissions under	aside to reflect the	Reductions	Reductions	Reductions
	<i>a,,</i>	the ER Program	level of	(tCO2-e/yr)	(tCO2-e/yr) set	(tCO2-e/yr)
		(tCO2-e/yr)	uncertainty		aside buffer	available to be
			(tCO2-e/yr)			transferred
1	24,012,031	21,866,044	0	2,145,987	450,657	1,695,330
2	24,012,031	19,720,057	0	4,291,974	901,314	3,390,659
3	24,012,031	17,574,070	0	6,437,961	1,351,972	5,085,989
4	24,012,031	15,428,083	0	8,583,947	1,802,629	6,781,318
5	24,012,031	15,428,083	0	8,583,947	1,802,629	6,781,318

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

In the previous version, in the Advanced Draft ER-PD, the ER Program expressed the intention to avoid double counting by taking in consideration the already existing projects and other GHG initiatives such as NAMAS, CDM projects and Voluntary Standard Projects (18. Data Management and Registry Systems – 18.1. Participation in other GHG initiatives).

The ER Program stated in that version of the ER-PD (18.2.2 Characteristics of the Forest Registry) the intention to implement a system where the Forest Registry would develop the following processes and functions:

- a. Operating check: Manually checking whether a project (or initiative / program) have already been registered in any of the records and existing databases at the time. This operating check intends to be part of General Operating Procedure CONAFOR forest logging.
- b. Serial numbers: automatically create serial numbers assigned to emission reductions. It should also include an algorithmic check to ensure that the serial number created is unique (not previously exist in the registry).
- c. GPS and GIS: geographic verify the existence of their projects or other activities in the area. The record will include a warning system to issue a notice within a certain radius (eg 5 km) of the GPS location. The message automatic warning system should communicate that another project is near, requesting confirmation that the project or program is a different and unique project.
- d. Establishing an indirect links with other internationally recognized standards.

In the assessment of that ER-PD version, definition on the procedures and protocols on how the information would be collected on the ER Program, was requested; regarding other projects capable of transferring ERs to other GHG mitigation initiatives (eventually from other sectors) and, by the existence of projects occurring under the Mexican Standard NMX-AA-173-SCFI-2015 for enhancement of carbon stocks. In that previous version, there were no enforcement rules to assure collecting that information that could avoid potential double counting issues. Protocols for gathering and checking information from other GHG initiatives in the accounting area, since the Registry is voluntary, were not sufficiently specified except by recommending the states involved in the IRE to report also on individual projects that were quantifying ERs by increasing carbon stocks.

Only one voluntary market project was identified within the accounting area in the state of Chiapas, specifically in the regions of Lacandona, Frailesca and Zoque-Mezcalapa under international standard of Plan Vivo.

In this final ER-PD version, in order to avoid the risk of an emission reduction unit is transferred more than once in the IRE intervention area, a reviewing process of the national and international carbon project standards records is proposed. CONAFOR will analyse the characteristics of these projects and in case of potential double transaction, CONAFOR will deduct the number of emission reductions from the total to be transferred to the Carbon Fund.

This process would be implemented when the ERs transfer form signed is sent to the FCPF establishing the ERPA general conditions.

The current and future review process will be based on the following carbon project standards records:

- a) IHS Markit (Plan Vivo, VCS, Gold standard). https://mer.markit.com/br-reg/public/index.jsp?name=mexico&entity=project&entity\_domain=Markit,GoldStandard
- b) American Carbon Registry (ACR) <a href="https://acr2.apx.com/myModule/rpt/myrpt.asp">https://acr2.apx.com/myModule/rpt/myrpt.asp</a>
- c) Climate Action Reserve (CAR) https://thereserve2.apx.com
- d) Climate Community and Biodiversity Standards (CCBS) http://www.climate-standards.org/?s=mexico
- e) Verified Carbon Standard (VCS)
  http://www.vcsprojectdatabase.org/#/projects/st /c MX/ss 0/so /di /np

Although a specific protocol on communication requirements for such initiatives is not established, as it was recommended, at least under the recognition of the potential presence of other conservation or enhancement carbon stocks' projects in the intervention area and taking into account that those projects are able to avoid emissions from

deforestation and forest degradation, the problem was considered and a solution from discounting on the program accountability has been offered.

We consider that with both modifications in this ER-PD version, the indicator 23.1 (first part) has been achieved but we strongly recommend some improvements; the review protocol should be better defined in section 18.1 and removed from the footer, and the results from this first analysis completed, and always referring to the accounting area and (not only to the intervention area).

The Forest Registry is a web platform (still under development by IHS Markit), which will become operational from the first quarter of 2017. It was elaborated an operational manual, which cannot still be shared as an annex, due to the contract clauses for its elaboration, but the main information elements and procedures are described under section 18.2.2. The platform is currently in a test phase and once it is finalized, any necessary adaptations could be made.

# (ii) [Data management and Registry systems to avoid multiple claims to ERs 18.2]

YES

The ER Program recognize the legal framework already existing on the country and intends to establish some specific provisions and mechanisms to prevent double-counting.

In accordance to the national legal framework and stated at ER Program, section 18.2.1. Forest Registry Legal Framework, for the Emissions Reduction Initiative, Mexico will use the Forest Registry (Registro Forestal) that is being developed in the framework of the General Law on Climate Change (LGCC). This Act establishes the creation of the National Emission Registry (RENE), its implementing regulations, and its links with other registries. Also, Article 89 stipulates that regulations and measures will be established to avoid double counting of emission reductions, and will be verified in the national territory and areas where the nation exercises sovereignty and jurisdiction, considering the systems and international methodologies available.

It was clarified in the Advanced ER-PD version, following the recommendations discussed and agreed during the country visit, that Mexico will use its own platform (temporarily called Forest Registry) that is being developed by a third party with extensive experience in the subject, IHS Markit, according to the needs expressed by CONAFOR. Forest Registry is the responsibility of CONAFOR. This platform will allow to track each emission reduction action to be implemented under the ER-P. It would be linked indirectly with the National Emissions Registry (ReNE), specifically with the Emissions Reduction Registry reporting on a voluntary basis Emission Reductions from mitigation.

It was explained that the Forest Registry is divided into two sections: (1) the Emissions Reduction component (nationwide REDD+ activities Registry), which is under design (consulting service by IHS Markit to CONAFOR) and it will be tested in the five states that are part of the Emissions Reduction Initiative (ERI's Registry), and (2) the NMX-AA-173-SCFI-2015 section; Mexican regulation for recording Forest Carbon Projects on international standards belonging to the voluntary market that contribute to increasing carbon stocks.

The first component intends to establish real-time ownership of ERs units and make transfers and electronic withdrawals of ERs units, under a public and transparent system. Registration effectively will become a verified emission reduction in a resource with a unique identification, which should provide full transparency throughout the life of the ER unit by allowing the traceability of it.

The four processes that supposedly will avoid double counting were summarily described in the previous version of the ER-PD (Advanced Draft ER-PD): operational checking, serial numbers, geographical verification and indirect links with ReNE and other internationally recognized standards (18.2.2). In addition, as it was explained previously, a reviewing process of the national and international carbon project standards records has been proposed in this Final version of the ER-PD. CONAFOR will analyse the characteristics of these projects and in case of potential double transaction, CONAFOR will deduct the number of emission reductions from the total to be transferred to the Carbon Fund. This process would be implemented when the ERs transfer form signed is sent to the FCPF establishing the ERPA general conditions.

It is recognized the difficulty to improve the description of the processes given the incipient state of this system and the framework, ReNE. This National Emissions Registry is still under an implementation process, and the responsibilities

of SEMARNAT and the other parties involved as well as the communication protocols between SEMARNAT and CONAFOR should be defined.

The Forest Registry, as it was explained, is still under development by IHS Markit, and will become operational from the first quarter of 2017. The complete operational manual cannot still be shared as an annex, due to the contract clauses for its elaboration, but the main information elements and procedures were described under section 18.2.2.

We consider that the criteria met.

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+

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

YES

[ 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+ 14.1]

The document reflects the acknowledgment by Mexico regarding REDD+ safeguards established under the UNFCCC. The National REDD+ Strategy (ENAREDD+) provides for the development of a National Safeguards System (SNS) and a Safeguard Information System.

For the implementation of the Emission Reduction Initiative (IRE), Mexico conducted a Strategic Environmental and Social Assessment (SESA), which resulted in a Framework of Environmental and Social Management (MGAS, in Spanish), which is the instrument that includes the principles, guidelines and procedures to address, prevent and minimize the adverse risks/impacts and enhance the social and environmental benefits associated with the implementation of the ENAREDD+ and the IRE according to the environmental and social safeguards of the UNFCCC and the World Bank.

Based on the identification of the potential risks associated with the activities of the Investment Programs, the MGAS provides:

- Institutional arrangements necessary to promote compliance with environmental and social safeguards applicable to the Investment Programs, including guidelines, procedures and institutional arrangements to be applied in order to meet each one of the REDD+ safeguards and to prevent and minimize negative impacts as well as enhance the benefits deriving from the ENAREDD+ and IRE implementation (chapter 6 of the MGAS).
- Measures and procedures to address the safeguards related to Indigenous Peoples and Involuntary Resettlement (sections 7 and 8 of the MGAS);
- Definition and scope of Public Safeguards Plans (chapter 9 of the MGAS).

Investment Programs under IRE provide for activities supported with grants from various institutions throughout the entire implementation period. For grants obtained from CONAFOR, compliance with environmental and social safeguards will be guaranteed by the provisions of the legal framework and the principles, procedures and instruments the CONAFOR has developed under the Forests and Climate Change Project (PBCC, Spanish acronym) and following the World Bank's Operation Policies.

For activities supported from other sectors, such as SAGARPA, compliance with safeguards is promoted through the MGAS and as provided for in the Public Safeguards Plans. In addition, to promote compliance with safeguards in the activities of different sectors, mainly the agricultural sector, the coordination Agreements for development and implementation of IRE to be entered into by and between CONAFOR and the individual State Governments include the specific State's obligations, amongst which there is addressing and observing REDD+ safeguards as established in the United Nations Framework Convention on Climate Change (UNFCCC), and reporting as required through any such procedure as may be defined by the "CONAFOR" to such end. This way, the faculties are established for the individual

States to comply with the safeguards, which will lead to institutional arrangements and necessary adjustments in the programs operation and activities of the several institutions involved in the IRE at the specific State.

It is recommended that Section 6 of the ER-PD include information on institutional arrangements to insure the necessary institutional capacity and resources for compliance with implementation and monitoring of environmental and social safeguards.

The ER-PD must include the link to the MGAS document.

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

**YES** 

[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+ 14.1]

The Environmental and Social Management Framework (MGAS) is the operational instrument that includes the principles, guidelines and procedures to address, prevent, and minimize any risks of adverse impacts and enhance the social and environmental benefits associated with the implementation of the ENAREDD+, including the IRE.

The Program's MGAS provides as follows:

- Identification of environmental and social impacts and benefits (section 5.1 of the MGAS)
- Measures to address risks of negative environmental and social impacts, as well as opportunities to enhance benefits (section 5.2 of the MGAS)
- Institutional arrangements to promote compliance with Safeguards from the UNFCCC and the WB (chapter 6 of the MGAS).
- Principles guiding development and compliance with the individual State Plans of Safeguards (Chapter 9 of the MGAS).

Public Safeguards Plans are an integral part of IRE's MGAS and comprise the operational instrument of IRE for the Program's risk management.

Safeguards Plans will be developed for each one of the IRE's States in a process led by the governments of the different States in coordination with the Federal Government, adjustment themselves in terms of the specificities of each State. For the development of these Plans, the participation of key actors – such as leaders of indigenous peoples – will be promoted from the onset to ensure viability and risk mitigation, and these plans will be built integrating the gender perspective as well as considering the local experience in governance terms.

The Plans will be effective during IRE's implementation and will be updated periodically to incorporate any measures and procedures necessary to ensure compliance with safeguards upon implementation of the different stages of the investment programs' activities.

Safeguards Plans will identify the mechanisms for implementation and coordination through which the measures and procedures oriented to mitigate risks identified in the MGAS will apply.

The MGAS for REDD+ in Mexico includes a Procedural Framework for Indigenous Peoples (Chapter 7) and a Procedural Framework for Involuntary Constraints upon Access to natural resources (Chapter 8).

The Framework for Indigenous Peoples (MPPI) identifies the mechanisms to comply with and observe the rights of indigenous peoples during implementation of the ENAREDD+ and the IRE according to the provisions of the World Bank's Operational Policy (PO) 4.10 Indigenous Peoples.

The Procedural Framework for Involuntary Constraints describes the conditions to address any potential social impact brought about by potential constraints upon access to natural resources according to the provisions of the Operation Policy for the Involuntary Re-settlement of the World Bank (OP 4.12).

The link to the MGAS document must be included in the ER-PD.

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 14.2 and 5.1]

Section 14.2 and Annex 14 provide that the Government of each State, being responsible for developing and implementing the Public Safeguards Plans, shall be in the care of periodically updating (every year) to report on how environmental and social safeguards have been met. The format of the Emission Reductions Report included in Annex 14 includes information on the measures and activities performed pursuant to the provisions of the Public Safeguards Plan.

It is provided a report be prepared each year on how measures have been applied to enhance benefits and mitigate risks described in the individual Public Safeguards Plan. Authorities of the different States will notify CONAFOR on the updating of their relevant Safeguards Plan to have it published in their web site under the IRE section.

Chapter 9.16 of the MGAS provides that a report shall be prepared each year describing how the measures to enhance benefits and to mitigate the identified risks have been applied. For transparency sake's, the governments of the different States will communicate to CONAFOR the updating of their relevant Safeguards Plans to have it published in their web site under IRE section.

Information on safeguards compliance will be reported accumulated when the specific State should develop the relevant State REDD+ report. The latter will include a list and description of the indicators through which the "Safeguards Information System Reporting Needs" will be addressed - provided to ensure legal, institutional and compliance frameworks applicable to REDD+ are met, as well as to specify the reporting frequency for each one of the indicators, and the means for verification to be used to validate the information reported.

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.

N.A

Only applicable at the time of verification.

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

**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:

YES

- 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

[Description of the Feedback and Grievance Redress Mechanism (FGRM) in place and possible actions to improve it 14.3]

The Existing Mechanisms are introduced to solve Grievances at CONAFOR and SAGARPA [Secretariat of Agriculture, Farming, Rural Development, Fishing and Food], which fulfill the characteristics required in terms of legitimacy, impartiality, transparency and capacity to address a vast spectrum of complaints. Such mechanisms have already been implemented in both institutions, which have the necessary resources and capacities.

CONAFOR is working in the assessment of mechanisms in force through the development of a pilot plan for feedback and hearing of complaints for REDD+ in Peninsula of Yucatán. One of its purposes is to find common grounds between the existing institutional mechanisms and the local or traditional ones to access information and to receive complaints. The evaluation considers the analysis of the relevant and applicable compliance framework of REDD+ safeguards for the three states of the Peninsula of Yucatan and Chiapas. This analysis includes the identification of grievance mechanisms and dispute resolution, compliance control mechanisms, as well as information systems and existing reporting mechanisms at institutional level.

Chapter 10 of the MGAS provides that the individual Public Safeguards Plans will include the description of the procedures to address complaints or grievances related to IRE activities and to several other issues, including benefit distribution.

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 14.3]

Section 15.2 provides that both the Benefit Distribution Plan and the local arrangements to be defined shall be subject to a feedback and grievance reception mechanism as described in section 14.3 to offer an expeditious mechanism with the capacity to solve complaints or grievances presented during the benefit distribution, which will be properly notified and disseminated.

The Safeguard Plans to be prepared must specify the process to be followed to receive, examine, manage and notify complaints and observations received.

**Ind 26.3** If found necessary in the assessment mentioned in Indicator 26.1, a plan is developed to improve the FGRM

YES

[Description of the Feedback and Grievance Redress Mechanism (FGRM) in place and possible actions to improve it 14.3]

The document provides (section 14.3) that, based on the results of the FGRM evaluation in progress through the pilot plan for the feedback and grievance reception for REDD+ in the Peninsula of Yucatan and recommendations received during self-evaluation workshops, the applicable complaint and grievances reception mechanisms will be updated.

C 27 The ER Program describes how the ER Program addresses key drivers of deforestation and degradation

**Ind 27.1** The ER Program identifies the key drivers of deforestation and degradation, and potentially opportunities for forest enhancement

YES

[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]

The identification and analysis of drivers and underlying causes of deforestation and forest degradation is quite complete. Some of the recommendations made during the country visit aimed to improve the proper understanding of the text, were taken into account and the following changes and additions were made:

- -Forest degradation definition was included and now it is consistent in the text.
- -Types of forest vegetation used in the text from section 3.2 (vegetation types (INEGI-IPCC) and classification system proposed by Rzedowski,1978) were well defined in section 8. But the description of the environmental conditions in the accounting area (section 3.2.) still could be completed (despite the detailed information in annex 2) for proper understanding of the text and especially for drivers' analysis carried out in Section 4.1.
- Still it does not appear (section 4.1.). a paragraph or a table with a detailed list of current policies and programs in the accounting area and beyond that contribute to the conservation and enhancement of carbon stocks. Its inclusion is still recommended.
- A reference for the methodology used for quantification deforestation / forest degradation in the accounting area was included (section 8).

**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

YES

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

[Institutional and implementation arrangements 6.1]

After identifying and analyzing key drivers and underlying causes of deforestation and forest degradation and assessing the major barriers to face them, a section in which the proposed ER program measures are proven efficient when dealing with them (avoiding and overcoming risks), is expected.

The conceptual framework of investment programs is clearly described and the types of first stage activities (generic and complementary) and additional second stage activities are described in brief (section 4.3). However, and in view of the justification that the above activities are capable of, overcoming the risks, facing drivers and underlying causes, it was considered necessary to explain in detail the methodology followed in the states for identifying those activities. Following the recommendations made during country visit:

- -It was included a reference to section 5.1.2.1 for the explanation of the general process for participatory preparation of investment programs and individual PI documents and links were reviewed and modified (draft versions and missing documents: Quintana Roo and Campeche).
- -It was included in section 6.1 a table explaining the state of development of investment programs at each State.

# 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

**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:

YES

- 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.

The ER Program demonstrates that the additional assessment has been conducted in a consultative, transparent and participatory manner, reflecting inputs from relevant stakeholders

[Description of land tenure systems, analysis of laws and regulatory framework 4.4 and 4.5, stakeholder consultation process 5.1]

28.1 - I - The ER Program takes in account and describes the range of land and resource tenure rights and also the categories of rights-holders present in the Accounting Area, including the Indigenous Peoples and other relevant communities, however, such identification is not sustained with relevant information contained in the document about, for example, indigenous peoples of the Accounting area and their legal status, any Accounting areas subject of significant disputes or controversies (whereas areas of intervention have been excluded from the Program on account of existing conflictive situations related to land tenure, for example, Chiapas).

It will be important to address directly the potential land tenure conflicts that could affect the permanence of the emission reductions on those project areas.

If there are no conflicts neither risk of conflicts should be informed and explained such conclusion with data about land type and specific conditions that will contribute to the mitigation or absence of such risk.

- 28.1 II The ER Program considers and describe the legal status of such rights, and significant ambiguities in the applicable legal framework, including as pertains to the rights under customary law;
- 28.1- III The ER Program doesn't acknowledge that the accounting area is subject to significant conflicts or disputes related to contested or competing claims or rights, at least conflicts that could be critical to the successful implementation of the ER Program. The document introduces information on the types of land tenure in Mexico, land distribution across the states of the REI, and the legal framework applicable for dispute resolution in matters of land tenure. The document concludes that "in the regions where REIs will be conducted, land tenure is clear and stable. This allows the establishing or the improvement of local governance mechanisms and the land owners to obtain authorizations for the use of the natural resources, which allows the implementation of initiatives such as PIs [Investment Projects]". Also the document brings a list of solutions to address the resolution of potential conflict included on the legal framework of the host country as stated in Chapter 17 Ownership of Emission Reductions 17.2 Transfer of Title to emission Reductions that could be used in case of potential conflicts.
- 28.1- IV The ER Program describes the potential impacts on the existing land and resource tenure in the Accounting Area. The ER Program includes a specific description and a geographical map distribution where those potential project areas with a description of the states that will be part of the area of the Program, the total area in hectares of the states and the total area in hectares of forests:
- States: Campeche, Chiapas, Jalisco, Quintana Roo, Yucatán.

- Total Area in Hectares: 29,376,791 ha

- Total Forest Area: 18,572,733 ha

The ER Program also describe the distribution of the land types tenure, at Chapter 4 - 4.4.2 Distribution of the lands on the States of the ER Program: "53% of the land area belongs to 29,441 ejidos and 2,344 communities, with a total area of 94 million hectares. With regard to forests and jungles and other forested areas the total area is 66.4 million hectares in the country, of which 62% (40 million hectares) are owned by ejidos and communities, 32% are individual smallholdings (21 million hectares) and the remaining 6% is owned by the State."

We consider the ER Program met the indicator 28.1.

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]

From the legal point of view the ER Program incorporates mechanisms that contribute to the progress towards clarifying land and resource tenure in the Accounting Area, such as:

A list of solution for the conflict or disputes related to contested or competing claims or rights as stated in Chapter 4 – 4.4.3 – Legal Framework and Conflict Resolution Mechanisms, to prevent conflicts over land and resources rights, identified and described as:

- The "Programa de Certificación de Derechos Ejidales y Titulación de Solares Urbanos (PROCEDE)";
- The "FANAR Programa, Alianzas para la Regularización y el Ordenamiento Territorial;
- The "Procuradoria Agraria" '
- The "Tribunal Superior Agrario (TSA), and
- The "Programa de Atención a Conflictos Sociales en el Medio Rural (COSOMER);

The new ERPD version brings also information about the:

- Action plan and ways of addressing conflict situations identified in the assessment or potential conflict situations regarding land tenure.
- Bodies and procedures that would apply to arise issues of land dispute.

We consider the indicator 28.2 is 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

YES

YES

[Transfer of Title to ERs 17.2]

The ER Program provides a description of the implications of the land and resource regime assessment and addresses each type of land (public, private and social in accordance to article 27 of the Mexican Federal Constitution) by identifying each one of them on the accounting area.

The ER Program includes a specific description and a geographical map distribution where those potential project areas with a description of the states that will be part of the area of the Program, the total area in hectares of the states and the total area in hectares of forests:

- States : Campeche, Chiapas, Jalisco, Quintana Roo, Yucatán.

- Total Area in Hectares: 29,376,791 ha

- Total Forest Area: 18,572,733 ha

The ER Program also describe the distribution of the land types tenure, at Chapter 4 - 4.4.2 Distribution of the lands on the States of the ER Program: "53% of the land area belongs to 29,441 ejidos and 2,344 communities, with a total area of 94 million hectares. With regard to forests and jungles and other forested areas the total area is 66.4 million hectares in the country, of which 62% (40 million hectares) are owned by ejidos and communities, 32% are individual smallholdings (21 million hectares) and the remaining 6% is owned by the State."

The ER Program address the ability of the ER Program Entity to transfer Title to ERs to the Carbon Fund, and informs that in accordance to the LGCC it will be possible that SEMARNAT itself, or with the help of other agencies of the APF, can issue official Mexican standards, whose aim will be to establish guidelines, criteria, technical specifications and procedures for guaranteeing the measures for adapting to, and mitigating, climate change.

On this basis, it would be possible for the Mexican government to issue a Mexican Standard, establishing the process for registration and verification of emissions reduction at national level and identifying the document which must be issued for said reduced emissions as carried out by the NMX-AA-173-SCFI-2015 for registering carbon forest projects and certifying the increase in the carbon stock.

The ERPD considers three options concerning to the issuance of the emission reduction and the correspondent document of transference:

a) As proof of the reduced emissions and the payment received.

An administrative document which must contain the serial number corresponding to the number entered in the Forest Register will be considered to be proof of the reduced emissions.

b) Associated with a NOM.

Associated with an Official Mexican Standard.

c) As a Carbon Credit.

With regard to carbon credits, CONAFOR, via its Director General, has the authority, in accordance with the Federal Law of Parastatal Entities (LEFP) to issue, guarantee and negotiate carbon credits.

Th ERPD program establish three potential legal models to transfer the emission reductions but remains the doubt about the ownership on the original emissions reductions in the absence of a regulatory legal framework clarifying the state ownership of these new legal concept that is not yet defined by the national host country legislation.

The ER Program clarifies the potential ability to create the "Avoided Reducing Emission Program" and also the legitimacy and the legal possibility (under the national legal framework) to issue the "unit" of the avoided reducing emissions and then consequently the potential models to execute the transfer of those "units/titles" (which should be expressed in tons of carbon equivalent tCO2e) to the Carbon Fund, but still remains the question about the original ownership, that is based on the negative conclusion on the non-possible ownership of the other landowners (due to the criminal typology established by the article 48 of the Penal Code).

To obtain more information on the ability of the ER Program and ER Program Entity to transfer Title to the Carbon Fund please see comments on 36.2

Taking in consideration the explanation we consider that indicator 28.3 is 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, 15.1]

YES

Even though the Benefit Distribution Plan has not yet been prepared, Annex 4 includes a description of the participatory construction process to be conducted and any arrangements for its formulation and execution. It is not included all the information specified in indicator 30.1.

During the participatory construction process of local arrangements for benefit distribution, the State's Government will be responsible for coordinating these works, with the participation and support of CONAFOR's State Management. The responsibilities for both CONAFOR and for the State's Government are defined in the coordination agreements described in section 6.1.1.

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

**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:

**YES** 

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.

Criteria, processes, and timelines for the distribution of Monetary and Non-Monetary Benefits.

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

[Description of benefit-sharing arrangements 15.1]

The ER Program strategy widely describes as conduct consultation processes was realized for the distribution of benefits, and broadly describes the consultation processes and the identification of relevant actors and describes criteria's.

A methodology guide or possible alternative distribution could facilitate these processes, but narrow or rigidly applied could restrict the freedom and flexibility to choose methods of distribution to be decided in a participatory manner.

CONAFOR has expanded, in this version, this section and refers to the fact that these benefits will be shared with a formula that will be integrated into the Plan of Final Distribution.

We consider criteria is met.

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

YES

[Description of stakeholder consultation process 5.1]

[Summary of the process of designing the benefit-sharing arrangements 15.2]

In line with the provisions of criterion 30 as regards managing expectations of the potential beneficiaries, the construction of the Benefit Distribution Plan defining the local activities to finance will be conducted once the Initiative for Emission Reduction [IRE] of Mexico has already been approved by the Carbon Fund and prior to the signature of the Emission Reductions Payment Agreement (ERPA).

Regardless, the Program has prepared the "Methodology to guide the process of local-based participatory construction of the benefit distribution arrangements in the context of the IRE" (available in Annex 4), which went through feedback with the civil society, experts and states governments. Details on the process of developing such Methodology are introduced in section 5.1.2.4.

Such methodology provides the steps and arrangements to be implemented for Benefit Distribution under IRE at the local level with IRE's potential beneficiaries, and is consistent with indicator 31.1 of the Methodological Framework that requests the Benefit Distribution Plan be part of the transparent, participatory consultation process of the IRE, reflecting opinions expressed by pertinent actors and the wide community support.

The methodology prepared poses five phases for local-based construction of the benefit distribution arrangements under the IRE. These phases are executed in the areas of intervention defined in the investment program during nine months from the first quarter of 2017 to end in December of the same year. These five phases comprise: a) identification of allied actors in the participatory process, b) the performance of calls during the phases of local-based construction of benefit distribution arrangements, c) participatory workshops for the definition of local-based benefit distribution arrangements, d) agreement validation and execution, and e) the execution and monitoring of the local-based benefit distribution plan.

It is recommended that Annex 4 states that the Benefit Distribution Plan will comprise a Grievance Reception Mechanism.

### 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

NO

[Description of the legal context of the benefit-sharing arrangements 15.3]

The ER Program reflects the legal context of the Country and the main legal framework challenges that the implementation the ER Program potentially will need to address.

The ER Program defines in accordance with the national legislation – Article 27 of the Federal Constitution the type of land tenures and rights of land owners, communities and "ejidos" existing in the country and under the ER Program accountability are:

-" La Constitución Política de los Estados Unidos Mexicanos (CPEUM) en su artículo 27 establece el derecho de la Nación para imponer a la propiedad privada las modalidades que dicte el interés público, así como el de regular, en beneficio social, el aprovechamiento de los elementos naturales susceptibles de apropiación, con objeto de hacer una distribución equitativa de la riqueza pública, cuidar de su conservación, lograr el desarrollo equilibrado del país y el mejoramiento de las condiciones de vida de la población rural y urbana".

The ER Program also establishes and define who are the beneficiaries of the Benefit Sharing Plans:

- "Por otra parte, el derecho a recibir los beneficios económicos provenientes del pago por resultados de emisiones evitadas corresponderá a las personas propietarias y habitantes de las regiones que realicen los esfuerzos para detener la deforestación y degradación de los terrenos forestales bajo los mecanismos que se establezcan para ese fin, respetando en todo momento su derecho a la participación plena y efectiva en el diseño de mecanismos de distribución de beneficios y a decidir sus propias prioridades en lo que atañe al proceso de desarrollo".
- -"Con base en lo anterior, el Gobierno de México recibirá el pago por resultados mismo que se canalizará a través de las entidades federativas, estableciendo los mecanismos para que los beneficios económicos derivados de este pago lleguen a las personas propietarias y habitantes de las áreas de intervención para el desarrollo de las actividades de segunda etapa, mismas que serán identificadas por ellos a través de un proceso participativo como parte de los arreglos locales para la distribución de beneficios a nivel local..."

The ERPD program establishes fundamental issues just like:

- The local arrangements for the benefit sharing of the IRE shall be combined taking into consideration the inputs generated via a process of participative construction with the potential beneficiaries indicated under point 15.1, in order to obtain comprehensive community support.
- The "Methodology to guide the participative construction process for the Benefits Sharing Arrangements at local level within the IRE context" (available in Annex 4) that was developed in order to provide guidance for the aforementioned process, including feedback received from civil society, experts and state governments.
- In the course of the process for the participative construction of the local arrangements for benefit sharing, the State Government shall be responsible for coordinating this work, with the participation and support of the CONAFOR State Office.
- As the facilitating organization it will rely on the participation of the APTD or the Territorial Development Agent (ADT) defined, following the five phases contemplated in the participative methodology.

Important in this context will be:

- Section 5.1.2.4. and section 6.1.1.

Even though it was made a detailed approach to the national context, the ER Program doesn't address the description how that will be in accordance and compliant with the international legal framework.

We consider indicator 33.1 is not met.

# C 34 Non-Carbon Benefits are integral to the ER Program

**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 intergenerationally inclusive, as relevant

YES

[Outline of potential Non-Carbon Benefits and identification of Priority Non-Carbon Benefits 16.1]

Investment Programs (PI) are the management and territorial planning instruments that will integrate the activities to face the main causes of deforestation and forest degradation in each one of the regions. Under the participatory workshops for the construction of Investment Programs, non-carbon benefits have been identified to be promoted during IRE's implementation. The participation process includes a priority exercise.

The document acknowledges non-carbon benefits, such as an additional positive result to be obtained from the activities implemented under the IRE and will contribute to the long-term efficacy of activities to face deforestation and forest degradation.

The identification of the activities included in the Investment Programs has been conducted through a participatory process which was appropriate and inclusive from the cultural and gender viewpoints, and included the development of local and regional workshops.

Section 16 describes non-carbon benefits to be generated by the Program. Table 86 identifies non-carbon benefits for each participating State for each generic activity identified in the Investment Programs classified according to the following categories:

- Social benefits: those related to the protection and improvement of livelihoods, participation of any stakeholder, improvement of forestry governance, strengthening of social capital, etc.
- Environmental benefits: those related to the protection, conservation and restoration of biodiversity and ecosystems, adaptation to climate change, diversification of landscape structures, fire prevention, water environmental services, among others.

**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

YES

[Description of stakeholder consultation process 5.1]

The identification of the activities included in the Investment Programs has been conducted through a participatory process which was appropriate and inclusive from the cultural and gender viewpoints, and included the development of local and regional workshops. Section 5.1 describes the workshops carried out for the participatory construction of the Investment Programs contemplating the development of a diagnosis and systematization of the base information included in the preliminary definition of the activities to be included in the PI and of the areas of intervention. This process was conducted by CONAFOR's State Managements of the 5 States comprising the IRE, in coordination with the State's governments.

Subsequently, the PI were consolidated based on a participatory and inclusive construction process, with the purpose of integrating the local realities and needs and validate the activities. To guide the participatory process and the development of the PI, CONAFOR has developed the "Guide for the participatory construction of Investment Programs"

During the participation process with the local actors (workshops for the participatory construction of Investment Programs), non-carbon benefits were identified that could be generated, be held and increased during IRE implementation, and also a priority exercise was conducted, where participants of the workshops defined which of these benefits mean the most to them. This information compiled in such participatory workshops has allowed to identify and prioritize, for each State, non-carbon benefits introduced in Section 16.1.

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.

**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

YES

[Approach for providing information on Priority Non-Carbon Benefits 16.2]

The information on generation, conservation and improvement of non-carbon benefits will be included in the reports that each State's government prepares to report on the status of implementation of the initiative in its area of influence.

The format for the Emission Reduction Report introduced in Annex 14 includes information of whether non-carbon benefits have been generated, held or improved as identified in the Document of the Investment Program, as well as the description of how these priority benefits have been generated or improved as regards those included in the Document of Investment Program:

- Promotion of conservation of biodiversity, natural forests and their ecosystem services by improving the situation of important areas for biodiversity.
- Prevent soil erosion and maintain water quality.
- Degradation of biodiversity and ecosystem services
- Cause risks to diversity outside forests through changes in land uses.
- Improvement of access of local communities to forestry products, such as firewood, food and medicinal plants.
- Limitations on the supply, quality of and access to forestry products by communities and municipalities.
- Improvement of community's capacities to adapt in the face of climate change and reduce vulnerability to climate change.
- Provide opportunities of livelihoods to local communities.
- Local livelihoods affected.

Conservation of forests and forestry products of traditional and spiritual significance for indigenous and local communities.

**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

N.A

Only applicable at the time of verification.

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

**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:

YES

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.

[Authorization of the ER Program 17.1]

The ER Program Entity identified as CONAFOR demonstrate its authority to enter into an ERPA with the Carbon Fund prior to the start of ERPA negotiations, through an existing legal and regulatory framework stipulating such authority on the General Law of Forest Sustainable Development and the General Law of Climate Change and on the Regulatory Administrative Rules of the host country.

On Chapter - 17.1 – Authorization of the ER Initiative and Chapter 17.2 Transfer of Title of ERs the ER Program explicit the ability of CONAFOR is defined as a decentralized entity of SEMARNAT to act in behalf of the host country as the ER Program entity on issues of natural ecosystems, forest and conservation policies, and to represent nationally and internationally the host country on negotiations involving finance and non-financial transactions related to the scope of competences enacted by law.

On Chapter 17.1 - is stated that:

SEMARNAT is in accordance to the national legal framework (General Law for Sustainable Forest Development), the entity with:

- 1. The competence to foment the protection, restauration and conservation of ecosystems and natural resources, goods and environmental services, with the objective to achieve the sustainable development,
- 2. To formulate and conduct the national policy of natural resources, and between other attributions,
- 3. To administrate and regulate the sustainable use of the Federation Natural Resources.

At the same time the General Law for Sustainable Forest Development specifies that SEMARNAT is the entity that should formulate and manage the national policy of sustainable forest development with the participation of CONAFOR to achieve the harmonization between the environmental policy and natural resources.

Taking that in consideration and as a decentralized entity of SEMARNAT, CONAFOR has a range of competences that allows the entity to act in behalf of the host country as the ER Program Entity:

- CONAFOR has the objectives to develop and foment activities of production, protection, conservation and restauration of forest activities;
- CONAFOR has the obligation to design and define strategies to execute a zero-deforestation rate on carbon lost on the original ecosystems, taking in consideration the sustainable development and community forest sustainable management in the country.
- CONAFOR has the ability to represent national and internationally the host country and to negotiate commercial agreements with financial and non-financial resources related to forests and natural resources.

We will be able to find important information related to the legal competences of CONAFOR, especially in terms of the ability to act internationally and to negotiate commercial agreements representing the host country:

..."Taking into account that the Emissions Reduction Initiative involves processes, negotiations and decisions on legal commitments of an international nature, an administrative entity that carries out such actions must be used. The CONAFOR International Affairs Unit shall: I. Design, propose, develop, evaluate and monitor cooperative, financial and international commerce policies and strategies for CONAFOR; II. Promote and enter into agreements on coordination and cooperation of affairs on international forestry; ... III. Coordinate, manage, negotiate, supervise, implement and follow-up the obtaining of resources in the form of money or in kind, for public, private, social organizations, physical or legal persons, and national and international organizations, in order to promote sustainable forest development in the country;...VII. Establish, in terms of national and international commitments, the necessary levels of coordination between CONAFOR and the national and international empowering authorities, regarding matters of financing, international commerce and cooperation, for sustainable forest development; VIII. Plan, coordinate and support in the national and international scene, the participation of the General Director and other administrative units in matters concerning financing, international commerce and cooperation, in addition to

monitoring all such activities; IX. Coordinate and follow up compliance with conventions and any other national or international acts or agreements covering commitments or projects on cooperation, international commerce and financing of matters in which CONAFOR participates; and ... XI. Represent the Mexican forest sector in international business negotiations in which Mexico has signed agreements or treaties on free trade.

Also we encounter the powers which in a general way the Federal Law of Parastatal Entities, grants the owners of Decentralized Public Organisms, in which CONAFOR is included:

- I. To draw up and grant all types of deeds and documents inherent in its purpose;
- II. To exercise the broadest powers of control, administration, lawsuits and collections, including those requiring special authorization in accordance with other legal or regulatory provisions pursuant to the law, decree of creation and its organic statute;
- III. To issue, guarantee and negotiate debentures and;
- IV. To conclude transactions.

In accordance with these provisions, SEMARNAT and CONAFOR are the two environmental authorities responsible for the forest policy and for the fulfilment of its objectives, in addition to designing and implementing instruments that ensure prevention of deforestation and forest degradation, and the avoidance of emissions into the atmosphere.

Taking this legal framework in consideration CONAFOR as the ER Program Entity demonstrates its authority to enter into an ERPA with the Carbon Fund prior to the start of ERPA negotiations, referring to an existing legal and regulatory framework stipulating such authority.

We consider indicator is met.

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

NO

[Transfer of Title to ERs 17.2]

The ER Program address the ability of the ER Program Entity to transfer Title to ERs to the Carbon Fund, but because there is not a specific legal provision to define neither the legal nature of the emission reductions, neither the ownership of those emissions in the legal framework of Mexico at this date, the host country chose to adopt in the document a position resulted from an "hermeneutic" interpretation of the country's constitutional, civil and penal laws. This approach carries a high degree of complexity to the exercise of submitting the analysis of the ER Program to the FCPF Carbon Fund methodological Framework.

Let's try to analyze each one of the arguments and legal statements:

"Original Property of the Nation" - Article 27 of the National Constitution

The interpretation of the host country is based on the constitutional right to the ownership of the land of the nation "direito originario" and the subsequent derivation of public, private and social property based on those constitutional principles:

- "The Constitution establishes a triangular structure of the property: the original property of the nation, public ownership and private property."
- o "The original property is established in the first paragraph, which explicitly states that the ownership of the lands and waters within the boundaries of the national territory is vested originally in the Nation, who holds ultimate

power over them and, based on it, you can assign them to individuals to establish private property, or, once transmitted its domain, if necessary, to have those through the channels provided in the Supreme Law itself, being both the Constituent Congress of 1916, as doctrine have referred to such property as "absolute ownership", "eminent domain", "full control" or "eminent domain", similar to that in the colonial or colonial law, currently defined by international law.

- "Private property arises as a consequence of the principle of the original property of the nation, is the transmission domain recognizes individuals made before the effective date of the Constitution and the ability to continue to do so after its approval. Generically, it is understood as the domain of private land and water."
- o Thus, although the ownership of lands and waters can be transmitted to private parties, does not mean that always the domain of natural resources found in them is transferred, because the fourth and fifth paragraphs of that constitutional provision state that corresponds to the Nation its direct ownership..."
- "Regarding the clarity of land tenure, art. 27 establishes the original ownership of the nation which has the right to transfer ownership to private persons, thereby constituting private property".
- This article enacts also ... " the legal status of ejidal and communal population is recognized, so that ownership of these lands is protected on both for human settlement and the development of productive activities".

"Definition and Ownership of the avoided emissions reductions":

The definition and ownership of the avoided emission reductions as it was expressed doesn't exist (until this date) under the national legal framework, and doesn't appears in any one of the dispositions related of the national legal framework applicable to the Avoided Emissions Reduction Initiative in the country, such as:

- The Constitution of the United Mexican States
- The Organic Law of the Federal Public Administration
- The Agrarian Law
- The General Law of Transparency and Access to Public Information,
- The General Law of Ecological Balance and Environmental Protection (LGEEPA)
- The Sustainable Rural Development Act (LDRS)
- The General Law on Sustainable Forestry Development (LGDRS)
- The General Law on Climate Change (LGCC)
- The Federal Law on Metrology and Standardization

There is a prevision on "carbon credits" in accordance with Federal Law of Parastatal Entities (LEFP) that allows the competence to CONAFOR to "issue, guarantee an negotiate carbon credits", but that prevision doesn't necessarily relates to the ownership of emission reductions, once it refers to the product of the emission reductions that are potential a way of transact/transfer those emissions (as carbon credits).

To fulfil that gap on the national legislation framework the ER Program adopted the legal methodological approach of doing an interpretation of the constitutional concept in the absence of a specific legal provision to define the legal concept, nature and regime of the "avoided reduction emissions".

The ER Program legal interpretation as it is expressed on the document gives to federal government the "full ownership" and consequently the "ability" to create in accordance to the secondary law system rights and or obligations to those natural resources based on the guiding principles of the national environmental policy's in Mexico:

- The article 27 of the Federal Constitution ..." provides that the State, through legal measures, have an impact on the preservation and restoration of ecological balance, promoting rural economic activities, as well as prevent the destruction of the natural elements.
- "Within this scheme we found that corresponds to the nation direct ownership of all natural resources of the continental shelf and the submarine shelf of the islands; minerals or substances that constitute deposits whose nature is different from components of the land; deposits of precious stones, rock salt and salt formed by marine waters; fertilizers; solid mineral fuels; oil and all carbides of solid, liquid or gaseous; and the space above the national territory. They also include all waters of the territorial seas, inland marine waters and all those water resources such as rivers, lakes, ponds, swamps, springs, streams, creeks or beds. Also solely to the nation's transmission, transformation,

distribution and supply of electricity; the use of nuclear fuel for nuclear power generation and the exclusive economic zone beyond the territorial and adjacent to sea.

- Articles 115-121 of the Federal Constitution establish the characteristics of states and municipalities and states that have the obligation to publish and enforce federal laws.
- Although forest resources are subject to appropriation and may be used by their owners as recognized by the LGFDS in Article 5 which states that the ownership of forest resources fall within the national territory corresponds to the ejidos, communities, indigenous peoples and communities, physical or moral (...) people, CPEUM opens the door to define a strong regulatory control to ensure both conservation and equitable distribution of such resources, considered as components of public wealth.
- The constitutional proposal involves a complex system of legal protection, since, on the one hand, guarantees the right of the owner of the property, but on the other hand, conditions the exercise of the right to permanent resource, which means the recognition the interest of the nation in the conservation of such elements.
- Therefore the property is subject to compliance with the measures set out in secondary legislation.

These premises posed a challenge to determine ownership of avoided emissions of carbon dioxide (CO2) once they don't create under the Mexican legislation a "real estate property right". For the host country as stated on the document those avoided emissions reductions of carbon dioxide (CO2) are similar to an intangible asset:

### "The prohibition under the Penal Code":

To increase the complexity of the legal framework and complementing the legal justification, based on the penal provision of the Federal Penal Code, Title Twenty Fifth, "Crimes Against the Environment and Environmental Management", that criminalizes offenses in environmental matters, the host country reaches to the conclusion that the private and communities land owners cannot have the right to those avoided emission reductions neither the right to claim any kind of title or ownership because the activity of deforestation and degradation is considered a "crime" under the Mexican Legislation:

- "While emissions can be avoided, inter alia, by the effect of the design and implementation of the State policies to curb deforestation and forest degradation; deforestation which releases such issues involve the execution of the crime contained in Article 418 of the Penal Code which provides for the imposition of six months to nine years in prison and the equivalent of 100 to 3,000 days' fine to illicitly:
- o i) Remove or destroy natural vegetation;
- o ii) Cut, start, tear down or tale one or several trees; or
- o iii) Change the forest land use.
- The same penalty will be applied to those who illegally transported, traded, stored or processed roundwood, chips, charcoal, and any other timber forest resources, or land from forest soils more than m3 or, where appropriate, equivalent lumber. In the event that these actions are carried within a protected natural area it is considered a felony and the penalties will increase up to 3 years and the economic penalty up to 1,000 more fine days."

"The Ability to create "Avoided Emission Reductions Units" and Transfer their Title":

The ability to transfer the title to the Carbon Fund in accordance to the legal interpretation expressed on the ER Program is based on the presupposition that the nation is the single "unique" owner of the carbon rights "avoided reduction emissions" arising from the avoided deforestation and degradation and in consequence of that principle the federal government (in accordance with the established competence) will be able to transfer the title of those emission reductions to the Carbon Fund.

- "Therefore, the State in its mandate to implement the public policy of sustainable rural development for achieving national goals and objectives and to fulfill national and international commitments, implements different policy instruments such as the Reduction Initiative emissions- that translate into actions to avoid CO2 emissions.

That said, there is a previous matter that needs to be addressed in consideration to the future ability to transfer the Title to the Carbon Fund... The first question to be asked is: Does the carbon "avoided emission reductions units" will

be possible to be created/originated/issued by the Mexican Government, and if so by who and under what legal provisions?

The ERPD states that LGCC considers the possibility that SEMARNAT itself, or with the help of other agencies of the APF, can issue official Mexican standards, whose aim will be to establish guidelines, criteria, technical specifications and procedures for guaranteeing the measures for adapting to, and mitigating, climate change.

On this basis, it would be possible for the Mexican government to issue a Mexican Standard, establishing the process for registration and verification of emissions reduction at national level and identifying the document which must be issued for said reduced emissions as carried out by the NMX-AA-173-SCFI-2015 for registering carbon forest projects and certifying the increase in the carbon stock.

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An administrative document which must contain the serial number corresponding to the number entered in the Forest Register will be considered to be proof of the reduced emissions.

# b) Associated with a NOM

Associated with an Official Mexican Standard.

#### c) As a Carbon Credit

With regard to carbon credits the CONAFOR, via its Director General, has the authority, in accordance with the Federal Law of Parastatal Entities (LEFP) to issue, guarantee and negotiate carbon credits.

Th ERPD program establish three potential legal models to transfer the emission reductions but remains the doubt about the ownership on the original emissions reductions in the absence of a regulatory legal framework clarifying the state ownership of these new legal concept that is not yet defined by the national host country legislation.

The ER Program as already clarified at least the potential ability to create the "Avoided Reducing Emission Program" and also the legitimacy and the legal possibility (under the national legal framework) to issue the "unit" of the avoided reducing emissions and then consequently the potential models to execute the transfer of those "units/titles" (which should be expressed in tons of carbon equivalent tCO2e) to the Carbon Fund, but still remains the question about the original ownership, that is based on the negative conclusion on the non-possible ownership of the other landowners (due to the criminal typology established by the article 48 of the Penal Code).

In conclusion it's fundamental that the country could clarify and explain in detail not only:

The ownership and land tenure regime (legal nature, potential conflicts, implications and conflict resolution mechanisms);

- The legal nature and ownership of the "avoided emission reductions";
- The ability to create/legally issue those "avoided emission reductions units" in accordance to the national legal framework;
- The ability of the ER Program Entity to enter an ERPA
- The ability to transfer those "avoided emission reductions units" to a third party (the Carbon Fund),
- The ability to receive and distribute the financial resources.

But also, to clarify the ownership and land tenure regime supported by a legal prevision that defines the legal nature and ownership of the "avoided emission reductions" or if that's not possible at least that the host country describes a comprehensible road map how to fulfill the requisites of the 36.2 in order that before the ERPA there will be a final solution expressed in an:

- a) Legal and regulatory framework, or
- b) Sub-arrangements with potential land and resource tenure rights-holders (if applicable);

In that sense a recommendable solution will be, in the absence (or until the absence of the specific legal framework) to search for an "independent legal reputable opinion" on the subject to be part of the final argumentation of the country on the accomplishment of the requisites of the 36.2.

Taking in consideration the previous reasoning the criteria is not 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

NO

[Transfer of Title to ERs 17.2]

Apply the same comments made on 36.2.

And especially, recommend to the host country to clarify the ownership and land tenure regime supported by a legal prevision that defines the legal nature and ownership of the "avoided emission reductions" or if that's not possible at least that the host country describes a comprehensible road map how to fulfill the requisites of the 36.3 in order that before the ERPA there will be a final solution expressed in an:

- a) Legal and regulatory framework, or
- b) Sub-arrangements with potential land and resource tenure rights-holders (if applicable);

In that sense a recommendable solution will be, in the absence (or until the absence of the specific legal framework) to search for an "independent legal reputable opinion" on the subject to be part of the final argumentation of the country on the accomplishment of the requisites of the 36.3.

Taking in consideration the previous reasoning the criteria is not 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

YES

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

Actually, there isn't a national REDD+ Program and Projects Data Management System. It is intended that the registration system could serve also as a national REDD+ Program and Projects Data Management System.

Only in this sense the ER Program host country has made a decision to maintain its own comprehensive national REDD+ Program and Projects Data Management System.

The General Law on Climate Change (LGCC) establishes the creation of the National Emissions Registry (ReNE) (Section 18.1.) with two main sections: the Emissions Registry reporting all the country's emissions laid down in Registry's Regulation, and the Emissions Reduction Registry reporting on a voluntary basis Emission Reductions from mitigation. The incipient and still not operational Forest Registry, framed within the ReNE, would be linked indirectly with the latter.

Forest Registry is further divided into two sections: (1) the Emissions Reduction component (nationwide REDD+ activities Registry), which is under design (consulting service by MARKIT to CONAFOR) and it will be tested in the five states that are part of the IRE (IRE's Registry), and (2) the NMX-AA-173-SCFI-2015 section; Mexican regulation for recording Forest Carbon Projects on international standards belonging to the voluntary market that contribute to increasing carbon stocks.

As we explained under indicator 23, the main risk detected in this registration system, that could serve also as a national REDD+ Program and Projects Data Management System, is the voluntary nature of the norm (second component of the Forest Registry), but specifically this indicator, 37.1, can be considered achieved.

The indicator is met.

**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:

YES

- 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.

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

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

Forest Registry, including a proposal of protocol for operating procedures, is being designed according to the needs identified by CONAFOR. It is currently in a testing phase.

These attributes will be provided through the Registry Platform for each State: state name, state information, reference levels, period of reference levels, activities, gases, initiative, verified amount, link to relevant documents. Following the recommendations after the country visit an explanatory paragraph and a figure with the public interface of the Forest Registry were included.

A link to this protocol for operating procedures (Registry Manual) in which relevant characteristics and operational rules of the Registry are clarified, was not included in this final ER-PD version. As we explained under indicator 23, the Forest Registry is still under development by IHS Markit and will become operational from the first quarter of 2017. The operational manual cannot still be shared as an annex, due to the contract clauses for its elaboration, but the main information elements and procedures are described under section 18.2.2. Once the platform is finalized, any necessary adaptations could be made, and operating procedures will be available.

Therefore, the national REDD+ Programs and Projects Data Management System meets the information criteria listed above:

- i. CONAFOR is the entity that has Title to ERs produced;
- ii. The Geographical boundaries of the ER Program or project as stated in 18.2.2 Characteristics of the Forest Registry 'Registro Forestal';
- iii. The Scope of REDD+ activities and Carbon Pools as stated in 7.2 Description of the reservoirs of carbon and greenhouse gases selected; and
- iv. The Reference Level used see 18.2.2- Characteristics of the forest registry 'Registro Forestal'

Also the ER Program intends to report its activities and estimated ERs in a manner that conforms to the relevant FCPF Methodological Framework C&Is. Once the Forest Registry is functional, CONAFOR will have the ability to (18.2.2 Characteristics of the Forest Registry):

- Have an overview of registration accounts within its jurisdiction (multiple States).
- Open an account for each state within the Registry.
- Approve registration, transfers and removals of the emission reduction units for each State of the ERs Initiative.
- Provide traceability and property of ER units, including account balances, which will reduce the risk of double counting.
- Produce reports on ER units accounts by State for required purposes including audits.
- Link or move ER units to other systems or registration lists in both global and national exchanges
- Generate internal information about the functioning of the Registry and activities developed to allow internal and external audits.

## The indicator is met.

**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).

YES

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

The information will be provided through the Registry Platform. There is expressly declared the intention that it will be publicly available on the national official language of the host country on the webpage of CONAFOR – See 18.2.2 Characteristics of the Forest Registry, 'Registro Forestal'. An explanatory paragraph and a figure with the public interface of the Forest Registry were included in the Advanced ER-PD version. But the Registration System/REDD+ Programs and Projects Data Management System is not yet implemented and the information is not yet publicly available. Information is expected to be accessible via internet in Spanish.

As we have explained, Forest Registry is still under development by IHS Markit and will become operational from the first quarter of 2017. The operational manual cannot still be shared as an annex, due to the contract clauses for its elaboration, but the main information elements are described under section 18.2.2. Once the platform is finalized, any necessary adaptations could be made, and operating procedures will be available.

We consider that the consultancy services to complete the platform including the operating procedures manual progress properly (it will become operational from the first quarter of 2017) and the conditions to achieve this indicator are explicitly expressed in the document. It is based on this reasoning that we consider that the indicator is achieved.

The indicator is met.

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

SI

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

Administrative procedures are incipiently defined in the document and the Registry Manual is still under development. As stated on section 18.2.2, there is a list of the procedures that the registry will intend to perform but the link to the guidelines (Registry Manual) could not still be shared, due to the contract clauses for its elaboration.

The audit of the operations conducted by an independent third party is not explicitly specified in the document and it would be recommendable to include it in the ER-PD (18.2.3). A specific section was inserted on the ER Program related to Verification – 18.2.3 – Verification, informing that the host country has already established the Mexican Entity of Accreditation (EMA), to approve the entities that will be accredited to validate and verify Projects executed under the Mexican Rule for Carbon Stock Enhancement Projects (MMX-AA-173-SCFI-2015) and also Emission Reduction Activities (REDD+).

Our interpretation with reference to this indicator, is that the administrative procedures are defined (although it will be better developed in the guideline that will be shared during the first quarter of 2017) and regarding the audit of

operations, we understand that although it could be explicit expressed in the document, there will be still time to specify it later and not necessarily during this phase of development of the program ('National Registry still not implemented'). In conclusion, we consider that this indicator should be considered as YES.

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

**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

YES

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

The ER Program host country has made a decision to maintain its own comprehensive national ER transaction registry.

As it was stated in the Advanced ER-PD version, the Forest Registry is the responsibility of CONAFOR and it is being designed and developing by a third party with extensive experience in the subject, IHS Markit, according to the needs expressed by CONAFOR.

As it was explained the Forest Registry is divided into two sections: (1) the Emissions Reduction component (nationwide REDD+ activities Registry), which is under design (consulting service by MARKIT to CONAFOR) and it will be tested in the five states that are part of the IRE (IRE's Registry), and (2) the NMX-AA-173-SCFI-2015 section; Mexican regulation for recording Forest Carbon Projects on international standards belonging to the voluntary market that contribute to increasing carbon stocks.

As we explained under indicator 23, the main risk detected in this registration system was the voluntary nature of the norm (second component of the Forest Registry). This Forest Registry does not provide, on a mandatory basis, information on other projects able to transfer ERs to other GHG mitigation initiatives. There is only one proposal by recommending the states involved in the IRE report also on individual projects that are quantifying ERs by increasing carbon stocks.

In this final ER-PD version, and in order to avoid the risk of an emission reduction unit is transferred more than once in the IRE intervention area, a reviewing process of the national and international carbon project standards records has been added to the four processes and functions that were planned to reduce the risk of double counting of reductions of emissions. CONAFOR will analyse the characteristics of these projects and in case of potential double transaction, CONAFOR will deduct the number of emission reductions from the total to be transferred to the Carbon Fund. This process would be implemented when the ERs transfer form signed is sent to the FCPF establishing the ERPA general conditions.

The indicator is met.

**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

N.A

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

Forest Registry, including a proposal of protocol for operating procedures, is being designed according to the needs identified by CONAFOR. It is currently in a testing phase.

It was not specified nor described how the ER transaction registry reports ERs to Carbon Fund. It was not included a link to the protocol (Registry Manual) in which operational rules of the Registry are clarified.

Given that there is not an operational registry, then this indicator should be set to NA at this stage.

**Ind 38.3** An independent audit report certifying that the national or centralized ER transaction registry performs required functions is made public.

N.A

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

A specific section was inserted on the ER Program related to Verification—18.2.3 — Verification, but it doesn't bring information on auditing of the report certifying that the national ER transaction registry performs required functions is made public.

Given that there is not an operational registry, then this indicator should be set to NA at this stage.

**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.

N.A

[Data management and Registry systems to avoid multiple claims to ERs 18.2]

Forest Registry, including a proposal of protocol for operating procedures, is being designed according to the needs identified by CONAFOR. It is currently in a testing phase.

Once the Forest Registry is functional, CONAFOR will have the ability to:

- Have an overview of registration accounts within its jurisdiction (multiple States).
- Open an account for each state within the Registry.
- Approve registration, transfers and removals of the emission reduction units for each State of the ERs Initiative.
- Provide traceability and property of ER units, including account balances, which will reduce the risk of double counting.
- Produce reports on ER units accounts by State for required purposes including audits.
- Link or move ER units to other systems or registration lists in both global and national exchanges
- Generate internal information about the functioning of the Registry and activities developed to allow internal and external audits.

The roles and responsibilities of entities involved in the national ER transaction registry, and the rules for operation of the registry are included in the protocol for operating procedures. It was not included a link to the protocol (Registry Manual) in which operational rules of the Registry are clarified.

Given that there is not an operational registry, then this indicator should be set to NA at this stage.