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

TAP Final Assessment, 30 May 2018

I. General Approach of the Review

The TAP team members individually reviewed the April 24 version of the ERPD and the Final ERPD of May 24 2018, to review changes in the document since the TAP assessment of the Advanced Draft in November 2017. These comments were shared and discussed within the TAP team. A draft TAP assessment was circulated for FMT comment, a call was held by the FMT with the ERPD team May 21st, and the final TAP assessment was sent to the FCPF May 30th.

The TAP had previously reviewed the July 31, 2017 early draft ERPD in August to mid-September 2017, then undertaken the TAP mission to Kathmandu Sept. 17-22 to discuss the draft ERPD with the REDD+ Cell team, World Bank and FCPF staff, and many government agencies, NGOs, IP representatives, and private sector leaders. Strengths and issues were reviewed (with S. Rietbergen and P. Olofsson joining by teleconference). The team assessed the Advanced Draft of Sept 27th 2017 on October 4th in its First Assessment, the final version of which was submitted to FCPF on November 4th.

PART 1 OF TECHNICAL ASSESSMENT: SUMMARY

Date of Current Assessment: 30-May-2018 on the 24 May 2018 final ERPD.

Name of Assessment team members:

Leader: Kenneth Andrasko, Overall supervision, following FCPF guidance, editing, contributions to Indicators 1-2, 23, 27, 29, understanding interventions proposed and carbon accounting

Carbon accounting expert: Fred Stolle, 1-2, 3.1 – 23; and Pontus Olofsson, Ind. 7-9 and other indicators

Social and environmental safeguards expert: Simon Rietbergen, 24-26.3, 31.1-32.1, 34.1-35.2

Legal expert: Ludovino Lopes, 28.1-28.3, 33.1 and 36-38

Country expert: Yadav Prasad Kandel contributed to the TAP's first Assessment of the Draft ERPD in August-October 2017, but joined the REDD+ Cell team and resigned from the TAP in December 2017.

Summary Assessment of the Quality and Completeness of the ER-PD:

The TAP finds that overall the ERPD team have done a remarkable job developing a complex but interwoven set of REDD+ interventions into an ERPD. The National REDD+ Center (NRC, has very ably led the Emissions Reduction Program Document (ERPD) process and REDD+ Readiness work in Nepal. (The NRC of the Ministry of Forests and Environment formerly was the REDD Implementation Center (REDD IC), within what was formerly the Min. of Forests and Soil Conservation.) The TAP finds that in its opinion, the May 24, 2018 Final ERPD now provides a strong basis for Nepal to be accepted into the CF pipeline.

The ERPD team has worked hard to upgrade many indicators from the Advanced Draft. It has made progress onf safeguards, now stating that a final ESMF is expected before the June 2018 CF meeting; and advanced the Benefit Sharing Plan process. It has worked cooperatively across agencies and experts to resolve serious carbon accounting and reference level issues between the national FREL Nepal submitted to the UNFCCC, and the FREL produced for the ERP area in the ERPD. The TAP, over many meetings with agencies and stakeholders in Kathmandu and follow up

desk review, finds that the ERPD design is conceptually robust and overall offers strong potential to produce emissions reductions (ERs) for the activities selected. It also finds that the ERPD has widespread government and CSO support, and that the ERPD team has the capacity to address the issues remaining over time.

Interventions: The proposed ERP is constructed around the transfer of community forestry good practices and governance methods piloted in the Middle Hills of Nepal, where they have been proven over the past 30 years, to the more politically and demographically volatile Terai lowlands. This is a potentially transformational shift.

The package of 7 proposed interventions is dominated by the first two--enhanced Scientific Forest Management on 336,000 hectares (ha), and transfer of 200,000 ha from inadequately managed government forest to community-managed forests. These together would generate ~70% of the total ERs. The transfer of 200,000 ha from national government forest to community forest land seems a challenging governance problem, but in fact successfully has occurred for 100s of thousands of ha in the past few decades, especially in the Middle Hills ecoregion. The Forest Dept. and communities are committed to such transfers, and capable of implementing them. There is wide agreement the communities are better able to manage and increase productivity on transferred lands.

Political change process: One major potential barrier to successful implementation of this set of activities that the TAP discussed with agencies, World Bank staff, and CSOs in Kathmandu is the impact of the political change process on the ERP. Nepal has gone through a 20-year transition from monarchy to democracy to Maoist insurrection to a federal political structure. But all political parties joined in the elections successfully held in late 2017 without incident, and there is strong consensus the decentralization process will continue to advance successfully.

Carbon accounting

The Advanced draft ERPD had inconsistencies between the REL (reference level) for the ERPD area and Nepal's <u>national</u> REL submitted to the UNFCCC. This is resolved in the final ERPD (page 138): "Nepal has decided to update its FRL based on the methods used for the ERPD reference level. The ERPD RL is being used as a pilot for the national FRL."

The REL in the revised ERPD seems to be low (0.8 MtCO2e/yr, compared to the magnitude of carbon uptake from emission reduction activities calculated as -3.4 MtCO2e/yr). It seems optimistic to have such a large shift from emitting 0.8 MtCO2e/yr to sequestering around 4 MtCO2e/yr in a few years, largely by planting around 33,000 ha/yr. The ERPD would be strengthened by revisiting the feasibility of this rapid turnaround.

The TAP notes the uncertainty of the REL is 94%; thus data uncertainties remain very high. The ERPD would be strengthened by the team working in the future to decrease the uncertainty of the REL estimate, although the ERPD plans to increase sequestration by four times will be detectable even with such a large uncertainty.

Safeguards: With the completion of the draft ESMF, the main outstanding safeguards issue has been resolved. Other notable improvements in comparison to the previous version of the ERPD are the clear commitment to minimize involuntary resettlement of local communities deemed to have "encroached" on government forest land (as per the "do no harm" clauses in Cancun Safeguard c), as well as the increase of the share of the ER Program budget reserved for the implementation of the safeguards (including voluntary resettlement, and involuntary resettlement in exceptional cases), to USD 5.8 million for the first six years of the ER Program.

The World Bank's safeguard policy on involuntary resettlement has also been triggered to address the livelihoods restrictions that the ER Program is likely to impose on forest dependent

people (including indigenous peoples) in the area. The ERPD would be strengthened by additional detail on if, and under what circumstances, any form of resettlement might take place. A senior-level interagency commission has been created to address the issue of landless and land title-less people.				
The TAP notes that the distinction that Nepal's 2015 Constitution is one of the first constitutions to specifically address "carbon services", under Schedule 5, List of Federal Powers—thus very clearly legally clarifying ownership of ERs in the country.				
II. Level of Ambition → Criteria 1 – 2, including issues relating to legal aspects				
1.1: The ER program aims to address significant portion of forest related emissions and removals:				
The ERPD area, the Terai Arc Landscape (TAL), forms about 70% of the southernmost arc of humid forest lowland of Nepal, and is a significant forest area. The intended reductions would reduce 8.5% of its national emissions, contributing significantly.	1.1	YES	YES	YES
1.2: ER program is ambitious, with jurisdictional scale and/or programmatic approach and a variety of intervention.	1.2	YES	YES	YES
ER Program includes 12 contiguous districts covering 2.4 million hectares (ha) of Nepal's Terai lowlands, globally significant for its biodiversity. The area has some of Nepal's highest rates of deforestation. It was the site of Maoist political conflict for 15 years until recently. Seven interlinked Interventions were selected to address stakeholder-identified drivers, including: 1) Improved forest management practices on 336,000 ha of community forest lands; 2) Transferring 200,000 ha of national forest lands to management by Communities (which historically provide more improved management); 3) Expanding private sector timber production; 4) Access to biogas and improved cook stoves, etc.				
The proposal is ambitious—it would transfer governance and silvicultural models tested in the Middle Hills down into the Terai, establishing new land use management approaches across a vast area —quite significant.				
2.1: The accounting area is of significant scale and align with ecoregion				
The accounting area is of significant scale 2.4 Mha, which represents 15% of Nepal's land area, and 20% of its forests, over 12 administrative districts.	2.1	YES	YES	YES
III. Carbon Accounting				
III (a) Scope and methods → Criteria 3 – 6 3.1: The sources and sinks will be accounted for in the ER Program. Deforestation, degradation and increases in carbon stocks are accounted for. Fires and non-CO2 gases were considered not significant (>10% of emissions), and thus not accounted.	3.1	YES	NO	YES
3.2: The ER Program accounts for emissions from deforestation. The main emissions of 2004-2014 Reference level are from deforestation (81% of gross emissions), which are accounted for.	3.2	YES	YES	YES
3.3: Emissions from forest degradation are accounted Forest degradation contributes around 25% (table 41, page 133) of gross emissions and is accounted for.	3.3	YES	YES	YES

I A 4. Caulage Dagle and CHC that are disciffed in this is the A county A				
4.1: Carbon Pools and GHG that are significant within the Accounting Area are accounted for.				
Above ground and below ground biomass are chosen as the pools to measure, which is reasonable, and the ERPD provides a rationale why dead organic matter, litter and soil carbon are not accounted for. Non-CO2 gases may have to be reconsidered if fire is confirmed as a significant source of emissions, less for the REL and more to inform the MMR event period and system design.	4.1	YES	NO	YES
4.2: Carbon Pools and greenhouse gases may be excluded: All non-CO2 gasses are excluded. The exclusion of fire CH4 emissions has been clarified. Although many fire points are observed, the area burned is very small and thus emissions are small and less than the 10% that would make fires a significant source. The TAP recommends that the inclusion of non-CO2 gases should be reconsidered in the future if fire emissions grow.	4.2	YES	YES	YES
5.1: The ER Program identifies the IPCC methods used to estimate emissions and removals:	5.1	YES	YES	YES
IPCC 2006 guidelines are frequently cited as the source of default IPCC values chosen, formulas used or methods. The MMR methods discussion does need to more clearly cite the IPCC methods that will be used for MMR.				
6.1: The following methodological steps are made publicly available: - Forest definition; Definition of classes of forests, (e.g., degraded forest; natural forest; plantation); Choice of activity data, and pre-processing and processing methods; Choice of emission factors and description of their development; Estimation of emissions and removals, including accounting approach; Disaggregation of emissions by sources and removal by sinks; Estimation of accuracy, precision, and/or confidence level, as applicable; Discussion of key uncertainties; Methods and assumptions associated with adjusting emissions, if applicable. The Forest definition is consistent across major policy processes in Nepal. Forest classes are defined differently in the REL and the MMR period, so the ERPD should improve the explanation of the link between REL forest classes and MMR intervention forest classes.	6.1	NO	NO	YES
6.2: Spatial information are displayed publicly, and explained how these were derived and made publicly available: - Accounting Area; Activity data (e.g., forest-cover change or transitions between forest				
categories); Emission factors; Average annual emissions over the Reference Period				
There are two general maps displaying the accounting area. Publicly accessible detailed maps should be made available on the REDD implementation website as soon as they are available. should be made data available on the REDD implementation website.	6.2	NO	NO	YES
The activity data and emissions factors provided in the Final ERPD make it feasible to reconstruct the REL. Activity data is presented over the REL period for core and edge deforestation, degradation and reforestation.				
III (b) Uncertainties → Criteria 7 – 9 7.1: All assumptions and sources of uncertainty are identified. The ERPD describes proper estimation of both activity data and emissions factors with confidence intervals.	7.1	NO	NO	YES
7.2: The sources of uncertainty identified in Indicator 7.1 are assessed for their relative contribution to the overall uncertainty	7.2	NO	NO	YES

For the activity data and the emissions factor data, a proper estimation protocol was adhered to. For the reference level in section 8.5, uncertainty is calculated via a Monte Carlo exercise.				
8.1: Systematic errors are minimized by standard operating procedures, including a set of quality assessment and quality control processes. Activity data are adjusted after verification with high resolution data. Emission/sequestration data is measured from two sources: LIDAR and the national forest inventory (NFI).	8.1	-	YES	YES
8.2: Random errors and other uncertainties are minimized and accounted for to the overall uncertainty of the emissions and removals. The emissions factors and activity data are well accounted for, and the methods used are solid and will decrease random errors.	8.2	-	YES	YES
9.1: Uncertainty associated with activity data and emission factors is quantified including 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	9.1	NO	NO	YES
Confidence intervals and errors estimates were carried out. The Monte Carlo approach seems correct per the recommended uncertainty assessment in the IPCC documentation. However, the propagation of errors method and calculation is not described (a minor non-conformity).				
9.2: Uncertainty of the estimate of Emission Reductions is quantified using Monte Carlo methods. Error in data are combined into a single combined uncertainty estimate and are reported at the two-tailed 90% confidence level. Monte Carlo exercise on emissions was conducted both on the original analysis and in the new FREL analysis, although a propagation of error exercise has not yet been carried out to estimate the uncertainty in emission reductions combined into a single combined uncertainty estimate. The 94% uncertainty of the REL is very high, although it appears to be correct, but its sources and calculations could be more clearly described (a minor non-conformity).	9.2	NO	YES	YES
9.3: Uncertainty of Emissions Reductions associated with deforestation, forest degradation and enhancements are reported separately Uncertainty analysis is provided of the potential of the intended interventions, e.g., changes in classes of forest stock for deforestation, degradation and stable forest stock are provided, resulting from a 10,000-run Monte Carlo analysis.	1			
9.3: Uncertainty of Emissions Reductions associated with deforestation, forest degradation and enhancements are reported separately Uncertainty analysis is provided of the potential of the intended interventions, e.g., changes in classes of forest stock for deforestation, degradation and stable forest stock are provided, resulting from a 10,000-run Monte Carlo analysis.		NO	NO	YES
III (c) Reference Level → Criteria 10 – 13				
10.1: The Reference Level is expressed in tonnes of carbon dioxide equivalent per year . Yes, REL is presented and expressed in CO ₂ e	10.1	NO	YES	YES
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.	10.2	NO	NO	YES
There was a major inconsistency between the REL for the ERPD area and Nepal's <u>national</u> REL submitted to the UNFCC in January 2017. This discrepancy now has been resolved via intensive				

effort by the ERPD team and government agencies and experts working to reassess the REL and				
the national FREL. Key government agencies decided to revise the ERPD REL, and then to revise				
the national FREL submitted to the UNFCCC so that it conforms with the analytic approach used in				
the revised ERPD REL.				
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.	10.3	NO	YES	YES
The government of Nepal has decided to use the method developed under this ERPD for the UNFCCC. The current data and method for the UNFCCC thus will be replaced in the next communication to the UNFCCC.				
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				
Development of the ERPD REL has been ongoing since Nepal's R-PIN stage, when the end-date chosen was 2014, which was reasonable. Since the initial TAP assessment took place in September 2017, the REL now ideally should go until 2015, however the ERPD team indicated that no data processing for 2015 has been done, nor is funding available.	11.1	NO	NO	YES
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	YES	YES
The proposed REL has a start date of 2004 and an end date of 2014. Thus a 10 year REL is established.				
12.1: The definition of forest is specified. If there is a difference between the definitions of forest used in the national greenhouse gas inventory or in reporting to other international organizations then the ER Program explains how and why the forest definition used in the Reference Level was chosen.	12.1	YES	YES	YES
The forest definition in the ERPD, State of the Forest report, and UNFCCC REL is consistent and clearly stated.				
13.1: The Reference Level does not exceed the average annual historical emissions over the Reference Period				
	13.1	YES	YES	YES
As there is no trend in the 4 time periods measured or used, the ERPD REL is a straightforward average over 10 years.				
13.2 -13.4: The Reference Level may be adjusted				
Not applicable: no adjustment is requested.	13.2	N/A	N/A	N/A
	13.3	N/A	N/A	N/A
III (d) Reference Level, Monitoring & Reporting on Emission Reductions→ Criteria 14-16	13.4	N/A	N/A	N/A
14.1: The ER Program monitors emissions by sources and removals by sinks using the same methods to those used to set the Reference Level.				
"Monitoring, reporting and verification methodologies will replicate those of the reference level and be improved in a stepwise approach going forward. These will include additional plots to assess effectiveness and carbon benefits of different activities to inform adaptive management of ER Program " (p. 4 and p. 138 section 9.1). Methods are the same as those used to set the Reference Level, using combination of the UMD approach/stratified estimation for activity data and new plots of NFI data and Birigazzi et al. (2018) paper data for emission factors in a gain-loss approach. The TAP notes that the ERPD needs editing to clarify this, since Section 8.3 states that stock-change is used, but reference to independent estimation of activity data and emissions factors suggest gain-loss (minor non-conformity).	14.1	NO	YES	YES

The ERPD has added a community monitoring component and extra NFI plots targeted to assess growing stocks. Since most C stock changes are expected to come from afforestation, this substantially improves the methods described in the REL and adopted for the ERPD period more likely to detect these changes.				
14.2 ERs to be estimated from the beginning of the Term of the ERPA: Activity data are determined periodically, at least twice during the Term of the ERPA, and allow for and allow for ERs to be estimated from the beginning of the Term of the ERPA. The ERPD plans to do a full forest monitoring event every 2 years, including activity data and emissions factors to determine deforestation, degradation and enhancement.	14.2	YES	YES	YES
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.	14.3	YES	NO	NO
The emission factors are now different in the FREL and in the MMR period. The FREL uses core forest and edge forest change monitoring to estimate emissions from degradation (e.g., harvesting, fuelwood extraction, etc.) and from forest gain; while the MMR period uses an IPCC				
default value. The ERPD needs to show that the IPCC default factor used in the MMR period for sequestration of CO2 in community forest collaborative forest growth etc. is similar to the emissions factors of the core, edge, gain and degradation forest emission/sequestration factors used in the FREL (minor non-conformity).				
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.	15.1	YES	YES	YES
The ERPD forest monitoring system will be linked to the national forest inventory (NFI) and FAO, and "the TAL monitoring system will be fully aligned with the national forest monitoring system of Nepal".				
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. The ERPD clearly indicates that local communities and indigenous people are encouraged to participate, and the ERPD states "local communities will be involved".	16.1	YES	YES	YES
III (e) Accounting for Displacement (leakage) → Criterion 17				
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. The deforestation drivers identified include encroachment, infrastructure devolvement and resettlement, and degradation drivers identified are timber and fuel wood extraction, overgrazing and forest fire. The displacement risks are deemed low, though some may need to be reviewed	17.1	YES	YES	YES
(eg, fire seems to be increasing).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.	17.2	YES	YES	YES

displacement risks and strategies to remedy these risks are assessed. The primary risk of displacement is illegal extraction of timber outside the ER Program Area, so the ER Program proposes to minimize the dependency on wood fuel, improve penetration of biogas and improved cook stoves, and to increase the production of timber from forests. 17.3: By the time of verification, the ER Program has implemented its strategy to mitigate and/or minimize potential Displacement. Only applicable at the time of verification. 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 Only applicable at the time of verification. III (f) Accounting for Reversals → Criteria 18 − 21 18.1: The ER Program has undertaken an assessment of Reversals The reversals are identified and risks estimated as 11%. 18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly	The mitigation strategies especially for timber and fuel extraction are identified, and all the				
minimize potential Displacement. Only applicable at the time of verification. 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 Only applicable at the time of verification. III (f) Accounting for Reversals → Criteria 18 − 21 18.1: The ER Program has undertaken an assessment of Reversals The reversals are identified and risks estimated as 11%. 18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepa's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Conly applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in for	displacement is illegal extraction of timber outside the ER Program Area, so the ER Program proposes to minimize the dependency on wood fuel, improve penetration of biogas and				
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 Only applicable at the time of verification. III (f) Accounting for Reversals → Criteria 18 – 21 18.1: The ER Program has undertaken an assessment of Reversals The reversals are identified and risks estimated as 11%. 18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. 20.1 NA		17.3	NA	NA	NA
Area, any Displacement risks associated with those drivers, and any lessons from the ER Programs' efforts to mitigate potential Displacement Only applicable at the time of verification. III (f) Accounting for Reversals→ Criteria 18 − 21 18.1: The ER Program has undertaken an assessment of Reversals The reversals are identified and risks estimated as 11%. 18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. 20.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting addit	Only applicable at the time of verification.				
III (f) Accounting for Reversals → Criteria 18 – 21 18.1: The ER Program has undertaken an assessment of Reversals The reversals are identified and risks estimated as 11%. 18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. 20.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring.	Area, any Displacement risks associated with those drivers, and any lessons from the ER	17.4	NA	NA	NA
18.1: The ER Program has undertaken an assessment of Reversals The reversals are identified and risks estimated as 11%. 18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. 20.1: At the latest 1 year before the end of the ERPA term. 20.2: If the ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring.	Only applicable at the time of verification.				
The reversals are identified and risks estimated as 11%. 18.1 YES YES 18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Only applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring.	III (f) Accounting for Reversals→ Criteria 18 – 21				
18.2: The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Only applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in each set in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring.				• c= -	
mitigate significant risks of Reversals The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Only applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For efforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring.		18.1	YES	YES	YES
The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both address the supply deficit of logs and fuel wood, one of the major drivers. 19.1: During the Term of the ERPA, the ER Program accounts for Reversals from ERs using one of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Only applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring.					
of the following options Option 2, ERP-specific buffer is clearly chosen. 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 Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Only applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring. 21.2: The ER Program reports to the Carbon Fund within 90 calendar days after becoming aware	The reversal risk is deemed low. The major intervention is the transfer of government forest land to communities; the benefits of this transfer have been demonstrated to be significant and long-lasting in Nepal's Middle Hills. The interventions designed to introduce Scientific Forest Management good practices on community forests and expanded private forest land both	18.2	YES	YES	YES
place a robust Reversal Only applicable before the end of the ERPA term. 20.2: If the ER Program has selected option 2 under Indicator 19.1 buffer ER, will be transferred to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Only applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring. 21.2: The ER Program reports to the Carbon Fund within 90 calendar days after becoming aware	of the following options	19.1	YES	YES	YES
to the mechanism identified in Indicator 20.1 at the end of the Term of the ERPA. Only applicable before the end of the ERPA term. 21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring. 21.1 YES YES YES	place a robust Reversal	20.1	NA	NA	NA
21.1: The ER Program Monitoring Plan and monitoring system are technically capable of identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring. 21.1 YES YES YES NA	· · · · · · · · · · · · · · · · · · ·	20.2	NA	NA	NA
identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring. 21.1 YES YES YES NA NA	Only applicable before the end of the ERPA term.				
deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting additional NFI forest inventory plots and on participatory community monitoring. 21.2: The ER Program reports to the Carbon Fund within 90 calendar days after becoming aware	identifying Reversals. The reduction in emissions is mainly accomplished in the ERP by afforestation by communities.	21.1	YES	YES	YES
lad a lava lava lava lava lava lava lava	deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, a reduction in rate of replanting might be more difficult to detect by remote sensing, thus the Final ERPD stresses more reliance on on setting				
		21.2	NA	NA	NA

1			
22.1	NO	NO	NO
23i	YES	YES	YES
23ii	YES	YES	YES
24.1	NO NO	NO	YES
	23i 23ii 24.1 24.2	23i YES 23ii YES 24.1 NO 24.2 NO	23i YES YES 23ii YES YES 24.1 NO NO 24.2 NO NO

monitoring arrangements. Therefore, the TAP considers this criterion as met for now. The next step for NRC will be to include the detailed description of safeguard monitoring arrangements in the Safeguard Plans for the ER Program area.	25.2	NA	N.A	N.A
As far as the Safeguards Plans are concerned (25.2), these do not need to be completed at this stage the FMT template indicates "Only applicable at the time of verification". The Safeguards Roadmap in Annex 14 foresees their completion in May 2018 and public disclosure in December 2018. In the meantime, their current description in the ER Program Document and even more so in the ESMF is somewhat thin and could provide some more information, for example on the exceptional circumstances under which involuntary resettlement would be considered.				
26.1 While the Feedback and Grievance Redress Mechanism (FGRM) for the ER Program area has not yet been formally established, the ESMF (p.104-112) contains a detailed description of the proposed mechanism, which builds on Nepal's extensive experience with the implementation of FGRM under its community forestry program, and on a report to assess existing FGRMs in Nepal and to develop a FGRM for REDD+ implementation that was published in 2015.	26.1	NO	YES	YES
26.2 The process for receiving, screening, addressing, monitoring and reporting feedback to the public is clearly described in the draft ESMF for the ER Program.	26.2	NO	NO	YES
26.3 The FGRM mechanism for the ER program area described in the ESMF is an improved version of Nepal's existing FGRM procedures, based on lessons learned from experience with the implementation of FGRM in Nepal, published in 2015.	26.3	NO	NO	YES
V. Sustainable Program Design and Implementation				
V. (a) Drivers and Land Resource Tenure Assessment → Criteria 27-28				
The ER Program has clearly identified the key drivers of deforestation and forest degradation in the ER Program area. Analysis of drivers of deforestation and forest degradation has been much improved compared to the initial drafts. Unsustainable and illegal harvest of timber and fuelwood has been linked to the demand and supply of these products with two tables (Table 7 and 8). Similarly, overgrazing has been analyzed with livestock numbers in ER Program districts (Table 9). Forest fire has also been analyzed with more data and map (Fig. 4 and 5).	27.1 27.2	YES YES	YES YES	YES YES
Description and justification of the planned actions and interventions have been improved in the Final ERPD. Potential risks and impacts of interventions for Indigenous Peoples and for gender considerations and proposed remedies during implementation of specific interventions were added and occur in the ERPD in, inter alia., Tables 12, 13, 14; and in text discussion for gender, for example, on pp. 80-81, 85,90,93,96. However, The ER Program has not yet made available the final ESMF and SES plans (although a draft ESMF was made available to the TAP for review), and so doesn't explain in detail how the relevant issues identified in the above assessment have been or will be taken into consideration in the relevant Safeguards Plan(s). Political transition management for institutional arrangements of the seven interventions in Nepal's federal restructuring process (Table 37) addresses how the ERP will cope with changes in forest governance over the next few years.	28.1 28.2 28.3	NO NO NO	YES NO NO	YES NO YES
V. (b) Benefit sharing → Criteria 29 – 33				
The benefit-sharing plan (BSP) is not yet available. Many of the elements of the BSP are already in place, though, in the form of existing rules for benefit sharing that apply to, for example, community forests and to areas under collaborative forest management arrangements between the forestry department and local communities. The general rules that will apply to the Benefit	29	YES	YES	YES

Sharing Mechanism are identified, but the details of implementing them in practice are not yet finalized.				
30.1: The ERPD text does provide a very detailed discussion of what is likely to be in the eventual Plan though. The BSP is not required until "prior to ERPA signature", and Nepal appears to be on clear path to accomplish that goal.	30.1	NA	N.A.	YES
31.1 The benefit-sharing plan was not available at the time of the TAP assessment. However, the process for developing the proposed ERPA to date appears to have been quite inclusive, with extensive consultations held at local and district level with indigenous peoples, local communities, forest user groups and women's groups in the ERP area.	31.1	NA	N.A.	YES
32.1 Only applicable at the time of verification, therefore scored N.A.	32.1	NA	N.A.	
33.1 Only applicable at the time of verification. While the ER Program doesn't describe a Benefit Sharing Plan in detail at this stage, the ERPD specifically expresses that in 2018 the RNC (ER Program Management Entity) will elaborate a Benefit Sharing Plan and will comply with international and national relevant applicable laws and provides extensive detail. V. (c) Non-Carbon Benefits → Criteria 34 − 35	33.1	NA	N.A.	YES
34.1 Non-Carbon Benefits (NCBs) are a high priority for the Nepal ERPA, and for many of the local-level stakeholders consulted during the REDD+ Readiness and ERP preparation processes. The aim of the ER Program interventions is to ensure significant positive non-carbon benefits through enhancement of livelihoods, social norms and rights, generation of environmental benefits, etc.	34.1	YES	YES	YES
34.2 The potential NCBs that will be generated were identified, scoped and validated through district-level consultations with communities and stakeholders in each ER Program district.	34.2	YES	YES	
35.1 A performance measurement framework including specific indicators for measuring Non-Carbon Benefits is provided in Table 58 (p. 189-191) of the ERPD. Table 57 (p. 188-189) of the ERPD provides details of steps to be completed for NCB monitoring, as well as the names of the responsible agencies and the outputs they should provide. ERPD confirms that information on priority Non-Carbon Benefits will be integrated in the SIS (which is still under construction).	35.1	NO	NO	YES
35.2 Only applicable at the time of verification, therefore scored N.A.	35.2	NA	N.A.	N.A.

VI. ER Program Transactions				
VI (a) ERPA Signing Authority and Transfer of Title To ERs → Criterion 36				
The ER Program Entity identified the Ministry of Finance and demonstrates its authority to enter an ERPA with the Carbon Fund prior to the start of ERPA negotiations. The Entity demonstrates in principle its ability to transfer to the Carbon Fund the Title to ERs from the Public Lands Forests and community forests, representing 95% of lands in the ERPD. However, it has not yet fully clarified how the ER Program Entity will deal with the 5% of privately owned Forests.	36.1 36.2 36.3	NO NO NO	YES NO NO	YES YES YES
VI (b) Data Management and ER Transaction Registries → Criteria 37 - 38	37.1	YES	YES	YES
The ER Program host country made a decision to maintain its own comprehensive national REDD+	37.2	YES	YES	YES
Program and Projects Database Management System to be managed by NRC. However, operational	37.3	NO	NO	NO
and administrative procedures are not yet fleshed out.	37.4	NO	NO	NO
	38.1	YES	YES	YES
	38.2	NA	N.A.	N.A.
	38.3	NA	N.A.	N.A.
	38.4	NA	N.A.	N.A.
SUMMARY SCORE and overall comment:				
In sum, for the 79 indicators and sub-indicators listed, the TAP assessed the current status of advanced draft ERPD as: 60 are YES and meet the Meth. Framework standard, 5 are NO and do not currently meet the standard, and 14 are Not Applicable.	of the			

PART 2 OF TECHNICAL ASSESSMENT: DETAILED ASSESSMENT

C. 1 The proposed ER Program is ambitious, demonstrating the potential of the full implementation of the interventions of the national REDD+ strategy, and is implemented at a jurisdictional scale or programmati	-
Ind. 1.1 The ER Program Measures aim to address a significant portion of forest-related emissions and removals	YES

Conclusion: the TAL choice seems to be a significant forest area, and the intended reductions would contribute significantly to Nepal's reduction of emissions.

The ERPD area, the Terai Arc Landscape (TAL), forms about 70% of the southernmost arc of humid forest lowland of Nepal. It is a combination of the western and central Terai (the lowland ecoregion) administrative districts and some parts of the Churia (or Chure, the low hill ecoregion just above or north of the Terai) districts. The area is a recognized development area comprised of districts targeted by government programs, but not a single jurisdictional administrative region per se. This makes this region difficult to compare with other data sources, which usually report per administrative region or for the Terai as a whole.

Region	forest area	woo	ded land		Total	
	ha	5-10% shrub	shrub total			
Terai	411,580	5,500	4,000	9,500	1,595,916	2,016,998
Churia	1,373,743	22,336	336	22,672	501,848	1,898,263
Middle Mountains	2,253,807	29,308	32,979	62,287	1,993,302	4,309,396
High Mountains and High Himalaya	1,922,909	473,850	79,581	553,431	4,072,426	6,548,766

State of the Forest Nepal, Dec 2015, p. 25

Though the Terai is not the most forested region (see table above from State of Forests of Nepal (SoF)) and has the lowest percentage of forest (SoF table 13), it has 80% of Nepal's forest outside protected areas (SoF table 10) and the highest increase in deforestation for all Nepal. The SoF mentions Churia as the main area of change (p. 45).

Two numbers are relevant for assessing ambition: A) Reduction in deforestation & degradation: There is no clear number in the ERPD on the reduction of deforestation & degradation in hectares after implementing the ERPD activities. There is data in FREL over 10 years on deforestation & degradation per year (5,000 ha/yr Deforestation & 3,200/yr Degradation). The ERPD states reduction of the rate of deforestation of 0.05% (P 30) of the current 0.44% deforestation for Terai and 0.18% of deforestation in Chure. Total TAL forested area is 1.17 Mha (page 32), thus deforestation would be reduced from 5,200 ha/yr to 4,500 ha/yr thus around 750 ha/yr less deforestation.

B) Reduction in emissions: ERPD FREL = 0.895 Mt CO2e /yr. Anticipated sequestration = 3.4 Mt CO2e/yr. Thus, achievement of the ERPD goals would accomplish reversal of a net emitter into a net sequesterer. This would be significant and <u>very ambitious</u>, relative to the national LULUCF emissions of 25 Mt in 2000!

Observation: The final ERPD of May 24 (p. 4) provides the updated emissions: "Emissions in the Program Area averaged 1.56 MtCO2e/yr. Removals averaged 0.67 MtCO2e/yr. Net Emissions averaged 0.895 MtCO2e/yr." However, on page 30 the old numbers are still used of 1.73 emissions and net emissions of 0.84 and the ERPD should be updated.

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

Conclusion: the interventions seem ambitious and diverse and in a large enough landscape (ERPD area is 2.2 Mha). ER Program includes 12 contiguous districts of the Terai Arc Landscape (TAL), covering 2.4 Mha of Nepal's lowlands and globally significant for its biodiversity, with some of the highest rates of deforestation in Nepal, and the locus of strident political conflict for 15 years until recently.

Interventions were selected to address stakeholder-identified drivers, and include:

- 1) Introducing improved forest silvicultural practices on 336,000 ha of existing community forest lands;
- 2) Transferring 200,000 ha of government National Forest lands to control and management by Community and Collaborative Forest User Groups, a governance transferal that historically provides more active management;

- 3) expanding private sector timber production, now small, to an additional 30,000 ha, to help meet over-demand for timber and fuelwood;
- 4) expand access to alternative energy sources to replace forest fuelwood with biogas and improved cook stoves;
- 5) scaling up 12,000 ha of pro-poor leasehold forestry;
- 6) introducing integrated land use planning to 11,736 ha of municipalities and rural lands, to reduce forest area loss during infrastructure development; and
- 7) strengthening management of Protected Areas in the Program area.

Ambitious: If reductions are successful, it would reduce 8.5% of Nepal's emissions, and bring governance and silvicultural models tested in the Middle Hills down into the Terai, establishing new land use management approaches —quite significant.

New or Enhanced Interventions: These interventions (p. 4-5 ERPD) offer a good variety of interventions, mostly to improve carbon stocks by enhancing forests which is understood to be mostly afforestation (explained in 24 May version in Table 38: "Enhancement here as non-forest areas becoming forest (afforestation) and not as specific increases to forest biomass observed in forests remaining as forests... The impact of sustainable forest management, especially in community forests, can be seen in the enhancement of carbon stocks and afforestation that are included in the emission estimates. "

Enhancement will occur via improving community forest management and transferring government forests to community forest, and account for 82% of the sequestration (ie, 55% + 27%, p. 162). Some sequestration by expanding private forest lands and productivity will also occur, with some activities intended to stop deforestation. These interventions have been tested in several regions in Nepal (per TAP Nepal visit meetings). The details of the interventions and how they will lead to the intended emission reductions are explained, and a Theory of Change is presented.

Jurisdictional scale: The ERPD TAL area includes parts of two major ecoregions that are also development region terms, the Terai and the Churia. The Program area is well described and mapped in the Final ERPD.

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

Conclusion: the accounting area is of significant scale, and the Program Area selected is now clearer with improved maps showing the former districts involved and the new state boundaries. The 40% area of the Chure Hills ecozone just north and uphill from the Terai that are included in the ERDP area is now much clearer. Chure is a major Nepali government priority area for sustainable development and conservation, and the source of much immigration down into the rich soils of the Terai, so it makes sense to include these lands.

The ER program area (2.4 Mha) includes 12 administrative districts plus some ~40 percent of the Chure hills ecoregion. "The TAL represents approximately 15% of Nepal's total land area, 20% of Nepal's forests The Terai has high carbon density and comprises 15% of Nepal's land area and 7% of Nepalese forests" (ERPD page 2 summary).

The combination of Chure and Terai lands makes programmatic sense, however it is difficult to compare to other data sources like the SoF that report data by the former districts.

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

Conclusion: The REL does account for deforestation, degradation and increase in carbon stocks. Fires and non-CO2 gases are not accounted for.

The ERPD has selected deforestation, degradation and increase of carbon stocks to be counted. Observation: However, in the activities it would be helpful or provide detailed reference level and change anticipated from the ERP activities data in hectares and CO2 split by community forest and collaborative forest, and resulting from scientific stand management. In addition, it should be clarified how the FREL categories (core forest & edge forest) crosswalk with known emissions from ERPD period classes of community, collaboration forests.

In the Final ERPD, fire has been explained in detail. Extra analysis on fire occurrence from 2000-2017 in the TAL area has been displayed in figures 5 and 6 on page 51. Non-CO2 gases are excluded in the carbon pool.

Observation: additional analysis on emissions from fires most likely will be required in the future, to better understand the role that fire plays as a driver and source of emissions, as mentioned in the ERPD p. 53.

Ind. 3.2 The ER Program accounts for emissions from deforestation.

YES

Conclusion: Deforestation is the main driver of emissions in the TAL region and the REL accounts for these emissions. The FREL does account for deforestation as a 10-year average.

Observation: It will be important going forward to present area change data over a few time steps, to understand if drivers change and how constant or variable drivers are, as well as to understand if the proposed interventions are feasible.

Both the mapping and estimation of forest loss follow published and recommended practices.

The main emissions of 2004-2014 Reference level are from deforestation (67% of the total of deforestation and degradation, calculated from table 42, page 137), and they are accounted for.

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

Conclusion: Emissions from degradation are accounted for in the ERPD.

Forest degradation contributes around 25% to gross emissions (table 42 ERPD). Degradation in the Advanced Draft ERPD was described as measured by detecting open canopy with Landsat data in four different forest types. The degradation AGB was measured with plots and LIDAR data. The new approach in the Final ERPD and FREL maps degradation as an Intact Forest-Edge Forest Transition occurring on the edge of forest blocs. This approach complies with the definition of forest degradation in the ERPD, and appears reasonable--since the average individual forest holding in the Terai is less than a hectare—so presumably little degradation would be missed.

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

Conclusion: the choice of carbon pools seems to be valid, and practical, and pools are accounted for in the FREL and in the MMR.

Above ground and below ground biomass are chosen as the pools to measure. The ERPD gives the reason why dead organic matter, litter and soil carbon are not accounted for: "Based on NFI analysis, it is estimated that dead organic

matter, litter and debris contribute 1.19 t C/ha against an average above ground forest biomass of 108.88 t C/ha. As such, litter does not seem to constitute a significant pool and is excluded".

P. 117 ERPD: "Since primary activities are related to avoided deforestation and degradation and do not include significant ground disturbance, exclusion of soil carbon is likely conservative". The TAP agrees that soil organic matter likely will not change much with the intervention planned and agrees with Nepal's decision to ignore this pool although it is over 10% of the carbon stock, since it is conservative to do so.

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.

Conclusion: All non-CO2 gases are excluded.

There are carbon pools (dead wood, litter, soil carbon) and gases (CH4, N2O) excluded as mentioned in previous indicator (4.1) with valid reasons. The exclusion of soil carbon seems to be valid, but no study or evidence is shown on the assumption that the interventions would or would not change soil carbon.

Regarding exclusion of fire CH4 emissions, the exclusion of fire CH4 is clarified in the final ERPD: while fires have many fire points, the forest area burned is very small and thus emissions are small and less than the 10% significant source threshold.

Observation: Inclusion of non-CO2 gases should be reconsidered in the future because fire appears to be a growing source of emissions. There were around 10,000 fire points between 2000-2014 (Figure 6, page 52). If only 2% of the 25-ha pixel burned (page 119), that would generate 10,000 * 300 / 2 = 1.5 MtCO2e. (300 tCO2/ha is edge forest CO2 content (p 125); 2% of 25 ha is 0.5 ha.) The text explains that forest recovery is quick and generally a small percentage of forest area and biomass is burned, so not including this variable now is reasonable.

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 IPCC 2006 guidelines are frequently cited when default IPCC values are chosen, formulas used or method. The FREL is well done.

The sample-based estimation of activity data and uncertainty in area estimates using an unbiased estimator complies with the IPCC guidelines, as does NFI-based emissions factors and the combined AD x EF estimation by Monte Carlo simulation.

Observation: The TAP does recommend a clear description be added of which approach is being used for the reference levels and for estimation of emissions and removals. It is not quite clear if these mix IPCC stock-change and gain-loss methods: p 122 says that "ERDP uses the stock change method" as defined in the 2006 GL (delta C = C_time2 – C_time1); but p 134 the gain-loss method is implied by estimation of Activity Data, which is not required in a stock-change approach.

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.

I. Forest definition;

YES

- 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 9.2]

[Description of method used for calculating the average annual historical emissions over the Reference Period 8.3]

[Activity data & emission factors used for calculating the average annual historical emissions over the Ref. Period 8.3]

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

Conclusion: this is a complex criterion composed of a number of sub-items, of which the majority are adequately addressed in the ERPD, but two need further explanation or action.

1. Forest definition:

The forest definition is clear and in accordance with FAO and UNFCCC guidelines and is same throughout Nepal. "An area of land of at least 0.5 ha and a minimum width/length of 20 m with a tree crown cover of more than 10% and tree heights of 5 m at maturity."

Conclusion: Forest Definition same for all processes

2. Definition of classes of forests, (e.g., degraded forest; natural forest; plantation), if applicable:

Definitions of core and edge forest are used in the FREL. However, in the MMR period, the terms community forest, government forest and collaborative forest are used. It is not clear how these types of forest link to each other.

Observation: The ERPD needs a crosswalk added that resolves definitions across the FREL and MMR, to better explain the link between the REL classes and the forest classes of community forest and collaborative forest.

Conclusion: The main definitions are mentioned, **a** few minor ones are missing. The ERPD could improve the descriptions.

3. Choice of activity data, and pre-processing and processing methods:

Deforestation & degradation, land use planning, gain all included in the FREL and MMR; fires are not included.

Some of the interventions expand cook stoves and biogas use, or expand integrated land use planning, and it is not clear what activity data or emission factors would be used.

Observation: The ERPD would be strengthened by an explanation of how the cookstoves reduction of emissions would be measured.

Observation: The ERP should work in future to include fires as a source, if emissions continue to rise.

4. Choice of emission factors and description of their development;

FREL uses measured carbon pools from several methods.

Conclusion: Stock values well described

5. Estimation of emissions and removals, including accounting approach:

The difference in stock is well described. The emissions from deforestation and uptake from forest gain (biomass growth) are both well captured. Degradation emissions from changes the canopy structure from intact forest to forest edges are well detected in the FREL.

Conclusion: accounting is very good in the FREL.

6. Disaggregation of emissions by sources and removal by sinks:

Deforestation changes, degradation and reforestation all described well in the FREL (although not in the MMR section.)

Conclusion: the sources and sink are described in the REL

7. Estimation of accuracy, precision, and/or confidence level, as applicable:

Accuracy of the emission and the activity data is analyzed and discussed. The FREL has an estimated uncertainty of 94%, though, very high (p 136).

8. Discussion of key uncertainties:

Key uncertainties are discussed and analyzed as confidence intervals and standard error. The uncertainty is very high for the FREL.

Conclusion: discussion on uncertainties has been improved.

- 9. Rationale for adjusting emissions, if applicable: N/A.
- 10. Methods and assumptions associated with adjusting emissions, if applicable: N/A

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 9.2]

[Description of method used for calculating the average annual historical emissions over the Reference Period 8.3]

[Activity data & emission factors used for calculating the average annual historical emissions over the Ref. Period 8.3]

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

I. Accounting Area

The accounting area is 2.4 Mha, with 1.2 Mha of forest, comprising two regions (Terai and Churia) and 12 districts. There are now general maps in the ERPD (Figure 1 and 2). The forest area for each district and in each region (Terai, Churia and Middle Hills) is presented. More detailed data is not yet in the public domain, to the best of the TAP's knowledge.

Minor non-conformity: The ERP should make spatial data available on the REDD IC website as soon as is it is ready for public presentation.

II. Activity data (e.g., forest-cover change or transitions between forest categories):

The activity data for REL make it feasible to reconstruct the REL. The TAP has some reservations per comments above in Ind. 3.3 and 5.1 related to forest degradation and the (possible) mix of stock change and gain loss methods, which need to be described more clearly.

III. Emission factors

Emission factors for the change from one forest type density to the other are calculated in the FREL, and in MMR period IPCC defaults are used.

Conclusion: Emissions data available in the ERPD

IV. Average annual emissions over the Reference Period

The average annual emissions in the REL are presented in a table and clearly split out. However, the TAP seems

Observation: There are typos that can make the calculations less clear. However, with some logical assumptions, the numbers can be recreated:

- page 126, the table mentions "units in Hectares per year (ha.yr-1)" which should be "hectares over the REL period"
- table on page 125 titled "Once forest types are included the estimates are". Total forest as calculated in table is 2.16 Mha. TAP's calculation 2.28 Mha
- Page 4 claims that the REL: "Emissions in the Program Area averaged 1.56 MtCO2e/yr. Removals averaged 0.67 MtCO2e/yr. Net Emissions averaged 0.895 MtCO2e/yr" While on page 30:" ER Program Area from 2004 to 2014 estimates average annual emissions from deforestation and degradation at 1.73 million MtCO2e, and gain from forest regeneration at 0.84 MtCO2e". The final calculation on page 138, section 8.3, has the new updated number of net total 0.895, but the emissions and sequestrations are not calculated separate.
- There is a typo on page 138 "200-2014 period is of 895,710.08." Should read 2004-2014.

Page 124, ERPD 24-May-2018. All numbers in ha.

	GAIN	CORE DEF	EDGE DEF	DEG	Stable Edge	Stable Core	Stable No Forest	TOTAL
Average	51,864.71	13,595.33	37,242.84	32,080.60	175,345.83	839,223.97	1,136,218.92	2,165,166.91
STDEV	15,677.05	5,455.18	15,174.47	11,177.90	22,882.30	24,656.98	41,777.09	52,400.81
90th Perc	77,392.63	22,626.17	62,873.13	50,440.20	212,609.91	880,240.41	1,204,590.43	2,251,156.06
10th Perc	25,869.77	4,507.79	12,263.24	13,939.64	137,362.54	799,876.23	1,067,571.91	2,077,913.44
HWCI	25,761.43	9,059.19	25,304.94	18,250.28	37,623.69	40,182.09	68,509.26	86,621.31
Relative Gain	49.7%	66.6%	67.9%	56.9%	21.5%	4.8%	6.0%	4.0%

Page 132 Final ERPD: all numbers in tCO2/ha:

	CORE	EDGE	No Forest	GAIN	CORE DEF	EDGE DEF	DEG
Average	449.0	298.8	125.8	129.4	322.7	173.3	150.4
STDEV	14.0	48.8	20.0	21.3	24.5	52.5	50.9
90th Perc	472.5	378.7	158.9	164.2	363.6	260.5	233.7
10th Perc	426.1	218.1	93.2	94.8	282.6	86.4	65.1
HWCI	13.46	46.55	19.06	20.14	23.47	50.46	48.88
Relative Gain	5%	27%	26%	27%	13%	50%	56%

٧.

Ind 7.1 All assumptions and sources of uncertainty associated with activity data, emission factors and	YES
calculation methods that contribute to the uncertainty of the estimates of emissions and removals are	TES
identified.	
[Activity data and emission factors used for calculating the average annual historical emissions over the	
Reference Period 8.3]	
[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER	
Program within the Accounting Area 9.1]	
[Identification and assessment of sources of uncertainty 13.1]	
The ERPD estimates activity data and emissions factors with confidence intervals following IPCC GPG	
and international recommendations; an uncertainty percentage for the average FREL data is provided.	l
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.	
·	YES
[Identification and assessment of sources of uncertainty 13.3]	<u> </u>

The uncertainties are calculated for activity data and emission data and a Monte Carlo exercise is used for full uncertainty accounting.

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, 13.2]

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

The FREL is well done and clear. Emissions factors as well as activity data are clearly presented and described. Activity data are estimated per IPCC GDG and international recommendations. The MMR period includes QA/QC procedures.

Activity data are adjusted after verification with high resolution data. Observation: Emission/sequestration data is measured from two sources: LIDAR and NFI inventory data.

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. [Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 10, 13]

YES

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

[Identification and assessment of sources of uncertainty 13.1]

The FREL data does state an uncertainty analysis.

Observation: It is always possible to increase precision by recreating the stratification and/or increasing the sample size. Some of the area estimates are rather uncertain, although they are all significantly different from zero at the 95% confidence level. If there is a need to increase precision, it could be done per TAP comments above.

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 [Activity data and emission factors used for calculating the average annual historical emissions over the Reference Period 13.1]

YES

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

Conclusion: Confidence intervals and errors estimates were carried out. The Monte Carlo approach described on p. 153-156 seems correct per the recommended uncertainty assessment in the IPCC documentation.

Activity data error analysis is presented on P. 156 ERPD. Monte Carlo exercise was conducted for the emissions values (annex 13 of ERPD), with more than 1,000 simulated runs of 743 plots' data. In a minor non-conformity, the propagation of error exercise was not carried out and should be in the future.

Observation: The ERPD team should show how the uncertainty was calculated more clearly, and add the error propagation to a final ERPD.

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

YES

[Quantification of uncertainty in Reference Level setting 13.2]

Monte Carlo Exercise on emissions was carried out, both on the original analysis and in the new FREL analysis.

However, Monte Carlo does not appear to have been used to estimate the uncertainty in <u>emissions reductions</u> combined into a single combined uncertainty estimate.

Minor non-conformity: a clearer explanation how the 94% uncertainty was calculated would improve the ERPD.

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
[Quantification of uncertainty in Reference Level setting 13.2]

YES

In addition to the Monte Carlo analysis carried out as above, the emissions and activity data are also reported separately with standard errors, standard deviations and uncertainty intervals per different forest type in the FREL. Degradation is directly measured.

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 9.7]

The FREL is expressed in CO2/yr. The data is on table 42, on page 136.

Table 42: Results obtained for overall estimates or emissions, gains, and net emissions for the 2004-2014 period

	GAIN	CORE DEF EDGE DEF		DEG	Total Emissions	TOTAL Net Emissions	Rerence level TCO2eq	
Average	(6,708,713.26)	4,387,604.40	6,452,925.55	4,825,284.11	15,665,814.06	8,957,100.80	895,710.08	
Yearly	(670,871)	438,760	645,292	482,528	1,566,581			
STDEV	2,324,910.45	1,795,153.21	3,378,800.92	2,415,994.41	3,867,751.57	4,503,204.00	450,320.40	
Upper bound 90% CI	(3,114,688.75)	7,448,384.41	12,501,063.09	9,224,723.62	22,285,878.26	16,433,000.02	1,643,300.00	
Lower bound 90% CI	(10,750,843.27)	1,469,885.53	1,607,928.57	1,358,244.69	9,574,880.54	1,663,776.42	166,377.64	
HWCI	3,818,077.26	2,989,249.44	5,446,567.26	3,933,239.47	6,355,498.86	7,384,611.80	738,461.18	
Relative Gain	58%	68%	89%	87%	41%	82%	82%	

Ind 10.2 The ER Program explains how the development of the Reference Level can inform or is informed by the development of a national Forest Reference Emission Level or Forest Reference Level, and explains the relationship between the Reference Level and any intended submission of a Forest Reference Emission Level or Forest Reference Level to the UNFCCC [Relation between the Reference Level, the development of a FREL/FRL for the UNFCCC and the country's existing or emerging greenhouse gas inventory 9.8]

The REDD+ Cell responded to the TAP's strong critique of the draft ERPD REL and long discussions with it during our September mission to Kathmandu by undertaking a major effort to review the former Draft ERPD REL. The Cell and its ERPD partners convened a meeting of national government technical staff and experts and international experts in December 2017 to assess Nepal's FREL submitted to the UNFCCC in January 2017. The REDD+ Cell and partners decided to update and revise the submitted UNFCCC FREL to be consistent with the FREL for the Final ERPD.

This decision and action plan pledges a new direction for Nepal in terms of integrating its work at the national FREL and ERPD project levels into a consistent framework (e.g., page 138). The new Univ. of Maryland annual time series of consistent Landsat data method will be applied for all baselines and reporting for the ERPD and the UNFCCC. This integrative work is currently underway.

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 [Relation between the Reference Level, the development of a FREL/FRL for the UNFCCC and the country's existing or emerging greenhouse gas inventory 9.6]

YES

YES

Conclusion: The ERPD team convened a government and expert process that resulted in a major agreement and technical work to achieve consistency between the UNFCCC-REL and ERPD-REL. P. 5 summarizes how the methods developed for the ERPD will be used for the UNFCCC: "This technical assessment and the parallel FCPF technical review of the reference level of ER Program motivated much closer alignment of methodologies, leading to significant changes from the approach initially-proposed in the ER-PIN. This revised methodology will also inform the next iteration of the national FREL. Nepal will use 2004-2014 as its reference period for both the ER-Program and a pending updated version of its national reference level."

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 [revised version]. An alternative end-date could be allowed only with

YES

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.

[Reference Period 9.1]

Conclusion: The FREL time period is 2004-2014. The TAP considers 2014 as the most recent date for which FREL data are available to the ERPD team.

The development of the ERPD-REL has been going on since Nepal's R-PIN stage and the end-date chosen was 2014, which remains a reasonable end date.

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 9.1]

Yes, the ERPD REL proposed has a start date of 2004 and an end date of 2014. Thus a 10-year REL is established.

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

YES

Conclusion: All Forest definitions are the same to all reporting lines.

The forest definition in the ERPD and in the State of the Forest defines: "Forest as an area of land of at least 0.5 ha and a minimum width/length of 20 m with a tree crown cover of more than 10% and tree heights of 5 m at maturity". The Forest definition in 2000-2010 UNFCCC REL: Land with tree crown cover of more that 10 percent and area covering more than 0.5 ha, with minimum height of the trees to be 5 m at maturity and in-situ conditions. The FREL is developed with 30m resolution Landsat data and 10% tree cover, and so can report tree cover consistent with the definition. Also, deforestation and degradation areas defined in the FREL (deforestation pixels with a shift from above 10% tree cover to below 10%, and degradation tree cover pixels shift from above 10% tree cover to below that amount but above 10% tree cover).

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 9.6, 13.2]

The ERPD REL is a straight forward average over 10 years, which does not exceed the average annual historical emissions over the Reference Period.

Observation: Annual data points are not required or provided. If annual data were available, they would be useful to understand if a change of drivers has occurred and to understand if there are other trends in forest gain, degradation and deforestation to ensure the interventions tackle the right driver.

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:

N.A.

(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.

NOT applicable, no adjustment is proposed.

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:

N.A.

- 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 9.6]

NOT applicable, no adjustment is proposed

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

N.A.

[Explanation and justification of proposed upward or downward adjustment to the average annual historical emissions over the Reference Period, Quantification of the proposed upward or downward adjustment to the average annual historical emissions over the Reference Period 9.6]

NOT applicable, no adjustment is proposed

C 14 Robust Forest Monitoring Systems provide data and information that are transparent, consistent over time, and are suitable for measuring, reporting and verifying emissions by sources and removals by sinks, as determined by following Criterion 3 within the proposed Accounting Area

Ind 14.1 The ER Program monitors emissions by sources and removals by sinks included in the ER Program's scope (Indicator 3.1) using the same methods or demonstrably equivalent methods to those used to set the Reference Level.

YES

[Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 10.1]

"Monitoring, reporting and verification methodologies will replicate those of the reference level and be improved in a stepwise approach going forward. These will include additional plots to assess effectiveness and carbon benefits of different activities to inform adaptive management of ER Program" (p. 4, elaborated p. 138 section 9.1). Thus, the methods will be the same as those used to set the Reference Level, using a combination of the Univ. of Maryland approach with stratified estimation for activity data, additional new plots of NFI data, and the Birigazzi et al. (2018) paper data for emission factors in a gain-loss approach. The TAP notes that the ERPD needs editing to clarify this,

since Section 8.3 states that stock-change is used, but reference to independent estimation of activity data and emissions factors suggest gain-loss (minor non-conformity).

Afforestation as the main driver of sequestration is mentioned in Table 38: "The impact of sustainable forest management, especially in community forests, can be seen in the enhancement of carbon stocks and afforestation that are included in the emission estimates."

Observation: The ERPD would be enhanced by revisions that:

- Explain how core and edge forest relate to community, government and collaborative forest.
- Address the issue of, while measurement of afforestation by the U. MD method is possible, a 2-year
 monitoring cycle might not be long enough to detect these small trees/shrubs by Landsat or even high
 resolution remote sensing data. The Final ERPD does state the methods will rely more heavily on new NFI
 plots and community monitoring to count new seedlings; a clear protocol on how these subtle changes
 would be measured would be welcome.
- Specify which MMR methods would be used for <u>degradation</u> interventions like expanding cookstoves and biogas use, or expanding integrated land use planning (although these are small activities in the ERP).

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

The ERPD plans to do a full forest monitoring event every 2 years, including activity data and emissions factors. So every 2 years the forest monitoring system would determine deforestation, degradation and enhancement.

The TAP notes Advanced Draft REL methods did not use 2-year monitoring events, and relied on activity data (deforestation) for 3 time periods. The ERPD's commitment to 2-year monitoring events should significantly improve the monitoring of land use change activity data, emission factors, and hence emission reductions, if they are proven feasible.

But the TAP notes that this is a major commitment. The activity data every 2 years would be standard procedure and easily done (i.e., Landsat change detection analysis). To measure forest inventory plots every 2 years for emissions factors is a major commitment requiring a substantial investment of time and limited funds.

Ind 14.3 Emission factors or the methods to determine them are the same for Reference Level setting and for Monitoring, or are demonstrably equivalent. IPCC Tier 2 or higher methods are used to establish emission factors, and the uncertainty for each emission factor is documented. IPCC Tier 1 methods may be considered in exceptional cases [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 10.1]

The emission factors are now different in the FREL and in the MMR period. The FREL uses core forest and edge forest change monitoring to estimate emissions from degradation (e.g., harvesting, fuelwood extraction, etc.) and forest gain; while the MMR period uses an IPCC default value.

It is further unclear if this 2.8 t CO2e/yr value cited applies to new afforestation trees/shrubs or to existing trees and forest. The ERPD states p. 158 that "Studies estimate silviculture practices proposed in the OFMPs would increase the growth increment of forests by 5-6 times over a 20-year period".

Minor non-conformity: The ERPD should show how the IPCC default factor used in the MMR period for sequestration of CO2 in community forest growth and related forest growth activities (i.e., 2.8 tCO2/yr in table 48 page 158) is

25

Version 3 March 2018

NO

YES

similar to the emissions factors of the core, edge, gain and degradation forest emission/sequestration factors as used in the FREL.

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 10.3]

The ERPD Forest monitor system will be linked to national forest inventory (NFI) and FAO. The ERDP mentions: "the TAL monitoring system will be fully aligned with the national forest monitoring system of Nepal" (p 139). Further, the ERPD also mentions the FREL method will be used for the FRA (Forest Resource Assessment) reporting to UNFAO.

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 [Measurement, monitoring and reporting approach for estimating emissions occurring under the ER Program within the Accounting Area 10.1, 10.3]

YES

Conclusion: The ERPD team has explored opportunities for local community and indigenous people to participate, and the ERPD states "local communities will be involved". Community participation is very well defined for stopping illegal overgrazing, fires etc. The Final ERPD adds in a more significant role for communities in the MMR of forest gain activities since Lan set may have trouble picking it up in short time periods.

P. 180 of the ERPD states "As part of the implementation of some of the mitigation actions, local communities will be involved in the measuring and monitoring activities, in collecting forest level information, and socio-environmental baseline data for the Safeguard Information System (SIS). Forest-level data collection is already a central component of DFO [District Forest Office] and CFUG [Community Forest User Group] activities and local communities and IPs will work closely with the monitoring of forests during the ER Program through community-based forest monitoring. This will strengthen and enhance the engagement of local communities and IPs in the monitoring of forest carbon stocks on the ground."

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. [Identification of risk of Displacement 11.1]

YES

Conclusion: drivers identified and all risks and displacements identified and classified.

The drivers in the TAL area are identified in table 7, and the displacement risks are assessed in a table on p. 187-189. The drivers of deforestation identified include encroachment, infrastructure devolvement and resettlement. The degradation drivers identified are timber and fuel wood extraction, overgrazing and forest fire.

All the displacement risks are deemed low by the ERPD, since the Terai area is predominately agriculture-dominated flat lands which are quite different from the neighboring Chure hills. (However, the TAP notes that there is deforestation of 10,000 ha /yr; and that fire recently may be increasing as a driver.)

The ERPD identifies a-new driver of change, the major earthquake of 2015, following TAP discussions in Nepal. The ERPD notes: "resettlement of communities impacted by the earthquakes has increased immigration into the Terai, leading to increased demands on forest resources. Secondly, since Sal is the preferred choice of timber for

reconstruction and is available only in Terai... Post-earthquake recovery is expected to sustain the high demand for construction timber through the lifetime of the ER Program" (p 188).

The encouragement to develop production forests and the high demand for timber seems a new risk outside the ERPD area. The ERPD hints that illegal logging is bigger than the few statistics available suggest, but remains uncertain.

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 11.2]

The mitigation strategies especially for timber and fuel extraction are identified on page 146 where it lists all the displacement risks, and strategies to remedy these risks. "The primary risk of displacement ... due to unsustainable and illegal extraction of timber outside the ER Program Area. To minimize this risk the ER Program primarily proposes to increase the supply of timber from the ER Program Area... Similarly, the program also proposes to enhance access to renewable energy technologies such as biogas and ICS to minimize the dependency on wood fuel and increase the production of timber from forests".

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 [Identification of risk of Reversals 12.1]

YES

Page 149, table 43 gives an overview table identifying all the reversals and remedies, and estimating risks as 11%. It seems to be a complete list and fair assessment of risks and remedies.

The government of Nepal has a long history of working well with communities and the low risk rating of institutional capacity and participation seems reasonable. Although a major earthquake occurred recently in the middle mountains zone, the low risk of natural disasters striking the Terai seems reasonable. Most contentious is the low risk of long term mitigation of drivers. As is noted in detail in the ERPD page 36, Table 4 the population is growing in the TAL and so need for more fuelwood, more poles, more logging is an issue.

Observation: the low risk rating of long term addressing drivers is low (only 2%, Low). A study on increase in needs of local people and increase in fuel and contraction material needs can be further studied.

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

YES

The reversal risk is deemed low, since the major intervention is the transfer of government forest land to communities, which has a great track record in Nepal's Middle Hills over many years: "The history of CBFM in Nepal has demonstrated that the benefits are long lasting once these local models are in place" (p. 194 ERPD). In addition, the interventions designed on introduction of Scientific Forest Management on community forests (as it is called in Nepal), expanded private forest land, and land use planning address the supply deficit of logs and fuel wood, one of the major drivers.

Non-anthropogenic reversals like earthquakes are addressed: "design of houses, schools and buildings at the central regional and local areas has taken into account future risks of earthquake (and potential impact on the timber market for reconstruction of houses) (p. 195 ERPD).

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 Program

[Reversal management mechanism, Selection of Reversal management mechanism 12.3]

Option 2, ERP-specific buffer is clearly chosen (p. 6): "The ER Program will allocate 23% of generated emissions reductions to a buffer that will be managed by the Carbon Fund, based on estimated uncertainty of ERs (12% conservativeness factor) and risk of reversal of 11 %".

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 12.4]

Reduction in emission is mainly accomplished in the ERPD by afforestation by communities. Reversal could mean less active replanting or increase in degradation and deforestation. For deforestation and degradation (selective logging) the change in forest cover can be detected in the current proposed monitoring plan. However, the reduction in the pace of replanting might be more difficult to detect by remote sensing, thus the Final ERPD was revised to rely more on NFI and community monitoring, which keeps this from rising to the level of a minor non-conformity. NFI plots and community monitoring are part of the tools newly mentioned in the final ERPD: "Additionally, plots will be established", sub bullet C; "Assessment of biomass change or lack thereof in areas of influence of mitigation actions like community forests, biogas/cook-stoves units, sustainable forest management" (p. 138, section 9.1, bullet point 4).

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 14.3]

NO

An ex-ante estimation of the number of ERs that would be available for purchase by the Carbon Fund is presented in Table 49 p. 160 "Estimated ex-ante emissions reductions during the ER Program accounting period (tCO₂) and proposed ERs sold to the Carbon Fund after discounting buffer" (p 206), that follows most of the specific steps listed above that can occur at this point.

The number of ERs to be set aside in a buffer reserve is stated as 23%. The total ER available for the Carbon Fund in year 4 is estimated to be 4.8 MtCO2, and in year 6 5.3 MtCO2 (10.4 M gross, minus buffer 2.8 M, minus already made available in year 4, 4.8M).

There is no calculation of the ERPD savings minus the REL. The REL had emissions of 0.895 MtCO2e. The TAP estimates that Nepal might ask for payment in year 4 for 4.9 MtCO2 sequestered, plus the 0.895/yr not emitted (from the REL), thus possibly totaling something around 8.4 MtCO2e (=4.9 +(4* 0.895); but this is not clear.

Minor-unconformity: The REL emissions do not seem to be used in the quantification of the ERPD payment period. This carbon saved thus seems underestimated for Nepal. Eg, p. 160:

Table 49 Estimated ex-ante emissions reductions during the ER Program accounting period (tCO₂) and proposed ERs sold to the Carbon Fund after discounting buffer.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
4.3.1	345,031	690,062	1,035,094	1,380,125	1,725,156	2,070,187	2,415,218	2,760,249	3,105,281	3,450,312	18,976,717
4.3.2	0	206,295	412,591	618,886	825,182	1,031,477	1,237,772	1,444,068	1,650,363	1,856,659	9,283,296
4.3.3	16,135	32,270	48,406	64,541	80,676	96,811	112,947	129,082	145,217	161,352	887,440
4.3.4a	30,800	61,600	92,400	123,200	154,000	184,800	215,600	246,400	277,200	308,000	1,694,001
4.3.4b	4,840	9,680	14,520	19,360	24,200	24,200	24,200	24,200	24,200	24,200	193,600
4.3.5	12,378	24,755	37,133	49,511	61,889	74,266	86,644	99,022	111,400	123,777	680,778
4.3.6	250,140	250,140	250,140	250,140	250,140	250,140	250,140	250,140	250,140	250,140	2,501,476
Total	659,324	1,274,804	1,890,283	2,505,763	3,121,242	3,731,882	4,342,521	4,953,161	5,563,800	6,174,440	34,217,220
Buffer	-151,645	-293,205	-434,765	-576,325	-717,886	-858,333	-998,780	-1,139,227	-1,279,674	-1,420,121	-7,869,961
Net ERs	507,680	981,599	1,455,518	1,929,437	2,403,357	2,873,549	3,343,741	3,813,934	4,284,126	4,754,319	26,347,260
Net ERs (cumulative)	507,680	1,489,278	2,944,796	4,874,234	7,277,590	10,151,139	13,494,881	17,308,815	21,592,941	26,347,260	
ERs available to Carbon Fund	0	0	0	4,874,234	0	5,276,906	NA	NA	NA	NA	10,151,139
remaining ERs	507,680	1,489,278	2,944,796. 48	0	2,403,357	0	3,343,741	7,157,675	11,441,802	16,196,120	

Observation: for step 3: it is not clear if the buffer set-aside also covers reversals or not; it would be helpful for the ERPD to state clearly what is covered or not.

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 14.1]

YES

Conclusion: no other group is participating to buy the CO2 credits.

On p. 260 it is stated: "...ER Program is not currently planning to participate in any other GHG initiatives, however, the Government of Nepal may seek to sell additional ERs generated under the ER Program through external carbon market finance to catalyze further activities in the Terai".

(ii) [Data management and Registry systems to avoid multiple claims to ERs 19.2]

ERPD has been significantly updated regarding these systems, and states (as detailed in Ind. 37.1 below) that the Program has selected option (b), to use the comprehensive national REDD+ Program and Projects Data Management System, to be provided by World Bank, until it develops the eventual national Registry. ERPD p 261 states: "A national carbon registry system will have two main components. The REDD+ program/project database will support the registering of and reporting on REDD+ projects/programs; and ...an ER Transaction Registry will organize the process of creating (issuing) offsets units with unique serial numbers..."

ERPD p 262 summarizes Nepal's approach: "During the initial period of implementation of the ER Program, while Nepal's national registry is being established, the NRC will rely on the centralized ER transaction registry provided by the World Bank, which will also cross-walk with Gold Standard and CDM registries relevant to other projects in the ER Program Area. Upon successful establishment of the national registry, transactions will be duplicated in the national registry and transactions will subsequently be implemented through the national registry system."

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+ 15.1]

Conclusion: The ER Program design now meets both the Cancun Safeguards and the World Bank environmental and social safeguards. The draft Environmental and Social Management Framework (ESMF), which includes the Strategic Environmental Assessment (SEA), has been completed, and related safeguards instruments for the ER Program area are to be completed in May 2018 and publicly disclosed in December 2018.

The ER Program design meets the Cancun Safeguards and the relevant World Bank environmental and social safeguards, though the ESMF proposal to do an Environmental Impact Assessment for all 200,000 ha of government forests to be converted into community forests may not be feasible. Social safeguards have been strengthened in comparison to the previous version of the ERPD, especially through the clear commitment – on pages 87-88, 91 and 232 of the ERPD – to minimize involuntary resettlement of local communities deemed to have "encroached" on government forest land (as per the "do no harm" clauses in Cancun Safeguard c, "Respect for the knowledge and rights of indigenous peoples and members of local communities"), as well as the increase of the share of the ER Program budget reserved for the implementation of the safeguards (including voluntary resettlement, and involuntary resettlement in exceptional cases), to USD 5.8 million for the first six years of the ER Program (see ERPD Annex 1). The commitment to minimize involuntary resettlement significantly reduces the risk that the ER Program will trigger grievances and legal challenges, given that some communities have been resettled on forest lands by previous government land commissions, as explained in the draft ESMF.

References to Free, Prior and Informed Consent (FPIC), as per Cancun Safeguard d ("The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities"), have also been reinforced. The World Bank's safeguard policy on involuntary resettlement has also been triggered, to address the livelihoods restrictions that the ER Program is likely to imply for forest dependent people (including indigenous peoples) in the area. A senior-level interagency commission has been created to address the issue of landless and land title-less people in the program area, and the TAP requested that the ERPD and ESMF summarize progress to date.

Table 15 on page 50 of the ESMF lists the World Bank environmental and social safeguard policies triggered by REDD+ in Nepal (OP/BP 4.01: Environmental Assessment; OP/BP 4.04: Natural Habitats; OP 4.09: Pest Management (typical when any cropland use intensification envisioned); OP/BP 4.10 Indigenous Peoples; OP/BP 4.11 Physical Cultural

Resources; OP/BP 4.12: Involuntary Resettlement; and OP 4.36: Forests) as well as the specific REDD+ Programmatic Activities these safeguard policies apply to.

According to the ESMF for the ER Programme Area, safeguard instruments will contain specific provisions and guidelines for (i) screening, managing and mitigating the risks from pesticides; (ii) assessing and mitigating the impacts on physical cultural resources; (iii) assessing and mitigating the impacts on natural habitats. Environmental and Social Management Plans (ESMP) will be formulated to manage environmental and social risks in different parts of the ER Program Area. Nepal will also need to complete the following safeguards instruments: an Indigenous Peoples and Vulnerable Communities Framework (IPVCF); a Process Framework (PF); a Resettlement Policy Framework (RPF); and a Decent Work Planning Framework (DWPF).

The RPF will be triggered even if there would be no physical resettlement (which is a very sensitive issue in post-conflict Nepal, according to many government and other TAP interviewees in Kathmandu), as there are likely to be restrictions on livelihood activities of vulnerable forest-dependent communities. All ER activities involving Indigenous Peoples or their territories will require the Free, Prior and Informed Consent of these peoples (ESMF p.89).

A REDD+ Safeguard Information System is currently being developed by NRC. "A draft REDD+ SIS framework has been prepared considering potential activities, stakeholders and their specific concerns, anticipated outcomes and implications. The framework proposes two basic levels: (i) activity level; and (ii) program (national/sub-national) level of REDD SIS. The activity level SIS establishes a linkage between REDD+ activities being implemented and the safeguard principles triggered. Furthermore, it illustrates scope (activities, budgets, targeted groups, etc.) and scale (spatial locations, area coverage, stakeholders' coverage, beneficiaries, etc.) of the activities, anticipated social and environmental effects and safeguards compliance indicators" (ERPD p. 143).

ERPD contains useful details on institutional responsibilities for safeguard implementation (p.165):

"A three-level structure has been proposed:

"At the national level, an Environmental and Social Assessment and Monitoring Unit (ESAMU) will be established within the REDD+ Implementation Center (NRC), which will serve as the coordinating and implementing agency for REDD+ safeguards.

"Regional REDD+ Focal Office (RRFO) at the regional forest office will have oversight and monitoring responsibilities over the respective District Forest Offices / or PA Offices/ or Protection Area (PA) offices and line agencies ... implementing the REDD+ safeguard activities.

"At district level, an Environment and Social Section (ESC) will be established in each District REDD+ Program Management Unit (DRPMU) to handle environmental and social concerns. The DRPMU will execute all the safeguard-related activities through the regional forest offices of each district."

One issue is national level (ESAMU) and district level (ESC) agencies that will be in charge of safeguards monitoring have not been established yet—due to the political transition process still underway in Nepal. However, that process appears to moving rapidly and steadily forward, so the TAP considers this a minor non-conformity.

YES

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

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

The draft ESMF for the ER Program Area, which includes the SESA, has been shared with the TAP, but the related Safeguards Plans and Frameworks still need to be completed. According to the Safeguards Roadmap in Annex 14 of the ERPD, they are slated for completion in May 2018, and for public disclosure in December 2018. Since the detailed Safeguards Plans and Frameworks are not due at this stage, the TAP considers this indicator to be met.

In the meantime, the TAP observes that their current description (especially of the Indigenous Peoples and Vulnerable

Communities Framework – IPVCF – and the Resettlement Policy Framework – RPF) in the ER Program Document and even more so in the ESMF is somewhat thin and could provide some more information, for example on the exceptional circumstances under which involuntary resettlement would be considered. Given that the ERPA is about generating CO2 emissions reductions and removals from deforestation and forest degradation, which can be done in many ways in such a large area – the need for involuntary resettlement would have to be tightly argued. Alternatives should always be considered, including voluntary resettlement where possible. An additional legal complication is that some people who are deemed to have encroached government forest land have been resettled there by previous government land commissions, as mentioned in the ESMF (p. 95).

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

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

YES

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

Though the Safeguards Plans for the ER Program area have not yet been completed, the ERPD (p. 145) and the draft ESMF (p.118-120) contain some useful details on safeguard monitoring arrangements. Therefore, the TAP considers this criterion as met for now. The next step for NRC will be to include the detailed description of safeguard monitoring arrangements in the Safeguard Plans for the ER Program area.

A REDD+ Safeguard Information System is currently being developed by NRC. "A draft REDD+ SIS framework has been prepared considering potential activities, stakeholders and their specific concerns, anticipated outcomes and implications. The framework proposes two basic levels: (i) activity level; and (ii) program (national/sub-national) level of REDD SIS. The activity level SIS establishes a linkage between REDD+ activities being implemented and the safeguard principles triggered. Furthermore, it illustrates scope (activities, budgets, targeted groups, etc.) and scale (spatial locations, area coverage, stakeholders' coverage, beneficiaries, etc.) of the activities, anticipated social and environmental effects and safeguards compliance indicators" (ERPD p. 143).

The ERPD (p. 174) provides a good summary of safeguard monitoring arrangements, as follows:

"The ESMF sets out a mechanism for monitoring the environmental and social outcomes of implementing the national REDD+ strategy and arrangements for the participation of relevant stakeholder in this process, including appropriate roles and responsibilities. The ESMF also provides an outline of the necessary reporting procedures for managing and monitoring environmental and social safeguards related to project implementation.

"The monitoring of environmental and social safeguards through a Safeguard Information System (SIS) will be linked and integrated with the national forest information management system. The SIS will collect and make available information on how safeguards are being addressed and respected throughout the implementation of REDD+ at the national level including activities under the ER Program."

"Monitoring of safeguards will be carried out at the national level by the ESAMU and at district level by DRPMU. The ESAMU will have to: regularly monitor national and regional activities; coordinate regularly with DRPMUs monitoring local activities; and report the findings of monitoring to the REDD+ Working Group." The TAP does not consider this a non-conformity.

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 15.3]

Conclusion: The Feedback and Grievance Redress Mechanism (FGRM) for the ER Program area has been designed but not yet formally established. It is well-explained in the ESMF, and accurately summarized in the ERPD.

A report to assess existing FGRMs in Nepal and to develop a FGRM for REDD+ implementation was published in 2015,¹ highlighting characteristics of existing FGRMs in the forestry sector in Nepal, including:

"In the Terai region, with its valuable timber, the main grievances are about boundaries, user rights related to users coming from distant areas. Grievances on forest sector in Nepal are ultimately decided within the authorities of MoFSC, either through the DFO or warden or regional directorate, though forest users can go to formal judicial process to settle their grievances if they are not satisfied with the redress given by the government agencies." (ERPD p.167.)

The ERPD lists seven principles for the ER Program FRGM, including Legitimacy, Accessibility, Predictability, Fairness, Rights Compatibility, Transparency, Capability, adequate expertise and resources, and provides indications of how these principles could be applied. The ERPD also expresses a preference for having local communities, who already deal with 85% of grievances according to existing FGRM studies in Nepal, as the first port of call for grievance. Finally, the EPRD (pp. 169) identified a set of steps and procedures for FGRM in the context of REDD+ in Nepal.

This indicator has been assessed as having been met, because a detailed FGRM design is provided in the ESMF (p. 104-112), though it is not operational yet. Based on lessons learned from experience in community forestry, the FGRM for the ER Program Area will rely to a considerable extent on existing customary arrangements for resolving grievances. The cost estimate given in the ESMF (Table 20, page 117) for implementing the FGRM of between 12,000 and 20,000 USD per year appears to be on the low side. Therefore, it will be important to identify additional resources for its implementation.

Version 3 March 2018

¹ Developing a Feedback and Grievance Redress Mechanism for REDD+ implementation in Nepal, see http://mofsc-redd.gov.np/wp-content/uploads/2013/11/Final_GRM-Report-FINAL_01-11-2015.pdf

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

YES

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

The process for receiving, screening, addressing, monitoring and reporting feedback to the public has been described in detail in the draft ESMF for the ER Program area, which was completed recently.

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 15.3]

The proposed FGRM for the ER Program Area is an improved version of Nepal's existing FGRM procedures, based on lessons learned from experience with the implementation of FGRM in Nepal, published in 2015.

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]

Drivers of deforestation and forest degradation are clearly identified and analyzed in the ER Program area, and summarized in Table 7 p 55. Unsustainable and illegal harvest of timber and fuelwood are linked to demand and supply of these products via Tables 8 and 9. Overgrazing has been analyzed, with livestock numbers in ER Program districts (Table 10). Forest fire also has been analyzed in more data and maps (as discussed elsewhere in this document), although they are not included in the REL and MMR calculation of GHG emissions or as explained in other criteria.

ER-PD document first synthesized numerous studies related to the key drivers; then ranked drivers at district and regional level consultations, where six proximate drivers of deforestation and forest degradation were identified: 1. Unsustainable and illegal harvest of timber and fuelwood; 2. Overgrazing; 3. Forest fires; 4. Encroachment; 5. Resettlement and 6. Infrastructure development. Analysis of relationships between proximate drivers and their underlying causes has also been provided (pp. 56-57).

Observation: Need for better maps prior to the first monitoring event: The map showing forest fire in the TAL (Figure 6) is an important addition that offers data on the driver that may be increasing (eg, the significant spike in fire occurrence in 2016). It offers good resolution for its small size. But its presentation like other ERPD maps as a 600 km wide x 80 km high thin-strip map loses much detail and makes it hard to read and appear that the entire TAL was under heavy fires, when what is needed is the type of fire (ground or crown), what percent of biomass of how many hectares were affected, etc. Maps that show say half or a third of the Program area and are presented vertically stacked could be explored, such as those produced by the Churia Development Board. Improved, higher-resolution maps are an important addition that is needed in the ERP as the Program moves forward – to provide sufficient detail for planning where interventions will take place, to ensure clarity and precision in ER estimation and in the eventual MMR of ERs, and so that maps with frequency of fires and their location can help to understand the underlying and proximate causes of fires better.

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 [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]

Descriptions of the planned actions and interventions and who would undertake them are now mostly clearly explained, and the rationale for their inclusion as a set is clear.

Box 1 p 54 on Nepal's community based forest management models summarizes the latest data of community based forest management models in ER Program area. A Theory of Change for the ER Program (Figure 7) provides a logical linkage between the set of selected interventions and proposed outcomes of the ERP. Showing new commitment to clearly define what the interventions would do and the impacts of them, the ERPD summarizes intervention actions for major proposed interventions, and potential risks and impacts of interventions for indigenous peoples and gender considerations and proposed remedies (Tables 12 to 25). This admirably details what will be done, by whom, how it impacts stakeholders, and issues that may arise.

The TAP notes that the interventions proposed for private forestry, land use planning and leasehold forestry have less detail than the major interventions, though this is reasonable since much smaller activities are planned. Expanding private forest lands and wood supply was widely supported in TAP discussions with private forestry operators and government agencies in Kathmandu, so while small in scale, it offers an important activity to spur timber production and to reduce imports of timber.

Major interventions are proposed to address drivers of forest degradation. Infrastructure development as a driver of deforestation is addressed in the intervention to expand integrated land use planning. Interventions have now been proposed to address encroachment by and resettlement of landless people or those without land titles. Table 11 states that interventions 1, 2 and 6 address encroachment, via, eg, "Establishing community forests provides clear management rights, boundary delineation and increased patrolling, all of which reduce encroachment and conversion."

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

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]

The ER Program reviews the assessment of land and resource tenure regimes carried out during the readiness phase at the national level. It supplements this assessment by undertaking additional assessment on specific issues related to land and resource tenure regimes in the Accounting Area, in 3 categories:

Category I – The range of land and resource tenure rights (legal and customary rights of use, access, management, ownership, exclusion, etc.) and the categories of rights-holders present in the Accounting Area (including Indigenous Peoples and other relevant communities).

ER Program explicitly describes the Legal Nature of Forests that are present in the ER Program Area as Private and Public Forests. It also addresses the different categories/types of Forest Tenure and the associated rights in Table 28, such as: 1) Private forest; 2) National Forest; 3) Government managed forest; etc.

ERPD explicitly says that is necessary to assure customary rights (recognizing and incorporating them on the future on the FBMC – Community Based Forest Management (section 4.4.1); and summarizes the status of customary rights associated with forestland tenure in Table 29 (p 107-108).

Category II –ERPD describes the legal status of such rights, and the significant ambiguities/gaps in the applicable legal framework, including rights under customary law, clarifying the legal nature of private and public land tenure in Nepal: "... Article 25 of the Constitution of Nepal has recognized the rights to secure property rights and land/resource tenure of individuals. The rights of private landholders are protected according to these fundamental rights ensured by the Constitution."

However, "The Constitution has not incorporated any specific fundamental rights for securing rights of IPs, though under the state policies of the constitution, the state has expressed strong policy commitment for the promotion of traditional rights of IPs. ... Article 51(j)(8) has expressed that the state will make an appropriate arrangement for the indigenous nationalities to participate in decisions concerning that community by making special provisions for opportunities and benefits in order to ensure the right of these indigenous nationalities to live with dignity, along with their identity, and protect and promote traditional knowledge, skill, culture, social tradition and experience of the indigenous nationalities. "

ER Program has proposed activities to promote the traditional and customary rights of IPs considering the legal provisions of the country and additional comments received during the consultation process, in Sections 4.3, 14.1 and 16.1 include activities that safeguard against the loss of IP rights and practices.

ERPD addresses specific rights such as those of Landless Dalit (low-caste peoples): "Article 40(5) of the constitution ensures that the State shall provide land to the landless Dalit in accordance with law and article 40(6) has stated that the State shall, in accordance with law, arrange settlement for the Dalit who do not have housing. Close coordination will be needed across ministries to ensure that when fulfilling this law, forest land is not converted, considering the legal provisions on land-use planning as envisioned in the section 51g of Land Act 1964 and section 67a of the Forest Act 1993."

Category III –The ER Program clearly says that are Private Forests in the Program area and intends to expand 30,141 ha, which should produce 0.9 ER (MtCO2e) (intervention table in Executive Summary). It includes private forest owners as Potential Beneficiaries, and now proposes a new opt-in arrangement to allow transfer ER titles of private forest owners to the Carbon Fund (discussed under Ind. 36.2 below).

Another specific challenge only briefly addressed in the ER Program is related to Land Use and resettlement Law: "Conversion of forestlands to settlements and agriculture is a continuing problem particularly in the districts of ER Program Area. Most encroachment and informal settlement in forests, along river sides and road sides, takes place as a result of landlessness. Natural disasters also have produced another round of landless, and this is likely to intensify as climate change advances. Forestland has been distributed to the landless households under various land reform commissions."

"Despite numerous commissions to address the landless issue, there has been only limited success. To respond to this, the Government of Nepal has enacted the Encroachment Control Strategy 2011 and Land-use Policy 2015 to control further encroachment into forests. The Land Act 1964 and Forest Act 1993 has made special provision to control illegal

registration and encroachment into forests. According to Section 67a of the Forest Act, forestland will not be converted into settlements or resettlement areas except for those people who are affected by natural disaster and nationally prioritized projects. These legal and policy instruments have been taken into consideration during the design and implementation of the ER Program." The ERPD ideally should explain activities the ERP or Nepal intends to perform in the future related to this specific issue.

Finally, the ER Program demonstrates that the additional assessment has been conducted in a consultative, transparent and participatory manner, reflecting inputs from relevant stakeholders, but there are still some gaps on the inclusion of the IPs and CSO recommendations as result of the consultation process in the ER Program text.

The TAP requests the ERPD team to fix a typo on p 83 chart on tenure type: Collaborative Forests probably should be 0.058 Mha; please check the figures.

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.

NO

The draft ESMF that was made available to the TAP for review contains some clear commitments with regards to indigenous rights, such as to Free, Prior and Informed Consent (pp. 102-103) and the statement on page 89: "Ensure that customary rights are recognized, respected and preserved such as tenure, access to natural resources, territories, livelihood strategies, knowledge, social fabric, traditions and traditional system of local communities."

However, the ESMF doesn't explain in practical terms how the ER Program will comply with indicator 28.2, in particular the clause "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". This clause applies to the transfer of government forests – some of which are subject to indigenous peoples' rights claims – to local communities, who may or may not be the people claiming rights to these forests. Presumably, the planned safeguards instruments, such as the Indigenous Peoples and Vulnerable Communities Development Framework (IPVCDF), would have more detail on this issue, but they are not yet due. Language on recognition of indigenous peoples' rights is also missing from the ESMF section describing the environmental and social screening of project activities (pp. 81-83), whereas legal screening for indigenous peoples' rights issues would seem to be a priority in this regard.

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

[Transfer of Title to ERs 18.2]

The TAP considers the criterion met. The ER Program describes the ability of the ER Program entity to transfer title in relation to public lands and public forest for the six types of forest management. The ER Program addresses private land owners through a contractual arrangement to deal with Private Landowner Forest within the TAL Program area.

The ER Program says Private Forests exist in the Program area and intends to expand them by 30,141 ha, which is estimated to produce 0.9 MtCO2e ERs under intervention number 3. It includes private forest owners as Potential Beneficiaries, and the NRC proposes a contractual "opt-in" mechanism for participation of private landholders.

This contractual opt-in is likely to be similar to the "Transfer of Green House Gas" contract used by AEPC in biogas projects. It would allow private landholders to register for ER Program forestry incentives in exchange for transfer of carbon rights associated with their land. This opt-in arrangement is included by Ministry of Forests and Environment in the draft amendment to the Forest Regulation of 1995 (pending endorsement by Council of Ministers); and will be included in the Benefit Sharing Plan. It is important that the final text of the contractual arrangement should be implemented (amended on the Forest Act legislation of 2015). Details of the opt-in are discussed below under Ind. 36.2 and 36.3.

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

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

YES

The ERPD contains a thorough description of work to date on a BSP, including: identification of a set of principles; inclusion of both carbon and non-carbon benefits (the latter identified via multi-stakeholder district consultations and included in Table 56, p.186-187 of the ERPD). Apart from carbon payments, the BSP will also include other revenues as identified in the Section 6 of the ERPD and the Annex 1, Summary of the Financial Plan. As stated in the revised ERPD, "the ER Program is not designed to function primarily as a monetary distribution mechanism. Rather, carbon finance will be directed in large part to support government implementation of programs that directly benefit the people and forests of the Terai" (page 5).

The process of delivering benefits will be defined within each intervention. Existing systems for benefit sharing in Nepal are summarized in Table 55 on p. 183, demonstrating significant precedent and experience in sharing revenues. Experience includes Community Forestry under the Forest Act 1993, where specific tax and royalty income shares for forest management, poor people, and investment for community development are identified; a 30-50% income sharing in Protected Areas under NPWC Act 1973; and in the AEPC biogas program.

The legal context of existing practices for and examples of BS is also summarized in Table 55. The reference to carbon benefits and their ownership by the federal government in the 2015 Constitution of Nepal, and its provisions giving legal authority to all levels of states to collect and share forest-based and other natural resource royalties, appear to provide adequate legal foundation for development of BSP on forests in the ERPD. This is in addition to guidelines provided in the 2011 Climate Change Act. The ERPD text p. 181 also refers to a new legal text: "Another framework for distribution of benefits between federal, state and local governments is included in the National Natural Resources and Fiscal Commission Act of 2017. This Act developed criteria for the distribution of revenues and grants related to natural resources management. These legal and policy frameworks will be taken into account in development of final benefit sharing plan in addition to the existing practices under different forest management regimes." There appear to be a number of potentially overlapping legal instruments whose directives may need to be aligned with regard to the BSP.

The ERPD notes the BSP is due prior to the first ER payment, though ideally it should be available at the time of ERPA signature. The National REDD+ Centre intends to issue an advanced draft BSP in 2018.

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 Program. 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 16.1]

The benefit sharing plan has not yet been developed in detail, so it has not yet been made publicly available.

The ERPD text does provide a very detailed discussion of what is likely to be in the eventual Plan though, some of which is summarized under Indicator 29 above. The BSP is not required until "prior to ERPA signature", and Nepal appears to be on a clear path to accomplish that goal.

The text clearly identifies categories of beneficiaries. The Plan will include both carbon and non-carbon benefits (identified via multi-stakeholder district consultations and included in Table 56 p.186-187 ERPD).

The ERPD states "the Program will allocate at least 80% of available funds under the ERPA for field-level ER activities; that is to local communities, Indigenous Peoples, and private forest owners," with 20% used to support policies and measures across national and regional government institutions to facilitate of field-level activities."

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 16.2]

The benefit-sharing plan was not available at the time of the TAP assessment. However, the process for developing the proposed ERPA to date appears to have been quite inclusive, with extensive consultations held at local and district level with indigenous peoples, local communities, forest user groups and women's groups in the ERP area. These consultations covered a range of topics, though none has focused exclusively on the Benefit Sharing Mechanism.

During the REDD+ readiness process, the Government of Nepal commissioned a study on cost-benefit-sharing and institutional arrangements in the TAL. This study identified and assessed key agencies and stakeholders for the implementation of the ER Program in the 12 districts of TAL and analyzed their existing capacity and potential role in the ER Program. It assessed different options of institutional arrangements, and developed a model for the ER Program. This study, however, seems to have focused mainly on institutional arrangements.

"The ERPD development team held two national level workshops in which the initial and draft benefit-sharing process was presented and feedback was received from a wide range of stakeholders including national and district government, CSOs, Indigenous Peoples, local communities, I/NGOs, forest user groups, women's groups, Dalits, private sector, marginalized groups and other experts." (ERPD CH. 15.2)

While a Benefit-Sharing Plan (BSP) for the ER Program has not been completed, many of the elements of the BSP are already in place, in the form of existing rules for benefit sharing that apply to community forests and to areas under collaborative forest management arrangements between the forestry department and local communities, among others (see Table 55 in chapter 15.3 for a full list of existing benefit-sharing mechanisms that will apply in the ERP area).

According to the ERPD, the general rules that will apply to the Benefit Sharing Mechanism are: (i) Pursuant to 2011 Climate Change Policy, out of the total results-based payments under the ER Program, 80% will be dedicated to local level, up to 20% allocated for management costs of the government. (ii) The 80% dedicated fund was to be spent as a capital investment program in Community-Based Forest Management (CBFM) groups. But the final ERPD states the funds will be transferred to District Forest Offices for ER activities with communities. The TAP notes this change, and urges the ERPD team to work to make certain these funds benefit the communities and are in line with the 2011 Climate Policy. (iii) Non-carbon benefits such as timber and medicinal plants will be distributed per the approved management plans of the respective CBFM groups.

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

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

N.A.

Only applicable at the time of verification.

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

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

YES

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

The ER Program doesn't describe a Benefit Sharing Plan in detail at this stage. However, the ERPD specifically expresses that in 2018 the RNC (ER Program Management Entity) will elaborate a Benefit Sharing Plan and will comply with international and national relevant applicable laws:

"According to Article 59(4) of the Constitution the Federation, State and Local level shall provide for the equitable distribution of benefits derived from the use of natural resources or development. Certain portions of such benefits shall be distributed, pursuant to law, in forms of royalty, services or goods to the project affected regions and local communities. The 2015 constitutional provisions have given legal authority to all level of states to collect and share the royalty from natural resources including forest, though the detail legal framework will be developed after election of states and local institutions and establishment of such states at the beginning of 2018." "Therefore, as an ER Program entity, the NRC will develop a Benefit Sharing Plan and Safeguards Plan considering this constitutional provision in the future before signing in ERPA or before receiving any upfront payment from the Carbon Fund for the implementation of the ER Program".

The revised ERPD now does clarify the future procedure to elaborate the Benefit Sharing Plan:

"In addition, to the above principle, the BSM will also support the established modalities for revenue sharing under the CBFM regimes established under the Forest Act (1993), and Forest Regulation (1995). Through this, the existing benefits being generated by CBFM areas will be promoted under the ER Program. As noted under C.29 above, the National Natural Resources and Fiscal Commission Act of 2017 includes legal and policy frameworks that need to be taken into account in development of final benefit sharing plans under forest management regimes.

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

Non-Carbon Benefits (NCBs) are a high priority for the ERPA, and for many of the local-level stakeholders consulted during the REDD+ Readiness and ERP preparation processes.

The aim and anticipated outcomes of the ER Program activities and interventions is to go beyond the minimum requirements of safeguards, which ensures that the program does no harm to livelihoods and biodiversity, by ensuring significant positive non-carbon benefits through enhancement of livelihoods, social norms and rights, generation of environmental benefits, conservation of natural forests and their ecosystem services, and promotion of effective forest governance mechanisms. In addition, the ER Program will improve the resilience of communities through ecosystem-based adaptation.

The potential NCBs for each of 7 major interventions are listed in Table 56 on p. 186-87 in the ERPD. The importance of non-carbon benefits was one argument for the REDD+ IC decoupling program payments from CO2 ER performance, linking them instead to existing cost-sharing arrangements for community forest and collaboratively managed forests.

In addition to extensive work on NCBs in the Terai, NRC is developing a program with the World Bank's Wealth Accounting and Valuing Environmental Services (WAVES) program to strengthen its ability to collect data on natural capital's contributions to the economy, and to use that data to further shape the national REDD+ program. Natural Capital Accounting (NCA) will be used as a tool to capture the value of the market and non-market contributions of forests and their link to the economy, further cementing the importance of NCBs in Nepal's REDD+ programs.

The text and tables refer to the role of Dalits (low-caste groups) and other marginalized peoples for priority Non-Carbon Benefits. But they do not discuss how work on NCB's should be culturally appropriate, nor are gender and intergenerationally inclusive roles identified. Observation: Elaboration of how this would be accomplished prior to ERPA signature would enhance the final ERPD, or be essential once implementation is underway.

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

The potential NCBs that will be generated in the proposed ER Program were identified, scoped and validated through district-level consultations with communities and stakeholders in each ER Program district.

During district consultation workshops, participants were informed about NCBs, including the meaning and categories, and how NCBs can be incentivized alongside the generation of emission reductions during the implementation of the ER Program. The participants were requested to list possible NCBs that could be generated while implementing different ER Program activities proposed by the stakeholders in each district. Annex 5 of the ERPD contains a detailed summary of the findings of these Stakeholder Consultations and workshops on NCBs.

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

ERPD confirms that information on priority Non-Carbon Benefits (NCB) will be integrated in the SIS (still under construction). A performance measurement framework including specific indicators for measuring Non-Carbon Benefits is provided in Table 58 (p. 189-191) of the ERPD.

Table 57 (p. 189-90) of the ERPD provides details of steps to be completed for NCB monitoring, as well as the names of the responsible agencies and the outputs they should provide. At the next stage of ERP development, when the SIS design will have been completed, it would be important to provide additional information on indicators selected and how they will be monitored in practice, including the role of implementing partners. This will be challenging, due to the wide variety of NCBs that have been prioritized in the ERPD, many of which are hard to quantify.

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 18.1]

The ER Program Entity identified as the Ministry of Finance demonstrates its authority to enter an ERPA with the Carbon Fund prior to the start of ERPA negotiations.

The ER Program Entity demonstrates its authority through an existing legal and regulatory framework stipulating such authority: This legal provision is stated on the Government of Nepal (Business Allocation) Regulation 2015: "This Regulation has allocated the rights and responsibilities of each ministry of Nepal and based on these rules, the concerned ministry has authority to approve any plan and program that are relevant to Schedule-2 of the Government of Nepal (Business Allocation) Regulation 2015. Schedule-2 (18.16) of this regulation has given authority to the NRC... in behalf of MoFSC, to... coordinate with and request the Ministry of Finance to sign the ERPA with the FCPF Carbon Fund as per Section 2(11)(13) of the Government of Nepal (Business Allocation) Regulation 2015."

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

YES

The ER Program Entity demonstrates its ability to transfer to the Carbon Fund Title to ERs from the Public Lands Forests as described in section 4.4 and 17.1-2. The ability to transfer Title to ERs is based on the national legal framework in place in the country.

The constitution of Nepal (probably one of the few in the world) includes in Schedule 5 (27) the legal concept of "carbon" as a service-- "Carbon service". The inclusion is directly related with Clause (1) of Article 57, and Article 109 of the Constitution that stipulates and defines the list of powers specifically attributed to the Federal Government.

In accordance with these Articles, the ERPD acknowledges the Federal Government as the exclusive legal entity in Nepal to have the rights in relation to recently introduced legal concept of carbon "service".

The Government of Nepal approved an unbundling report detailing the list of exclusive and concurrent powers of the Federation, the State and the Local Level provisioned in Schedules 5-9 of the Constitution in February 2017. This report elaborated on carbon service related authority of federation and clearly states that the enhancement of carbon stocks, as well as fiscal management of the carbon service authority, will be under the jurisdiction of the federation: "Schedule 5 (27) of the Constitution includes among the Federation powers the: "National and International environment management, national parks, wildlife reserves and wetlands, national forest policies, carbon services". In addition, the second amendment of Forest Act 1993 identified carbon as an environmental service in [section 2(c1) and 67], and in 2 (C1) stated that "Ecosystem Services" mean the following services and benefits derived from ecosystems: "1. Carbon stock, 2. Biodiversity conservation, 3. Hydrological system, 4. Ecotourism, 5. Any other benefit as defined".

The ERPD concludes that in accordance with the existing regulatory framework, carbon rights are a national right, and an immaterial right that should be managed exclusively by the Federal Government on behalf of individuals (including communities, indigenous and private land owners). The ERP identifies Ministry of Forests and Environment (MoFE) as the entity that can develop and approve policies, plans and programs on national forest and associated carbon services such as carbon trade and regulation. The entity in charge of national policies for REDD+ is the NRC (National REDD+ Steering Committee), which approved the ERPD in its formal meeting on April 19, 2018. (A formal letter of approval of the ER Program, and its consideration for inclusion in the FCPF Carbon Fund, is included in Annex 10.) Accordingly, the NRC can approve the ER Program and transfer title to ERs to the Carbon Fund through a formal meeting of the National REDD+ Coordination Committee (NRCC). The National REDD+ Strategy has also given this authority to the NRCC.

The ability to sign the ERPA is assigned to Ministry of Finance, and the ability to manage the ER Program and to define all the policies attached to Program is attributed to the MoFE. This institutional and legal structure, supported by an existing legal and regulatory framework, accomplishes the requisites of the Methodological Framework and meets the criterion.

The ability to transfer Title to ERs on <u>privately owned</u> forest lands in the ERPD Program area (about 5% of ERPD lands) is proposed to be addressed via development of a new contractual "opt-in" mechanism as a prerequisite for participation of private landholders. -The mechanism will specify the obligations for private landholders to develop and implement a sustainable forest management plan that will be mutually agreed between NRC and the private landowner, based on key conditions of REDD+, including measures to ensure permanence and minimize displacement risks. Their incentive and benefit will be reflected in the extension services that they access under the ER Program and the economic benefits that they help to catalyze. Nonregistered private landholders will not be participants in the ER Program activities and therefore will have little basis for legal claim to emission reductions produced under the ER Program. This contractual

[Transfer of Title to ERs 18.2]

opt-in arrangement has already been included by the Ministry of Forests and Environment in the draft amendment to the Forest Regulation of 1995, which is pending endorsement by the Council of Ministers.

The ERPD intends to include the opt-in arrangement as part of the Benefit Sharing Plan, as a sub-arrangement with potential land and resource tenure rights-holders, and/or part of the benefit-sharing arrangements. The ERPD states NRC will develop a Benefit Sharing Plan and Safeguards Plan before signing the ERPA or receiving any upfront payment from the Carbon Fund for the implementation of the ER Program.

Observation: However, some issues persist with the proposed opt-in mechanism (discussed under Indicator 36.3). The TAP strongly recommends that the ERPD agencies work to resolve the opt-in arrangements as soon as feasible, to remove any uncertainties about how that system would work on 5% of ERD lands. These issues are legal and policy concerns not related to ER accounting, so we interpret that FCPF's materiality level guidance for carbon accounting does not apply.

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

YES

The ER Program shows the ability to transfer the Title to ERs to the Carbon Fund (see comments on 36.2.) for about 95% of the lands in ERPD interventions.

Observation: However, the TAP notes that on about 30,000 ha or 5.1% of the ERPD lands, implementation activities are intended to be done in cooperation with the private landowners. The TAP strongly recommends that the ERPD agencies work to resolve the opt-in arrangements as soon as feasible, to remove any uncertainties about how that system would work on 5% of ERD lands.

The "opt-in contractual arrangement" under development is described under Ind.36.2 is essential to mitigate future risks with private landowners. The TAP considers this procedure likely to be in accordance with the Methodological Framework, but the arrangement is still under development. Potential issues are legal and policy concerns not related to ER accounting, so the TAP interprets that FCPF's materiality level guidance for carbon accounting does not apply.

Details: Intervention 3. Expand private sector forestry operations through improved access to extension services and finance on 30,141 ha involves offering incentives and extension services to private landowners to transition nonforestlands into productive forest management. In contrast to government-owned lands, private landholders have encompassing rights described in Section 4.4, including to access, management, alienation, etc., and the established authority of the federal government over carbon rights does not clearly apply. For this reason, and to minimize the risk of conflict over carbon rights as they relate to ER Program activities associated with private lands, the ERPD suggests that the NRC will establish a contractual "opt-in" mechanism, also described in 36.2. Nonregistered private landholders will not be participants in the ER Program activities and therefore will have little basis for legal claim to emission reductions produced under the ER Program.

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

The criteria is met. The ER Program host country has decided to maintain its own comprehensive national REDD+ Program and Projects Database Management System to be managed by NRC:

"The National REDD+ Strategy indicates that a central-level, independent carbon registry, which will work as a repository for REDD+-related information (e.g., information on the location, ownership, carbon accounting, financial flows for subnational and national REDD+ programs and projects) will be established and maintained within the NRC. "

The registry (i.e., a platform for database management) will enforce standards and engage in carbon transactions by maintaining broad-based participation of stakeholders in the management of the registry. Projects at the national and sub-national level will register their performance at the registry, on the parameters listed under Ind. 37.2 below.

By establishing an independent carbon registry system, the country intends to maintain its position as national registry's authority. During the initial period of implementation of the ER Program, while Nepal's national registry is being established, the NRC intends to rely on the centralized ER transaction registry provided by the World Bank; and to crosswalk actions with Gold Standard and CDM registries relevant to other projects in the ER Program Area.

The TAP considers the indicator met (though ultimately it will depend on the future negotiation between the country and the future administrator of the centralized ER transaction registry provided by the World Bank).

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

The ER Program defines that a national REDD+ Programs and Projects Data Management System will provide the attributes of ER Programs, including: 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. The text and a graphic elaborate how it will be designed, the timeframe for constructing it, and its general principles.

The ERPD also states that REDD+ program/project database will support the registering of and reporting on REDD+ projects/programs on the following parameters (FCPF 2013):

- i) Managing official approvals and compiling/distributing information on location of project/program proponents;
- ii) Collecting/distributing geo-referenced information on the location of REDD+ projects/programs;
- iii) Collecting/distributing information on reference levels (RL/REL) at different scales;
- iv) Collecting and distributing on MRV data to specific REDD+ projects/programs;
- v) Collecting/distributing information on how safeguards are addressed and respected in specific REDD+ projects or programs;
- vi) Collecting/distributing information on CF payments and benefit sharing for specific REDD+ projects/programs.

The criteria 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).

NO

The System is still in development, and so the data it will eventually contain is not yet available to the public via the internet in the national official language.

Nepal intends during the initial period of implementation of the ER Program (while Nepal's national registry is being established) to rely on the centralized ER transaction registry provided by the World Bank.

The TAP considers this as a minor non-conformity that could be addressed by the country in a near future depending on the future negotiations between the country and the future administrator of the centralized ER transaction registry provided by the World Bank. It will also depend moment on the ability of the country to develop, implement and make available to the public via the internet the information on the national official language and in a way that address the risks of double counting.

The criteria is not yet met, but the country is progressing and has taken important decisions to implement the actions needed to make publicly available in the near future the information contained in the national or centralized REDD+ Programs and Projects Data Management System.

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

NO

The Data Management System is not yet operational, and its administrative procedures not yet fully fleshed out.

However, the ER Program describes some administrative procedures the country intends to define for the operations of a national or centralized REDD+ Programs and Projects Data Management System. But the text doesn't address the main requisites yet and doesn't clarify if an audit of the operations would be carried out by an independent third party periodically, or this would occur via an agreement with the Carbon Fund.

The TAP considers this as a minor non-conformity that could be addressed by the country in the near future, by describing the necessary procedures to include the audit of the operations to be carried out by an independent third party periodically, as agreed with the Carbon Fund.

The criteria is not met, but the country is progressing and has taken important decisions to implement the actions needed to prepare in the near future the necessary administrative procedures.

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

The ER Program host country decided initially to use a centralized ER transaction registry, managed by a third party on its behalf, World Bank, and eventually to have a registry by the host country. The criterion 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.

The ERPD notes (pp 260-263) that the ER transaction registry will organize the process of creating (issuing) offsets units with unique serial numbers and supporting the transfer of ERs between account holders with the registry and to other linked trading registries. The use of the ER transaction registry refers (FCPF 2013) to the system that supports: i) The serialization of ERs that have been issued under a recognized standard or framework; ii) Account holders' systems to manage positions and settlements for ER transaction; iii) Accounting for non-permanence risk

management (buffer reserves); iv) Reporting; v) The linking to other ER transaction registries, e.g., i) a trading platform and ii) a GHG reporting tool will be implemented.

To meet these criteria and to avoid double counting, the registry system's structure will:

- Maintain environmental integrity as well as track domestic leakage and double counting;
- Promote transparency of reference scenarios;
- Ensure efficiency through establishing a financially and operationally efficient management system;
- Be able to handle both carbon and non-carbon requirements of REDD+;
- Include well-defined linkages with NFIS.

The carbon registry system will have the following qualities:

- A simple web-based, user-friendly and affordable registry system that is automated and can be updated as
 Nepal progresses with the REDD+ implementation;
- Clearly defined methodology with simple and easy process;
- Capable of effectively tracking double counting and leakage;
- Maintaining access to different stakeholder as per the policy of the Government of Nepal;
- Be able to track and respect safeguards compliance and co-benefits.

The ERPD lays out future steps to implement such a registry in Nepal in Table 59:

Table 59: Proposed timeframe to develop carbon registry system in Nepal

Date	Process step	Lead	Contributing
July to August 2018	 TOR prepared for assessing and recommending carbon registry mechanisms for Nepal. 	NRC/DFRS	DFRS
August 2018 to November 2018	 Study completed to assess and recommend carbon registry mechanisms for Nepal. 	NRC/DFRS	MoFE, WWF, ICIMOD, AEPC
December 2018	 Internal discussion of carbon registry options including with the Designated National Authority. External discussions with recommended carbon registries. Assessment of options for carbon registry. 	NRC/DFRS	MoFE, WWF, ICIMOD, IPs and LCs, AEPC
By April 2019	Decision on the choice of the carbon registry.	NRC/DFRC MoFE	MoFE

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

N.A.

An independent audit report certifying that the national or centralized ER transaction registry performs required functions cannot yet be made public, since the registry does not yet exist.

The ERPD doesn't clarify if an independent audit report certifying that the national or centralized ER transaction registry performs required functions will be performed eventually, and if it will be made public.

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.

The registry does not yet exist. The ERPD doesn't describe in detail the operational guidance or an advanced stage of preparation, that clarifies the roles and responsibilities of entities involved in the national or centralized ER transaction registry, nor rules for operation of the registry. The ERPD does offer an initial structural design of the future proposed Data Management and Carbon Registry System for Nepal in Figure 19:

Carbon Registry System WebGIS Interface Authentication and Authorization Departments Map functions DoF Data entry Reporting Other users Data Reporting Admin(s) Data Carbon Back-up registry NFD-NFIS server database

Figure 19: Proposed Data Management and Carbon Registry System for Nepal:

Annex 1 to the TAP technical assessment

TAP Review Visit to Kathmandu, Sept. 17-22, Meetings

Sunday, September 17, 2017

10 am - 12 noon: Meeting with NRC people and the ERPD team

Participants:

- 1. Sindhu Dhungana Joint Secretary, Chief, REDD IC
- 2. Mohan Paudel Under Secretary, REDD IC
- 3. Mohan Biswakarma Under Secretary, REDD IC
- 4. Srijana Shrestha Assistant Forest Officer, REDD IC
- 5. Hari Pandey Assistant Forest Officer, REDD IC
- 6. Santosh Nepal ERPD team leader, WWF Nepal
- 7. Ugan Manandhar ERPD team, WWF Nepal
- 8. Ananta Bhandari Forest Lead, WWF Nepal
- 9. Dil Raj Khanal Lawyer, ERPD team
- 10. Dorna Ghimere World Bank, Country Office
- 11. Rajesh Koirala World Bank
- 12. TAP Team: Ken Andrasko, Fred Stolle, Yadav Prasad Kandel

1.20 pm – 2.0 pm: Meeting with Department of Forest Research and Survey (DFRS) Participants:

- 1. Mr Yam Pokharel DDG, DFRS
- 2. Meg Nath Kafley DDG, DFRS
- 3. Sindhu Dhungana Chief, REDD IC
- 4. Raja Ram Arval DFRS
- 5. Ananda Khadka DFRS
- 6. Ananta Bhandari Forest Lead, WWF Nepal
- 7. Ugan Manandhar ERPD team, WWF Nepal
- 8. TAP Team: Ken, Fred, Ludovino Lopes, Yadav

2.0 pm – 4.30 pm: Meeting with the ERPD team including Lawyer Participants:

- 1. Sindhu Dhungana Chief REDD IC
- 2. Srijana Shrestha REDD IC
- 3. Dil Raj Khanal Lawyer, ERPD Team
- 4. Ananta Bhandari Forest lead, WWF Nepal
- 5. TAP Team: Ken, Fred, Ludovino, Yadav

Monday, September 18, 2017

8.0 – 9.0 am: Meeting with Lawyer (ERPD team) at Hotel

Participants:

- 1. Dil Raj Khanal Lawyer ERPD team
- 2. Rajesh Koirala World Bank
- 3. Ludovino TAP team
- 4. Yadav Kandel TAP team

10 am – 12 noon: Meeting with IPs and CSOs – Training Cente, Babarmahal Participants:

1. Pasang Sherpa - CIPRED - pasangtu2010@gmail.com

- 2. Bina Shrestha COFSUN, Nepal binabhojpur@yahoo.com
- 3. Aman Dangaura COFSUN, Nepal aman330@gmail.com
- 4. Rama Ale Magar HIMAWANTI, Nepal nhimawanti@gmail.com
- 5. Ganesh BK RDN Nepal ganeshbikal@gmail.com
- 6. Sunil K Pariyar DANAR Nepal sunildanar@yahoo.com
- 7. Tunga Bhadra Rai NEFIN tungarai@hotmail.com
- 8. Shanti Dewan NIWF junitadewan123@gmail.com
- 9. Anukram Adhikary ForestAction, Nepal anukram@forestaction.org
- 10. Bhola Bhattaria NAFAN nafannepal8@gmail.com
- 11. Jai Prakash Pandey ACOFUN acofun_2006@yahoo.com
- 12. Shambhu Prasad Dangal RECOFTC shambhu.dangal@recoftc.org
- 13. Ganesh Bahadur Karki FECOFUN karkign@gmail.com
- 14. TAP Team: Ken, Fred, Ludivino, Yadav

1.0 pm- 2.0 pm: Meeting with Ministry of Law Participants:

- 1. Toya Nath Adhikari Joint Secretary- Ministry of Law and Justice
- 2. Sindhu Dhungana REDD IC Chief
- 3. Srijana Shrestha REDD IC
- 3. Dil Raj Khanal Lawyer, ERPD Team
- 4. TAP Team: Ken, Fred, Ludovino, Yadav

2.30 – 4.30 Pm: Meeting with ERPD team (Carbon Accounting) Participants:

- 1. Yam Phokheral DDG, DFRS
- 2. Sindh Dhungana REDD IC, joined in the second half
- 3. Mohan Paude REDD IC
- 4. Basanta Gautam Arbonaut
- 5. Ananta Bhandari WWF Nepal
- 6.Ugan Manandhar WWF Nepal
- 7. Srijana Shrestha REDD IC
- 8. Rajesh Koirala World Bank
- 9. Santosh Nepal WWF Nepal, joined in the second half
- 10. TAP Team: Ken, Fred, Ludovino, Yadav

5.30 pm – 7.0 pm: VC Meeting with Simon on Safeguards (World Bank Office) Participants:

- 1. Mohan Paudel Under Secretary, REDD IC
- 2. Dorna Ghimire World Bank, country office
- 3. Rajesh Koirala World Bank
- 4. Ms Anu Rajbhandari World Bank
- 5. Dil Raj Khanal Lawyer ERPD team
- 6. Tunga Rai NEFIN
- 7. Simon Rietbergen Safeguard Specialist TAP team (Joined from Sudan)
- 8. Kennan W. Rapp Sr. Social Development Specialist– World Bank, Delhi (joined From Bangkok)
- 9. TAP Team Ludovino, Yadav

Tuesday, September 19, 2017

11.0 am - 12.0 noon: Meeting with the ICIMOD

Participants:

- 1. Eklabya Sharma, Deputy Director General, ICIMOD
- 2. Bhaskar Singh Karky, Resource Economist, ICIMOD
- 3. Mir Abdul Matin, Senior Geospatial Applications Specialist, ICIMOD
- 3. Birendra Bajracharya Regional Manager, Mountain Environment Regional Information System (MENRIS), ICIMOD
- 4. Sindhu Dhungana Chief REDD IC
- 5. Rajesh Koirala The World Bank
- 7. TAP Team: Ken, Fred, Ludovino, Yadav

2.0 pm – 3.30 pm: Meeting with the Private sector representative Participants

- 1. Shyam Sundar Dhakal President, Federation of Forest Based Industry and Trade (FENFIT), Nepal
- 2. Kapil Prasad Adhikari Immediate Past President, (FENFIT)
- 3. Jagat Narayan Maharjam Member, FENFIT
- 4. Bhupendra Prasad chaulagain Member, FENFIT
- 5. Arun Sharma Poudyal Technical Advisor, FENFIT
- 6. Bishnu Kumar Joshi Association of Private Forest Owners
- 7. TAP Team: Ken, Fred, Ludovino, Yadav

3.30 pm – 5.0 pm: Meeting with REDD IC and ERPD Team Participants:

- 1. Sindhu Dhungana, Chief REDD IC
- 2. Santosh Nepal- ERPD team, WWF Nepal
- 3. Ananta Bhandari Forest Lead, WWF Nepal
- 4. Rajesh Koirala World Bank,
- 5. TAP team: Ken, Fred, Ludovino, Yadav

Wednesday, September 20, 2017

10.30 am- 11.30 am: Meeting with Ministry of Population and Environment Participants:

- 1. Ram Prasad Lamsal Joint Secretary
- 2. Sindhu Dhungana (Left after briefing about the REDD Process)
- 3. TAP Team: Ken, Fred, Ludovino, Yadav

11.45 am – 12.45 pm: Meeting with the Director General – Department of Forest

Participants:

- 1. Mr Krishna Acharya DG, Department of Forests
- 2. Sindhu Dhungana REDD IC
- 3. Prakash Lamsal Under Secretary, Department of Forests
- 4. Rajesh Koirala World Bank
- 5. TAP Team: Ken, Fred, Ludovino, Yadav

2.0 pm – 3.0 pm: Meeting with Ministry of Finance

Participants:

- 1. Baikuntha Aryal Joint Secretary, International Economic Cooperation Coordination Division, Ministry of Finance
- 2. Surya Pokharel Under Secretary, Ministry of Finance
- 3. Sindhu Dhungana REDD IC
- 4. Srijaja Shrestha Assistant Forest Officer, REDD IC
- 5. Rajesh Koirala World Bank
- 6. TAP Team: Ken, Fred, Ludovino, Yadav

3.15 pm – 4.0 pm: Meeting with Ministry of Agriculture Development Participants:

- 1. Suresh Babu Tiwari Joint Secretary,
- 2. Parsuram Adhikari Under Secretary, Ministry of Agriculture Development
- 3. TAP Team: Ken, Fred, Ludovino, Yadav

4.15 pm – 5.0 pm: Meeting with Ministry of Local Development Participants:

- 1. Guru Subedi Under Secretary, Ministry of Local Development
- 2. Ramila Bhandari Ministry of Local Development
- 3. Ek Rau Sigdel Environmental Specialist, Ministry of Local Development
- 4. Sindhu Dhungana REDD IC
- 5. TAP Team: Ken, Fred, Ludovino, Yadav

Thursday, September 21, 2017 - (Public Holiday – 1st day of the Dashain Festival)

TAP Team worked on TAP draft assessment report.

Friday, September 22, 2017

8.0 am – 9.0 am: Meetinh with Resham Dangi – Former REDD Cell Chief Participants:

- 1. Resham Dangi Former REDD Cell Chief
- 2. TAP Team: Ken, Fred, Ludovino, Yadav

9.30 am – 10.30 am: Meeting with the World Bank Country Office Participants:

- 1. Rajib Upadhya South Asia External Affairs, World Bank Country Office
- 2. Dorna Ghimire Senior Environmental specialist, World Bank, Country Office
- 3.TAP Team: Ken, Fred, Ludovino, Yadav

11.30 am- 12.30 pm: Meeting with President Chure Terai Madesh Conservation Board (Chure Board) Participants:

- 1. Hem Lal Aryal Member Secretary, (Chure Board)
- 2. TAP Team: Ken, Fred, Ludovino, Yadav

2.0 Pm – 3.0 pm: Meeting with the secretary, Ministry of Forests and Soil Conservation Participants:

- 1. Mr Prakash Mathema Secretary, Ministry of Forests and Soil Conservation
- 2. Mr Maheshwor Dhakal chief, Biodiversity and Environment Division
- 3. Mr Chandra Man Dangol Chief, Forest Enterprise and Management Division
- 4. Sindhu Dhungana REDD IC chief
- 5. Rajesh Koirala The World Bank
- 5. TAP Team: Ken, Fred, Ludovino, Yadav

3.30 pm – 5.30 pm: Wrap-up meeting with REDD IC and the ERPD team Participants:

- 1. Sindhu Dhungana REDD IC chief
- 2. Santosh Nepal ERPD Team, WWF Nepal
- 3. Ananta Bhandari Forest Lead, WWF Nepal
- 4. Ugan Manandhar ERPD Team WWF Nepal

- 5. Rajesh Koirala The World Bank
- 6. TAP Team: Ken, Fred, Ludovino, Yadav