NON-PERMANENCE RISK REPORT - REGENERATING COLOMBIAN COFFEE ECOSYSTEMS

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1 Internal Risk

Project Management		
Risk Factor	**Risk Factor and/or Mitigation Description**	**Risk Rating**
a)	Only native tree species have been planted by the project, except for the *Fraxinus chinensis, Pinus Oocarpa* and the *Pinus Patula* which were only planted at small scale (less than 7 % of total trees planted in total. They are non-invasive species, adapted to the agro-ecological zone where the project is located. These species were planted in the first planting waves but rapidly abandoned to prioritize native species. Handling a large diversity of native species is a strength of the project, that is counting to date with 80 different species in total.	0
b)	No enforcement is necessary to prevent encroachment by outside actors. All trees are planted on individual farmer's parcels. A few cases of thefts have been reported but they represent less than 2%. Most of the local technical team, remains permanently in the project area, and there is permanent vigilance.	0
c)	The project staff is organized in three different teams (two in Cauca, one of them dedicated to "Coffee for Peace" activities, and one for Nariño) each of them managed by a local Project Coordinator who is an Engineering (in forestry, agronomy, or environment). As part of the Federación Nacional de Cafeteros, these project coordinators benefit from the experience and knowledge of the FNC Directors who have years of experience operating projects and working with coffee farmers in the area. The three dedicated technical teams managed by the local coordinators are composed of other engineers and extensionists (engineers or technicians) graduated in environmental engineering, forestry, or agronomy. They follow a demanding recruitment process to integrate the team, they are trained and managed by local coordinators and by PUR Projet staff. Maintaining project staff over the years is a objective of the project, as this is a means to leverage field experience and maintain a great quality of assistance to the farmers	0
d)	The project management teams are respectively based in Popayan, Cauca and Pasto, Nariño, in the respective FNC Offices of each department.	0

	All project parcels are less than a day of travel from the offices. To improve operations efficiency, technical teams are often based for several months in the most relevant villages considering the current planting waves. For three years PUR Projet has been strengthening its resources with a dedicated staff based in Popayan Cauca to supervise the project.	
e)	PUR Projet has developed similar projects in several locations of Latin America: > Alto Huayabamba A/R project, in Peru, validated in 2012 and verified in 2014 and 2019 > Biocorredor Martin Sagrado REDD+ project, VCS and CCBA validated (in 2012 and 2013), verified in 2015 and 2020. - PUR Projet also has an A/R community project with small-scale cocoa farmers Gold Standard validated in 2017 and verified in 2020 PUR Projet has a portfolio of 40 other A/R community projects with farmers worldwide (Indonesia,Thailand, Philippines, India, China, Japan, Ghana, Ethiopia, Uganda, Honduras, Guatemala, Colombia, Peru, Morocco, Brazil…). Local partner Federacion Nacional de Cafeteros (FNC) also has extensive experience in project management, working with Fair Trade, KFW, Solidaridad and field presence for more than 90 years.	-2
f)	Adaptive management is being implemented. Risks have been identified upfront and mitigation actions have been decided and implemented (see mitigation initiatives in the whole document – natural risks, land ownership, longevity, funding, etc.) Procedures keep being improved and corrected as long as the project develops. The project stakeholders meet regularly under the “Project Committee” instance that allows to discuss lessons learned, difficulties, and suggested improvement to the procedures, more particularly at the end of each planting wave. All difficulties and suggestions are discussed with the project proponent, who approves the modifications of the procedures (e.g. timings, staffing, deliverables, adaptations of the methodology and tools, incentives payment) in order to match field constraints. The project has been constantly improving on these aspects. PUR Projet’s constant interaction with the Project team optimizes the project’s adaptive capacities.	-2
Total Project Management (PM) [as applicable, (a + b + c + d + e + f)]		**-4**

Financial Viability		
Risk Factor	**Risk Factor and/or Mitigation Description**	**Risk Rating**
a)	n/a	
b)	Project financing is based on a mechanism where tree plantations, farmers incentives, and technical assistance for the first years (plantation, monitoring) is funded upfront by financial partners through the sale of tree planting commitments (e.g. Ecosia) or through the sales of ex-ante carbon credits (e.g. Nespresso, who is the main funder of the project in the context of its carbon neutrality strategy). Most of the cash-out occurs in the first years of the project (plantation years), when the Instances are paid by the project proponent based on annual planting contracts, where the payment from PUR Projet covers seedlings production and distribution, farmers payment, technical assistance and staff, material and equipment. After planting is done, and after this payment occurs, only minor monitoring and project maintenance costs spread out over time are to be maintained over time. Project break- even point was reached from the beginning of the project as PUR Projet started by defining a budget reflecting the whole project's financial needs and then had it approved by the client before initiating operations. This budget not only includes installation costs to cover tree planting and monitoring but also provisions to be able to ensure field presence, activities and trees permanence over the long-term.	0
c)	n/a	
d)	n/a	
e)	n/a	
f)	n/a	
g)	n/a	
h)	All cash-out until project verification date (occurring after break-even point) was already covered and spent by PUR Projet.	
i)	n/a	
Total Financial Viability (FV) [as applicable, ((a, b, c or d) + (e, f, g or h) + i)]		**0**

Opportunity Cost		
Risk Factor	**Risk Factor and/or Mitigation Description**	**Risk Rating**
a)		
b)		
c)		
d)		
e)		
f)	As described in the Project Description Document and in the Monitoring Report, in the absence of the project, there could be several credible land-use scenarios: - *Regarding degraded/ fallow area pasture and annual crops* o The degraded areas are supposed to remain abandoned, as they are unproductive soils. Natural regeneration will not occur due to strong deterioration of the soils (chemicals due to coca production), or when the soils could regenerate, area would be reused for annual crop cultivation in the future. o Traditional cultivation pattern and historic land use is to periodically slash and burn these areas (typically 2-3 years of corn cultivation, then 5-10 years left as fallow for regeneration), thus preventing any growth of carbon stocks on these parcels above the average carbon stock of grasslands. - *Regarding perennial crops (coffee)* The coffee tree plantations are supposed to remain coffee tree plantations in the absence of the project, as it's a perennial crop and coffee bushes are pruned regularly and maintained at a given height. No significant positive changes in the carbon stocks within the project boundary would occur considering that reforestation is facing the barriers outlined. To sum up, the baseline activities would then be either cultivation of coffee, pastures, or annual crops in alternance with fallow periods. These baseline activities are subsistence driven. According to AFOLU Non-Permanence Risk Tool guideline 2.2.3.2, the majority of baseline activities are subsistence driven, a NPV analysis is therefore not	-4

	required (and does not make a lot of sense as "investments" are personal manwork investment from the farmers) Instead, an assessment of the project impacts on socio and economic well-being of the communities has been undertaken; the results are described in the PDD, section 1.13.5. Also, In the case of tree planting in coffee fields, or on borders, it is to be noted that reforestation activity in agroforestry models does not prevent the farmers to continue coffee cultivation. On the contrary it improves yield by helping the farmers to mitigate the climate change effect on parcels where it is increasingly complex to cultivate coffee without shade. As a result of these analyses, it is clear that revenues from project (timber, yield increase) are more than 50% more profitable for the farmers than coffee alone or annual crops in the rotational fallow system, and that socio-economic impacts are very positive for the populations.	
g)		
h)	The project has a legal agreement or management to continue the management practice as stated in the legal agreements with the main funder Nespresso.	-2
i)		
Total Opportunity Cost (OC) [as applicable, (a, b, c, d, e or f) + (g + h or i)]		**-6**

Project Longevity		
a)	n/a	0
b)	The project longevity is 80 years and it does have a legal agreement or management to continue the management practice as stated in the legal agreements with the main funder Nespresso, for at least 40 years. Project emphasis is clearly on forest restoration and biodiversity habitat. Overall, the aim is to ensure conservation of the forests and ecosystems in Cauca and Nariño regions, for the first project	10

	instances, and the Colombian Northern Andean Montane Forests more generally. The whole program is part of a long-term vision for this Global ecoregion. The timber activities are also a way of ensuring economic development for the communities, alongside with habitat restoration. The longevity of 80 years is consistent with this overall strategy. Therefore, the objective of the project with regards to timber is to help Entities and farmers developing a sustainable timber activity complimentary to the cash crops already developed by the Entities (coffee, orange, avocados, ...) and following sustainable practices: integrated agriculture. The timber will be produced by Entities directly to sustainable wood buyers, to maximize farmers' revenues, exactly like for their coffee. That is why the project runs on a period longer of 80 years, (longer than the 40 years crediting period), to ensure entities develop a long term sustainable timber activity, the same way it successfully developed a sustainable coffee activity. The project shall become a usual long-term activity for the cooperative. The contract signed by each participating farmer with his entity has a duration of 40 years, but is automatically renewed every 5 years after the 40 years, unless the farmers have a proven reason to terminate it. Harvesting cycles are between 10 and 40 years depending on tree species. In accordance with the sustainable timber management plan, a maximal harvesting rate of 5% per year (smaller than natural annual growth rate of the trees) will be ensured at project level, to guarantee the permanence of carbon stocks as well as forest cover. All harvested trees will be replaced, when not regrowing by themselves.	
Total Project Longevity (PL)		**10**

Internal Risk	
Total Internal Risk (PM + FV + OC + PL)	**0**

2 External Risks

Land Tenure and Resource Access/Impacts		
Risk Factor	**Risk Factor and/or Mitigation Description**	**Risk Rating**
a)	Ownership and access/use are held by the same entities	0
b)	n/a	0
c)	n/a	0
d)	There is no dispute over land access/use rights (or overlapping rights). But in the absence of recollected proofs of ownership and use rights for 100% of the parcels planted, the rating is chosen hereafter as to account for potential disputes over access/use rights. Project improvements are made to collect 100% of the parcel planted rights in the medium term.	5
e)	n/a	0
f)	n/a	0
g)	n/a	0
Total Land Tenure (LT) [as applicable, ((a or b) + c + d + e + f + g)]		5

Community Engagement		
Risk Factor	**Risk Factor and/or Mitigation Description**	**Risk Rating**
a)	Project procedures allow a systematic consultation of each participating stakeholder. The project is by definition a community project, where the farmers plant themselves the trees on their parcels. Moreover, farmers are participating on a voluntary basis, and all participating farmers sign an agreement with Project Instances in which they commit to participate, and recognize to understand the project conditions and objectives.	0
b)	Project procedures allow a systematic consultation of each participating stakeholder.	0

c)	The project generates net positive impacts on the social and economic well-being of the participating communities	-5
Total Community Engagement (CE) [where applicable, (a + b + c)]		**-5**

Political Risk		
Risk Factor	**Risk Factor and/or Mitigation Description**	**Risk Rating**
a)	n/a	0
b)	n/a	0
c)	Calculation of Colombia's Governance score based on the mean of the last 5 years' available data (2015-2019) from WGI: - Voice and accountability: 0,13 - Political Stability No Violence: -0.88 - Government Effectiveness: -0.02 - Regulatory Quality: 0.38 - Rule of Law: -0.35 - Control of Corruption: -0.30 Average score: -0.17	2
d)	n/a	
e)	n/a	
f)	Colombia is active in the UNFCCC REDD+ negotiations where it supports market-based mechanisms and has been a vocal proponent of the idea that REDD+ should accommodate a stepped subnational approach, not only to Reference levels and MRV (Government of Colombia 2012) but also in terms of eligibility for phase 3 of REDD+ (results-based payments). This interest in subnational processes is reflected by the fact that Colombia is a member of the advisory committee of the Jurisdictional and Nested Requirements (JNR) working group of the Voluntary Carbon Standard (VCS) (VCS 2013). Colombia has ratified the UNFCCC (1995) and the Kyoto Protocol (2005) and has submitted two National Communications to the UNFCCC (in 2001 and 2010) (UNFCCC 2013). Colombia is a member of the World Bank Forest Carbon Partnership Facility (FCPF) and became a UN-REDD+ partner country in 2013.	-2

Total Political (PC) [as applicable ((a, b, c, d or e) + f)]	0

External Risk	
Total External Risk (LT + CE + PC)	0

3 Natural Risks

Risk of Fire	
Significance	Insignificant (less than 5% of carbon stocks) – due to the fact that the project plantations are spread into thousands of small parcels in a highly extended area.
Likelihood	Less than every ten years – fires do happen, even though at small scale. Data provided by IDEAM show that the Cauca and Nariño regions has a low risk of fires, accounting for just 4,7% of fires in Colombia on average. Between 2002 and 2015, whether for Cauca or Nariño, less than 1% of the vegetation cover have been affected by fires (see supporting document [Superficia afectada incendios IDEAM]). FNC producers are very aware of the risk of slash and burn practices and do not use such agricultural practices. For the few times it's happened, those slash and burn practices are performed by non-members of the project..
Score (LS)	2
Mitigation	The project will limit the number of plots in areas identified as vulnerable to forest fires. Some precautionary measures could be adopted to mitigate the adverse effect of drought (avoid clean weeding in interrow areas, but circle weeding can be done with mulching around the trees with weed removals). For this purpose, training courses will be provided to producers in order to enforce these practices effectively on their plantations.

Risk of Pest and disease outbreak	
Significance	Insignificant. Only a few trees of Cedar specie per parcel would be attacked, as the number of trees of this specie per parcel is constrained. An estimated 10% of all the Cedars would be attacked, with a survival rate of 60% (very conservative as the larva does not kill the tree, but prevents a normal rectilinear growth of the trunk and reduce growth speed)., i.e. 0,4% of the carbon stocks. Note: the pest is only an issue for young trees (< 2-3 years)
Likelihood	Already happening – hypsyphila grandella Most of the species planted on the project are natives, which reduce the risk. Technical recommendation is planting at least 3 different species in each parcel. According to Instances technicians' feedback there is one main pest to control: *Hipsiphila Grandella*, a leptidopter, whose larva attacks the apex of the species *Cedrelata Odorata*, altering the rectilinear growth of the trunk..
Score (LS)	2
Mitigation	The control is made by planting randomly the specie *Cedrelata Odorata* in the parcels, in limited number. Once the tree is attacked, the farmer will have to look for the pest and kill it manually. In this case, the control is organic. If other pest or a disease appears, the control will also be exclusively organic.

Extreme weather	
Significance	Drought or too strong rains but not so high to affect more than 5% of the stocks. Would only concern young trees
Likelihood	Less than every ten years.
Score (LS)	2
Mitigation	The project design is focused on studying effects of afforestation models on erosion rates of the soils in the valley. The project also provides tree species like *Leucaena spp.* that can be used in cropping systems to control erosion on steep slopes and to enhance yields of inter-row crops by mulching the *Leucaena spp.* foliage into the soil.[2] In steep parcels, the recommendation is also to plant in staggered rows model following the contour lines to mitigate the landslides risk.

	Also replanting and technical assistance at each parcel is a way to reduce this risk.

Geological risk	
Significance	Eruption of the Galeras volcano en Nariño. Could damage 5 to 25% of carbon stocks . In Nariño region, part of the tree plantations are located nearby the Galeras volcano. This volcano has an estimated age of about 4,500 years and has been characterized by being moderately explosive with a relatively small volume of eruption products. Thanks to geological studies, six important eruptive episodes have been identified in the years: 4500, 4000, 2900, 2300, and 1100 years before the present and the eruption of 1866. During the last 500 years, most of the eruptions have been classified as "vulcanic", with inferred columns of low height (less than 10 km), which have produced small lava flows, gas and ash emissions, whose deposits have reached distances of up to 9,5 km from the crater[4]. It's important to emphasize that, in Nariño, none of the reforested parcels are directly located in areas where the lava corridors and less than 50% of the parcels are located at less than 9,5 km from the crater. In Cauca, the parcels are not located in the hazard area of the Puracé volcano. Meanwhile, the technical team of Nariño or Cauca Departmental Committees ensured that since the last 30 years, no coffee plantations have been lost due to Puracé or Galeras volcanic activity. There are infrequent earthquakes in Colombia associated with the Andes and the volcanic activities. The data provided by the "Servicio Geologico Colombiano" show that there have been no significant earthquakes in the Cauca and Nariño regions in recent history that could generate tree plantation losses. The SGC reports 14 earthquakes between 1644 and 2015 in Cauca and Nariño regions but even if they have high intensity because of the dispersed nature of reforested parcels, none of these potential geological risks would have a significant impact on the carbon stocks of the project, even if they occurred. Because trees are flexible, the effects of an earthquake on carbon stocks would be minimal.
Likelihood	Once every 100 years or more, based on historical activity
Score (LS)	0
Mitigation	None

Score for each natural risk applicable to the project (Determined by (LS × M)	
Fire (F)	1
Pest and Disease Outbreaks (PD)	1
Extreme Weather (W)	1
Geological Risk (G)	0
Other natural risk (ON)	
Total Natural Risk (as applicable, F + PD + W + G + ON)	3

4 Overall Non-Permanence Risk Rating and Buffer Determination

4.1 Overall Risk Rating

Risk Category	Rating
Internal Risk	0
External Risk	0
Natural Risk	3
Overall Risk Rating (a + b + c)	**3**

The overall risk rating is below the minimum risk rating of 10. So, the overall risk buffer is 10%.

4.2 Calculation of Total VCUs

The project generated 45.179t CO2eq GHG Emission Reductions and removals over the 2014-2021 period.

Considering the risk rating, the percentage of credits to be deposited in the AFOLU pooled buffer account is 10%, corresponding to 4.518 VCUs.

The total number of GHG credits eligible to be issued is therefore 40.661 VCUs.