



**Verified Carbon
Standard**

NON-PERMANENCE RISK REPORT

SOIL CARBON IMPROVEMENT PROJECT THROUGH GRASSLAND MANAGEMENT, IN SOUTH AFRICA



Document Prepared by WeAct Pty Ltd.

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1 INTERNAL RISK

Project Management		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located. Not applicable.	0
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.	0
c)	Management team does not include individuals with significant experience in all skills necessary to successfully 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). Management team is led by WeAct Pty Ltd, The Endangered Wildlife Trust and Conservation Outcomes (local co-ordinating management entities [CME]. They are collectively, highly experienced in grassland management. The organization has a proven track record in the application of this strategy, with most key individuals occupying senior and management roles having experience in more than 5 years. Thus, it can conclude management team includes individuals with significant experience in all skills necessary to successfully undertake all project activities.	0
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. Livestock owners and herders maintain a physical presence in the project site, and the entire team is located less than a day of travel from the project site.	0
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.	-2

	Management team includes individuals with significant experience in AFOLU project design and implementation, and in carbon accounting, under approved GHG programs.	
f)	Mitigation: Adaptive management plan in place Governance structures and principles for the implementation of an adaptive management plan is in place. This plan will identify, assess and create a mitigation plan for potential risks to the project and will count as a risk mitigation measure at future project verifications.	0
Total Project Management (PM) [as applicable, (a + b + c + d + e + f)]		-2
Total may be less than zero.		

Financial Viability		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	Project cash flow breakeven point is greater than 10 years from the current risk assessment The cash out of the project is mainly for the fencing the grazing land. The only cash in of the project will be the revenue from carbon credits and it will take over 30 years for the cumulative cash flow to break even based on the estimated volume of GHG emission removals generated from the project.	3
b)	Project cash flow breakeven point is between 7 and up to less than 10 years from the current risk assessment Not Applicable	0
c)	Project cash flow breakeven point between 4 and up to less than 7 years from the current risk assessment Not Applicable	0
d)	Project cash flow breakeven point is less than 4 years from the current risk assessment Not Applicable	0
e)	Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven. The only cash in of the project will be the revenue from carbon credits.	3

f)	Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches breakeven	0
g)	Project has secured 40% to less than 80% of funding needed to cover the total cash out required before the project reaches breakeven	0
h)	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven	0
i)	Mitigation: Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven Not Applicable	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.		6

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	0
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	0
c)	NPV from the most profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities	0
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 It is confirmed that the baseline scenario of the project is continuation of pre-project use (i.e. lands remain degraded grassland), which is subsistence-driven and the project has net positive impacts on social and economic well-being of the communities who derive livelihoods from the project area	0

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	0
f)	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity	0
g)	Mitigation: Project proponent is a non-profit organization Not applicable. All project proponents are for-profit organizations.	0
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 (see project longevity) The project is protected by legally binding commitment which is evident from the legal agreement¹ between the PP & the landowners to continue management practices that protect the credited carbon stocks over the length of the project lifespan	-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 (see project longevity) The project is protected by legally binding commitment which is evident from the legal agreement between the PP & the landowners to continue management practices that protect the credited carbon stocks over the length of the project crediting period only and is not protect the credited carbon stocks over at least 100 years	0
Total Opportunity Cost (OC) [as applicable, (a, b, c, d, e or f) + (g + h or i)] Total may be less than 0.		-2

Project Longevity		
a)	Without legal agreement or requirement to continue the management practice Initially at the start of the project, no legal agreement was signed to continue the management practice. But during the progress of the project each project participants was signed the agreement to continue the management practice. Not Applicable	0

¹ Copy of legal agreement between the parties has been submitted to VVB

b)	With legal agreement or requirement to continue the management practice The project longevity is 30 years. The ownership of the project resides with PP and an agreement signed between PP and farmers for the project activity. Therefore, the Project is protected by legally binding commitment. For confirmation purposes, “Detailed Project Report” and the agreements were presented as evidence to the VVB	15
Total Project Longevity (PL) May not be less than zero		15

Internal Risk	
Total Internal Risk (PM + FV + OC + PL) Total may not be less than zero.	17

2 EXTERNAL RISKS

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 same entity(s) Yes, both ownership and resource access/ use rights are held by the project participants	0
b)	Ownership and resource access/use rights are held by different entity(s) (eg, land is government owned and the project proponent holds a lease or concession) Not Applicable	0
c)	In more than 5% of the project area, there exist disputes over land tenure or ownership Not Applicable	0
d)	There exist disputes over access/use rights (or overlapping rights)	0

	Not Applicable	
e)	WRC projects unable to demonstrate that potential upstream and sea impacts that could undermine issued credits in the next 10 years are irrelevant or expected to be insignificant, or that there is a plan in place for effectively mitigating such impacts Not Applicable	0
f)	Mitigation: Project area is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period Project area is protected by legally binding commitment (a conservation easement) to continue the management of the area.	-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. There is no existence of disputes over land tenure, ownership or access/use right	0
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 100 percent of communities and nearly 100 percent of households living within the project area who are reliant on the project area were consulted. The evidence from the consultation was presented to the VVB.	0
b)	Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, representatives have been consulted. Although, all the	0

	communities (and families) living within the project zone were consulted.	
c)	Mitigation: The project generates net positive impacts on the social and economic well-being of the local communities who derive livelihoods from the project area Net positive community impacts are demonstrated in the section 2 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.	0
b)	Governance score of -0.79 to less than -0.32 Not applicable.	0
c)	Governance score of -0.32 to less than 0.19 Governance score of 0.1 (-0.32 to less than 0.19). Data from World Bank Institute and calculations on table below.	2
d)	Governance score of 0.19 to less than 0.82 Not applicable.	0
e)	Governance score of 0.82 or higher Not applicable.	0
f)	Mitigation: Country implementing REDD+ Readiness or other activities such as: a) The country is receiving REDD+ Readiness funding from the FCPF, UN-REDD or other bilateral or multilateral donors b) The country is participating in the CCBA/CARE REDD+ Social and Environmental Standards Initiative c) The jurisdiction in which the project is located is participating in the Governors' Climate and Forest Taskforce	-2

d) The country has an established national FSC or PEFC standards body	
e) The country has an established DNA under the CDM and has at least one registered CDM A/R project	
Total Political (PC) [as applicable ((a, b, c, d or e) + f)]	0
Total may not be less than zero.	

Governance Indicator	Year	Percentile Rank (0-100)	Governance Score ² (-2.5 to +2.5)	Mean of Governance Scores across years
Control of Corruption	2014	54.3	-0.1	-0.06
	2015	56.7	0	
	2016	59.1	0	
	2017	53.8	-0.1	
	2018	53.4	-0.1	
Government Effectiveness	2014	59.6	0.2	0.12
	2015	57.7	0.1	
	2016	58.2	0.1	
	2017	56.7	0.1	
	2018	58.2	0.1	
Political Stability & absence of Violence	2014	40	-0.1	-0.18
	2015	39.5	-0.2	
	2016	40	-0.1	
	2017	34.8	-0.3	
	2018	38.2	-0.2	
Regulatory Quality	2014	61.5	0.2	0.14
	2015	61.5	0.2	
	2016	59.1	0.1	
	2017	60.6	0.2	
	2018	51.9	0	
Rule of Law	2014	62.5	0.2	0
	2015	58.2	0	
	2016	56.7	0.1	
	2017	50	-0.1	
	2018	47.1	-0.2	
Voice and Accountability	2014	69	0.6	0.6
	2015	70	0.6	
	2016	69.5	0.6	
	2017	69	0.6	
	2018	69.1	0.6	

² World Bank Institute's WGI for South Africa

Mean of Governance Scores across indicators	0.10
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External Risk	
Total External Risk (LT + CE + PC)	0
Total may not be less than zero.	

3 NATURAL RISKS

Natural Risk (Fire)	
Significance	Insignificant. No occurrence of natural fire (i.e., caused by lightening) was registered³ within the project boundary in recent past. Literature review⁴⁵⁶ suggest that the occurrence of natural fire is common in the project area. Apart from natural fire, fire may cause by the anthropogenic activity also. In project area, human activity associated small fire may cause when managed poorly. Though as the prevention and mitigation measures are in place, this type of loss could damage less than 5% of the carbon stock. Additionally, due to the small proportions and the grassland characteristics any eventual loss would very likely be recovered within less than 10 years.
Likelihood	Less than every 10 years. No occurrence of natural fire (i.e., caused by lightening) was registered in the project boundary in recent past. Literature review suggest that the occurrence of natural fire is common in the project boundary and also fire may cause by the anthropogenic activity. Regarding fires derivate from human action the likelihood is less than every 10 years.
Score (LS)	2

³ Participatory Rural Appraisal

⁴ http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0038-23532016000600019

⁵ https://www.westerncape.gov.za/assets/departments/local-government/Fire_Brigade_Services/For_the_fire_service/veldfire_risk_report_v11_0.pdf

Mitigation	The fire will be strictly controlled by project proponent through local CME who experienced in local natural risk control to minimize the potential effect and established fire prevention procedure in Grassland Management Manual. As per the grassland management plan, Project participant will adopt the necessary measures by routine overseeing for fire preventing. Farmers were trained on “Fire prevention and Control Techniques” by project proponent through CME and will be effectively preventing and controlling fire. Therefore, it can be concluded that Fire Prevention and Control Prevention has proven to be effective. Therefore, the mitigation is scored as 0.25
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Natural Risk (Pest and Disease outbreaks)	
Significance	Insignificant. Pest and disease outbreaks normally occur in artificial ecosystems, such as forest plantations, or low diverse forests. (NAIR, 2001)⁷. The South African grassland Biome is an extremely old ecosystem, thus very well adapted and ecologically balanced⁸, According to the survey, the pest and disease risk are not common in the project area. It is evident from the survey that, there is no record of any pest and disease outbreak in the project areas.
Likelihood	The risk is every 50 to less than every 100 years There is no record of any pest and disease outbreak in the project areas. The Grassland Biome is an extremely old ecosystem, thus very well adapted and ecologically balanced. Pest and disease outbreaks normally occur in artificial ecosystems, such as forest plantations, or low diverse forests. (NAIR, 2001).
Score (LS)	0
Mitigation	If there is any incidence of insects and disease outbreak, it will be prevented by routine overseeing and the PP have in place a full Grassland Management Manual. The chemical pesticides are allowed to be used only if there is a serious pest problem erupted in the project area, while improper pesticide application would be harmful to natural environment, but the risk is considered low because pesticide will be strictly managed by well trained staff to minimize the potential effect. As the project proponent is

⁷ https://www.cifor.org/publications/pdf_files/Books/Nair.pdf

⁸ <https://www.frontiersin.org/articles/10.3389/fevo.2019.00263/full>

	experienced in local natural risk control and has established a Grassland Management Manual for the project which includes specific instruction in pest and disease prevention and control, the pesticide application will be limited. Therefore, the mitigation is scored as 0.25
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Natural Risk (Extreme Weather)	
Significance	Insignificant. The 2015-2016 El Niño⁹ resulted in life-threatening extreme weather in many countries around the world. More frequent and intense extreme weather events linked to climate change, combined with one of the strongest El Niño events on record. The result was one of the most severe droughts in history in many African countries including the project area. Grasslands sequester most of their carbon underground, the carbon fixed in underground tends to stay in the roots and soil, making them more adaptive to climate change. Grasslands continue to store some carbon even during extreme drought simulations¹⁰ These drought causes less than 5% loss in the carbon stock.
Likelihood	Every 25 to less than 50 years
Score (LS)	1
Mitigation	Rest grazing is being initiated as project activity to mitigate such extreme weather condition Therefore, the mitigation is scored as 0.5

Natural Risk (Geological Risk)	
Significance	Not applicable. South Africa is not prone¹¹ (U.S. Geological Survey) to major earthquakes¹², tsunamis¹³, volcanic activity or other geological risks¹⁴. Geological risk is categorized as very low to medium. Therefore,

⁹ <https://www.actionaidusa.org/work/severe-drought-southern-africa/>

¹⁰ https://www.researchgate.net/publication/326279957_Grasslands_may_be_more_reliable_carbon_sinks_than_forests_in_California.

¹¹ <https://www.ier.co.za/what-you-need-to-know-about-earthquakes-in-south-africa/>

¹² <https://thinkhazard.org/en/report/227-south-africa/EQ>

¹³ Kijko, Andrzej & Smit, Ansie & Papadopoulos, Gerassimos & Novikova, Tatyana. (2018). Tsunami Hazard Assessment of Coastal South Africa Based on Mega-Earthquakes of Remote Subduction Zones. Pure and Applied Geophysics. 175. 10.1007/s00024-017-1727-3.

¹⁴ <https://thinkhazard.org/en/report/227-south-africa/TS>

	geological events related to earth internal (tectonic movements) or external dynamic (such as landslides) was not registered in the project area or in literature sources.
Likelihood	Not applicable. No occurrence of geological events related to earth internal (tectonic movements such as earthquakes and volcanoes eruptions) or external dynamic (such as landslides ¹⁵) was registered in the project area or in literature sources.
Score (LS)	0
Mitigation	None : Since there is no geological risk there is no mitigation plan.

Score for each natural risk applicable to the project (Determined by (LS × M))	
Fire (F)	0.50
Pest and Disease Outbreaks (PD)	0.00
Extreme Weather (W)	0.50
Geological Risk (G)	0.00
Other natural risk (ON)	0.00
Total Natural Risk (as applicable, F + PD + W + G + ON)	1

4 OVERALL NON-PERMANENCE RISK RATING AND BUFFER DETERMINATION

4.1 Overall Risk Rating

Risk Category	Rating
Internal Risk	17

¹⁵ <https://thinkhazard.org/en/report/227-south-africa/LS>

External Risk	0
Natural Risk	1
Overall Risk Rating (a + b + c)	18

4.2 Calculation of Total VCUs

Project Year	Net anthropogenic GHG emission reductions	Buffer credits	VCUs
2018	116590	20986.25	90665
2019	231280	41630.33	179851
2020	231280	41630.33	179851
2021	231280	41630.33	179851
2022	231280	41630.33	179851
2023	231280	41630.33	179851
2024	231280	41630.33	179851
2025	231280	41630.33	179851
2026	231280	41630.33	179851
2027	231280	41630.33	179851
2028	231280	41630.33	179851
2029	231280	41630.33	179851
2030	231280	41630.33	179851
2031	231280	41630.33	179851
2032	231280	41630.33	179851
2033	231280	41630.33	179851
2034	231280	41630.33	179851
2035	231280	41630.33	179851
2036	231280	41630.33	179851

2037	231280	41630.33	179851
2038	116471	20964.81	88866