




**Validation report form for post-registration changes for  
CDM project activities  
(Version 02.0)**

*Complete this form in accordance with the instructions attached at the end of this form.*

**BASIC INFORMATION**

<b>Title and UNFCCC reference number of the project activity</b>	Reforestation of grazing Lands in Santo Domingo, Argentina Number: 4127
<b>Process track</b>	<input type="checkbox"/> Prior approval <input checked="" type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
<b>Version number of the validation report on PRCs</b>	1
<b>Completion date of the validation report on PRCs</b>	22/03/2019
<b>Type(s) of PRCs</b>	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines <input type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan <input type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools <input type="checkbox"/> Changes to the project design <input checked="" type="checkbox"/> Changes specific to afforestation and reforestation project activities
<b>Version number of PDD to which this report applies</b>	Not applicable for A/R CDM project activities
<b>Project participants</b>	Novartis Pharma AG Novartis Argentina S.A.
<b>Host Party</b>	Argentina
<b>Applied methodologies and standardized baselines</b>	AR-AM0005, version 03
<b>Mandatory sectoral scopes linked to the applied methodology</b>	Scope 14 (Afforestation and reforestation)
<b>Conditional sectoral scopes linked to the applied methodologies</b>	Not applicable
<b>Name and UNFCCC reference number of</b>	AENOR INTERNACIONAL S.A.U

the DOE	Reference number: E-0021
Name, position and signature of the approver of the validation report on PRCs	 Jose Magro Environmental Manager

## SECTION A. Executive summary

AENOR INTERNACIONAL S.A.U (AENOR) has performed the validation of the Post Registration Changes of the project “Reforestation of grazing Lands in Santo Domingo, Argentina” (Registration Ref. N° 4127).

The project activity “Reforestation of grazing Lands in Santo Domingo, Argentina” is a reforestation project using native and exotic species which aims at credible carbon sequestration and generating high value forestry products. The project activity fosters application of native species in forestry plantations in northern Argentina and hence contributes to environmental and social benefits in the region.

The project activity has a project area of 2,292 ha which has been planted completely and it is located at Santo Domingo, Ituzaingó Department, Province of Corrientes, Argentina.

The planting of trees started in June 2007 and ended in 2009. In certain sections of the plantation area, enrichment plantings were conducted between 2009 and 2012. The main species planted on the project area are the native species *Peltophorum dubium* and *Tabebuia* and the exotic species *Grevillea robusta*, *Pinus elliottii* and *Pinus taeda*.

The scope of the present validation report is to address the post registration changes addressed by PPs and assess their validity.

As per the mail communication to the DOE from UNFCCC a revised PDD is not required to be submitted for the changes related to A/R CDM projects.

AENOR validated that proposed changes comply with the relevant requirements of the CDM PS version 02.0. The project participant has identified and documented any actual or proposed change to the operation, implementation and/or monitoring of the registered CDM project activity.

AENOR, as it is demonstrated below has verified through evidence provided and cross-checks with registered information that the proposed changes are in compliance with the requirements in the CDM PS version 02.0, VVS 02.0, applicable methodology and associated tools and guidelines.

The project participant has selected the option b), i.e, the PRC is carried out under the issuance track.

On the other hand, during the first monitoring event a correction was requested to correct geographical coordinates. The correction was approved by the Board on 09/12/2013 (PRC-4127-001). Likewise, the following changes were accepted by the Board in the first monitoring report (monitoring period 02/05/2007-15/10/2012): Changes related to species composition, changes in stocking density, changes in the stratification for sampling, Changes in number of sample plots and their allocation to strata, Changes in parameters, equations, or methods used in tree biomass estimation, Changes in methods of estimation of changes in any carbon pool.

They did not require prior approval by the Board, according to the “Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents” (Version 02.0), and the PDD did not need to be adapted. The first Monitoring Report was accepted by the Executive Board on 09/12/2013 through the request of issuance process of the first monitoring period (monitoring report, version 04 of 18/09/2013 and verification report n° 2013-5088 dated on 19/09/2013 v.2).

## SECTION B. Validation team, technical reviewer and approver

### B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Validation findings
1.	Team Leader, validator and	IR	Fuentes	Jose Luis	AENOR	yes	yes	yes	Yes

	technical expert								
2.	Validator	IR	Llorente	Elena	AENOR	yes	yes	yes	yes
3.	Validator	IR	Arribas	Javier	AENOR	yes			Yes

## B.2. Technical reviewer and approver of the validation report on PRCs

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Pellitero	Marcelino	AENOR
2.	Technical expert	IR	Torres	Asier	AENOR
3.	Approver	IR	Magro	Jose	AENOR

## SECTION C. Means of validation

### C.1. Desk/document review

The assessment of post registration changes consisted of the following steps:

- Appointment of team members and technical reviewers
- A desk review of the registered and revised PDD/1/ submitted by the client and additional supporting documents
- On-Site assessment (if required)
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Resolution of corrective actions (CARs / CLs) (if any)
- Final reporting
- Technical review
- Final approval.

A complete list of all documents reviewed is attached in Appendix 3 of this report.

### C.2. On-site inspection

Duration of on-site inspection: 04/12/2018 to 05/12/2018				
No.	Activity performed on-site	Site location	Date	Team member
1.	Review of calculations and additional documents. Reproduction of monitoring activities. Counting of trees, DBH, height.. Checking of GPS, forest inventories and techniques. Assessment of report from UNLP.	Farm: Santo Domingo	04/12/2018 05/12/2018	Jose Luis Fuentes/Elena Llorente Pérez

### C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Benítez	Sebastián	GMF Latinoamericana SA	04 and 05/12/2018	A cross check between information provided in the monitoring report and calculations with CDM requirements.	Jose Luis Fuentes/Elena Llorente Pérez
2.	Bieri	Luzia	First Climate	04 and 05/12/2018	A cross check between information provided in the	Jose Luis Fuentes/Elena Llorente Pérez

					monitoring report and calculations with CDM requirements.	
3.	Lehni	Markus	Novartis Pharma	4 and 5 December 2018	Status of project implementation	Jose Luis Fuentes/Elena Llorente Pérez
4.	Cellini	Juan Manuel	Universidad Nacional La Plata	4 and 5 December 2018	Monitoring of forest, equations and Sampling plots	Jose Luis Fuentes/Elena Llorente Pérez
5.	Russo	Federico	Universidad Nacional La Plata	4 and 5 December 2018	Monitoring of forest and Sampling plots	Jose Luis Fuentes/Elena Llorente Pérez

#### C.4. Sampling approach

Appendix 3 states the main documents checked during the validation of the PRC.

AENOR paid close attention to the review of the final version of the monitoring report for the present verification event, the calculation of the net anthropogenic GHG removals, the forest inventory raw data, the implementation of the Standard Operating Procedures (SOP) for carrying out the forest inventory, the registered PDD, the validation report, the applicable approved methodology AR-AM0005 version 03 and the tools AR-TOOL14, AR-TOOL17 and AR-TOOL 18.

AENOR also assessed other documentation related to the project design, the forest establishment and the forest management such as technical report from UNLP. AENOR verified a complete GIS package in order to confirm the project implementation and project boundary.

During the desk review, AENOR verified all parameters in section D of the monitoring report and reproduced all calculations of the spreadsheet calculation. AENOR verified equations and values fixed ex ante. Likewise, AENOR verified the correctness of equations defined in the sheet "Def" of the spreadsheet calculation for the exotic species (*Grevillea robusta*, *Pino elliottii*, *Pino Híbrido*, *Pino taeda*) and native species and for the above ground biomass and below ground biomass pools and their correct application in calculations in sheet "tree biomass" of the spreadsheet calculations.

Regarding data collected during the forest inventory and applied in calculations for this verification event, AENOR performed a consistency check in order to verify the consistency of the previous measurement and the re-measurement of data collected during the inventories in the visited plots to verify the correctness of the reported stand growth.

Moreover, AENOR verified that the operational and data collection procedures were implemented in accordance with the monitoring plan of the registered PDD and verified the information flows for generating, aggregating and reporting the monitoring parameters. Furthermore, the monitoring equipment was checked in order to confirm that the monitoring practices followed the requirements of the registered PDD and the applicable methodology. Quality assurance and quality control procedures have been applied in accordance with the registered monitoring plan.

Regarding the sampling approaches during the on-site visit, the verification team followed the Forest Stewardship Council standard on sampling which determines the number of plots to be verified considering the formula  $x = 0.8 * (y)^{1/2}$

Where:

$x$ =sample size for verification

$y$ = total no. of sample plots of the project

By applying the above formula the sample size for the site visit is:  $9 = 0.8 * (116)^{1/2}$ .

A sample of 11 plots was finally selected by AENOR. 11 sample plots have been selected during the site visit. AENOR selected more plots covering more relevant strata and species. In the field, re-measurements were undertaken. The verification team observed the field team in measuring DBH and the use of GPS. Further, tree species determination was checked. The measurements were all within an acceptable margin considering human error. The verification team can conclude that measurements followed best forest practice.

### C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form			
Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines			
Corrections			
Changes to the start date of the crediting period			
Inclusion of a monitoring plan			
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools			
Changes to the project design			
Changes specific to afforestation and reforestation project activities			
Others (please specify)			
<b>Total</b>	0	0	0

## SECTION D. Validation findings

### D.1. Compliance with PDD form

<b>Means of validation</b>	As per the mail communication to the DOE from UNFCCC a revised PDD is not required to be submitted for the changes related to A/R CDM projects
<b>Findings</b>	
<b>Conclusion</b>	Updated PDD not required for A/R CDM projects

### D.2. Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines

<b>Means of validation</b>	N/A
<b>Findings</b>	N/A
<b>Conclusion</b>	N/A

### D.3. Corrections

<b>Means of validation</b>	N/A
<b>Findings</b>	N/A
<b>Conclusion</b>	N/A

### D.4. Changes to the start date of the crediting period

<b>Means of validation</b>	N/A
<b>Findings</b>	N/A
<b>Conclusion</b>	N/A

### D.5. Inclusion of a monitoring plan

<b>Means of validation</b>	N/A
<b>Findings</b>	N/A
<b>Conclusion</b>	N/A

### D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools

<b>Means of validation</b>	N/A
<b>Findings</b>	N/A
<b>Conclusion</b>	N/A

### D.7. Changes to the project design

<b>Means of validation</b>	N/A
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Findings	N/A
Conclusion	N/A

### D.8. Changes specific to afforestation and reforestation project activities

Means of validation	<p>Change nº 1.</p> <p>The change is related to the method of estimation of changes in any carbon pool. The PP used the AR-TOOL 14 version 04.2 instead of the methodology AR-AM0005 “Afforestation and reforestation project activities implemented for industrial and/or commercial uses” (Version 03).</p> <p>This type of change is identified as specific for A/R project activities according to the “Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design document” version 02.0. (EB 66 annex 24). The change refers to item t) of the guideline. The change is accepted since the method applied at verification uses the latest version of the relevant approved tool and the applicability conditions of the methodology applied are consistent with the applicability conditions of the tool, as AENOR has verified.</p> <p>Calculations are conservative since Biomass Expansion Factor value applied from the tool (1.15) is lower than values used in the first monitoring period taken from IPCC.</p> <p>AENOR verified that section E.2 of the M.R was updated along with spreadsheet calculations to gather the equations from the applicable tool, AR-TOOL 14.</p> <p>In this regard, changes in carbon stock in trees between two points of time is estimated by using option a) Difference of two independent stock estimations. Under this method the change and associated uncertainty is calculated according to equations 1 and 2 of the tool.</p> $\Delta C_{TREE} = C_{TREE,t_2} - C_{TREE,t_1}$ $u_{\Delta C} = \frac{\sqrt{(u_1 \times C_{TREE,t_1})^2 + (u_2 \times C_{TREE,t_2})^2}}{ \Delta C_{TREE} }$ <p>AENOR verified that equations are correctly applied and uncertainty is lower than 10% as required by the tool.</p> <p>Likewise, the PPs used to estimate carbon stocks in trees at a point of time the option a) “estimation by measurements of sample plots with stratified random sampling” and using the method of the appendix 1 in the tool: Measurement of fixed area plots. In this regard, AENOR during the site visit verified a sample of fixed area plots used to estimate carbon stocks and reproduced the monitoring activities with monitoring crews.</p> <p>AENOR verified that mean tree biomass per hectare in a stratum is estimated according to equation 16 of the tool which is consistent with information in the M.R and calculations. Moreover, the change in carbon stocks per year was determined according to chapter 7 of the tool AR-TOOL14 as per equation 11.</p> <p>In addition to the calculations, the M.R and other supporting documents, AENOR held interviews with the consultants and PPs to corroborate the information. The steps of the tool are correctly followed.</p> <p>Hence, AENOR confirms that information is consistent and complete in the monitoring report and spreadsheet calculations.</p> <p>Change nº 2.</p> <p>This second change refers to changes in parameters, equations, or methods used in tree biomass estimation. This change is addressed in the “Guidelines on accounting of specified types of changes in A/R CDM project activities from the</p>
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description in registered project design documents" (Version 02.0)", bullet p).

For the ex-post calculation of actual net GHG removals by sinks, species-specific equations were applied, which use the diameter at breast height (DBH) and in certain cases the total tree height as variables.

The table below states the old formula applied in the first verification event and the new formulas for this monitoring event.

Specie name	Old Formula	New allometric equations
<i>Peltophorum dubium</i>	$V_{cc} = 0.0000314497 \cdot DAP^{1.71029} \cdot HT^{1.47905}$	$1.04189 + 0.0183397 \cdot DBH^3 \cdot 0.03753$
<i>Tabebuia</i>	$V_{cc} = 0.000125457 \cdot DAP^{1.44807} \cdot HT^{1.11701}$	$0.186504 \cdot DBH^2 \cdot 2.25654$
<i>Grevillea robusta</i>	$V_{cc} = 0.000186887 \cdot DAP^{1.63238} \cdot HT^{0.697754}$  $\ln(V_{cc}) = -8.03857 + 1.62345 \cdot \ln(dap) + 0.040050 \cdot (\ln(dap))^2 - 0.138165 \cdot \ln(h) + 0.221404 \cdot (\ln(h))^2$	$0.0985654 \cdot DBH^2 \cdot 3.3102$
<i>Pinus elliottii</i>	$V_{cc} = 0.000132256 \cdot DAP^{1.79756} \cdot HT^{0.721076}$  $\ln(V_{cc}) = (-12.7392 + 4.49971 \cdot \ln(dap) - 0.39361 \cdot (\ln(dap))^2 + 0.18591 \cdot (\ln(h))^2) \cdot 1.00346749$	$0.131941 \cdot DBH^2 \cdot 2.20467$
<i>Pinus elliottii</i> x <i>Pinus caribaea</i> var. <i>hondurensis</i>	$V_{cc} = 0.000178228 \cdot DAP^{1.88131} \cdot HT^{0.446681}$  $V(t) = 0.0478 \cdot d^{1.7203} \cdot h^{1.2434}$	$0.14077 \cdot DBH^2 \cdot 2.13852$
<i>Pinus taeda</i>	$V_{cc} = 0.000161896 \cdot DAP^{1.85831} \cdot HT^{0.518328}$  $\ln(V_{cc}) = (-9.52543 + 2.42573 \cdot \ln(dap) - 0.07546 \cdot (\ln(dap))^2 + 0.19513 \cdot (\ln(h))^2) \cdot 1.00364003$	$0.104957 \cdot DBH^2 \cdot 2.25195$
		New volume equations
<i>Peltophorum dubium</i>		$0.0000775892 \cdot DBH^3 \cdot HT^{0.945042}$
<i>Tabebuia</i>		$0.0000662026 \cdot DBH^3 \cdot HT^{1.66493}$

These new equations were created by National University of La Plata (UNLP) based on measurements. AENOR verified that they are in compliance with the following tools: AR-TOOL17 "Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities" and AR-TOOL18 "Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities", then, change is acceptable by AENOR.

According to the above tools "a species-specific....equation derived from trees growing in edapho-climatic conditions similar to those in the project area is considered appropriate, and hence can be used for ex post estimation of tree biomass, if at least one of the following conditions is satisfied: (a) The equation is used in the national forest inventory, or the national GHG inventory, of the host Party; (b) The equation has been used in commercial forestry sector of the host Party for ten years or more; (c) The equation was derived from a data set of at least 30 sample trees, and the value of coefficient of determination (R<sup>2</sup>) obtained was not less than 0.85". AENOR verified that equations were based on a data set of at least 30 sample trees and the coefficient of determination is in all cases >0.85 as required by the tools. Therefore, AENOR can conclude that this change does not result in a decrease in precision of the estimate of tree biomass as accepted by the 'Guidelines on accounting of specified types of changes in AR CDM project activities from the description in registered PDD' (version 02.0).



	<p>Both allometric and volume equations were developed by the National University of La Plata. For allometric equation the above-ground biomass (kg d.m.) is determined as a function of the tree's diameter at breast height (DBH in cm). For the volume equations of <i>Peltophorum dubium</i> and <i>Tabebuia</i>, the stem volume (m<sup>3</sup>) is determined as a function of the tree's diameter at breast height (DBH in cm) and the total tree height (HT in m).</p> <p>AENOR checked during site visit with UNLP's technicians the validity of equations and the compliance with above tools and found them consistent and reliable. The UNLP developed a technical report that was provided to AENOR. The report shows the data sources used for the definition of equations and how they were determined.</p> <p>Since no species-specific volume or allometric equations could be found for native species others than <i>Peltophorum dubium</i> and <i>Tabebuia</i>, the volume equations of <i>Peltophorum dubium</i> and <i>Tabebuia</i> were applied to those species and the lower of the two values was used for the calculation of the tree biomass. The allometric equations are used for the main species. AENOR verified reproducing the calculation that lower values were considered.</p> <p>Change nº 3</p> <p>This third change refers to changes in stratification for sampling which is also addressed in the "Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents" (Version 02.0)".</p> <p>The stratification is adapted ex post prior to each monitoring event according to the applied A/R baseline methodology, if needed. For the monitoring event 2018, the stratification was adapted in order to consider the thinning activities. 35 cases were created considering the plantation year, soil characteristics as well as the tree density of <i>Pinus</i>, <i>Grevillea robusta</i> and native species. These cases were grouped into 13 strata compared to the 13 cases and six strata of the first monitoring event.</p> <p>AENOR verified that change in the stratification is considered in bullet k) of the Guidelines on accounting of specified types of changes in A/R CDM projects activities from the description in registered project design documents v 02.0 (Annex 24 EB 66). AENOR checked, during the site visit, a sample of plots in different strata to corroborate the new stratification considering the above criteria. This approach was also confirmed with the interviews of field monitoring crews and the desk review of the calculations and supporting documents such as the forestry inventory database gathering during the monitoring activities of the PP and the re-measurements carried out during the AENOR site inspection. Based on these cross-checks, AENOR confirms that description of changes in the stratification of the project accurately reflects the implementation, operation and monitoring of the project activity.</p> <p>Change nº4.</p> <p>The fourth change refers to a change in number of sample plots and their allocation to strata. This change is addressed bullet m) of "Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents" (Version 02.0)".</p> <p>For the second monitoring period the number of plots is also 116 as the first monitoring period however they are allocated in the present monitoring period for 13 strata. This allocation of plots is more realistic to the current implementation, operation and monitoring of the project, then, acceptable.</p>
<b>Findings</b>	No findings were detected
<b>Conclusion</b>	<p>All changes (specific to afforestation and reforestation project activities) are in accordance with applicable validation requirements in the VVS v02 and PS v02.</p> <p>AENOR deems that they do not adversely affect to the additionality of the project, the scale of the project, applicability and application of the methodology and other</p>

	<p>regulatory documents with which the project was registered, the compliance of the monitoring plan with the applied methodology, the level of accuracy of the monitoring compared with registered monitoring plan, and the project boundary and associated leakages due to changes.</p> <p>Considering that a revised PDD is not required for A/R projects as commented above, AENOR confirms that changes were proposed prior to this verification event. The reasons for requesting the proposed changes were to use the tool AR-TOOL14, the new equations determined by UNLP and consider the new stratification and allocation of plots. These changes do not impact on the overall operation and/or ability of the project to deliver the emission reductions. The proposed changes ensure that the level of accuracy and completeness in the monitoring and verification process will not be reduced as a result of them.</p> <p>The proposed change does not affect to the quality of monitoring equipment, frequency of measurements and QC/QA procedures. The changes comply with all requirements in the applied methodology which has not been updated to a later valid version. Findings from previous verifications were taken into account.</p>
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### SECTION E. Internal quality control

Following the completion of the assessment process by the validation team, all documentation undergoes an internal quality control through a technical review before submission to the CDM-EB. The technical reviewer is a qualified member of AENOR, independent from the team that carried out the validation of the post registration changes. The technical review team has collectively all the competence required including the technical area(s).

### SECTION F. Validation opinion

AENOR was contracted to perform the validation of the PRC for the A/R CDM project activity: "Reforestation of grazing Lands in Santo Domingo, Argentina" (Registration Ref. No. 4127).

AENOR has performed the validation of the proposed PRC according to the CDM Requirements approved. This Post Registration Change is under issuance-track.

AENOR planned and performed its work to obtain the information and explanations considered necessary to provide sufficient evidence to give reasonable assurance that the level of accuracy of GHG emission reductions is not adversely affect. This assessment included:

- Collection of evidence supporting the reported data.
- Checking whether the provisions in the provided documents were consistently and appropriately applied.

AENOR confirms that the proposed change is specific to afforestation and reforestation project activities and it is in accordance with applicable validation requirements related to the types of changes specific to afforestation and reforestation project activities in the VVS v02, PS v02 and other CDM requirements. Likewise, the change is in accordance with the approved methodology and the associated tool and guidelines.

The proposed specific change to AR project activities neither impact the applicability conditions of the methodology and baseline, nor impact the additionality and the scale of the project and the accuracy is not reduced.

Madrid 22 March 2019

Jose Luis Fuentes  
Team Leader

José Magro  
Approver




## Appendix 1. Abbreviations

Abbreviations	Full texts
AENOR	AENOR INTERNACIONAL S.A.U
CAR	Corrective action request
CDM	Clean development mechanism
CDM-EB	CDM Executive Board
CER	Certified emission reduction
CL	Clarification request
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
DNA	Designated national authority
DOE	Designated operational entity
ER	Emission reduction
FAR	Forward action request
GHG	Greenhouse gas(es)
MoV	Means of verification
MP	Monitoring Plan
MR	Monitoring report
PCP	Clean Development Mechanism Project Cycle Procedure for project activities (Version 02.0)
PDD	Project Design Document
PP	Project participants
PS	Clean Development Mechanism Project Standard for project activities (Version 01.0)
tC	Carbon tonnes
tCO <sub>2</sub> eq	Carbon dioxide equivalent tonnes
UNFCCC	United Nations Framework Convention on Climate Change
VVS	CDM Validation and Verification Standard for project activities version 02.0

## Appendix 2. Competence of team members and technical reviewers

### CERTIFICATE OF QUALIFICATION

Subject: Verification and Technical Review Team for "Reforestation of grazing Lands in Santo Domingo, Argentina"

Madrid, 11/03/2019

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Jose Luis Fuentes Pérez

CDM Team Leader: Yes

CDM Verifier: Yes

CDM Technical Reviewer: N/A

External Technical Expert: N/A

Technical areas related with the project activity: Yes

TA 14.1. Afforestation/Reforestation



José Magro González  
Authorised person

**CERTIFICATE OF QUALIFICATION**

Subject: Verification and Technical Review Team for "Reforestation of grazing Lands in Santo Domingo, Argentina"

Madrid, 11/03/2019

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Elena Llorente

CDM Team Leader: No

CDM Verifier: Yes

CDM Technical Reviewer: N/A

External Technical Expert: N/A

Technical areas related with the project activity: No



José Magro González  
Authorised person

**CERTIFICATE OF QUALIFICATION**

Subject: Verification and Technical Review Team for "Reforestation of grazing Lands in Santo Domingo, Argentina"

Madrid, 11/03/2019

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Luis Javier Arribas

CDM Team Leader: N/A

CDM Verifier: Yes

CDM Technical Reviewer: N/A

External Technical Expert: N/A

Technical areas related with the project activity: No



José Magro González  
Authorised person

**CERTIFICATE OF QUALIFICATION**

Subject: Verification and Technical Review Team for "Reforestation of grazing Lands in Santo Domingo, Argentina"

Madrid, 11/03/2019

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Marcelino Pellitero

CDM Team Leader: N/A

CDM Verifier: N/A

CDM Technical Reviewer: Yes

External Technical Expert: N/A

Technical areas related with the project activity: No



José Magro González  
Authorised person

**CERTIFICATE OF QUALIFICATION**

Subject: Verification and Technical Review Team for "Reforestation of grazing Lands in Santo Domingo, Argentina"

Madrid, 11/03/2019

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Asier Torres González

CDM Team Leader: N/A

CDM Verifier: N/A

CDM Technical Reviewer: N/A

External Technical Expert: N/A

Technical areas related with the project activity: Yes

14.1 Afforestation/Reforestation



José Magro González  
Authorised person



## Appendix 3. Documents reviewed or referenced

1.	Author	Title	References to the document	Provider
1	PP	Approved PDD version 6, 01 May 2013	1.	PP
2.	PP	Monitoring Plan included in the approved PDD	2.	PP
3.	PP	Monitoring report v4 dated 18 September 2013 from the first verification event	3.	PP
4.	PP	Monitoring report v 02.4 dated 21 March 2019	4.	PP
5.	PP	Spreadsheet calculation	5.	PP
6.	PP	GIS package	6.	PP
7.	AENOR	Instruction for the Validation, Verification and Certification of CDM project activities I/DTC/039	7.	AENOR
8.	CDM-EB	Validation and Verification Standard for project activities v 02.0	8.	CDM-EB
9.	CDM-EB	AR-AM0005 "Afforestation and reforestation project activities implemented for industrial and/or commercial uses" (Version 03)	9.	CDM-EB
10.	CDM-EB	CDM Executive Board: 'Clean Development Mechanism Project Standard' for project activities (version 02.0)	10.	CDM-EB
11.	CDM-EB	Guidance on the application of the definition of project boundary to A/R CDM project activities, Version 01.	11.	CDM-EB
12.	CDM-EB	Guidance on accounting GHG Emissions in A/R CDM Project Activities (paragraph 35 in the report of the EB 42 meeting).	12.	CDM-EB
13.	AENOR	On-site inspection records. Maps, strata checked on site	13.	AENOR
14.	UVA	Technical report by National University of La Plata, 2018	14.	PP
15.	CDM-EB	Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in AR CDM project activities (version 1.0.0), Annex 28, EB65	15.	CDM-EB
16.	CDM-EB	Guidelines on application of specified versions of AR CDM methodologies in verification of registered AR CDM project activities (version 1.1), Annex 26, EB63	16.	CDM-EB
17.	CDM-EB	Guidelines on accounting of specified types of changes in AR CDM project activities from the description in registered PDD (version 02.0), Annex 24, EB66	17.	CDM-EB
18.	CDM-EB	Guideline on application of materiality version 02.0	18.	CDM-EB
19.	CDM-EB	CDM Project Cycle Procedure for project activities version 02.0	19.	CDM-EB
20.	CDM-EB	CDM Monitoring report form and the instruction for filling out the monitoring report. Version 06.	20.	CDM-EB
21.	PP	Forest Inventory Raw Data, logbooks, etc. Database of forest establishment and forest management activities in the strata.	21.	PP
22.	PP	SOPs for the monitoring of the area and boundaries of each compartment	22.	PP
23.	PP	Field sheets plot measurements checked on site	23.	PP
24.	PP	Manual for the biomass measurements "SD I 08 A1 Instructivo para Inventario de Captura de CO <sub>2</sub> _180509.pdf"	24.	PP

25.	CDM	Final verification report for the first monitoring period dated on 19/09/2013	25.	CDM
26.	IPCC	Good Practice Guidance for Land Use, Land Use Change and Forestry (LULUCF). 2003	26.	IPCC
27.	PP	Technical specifications from manufacturer for forestry equipment (GPSs, diameter tapes, hypsometer).	27.	IPCC
28.	CDM-EB	AR-TOOL14 "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/RCDM project activities (Version 04.2)	28.	CDM-EB
29.	CDM-EB	AR-TOOL17 "Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities" (Version 1)	29.	CDM-EB
30.	CDM-EB	AR-TOOL18 "Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities" (Version 1.0.1)	30.	CDM-EB
31.	PP	FCS certificate	31.	PP

## Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. CLs from this validation

CL ID	xx	Section no.		Date: DD/MM/YYYY
Description of CL				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

Table 2. CARs from this validation

CAR ID	xx	Section no.		Date: DD/MM/YYYY
Description of CAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

Table 3. FARs from this validation

FAR ID	xx	Section no.		Date: DD/MM/YYYY
Description of FAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY