

1 **Supplementary Materials:**

2 **Table S1.** Review of national REDD+ documents for keywords.

Country	National REDD+ documents	Mention of biodiversity	Mention of forest fauna in relation to REDD+	Mention of hunting in relation to REDD+
Colombia	UN-REDD - Colombia National Programme Document 2015	yes	no	no
	UN-REDD - Colombia 2017; Third National Communication of Colombia to the UNFCCC	yes	no	no
	UN-REDD 2018 - Successes, Lessons learnt and challenges (<i>in Spanish</i>)	yes	no	no
	MADS 2017. Second summary of information of safeguards for REDD+ In Colombia (<i>in Spanish</i>)	yes	no	no
	MADS 2017. Forests territories of life. Integrated strategy for the control of deforestation and forest management (<i>in Spanish</i>)	yes	no	no
	FCPF 2018. Readiness Fund REDD+ Country Participant Progress Report Template (<i>in Spanish</i>)	yes	no	no
	FCPF - Annual Country Progress Reporting 2017	yes	no	no
Ecuador	UN-REDD 2011 - National Programme Document - Ecuador	yes	no	no
	UN-REDD - Ecuador National Programme Report 2015	yes	no	no
	Green Climate Fund 2018 - Ecuador REDD+ Results Based Payments for Results	yes	no	no

	Period 2014, Environmental and Social Management Framework			
	MAE 2017. Definition of the national approach and scope of REDD+ safeguards: lessons learned by Ecuador	yes	no	no
	MAE 2016. Bosques para el Buen Vivir - Plan de Acción REDD+ Ecuador (2016-2025).	yes	yes	no
	MAE 2017. First summary of information on approach and respect of safeguards for REDD+ in Ecuador (<i>in Spanish</i>)	yes	no	no
Indonesia	REDD+ National Strategy Indonesian REDD+ Task Force June 2012	yes	no	no
	FCPF 2017: REDD+ Readiness Self-Assessment for Indonesia Submitted to the Forest Carbon Partnership Facility (FCPF)	yes	no	no
	FCPF 2016. Annual country report	yes	no	no
	FCPF 2018. Readiness Fund REDD+ Country Participant Progress Report Template	yes	no	no
	GDCC and MEF 2015. Safeguard Information System for REDD+ in Indonesia	yes	yes	no
	UN-REDD 2012. National REDD+ strategy Indonesia	yes	yes	no
Nigeria	UN-REDD National Programme Annual Report 2015	no	no	no
	REDD+ Readiness Preparation Proposal (R-PP), 2014 (FCPF & UNREDD)	yes	no	yes
	FCPF - Annual country report 2016	yes	no	no

	FCPF 2018. Readiness Fund REDD+ Country Participant Progress Report Template	no	no	no
	FCPF 2017 - Mid-term Progress Report Nigeria	yes	no	no
Tanzania	FCPF 2017 - Annual country report	yes	no	no
	FCPF 2010 - Tanzania Readiness Preparation Proposal	yes	no	no
	World Bank 2010. Participatory forest management and REDD+ in Tanzania	yes	no	no
	URT 2010. Forest Carbon Partnership Facility (FCPF) - Tanzania readiness preparation proposal	yes	no	no
	URT 2012. National Strategy For Reduced Emissions From Deforestation And Forest Degradation	yes	no	no
	UN-REDD 2013. Final evaluation of the UN-REDD Tanzania national programme	yes	no	no
	UNEP 2013. Tanzania methodological brief	yes	no	no
	URT 2013. Action plan for implementation of the national strategy for reduced emissions from deforestation and forest degradation (REDD+)	yes	no	no
	URT 2013. National strategy for reduced emissions from deforestation and forest degradation (REDD+)	yes	no	no
Argentina	National Action Plan for Forests and Climate Change 2017	yes	no	no
Bangladesh	UN-REDD Bangladesh National Programme 2015	no	no	no

Bolivia	National Programme Document 2010 (<i>in Spanish</i>)	yes	yes	no
Brazil	National REDD+ Strategy 2016	yes	no	no
Cambodia	National REDD+ Strategy 2017	yes	no	no
Congo	UNREDD National Programme Document 2012 (<i>in French</i>)	no	no	no
Cote d'Ivoire	National Programme Document 2014 (<i>in French</i>)	no	no	no
DRC	Stratégie-Cadre Nationale REDD+ de la République Démocratique du Congo 2017 (<i>in French</i>)	yes	no	yes
Malaysia	National REDD+ Strategy 2016	yes	no	no
Mexico	National REDD+ Strategy 2017 (<i>in Spanish</i>)	yes	no	no
Peru	Peru National Strategy on Forests & Climate Change 2016 (<i>in Spanish</i>)	yes	yes	no
Philippines	The Philippine National REDD-plus Strategy 2010	yes	no	no
Papua New Guinea	National REDD+ Strategy 2017	yes	no	no
Solomon Islands	UN-REDD National Programme Document 2011	no	no	no
Viet Nam	UN-REDD Viet Nam Phase II Programme 2013	yes	no	no

Note: *hunting was mentioned in some instances as a livelihood strategy, and in the Tanzanian national strategy for reduced emissions from deforestation and forest degradation (REDD+) (URT 2013) only in relation to forest fires started by hunters. These mentions were not included in this table as they do not directly refer to hunting from a REDD+ implementation or biodiversity conservation perspective. We grouped the keywords in the following way: biodiversity (including biological diversity and biodiv*), fauna (including wildlife, animal*, defaun* and depletion), hunting (including hunt*, meat*, poach* and bushmeat).

Table S2. List of all sub-national REDD+ projects assessed listed in the international database on REDD+ projects and programs (reddprojectdatabase.org), the Verra project database and the Plan Vivo list of projects for registered and ongoing sub-national REDD+ projects in Colombia, Indonesia and Tanzania (excluding reforestation and afforestation projects and those projects for which no documents were available). No ongoing projects with available documentation were found for Ecuador and Nigeria.

Colombia				
Project Name	REDD+ Project Resguardo Indígena Unificado Selva de Mataven	Concosta REDD+ Project	ACAPA - Bajo Mira y Frontera (ACAPA - BMF) REDD+ Project	The Chocó-Darién Conservation Corridor REDD Project,
Year Implemented	2014	2014	2013	started 2010, VCS 2012
Status	VCS Registered Project	VCS Registered, CCB validation approved	VCS Registered, CCB validation approved	VCS Registered, CCB validation approved
Emission Reductions (tons estimated annual)	3,622,352	333, 978	404,786	80,938
Implementing Organization	Multiple	Consejo Comunitario de Concosta; developed by BIOREDD+/USAID	BioREDD+ / USAID	Anthrotect S.A.S.
Project Validator	Colombian Institute for Technical Standards and Certification (ICONTEC)	Rainforest Alliance, Inc.	Rainforest Alliance, Inc.	DNV - Den Norske Veritas Climate Change Services
Target Area	Orinoco Region, Vichada	Pacific Coast, Choco,	Pacific Coast, Nariño	Choco, Pacific Coast

Mention of hunting / fauna / wildlife	Yes	Yes	Yes	Yes
How mentioned	In relation to local activities and use of forest resources	In relation to current overuse and implications of hunting for HCV of area; including social aspects of hunting and role of regulation for sustainable hunting		Important local activity and important to maintain for local people's connection to forest
Mentioned in relation to impacts on forest / carbon	No	Yes - improved connectivity that project area forests provide with adjacent and nearby ecosystems and the potential or climate adaptation benefits through improved seed dispersal (PDD Concosta p. 278; PDD ACAPA – MBF p. 206)		Yes - key to maintain forest structure and composition and to guarantee habitat connectivity to maintain the area's biodiversity and rare ecosystems. Project should aim to eliminate hunting of large to medium size mammals (PDD, p 64.)
Mention of wildlife in relation to monitoring	No	Yes - to be included in on the ground monitoring (species identification, etc.)	Yes - ongoing monitoring will include the assessment of hunting trends through scheduled consultation with hunters and other stakeholders. Wildlife transects scheduled as a component of the project's monitoring plan (PDD p. 214)	Yes - including hunting, and monitoring of fauna (birds and beetles)
Link to documents	http://vcsprojectdatabase.org/#/project_details/1566	http://vcsprojectdatabase.org/#/project_details/1400	http://vcsprojectdatabase.org/#/project_details/1389	http://vcsprojectdatabase.org/#/project_details/856
Colombia				

Project Name	Mutatá REDD+ Project	Sivirú-Usaragá-Pizarro-Pilizá (SUPP) REDD+	Rio Pepe y ACABA REDD+ Project	Cajambre REDD+ Project
Year Implementation	2013	2013	2014	2013
Status	VCS Registered, CCB validation approved	VCS Registered, CCB validation approved	VCS Registered, CCB validation approved	VCS Registered, CCB validation approved
Emission Reductions (tons estimated annual)	156,476	312,078	224,05	297,488
Implementing Organization	Cabildo Mayor Indigena de Mutatá	BIOREDD+ / USAID	BIOREDD+ / USAID	BIOREDD+ / USAID
Project Validator	Rainforest Alliance, Inc.	Rainforest Alliance, Inc.	Rainforest Alliance, Inc.	Rainforest Alliance, Inc.
Target Area	Antioquia and Choco department	Choco department	Choco department	Valle del Cauca department
Mention of hunting / fauna / wildlife	Yes	Yes	Yes	Yes
How mentioned	Importance for local people's food provision (PDD, p. 66)	Dependence of local communities on forests resources due to isolation from mainstream market supply of these resources and the high poverty levels. (PDD, p. 53)	Importance for local people's food provision (PDD, p. 70)	Hunting of birds and mammals represents an important economic activity for the community, primarily for subsistence. Deer and peccary species can also be sold for their skins. (PDD, p.34)

Mentioned in relation to impacts on forest / carbon	Yes - improvements to the amount of intact and partially intact forest vegetation cover also support the continuation of functional biodiversity attributes including ecosystem productivity and nutrient cycling, water purification and reduced erosion, and reduced vulnerability to invasive species. They also improve landscape connectivity which contributes to processes including seed dispersion, reproduction, gene flow and associated capacity to adapt to climate change (PDD Mutatá, p. 206; PDD SUPP REDD+, p. 224; PDD Rio Pepe y ACABA REDD+ Project, p. 198; PDD Cajambre REDD+ Project, p. 214)			
Mention of wildlife in relation to monitoring	Yes - patrols will be put in place, and local community members will receive training in HCV monitoring, including species identification, data collection and reporting methodology (PDD Mutatá REDD+ Project, p. 193; PDD SUPP REDD+, p. 210; PDD Rio Pepe y ACABA REDD+ Project, p. 185; PDD Cajambre REDD+ Project, p. 199)			
Link to documents	PDD 2015 - https://vcsprojectdatabase.org/#/ccb-all-project-details/1399	PDD 2015 - https://vcsprojectdatabase.org/#/project_details/1391	PDD - https://vcsprojectdatabase.org/#/ccb-all-project-details/1396	https://vcsprojectdatabase.org/#/ccb-all-project-details/1392
Colombia				
Project Name	Carmen del Darien		Bajo Calima y Bahía Málaga (BCBM)	
Year Implementation	2014		2013	
Status	VCS Registered, CCB validation approved		VCS Registered, CCB validation approved	
Emission Reductions (estimated annual)	462,19		498,719	
Implementing Organization	BIOREDD+ / USAID		BioREDD+ / USAID	
Project Validator	Rainforest Alliance, Inc.		Rainforest Alliance, Inc.	
Target Area	Choco department		Valle del Cauca department	

Mention of hunting / fauna / wildlife	Yes	Yes
How mentioned	Hunting is an important livelihood and food source for local people (PDD Carmen del Darien, p. 39; PDD BCBM, p. 35)	
Mentioned in relation to impacts on forest / carbon	Yes - Improvements to the amount of intact and partially intact forest vegetation cover also support the continuation of functional biodiversity attributes including ecosystem productivity and nutrient cycling, water purification and reduced erosion, and reduced vulnerability to invasive species. They also improve landscape connectivity which contributes to processes including seed dispersion, reproduction, gene flow and associated capacity to adapt to climate change (PDD Carmen del Darien, p. 200; PDD BCBM, p. 226)	
Mention of wildlife in relation to monitoring	<p>Yes - Restrictions will be placed on hunting and fishing, allowing for only seasonal, local and non-commercial harvesting of species. Patrols will be put in place, and local community members will receive training in HCV monitoring, including species identification, data collection and reporting methodology (PDD Carmen del Darien, p. 186; PDD BCBM, p. 211)</p> <p>Ongoing monitoring will include the assessment of hunting trends through scheduled consultation with hunters and other stakeholders. Wildlife transects scheduled as a component of the project's monitoring plan will build existing knowledge of invertebrate population levels and form a basis from which to being monitoring future trends, and help further distinguish specific species groupings that are practical and relevant to monitor (PDD Carmen del Darien, p. 207; PDD BCBM, p. 235)</p>	
Link to documents	https://vcsprojectdatabase.org/#/ccb-all-project-details/1390	https://vcsprojectdatabase.org/#/ccb-all-project-details/1395
Indonesia		
Project Name	Mangrove restoration and coastal greenbelt protection in the East coast of Aceh and North Sumatra Province, Indonesia	Katingan Peatland Restoration and Conservation Project, Indonesia Rimba Raya Biodiversity Reserve Project, Indonesia Bujang Raba Community PES project Community Forests for Climate, People, and Wildlife Hutan Desa Durian Rambun, Jambi

Year Implemented	2015	2016	2011	2013	2014
Status	VCS Registered	VCS Registered, CCB validation approved	VCS Registered, CCB validation approved	Plan Vivo registered and certified	Plan Vivo registered and certified
Emission Reductions (tons estimated annual)	124,706	7,451,846	3,527,171	40,000	25,697
Implementing Organization	Livelihoods Fund	PT. Rimba Makmur Utama (PT. RMU)	InfiniteEARTH	KKi Warsi	Fauna & Flora International
Project Validator	SCS Global Services	SCS Global Services	SCS Global Services	Plan Vivo	Plan Vivo
Target Area	North-East coast of Aceh province, Indonesia.	Katingan and Kotawaring districts in Timur in Central Kalimantan Province	Southern coast of Borneo in the province of Central Kalimantan	Jambi Province, Central Sumatra	Jambi Province, Central Sumatra
Mention of hunting / fauna / wildlife	Yes	Yes	Yes	Yes	Yes
How mentioned	Protected areas with wildlife included in project area	Human-induced risks to the project's biodiversity benefits, related to hunting pressure, typically focused on a narrow range of species. Activities specifically	The majority of communities are Muslim, and generally hunt a smaller set of animals and at lower intensity.	Improve habitat quality and quantity – place restrictions on hunting of endangered species and establish a monitoring system to track changes in populations	Hunting is only mentioned in relation to poaching and fauna only in relation to forests being important habitat for local fauna.

		<p>aimed at reducing hunting pressure on key species include monitoring of hunting impacts to enable sustainable use, creation of alternative livelihoods for those reliant on hunting incomes, and increased protection, patrolling and enforcement to reduce and prevent the exploitation of endangered and/or legally protected species. Reviews hunting threats to threatened species in the area</p>	<p>Unsustainable hunting by resident worker populations and capture of songbirds for the commercial pet trade.</p> <p>The project does not dissuade or prevent normal community land uses, such as local level wood collection, hunting, fishing, use of agricultural lands. Some species in the area has suffered severe overhunting.</p>		
Mentioned in relation to impacts on forest / carbon	No	No	No	No	No
Mention of wildlife in relation to monitoring	No	<p>Yes - Surveys of hunting effort and animals targeted conducted. Unclear to what extent</p>	<p>Yes - Monitoring is carried out through annual surveys of indicator species for</p>	<p>Yes - The project will establish a monitoring system to track changes</p>	<p>Yes - Regular forest patrols will provide checks on illegal logging,</p>

		wildlife populations are monitored because list of variables not included.	plants, birds, mammals, and herpetofauna. Special focus on orangutans.	resulting from project activities and establishing conservation strategies and hunting bans on any endangered or threatened species. Biodiversity will be tracked through the monitoring of apex species like the endangered Sumatran tiger. Camera traps will be installed with the number of individuals in the protected area assessed annually. Other indicator species will also be tracked including observations of larger primates, hornbills, bears, and leopards.	encroachment, fire, and biodiversity monitoring (including encounter rates of high conservation value species, e.g., Sumatran tiger,) and threats to species, e.g., poaching.
--	--	--	--	--	---

Link documents to	https://www.vcsprojectdatabase.org/#/project_details/1493	https://www.vcsprojectdatabase.org/#/project_details/1477	https://www.vcsprojectdatabase.org/#/project_details/674	http://www.planvivo.org/project-network/bujang-raba/	http://www.planvivo.org/project-network/durian-rambun-indonesia/
Tanzania					
Project Name	Mjumita Community Forest Project (Lindi), Tanzania		REDD+ in Yaeda Valley		
Year Implemented	2014		2012		
Status	VCS registered, CCB validation approved		Plan Vivo registered and certified		
Emission Reductions (tons estimated annual)	46,263		18,012		
Implementing Organization	Multiple		Carbon Tanzania		
Project Validator	SCS Global Services		Plan Vivo		
Target Area	Rural Lindi region		Mongo wa Mono, Domanga & Yaeda Chini villages (Northern Tanzania)		
Mention of hunting / fauna / wildlife	Yes		Yes		
How mentioned	Illegal hunting for bushmeat is conducted in all villages. Increase in human-wildlife conflict associated with increase in forest cover and forest enhancement. Training on strategies to reduce crop-losses by control of problem animals. Capacity		This project area contains high biodiversity by protecting the traditional land of the Hadzabe and Barabaig, this project simultaneously improves the habitat of the wildlife species native to the project area and by		

	constraints for wildlife tourism. Maintain ecosystem service delivery to local communities by ensuring sustainable use.	reducing impacts of illegal poaching protects enigmatic megafauna present in the area. Fauna is referred to as essential seed disperses and pollinators in these environments, without further specification
Mentioned in relation to impacts on forest / carbon	No	Partly
Mention of wildlife in relation to monitoring	No - Develop and implement a monitoring plan that identifies biodiversity variables to be monitored, the areas to be monitored, the sampling methods, and the frequency of monitoring and reporting. Monitoring variables must be directly linked to the project's biodiversity objectives and to predicted activities, outcomes and impacts identified in the project's causal model related to biodiversity.	Yes – protecting the traditional land of the Hadza and Barabaig through patrolling, the project simultaneously improves the habitat of the wildlife species native to the project area and prevents poaching, but no monitoring plan or species are presented.
Link to documents	https://www.vcsprojectdatabase.org/#/project_details/1325	http://www.planvivo.org/project-network/redd-in-yaeda-valley-tanzania/

13
14
15