NON-PERMANENCE RISK REPORT

REDD+ in Keo Seima Wildlife Sanctuary, Cambodia



Project Title	Reduced Emissions from Deforestation and Degradation in Keo Seima Wildlife Sanctuary
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Prepared By	Wildlife Conservation Society for the Ministry of Environment of the Royal Government of Cambodia
Contact	H.E. Dr. Paris Choup, National Council for Sustainable Development, Ministry of Environment, Royal Government of Cambodia # 48, Samdach Preah Sihanouk Boulevard, Phnom Penh 12301, Cambodia +855 23 213 908, paris.ncgg@gmail.com, www.moe.gov.kh Dr Ross Sinclair, Wildlife Conservation Society, #21, Street 21, Sangkat Tonle Bassac, Phnom Penh, Cambodia, +855 23 219 443 / 217 205, rsinclair@wcs.org, www.wcscambodia.org

1 INTERNAL RISK

Internal risks are non-permanence risks related to the management of the emission reduction activities, the financial viability of the planned project, the opportunity costs of the implementation of the planned activities, as well as the expected duration of the project.

Risks from weaknesses in project management are assessed as very low due to the high capacity of the implementing partners and the existence of a formal adaptive management system. The financial viability of the project is good, with a rapid breakeven point once credit sales begin, but limited callable resources or other funding streams prior to that. The high Net Present Value of alternative land uses relative to the income expected from the project also poses a risk, but this is largely offset by the strong legal basis for long-term protection at the site. The detailed calculations are presented below.

Project Management		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	Species planted (where applicable) associated with more than 25% of stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zones (s) in which the project is located.	Not Applicable
b)	Ongoing enforcement to prevent encroachment by outside actors is required to protect more than 50% of stocks on which GHG credits have previously been issued.	Not Applicable
c)	Management team does not include individuals with significant experience in all skills necessary to successful undertake all project activities (ie, any area of required experience is not covered by at least one individual with at least 5 years experience in the area.	Not Applicable
d)	Management team does not maintain a presence in the country or is located more than a day of travel from the project site, considering all parcels or polygons in the project area.	Not Applicable
e)	Mitigation: Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed projects through validation, verification, and issuance of GHG credits) under the VCS program or other approved GHG programs.	Not Applicable
f)	Mitigation: Adaptive management plan in place. Applicable. Fully implemented. Since 2009 KPWS has operated under an adaptive management cycle involving systematic monitoring, annual participatory review of progress, drafting of workplans and updating strategic plans.	-2
Total Project Management (PM) [as applicable, (a + b + c + d + e + f)] Total may be less than zero.		**-2**

Financial Viability		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	Project cashflow breakeven point is greater than 10 years from current risk assessment	Not Applicable
b)	Project cashflow breakeven point is between 7 up to 10 years from current risk assessment	Not Applicable
c)	Project cashflow breakeven point is between 4 up to 7 years from current risk assessment	Not Applicable
d)	Project cashflow breakeven point is less than 4 years from current risk assessment. The Financial model presented in Annex 2.3 of the PD projects break even at the end of 2015 with the assumption of VCU sales starting in 2016. Since the verification is not yet complete this projection has been moved forward but still under 4 years.	0
e)	Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven Applicable Project is largely dependent on revenues from REDD+ sales to reach breakeven.	3
f)	Project has secured 15% to less than 40% of funding needed to cover the total cash out before the project reaches breakeven	Not Applicable
g)	Project has secured 40% to less than 80% of funding needed to cover the total cash out before the project reaches breakeven	Not Applicable
h)	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven	Not Applicable
i)	Mitigation: Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven. Applicable But project lacks these callable resources.	0
Total Financial Viability (FV) [as applicable, ((a, b, c or d) + (e, f, g or h) + i)] Total may not be less than zero.		**3**

Opportunity Cost		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities; or where baseline activities are subsistence driven, net positive community impacts are not demonstrated. Applicable.	8
b)	NPV from the most profitable alternative land use activity is expected to be between 50% and up to 100% more than from project activities	Not Applicable
c)	NPV from the most profitable alternative land use activity is expected to be between 20% and up to 50% mre than from project activities	Not Applicable

d)	NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated.	Not Applicable
e)	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity	Not Applicable
f)	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity.	Not Applicable
g)	**Mitigation:** Project proponent is a non-profit organization	Not Applicable
h)	**Mitigation:** Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period. Applicable The Sub-decree creating the KPWS is indefinite in duration.	-2
i)	**Mitigation:** Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over at least 100 years. Applicable The Sub-decree creating the KPWS is indefinite in duration.	-8
Total Opportunity Cost (OC) [as applicable, (a, b, c, d, e or f) + (g + h or i)] Total may not be less than 0.		**0**

Project Longevity		
a)	Without legal agreement or requirement to continue the management practice.	Not applicable
b)	With legal agreement or requirement to continue the management practice.	-20
Total Project Longevity (PL) May not be less than zero		**0**

Internal Risk	
Total Internal Risk (PM + FV + OC + PL) Total may not be less than zero.	**(-2)+ 3+0+0 = 1**

2 EXTERNAL RISKS

Though land tenure and use in the Reference Region in general is complex, the choice of Project Area avoids most forms of risk to be assessed in this section. The estimated risk scores are reduced somewhat by the clearly established legal basis for protection of the KPWS and the evidence of strong community agreements clarifying the status of these overlapping claims with respect to the REDD+ project. Cambodia's relatively low scores on the database of Worldwide Governance Indicators increase the assessed risk, although this is partly offset by the existence of a national REDD+ Readiness process.

Land Tenure and Resource Access/Impacts		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	Ownership and resource access/use rights are held by the same entity(s)	Not applicable
b)	Ownership and resource access/use rights are held by different entity(s) (e.g., land is government owned and the project proponent holds a lease or concession) Applicable. Whilst the Project Area is owned by the Royal Government of Cambodia as State Public Land, traditional users have some resource use rights in accordance with the Forestry Law.	2
c)	In more than 5% of the project area, there exist disputes over land tenure or ownership.	Not applicable
d)	There exist disputes over access/use rights (or overlapping rights)	Not applicable
e)	WRC criterion N/A	Not applicable
f)	**Mitigation:** Project Area is protected by legally binding commitment (e.g., a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period Applicable The Sub-decree creating the KPWS is indefinite in duration.	-2
g)	**Mitigation:** Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims.	Not applicable
Total Land Tenure (LT) [as applicable, ((a or b) + c + d + e + f + g)] Total may not be less than zero.		**0**

Community Engagement		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	Less than 50 percent of households living within the project area who are reliant on the project area, have been consulted	Not applicable
b)	Less than 20% percent of households living within 20km of the project boundary	Not

	outside the project area, and who are reliant on the project area, have been consulted.	applicable
c)	**Mitigation:** The project generates net positive impacts on the social economic well-being of the local communities who derive livelihoods from the project area. These benefits are summarized in Table 6.1.1 of the PD.	-5
Total Community Engagement (CE) [where applicable, (a + b + c)] Total may be less than zero.		**-5**

Political Risk		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	Governance Score of less than -0.79	Not applicable
b)	Governance Score of -0.79 to less than -0.32	4
c)	Governance Score of -0.32 to less than -0.19	Not applicable
d)	Governance Score of 0.19 to less than 0.82	Not applicable
e)	Governance Score of 0.82 or higher	Not applicable
f)	**Mitigation:** Country is implementing REDD+ Readiness or other activities, as set out in this section 2.3.3. Information on Cambodia's REDD+ Readiness is compiled on the REDD+ Cambodia website (http://www.cambodia-redd.org/) the Forest Carbon Partnership Facility country database also keeps records of Cambodia's REDD+ Readiness progress (http://www.forestcarbonpartnership.org/cambodia)	-2
Total Political (PC) [as applicable ((a, b, c, d or e) + f)] Total may not be less than zero.		**2**

External Risk	
Total External Risk (LT + CE + PC) Total may not be less than zero.	**0+(-5)+2 = 0**

3 NATURAL RISKS

Natural Risks

Fire (F)	
Significance	Insignificant/transient losses as as confirmed through remote sensing analysis of historic imagery. This study detailed in the document "Large Area Deforestation from Uncontrolled Fires and Disease/Pest Outbreak" that was submitted to the auditor during validation.
Likelihood	Every less than 10 years.
Score (LS)	2
Mitigation	0

Pest and Disease Outbreaks (PD)	
Significance	Insignificant/transient losses as as confirmed through remote sensing analysis of historic imagery. This study detailed in the document "Large Area Deforestation from Uncontrolled Fires and Disease/Pest Outbreak" that was submitted to the auditor during validation. Further confirmation was provided in a letter from a long-term local expert.
Likelihood	Every less than 10 years.
Score (LS)	2
Mitigation	NA

Extreme Weather (W)	
Significance	Cambodia has no record of extreme weather events. This risk is insignificant. Sites such as the UNEP Global Risk Data Platform (http://preview.grid.unep.ch/) or Insurance Australia Group (http://globalriskmap.nicta.com.au/) identify no history of cyclones, flooding, storm surge etc for the project area.
Likelihood	Every less than 10 years.
Score (LS)	2
Mitigation	NA

Geological Risk (G)	
Significance	Cambodia has no record of extreme geological events. This risk is insignificant. Sites such as the NOAA National Centers for Environmental Information Hazard Maps (https://maps.ngdc.noaa.gov/viewers/hazards/) identify no tsunami events, significant earthquakes, or significant volcanic eruptions.
Likelihood	NA
Score (LS)	0
Mitigation	NA

Score for each natural risk applicable to the project - Determined by (LS × M)	
Fire (F)	2

Pest and Disease Outbreaks (PD)	2
Extreme Weather (W)	2
Geological Risk (G)	0
Other natural risk (ON)	NA
Total Natural Risk (as applicable, F + PD + W + G + ON)	**6**

Score for each natural risk applicable to the project (Determined by (LS × M)	
Fire (F)	2
Pest and Disease Outbreaks (PD)	2
Extreme Weather (W)	2
Geological Risk (G)	0
Other natural risk (ON)	0
Total Natural Risk (as applicable, F + PD + W + G + ON)	**6**

4 OVERALL NON-PERMANENCE RISK RATING AND BUFFER DETERMINATION

4.1 Overall Risk Rating

Risk Category	**Rating**
a) Internal Risk	1
b) External Risk	0
c) Natural Risk	6
Overall Risk Rating (a + b + c)	**7**

4.2 Calculation of Total VCUs

The project has a calculated risk rating of 7%. The minimum risk rating for a VCS AFOLU project is 10%, so the KPWS project has a rating of 10%. This is equivalent to a 10% risk buffer set-aside at the time of each verification event. For the 2000 to 2015 monitoring period this is 1,111,281 VCUs.

	Ex-post leakage carbon stock change		**Ex post net anthropogenic GHG emission reductions**		**Ex-ante VCUs tradable after 10% risk buffer deduction**	
	Annual	**Cumulative**	**Annual**	**Cumulative**	**Annual**	**Cumulative**
Yr	**ΔCLK[t]**	**ΔCLK**	**ΔREDDt**	**ΔREDD**	**VCU[t]**	**VCU**
t	tCO2e	tCO2e	tCO2e	tCO2e	tCO2e	tCO2e
1	975,783	975,783	(328,166)	(328,166)	(320,207)	(320,207)
2	995,821	1,971,604	(607,311)	(935,477)	(609,281)	(929,488)
3	1,015,860	2,987,464	410,208	(525,269)	366,804	(562,684)

4	1,510,487	4,497,951	4,908,063	4,382,794	4,417,256	3,854,572
5	1,540,439	6,038,390	3,421,662	7,804,456	3,079,496	6,934,068
6	1,570,390	7,608,780	2,408,936	10,213,393	2,168,043	9,102,111