

Zambezi River Authority



Kariba Dam Rehabilitation Project (KDRP)

Environmental and Social Impact Assessment (ESIA) **Appendices**





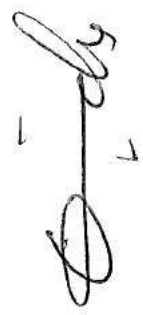

Revised – October 12, 2020
Zambezi River Authority
Kariba

Meeting: _____

Date: _____

ATTENDANCE REGISTER

29

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Isaac D. Hamuteya			0979 496563 0968-979710 0950-790444			
JAMES NOLAYA			0968196998 09625770 82			
STEVEN ZUKU			09677166 10			S. ZUKU
CHE GUEVARA ALGARDU	UPRID		097188- 1222			
MODERN BULEKE			0969907579	-	ModernBuleke@ yaho.co.uk	

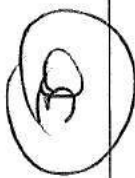
Meeting: _____






MICHU

Date: _____

MICH

ATTENDANCE REGISTER








Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Esq. Chirigwa Namakando	Zambezi River Authority	WATER RESOURCES ENGINEER	0772 986787 0772 986787 0772 986787	Box 30233, Lusaka	namakando@yahoo.com namakando@zambia.org.zm	
OLIVER MAJENGA	GRM	CONSULTANT	0772 986787		olivermajenga@hotmail.com	
DAVID MUSA			016 711 1400 0154 503001	Box 57, Sauraba		
ALEX CHIKWAMBA	"	"	0968 808080	"	"	
Katumba Mumbayumbwa	-	-	0968 808080	-	-	

Meeting: SIYAVONGA TOWN MEETING
 Date: 07/03/2015 09:00 HRS

ATTENDANCE REGISTER

①






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Ms Janet Mchabela	ERM	consultant	+27 21 681 5400	240 Waverley Rd, Newlands, S. A 7800	janet.mchabela@gmail.com	
De Kasonke			097919658 0964809504	UCZ Box 57.		
Gim Kabwesa			0964809504	UCZ Box 57		
PAUL BANDA			096245 553	SIYAVONGA	LAKE KAMPUBA INYUS SIYAVONGA	
CLEMENT LIKOBIFA			0969376070	BOX 110 SIYAVONGA	clementnaire@gmail.com	

Meeting: _____

Date: _____

②

ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
James Kuanda	—	—	09648015 04	UCZ Box 57	—	
Kelvin Chanda	—	—	096106 0197	UCZ Box 57	—	
ZOTHIA Mawiti	—	—	0977860229	MANUHIGH BAY Hotel	—	
Edson Muluwamba	—	—	097272 0157	Siawonga West SDA BOX Siawonga	—	
GIFT HAMPIBA	—	—	09535 38914	Siawonga MATH UCZ Box Siawonga	—	

Meeting: _____

Date: _____

ATTENDANCE REGISTER

③

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
CHILUNDU PHOAH			0945351489			
Robison Tembwa 386	—	—	0975099768	SIAMONGA KANYELELE		
CLINTON MUKUHGA	—	—	0971-130066	SIAMONGA KANYELA	—	
SYLAN MAKESA MUKOKATISI	—	—	0961299989 096811821	NEW SITE SIAMONGA	—	
KEEGAN MAZELE	—	—	096775542	NEW SITE SIAMONGA	—	

Meeting: _____

Date: _____

ATTENDANCE REGISTER

④






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
MADONALD Nyangulu			0977238341 0978322285	Box 62 SANDONGA		MAL
OSCAR HANG'ANDU			0975 20 89 60	Box 55 SANDONGA		OSCAR
N Chirungu Hanjumba			09792264 -93	Slawonga		Hanjumba
ALFRED CHONGH			096353- 1621	SANDONGA		ALFRED
DANNY CHUMBUKA			0966 097620 2910	Box 18 SANDONGA		DANNY

Meeting: _____

Date: _____

5

ATTENDANCE REGISTER

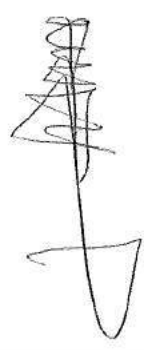


Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
CHIBAKE STEVEN			0973665491 096644264	SINOWA		
WEST MALAMBA 388			0979301101	SIPA		
MUNSAKA						
ANODI			0966182341			
NGORU PATRICK			0978012469			
TEDDY GASA						

Meeting: _____

Date: _____

6

ATTENDANCE REGISTER



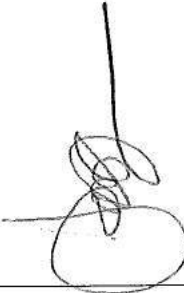

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
BABILON IS'ANDU			0979-99 2111			
ABIGAIL LIA JAYIA			0973-01 3345			A. H. JAYIA
ANES MUNJA			097807746			
MASHAK Kanyama			09486357			
OCEAN HUMUCHLIBA						O. Humuchliba

Meeting: _____

Date: _____

7

ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Rodwell Swan'gard			0971154 8073			
CLIVER Siachange			09794284 50			
Edison SIANZALA			09734 45006			
Hangama Muganda			09761009 71			
polina Kasunka			097156 77 62			

Meeting: _____

Date: _____

ATTENDANCE REGISTER



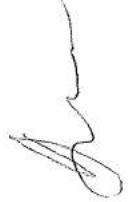
Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
VINCENT WAMONDA			0963 433358			V. WAMONDA
Bornwell MONGA		Welder	0977-34581			Bornwell MONGA
Bornface Simayaba			0979 029570			Bornface Simayaba
LONG CHINYEMU		Welder	096627 2673			LONG CHINYEMU
ALEX GWATI			0923419763			ALEX GWATI

Meeting: _____

Date: _____

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ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Patience Sikuloba			0979-386410			P. Sikuloba
Moddy Mwinga			0974-491184 0974-591184			M. Mwinga
Sikouma PIER		MEETRAIL C	0974560505			
Fobey MUEKI		3007762000	0965796831			
Agness Mutale Subale	Siavonga women's traders association	treasurer	0977 278813 0965555506	Box 12		

Meeting: _____

Date: _____



ATTENDANCE REGISTER





Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Evans Halumba. S	-	-	0976033 260	-		Halumba.
DAVID mpondamasa 393	-	-	-	-		R
CHARLES NCHIMUNYA	-	-	09775373 620			Nchimunya.
Murembo PHILIPON	-	-	0978885941	-	-	P
Wilson HATYBIO	-	-	0962018929	-	-	Hatybio

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(11)






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
nyambo Luka #	"	"	0968644030		"	
Moongo Samson	"	"	0953119716		"	
Simoon MARK	"	"	0969771583		"	
CHIKUMBWA pious	"	"	0962527447	"	"	
MUNTHUMBO VINCENT	"	"	0967336429	"	"	V.M

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(12)






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
CHIPANSO KABILI	-	-	0979296722 0967458552	-	-	
INNOCENT KAYANE	-	-	0978053130 0978053130	-	-	
C. CHANBA	-	-	0978930765	-	-	
MICHAEL SIMWANDA	-	-	0975285374 0954703753	-	-	
PROTECTIONS - MWEENE	Prosper	-	0961485279	-	-	

Meeting: _____

Date: _____

ATTENDANCE REGISTER






(13)

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
NELSON MANIHE	-	-	097296489 0955174972	-	-	
clever Siannyjennu	-	-	096214335	-	-	
HARRISON Mwilinga	-	-	0972950937 0969235556	-	-	
GILBERT MUTELESI	-	-	0972576332 0966974259	-	-	
JAMES Kambadzo	-	-	09758535 38	-	-	

Meeting: _____

Date: _____

ATTENDANCE REGISTER








Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
ROYD MOTO	—	—	09769887933 6975395608	—	—	
(PLUMBER) LYAMBELE AXAKULU 397	—	—	0973-89 2462	—	—	
Benard Chisenga	—	—	0977677675	—	—	
MULO PA BEST	—	—	097797 2942	—	—	
TEBEKA Csmas	—	—	0972-091343	—	—	

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(15)





Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Charles	-	-	0972967860	-	-	
Halagembwe	-	-	0956695308	-	-	
RICHARD DOMINGO	-	-	097845697	-	-	
Sosna mulepa	-	-	095088664	-	-	
398 EOSO NCHONGA BRIGHTON MELA	-	-	09744276442	-	-	
MAN KOMBIA	-	-	0972133164	-	-	
S. SANDIGA	-	-				

Meeting: _____

Date: _____

16



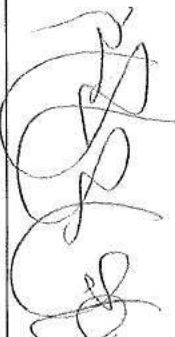
ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
I MWARDA						
399 LIFI DAY MOODYA			0960 096636 7532			
Syvester Mbondo			096204 3538			
Patrick			097455 8888			

Meeting: _____

Date: _____

ATTENDANCE REGISTER






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
PHINEAS SIMUZINDO	—	—	0965939 522	—	—	
CHRISTOPHER KHUWA	—	—	096574 9177	—	—	CH:4
MOSERS ZUTU	—	—	099754 16 85	—	—	
MASINIRE MADUBEKO	—	—	09779-23 9014	—	—	
CEEDO MUSIALIKE	—	—	0977709771	—	—	C Mlike

Meeting: _____

Date: _____

ATTENDANCE REGISTER

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Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
IVORY KAMBA	—	—	09644416 90	—	—	
JOSEPH A. MITCHELL	—	—	09652404 11	—	—	
CHABABAS Cyendun	—	—	09634 34024	27800 92	K.B.C	
SAMSON	—	—	09634	—	—	
CHIMOWA ANDREW	—	—	0961699 681	—	—	

Meeting: _____

Date: _____

ATTENDANCE REGISTER



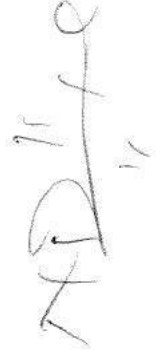


Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
BURNS LUSWAT CHRISTOPHER	—	—	0964- 353339	KANYE- LELE	—	Ble-gane
HAKOMBE RAFORD	—	—	096955- 2340	KANYE- LELE	—	HAKOMBE
CHRISTOPHER CHIBONDO	—	—	096108 29 11	KANYE	—	CHIBONDO
CAPRIS MUSINDA	—	—	0978 078133	FISHING Camp	—	CAPRIS
HERBERT SILWAMBA	—	—	09664 6-744	KANYE LE	—	HERBERT

Meeting: _____

Date: _____

ATTENDANCE REGISTER

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Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
CHIKANDA KEDEA			0974650554	KANEYA		
JUSTINE CHIMENA			097762 77897	KANE LELE		
Alex NDEKE			097725 096	KANYE LELE		
ALUCIOYS MICHELO			095537 5675	KANYE LELE		
COLLINS MANKWE				KANYE		

Meeting: _____

Date: _____

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ATTENDANCE REGISTER






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Choud Nirula	—	—	0967 467778			

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(22)

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
DANIEL BUTL-CA	P.D.C	—	096407- 3368	—	—	
CHRISTOPHER MAUSE	—	—	—	—	—	
405 MAIKO Zimba	—	—	—	—	—	
N-jembe	—	—	—	—	—	
Stellen CHRISTIN BANDA	—	—	09673235 32	—	—	

CASSER
HARMON


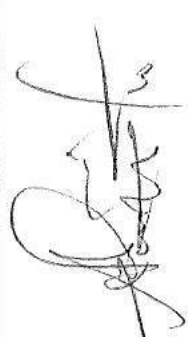

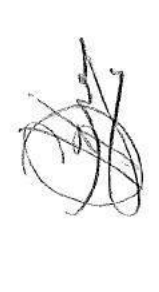

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21/5/9

Meeting: _____

Date: _____

ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
KADATIA EMMANUEL CHIRESA		BRICK Lengel	0975215798	Kanye lele		
ABDUL Bisforanta			0977 22220 7		Kanyelele	
JOSEPH Chiwala				Kanyele lele		
JOHN Tumukoro						
SANDON BALDIA	✓	✓	in	✓	✓	

Timothy

✓

✓

✓

✓

✓

see






23

Meeting: _____

Date: _____

22






ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
MALFRED MANDAKA			0964 003158			
LYERSON SIKAKA			09788 04672	KANYELELE		
ENGINE MUIAPEZA		BRICK LAWYER	097753- 5041	KANYELELE		
KINGSTONE MAWUNDA		B		KANYELELE SANDWIK		
TAUSE			0978390990	HANUYULU		

Meeting: _____


Date: _____

ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Robert Simuana						
CHARLIE NANKARD	ZRA	WATER RESOURCES ENGINEER	877-807788 855-807788	Box 30233 LSU		
MURRAY CHISPI	ZRA		09780042 916			
SIAMFIBULE FI	ZRA					
KLORIS MASITA	ZRA		0978198243 0965667478			

Meeting: _____
Date: _____


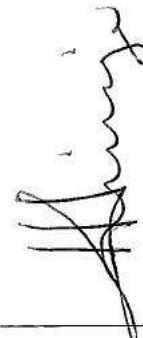


ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Kevin Kangarwa	BARA	—	0964686870			
Varthan Sisfali	BARA	—	0964591550			
Colleen	BARA	—				

Meeting: DIABONGA TOWN MEETING
 Date: _____

ATTENDANCE REGISTER

(27)






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
FRANK AZIKIMASIN			0978652751	93 SIABONGA		
410 JUSTIN SIABONGA	—	—	0971983939	NEW APOSTOLIC CHURCH BOE SIABONGA 27	—	
HAROLD SIABONGA			0965317086	Fist Camps	—	
TONA CHANAM			09789748			
DONGHOSHAKED E			0972091267			

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(28)

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Josephine Masiya			0945761525 182	The Apostles Church		
411 Prince Siakulala			0966128776	Siauvonga west side church.		
Violet Potho			09163092075	Seavonga post office		
Gladys Janu			09772967819	S.D. Hospital Box 16 Siauvonga		
Micuna Hamakoe			0967490789			

Meeting: _____

Date: _____

ATTENDANCE REGISTER

29






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
BRIGHT NANYULELA	—	—	0965858716	SIAMVONGA	SIAMVONGA	<i>[Signature]</i>
SIMON BANDIA	—	—	0966928051	SIAMVONGA		<i>[Signature]</i>
EDWIN CHISALE	—	—	0975095515	SIAMVONGA		<i>[Signature]</i>
ALFRED MWINJA	—	—	0972420440	SIAMVONGA		<i>[Signature]</i>
WILLIAM MIAHDE	—	—	0954168468	SIAMVONGA		<i>[Signature]</i>

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(30)

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Solomon SIAMAHOKO	—	—	09720925 63	Namumu Box 50 Siavonga	Solomon HAMAHOKO	
Joyson NKAMU	—	—	—	LAKE KARIBA IN BOX 117	—	
BRECK ZIMAZI	—	—	09661375 72	MBIRI	—	
VINCENT BWALTA	—	—	095332 7675	—	—	
	—	General Worker	097657 1316	Siavonga P.O BOX 92		

Meeting: _____

Date: _____

ATTENDANCE REGISTER

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Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Fairnot Sienduba			0963207318	Sienduba		Sienduba
Mwendu Vincent			0972133122	Sienduba		Sienduba
Siandika Joan			0968311 700	Sienduba		Siandika
STAFF Siampule			09796542 \$1			Siampule
FEBBT KATONJA			0979232885-			Sienduba

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(32)




Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
PSYCHOSOCIAL COUNSELLOR DYNES BELITA BAUDA			0977466284 0950384093	Plot No 1090 SIADONGA		
ABRAHAM #15 (DRIVER)			0969527475 114 SIADONGA		-	
Zujando Chingana	-	-	0965314 780 SIADONGA		-	
Simoonja James			0968365541 SIADONGA			
Zawza	-	-	0963361277			

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(33)



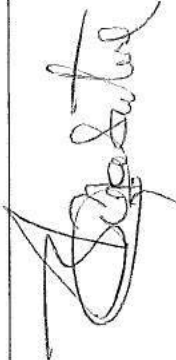


Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
MAMBULLE DANIEL			097396 3267	KARIBA MARINA	SANDOFF	
LONALD SIANDUZE			0974478 3198		SIA VONG	
JORIS- NKAZISI			097911848		SIAVONGA	
NORMAN HAKABALE						
ALEX MABUPWA			09583 661			

Meeting: _____

Date: _____

ATTENDANCE REGISTER

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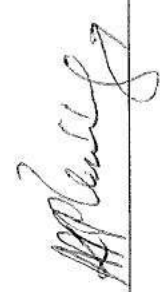


Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
LORELY HAMUNHON			0962012888	—	—	
PATRICK KUSONDA			097712067 0974141664	—	—	
EARNESI HASUNYONE			09624677 6	—	—	
Mbene Nipol			096521 7861	—	—	
DERICK HAJILA			0977 500170 0965-54	—	—	

Meeting: _____

Date: _____

ATTENDANCE REGISTER

(35)

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Chinyang CHRISTOPHER	-	-	0967717714	-	-	
Goodson	-	-	0965986148	-	-	
418 MOLICA	-	-	-	-	-	-
MAPULAGA-C.	-	-	0975373710	-	-	
ERIC SINAITA	-	-	0967356182	-	-	
JIMMY MUDYABU	-	-	0976507739 0966597739	-	-	

Meeting: _____

Date: _____

ATTENDANCE REGISTER

36



Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
JUSTINE MUSONDA	—	—	096598 45 02			Musonda
419 Mungoni	—	—	0961268 376		Kenge	Pran
ZIMMICHONDA	—	—	0978191096			Shen
BRIAN MARIMIR			0961329901			MS
CHALO KAN'DANIS			09658610 28			e-k

Meeting: _____

Date: _____

ATTENDANCE REGISTER

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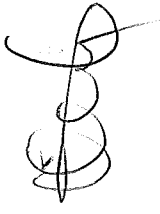
Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Oscar Hatoongo	"	11	0964 592322			
Mike TEMBO			0964134 537			M. S. Tembo
Happy MUDYABU			09736356 19			H. MUDYABU
King Sleg KAINDA.			0910 25 18 751			
CHARLES TEMBO			096276 2169			C. TEMBO

Meeting: DESIA

Date: Saturday 7th March 2015

NAMBLEKOMBE BASIC SCHOOL - ZAMBIA

ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Mr. FELIX CHINDA	CRMA	CONSULTANT	0974074384	Box 2110 Lusaka	Felix chinda@yahoo.com	
ROY MASHIVANHANGI			0771485451	1182 Nyamhunga 2 KARIBA		
Andrew SIBALO			0783582488	1210 Nyamhunga 3 KARIBA		
Moses Nagocha	Resident			24 Chikwa		
ELLIOT MANZVENYA	ARMY		0778585558	Waller		
	MARINELAND	HARBOURMASTER	071220010	Box 85 KARIBA	HARBOURMASTER@MARINELAND	

Meeting: _____

Date: _____

ATTENDANCE REGISTER



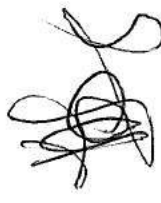
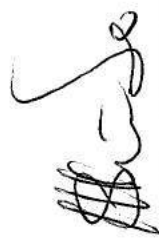
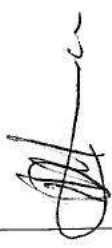
Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
Rumbidzai Mafuriranwa	Resident			D35/2, Shabani Mahombe		R.M
Rukucko Mafuriranwa	Resident		0776768782	D35/2, Shabani Mahombe		NEL-q
MPOFU Nurse	Resident - Shabani		0775629441	D36/2 Shabani Mahombe		Nes
Cynthia Tsatsi	Resident - Shabani		0776810035	Mahombekombe Primary School Box 119 Kariba		Bodsi
Marasha Smart	civil servants Housing cooperative society Resident	Chairperson	0777934974	1944/9 D/A's camp Kariba	Smart marasha 74 ag mail.com	Smart

2

Meeting: _____

Date: _____

ATTENDANCE REGISTER






Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
JOSEPH STOK	ARTISAN ASSOCIATION	ZETDC	0776 636 533	13 D 1301A MAHOMBE		
EAMECK CHOTIKO	Resident		0737216081	0m2 A Local Board Mahombe		
Adam Julius	Resident		0776 145831	0m510 Local board Mahombe		
Michael	Resident			138/5 Imprisi		
Douglas Muzivekwenyu	Resident		0775 468800	Fort Jameson #34 B MAHOMBE		

Meeting: _____

Date: _____





17

ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
NORMAN JUMA	Resident Assianf mechanic		0779011837	H32A PORTY JAMESON Mahombe	N/A	
WILFRED JANI	Residents. N/A		0774 691372	H28 B PORTY JAMESON	wilpass@yahoo.com	
CHLOPHIAS CHAGUEA	Resident N/A		0738095774	Jamve son Mahombe	N/A	
Edward Dairmon	Resident N/A		0775 629423	3126 Gariikai Nyemhanga	—	
GIRI MAFINJA	Resident N/A		0783173232	3119 Gariikai Batanga Kariba	—	

Meeting: DESLA
Date: MAHOMBEKOMBIE - 07/03/2015

ATTENDANCE REGISTER

Title, First name & Surname	Organisation Name	Position in Organisation	Telephone / Cellphone Numbers	Postal Address	Email Address	Signature
THIPKA MAMAZERA	Resident N/A	N/A	0778491264 282 NYAM I		N/A	
Bucky Mangana	Resident N/A	N/A	0776801026 24523		N/A	
Queen KACHA	Resident	N/A	0773947073	243	N/A	
Matthew TSATSI	Resident	N/A	0738960716		MahombeKombie P/S	



Annex B:17

Pictures taken at Meetings

Micho Public Meeting



Siavonga Town Public Meeting



Mahombekombe Public Meeting



Annex B:18

Updated Issues Log

Consultation Type	Date	Type of Stakeholders	Name	Country	ERM & ZRA Representatives	Discussion Areas	Issue Description	Response/Action Description
Public meeting	05-Mar-15	Community member	Patson Makwelele	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Stakeholder notification	Has the councillor been kept abreast with developments, this meeting and this feedback process?	This has been done through the District Offices and the appropriate authorities DCOs etc.
Public meeting	05-Mar-15	Community member	Tobias Banda	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Benefits associated with employment	Funeral grants if an employee has a family member who dies, is that person covered by the company?	This depends on individual contractors and contracts between them and their employees. This will need to be clarified by the individual and the contractor as stipulated in their terms of reference.
Public meeting	05-Mar-15	Community member	Pearson Hakabale	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Electrification	Siavonga is a growing township many depend on charcoal and firewood it costs K3,500 to connect electricity, and this out of the reach of many. The environment and its natural resources have been exhausted, fruits such as Macheje are no longer found in the area as a result. How are we going to benefit from this?	Through employment and procurement opportunities created as a result of the project implementation.
Public meeting	05-Mar-15	Community member	Pearson Hakabale	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Electrification	Will electricity be connected for us and subsidised as it is so expensive?	ZRA manages the Zambezi River water body, ZESCO and other energy related parastatals are responsible for connects, distribution and pricing.
Public meeting	05-Mar-15	Community member	Daniel Banda	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Procurement	What measures have been put in place for procurement both in Zambia and Zimbabwe?	The Project Developer, the Consulting Engineer and the Contractor should develop and implement their own Procurement Strategies. These strategies will be designed to encourage Project authorities and their design and construction consultants to stimulate in-country business opportunities at local, regional and national level through incentivising in-country procurement. To the greatest extent possible, mentioned Procurement Strategies will provide for: The establishment of a service provider database by the Contractor (also for use by the Engineer and Project Developer). The database should reflect the name, type, location, contact details and capacity of the businesses as a minimum. The unbundling of contracts into smaller and more manageable packages so that in-country and possibly less experienced local and regional suppliers have a better chance of being selected. Setting procurement targets for different business categories e.g. per sector or in terms in-country or women ownership and or management of the business. Tracking of performance against procurement targets and issuing of quarterly performance reports to the Project Proponent. Basic capacity building support to in-country businesses to assist them with responding to tender opportunities and meeting administrative requirements of written communication, invoicing and reporting. Advertising of procurement opportunities according to a specific, agreed and well-communicated method and medium.
Public meeting	05-Mar-15	Community member	Victor Hazemba	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	There are legacy issues from the building of the wall (both in Zambia and Zimbabwe) which include people having not been compensated accordingly for the resettlement. As such the benefits associated with employment should be given to those who were affected by the resettlement.	Noted. This is not a platform to raise historical issues associated with the resettlement during the construction of the dam. As such employment opportunities will be extended to all the residents of the Kariba and Siavonga Districts.
Public meeting	05-Mar-15	Community member	Samuel Mwitwa	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	There is a lot of politics in the way people secure jobs in the area. How is the ZRA planning to address issues of corruption associated with the awarding of employment opportunities?	Recruitment and employment policies will set out certain guidelines in terms of the allocation of employment opportunities. Furthermore, the ZRA will work closely with the Districts' labour offices for guidance in terms of ensuring a transparent employment process. The grievance mechanisms will be in place for stakeholders to raise any issues/ concerns and comments they may have regarding all things associated with the project.
Public meeting	05-Mar-15	Community member	Florence Simunje	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	Thank you and we support the project. Please ensure that local people benefit from project through jobs.	Thank you. The ZRA will implement the recommendations of the ESIA and there will be monitoring and evaluation undertaken by certain government departments that may assist in ensuring that local people do get jobs.
Public meeting	05-Mar-15	Community member	Rosemary Longwe	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	Some more clarity on the previous question on funeral policies, would be appreciated.	We cannot guarantee that funeral grants will form part of the employment contracts as different companies provide different benefits for their employees compared to others. What we can advise is that read your contracts well before signing in order to



Public meeting	05-Mar-15	Community member	Media Habanyama	Zambia	Janet, Felix, Oliver (ERM); Chrispin	Employment opportunities	What is the age for employment?	Contractors will adhere to labour laws of both countries in terms of the age of employment 18 and above.
Government	06-Mar-15	District official	Phanwell Simamba	Zambia	Janet, Felix, Oliver (ERM); Chrispin	Employment opportunities	In which country is labour going to be sourced?	The labour will come from both countries and in case of highly skilled labour, it may require the recruitment of expats.
Government	06-Mar-15	District official	Phiri Biseel	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Creating of the plunge pool	Didn't the engineers of the have the right technology to determine to determine the durability and strength of the dam and plunge pool?	Keep in mind the dam and associated infrastructure were constructed 50 odd years ago and some today's technology didn't exist. The thinking at the time was that the plunge pool will develop in a natural way and away from the dam wall, which did not happen thus the proposed rehabilitation works.
Government	06-Mar-15	District official	Muzoka B.	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Plunge pool dewatering	One would assume that the water from the plunge pool has limited oxygen levels compared to the water currently flowing downstream of the dam. How will this water (pumped out of the plunge pool) affect the quality of water downstream?	The water does have enough oxygen and the downstream flows will be continuously monitored and testes.
Government	06-Mar-15	District official	Phiri Biseel	Zambia	Janet, Felix, Oliver (ERM); Chrispin	Labour and working conditions	Will the labour laws be observed?	Yes, the project will adhere to both countries' labour and working conditions as well as occupational health and safety laws.
		District official	Phiri Biseel	Zambia		Workforce health and safety	Have the capacity of the local hospitals and clinics been assessed regarding the handling of labour force injuries?	Yes, the social baseline provides a high level description of the health facilities that exist in the areas. This description will form basis for further discussions to be undertaken by the ZRA and the respective institutions they want to work with during construction.
Government	06-Mar-15	District official	Grace Mwanza	Zambia	Janet, Felix, Oliver (ERM); Chrispin	Labour and working conditions	Please note that Siavonga District does not have a labour office.	Noted.
Government	08-Mar-15	District official	Phanwell Simamba	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	It is suggested that employment opportunities associated with the project should be divided equally between the respective countries (i.e., 50/50). This will limit any future confusion that may arise.	Noted. This will be determined during the planning stages with the Consulting Engineers and Contractors and communicated further to you closer to the start of project works.
Government	06-Mar-15	District official	Phanwell Simamba	Zambia	Janet, Felix, Oliver (ERM); Chrispin	Community development initiatives	Will there be any CSR programs associated with the project?	CSR associated with the project is still to be determined.
Government	06-Mar-15	District official	Grace Mwanza	Zambia	Janet, Felix, Oliver (ERM); Chrispin	OHS	Will an Occupational Health and Safety Officer be present on site at all times?	Yes, here will be and OHS Manager and support on site.
Government	06-Mar-15	District official	Grace Mwanza	Zambia	Janet, Felix, Oliver (ERM); Chrispin	Monitoring and evaluation	Please note that most government departments are not proactive. As such, the ZRA is encouraged to engage private companies assist in addressing issues of OHS and monitoring. .	Noted.
Government	06-Mar-15	District official	Samulda B.	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Security	What type of security measures have been considered to safe guard the project from acts of terrorism, vandalism, etc.?	Noted. All that is known at present is that there will be security personnel present on site at all times. The finer details of this will be determined closest to the commencement of construction.
Government	06-Mar-15	District official	Grace Mwanza	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Issues of employment and labour	The ZRA should adhere to the suggestions of the consultants regarding employment policies, recruitment procedures, etc. especially given that people from Siavonga have been disappointed in many cases as contractors tend to employ people from outside the area.	Noted.
Government	06-Mar-15	District official	Muzoka B.	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Construction timetable	When will construction begin?	The timeframes are as follows: EMA and ZEMA are expected to approve or disprove the ESIA around June 2015. ZRA is expected to appoint the Consulting Engineer in September 2015. Works on the plunge pool are expected to begin in March 2016.
Public meeting	07-Mar-15	Community member	Smart Marasha	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Issues of employment and labour	Contractors and Developers tend not to follow the recommendations made in environmental studies especially with regards to labour and working conditions. How will the ZRA ensure compliance with these recommendations?	The ZRA will monitor the issues/ concerns raised by the labour force through the workforce grievance procedures. EMA and ZEMA will be monitoring compliance with the recommendations of the ESIA study. The ZRA will also be expected to report to various other government ministries/ or departments as well as the respective funders (i.e., world bank, African development bank, etc. There will also be sitting panels/ committees that will be engaged by the ZRA every 6 months to evaluate the compliance of the project with the ESIA notification measures.
Public meeting	07-Mar-15	Community member	Smart Marasha	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Issues linked to Contractors	Contractors tend to bring their own labourers for most construction work that takes place in this district. As such, it is suggested that recruitment should be done through the district's labour office, located in Nyamhunga. This will ensure that the employment process is transparent.	Noted. A similar suggestion was made in Siavonga, Zambia and the suggestion will be incorporated into the social impact assessment.
Public meeting	07-Mar-15	Community member	Smart Marasha	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Road traffic accidents	The ZRA should consider engaging the road traffic agency regarding the monitoring of road traffic and installation of road traffic calming measures. Furthermore, the ZRA should consider working with this agency to develop and implement road safety campaigns at local primary schools. This assist in limiting the potential number of road traffic accidents linked to the project vehicles and locals.	Noted. This suggestion will be incorporated into the social impact assessment.
Public meeting	07-Mar-15	Community member	Douglas Muzivkwenu	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Project timeframe	When are the project works expected to commence?	The timeframes are as follows: EMA and ZEMA are expected to approve or disprove the ESIA around June 2015. ZRA is expecting to appoint the Consulting Engineer in September 2015.

Public meeting	07-Mar-15	Community member	Wilfred Jani	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Workforce conduct	The local workforce should be notified not to abuse alcohol and drugs whilst working on the project.	Noted. There will be policies in place that will advise the workforce of acceptable and unacceptable behaviour on site. These will include: Workforce code of conduct Health and safety policy Closed and dry worker camp.
Public meeting	07-Mar-15	Community member	Smart Marasha	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Fish eries resources in the plunge pool	What type of fish species are found in the plunge pool?	Blasting and dewatering of the plunge are expected to affect fish resources in the plunge pool and may lead to fatalities.
Public meeting	07-Mar-15	Community member	Smart Marasha	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Impact on fisheries resources	What are the expected impacts on the fisheries resources found in the plunge pool?	But this will also create research opportunity for the Kariba Fisheries institution in terms of determining the fisheries species that occur in the plunge pool.
Public meeting	07-Mar-15	Community member	Eliot Manvenga	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Impacts on power generation	How will the works affect power generation?	No. The power generation will continue uninterrupted by construction.
Public meeting	07-Mar-15	Community member	Smart Marasha	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Method of separating the 2 project impacts	Given the estimated project start month, and the current installation of new turbines in the south bank, how does ZRA plan to separate the 2 projects' impacts?	Weekly and monthly meetings are currently being held with partners involved in these projects in order to assess the impact of the current project. It is expected that the same partners will continue to engage each other including this project.
Public meeting	07-Mar-15	Community member	Samson Banda	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	For the seven month or so cycles for the rehabilitation will the same people be employed that were employed at decommissioning?	This is still unknown. The ZRA, Consulting Engineers and Contractors will have to discuss this and inform you prior to the recruitment process.
Public meeting	07-Mar-15	Community member	Berita Banda	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Blasting	Won't the blasting during rehabilitation increase cracks already there?	No because controlled blasting methods will be employed. By controlled blasting we refer to blasting techniques used to reduce the amount of overbreak and to control the ground vibrations.
Public meeting	07-Mar-15	Community member	Clinton Mukunga	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	ESIA team during construction	Will you as consultants be there during the rehabilitation works?	Unfortunately the ESIA team will not be present during construction. However, the ZRA, various other specialist and certain government officials will be present to monitor the activities.
Public meeting	07-Mar-15	Community member	Cephas Mwinga	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment benefits	What type of employment benefits will be available to the workforce?	These will be determined by each individual Contractor, but obvious things such as health life insurance will form part of the employment contracts.
Public meeting	07-Mar-15	Community member	Phoebe Kawonga	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Project timeframe	When will the work be starting?	The timeframes are as follows: EMA and ZEMA are expected to approve or disprove the ESIA around June 2015. ZRA is expecting to appoint the Consulting Engineer in September 2015. Works on the plunge pool are expected to begin in March 2016.
Public meeting	07-Mar-15	Community member	Justin Chembo	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment and women	You mentioned women will be empowered don't you think this will break up our marriages having women as bread-winners?	No this is not expected to break marriages. Gender equality has been important. You need to keep in mind that competition for employment opportunities will be high always be high amongst men than women in Africa. As such, we always advise that husbands should always allow their wives to seek employment because chances of women securing employment compared to their husbands will always be higher.
Public meeting	07-Mar-15	Community member	Innocent Kayawe	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment	The employment numbers are they just for the people who will be employed by ZRA or does it include the contractors too?	The estimated employment numbers apply to all project related employment including these estimates.
Public meeting	07-Mar-15	Community member	Danny Mwila	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment	Are these numbers (for employment) just for Zambia or does it include Zimbabwe too?	Nope, the employment estimates are for both Zambia and Zimbabwe.
Public meeting	07-Mar-15	Community member	Alex Ndeke	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	OHS	Who will be responsible for providing the workers with PPE?	Depending on the contractors and their specific policy, for example the money may be deducted from your salary or it may be paid for by the contractor. The important thing is for you to know that you will need to have PPE on site for OHS reasons.
Public meeting	07-Mar-15	Community member	Chibesa Kabaya	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	OHS	Will the employees be allowed to keep PPE once the project work is complete?	This depends on contractual obligations and company policy. But why would you want to keep PPE with ZRA or Contractor logos, etc.? Can you imagine how it will look if you were to use the ZRA PPE on a different project; it won't look alright. So if the contractor or ZRA say return the PPE, you will need to return it.

Public meeting	07-Mar-15	Community member	Goodison Mulenga	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Compensation for attending a meeting	I have come from Central Province seeking work, will I be compensated for coming to this meeting?	<p>Did you travel to Siavonga for the meeting or you were already here when the meeting was announced? The stakeholder responded that he was already in the area.</p> <p>Why then would you want to be compensated for attending a meeting that was not compulsory for you to attend? The stakeholder didn't respond to this.</p> <p>This is a feedback meeting only and as such you cannot be compensated.</p> <p>Thank you for participating and keep listening to communications in the media, from the authorities and the ZRA.</p>
Public meeting	07-Mar-15	Community member	Edson Muwamba	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Transportation of workforce	Will the contractor be providing transportation for the workforce?	This conversation will take place once the contractor has been appointed and communicated to you at the appropriate time.
Public meeting	07-Mar-15	Community member	Clement Likonge	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Rehabilitation works	Will there be continued monitoring after the rehabilitation is complete?	Yes, keeping in mind that the plunge pool has been monitored over a long time and will continue to monitor it.
Public meeting	07-Mar-15	Community member	Gladys Janu	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment and women	Will women be expected to reside in the workforce camp? Will they be allowed to go home?	Yes, women may be expected to stay at camp too. But in a separate section to that of men. Whether they go home everyday or not will be discussed with the contractor and consulting engineers and communicated to you.
Public meeting	07-Mar-15	Community member	Charles Hakazembe	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Rehabilitation works	Is it possible to have the two processes running concurrently as this would ensure higher numbers of people are employed during the rehabilitation.	No, the rehabilitation process cannot be undertaken concurrently due to health and safety reasons.
Public meeting	07-Mar-15	Community member	Crispen Banda	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	OHS	Will there be first aid on site?	Yes a first aid kit will be present at all times on site as well as trained first aiders.
Public meeting	07-Mar-15	Community member	Crispen Banda	Zambia	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	OHS	What would happen if an employee is injured?	This will be detailed in the updated Emergency Response Plan and Health and Safety Policy and communicated to those employed by the project.
Government	09-Mar-15	District official	Patricia Machinenyika	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Issues related to contractors	The Contractor at the current project site has failed to respond to the ministry of women's affairs' request to sensitise its workforce re HIV/AIDS. As such how can this ministry trust that the ZRA will implement an HIV/AIDS policy and awareness raising campaigns?	Please contact Mr. S. Z. Mhanga at the Kariba ZRA offices regarding the current issues.
Government	09-Mar-15	District official	Taitiro Tomu	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	Local hardly ever benefit when projects/ developments of this nature take place. The reasons for this are unclear.	Noted. That is why the consultants have developed easy to implement mitigation measures for employment. Further, the grievance mechanism will be available to all. As such stakeholders can raise their concerns regarding the distribution of employment opportunities. There are also other avenues which stakeholders can pursue should they believe that their employment related concerns are not being addressed, such as engaging the districts' labour offices.
Government	09-Mar-15	District official	Anasia Musakanda	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Employment opportunities	Where will potential employees go for registration?	At the proposed employment offices. The exact locations of these are still to be determined.
Government	09-Mar-15	District official	George Munyau	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Location of recruitment offices	Have the locations for the proposed recruitment office been identified?	No, the location is still to be determined.
Government	09-Mar-15	District official	Taitiro Tomu	Zimbabwe	Janet, Felix, Oliver (ERM); Chrispin Namakando (ZRA)	Emergency Response Plan	The office of the Kariba District Administration would like to receive a copy of the Emergency Response Plan.	Noted. The ZRA will provide the district officials with a copy once the ERP has been updated.

Annex B : 19

Comment Sheets

Kariba Dam ESIA - Comment Sheet		
March 2015		
Should you have any queries, comments or suggestions regarding the Project, please don't hesitate to contact the ESIA team		
Return this comment sheet to: Ms. Janet Mkhabela (South Africa); or Mr. Felix Chisha (Zambia); or Mr. Oliver Manjengwa (Zimbabwe)		
<p>Comment:</p> <p>HISTORY :- This project should seriously look at the historical background of the Kariba dam. People (Valley Tonga) were brutally relocated without benefit. And the benefit that was supposed to accrue to the same people were 'STOLEN' by people from other regions of Zambia and Zimbabwe.</p> <p>EMPLOYMENT :- Deliberate policy should be taken in consideration to employ the people from the affected chiefdoms both on the Zambian and Zimbabwean sides.</p>		
Title and Name:	VICTOR H. HAZEMBA	
Organisation:		
Telephone:		Fax:
Mobile phone:	0966163866	
Email:	victorhazemba@yahoo.com	
Postal Address:		
<div style="text-align: right;">   </div>		

EMPLOYMENT :- The People from the affected Chiefdoms must benefit without which other means to bring the benefit to the deserving people will be sought.

Camps should be built that may eventually be turned into secondary schools to accomodate the workers from the chiefdoms both on Zambian and Zimbabwean side.



Dam ESIA - Comment Sheet

March 2015

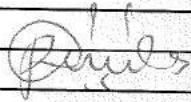
Should you have any queries, comments or suggestions regarding the Project, please don't hesitate to contact the ESIA team

Return this comment sheet to: Ms. Janet Mkhabela (South Africa); or Mr. Felix Chisha (Zambia); or Mr. Oliver Manjengwa (Zimbabwe)

Comment:

On 5th March 2015 we launched public meeting in micho compound around 15:00. Concerning about Kariba Dam. He you had mentioned means of bringing development in the countries both side, Zambia and Zimbabwe. When this project brought into, we are going to have enough development such as good road nets, people get employed and also taking children to school / colleges. Congratulation with two hands what ESIA is sensitising us into the area Siavanga catchment area with the idea of bringing the important job in the area and also people are happy for this project which carries development. We have worked with Sino-Hydro for 2 years under KARIBA NORTH BANK EXTENSION PROJECT with experience in general works. You had mentioned good behavior makes somebody to eat silver spoon. Means of understanding drinking beer / alcohol is not allowed. Sense that you may end up creating yourself. We can follow your policies which you have mentioned above, accordance to this project people will benefit for 13 years contract where as we buy cows and e.t.c. as long as we follow the economical procedure and also we can procure the farm from this project and also growing vegetables.

Thank you very much for your co-operation with us in the same way.

Title and Name:	CHIKUMBULA PHIVIOUS		
Organisation:			
Telephone:		Fax:	
Mobile phone:	0962527447		
Email:			
Postal Address:	KALEYA COMPOUND		



Kariba Dam ESIA - Comment Sheet

March 2015

Should you have any queries, comments or suggestions regarding the Project, please don't hesitate to contact the ESIA team

Return this comment sheet to: Ms. Janet Mkhabela (South Africa); or Mr. Felix Chisha (Zambia); or Mr. Oliver Mangwira (Zimbabwe)

Comment:

We are suggesting that any contractor engaged should have workers representatives ^{among} the employees.

Title and Name:

Tobias Banda

Organisation:

A/C

Telephone:

0966795597

Fax:

Mobile phone:



Email:

A/C

Postal Address:

Siavonga Kariba



Kariba Dam ESIA - Comment Sheet			
March 2015			
Should you have any queries, comments or suggestions regarding the Project, please don't hesitate to contact the ESIA team			
Return this comment sheet to: Ms. Janet Mkhabela (South Africa); or Mr. Felix Chisha (Zambia); or Mr. Oliver Manjengwa (Zimbabwe)			
<p>Comment: We have had public meeting in compound which says Kariba Dam. We heard what you talked about of bringing the development in the countries. That is a very good idea of bringing the project so as people can get employed in the same company. In Siavonga Catchment area we are going to have more money in our pockets.</p> <p>We worked with SINO-HYDRO COMPANY LIMITED under Kariba north bank extension project for 13 years, hard job as a general worker. We had told about alcohol/beer is not allowed totally, because you may end up hurting. From this concern alcohol can cause you to sleep on duty which is not good, where you are told to work at the same position, where you have planted, according what you have said in the same meeting in micho compound. Also you had mentioned your policies which can follow accordance.</p> <p>Thank you very much for your co-operation with us in this security.</p>			
Title and Name:		CHAUMBA CHRISTOPHER	
Organisation:			
Telephone:		Fax:	<i>Carlo</i>
Mobile phone:		0965985065	0978930765
Email:			
Postal Address:		KALEYA COMPOUND	
		 	

Kariba Dam ESIA - Comment Sheet

March 2015

Should you have any queries, comments or suggestions regarding the Project, please don't hesitate to contact the ESIA team

Return this comment sheet to: Ms. Janet Mkhabela (South Africa); or Mr. Felix Chisha (Zambia); or Mr. Oliver Manjengwa (Zimbabwe)

Comment:

We suggest that ZIRA office, should not be within council offices, to avoid corruption, when employing.

Title and Name:	Winnie M. Muchindu		
Organisation:			
Telephone:		Fax:	
Mobile phone:			
Email:			
Postal Address:	SIYVONGA / KARIBA		



Kariba Dam ESIA - Comment Sheet

March 2015

Should you have any queries, comments or suggestions regarding the Project, please don't hesitate to contact the ESIA team

Return this comment sheet to: Ms. Janet Mkhabela (South Africa); or Mr. Felix Chisha (Zambia); or Mr. Oliver Mangwira (Zimbabwe)

Comment:

We suggest that women should be given jobs suitable for them, esp light jobs which they can manage to do.
No affirmative action employees.

Title and Name:	Teresa Puulo		
Organisation:			
Telephone:		Fax:	
Mobile phone:	0950570601		
Email:			
Postal Address:	SIAYONGA / Kariba		



Other Stakeholder Comments

Janet Mkhabela

From: Innocentology Lala <isialumwemwe@gmail.com>
Sent: 08 April 2015 01:47 PM
To: Janet Mkhabela
Subject: Re: REHABILITATION OF KARIBA DAM

Thanks Ms J Mkhabela, May God Bless You.

On 06/04/2015, Janet Mkhabela <Janet.Mkhabela@erm.com> wrote:

> Dear Innocent,

>

>

>

> Thank you for your email. Please note that the Kariba Dam

> Rehabilitation project construction activities are proposed to begin

> in March 2016. The ZRA will keep you informed as to the exact dates.

>

>

>

> Kind Regards,

>

> Janet Mkhabela

>

> ERM Southern Africa (Pty) Ltd

>

> T +27 21 681 5400 | F +27 21 686 0736 | M +27 79 388 7725

>

>

>

>

>

> -----Original Message-----

> From: Innocentology Lala [<mailto:isialumwemwe@gmail.com>]

> Sent: Saturday, March 14, 2015 5:51 PM

> To: Janet Mkhabela

> Subject: REHABILITATION OF KARIBA DAM

>

>

>

> GOOD AFTERNOON MS JANET MKHABELA. MADAM I JUST WANT TO FINDOUT

>

> FROM YOU, THIS PROJECT OF KARIBA DAM REHABILITATION IS IT FOR THIS

>

> YEAR OR NEXT YEAR 2016. THANKS MADAM. INNOCENT FROM

>

> ZAMBIA

>

> _____

>

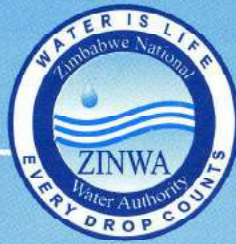
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> delete the message completely from your computer system. Thank you.
>
> Please visit ERM's web site: <http://www.erm.com>
>



Manyame Catchment
1st Floor, Old Mutual House
Sam Nujoma / Speke Avenue
P.O. Box CY 715
Causeway, Harare
Tel: 04 - 702124
Fax: 04 - 793 738

Ref Q/1/1

27th March 2015

Environmental Resource Management
2nd Floor, Great Westerford
240 Main Road, Rondebosch
770 Cape Town,
South Africa

ATTENTION: Mr. Oliver Manjengwa

Dear Sir

**RE: ZINWA COMMENTS ON THE DRAFT ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT
FOR THE PROPOSED REHABILITATION OF KARIBA DAM SUPPORT INFRASTRUCTURE**

The above matter refers.

The draft report covers well the issues we had of concern on the possible impacts of the project and how they can be strengthened or mitigated. However, we feel the blasting of the plunge pool is likely to weaken the foundations of the wall and the impact will be severe resulting in failure of the dam and flooding of downstream places leading to loss of life, physical features and infrastructure. In order to reduce chances of dam failure as a result of blasting we recommend that blasting should be controlled and done in phases whilst monitoring its impact on the dam wall foundations.

We therefore recommend that the project can carry on provided all the suggested mitigatory measures have been taken into account.

Regards

T. Makwangudze
CATCHMENT MANAGER

Sanyati Catchment
P.O. Box 554
Gweru
Tel: 054 - 222511 -4
Fax: 054 - 220168

Mazowe Catchment
P.O. Box CY 715
Causeway
Harare
Tel: 738781 / 3
Fax: 738856

Runde Catchment
P.O. Box 250
Masvingo
Tel: 039 263690 / 262950 -2
Fax: 039 263972

Save Catchment
P.O. Box 210
Mutare
Tel: 020 60926
Fax: 020 62848

Gwayi Catchment
P.O. Box 566
Bulawayo
Tel: 09 69361- 3/ 67628
Fax: 09 77109

Mzingwane Catchment
P.O. Box 2008
Bulawayo
Tel: 09 885191 /2/6/8
Fax: 09 882865

Manyame Catchment
P.O. Box CY 715
Harare
Tel: 04 702124
Fax: 793738

Annex B:20

Notification of Additional Stakeholders

Government Ministries

The Permanent Secretary
Ministry of Finance and Economic Development
New Government Complex Central Avenue
PO Box 7705
Harare

09 April 2015

Dear Sir or Madam,

***Notification of the Environmental and Social Impact Assessment (ESIA)
Process for the Kariba Dam Rehabilitation Project***

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2nd Floor
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240 Main Road, Rondebosch
7700, Cape Town, South Africa

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Private Bag X12
Tokai, 7966
Cape Town, South Africa

Tel: +27 (0) 21 681 5400
Fax: +27 (0) 21 686 0736
www.erm.com



Registered Company Address
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Southern Africa (Pty) Ltd
1st Floor, Building 32
The Woodlands Office Park
Woodlands Drive, Woodmead
2148, Johannesburg, South Africa

Company Registration Number
2003/001404/07

Directors
Bruce Walker (Managing)
Grant Basingthwaite
Jeremy Sobell
John Simonson (UK)
Tania Swanepoel

**A member of the Environmental
Resources Management Group**

**Environmental
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Thank you for your participation.

Yours Sincerely,

Ms. Janet Mkhabela
Social Specialist

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Woodlands Drive, Woodmead
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John Simonson (UK)
Tania Swanepoel

**A member of the Environmental
Resources Management Group**

The Permanent Secretary
Ministry of Home Affairs
11th Floor Mukwati Building
Corner Fourth Street and Livingstone Avenue
Private Bag 7703
Causeway
Harare

09 April 2015

Dear Sir or Madam,

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Process for the Kariba Dam Rehabilitation Project***

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Thank you for your participation.

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The Permanent Secretary
Ministry of Transport and Infrastructural Development
Kaguvi Building 13th – 17th floor Central Avenue
PO Box CY 595
Causeway
Harare

09 April 2015

Dear Sir or Madam,

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The Permanent Secretary
Ministry of Mines and Mining Development
ZIMRE Centre 6th Floor
Corner Leopold Takawira and Kwame Nkrumah Harare
Private Bag 7709
Causeway
Harare

09 April 2015

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Ministry of Tourism and Hospitality Industry
11th Floor Kaguvi Building
55 Samora Machel Avenue
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The Chief Executive Officer
Traffic Safety Council of Zimbabwe
4 Park Street
PO Box CY 293
Causeway
Harare

09 April 2015

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Thank you for your participation.

Yours Sincerely,

Ms. Janet Mkhabela
Social Specialist

Registered Company Address
Environmental Resources Management
Southern Africa (Pty) Ltd
1st Floor, Building 32
The Woodlands Office Park
Woodlands Drive, Woodmead
2148, Johannesburg, South Africa

Company Registration Number
2003/001404/07

Directors
Bruce Walker (Managing)
Grant Basingthwaighe
Jeremy Sobell
John Simonson (UK)
Tania Swanepoel

**A member of the Environmental
Resources Management Group**

The Director
UNESCO
8 Kenilworth Road Newlands
PO Box HG 435
Highlands
Harare

09 April 2015

Dear Sir or Madam,

***Notification of the Environmental and Social Impact Assessment (ESIA)
Process for the Kariba Dam Rehabilitation Project***

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The Director
Zimbabwe Tourism Authority
55 Samora Machel Avenue
Harare

09 April 2015

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Resources Management Group**

Janet Mkhabela

From: Hastings Chibuye <katubwa@zambezicommission.org>
Sent: 08 April 2015 11:09 AM
To: Janet Mkhabela
Subject: Re: Presentation of Draft ESIA ZAMCOM

Thank you for the information.

Regards

Hastings Chibuye

Programme Manager - Water Resources Information Systems

Zambezi Watercourse Commission (ZAMCOM)

128 Samora Machel Avenue

Harare, Zimbabwe

Tel: [+263 4 253 361/3](tel:+26342533613)

Cell: [+263 777937064](tel:+263777937064)

" Drink waters out of thine own cistern, and running waters out of thine own well".
Proverbs 5:15

On Wed, Apr 8, 2015 at 10:59 AM, Janet Mkhabela <Janet.Mkhabela@erm.com> wrote:

Dear Mr Chibuye,

Thank you for your communication below. Please note that our Zimbabwean partners visited your office and spoke to Thembe Dube on the 5th March 2015, please see attachment attendance register. The draft ESIA engagements for the project were completed on March 23rd 2015. As such, we can no longer arrange another meeting to meet with you individually and the ESIA report is currently being reviewed by EMA and ZEMA. The best I can do right now is to give you a copy of the Non-Technical Summary (NTS) of the ESIA for your perusal (attached on this communication). If you have any questions that arising from your perusal of the NTS; please contact me and I will try to address them for you.

Hope the above provides some clarity on the matter. Please don't hesitate to contact me for further enquiries.

Thanks and kind regards,

Janet Mkhabela

ERM Southern Africa (Pty) Ltd

T +27 21 681 5400 | **F** +27 21 686 0736 | **M** +27 79 388 7725

From: Hastings Chibuye [mailto:katubwa@zambezicommission.org]
Sent: Wednesday, April 01, 2015 11:10 AM
To: Janet Mkhabela
Subject: Presentation of Draft ESIA ZAMCOM

Dear Janet,

Kindly advise when you will present your draft report as indicated in your letter of 3rd March, 2015. You can contact the Executive Secretary once you come up with the date.

regards

Hastings

Hastings Chibuye

Programme Manager - Water Resources Information Systems

Zambezi Watercourse Commission (ZAMCOM)

128 Samora Machel Avenue

Harare, Zimbabwe

Tel: [+263 4 253 361/3](tel:+26342533613)

Cell: [+263 777937064](tel:+263777937064)

Thousands have lived without love, not one without water.

W.H. Auden

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Please visit ERM's web site: <http://www.erm.com>

Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:22 PM
To: 'harare@trafficsafety.co.zw'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: Kariba Dam Rehabilitation_ESIA_NTS.pdf; Traffic Safety Council of Zimbabwe.pdf

Dear Sir or Madam,

Please find attached a notification letter addressed to the Traffic Safety Council of Zimbabwe as well as a copy of a Non-technical Summary of an ESIA for the proposed Kariba Dam rehabilitation project.

Kind Regards

Janet Mkhabela
Consultant

ERM Southern Africa (Pty) Ltd

2nd Floor | The Great Westerford | 240 Main Road | Newlands | 7700 | South Africa

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Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:20 PM
To: 'postmaster@mines.gov.zw'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: Ministry of Mines and Mining Development.pdf; Kariba Dam Rehabilitation_ESIA_NTS.pdf

Dear Sir or Madam,

Please find attached a notification letter addressed to the Permanent Secretary: Ministry of Mines and Mining Development as well as a copy of a Non-technical Summary of an ESIA for the proposed Kariba Dam rehabilitation project.

Kind Regards

Janet Mkhabela
Consultant

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Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:17 PM
To: 'info@ztazim.co.zw'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: Zimbabwe Tourism Authority.pdf; Kariba Dam Rehabilitation_ESIA _NTS.pdf

Dear Sir or Madam,

Please find attached a notification letter addressed to the Director: Zimbabwe Tourism Authority as well as a copy of a Non-technical Summary of an ESIA for the proposed Kariba Dam rehabilitation project.

Kind Regards

Janet Mkhabela
Consultant

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2nd Floor | The Great Westerford | 240 Main Road | Newlands | 7700 | South Africa

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Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:01 PM
To: 'finance@zimtreasury.gov.zw'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: Notification Letter_ Ministry of Finance and Economic Development.pdf; Kariba Dam ESIA _NTS.pdf

Dear Sir or Madam,

Please find attached a notification letter addressed to the Permanent Secretary: Ministry of Finance and Economic Development as well as a copy of a Non-technical Summary of an ESIA for the proposed Kariba Dam rehabilitation project.

Kind Regards

Janet Mkhabela
Consultant

ERM Southern Africa (Pty) Ltd

2nd Floor | The Great Westerford | 240 Main Road | Newlands | 7700 | South Africa

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Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:01 PM
To: 'nkudenga@transcom.gov.zw'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: ESIA_Notification Letter_Ministry of Transport and Infrastructural Development.pdf; Kariba Dam ESIA _NTS.pdf

Dear Sir or Madam,

Please find attached a notification letter addressed to the Permanent Secretary: Ministry of Transport Infrastructural Development as well as a copy of a Non-technical Summary of an ESIA for the proposed Kariba Dam rehabilitation project.

Kind Regards

Janet Mkhabela
Consultant

ERM Southern Africa (Pty) Ltd

2nd Floor | The Great Westerford | 240 Main Road | Newlands | 7700 | South Africa

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The world's leading sustainability consultancy

Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:32 PM
To: 'info@tourism.gov.zw'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: Ministry of Tourism and Hospitality Industry.pdf; Kariba Dam Rehabilitation_ESIA_NTS.pdf

Dear Sir or Madam,

Please find attached a notification letter addressed to the Permanent Secretary: Ministry of Tourism and Hospitality Industry as well as a copy of a Non-technical Summary of an ESIA for the proposed Kariba Dam rehabilitation project.

Kind Regards

Janet Mkhabela
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Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:14 PM
To: 'postmaster@moha.gov.zw'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: ESIA_Notification Letter_ Ministry of Home Affairs.pdf; Kariba Dam ESIA _NTS_3.pdf

Dear Sir or Madam,

Please find attached a notification letter addressed to the Permanent Secretary: Ministry of Home Affairs as well as a copy of a Non-technical Summary of an ESIA for the proposed Kariba Dam rehabilitation project.

Kind Regards

Janet Mkhabela
Consultant

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Janet Mkhabela

From: Janet Mkhabela
Sent: 09 April 2015 02:23 PM
To: 'n.gota@unesco.org'
Subject: Notification of the Environmental and Social Impact Assessment (ESIA) Process for the Kariba Dam Rehabilitation Project
Attachments: UNESCO.pdf; Kariba Dam Rehabilitation_ESIA _NTS.pdf

Dear Sir or Madam,

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Chiefs



09 April 2015

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Tania Swanepoel

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09 April 2015

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Process for the Kariba Dam Rehabilitation Project***

The Zambezi River Authority (ZRA) is proposing to rehabilitate some of the support infrastructure of the Kariba Dam; namely the plunge pool and spillway (including the installation of an emergency spillway gate).

In order to undertake the proposed rehabilitation activities an Environmental and Social Impact Assessment (ESIA) process is required. The Kariba Dam Rehabilitation Project is not a scheduled activity under the Zambian and Zimbabwean Environmental Legislation; however, the ZRA has committed to comply with international guidelines and standards, and as such is required to undertake a full ESIA for the Project. In addition to international guidelines and standards, the ESIA will also conform and meet the environmental regulatory requirements for both Zambia and Zimbabwe. The ZRA has commissioned Environmental Resources Management Southern Africa (Pty) Ltd (ERM) in partnership with Black Crystal Consulting (Pvt) Ltd (Zimbabwe) as independent environmental consultants, to undertake the ESIA. The ESIA team submitted the Prospectus and Scoping Report for the Project (including the Terms of Reference) to EMA and ZEMA in January 2015; and received approval of these reports on the 13th February 2015.

Subsequent to the above, the draft ESIA report has been submitted, which includes detailed specialists' studies and impact assessments, to EMA and ZEMA for review. Whilst reviewing the ESIA report, EMA has identified Your Highness as one of the key stakeholders for the proposed Project and associated ESIA process; and has requested that ERM includes His Royal Highness into the project stakeholder database and to provide His Royal Highness with the relevant project information.

To address EMA's request, we have attached a copy of the Non-Technical Summary (NTS) of the ESIA report for your perusal. The NTS provides the following project information:

- Project description;

Registered Company Address
Environmental Resources Management
Southern Africa (Pty) Ltd
1st Floor, Building 32
The Woodlands Office Park
Woodlands Drive, Woodmead
2148, Johannesburg, South Africa

Company Registration Number
2003/001404/07

Directors
Bruce Walker (Managing)
Grant Bassingthwaighe
Jeremy Soboil
John Simonson (UK)
Tania Swanepoel

**A member of the Environmental
Resources Management Group**

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Tel: +27 (0) 21 681 5400
Fax: +27 (0) 21 686 0736
www.erm.com



- Impacts assessment; and
- Recommendations and / or mitigation measures as suggested by the various specialists' on the project.

Please note that all enquiries and comments on the NTS can be sent directly to Mr. Chris Mushava of EMA. His contact details are: email: mushavac@gmail.com; and telephone number (04) 705671-3 / 705661-2.

Thank you for your participation.

Yours Sincerely,

Ms. Janet Mkhabela
Social Specialist

Registered Company Address
Environmental Resources Management
Southern Africa (Pty) Ltd
1st Floor, Building 32
The Woodlands Office Park
Woodlands Drive, Woodmead
2148, Johannesburg, South Africa

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John Simonson (UK)
Tania Swanepoel

**A member of the Environmental
Resources Management Group**



09 April 2015

His Royal Highness Chief Nyamhunga,

***Notification of the Environmental and Social Impact Assessment (ESIA)
Process for the Kariba Dam Rehabilitation Project***

The Zambezi River Authority (ZRA) is proposing to rehabilitate some of the support infrastructure of the Kariba Dam; namely the plunge pool and spillway (including the installation of an emergency spillway gate).

In order to undertake the proposed rehabilitation activities an Environmental and Social Impact Assessment (ESIA) process is required. The Kariba Dam Rehabilitation Project is not a scheduled activity under the Zambian and Zimbabwean Environmental Legislation; however, the ZRA has committed to comply with international guidelines and standards, and as such is required to undertake a full ESIA for the Project. In addition to international guidelines and standards, the ESIA will also conform and meet the environmental regulatory requirements for both Zambia and Zimbabwe. The ZRA has commissioned Environmental Resources Management Southern Africa (Pty) Ltd (ERM) in partnership with Black Crystal Consulting (Pvt) Ltd (Zimbabwe) as independent environmental consultants, to undertake the ESIA. The ESIA team submitted the Prospectus and Scoping Report for the Project (including the Terms of Reference) to EMA and ZEMA in January 2015; and received approval of these reports on the 13th February 2015.

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- Impacts assessment; and
- Recommendations and / or mitigation measures as suggested by the various specialists' on the project.

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16 Appendix C – IBAT Proximity Report

Proximity Report

KARIBA

Country: Zambia

Location: [-16.3, 28.8]

Date of analysis: 12 October 2020 (GMT)

Size of site: 689 km²

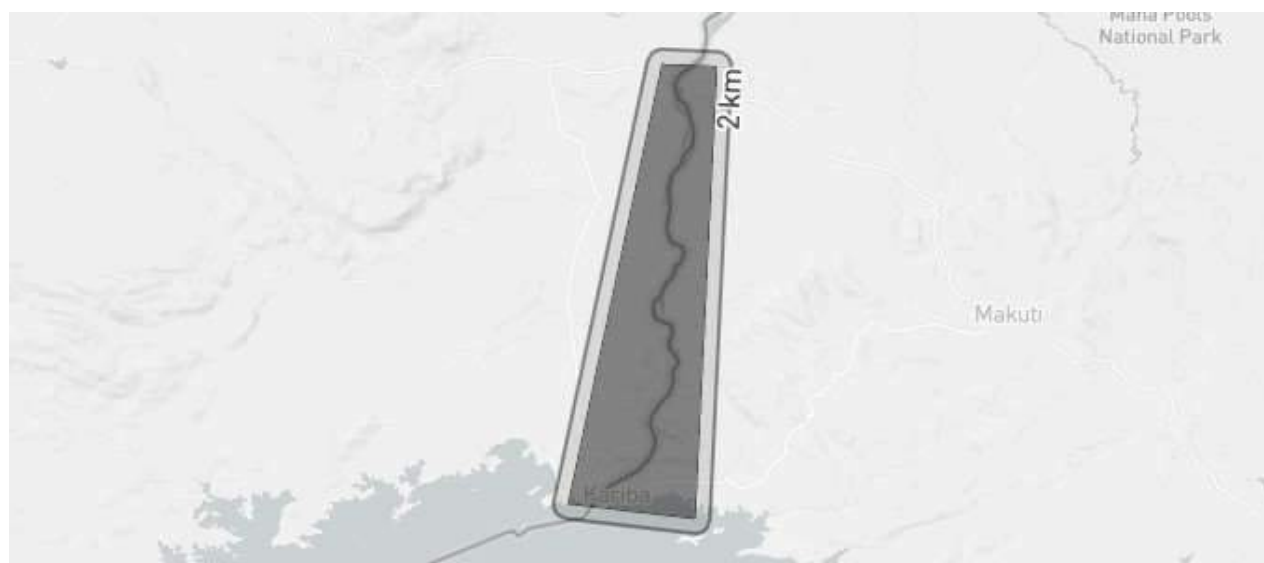
Buffers applied: 2 km

Generated by: Ruth Tiffer-Sotomayor

Organisation: World Bank

Overlaps with:

Protected Areas	4
Key Biodiversity Areas	2
IUCN Red List	32



Displaying project location and buffers: 2 km

About this report

This report presents the results of [1485-11722] proximity analysis to identify the biodiversity features and species which are located within the following buffers: 2 km.

This report is one part of a package generated by IBAT on 12 October 2020 (GMT) that includes full list of all species, protected areas, Key Biodiversity Areas in CSV format, maps showing the area of interest in relation to these features, and a 'How to read IBAT reports' document.

Data used to generate this report

- UNEP-WCMC and IUCN, 2020. Protected Planet: The World Database on Protected Areas (WDPA)[On-line], Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net - October 2020.
- BirdLife International (on behalf of the KBA Partnership), 2020. Key Biodiversity Areas - October 2020.
- IUCN, 2020. IUCN Red List of Threatened Species - July 2020.

Protected Areas

The following protected areas are found within 2 km of the area of interest. For further details please refer to the associated csv file in the report folder.

Area name	Within buffer of
Charara	2 km
Hurungwe	2 km
Lake Kariba	2 km
Lukwechele	2 km

Key Biodiversity Areas

The following key biodiversity areas are found within 2 km of the area of interest. For further details please refer to the associated csv file in the report folder.

Area name	Distance
Middle Zambezi Valley	2 km
Mutulanganga	2 km

IUCN Red List of Threatened Species

The following threatened species are potentially found within 50km of the area of interest.

For the full IUCN Red List please refer to the associated csv in the report folder.

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Diceros bicornis	Black Rhino	MAMMALIA	CR	increasing	Terrestrial

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Diceros bicornis ssp. minor	South-eastern Black Rhino	MAMMALIA	CR	stable	Terrestrial
Oreochromis mortimeri	Kariba Tilapia	ACTINOPTERYGII	CR	decreasing	Freshwater
Necrosyrtes monachus	Hooded Vulture	AVES	CR	decreasing	Terrestrial, Freshwater
Gyps africanus	White-backed Vulture	AVES	CR	decreasing	Terrestrial, Freshwater
Trigonoceps occipitalis	White-headed Vulture	AVES	CR	decreasing	Terrestrial
Cycloderma frenatum	Zambezi Flapshell Turtle	REPTILIA	EN	decreasing	Terrestrial, Freshwater
Lycaon pictus	African Wild Dog	MAMMALIA	EN	decreasing	Terrestrial
Nymphoides tenuissima		MAGNOLIOPSIDA	EN	unknown	Freshwater
Balearica regulorum	Grey Crowned Crane	AVES	EN	decreasing	Terrestrial, Freshwater
Gyps coprotheres	Cape Vulture	AVES	EN	decreasing	Terrestrial
Torgos tracheliotos	Lappet-faced Vulture	AVES	EN	decreasing	Terrestrial
Aquila nipalensis	Steppe Eagle	AVES	EN	decreasing	Terrestrial
Ardeola idae	Madagascar Pond-heron	AVES	EN	decreasing	Terrestrial, Marine, Freshwater



Table 1: Species and their status

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Acinonyx jubatus	Cheetah	MAMMALIA	VU	decreasing	Terrestrial
Hippopotamus amphibius	Hippopotamus	MAMMALIA	VU	stable	Terrestrial, Marine, Freshwater
Loxodonta africana	African Elephant	MAMMALIA	VU	increasing	Terrestrial
Smutsia temminckii	Temminck's Pangolin	MAMMALIA	VU	decreasing	Terrestrial
Panthera leo	Lion	MAMMALIA	VU	decreasing	Terrestrial
Panthera pardus	Leopard	MAMMALIA	VU	decreasing	Terrestrial
Oreochromis andersonii	Threespot Tilapia	ACTINOPTERYGII	VU	decreasing	Freshwater
Oreochromis macrochir	Greenhead Tilapia	ACTINOPTERYGII	VU	unknown	Freshwater
Oreochromis mossambicus	Mozambique Tilapia	ACTINOPTERYGII	VU	decreasing	Freshwater
Oxyura maccoa	Maccoa Duck	AVES	VU	decreasing	Terrestrial, Freshwater
Lybius chaplini	Zambian Barbet	AVES	VU	decreasing	Terrestrial
Bucorvus leadbeateri	Southern Ground-hornbill	AVES	VU	decreasing	Terrestrial, Freshwater



Buggeranus carunculatus	Wattled Crane	AVES	VU	decreasing	Terrestrial, Freshwater
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Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Aquila rapax	Tawny Eagle	AVES	VU	decreasing	Terrestrial, Freshwater
Polemaetus bellicosus	Martial Eagle	AVES	VU	decreasing	Terrestrial, Freshwater
Sagittarius serpentarius	Secretarybird	AVES	VU	decreasing	Terrestrial
Falco fasciinucha	Taita Falcon	AVES	VU	decreasing	Terrestrial
Egretta vinaceigula	Slaty Egret	AVES	VU	decreasing	Freshwater



Recommended citation

IBAT Proximity Report. Generated under licence 1485-11722 from the Integrated Biodiversity Assessment Tool on 12

October 2020 (GMT). www.ibat-alliance.org

How to use this report

This report provides an indication of the potential biodiversity-related features - protected areas, key biodiversity areas and species - close to the specified location. It provides an early indication of potential biodiversity concerns, and can provide valuable guidance in making decisions. For example, this information can be helpful when assessing the potential environmental risk and impact of a site, categorising investments/projects, preparing the terms of reference for an impact assessment, focusing attention on key species of conservation concern and sites of known conservation value, and reviewing the results of an impact assessment.

The report does not provide details of potential indirect, downstream or cumulative impacts. Furthermore, the report should be regarded as a “first-step”, providing a set of conservation values sourced from global data sets, and is not a substitute for further investigation and due diligence, especially concerning national and/or local conservation priorities.

17 Appendix D - General Requirements

17.1 Site Establishment

17.1.1 Site Division

The Contractor will restrict all activities, materials, equipment and personnel to within the area specified, and shall restrict activities to only those areas that are necessary to undertake the works.

A Method Statement detailing the layout and method of establishment of the temporary construction camp, all buildings, offices, lay down areas, fuel storage areas, batching areas and other infrastructure required for the running of the Project shall be submitted.

Disturbed areas rather than pristine or intact landscape areas will preferably be used for the temporary construction camp.

17.1.2 Site Demarcation

The Contractor shall erect and maintain permanent and/ or temporary fences of the type and in the locations directed by the Engineer. Such fences shall, if so specified, be erected before undertaking designated activities.

17.1.3 Site Clearance

If topsoil / top material is removed from areas cleared of vegetation, it will be retained for future landscaping use. Top material will exclude litter, building rubble, alien plant material or any other waste. All topsoil, and specifically any topsoil from areas which are likely to contain bulbs, must be stripped and stockpiled for re-use in landscaped areas. This will constitute at least a 300 mm layer.

Topsoil will be stored in areas demarcated by the EHS Manager and Engineer and in piles not higher than 2 m, and may not be removed from the site, or used for any purpose other than in the final landscaping of the site. The stockpiles will not be compacted or disturbed, and will be domed at the top to promote runoff. The period between the stockpiling of topsoil and its utilization will be as short as possible, and ideally the topsoil should be transferred to its intended site of use immediately following site clearance and stockpiling. This would also avoid double handling.

Stockpiles that are to be stored for less than three months will be covered with shade-cloth or geotextile fabrics or similarly suitable material to prevent erosion, and kept moderately moist in order to maintain the vitality of the soil. If stockpiles are to be stored for more than three months a protective vegetation layer must be established to cover topsoil stockpiles in order to protect them against erosion and desiccation. The stockpile must be kept moist in order to maintain the vitality of the vegetation. Vegetation may not consist of invasive alien vegetation, but must comprise grass or ground covers.

17.2 General Requirements During the Rehabilitation Works

17.2.1 Materials Handling, Use and Storage

The Contractor will ensure that any delivery drivers are informed of all procedures and restrictions (including "no go" areas) required to comply with the ESMP. The Contractor shall

ensure that these delivery drivers are supervised during off loading, by someone with an adequate understanding of the requirements of the ESMP.

Materials will be appropriately secured to ensure safe passage between destinations. Loads including, but not limited to, sand, stone chips, fine vegetation, refuse, paper and cement, will have appropriate cover to prevent them spilling from the vehicle during transit. The Contractor will be responsible for any clean up resulting from the failure by his employees or suppliers to properly secure transported materials.

All manufactured and/ or imported material will be stored within the Contractor's temporary construction camp. All lay down areas outside of the temporary construction camp will be subject to the Engineer's approval.

All building materials will be stored at least 50 m away from aquatic ecosystems and the areas banded appropriately such that there will be no runoff from these areas towards aquatic systems. All building materials will be removed after rehabilitation works.

17.2.2 Fuel (Petrol and Diesel) and Oil

All fuel is to be stored within a demarcated area in the Contractor's temporary construction camp. No refuelling of vehicles or machinery is to take place outside of this demarcated area unless authorised by the Engineer. The Engineer will be advised of the area that the Contractor intends using for the storage of fuel.

The Contractor will ensure that all liquid fuels (petrol and diesel) are stored in tanks with lids, which are kept firmly shut. Only empty and externally clean tanks may be stored on the bare ground. All empty and externally dirty tanks will be sealed and stored in an area where the ground has been protected.

Tanks containing fuels will be situated on a smooth impermeable surface (plastic or concrete) base with a bund (if plastic, it must have sand on top to prevent perishing) to contain any possible spills and prevent infiltration of fuel into the ground. The impermeable lining will extend to the crest of the bund and the volume inside the bund will make up 110 percent of the total capacity of all the storage tanks.

The floor of the bund will be sloped towards an oil trap or sump to enable any spilled fuel to be removed. An Enretech or similar hydrocarbon absorption/remediation product approved by the EHS Manager will be installed in the sump to reduce the risk of pollution. Bulk fuel storage (which is anticipated to include Above Ground Storage Tanks [ASTs] with a volume range of approximately 4.5 to 46 m³) and banded areas will have overhead cover to prevent rain from entering the banded area. The Contractor will keep fuel under lock and key at all times.

If fuel is dispensed from, the proper dispensing equipment will be used, and the drum will not be tipped in order to dispense fuel. The dispensing mechanism used to dispense fuel from the drums will be stored in a waterproof container when not in use.

During fuel tanker delivery, the tanker driver must be present at all times during offloading of product. An emergency cut-off switch must be installed to immediately stop fuel delivery should an accident occur. An anti-flash nozzle must be installed at the end of the vent pipe with a fuel dispenser equipped with an automatic cut-off switch to prevent fuel tank overfills.

No smoking will be allowed in the vicinity of the stores. Symbolic safety signs depicting "No Smoking", "No Naked Lights" and "Danger" are to be provided. The volume capacity of the tank will be displayed. The product contained within the tank will be clearly identified using the emergency information system. Any electrical or petrol-driven pump will be equipped and positioned, so as not to cause any danger of ignition of the product.

Areas for storage of fuels and other flammable materials will comply with standard fire safety regulations and may require the approval of the Municipal Fire Prevention Officer. The Contractor will ensure that there is adequate fire-fighting equipment at the fuel stores.

Where reasonably practical, vehicles and equipment shall be refueled at a designated re-fueling area or at the workshop as applicable. If it is not reasonably practical, then the surface under the temporary refueling area will be protected against pollution and drip trays used to the reasonable satisfaction of the Engineer prior to any refueling activities. The Contractor will ensure that there is always a supply of appropriate material readily available to absorb/breakdown and where possible be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials will be able to handle a minimum of 200 litres of hydrocarbon liquid spill. This material must be approved by the Engineer prior to any refueling or maintenance activities.

17.2.3 Ablution Facilities

Washing, whether of the person or of personal effects, and acts of excretion and urination are strictly prohibited other than at the facilities provided. Latrine and ablution facilities and first-aid services will comply with the regulations of the local authority concerned and shall be maintained in a clean and sanitary condition to the satisfaction of the Engineer. These facilities will include water borne sewage connected to the local authority mains for the contractors' camp and portable chemical toilets at the active working areas. If connection to the local authority mains is not possible, the use of septic tanks and soak away systems will be adopted and implemented. The ablution facilities for men and female shall be separated and with separate entrances to reduce scenarios that may induce GBV.

The Contractor will provide suitable sanitary arrangements at the Contractor's temporary construction camp and approved points around the designated work area to allow easy access for all employees on the site. Project staff are not permitted to commence with work on the site without suitable toilet facilities being available for them.

Sanitary facilities will be located within 100 m from any point of work, but not closer than 50 m to any water body. One chemical toilet is to be provided on site for every 15 contract personnel at each working area. These toilets must have doors and locks and shall be secured to prevent them blowing over. Toilet paper will be provided.

The Contractor will ensure that suitable sanitation facilities are provided for or by all his sub-contractors on the site.

Chemical (portable) toilets are to be periodically emptied on a weekly basis by an approved and reputable contractor. The contractor will ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are removed from the site. Discharge of waste from toilets into the environment and burial of waste is strictly prohibited.

The Contractor shall keep the toilets in a clean, neat and hygienic condition. If the Contractor fails to provide and/or maintain all site sanitation facilities in a clean and hygienic condition, the Engineer may order the Contractor to suspend any or all work on the site until these requirements are met. No payment shall be made for any delays or disruption of the Works caused thereby nor shall extensions of time be granted for such delays.

17.2.4 Eating Areas

The Contractor shall designate eating areas to the approval of the Engineer, which will be clearly demarcated. Sufficient bins will be present in this area. Any cooking on site will be done in a designated area with well-maintained cookers with fire extinguishers present.

17.2.5 Drinking Water

The Contractor will ensure that drinking water is available for all staff on the site. If no potable water source is available, then the Contractor will import drinking water to the site.

17.2.6 Site Structures

The Contractor will supply and maintain adequate and suitable sheds for the storage of materials. Sheds for the storage of materials that may deteriorate or corrode if exposed to the weather will be weatherproof, adequately ventilated and provided with raised floors.

All site establishment components (as well as equipment) will be positioned to limit visual intrusion and the size of the area disturbed. The type and colour of roofing and cladding materials comprising the Contractor's temporary structures will be selected to reduce reflection. The Contractor's camp will be fenced, and the camp area will be screened via the attachment of shade cloth or equivalent to the fence surrounding the site camp.

17.2.7 Workshop, Equipment Maintenance and Storage

Where practical, all maintenance of plant on the site will be performed in the workshop. If it is necessary to do maintenance outside of the workshop area, the Contractor will obtain the approval of the Engineer prior to commencing activities.

The Contractor will ensure that the workshop and other plant maintenance facilities, including those areas where, after obtaining the Engineer's approval, the Contractor carries out emergency plant maintenance, there is no contamination of the soil or vegetation. The workshop will have a smooth impermeable floor either constructed of concrete or thick plastic covered with sufficient sand to protect the plastic from damage. If constructed of concrete the floor will be bunded and sloped towards an oil trap or sump to contain any spillages of substances (e.g. oil). A Method Statement detailing the design and construction of the workshop must be submitted.

When servicing equipment, drip trays will be used to collect the waste oil and other lubricants. Drip trays will also be provided in active work areas for stationary plant (such as compressors) and for "parked" plant (such as scrapers, loaders, vehicles).

All vehicles and equipment will be kept in good working order and serviced regularly. Leaking equipment will be repaired immediately or be removed from the site

The washing of equipment will be restricted to preventative maintenance requirements only. All washing will be undertaken in the workshop or maintenance areas, and these areas must be equipped with a suitable impermeable floor and sump/oil trap. The use of detergents for washing will be restricted to low phosphate and nitrate containing and low sudsing-type detergents.

17.2.8 "No go" Areas

The demarcated buffer areas around sensitive ecological or heritage areas are to be "no go" areas. The Contractor will ensure that, insofar as he has the authority, no person, machinery, equipment or material enters the "no go" areas at any time.

17.2.9 Construction Personnel Information Posters

The Contractor will erect and maintain information posters for the information of all employees depicting actions to be taken to ensure compliance with aspects of the environmental and social mitigation measures. Such posters will be erected at the eating areas and any other locations specified by the Engineer.

17.2.10 Concrete and Cement Work

Cement powder has a high pH value. Spillage of dry cement powder and concrete slurry will affect both soil and water pH adversely. Careless handling of cement products resulting in spillage can have detrimental effects on the surrounding environment.

The location of the batching area (including the location of cement stores and sand and aggregate stockpiles) will be indicated on the site layout plan and approved by the EHS Manager. A Method Statement indicating the layout and preparation of this facility is required in this regard. Cement is to be stored in a secure weatherproof location to avoid contamination of the environment.

All runoff from batching areas will be strictly controlled so that contaminated water does not enter storm water or run-off into the Zambezi River. Plastering boards and mixing trays will be used at all mixing and supply points. Cleaning of equipment and flushing of mixers will not result in pollution of the surrounding environment.

Suitable screening and containment will be in place to prevent windblown contamination associated with bulk cement silos, loading and batching. All excess concrete will be physically removed to an approved waste site on completion of the concrete pour section and disposed of.

17.2.11 Safety

The Contractor will always observe proper and adequate safety precautions on the site. Telephone numbers of emergency services, including the local firefighting service, shall be posted conspicuously in the Contractor's office near the telephone. A KDRP internal fining system (economic instrument) may be developed and adopted to deter offenders if breaches indicate a recurring trend. The system may apply to all KDRP parties.

17.2.12 Security

With the possible exception of any security staff who may be required to be present overnight at the Contractor's temporary construction camp, no personnel will be permitted to live on the site. Security staff must be provided with heating and cooking facilities (in order that they do not need to light fires), and access to toilet facilities and communication equipment.

17.2.13 Grievance Procedures

The Contractor will develop a grievance procedure to ensure fair and prompt resolution of problems arising from the Project. The grievance procedure will be underpinned by the following principles and commitments:

- Implement a transparent grievance procedure, and disseminate key information to directly impacted stakeholders;
- Implement and maintain a complaint register;
- Seek to resolve all grievances timeously; and
- Maintain full written records of each grievance case and the associated process of resolution and outcome for transparent, external reporting.

The responsibility for resolution of grievances will lie with the ZRA and its Contractors.

17.2.14 Protection of Natural Features

The Contractor will not deface, paint, damage or mark any natural features (e.g. rock formations and trees) situated in or around the site for survey or other purposes unless agreed beforehand with the Engineer. Any features affected by the Contractor in contravention of this clause will be restored/ rehabilitated to the satisfaction of the Engineer.

The Contractor will not permit his employees to make use of the Zambezi River for the purposes of swimming, personal washing and the washing of machinery or clothes.

17.2.15 Working Hours

Working hours in terms of the planning approval shall be adhered to. If works are to take place outside of normal working hours, the EHS Manager and the Engineer are to be notified and disturbance to the surrounding residents or land users is to be prevented. The Engineer will, where required, in turn notify the Local Authority of work done outside of normal working hours.

17.2.16 Excavation and Trenching

During excavation and trenching activities, care is to be taken to ensure that the stockpiling of top material is kept separate from sub-soils. Top material thus saved is to be replaced as top material and is to be the final layer when back-filling. The Contractor will reinstate all working areas to the satisfaction of the Engineer.

Areas opened for trenching will be restricted to the minimum required to be worked in and closed up in a working day or as dictated by technical requirements such as length of pipe or cable, in order to prevent them from posing safety hazards to people, traffic and animals and to prevent rainwater erosion. Trenches will be re-filled to the same level as (or slightly higher, to allow for settlement) the surrounding land surface to minimise erosion. Excess soil will be stockpiled in an appropriate manner. No stockpiling must occur within 50 m of a water course.

In the event of material removed during trenching being excessive after backfilling or being unsuitable as overburden, the excess material must be removed from the site to a site agreed upon by the Engineer and, where applicable, the Local Authority

17.2.17 Temporary Site Closure

If the site is closed for a period exceeding one week, a checklist procedure will be carried out by the Contractor in consultation with the EHS Manager. The Contractor is to check the site and report to the Engineer regarding the following:

Fuels / flammables / hazardous materials stores:

- Ensure fuel stores are as low in volume as possible;
- No leaks;
- Outlet secure / locked;
- Bund empty;
- Fire extinguisher serviced and accessible;
- Secure area from accidental damage, e.g. vehicle collision;
- Emergency and Management telephone numbers to be available and displayed; and
- Adequate ventilation.

Other:

- All trenches and manholes secured;
- Fencing and barriers in place;

- Notice boards applicable and secured;
- Security persons briefed and have facility for contact;
- Night hazards checked, e.g. reflectors, lighting, traffic signage;
- Fire hazards identified – local authority notified of any potential threats, e.g. large brush stockpiles, fuels etc.;
- Pipe stockpile wedged / secured;
- Scaffolds secure; and
- Inspection schedule and log by security or contracts staff.

The EHS Manager is to check and report to the Engineer regarding the following issues:

- Wind and dust mitigation in place, e.g. straw, brush packs, irrigation;
- Slopes and stockpiles at stable angle;
- Landscape areas watering schedules and supply secured;
- Fuels/hazardous substances stores secure;
- Cement and materials stores secured;
- Toilets empty and secured;
- Refuse bins empty and lids secured;
- Bunding clean and treated, e.g. Spill Sorb or Enretech #1 powder;
- Drip trays empty and secure; and
- Structures vulnerable to high winds secure.

The Contractor is to ensure that all temporary closure requirements are met before leaving the site.

17.2.18 Chinhoyi Quarry

The Contractor will need to confirm that the Chinhoyi quarry site has current and up to date permits and quarrying guidelines prior to the commencement of rehabilitation and the sourcing of aggregate from the Chinhoyi Quarry.

17.3 Site Clean Up and Rehabilitation

17.3.1 Site Clean Up

The Contractor will ensure that all temporary structures, equipment, materials, waste and facilities used for rehabilitation work purposes are removed upon completion of the rehabilitation works. Site clean-up shall be to the satisfaction of the Engineer and the EHS Manager.

17.3.2 Rehabilitation

Where appropriate, the Contractor shall employ a suitably qualified person (a botanist with experience in restoration of grassland areas) to rehabilitate areas damaged by activities associated with rehabilitation works during the course of the Project, including quarry areas. The Contractor shall be responsible for rehabilitating areas identified by the EHS Manager and the Engineer or recommended by the aforementioned botanist. The Contractor's procedure for rehabilitation shall be approved by the EHS Manager and the Engineer and, where required, the Local Authority's environmental representative.

**18 Appendix E – Health, Safety, Environmental and
Social Requirements included in the ZRA / Contractor
contracts**

VOLUME 3
TECHNICAL SPECIFICATIONS
SECTION 4
Health, Safety, Environmental and Social Requirements

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1 General Scope of Requirements and Facilities

1.1 General

The Contractor shall take full responsibility for the prevention of unhealthy or unsafe conditions and practices and for the promotion of healthy and safe working practices at the Site. Nothing specified herein shall relieve the Contractor of any obligation or responsibility in this regard and can be considered as the minimum requirements:

- Ensuring that all the workers have been provided with suitable health and safety induction, Personal Protective Equipment (PPE), information and training;
- Ensuring that all the visitors have been provided with suitable health and safety induction and have adequate PPE.

Safety equipment of "Approved Standard" shall be worn by all persons at all times whilst on the Works. "Approved Standard", for the purpose of this section, shall mean that are in accordance with the requirements of the prevalent laws enforced both in Zambia and Zimbabwe.

Suitable clothing, footwear, helmets, cap-lamps if underground, waterproofs, safety glasses, ear protectors, dust masks, gloves, goggles, harnesses, "self-rescuer" apparatus, breathing apparatus, etc., appropriate to the work being undertaken, shall be issued free of charge to and worn by all workers and supervisory personnel on and from the day of commencement of work. The workers shall be trained in the use of all such equipment before entering working areas or relevant designated areas.

If the Contractor fails to provide such clothing and equipment and training, the Supervisor shall be entitled to provide the same and recover the cost from the Contractor. Safety equipment and clothing issued to workers shall be replaced free of charge when no longer serviceable.

The Contractor shall erect and maintain all necessary temporary fencing, barricades, barriers, signs and lights for the prevention of accidents or unsafe practices to the satisfaction of the Supervisor. Signs shall include but not be limited to standard road signs, warning signs, danger signs, control signs and direction signs in addition to the safety notices specified elsewhere in this Clause. All such signs shall be clearly legible in both local languages and English, to the approval of the Supervisor's Representative, and the Contractor shall maintain them in a clean and legible condition for the duration of the works.

The Contractor shall provide and maintain all temporary gangways, ladders, staging and covers for protection against falling objects and debris on and about the Site necessary for the purposes of the Contract and shall remove such gangways, ladders, staging and protective covers when no longer required.

The Contractor shall conduct safety awareness programmes and campaigns throughout the duration of the Contract, including the use of prominent and strategically placed posters, audio-visual methods, etc.

The Contractor shall ensure that all sub-contractor, employees, suppliers, agents etc are fully aware of the environmental and social requirements detailed in the ESMP page 48

1.2 Health and Safety Policy

Particular attention shall be paid to health and safety for labour-intensive operations and shall include but not be limited to the minimisation of hazards, establishment of safe working practices and blasting procedures, provision and use of protective equipment and clothing, provision for first-aid equipment and care, transport of accident victims, and on-site welfare arrangements such as sanitation and drinking water.

The Contractor shall designate eating areas to the approval of the Engineer, which will be clearly demarcated. Sufficient bins will be present in this area.

Any cooking on site will be done in a designated area with well-maintained cookers with fire extinguishers present see 5.5.4 page 56 of ESMP

For the purpose of implementing the health, safety and environment protection policy, the Contractor shall constitute a duly empowered committee designated as the Health, Safety and Environment Committee which shall include, but not be limited to:

- 1) The Chief Medical Officer
- 2) The Safety Officer
- 3) One senior representative of the Contractor's supervisory staff
- 4) One representative of the labour force representing the various categories of workmen and labourers.

The composition of the committee shall be submitted to the approval of the Supervisor who may, if in his opinion the committee is not carrying out its duties with due diligence, order that a new committee be constituted.

The procedures described in the Health and Safety Plan shall not be less than those required by the Laws and Regulations of the Republics of Zambia and Zimbabwe (e.g. the factories act,) and will include but not be limited to:

- 1) The duties of the Medical Officer and his staff in respect of health and safety matters including periodic inspections of all work areas.
- 2) The duties of the Safety Officer and his staff including the proportion of their working time to be spent on health and safety duties.
- 3) Codes of practice to be used to ensure healthy and safe working conditions both on land and water and the management of hazardous conditions and materials.
- 4) Actions to be instigated in the case of emergencies involving injuries
- 5) Notification, investigation and recording of accidents. Monthly site accident and injury statistics shall be submitted to the Health, Safety and Environment Committee. Accident reporting procedures shall be agreed with the Supervisor. The Supervisor shall be notified immediately of any serious accidents.
- 6) Welfare facilities for workers on Site including facilities for sanitation, washing, storing and changing clothing, rest, and drinking water.
- 7) The arrangements for the frequency and occasions of routine and special meetings of the Health, Safety and Environment Committee, the keeping of records, rights and access to information and the right to amend the committee constitution by the committee in agreement with the Supervisor.
- 8) The arrangements for disseminating information, training and supervision to ensure compliance with the codes of practice.

The Supervisor may at any time order that the Health and Safety Policy be supplemented or revised completely or in part. The Supervisor may also serve on the Contractor a Notice of Contravention of the Health, Safety and Environment Policy. Such a notice will specify the nature of the contravention, and the time limit for rectification. In the event of failure to comply with a Notice of Contravention the Supervisor may arrange for work to be done to rectify the cause or order removal or suspension of the offending persons from site or close down the work area, as appropriate, at the Contractor's expense.

The Contractor may appeal to the Supervisor for modification of the terms of any Notice of Contravention before the expiry of the notice. Upon such appeal the Supervisor at his/her sole discretion may modify, withdraw or confirm the Notice.

1.3 Code of Practice within the Plan

The code of practice shall be based on a recognised standard and shall be of no less a standard than that of Safety and Health in Building and Civil Engineering Work of the International Labour Office (Geneva) and shall not breach. The Contractor, in cooperation with the Health, Safety and Environment Committee, shall issue a working manual for construction safety that will be used as a site reference. Workers will be trained in safety matters throughout the Contract.

The Contractor must follow all the guidelines, plans and monitoring as set out in the "Environmental and Social Management Plan for the Kariba Dam Rehabilitation Project (Zambia & Zimbabwe) on the Zambezi River of January 2016 – Doc Ref 0264743

The Contractor shall maintain a Legal Register pertinent to the laws Zambia (Table 3.1 pg 20 of ESMP), to the laws of Zimbabwe (Table 3.2 pg 26 of ESMP) and International Guidelines (Table 3.3 pg 36 of ESMP)

1.4 Safety Officers

As part of the safety policy the Contractor shall appoint a Safety Officer (with suitable education and training and experience as a Safety Officer) and at least one Deputy Safety Officer who shall be responsible for ensuring that the safety policy and codes of practice are adhered to and in particular that appropriate safety signs and posters are located throughout the work site.

The Safety Officer shall be “on-call” on a 24-hour basis and shall carry out regular and random checks of all parts of the Site where work is taking place. The Safety Office or one of his Deputies shall be permanently on site during 24 hour working or when any activities of the Contractor are underway without exception.

Particular attention shall be given by the Safety Officer to aspects such as electrical installations, lighting, handrails, especially around all dangerous openings, access stairs, blasting procedures, removal of construction rubble, orderly storing and stacking of construction equipment and materials and general cleanliness of the Works. In addition the Safety Officer or his Deputy shall accompany the Supervisor on weekly safety inspections of the works and shall take due account of his requirements concerning matters of Safety.

Regular meetings with small groups of workers on specific health and safety topics shall be organised and chaired by the Safety Officer. These “tool box talks” shall be regularly scheduled and the Supervisor shall be informed about the agenda and the topics registered as well as the participants.

1.5 Epidemics and Hazardous Substances

In the event of any outbreak of illness of a highly contagious or epidemic nature the Contractor shall comply with and carry out such regulations, orders and requirements as given in the Health Acts of the Republics of Zambia and Zimbabwe, or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.

The Contractor shall identify and keep records of all hazardous equipment, materials, or other substances and any other health hazards in his undertaking of the Contract. Newly created hazards or new hazardous equipment, materials or other substances brought on to Site shall be added to the record. The Contractor shall draft codes of practice appropriate to the said hazards in line with the requirements of the Environmental Protection and pollution Control of the Republic of Zambia and the Hazardous Substances Act of the Republic of Zimbabwe. The Supervisor shall be granted access to such records at all times.

The Contractor shall regularly check the site establishment and storage areas for Contractor's Equipment, transport vehicles and hazardous materials, for spillages and leaks. The Contractor shall make adequate provisions, to the satisfaction of the Supervisor, to ensure that such spillages of toxic materials are prevented from entering the groundwater, natural streams, the natural ground soils or areas outside the Site.

The Contractor shall ensure that all liquid fuel (petrol and diesel) are stored in tanks with lids, which are kept firmly shut. Only empty and externally clean tanks may be stored on the bare ground. All empty and externally dirty tanks will be sealed and stored in an area when the ground has been protected

Tanks containing fuel will be situated on a smooth impermeable surface (plastic or concrete) base with a bund (if plastic, it must have sand on top to prevent perishing) to contain any possible spills and prevent infiltration of fuel into the ground. The impermeable lining will extend to the crest of the bund and the volume inside the bund will make up 110% of the total capacity of all the storage tanks. The floor of the bund will be sloped towards an oil trap or sump to enable any spilled fuel from being removed. A hydrocarbon absorption/remediation product approved by the ECO will be installed in the sump to reduce the risk of pollution (see also 3.7) see 5.5.2 page 55 of ESMP

Before leaving the Site, the Contractor shall provide the Supervisor with documentary proof that all such hazardous equipment or materials have been removed from the Site and disposed of in accordance with any relevant legislation and otherwise in a safe and appropriate manner. If such proof is not provided to the satisfaction of the Supervisor, he may not issue the Final Acceptance Certificate.

1.6 First Aid Training

The Contractor shall, through the auspices of the Health, Safety and Environment Committee, institute and operate a basic first aid training programme to ensure that each foreman or work crew leader in control of 20 or more workmen is trained in first aid and possesses a valid certificate to that effect issued by the competent authorities, or equivalent qualification, within 3 months of his appointment. All First Aid qualified personnel will be identified to the Supervisor and will be issued with a green and white sticker to be worn on their hard hat. Alternatively, other workmen with aptitude shall be similarly trained, so that there is at least one person qualified in first-aid present on site within each group of 20 workmen.

1.7 First Aid Provisions

The Contractor shall provide and maintain in ready condition (a regular register of checking the contents) boxes of first aid materials together with stretchers at prominently marked locations within 100 metres of each working site on the surface or as required by the Supervisor. The contents of each first aid box shall include but not be limited to:

- | | |
|-----------------------------------|--|
| • Wound cleaner (500 ml) | 6 roller bandages (80 mm x 5 m) |
| • Swabs for cleaning wounds | 6 roller bandages (100 mm x 5 m) |
| • Cotton wool for padding (250 g) | 2 rolls elastic adhesive (25 mm x 3 m) |
| • Sterile gauze (5 packets) | 2 anti-allergenic adhesive strip (25 mm) |
| • 1 pair forceps (for splinters) | 2 packets adhesive dressing strips |
| • 1 pair scissors (100 mm) | 6 large dressings (75 mm x 100 mm) |
| • 2 cards of 6 safety pins | 6 shell dressings (150 mm x 200 mm) |
| • 24 triangular bandages | 4 straight splints |
| • Sterile eyewash | Eye pads |
| • pairs disposable gloves | |

1.8 Transport of Labour

The Contractor shall be responsible for, and make provision for, the safe vehicular transport of all residential workers and supervisors between their site accommodation area and their work areas, and vice versa. The Contractor shall also be responsible for, and make provision for, the safe vehicular transport of all workers who are not living in the Contractor's labour accommodation from their private accommodation areas and their work areas, and vice versa. Under no circumstances shall workers be transported on flat bed trucks, rail or similar vehicles without acceptable form of side restraints and adequate seating. Weather proof covers shall be available for use at all times. The Contractor shall prevent overloading of vehicles.

1.9 Safety of Public

Where the Public could be exposed to danger by any of the Site activities the Contractor shall as appropriate provide suitable warning horns or sirens and flagmen, barriers and/or warning signs in the local languages and English and close off access all to the approval of the Supervisor's Representative.

Where shown on the Drawings or instructed by the Supervisor the Contractor shall provide alternative safe access routes.

1.10 Explosives and Blasting

The handling, storage and use of explosives shall be in accordance with the requirements of the Law of Zambia Vol.9 Chapter 115 Explosive Act.

The Contractor shall install and operate a siren of sufficient volume to be easily heard above the general site noise from all points within a radius of 2.0 km of surface blasts, including by those persons operating construction vehicles and machinery.

Hand operated sirens will only be accepted in areas of restricted access such as tunnel headings where access is fully controlled.

The Contractor shall submit details of his blasting procedures to the Supervisor for consent and shall ensure that such procedures are adhered to at all times. Relevant aspects of the procedures shall be agreed with the local authorities and disseminated as widely as possible amongst the local population no consent of the Supervisor shall relieve the Contractor of this responsibility.

The Contractor shall in particular adopt precautions when using explosives that will prevent scattering of fly-rock, stumps or other objects or debris outside the work area.

All blasters employed by the Contractor must be tested and certified by the competent Authorities.

1.11 Lightning

The Contractor shall take precautions against lightning with regard to earthing of metal work and conductors on site. Use shall be made of lightning warning equipment if electrically sensitive detonators are used for blasting.

1.12 Safety Notices, Signs, Posters and Information Notice Boards

The Contractor shall obtain, erect, and maintain all the required notice boards for surface and underground works in the form of pictograms to the approval of the Supervisor.

The Contractor shall erect and maintain notice boards for the dissemination of relevant safety information and safe work procedures. Notices should be published both in local languages as Approved by the Supervisor and English.

The boards shall be made up from durable materials to the satisfaction of the Supervisor that will not warp from variations in temperature or weathering, protected from rainfall if erected in outside locations. The board shall be a minimum of 2 m x 1.5 m in size and be mounted at a height of 1.5 m.

The Contractor shall keep the notice boards in good order with legible notices for the duration of working in any given contract area.

The relevant statutory regulations with respect to blasting shall be displayed at the entrance of the Plunge Pool and other areas where blasting may take place.

1.13 Ambulance

When any work is being carried out a fully functional and suitably equipped and dedicated ambulance (Minibus or van type) with a driver and a paramedical staff trained in First Aid shall be available as close to the site of works as is convenient and not obstruct with movement of construction machinery and personnel or performance of construction activity.

1.14 Health and Safety File

On completion of construction work the Contractor shall submit to the Supervisor a Health and Safety File. This shall be a record of information focusing on health, safety and environment risks specific to the main structures that will need to be dealt with during subsequent maintenance, repair and construction work.

The contents of the File will be agreed in advance with the Supervisor and may include but not be limited to the “as-built” drawings, the design criteria, details of construction methods and materials used, details of the equipment and maintenance facilities within the structure, maintenance procedures and requirements for the structure, manuals produced by specialist suppliers for plant and equipment installed as part of the structure, and details of location of utilities and services, including emergency and fire-fighting systems.

The File will contain a summary or introduction that presents the key elements of the File and acts as a guide to where the relevant information is stored.

1.15 Permits

The Contractor shall ensure that all the relevant approvals & permits have been obtained prior to the start of the rehabilitation activities on site page 36 of ESMP

2 Labour Relations

2.1 General

The Contractor's labour relations arrangements and procedures shall not be less than those required by the Employment Act, Employment (Special Provisions) and Employment of Young Persons and Children Acts of the Republic of Zambia and the Labour Relations and Social Security Act of the Republic of Zimbabwe. Where there may be a contradiction or conflict between the laws, which one will take precedence - in most cases the "highest" or "strictest" law

The Contractor shall propose the standards and procedures that will serve as the basis of the management of site labour relations. These procedures, subject to the consent of the Supervisor, shall be in force throughout the duration of the Contract.

Particular attention shall be given by the Contractor to aspects such as contracts of employment, company rules and regulations, conditions of employment, payment of wages, disciplinary procedures, grievance and dispute settlements, redundancy / retrenchment procedures, etc.

Relationships between the Contractor and his general labour shall be formalised. Talks, discussions and negotiations with elected worker representatives shall be convened at regular intervals, but not less than every three months. The Contracting Authority and Supervisor shall be granted observer status.

The Contractor shall provide free protective clothing to staff as appropriate to their respective duties and replace the same free of charge when worn-out and returned to stores.

The Contractor shall review wages and allowances at least annually. The minimum wage is applicable to which country - again the "highest" must be used

2.2 Contracts of Employment

All employees of the Contractor shall be issued with an employment contract in English that is to be signed by the employee and the Contractor. All employees shall attend an induction programme at which their terms of employment, site safety procedures, and environmental policies will be addressed.

The Employment Contract shall cover the personal particulars, job title, probation period, employment period, wages, overtime, deductions, payment method, hours of work, leave arrangements (paid/unpaid, public holidays), sick leave provisions, accommodation provisions, free meal or food allowance provisions, transport provisions, company rules, regulations and procedures, termination of employment and agreement clause.

3 Environmental Protection

3.1 General

For the purpose of ensuring that the Project is realised in full accordance with the Zambian and Zimbabwean Environmental Management Acts and their Regulations and with International Environmental laws and regulations, it has been established in an Environmental and Social Management Plan (ESMP).

The scope of the ESMP is to define the monitoring and management of specific environmental indicators.

In the performance of his works under the Contract the Contractor shall take all practicable steps necessary to conserve and protect the environment on and in the vicinity of the Site, through the Environmental Protection Plan described hereafter. Particular topics for consideration include:

- a) Minimisation of disruption to local residents;

- b) Avoidance of pollution (air, land, and water, whether surface or underground);
- c) Preservation of flora and fauna;
- d) Avoidance of nuisance and hazard from noise and dust;
- e) Safe disposal of all liquid and solid wastes.

The Contractor shall follow the approved Emergency Preparedness Plan in case of a seismic event / extreme hydrological event / hazard to the works. The Emergency Preparedness Plan shall comply with the requirements of the Disaster Management Act of the Republic of Zambia and the Civil Protection Act of the Republic of Zimbabwe.

Unless otherwise specified, the cost of all measures needed to comply with this requirement shall be deemed to be included in the Contractor's rates.

Environmental and Social Education Awareness

The Contractor, in consultation with the ECO, shall arrange for a presentation to site staff to familiarise them with the environmental and social requirements of the rehabilitation works ESMP within fourteen (14) days from the commencement of works. The presentation should take cognizance of the level of education, designation and language preferences of the staff. General site staff would commonly receive a basic environmental and social awareness presentation or talk highlighting general environmental and social "do's and don'ts", including good housekeeping practices. This information would be provided throughout works in the form of regular toolbox talks refer to 5.3.2 page 50 of ESMP (see also 1.4)

3.2 Method Statements

The contractor shall compile and provide Method Statements to the ECO and the Engineer for approval prior to the rehabilitation works commencing. Method statements will be required for specific activities that are deemed or identified to pose a risk to environmental and/or which require site specific details beyond that contained in the ESMP or when requested by the Engineer

A Method Statement is a "live document" in that modifications are negotiated between the Contractor and the ECO/project management team, as circumstances unfold. Changes to, and adaptations of, Method Statements can be implemented with the prior consent of all parties. All Method Statements will form part of the rehabilitation works of the ESMP documentation and are subject to terms and conditions contained within the ESMP see 5.3.3 page 51 of ESMP. An format of the Method State is contained in Annexure A of the ESMP

3.3 Community Relations

In locating and operating his plant and facilities and in executing the works the Contractor shall at all times, bear in mind and to the extent practicable minimise the impact of his activities on local communities. To this end, he shall liaise with the Supervisor. Any problem that cannot be resolved by the Contractor shall be referred to the Supervisor. If required by the Supervisor, a senior representative of the Contractor's staff shall participate in any meeting and sit on any committee set up to deal with community relations and social issues.

3.4 Environmental Protection Plan

The Contractor shall implement an Environmental Protection Plan on the Site. The Plan shall include operational details, and shall be in force throughout the duration of the Contract. The Plan shall be submitted together with the Detailed Schedule of Works and shall be subject to the approval of the Supervisor.

3.5 Environmental Officer

The Contractor shall have on his staff on Site for the duration of the Contract a designated officer qualified to promote and maintain sound environmental management during construction and specifically to implement the approved Environmental Protection Plan. This officer shall have authority to issue instructions and shall take precautionary measures to prevent environmental damage, including but not

limited to the establishment of environmentally-sound working practices, pollution prevention systems, pollution incident response and clean-up systems and equipment, and the training of staff and labour in these matters.

The Environmental Officer shall liaise with and report to the Environmental Control Officer as appointed by the Developer page 48 - 5.2.4 of ESMP

3.6 Prevention of Air Pollution and Hazards

The Contractor shall take all reasonable steps to minimise air pollution, whether from exhaust emissions, construction processes, construction traffic, or site operation.

The Contractor shall at all times operate his equipment and vehicles so as to minimise exhaust emissions and in any case within the limits established by the Zambia Environmental Management Agency of the Republic of Zambia and the Environmental Management Agency of the Republic of Zimbabwe or other government authorities. If in the opinion of the Supervisor the exhaust gas emissions of any of the Contractor's equipment or vehicles are excessive, whether due to poor engine adjustment, low fuel quality, inefficient operating conditions or other rectifiable cause, the Supervisor may instruct that such equipment or vehicles cease operation until adequate corrective actions have been carried out, and the Contractor shall comply with such instruction immediately.

Burning of materials resulting from site clearance and grubbing, and burning of combustible construction waste, will only be permitted when atmospheric conditions are considered by the Supervisor to be suitable.

The Contractor shall take appropriate measures to minimise the generation of dust as a result of his activities, and to prevent dust originating from his operations from causing nuisance or health hazard to persons or animals and from damaging crops, orchards and dwellings. For work in confined spaces and for specific activities giving rise to potentially hazardous airborne particulates or fumes, these measures shall include a risk assessment and an appropriate response to the assessment to prevent hazards to health, including but not limited to the use of dust extractors, wet drilling, and personal protective equipment. For generalised dust including but not limited to dust from construction traffic, excavations, stockpiles, backfill areas and materials handling, these measures shall include but not be limited to sheeting loads, watering stockpiles and access roads, and the establishment of temporary vegetative cover on soils and soil like materials.

The Contractor shall not locate any hot-mix, screening, crushing or similar potentially polluting plant closer than 500 m to any settlement. Any such plant must be fitted with dust suppression equipment and operated and maintained at all times in conformity with the manufacturer's specifications, instructions and manuals.

The Contractor shall monitor dust levels and control the generation of dust to below the limits specified by the EPP from time to time and record these readings and supply these readings to the Supervisor on a monthly basis. Allowable maximum dust concentrations depend on the maximum quartz content in the dust. The Contractor must maintain dust concentrations (calculated as average concentration over an 8 hour period) below the levels specified in table below:

Dust Concentrations Levels

Maximum Quartz Content in Dust (by weight)	Maximum Concentration of Dust in Air (mg/m ³)
Q < 1%	8
1% < Q < 4%	4
Q > 4%	0.15

In the above table, Q = maximum quartz content (i.e. the concentration of total breathable particles of dust, size from 5.0 to 0.2 micron).

The Contractor shall take appropriate measures to avoid the release to the atmosphere of chlorofluorocarbons (CFCs). All new air-conditioning, refrigeration, freezing and cooling units supplied by the Contractor for use on or off the Site including those in vehicles shall be CFC-free. The Contractor shall include in his workforce a technician trained in and equipped for the maintenance, refilling and recycling of CFC-based and other refrigerants.

The cost of all measures required to comply with the requirements of this Clause shall be deemed to be included in the Contractor's rates.

3.7 Prevention of Noise Pollution and Hazards

The Contractor shall take appropriate measures to minimise nuisance to local residents from noise, and in any case shall control or protect against loud sounds so that no workers are subjected to excessive noise. For this purpose excessive noise shall be a daily personal exposure to noise of 85 dB (A). Where in the opinion of the Medical or Safety Officer or the Supervisor the daily noise exposure of a worker is likely to exceed this level, the Contractor shall carry out a noise assessment, provide personal protective equipment, control noise at source, designate ear protection zones, and any other necessary measures, all in accordance with best international practice for avoiding damage to workers' hearing.

All plant and machinery shall be effectively silenced, and in no case shall the Contractor operate machinery or vehicles with defective or missing silencers, mufflers or exhaust pipes.

3.8 Prevention of Water and Soil Pollution

The Contractor shall ensure that his activities do not result in the contamination of any surface water, groundwater or agricultural soil by polluting substances. The Contractor shall design and implement the necessary physical and operational measures including but not limited to bunds of minimum 110% capacity around fuel, oil and solvent storage tanks and stores, collection and recycling or safe disposal of used engine, hydraulic and shuttering oils, oil and grease traps in drainage systems from workshops, vehicle and plant washing facilities and service and fuelling areas and kitchens, sanitary solid and liquid waste disposal systems, the maintenance in effective working order of these systems, and emergency response procedures and equipment for pollution events, all in accordance with normal good international practice and to the satisfaction of the Supervisor.

The Contractor shall take particular care that under no circumstances any deleterious solid or liquid materials arising from the works become deposited in the Zambezi River. Should any such incident occur, the Contractor shall immediately inform the Supervisor and take all necessary steps to minimise pollution and harm resulting from the incident.

To prevent damage to agricultural soils, the Contractor shall strip and stockpile topsoil from all areas of the Site where damage from traffic, construction activities, building work etc. could occur, for subsequent use in Site reinstatement. The depth of topsoil to be stripped shall be as instructed by the Supervisor. Stripping, soil handling and soil storage methods shall be as specified Excavation & Demolition Works.

Should any pollution arise from the Contractor's activities including the improper deposition of sediment he shall clean up the affected area immediately at his own costs and to the satisfaction of the Supervisor, and shall pay full compensation to any affected parties. The Contractor shall include these emergency measures into his environmental management plan.

3.9 Protection of Wildlife and Fish

The Contractor shall take all practicable steps to prevent his activities from affecting wildlife and fish in the vicinity of the Site. The Contractor shall ensure that his staff and labour do not engage in any unlicensed hunting, shooting, trapping or collecting of any wild animal or bird or in any unlicensed fishing on or near the Site, and shall inform his employees of any rare or endangered species of wildlife which they may come across and that such species are to be protected. Contravention of these requirements by any member of the workforce shall be grounds for dismissal.

3.10 Erosion Control and Storm Water Management

The Contractor shall take appropriate measures to manage storm water originating in and flowing across and from the Site so as to avoid causing damage to the works or to other property whether by runoff or flooding or erosion or sedimentation, such property to include fields, water channels, dwellings and other tangible assets. The Contractor shall repair any such damage at his own cost to the satisfaction of the Supervisor and pay full compensation to any affected party.

4 Monitoring

It is the responsibility of the Contractor to monitor certain criteria as outlined in Chapter 7 of the ESMP (page 96 – 103)

The monitoring shall include and is not exclusive of the following parameters as outlined in the Tables below. The monitoring method and frequency are also outlined in Chapter 7 of the ESMP

Kariba Dam Rehabilitation Monitoring Plan

Management Plan	Monitoring Method	Monitoring Location	Monitoring Frequency	Responsibility	Relevant standard	Reporting Requirements	Additional Information
Noise and Vibration Management Plan	<ul style="list-style-type: none"> Inspection of vehicle maintenance record. Noise monitoring only if significant complaints received. 	At the nearest sensitive receptor.	If significant complaints are received.	Contractor	IPC General EFE Guidelines 1.7 - Noise.	<ul style="list-style-type: none"> Complaints register. Equipment/machinery maintenance reports. 	-
Air Quality and Dust Management Plan	<ul style="list-style-type: none"> Inspection of vehicle maintenance record. Visual inspection. 	<ul style="list-style-type: none"> Areas of high construction traffic where roads are not surfaced. Active work areas. 	On ad hoc basis during dry conditions of no rain.	Contractor	IPC General EFE Guidelines 1.1 - Air Emissions and Ambient Air Quality. Section 37, 46 and 96 - The Air Pollution Control (Licensing and Emission Standards) Regulations, S.I. 141 of 1996.	<ul style="list-style-type: none"> Record of high dust incidents and corrective actions taken. Complaints register. Equipment/machinery maintenance reports. 	-
Soil Erosion and Sediment Control Management Plan	Visual inspections of all erosion and sediment control structures.	At specific areas susceptible to erosion and sediment control structures.	Weekly and after major rain events.	Contractor	None	Records of ineffective control measures and corrective actions taken.	-
Waste Management Plan	<ul style="list-style-type: none"> Visual inspection of waste storage facilities. Review of waste manifestos. Review of contractor licenses. Review of waste inventory. 	Waste disposal sites.	On ad hoc weekly basis.	Contractor	IPC General EFE Guidelines 1.6 - Waste Management. Zimbabwean Effluent and Solid Waste Disposal Regulations SI 6, 2007. Zimbabwean Hazardous Waste Management Regulations SI 10, 2007. Zimbabwean Environmental Management (Hazardous Waste Management) Regulation 10 of 2007.	Records of ineffective control measures and corrective actions taken.	-
Dangerous Goods and Hazardous Substances Management Plan	<ul style="list-style-type: none"> Dangerous goods locations inspected on a regular basis for compliance with relevant management plans. Inspection of MSDs for all dangerous goods. Inspection of training records for those handling dangerous goods. 	Dangerous goods store.	Monthly	Contractor	IPC General EFE Guidelines 1.5 - Hazardous Materials Management. African Development Bank Operational Safeguard (OS) 4 - Pollution Prevention and Control, Hazardous Materials and Resource Efficiency. Zimbabwean Regulation 12 of 2007 Environmental Management Act (Hazardous Substances, Pesticides and other Toxic Substances).	Records of ineffective control measures and corrective actions taken.	-

Management Plan	Monitoring Method	Monitoring Location	Monitoring Frequency	Responsibility	Relevant Standard	Reporting Requirements	Additional Information
Surface Water Quality Management Plan	<ul style="list-style-type: none"> Water quality monitoring downstream of the Cofferdam. Monitoring of watercourses near activities involving rehabilitation works. Audit of control measures to minimise impacts on surface water. 	<ul style="list-style-type: none"> Downstream of the Cofferdam. Water courses near to active working areas. 	<ul style="list-style-type: none"> Weekly/monthly water quality monitoring downstream of the Cofferdam. Regular monitoring of activities involving rehabilitation works in or near watercourses. Annual audit of controls to minimise impacts on surface water at all facilities and infrastructure. 	Contractor	<p>IPC General EIS Guidelines 1.3 -Waste Water and Ambient Water Quality.</p> <p>Zimbabwean Water Resources Management Act, No 21 of 2011.</p> <p>Zimbabwean Water Supply and Sanitation Act, No 28 of 1997.</p> <p>Zimbabwean Water Act, 2003 (Chapter 20:54).</p>	<ul style="list-style-type: none"> Records of all monitoring and auditing activities. Records of recommendations and corrective actions arising from audits. 	Refer to detailed monitoring plan included in Annex C.
Aquatic Ecology Management Plan	<ul style="list-style-type: none"> Water quality and turbidity monitoring downstream of the Cofferdam. Biomonitoring. Recording fish casualties. 	<ul style="list-style-type: none"> Downstream of the Cofferdam. Plunge pool. 	<ul style="list-style-type: none"> Weekly/monthly water quality monitoring downstream of the Cofferdam. Ad hoc inspection of fish kills. 	Contractor	<p>DWAf (1996) South African Water Quality Guidelines (second edition). Volume 7: Aquatic Ecosystems, Pretoria, South Africa.</p> <p>Zimbabwean Fisheries Act, No 22 of 2011.</p> <p>Zimbabwean National Policy on Wetlands Conservation, September 2001.</p> <p>Zimbabwean GN 380 of 2013 (Protection of Wetlands) per Section 113 of the Environmental Management Act.</p>	<ul style="list-style-type: none"> Records of all monitoring and auditing activities. Records of recommendations and corrective actions arising from audits. Quarterly biomonitoring reports during the duration of rehabilitation works. Biannual biomonitoring reports over a period of two years following the completion of rehabilitation works. Fish mortality records. 	Refer to detailed monitoring plan included in Annex C.
Revegetation and Rehabilitation Management Plan	<ul style="list-style-type: none"> Regular inspections will be undertaken during the revegetation period for subsidence, presence of weeds, revegetation success and stability. Regular inspection of any seeded areas until regrowth is established or once the site becomes stable. Regular inspection of weed control measures. 	Areas where revegetation has taken place.	On an ad hoc monthly basis.	Contractor	<p>Zimbabwean Forests Act, Cap 199.</p> <p>Zimbabwean Forest Act, 1948 (Chapter 19:05).</p> <p>Environmental Management Act, [Chapter 20:27].</p> <p>Statutory instrument 6 of 2007.</p>	<ul style="list-style-type: none"> Reporting on success of revegetation and weed control programme. 	-
Social Values Management Plan	<ul style="list-style-type: none"> Attendance of community meetings. Maintenance of complaints registers. 	Across the site and surrounding communities.	Regular community meetings and ongoing monitoring of complaints.	Contractor	None.	<ul style="list-style-type: none"> Minutes of meetings. Record of complaints and corrective actions. 	

Management Plan	Monitoring Method	Monitoring Location	Monitoring Frequency	Responsibility	Reference Standard	Reporting Requirements	Additional Information
Procurement of Goods and Services Management Plan	<ul style="list-style-type: none"> Monitoring of achievement against contractual procurement targets. Monitoring of the value of procurement in the Project Area and in Zimbabwe and Zambia against Project's total procurement value. Monitoring of procurement training courses in terms of type of training, number of participants, and duration of training and value of training. 	-	<ul style="list-style-type: none"> Monitoring to be conducted on a monthly basis. Conduct an annual audit of procurement figures based on which an incentive for achieving procurement targets can be considered. 	Contractor	None.	<ul style="list-style-type: none"> Monthly reporting to the ZRA on - <ul style="list-style-type: none"> The achievement of contractual procurement targets and suggested corrective actions. Training courses presented and attended. Value of procurement in Project Area as well as in Zimbabwe and Zambia. Regular progress reporting to Government and other interested and affected parties regarding procurement matters. Preparation and submission of monthly and cumulative procurement figure reports for submission to the ZRA. 	-
Road Safety Management Plan	The number of incidents or complaints received in relation to road safety.	Across the site and surrounding communities.	<ul style="list-style-type: none"> Ongoing monitoring of complaints. Regular audits and reviews will be undertaken regarding road safety. 	Contractor	IFC General EHS Guidelines 3.4 - Traffic Safety.	<ul style="list-style-type: none"> Record of complaints and corrective actions. Regular audits and reviews will be undertaken and recommendations and corrective actions will be implemented. 	-
Social Infrastructure Management Plan	Monitoring of complaints associated with cumulative impacts on social and health infrastructure.	Across the site and surrounding communities.	<ul style="list-style-type: none"> Ongoing monitoring of complaints. Direct and cumulative impacts on social and health infrastructure will be closely monitored on an ongoing basis, with corrective action such as re-allocations of community investment as required. 	Contractor	None	<ul style="list-style-type: none"> Record of complaints and corrective actions. Community relations report including relevant metrics quarterly during the duration of rehabilitation works, with corrective action such as re-allocations of community investment as required. 	-
Community Health and Safety Management Plan	Monitoring of the number of incidents or complaints received from community.	Across the site and surrounding communities.	<ul style="list-style-type: none"> Ongoing monitoring of complaints received. Regular audits and reviews will be undertaken and recommendations and corrective actions will be implemented. 	Contractor	IFC General EHS Guidelines 3 - Community Health and Safety.	<ul style="list-style-type: none"> Record of complaints, monitoring and audits and corrective actions taken. All incidents including near misses reported through the incident reporting system. 	-
Traffic and Transport Management Plan	<ul style="list-style-type: none"> Monitoring of number of community complaints received relating to Project traffic and transport systems. Monitoring of road connection. Monitoring of contracted transport companies. 	Across the site and surrounding communities	<ul style="list-style-type: none"> Ongoing monitoring of complaints received and number of incidents in relation to traffic. Ongoing monitoring of road conditions and transport network shortcomings. Ad hoc quarterly monitoring of transport companies. 	Contractor	IFC General EHS Guidelines 3.4 - Traffic Safety.	<ul style="list-style-type: none"> Records of all monitoring and auditing activities will be kept, with results reported to the ZRA at agreed intervals. Recommendations and corrective actions arising from audits will be recorded. 	-

Management Plan	Monitoring Method	Monitoring Location	Monitoring Frequency	Responsibility	Relevant Standard	Reporting Requirements	Additional Information
Worker Health and Safety Management Plan	Monitoring of worker health and safety against national requirements and international standards.	The Kariba Dam Rehabilitation Project.	<ul style="list-style-type: none"> Regular engagement sessions with employees to assess grievances or safety issues. This can be done as part of the regular Toolbox Talk practice. Monthly monitoring of achievement against stated performance criteria of maximum number of hours worked without reporting of an unfair or unsafe employment condition. Annual audit of performance statistics based on which an incentive for achieving no recorded unfair or unsafe conditions can be considered by the ZRA. 	Contractor	<p>IPC General EHS Guidelines</p> <p>2 – Occupational Health and Safety.</p> <p>African Development Bank Operational Safeguard (OS) 5 – Labour Conditions, Health and Safety.</p> <p>Factories Act (Chapter 441 of the Laws of Zambia) (as amended by Statutory Instrument (SI) No. 165 of 1989, No. 75 of 1990, and Act No. 13 of 1994).</p> <p>Labour Act (Chapter 26:01) as amended by Labour Act [Chapter 28:01] amended 2006 and the Labour Amendment Act, 2005 (Act 7/2005).</p>	<ul style="list-style-type: none"> Records of all monitoring and auditing activities will be kept together with corrective actions. All incidents including near-misses to be reported through the incident reporting system. 	-
Employment and Training Management Plan	Monitoring employment and training achievements against contractual employment and training targets.	The Kariba Dam Rehabilitation Project.	<ul style="list-style-type: none"> Monthly monitoring of achievement against contractual employment targets. Conduct an annual audit of employment statistics. 	Contractor	None.	<ul style="list-style-type: none"> Monthly reporting by the Contractor to the ZEA on achievement of contractual employment targets and suggested corrective actions if needed. The ZARA will comply with Zambian and Zimbabwean regulations pertaining to reporting requirements related to recruitment. The ZEA will report to the World Bank and African Development Bank as per their agreed reporting schedule. Twice annually progress reporting to interested and affected parties from the Project Area regarding achievement of employment targets and corrective actions if so required. 	-
Tourism Management Plan	Monitoring of tourists and tourism operators perceptions on the Project.	Individual tourists visiting the Kariba Dam and local tourism operators.	<ul style="list-style-type: none"> Monthly monitoring of possible reported grievances or positive comments as captured in the Grievance Mechanism. Biannual auditing of grievance and positive comments records. Regular presentations and interaction by the ZEA with tourist operators and other community representatives to report on the rehabilitation works process and share monitoring and audit findings with them. 	Contractor	None.	<ul style="list-style-type: none"> Monthly reporting by Contractor to the ZEA of monitoring information. Biannual audit reports by the Contractor to the ZEA with presentation of audit outcome. 	None.

Management Plan	Monitoring Method	Monitoring Location	Monitoring Frequency	Responsibility	Relevant Standard	Reporting Requirements	Additional Information
Cultural Heritage Management Plan	There are no immediate monitoring requirements associated with cultural heritage management.	Active work areas and immediate surrounds.	Record of all artifacts or cultural heritage aspects identified during the duration of rehabilitation works.	Contractor	WE (OP) 4.11 IPC Performance Standard (PS) 8 - Cultural Heritage. Zimbabwe National Heritage and Conservation Act, 1989. Zimbabwean National Museums and Monuments Act (Chapter 25:11).	New indigenous heritage sites identified during rehabilitation works will be reported to the relevant heritage authorities. Notify the Police if human remains are discovered to determine whether the remains are ancient and/or indigenous.	-
Grievance Management and Incident Reporting Plan	The monitoring of grievances will be undertaken by maintaining a complaints register and ensuring that all complaints are resolved.	Across the site and surrounding communities.	<ul style="list-style-type: none"> The complaint form will be checked by the ECO within two weeks of complaint receipt to ensure follow-up action has been taken to resolve the issue. All ad hoc complaints and incidents are to be reported to the ECO. 	Contractor	IPC Performance Standard (PS) 1 - Assessment and Management of Environmental and Social Risks and Impacts. African Development Bank Operational Safeguard (OS) 1 - Environmental and Social Assessment.	Record of complaints and corrective actions taken.	-
Environmental Induction and Training Management Plan	Monitoring effectiveness of environmental induction and training.	Kariba Dam Rehabilitation Project.	<ul style="list-style-type: none"> Non-compliance with training will be recorded. The success of the training programs will be assessed and documented on a biannual basis. 	Contractor	None.	<ul style="list-style-type: none"> All training records will be maintained. The success of the training programs will be documented. 	-
Blasting Management Plan	<ul style="list-style-type: none"> Monitoring of adherence to blasting schedule. Monitoring of the number of complaints received relating to blasting. 	<ul style="list-style-type: none"> Kariba Dam Rehabilitation Project Across the site and surrounding communities 	<ul style="list-style-type: none"> All complaints from residents or landholders will be audited on a bi-monthly basis. Adherence to the blasting schedule will be monitored on a bi-monthly basis. 	Contractor	Explosives Act (No 10 of 1974) Regulations are in draft stage. Explosives Act (Chapter 10:06)	<ul style="list-style-type: none"> Record of complaints and corrective actions taken. Monthly reporting by Contractor to the ZEA of monitoring information. 	-
Emergency Preparedness Plan	Monitoring the effectiveness of the Emergency Preparedness Plan.	Kariba Dam Rehabilitation Project.	The effectiveness of the Emergency Preparedness Plan will be tested at least annually and audited.	Contractor	IPC General EHS Guidelines 3.7 - Emergency Preparedness and Response.	The Contractor will be responsible for compiling the results of testing and auditing programs. These results will be reported to the ZEA.	-
Dam Safety Management Plan	Monitoring dam safety during the rehabilitation of the Kariba Dam.	The rehabilitation of the Kariba Dam plunge pool and spill way will be carried out in compliance with the OP/EP 4.37 an independent Panel of Experts will be appointed to review the investigations, design, and implementation of the rehabilitation works. A copy of the existing Emergency Preparedness Plan is attached as Annex D in Part II of the ESI.					

19 Appendix F – Resettlement Policy Framework



Resettlement Policy Framework for the Kariba Dam Rehabilitation Project (Zambia and Zimbabwe) on the Zambezi River

Zambezi River Authority

March 2015

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Resettlement Policy Framework for the Kariba Dam Rehabilitation Project (Zambia and Zimbabwe) on the Zambezi River

March 2015

Reference: 0264743

Prepared by: Environmental Resources Management Southern Africa (Pty) Ltd. (ERM)

For and on behalf of
Environmental Resources Management

Approved by: Stuart Heather-Clark

Signed: 

Position: Partner (Project Director)

Date: March 2015

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GLOSSARY

Concept	Definition
Affected person/ household	Any person/ household who, as a result of the Project activities, loses the right to own, use or otherwise benefit from an asset or a resource, either in full or in part and either permanently or temporarily.
Compensation	Payment in cash or in kind for an asset or a resource that is acquired or affected by the Project.
Cut-off date	The date before which individuals must be occupying or otherwise using / owning an asset / resource in order to be eligible for compensation and / or resettlement assistance.
Economic displacement	Loss of income sources or means of livelihood resulting from Project induced land acquisition or obstructed access to natural resources.
Eligibility	Entitlement to compensation due to pending subjection to physical and / or economic displacement.
Host communities	People living in or around areas to which people physically displaced by the project will be resettled who, in turn, may be affected by the resettlement.
Involuntary resettlement	The occurrence of resettlement in instances where affected people do not have the right to refuse land acquisition. This occurs in cases of: (i) lawful expropriation or restrictions on land use based on state needs; and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with affected people fail.
Livelihood restoration	Restoration of wage-based or enterprise-based livelihoods.
Physical displacement	Loss of shelter and associated assets resulting from Project induced land acquisition, which necessitates affected people to move to another location.
Replacement cost	The market value of affected people's land/ assets plus transaction costs.
Resettlement	The overarching process that describes physical and economic displacement, but also the subsequent rehabilitation activity, through which the welfare of affected people is improved, or at least restored, to pre-Project levels.
Resettlement Action Plan (RAP)	A document specifying the procedures that a resettlement should follow and the actions that will be taken to compensate affected people and communities.
Surveyed Households:	Households included in the household survey for this study. These households are located in close proximity to the Project footprint and, in most cases, are the same as the Project affected households.

Concept	Definition
Vulnerable groups	<p>In the Social Study Area, the broad categories of people who should be considered to have some level of vulnerability are:</p> <p><u>Women</u> are generally regarded as vulnerable in the African social context as they are often expected to fulfil traditional roles of women i.e., taking care of the household and raise children rather than seek formal employment. In many cases women also lack education, mostly having attained only primary school level education. As such local women are unlikely to seek employment with project because of family duties.</p> <p><u>The elderly</u> are generally recognised as being vulnerable. The elderly remain in high social standing as long as they are productive; however, they lose this standing once they become dependent on the younger generations for assistance in meeting their basic needs (e.g., housing, water, food). The elderly are usually not in a position to take advantage of the benefits typically associated with large projects such as the Kariba rehab project.</p> <p><u>Youths</u> For the purposes of this assessment, youth are quantitatively defined as persons aged approximately 15 to 24 or, recognising variations by cultural context, qualitatively defined by their degree of independence with respect to their obtainment of a livelihood, relationship status (i.e., marriage, children), and living arrangements.</p> <p>Youth can be recognised as vulnerable, though in a way distinct from other categories listed above. Being at their physical prime but often facing an unknown future, youth may be seen as both empowered and disempowered. Youth are vulnerable in the sense that they are between dependence (childhood) and independence (adulthood) and, without access to resources and support to enable their transition to adulthood, youth may face a large degree of instability in their lives. Youth only inherit land once they have reached full adulthood and marriage, and until then are dependent on their parents.</p> <p>Another characteristic of youth is that it is a time when individuals are developing their identities and questioning societal norms; when youth perceive that their economic and social prospects are poor, they may engage in antisocial behaviour.</p> <p><u>Disabled or Chronically Ill Persons:</u> Disabled persons should be recognised as vulnerable as they are unlikely to be able to access the project benefits but would be vulnerable to change brought about by the project. People living with HIV/AIDS and TB can be considered to be disabled as their ability to remain healthy and maintain their livelihoods is often compromised by their illness.</p>

This Resettlement Policy Framework (RPF) has been prepared by Environmental Resources Management (ERM) for the Zambezi River Authority (ZRA) as part of the Environmental and Social Impact Assessment for the proposed rehabilitation of the plunge pool and the spillway of the Kariba Dam.

This RPF outlines the principles, procedures, and organizational requirements that should be considered by the ZRA should the implementation of the Project result in any physical or economic displacement.

The RPF has been developed bearing in mind Zimbabwean and Zambian requirements as well as IFC Performance Standard 5 - *Land Acquisition and Involuntary Resettlement (IFC PS5)* and African Development Bank (AfDB) Operational Safeguard (OS) 2 - *Involuntary Resettlement: Land Acquisition, Population Displacement and Compensation*.

1.1

OBJECTIVES AND SCOPE OF THE RPF

IFC PS5 and OS2 require a Resettlement Action Plan (RAP) for any project that results in physical or economic displacement of people. Where the exact nature or magnitude of the land acquisition or restrictions on land use related to the project is unknown due to the stage of project development, it is normally recommended that the proponent develop a Resettlement Policy Framework (RPF) as a precursor to a full RAP at a later stage.

Therefore the objective of the RPF is to provide a framework within which possible future displacement will be conducted..

1.2

Project OVERVIEW

The Kariba Dam is a double curvature concrete arch dam located at 16°31'18"S 28°45'41"E in the Kariba Gorge of the Zambezi River Basin between Zambia and Zimbabwe (*Figure 1.1*). The arch dam was constructed between 1956 and 1959 together with two separate hydropower plants one on the Zambian side and one on the Zimbabwean side of the Zambezi River.

Water is released from the reservoir through six sluice gates located approximately 80 m above the river level downstream of the dam. In the first 20 years after the dam was constructed there were sustained heavy spillage episodes resulting in erosion of the bedrock to 80 m below the normal water level. This area is known as the 'Plunge Pool'. The plunge pool represents a risk to the stability of the dam wall and therefore risk of a flood event and reduced operating capacity of the dam.

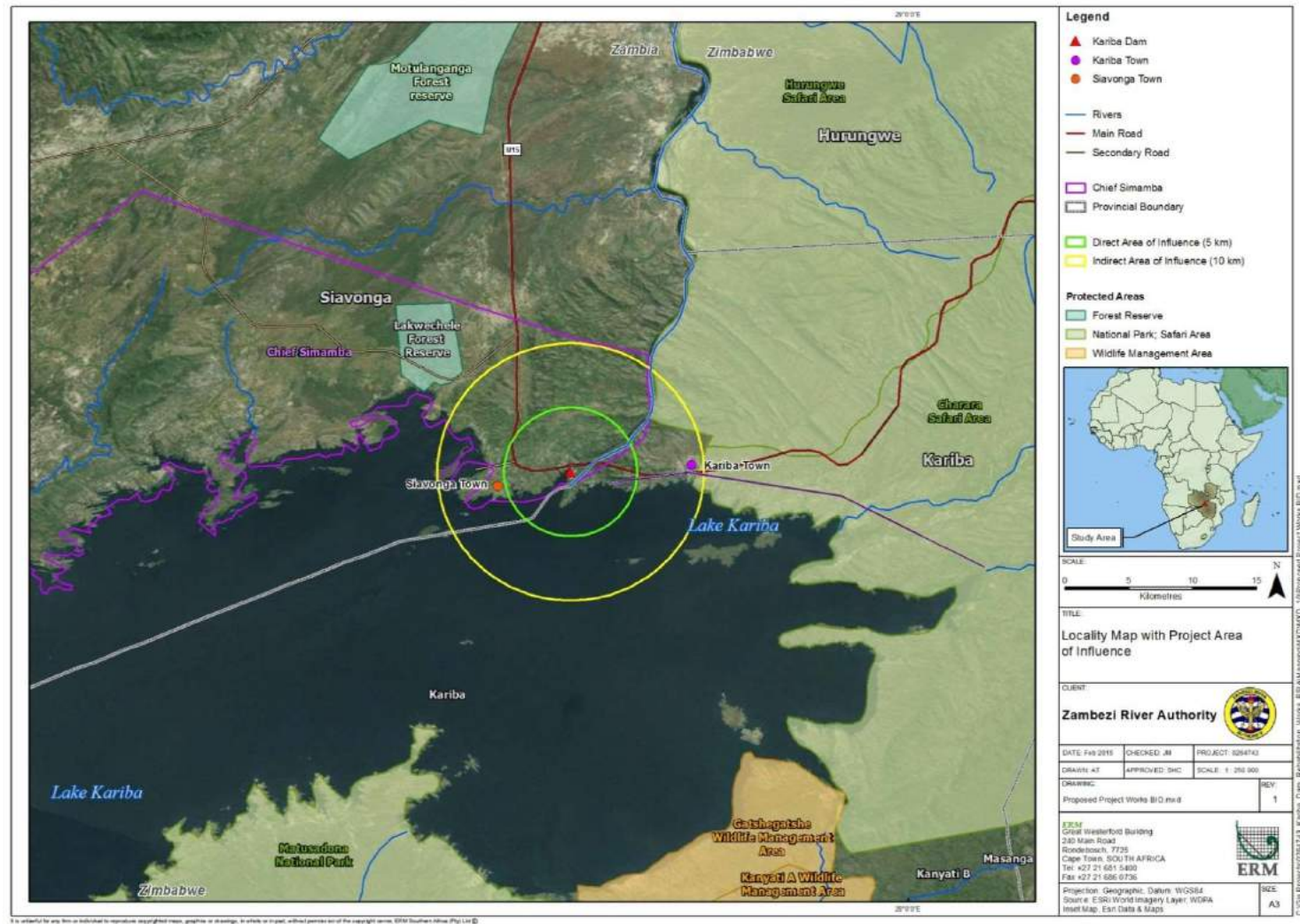
Failure to implement remedial measures to the plunge pool will result in the failure to operate the reservoir as expected (i.e. at a reduced capacity) and an increase in the risk of dam wall failure. A scenario where the dam wall fails will release a flood event of a total 273 km³ resulting in a major loss of life as the flood plain is home to approximately three million people; loss of livelihoods (socio-economic activities); environmental degradation; and a loss of main source of power to the region. Therefore it is necessary to implement the remedial action to avoid such an event.

Apart from the need to reshape the plunge pool, there is also a need to rehabilitate the six sluice gates that make up the spillway. The work needed within the sluices is associated with the refurbishment of the concrete surface of all sluices which have been distorted over the years due to an advanced alkali-silica reaction. Without functional sluices the reservoir level cannot effectively be maintained to take into account the flood regime of the Zambezi River. Without the ability to release water from the reservoir, there is a danger of the reservoir being too full prior to a flood event, and the subsequent flood event causing over topping of the dam wall which could lead to dam failure.

The aim of the Kariba Dam Rehabilitation Works is to improve the stability of the plunge pool through reshaping its profile. This will limit the preferential erosion towards the foundations of the dam along zones of weak rock. The project also aims to rehabilitate the six sluice gates of the spillway, enabling the ongoing use of the spillway function to manage the reservoir levels.

The two key components of the rehabilitation works, namely the reshaping of the plunge pool reshaping and the spillway rehabilitation, are discussed in more detail in the next sections.

Figure 1.1 Locality of the Kariba Dam Rehabilitation Works



1.2.1 *Reshaping of the Plunge Pool*

Key Works

The reshaping of the plunge pool is made up of a number of activities. These include the following:

- Establishment of general construction site, including construction camp for workers, workshops, lay down area, batching plants etc.;
- Transport of construction materials to the site;
- Management of spill before and during the rehabilitation works;
- Construction of an access road into the plunge pool area;
- Construction of the access road to construct the cofferdam;
- Construction of the cofferdam;
- Pumping of water from the cofferdam downstream;
- Blasting and excavation of the plunge pool;
- Removal of rock from the plunge pool via blasting and loading to trucks;
- Transport of waste rock from plunge pool to waste rock dumpsite;
- Disposal of waste rock; and
- Site clean-up and rehabilitation.

Timing of Plunge Pool Reshaping

The schedule will depend on the spillage duration governed by the specific hydrological conditions during the works. The preferred option is to allow a three phase works schedule, known as Alternative Scenario 3 (Tractebel Engineering (France) and Coyne et Bellier, 2012). Based on this alternative scenario the on-site works to reshape the plunge pool are estimated to take about three and a half years to complete. This will be finalised during the Scoping Phase.

1.2.2 *Rehabilitation of the Spill Way*

Apart from the need to reshape the plunge pool, there is also a need to rehabilitate the six sluice gates that make up the spillway. The work needed on the sluices is associated with the refurbishment of the concrete surface of all sluices. The surfaces have been distorted over time due to an advanced alkali-silica reaction. Without functional sluices the reservoir level cannot effectively be maintained to take into account the flood regime of the Zambezi River. Without the ability to release water from the reservoir there is a danger of the reservoir being too full prior to a flood event. Therefore if a flood event occurs causing over topping of the dam wall, the potential for dam failure exists.

Key Works

Refurbishment of the sluice gates will include the following activities:

- Establishment of a general construction site, including construction camp for workers, workshops, lay down area, batching plants etc.;
- Upgrade of access road to slipway;
- Transport of construction materials to the site;
- Dredging of material to deepen the slipway channel below the water level and disposal of the dredge material;
- Upgrade of the slipway to allow for the assembly of the cofferdam required for the refurbishment;
- Assembly of the cofferdam and floating to and installation on the dam wall;
- Dewatering of sluice gate and concrete works within the sluice gate chambers;
- Waste management; and
- Site clean-up and rehabilitation.

Timing of the Spillway Rehabilitation

The schedule will depend on the spillage duration governed by the specific hydrological conditions during the works. The on-site works to refurbish the spillway will be performed after the plunge pool reshaping.

The works will start with the site installations, the upgrading of the slipway and the associated access roads. The refurbishment of one sluice takes one year from the installation of the temporary cofferdam to its removal. The cofferdam is successively transferred from one sluice to the adjacent one. It is expected that total works will take eight years to complete.

1.3

STRUCTURE OF THE RPF

The remainder of the RPF is structured as follows:

- *Section 3: Regulations and Requirements;*
- *Section 4: Resettlement Action Plan (RAP) Requirements;*
- *Section 5: Stakeholder Consultation;*
- *Section 6: Institutional Arrangements;*
- *Section 7: Grievance Mechanism;*
- *Section 8: RAP Schedule;*
- *Section 9: RAP Funding and Budget;*
- *Section 10: Monitoring and Reporting; and*
- *Section 11: Conclusion.*

This RPF has been prepared bearing in mind the applicable Zimbabwean and Zambian legislation as well as international standards. In the event of discrepancies between in-country legislation and international good practice, the latter will prevail.

2.1

NATIONAL REQUIREMENTS

Table 2.1 below provides a summary of the land acquisition related legislation for both Zimbabwe and Zambia.

Table 2.1 Summary of Land Acquisition related Legislation: Zambia and Zimbabwe

Category	Zimbabwe	Zambia
Land Management	<p>Land management in Zimbabwe is the responsibility of the Ministry of Lands and Rural Resettlement. The land rights in Zimbabwe are embedded in four systems of land tenure, namely freehold (private) land, state land, communal land and leasehold (resettlement) land systems.</p> <p>Communal Land Act (Chapter 20:04) Act concerns Communal land. Part III of the Act deals with occupation and use of communal land; while Section 7 states that no person shall occupy communal land unless he/ she acquired the rights to do so before 1st of February 1983, or has obtained a permit to do so, or is related to a person who occupies or uses communal land.</p>	<p>Lands Act, Cap 173, 1995 The Act guarantees peoples' right to land while enhancing development. The Act recognises the holding of land under customary tenure and the Chief's role is legally recognised, such that land cannot be converted or alienated without approval of the Chief.</p>
Land Acquisition	<p>Land Acquisition Act (Chapter 20:10) The Act empowers the President or other authorities to acquire land and other immovable property compulsorily where it is reasonably necessary in the interest of defence, public safety, public order, public morality, public health, town and country planning or for a utilization that is beneficial to the public generally. The acquisition does not include any minerals which are the subject of rights or any other rights. An acquiring authority is under the duty to pay 'fair compensation'.</p>	<p>Land Acquisition Act No. 2 of 1970 The Act sets out regulations for compulsory acquisition of land and property and compensation for such acquisition.</p>

Category	Zimbabwe	Zambia
Land Use and Planning	Regional Town and Country Planning Act (Chapter 29:12) Part VII of this Act details the acquisition, expropriation and disposal of land owned by the local authorities under Sections 45 to 49. In turn, Part VIII details the liability, Determination, exclusion/ or inclusion, and claims for compensation in Sections 50 to 53.	Town and Country Planning Act, Cap 283, 1962, as amended Provides for the appointment of planning authorities whose main responsibilities are the preparation, approval and revocation of development plans. It also provides for the control of development and subdivision of land.
Title Deeds	Deeds Registry Act (20:05) This Act principally makes provision for the making and registration of deeds regarding land and other real rights, for rights in land such as lease and servitude and for the transfer of land.	Lands Conversion of Titles Act Lands and Deeds Registry Act, Cap 174 Provides for alienation, transfer, dispossession and charge of land.

The above legislation facilitates the following resettlement activities:

- The payment of compensation where land and land rights are acquired for project purposes;
- The compensation for loss of, or damage to, productive assets and crops, be it temporary or permanent; and
- The right to appeal and other judicial avenues for the resolution of disputes.

2.2

INTERNATIONAL REQUIREMENTS

It is proposed that the ZRA will follow the requirements of IFC Performance Standard 5 - *Land Acquisition and Involuntary Resettlement (IFC PS5)* and African Development Bank Operational Safeguard (OS) 2 - *Involuntary Resettlement: Land Acquisition, Population Displacement and Compensation* in the event that displacement and resettlement is triggered by the Project. The main objectives of both include:

2.2.1

IFC PS5 - *Land Acquisition and Involuntary Resettlement*

- To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs;
- To avoid forced eviction;
- To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected;

- To improve, or restore, the livelihoods and standards of living of displaced persons; and
- To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

2.2.2

AfDB OS 2 – Involuntary Resettlement: Land Acquisition, Population Displacement and Compensation

- Avoid involuntary resettlement where feasible, or minimize resettlement impacts where involuntary resettlement is deemed unavoidable after all alternative project designs have been explored;
- Ensure that displaced people are meaningfully consulted and given opportunities to participate in the planning and implementation of resettlement programmes;
- Ensure that displaced people receive significant resettlement assistance under the project, so that their standards of living, income-earning capacity, production levels and overall means of livelihood are improved beyond pre-project levels;
- Provide explicit guidance to borrowers on the conditions that need to be met regarding involuntary resettlement issues in AfDB operations to mitigate the negative impacts of displacement and resettlement, actively facilitate social development and establish a sustainable economy and society; and
- Guard against poorly prepared and implemented resettlement plans by setting up a mechanism for monitoring the performance of involuntary resettlement programmes in Bank operations and remedying problems as they arise.

This *Section* describes a high-level approach towards the preparation and implementation of a Resettlement Action Plan (RAP).

Please Note

It is not foreseen that the Project will require the acquisition of additional land above that already within its boundaries. However, the ZRA has requested the preparation of an RPF in case of unplanned events resulting in displacement.

Should any un-planned events result in displacement; the ZRA have indicated that they will firstly attempt to minimize the displacement impact by exploring alternative Project designs. And secondly, where displacement is unavoidable, the ZRA, jointly with the Governments of Zimbabwe and Zambia will plan and execute a RAP process as broadly set out below.

3.1.1 *Step 1 - Identify Project Impacts and Affected Populations*

The first activity when planning a RAP is to identify all people affected by the project and all beneficial and adverse impacts on their livelihoods associated with the project's land acquisition. Consultation with officials of local government, community leaders, and other representatives of the affected population is essential to gaining a comprehensive understanding of the types and degrees of project effects.

Affected populations and impacts should be identified through a series of steps, namely:

- Develop and analyse maps of the affected area;
- Undertake a social census to identify the affected people and register them according to location;
- Develop an inventory of lost and affected assets at a household and community level;
- Conduct a socio-economic survey of the affected people; and
- Consult with affected people regarding proposed mitigation measures and development opportunities.

3.1.2 *Step 2 – Develop a Detailed Legal Framework for Land Acquisition and Compensation*

The RAP will outline a legal framework describing all laws, decrees, policies and regulations relevant to the resettlement activities associated with the Project. The legal framework described in this RPF lays the foundation for the development of a more detailed legal framework that will include:

- The scope of the compulsory acquisition of land and the nature of compensation associated with it, both the procedures for assessing compensation values and the schedule for making compensation payments.
- Applicable legal and administrative procedures, including appeals processes and the timeframe of such procedures.
- Land titling and registration procedures.
- Laws and regulations related to implementing resettlement, compensation of land, consolidation of land, land use practices, the environment, water use and social welfare.

3.1.3 *Step 3 – Develop a Compensation Framework*

The RAP compensation framework will specify all forms of asset ownership or user rights among the affected people and the project's strategy for compensating them for partial or complete loss of assets. The compensation framework will include a description of the following:

- Compensation guidelines by host governments.
- In the absence of guidelines, the valuation method of assets of the Project Proponent.
- The proposed types and levels of compensation to be paid.
- Compensation and assistance eligibility criteria.
- Schedule of compensation payments.

3.1.4 *Step 4 – Describe the Resettlement Assistance and Restoration of Livelihood Activities*

The RAP will make provision for providing affected people with the necessary assistance during the physical movement to possible resettlement sites. The date and time of movement, the logistics of transport of people and belongings as well as the arrangements for temporary shelter, if required, should be known in advance. Provision must also be made for possible

vulnerable groups (such as handicapped people or the aged who may require special assistance during relocation).

Where resettlement affects the income-earning capacity of the affected people, the Project Proponent is encouraged to undertake resettlement as a sustainable development initiative in order to contribute to the restoration of livelihoods of the affected people.

3.1.5 *Step 5 – Describe a Detailed Budget and an Implementation Schedule*

The RAP will specify all resettlement costs by categories of impact, entitlement, and other resettlement expenditures including training, project management, and monitoring. The budget will illustrate the expenditures over the life of the project.

Ordinarily, payment of compensation and resettlement assistance allowances will be done either by the Government or by the Project Proponent. In the event that either the Zimbabwean or Zambian Governments assume responsibility for the payment of compensation and resettlement assistance allowances, the ZRA should collaborate with the responsible government agency to ensure that payments are made on schedule. If the Project Proponent is financing government resettlement efforts, it is proposed that it should do so in instalments and link disbursement of funds to performance-based milestones. Where the Project Proponent assumes sole responsibility for resettlement funding, it must describe its arrangements to ensure the timely disbursement of funds.

It is further proposed that the RAP budget is to be linked to a detailed implementation schedule for all key resettlement and rehabilitation activities. This schedule should be linked with the project's civil works construction schedule.

3.1.6 *Step 6 – Describe the Organizational Responsibilities*

The RAP will identify and provide details on the roles and responsibilities of all organizations that will be responsible for the planning and implementation of resettlement activities. Depending on the scale of resettlement associated with the Project, it may be appropriate to create a resettlement advisory group (or steering committee, or task force) to co-ordinate the implementation of the RAP.

This advisory group will probably comprise representatives from the ZRA, relevant government representatives, community organizations, NGOs involved in support of resettlement activities as well as representatives of the communities affected by the project, including possible host communities.

The advisory group will convene at regular intervals during the design and implementation phases of the RAP to ensure the regular exchange of

information among all parties and the co-ordination of all resettlement activities.

3.1.7 *Step 7 – Develop a Framework for Public Consultation, Participation, and Development Planning*

Consultation with people affected by the resettlement is mandatory. Early consultation helps to manage public expectations concerning the impact of a project and its expected benefits. Subsequent consultations provide opportunities for the Project Proponent and representatives of people affected by the project, to negotiate compensation packages and eligibility requirements, resettlement assistance, and the timing of resettlement activities. The RAP will define a Consultation Plan comprising a wide range of project stakeholders.

3.1.8 *Step 8 – Develop a Grievance Mechanism for Resettlement Issues*

The establishment of a grievance mechanism is a RAP requirement. The grievance mechanism must keep track and manage grievances and the feedback associated with it to ensure that appropriate actions are taken timeously and resolutions achieved. Corrective actions must be implemented sensitively and complainant(s) must be informed of the outcome. A typical grievance mechanism and procedure is described in *Section 6*.

3.1.9 *Step 9 – Develop A Framework for Monitoring, Evaluation and Reporting*

A framework for monitoring and reporting on the progress and effectiveness of RAP implementation must be developed. This framework will specify types of monitoring, monitoring objectives and monitoring duration as well as proposed monitoring mechanisms.

One of the central processes required for a RAP is engagement and consultation with affected communities. In RAP processes a range of key stakeholders are consulted, including the Project Proponent, the affected community and Government. Other stakeholders who may form part of the broader consultation and information sharing process are possible host communities, non-governmental organisations (NGOs), community-based organisations (CBOs), as well as education and training institutions.

The objective of RAP consultations is to secure the participation of all people affected by the project in resettlement planning and implementation, particularly in the following areas:

- Alternative project design;
- Assessment of project impacts;
- Resettlement strategy;
- Compensation rates and eligibility for entitlements;
- Choice of resettlement site and timing of relocation;
- Development opportunities and initiatives;
- Development of procedures for redressing grievances and resolving disputes; and
- Mechanisms for monitoring and evaluation and for implementing corrective actions.

The consultation process will be structured as an inclusive consultation plan to ensure that all affected parties are provided with the opportunity to exchange information with the purpose of understanding and contributing to the implementation process. It is an iterative process which must continue at varying levels of intensity for the duration of the RAP.

As part of the consultation process, all information disclosure and stakeholder consultation will be documented. This documentation should identify who was consulted, when and where they were consulted, what was discussed, what actions were taken and when follow-up is required.

This *Section* will provide an overview of the institutional structure required for RAP implementation. It is proposed that a Resettlement Unit must be established within the overall management structure of the Project to coordinate, manage and monitor the implementation of all displacement activities. To achieve this, the ZRA and the Governments of the two host countries will have to collaborate to ensure that outcomes consistent with IFC Standards are achieved. *Table 5.1* illustrates the roles and responsibilities within such a Resettlement Unit.

Table 5.1 ***Resettlement Unit Roles and Responsibilities***

Roles	Responsibilities
Resettlement Manager (RM)	Responsible for overall planning, coordination and management of displacement activities and staff.
Community Liaison Officer (CLO)	Responsible for managing high level negotiation and consultation with affected communities, facilitates public meetings and monitors Resettlement Officers.
Resettlement Officers (RO)	Responsible for providing explanation of compensation policy and resettlement activities, monitoring grievances and communicating Project problems to Resettlement Manager and Community Liaison Officer.
Community Resettlement Committee (CRC)	Comprises representatives from affected villages and host communities including traditional leaders, women, community associations and community members. This committee serves as a channel for grievances between the affected villages and the Resettlement Unit.

The management of grievances is a vital component of stakeholder management and an important aspect of risk management for a project. Grievances can be an indication of growing stakeholder concerns both real and perceived.

The grievance mechanism will keep track of and manage grievances, and the feedback associated with it to ensure that appropriate actions are taken and resolutions achieved. Feedback must be scheduled appropriately to ensure that issues are addressed timeously. Corrective actions must be planned and implemented in consultation with the aggrieved party where possible and such party should be informed of the outcome of implementing the corrective actions.

As a general policy, the ZRA will work pro-actively towards the prevention of grievances through the implementation of impact mitigation measures defined in the ESIA and addressing any grievances in a timely and effective manner.

6.1

KEY PRINCIPLES

The IFC standards outline requirements for an effective grievance redress mechanism. The IFC states that concerns should be addressed promptly using an understandable and transparent process that is culturally appropriate and readily acceptable to affected communities, at no cost and without retribution. It notes that such mechanism should be appropriate to the scale of impacts and risks presented by a project and should be beneficial for both the Project Proponent and stakeholders.

Further, the UN Guiding Principles on Business and Human Rights (Foundational Principle 31, “Access to Remedy”) provides a list of key principles that may also underpin a non-judicial grievance mechanism. The principles outlined in *Box 6.1* provide guidance for designing, revising or assessing a grievance mechanism to help ensure that it is effective in practice.

In order to ensure its effectiveness, a non-judicial grievance mechanism should be:

- **Legitimate:** the mechanism must be “trust-worthy”, if it is not, stakeholders are unlikely to choose to use it.
- **Accessible:** Barriers to access may include a lack of awareness of the mechanism, language, literacy, costs, physical location and fears of reprisal.
- **Predictable:** Stakeholders’ trust for and utilisation of the grievance mechanism is enhanced through the public provision of information about the procedure it offers.
- **Equitable:** Affected stakeholders usually have less access to information and expert resources than business enterprises, and often lack the financial resources to pay for them.
- **Transparent:** Regular communication with affected parties about the progress of individual grievances is essential to retaining confidence in the process, and the provision of statistics, case studies and more detailed information about the handling of certain cases, can be important to demonstrate its legitimacy and retain broad trust. Simultaneously, the mechanism should ensure confidentiality of the dialogue between parties and of individuals’ identities.
- **Rights-compatible:** Grievances are frequently not framed in terms of human rights, nor do they initially raise human rights concerns; where outcomes have implications for human rights, care should be taken to ensure that they are in line with internationally recognized standards.
- **Continuous learning:** Regular analysis of the frequency, patterns and causes of grievances, should be conducted in order to ascertain how policies, procedures or practices may be altered to prevent future harm.
- **Engagement and dialogue:** engaging with affected stakeholder groups (potentially through a third party) about the design and performance of the grievance mechanism can help to ensure that it meets their needs, that they will use it in practice, and that there is a shared interest in ensuring its success.

6.2

PROPOSED GRIEVANCE PROCEDURE

The proposed Grievance Procedure for the Kariba Dam Rehabilitation Project is divided into six key steps. These are as follows:

- **Step 1:** Receive and Log Grievance;
- **Step 2:** Acknowledge Grievance;
- **Step 3:** Assess and Prioritise Grievance and Forward to Relevant Department;
- **Step 4:** Investigate and Resolve Grievance;
- **Step 5:** Sign-off on Grievance; and
- **Step 6:** Monitor.

The six steps are described in more detail below.

Step 1: Receive and Log Grievance

- The grievance is received by the ZRA or a Contractor representative. Regardless of who receives the grievance, it needs to be forwarded to the official CLO for his/her attention.
- The CLO logs the grievance using an official Grievance Log Form and ensures that it is captured in a consultation tracker in order to monitor actions taken to resolve the grievance. Refer to *Box 6.2* for a typical lay-out of a Grievance Log Form
- It is important that the process of reporting a grievance is easily accessible and un-intimidating to any stakeholder.

Box 6.2 ***Content of a Grievance Log***

The grievance log will contain a record of the complainant and will record implementation dates for the following actions:

- Date the complaint was made;
- Information on proposed corrective action sent to complainant (if appropriate);
- Date response sent to complainant, and
- The date the complaint was closed out.

Each complaint will be assigned an individual number, to ensure that it is appropriately tracked and closed out.

Step 2: Acknowledge Grievance

- The CLO will acknowledge receipt of the grievance in writing and provide information on the proposed steps and the anticipated timeframes to resolving the grievance.
- This acknowledgement should be provided to the complainant within 5 days of receiving the grievance.
- If the grievance is not well understood or if additional information is required, clarification will be sought from the complainant.

Step 3: Assess and Prioritise Grievance and Forward to Relevant Department

- The CLO will assess the grievance, and assign it a risk rating (see *Box 6.3*). The outcome of the risk rating has implications for how high within the Company the complaint is reported, and the seniority of management oversight required.
- Once the grievance has been rated, the grievance will be forwarded to the relevant department Manager to be addressed (e.g. Human Resources, Production, Procurement, HSE etc.).

- The grievance will be escalated to senior management if necessary and an Incident Investigation Team (overseen by the CLO) will be assigned within 10 days of receipt of the grievance, if deemed necessary. The Incident Investigation Team is comprised of staff from the relevant department to which the grievance applies.

Box 6.3 *Criteria for Prioritising Grievances/Complaints*

The following criteria will be used as a basis for the prioritisation of different levels of complaints received.

1. A **Risk Level 1** grievance is one which is isolated, or "once-off" (within a given reporting period), and essentially local in nature, and has little potential to cause long term damage to stakeholder relations locally and nationally.
2. A **Risk Level 2** grievance is one which is widespread and repeated, has resulted in attention from the media at local / regional level, and has the potential to cause damage to stakeholder relations locally and nationally.
3. A **Risk Level 3** grievance is one which is both widespread and / or repeated and which, in addition, has resulted in a serious breach of Company policies, or the law and / or has led to negative national / international media attention, *or* is judged to have the potential to generate negative comment from the media, or other key stakeholders. A Risk Level 3 complaint also has the potential to cause major damage to stakeholder relations, locally, nationally and internationally.

Repeated or continuous Level 1 or 2 complaints must be escalated to the next level up, if the cause is not rectified within an acceptable period of time. This categorisation provides an indication of the severity of the complaint, and has implications for how high within the Company the complaint is reported, and the seniority of management oversight required.

Step 4: Investigate and Resolve Grievance

- The Incident Investigation Team will be tasked with seeking resolution to the grievance. This may entail a dialog or series of dialogs between affected parties to find a solution to the grievance. Alternatively, it may entail investigating the underlying cause of the grievance and action any changes required to internal systems to prevent a recurrence of a similar grievance.
- An Incident Investigation Report will be completed within 28 days.
- During the 28 days of dialog or investigation, the CLO will co-ordinate conflict resolution activities necessary to contain and resolve any actual or potential conflicts arising from the reported grievance.

Step 5: Sign-off on Grievance

- The CLO will seek sign-off from the stakeholder that the grievance has been resolved.
- In instances where the stakeholder is not satisfied with actions taken, the grievance will either be escalated through the CLO to senior management and a decision will be taken either to implement supplementary actions or

to consider initiating an appeal process or approaching the host country's judiciary to further address the grievance.

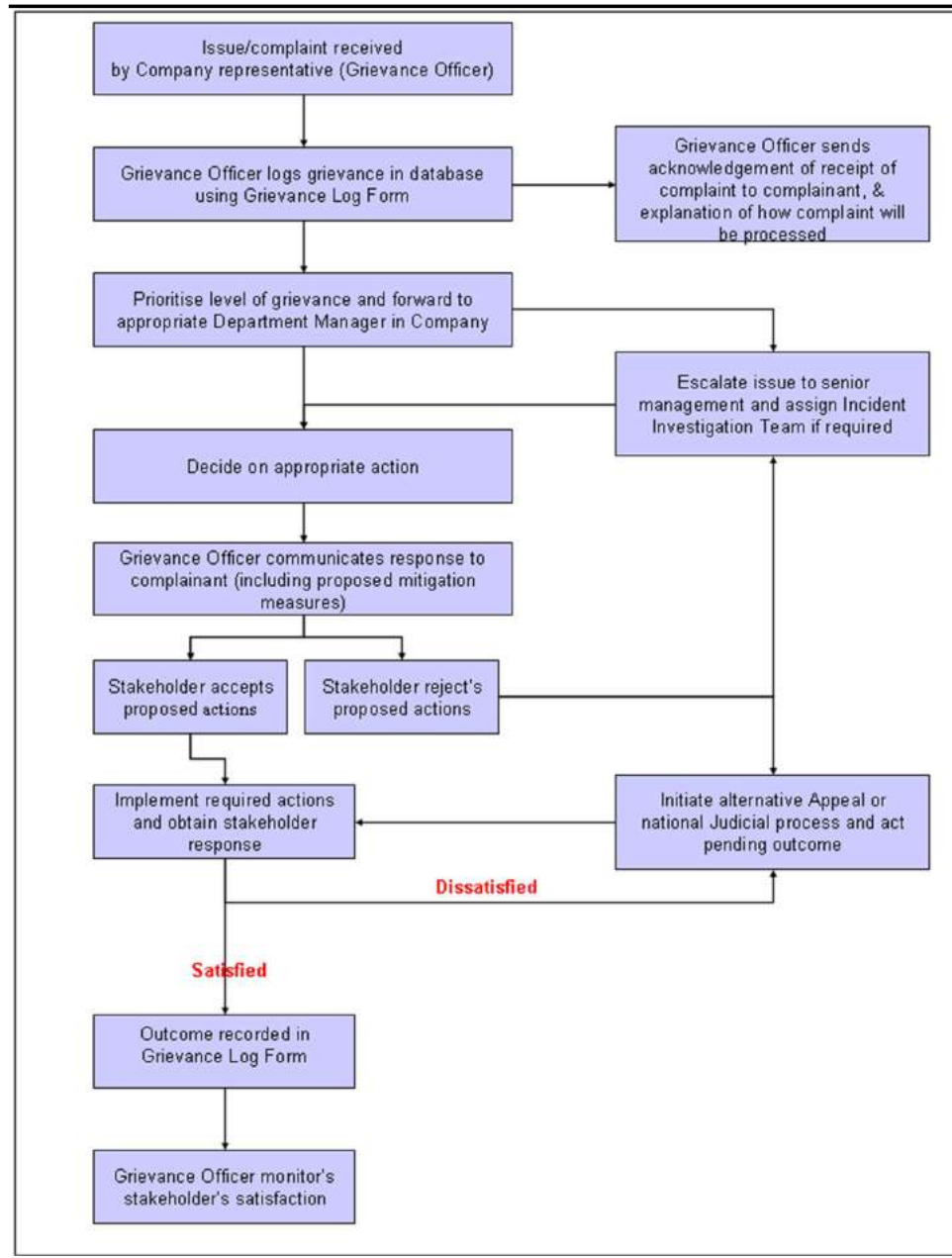
- Following this process, the CLO will again approach the stakeholder to obtain sign-off on actions implemented.
- All grievances to be signed off at an appropriate level of seniority of staff. In this regard, it may be suitable that:
 - All grievances with a Level 1 risk rating will be signed off by the CLO.
 - All grievances with a Level 2 risk rating will be forwarded to senior management for sign-off (i.e. HSE Manager).
 - All grievances with a Level 3 risk rating will be forwarded to the site manager for his / her attention and sign-off. Whilst it may not be necessary to involve the HSE Manager in signing off complaints of low significance (e.g. Level 1), they should be involved in periodic reviews of actions taken for such grievances, to ensure their correct handling and classification.
- The staff member who signs off the complaint should have sufficient knowledge about the topic to provide assurance.
- Once sign-off has occurred, this should be recorded in the Grievance Log.

Step 6: Monitor

- The CLO will monitor the satisfaction of the stakeholder and project personnel following sign-off (this will take place in the 28 days after sign-off).
- Any grievances not signed-off as resolved will be further investigated and the CLO will seek agreement from the stakeholder to maintaining contact in order to determine what further action is required to resolve the grievance.

A Grievance Procedure flow diagram is provided below in *Figure 6.1*.

Figure 6.1 Grievance Procedure Flow Chart



This *Section* provides an overview of RAP development and implementation activities synchronized with a projects activities; see *Table 7.1*. Linking schedules in this way creates an imperative for co-ordinating resettlement with other project activities throughout the chain of project management.

Table 7.1 *An Example of a RAP Implementation Schedule*

Year	2015				2016				2017				2018			
RAP Steps	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Pre-Construction																
Development of Draft RAP																
Step 1 - Identify project impacts and affected populations																
Step 2 - Develop a detailed legal framework for land acquisition and compensation																
Step 3 - Develop a compensation framework																
Step 4 - Describe the resettlement assistance and restoration of livelihood activities																
Step 5 - Describe a detailed budget and an implementation schedule.																
Step 6 - Describe the organizational responsibilities																
Step 7 - Develop a framework for public consultation, participation, and development planning issues																
Step 8 - Develop a grievance mechanism for resettlement																
Step 9 - Develop a framework for monitoring, evaluation and reporting																
Approval of Draft RAP																
Construction																
Undertake Community Consultation Program as described in Step 7.																
Confirmation of Relocation Sites																

Year	2015				2016				2017				2018			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
RAP Steps																
Agreement of Entitlements																
Payment of Compensation																
Establishment of Links with Government Programs																
Implementation of Grievance																
Movement of Project Affected																
RAP Monitoring																
External Evaluations																

Funding requirements of a RAP is determined by relevant in-country legislation (in this instance either Zimbabwe or Zambia) as well as international standards.

The purpose of a RAP is broadly to ensure that all affected parties are fairly compensated and assisted in restoring their livelihoods. For this to happen, the RAP implementation process must be funded adequately. The funding component of a RAP is usually seen as being an integral part of the total project budget.

The primary aim of securing adequate RAP funds is to ensure the implementation of all compensation and mitigation measures required due to project impacts on the affected community. Both direct and indirect impacts must be compensated and or mitigated. This includes direct losses of agricultural land and grazing land, crops, economic trees as well as improvements on land such as housing and business structures (shops).

Importantly, funding for a RAP will provide for the mitigation of more indirect project impacts on vulnerable groups such as children or the elderly who might not have the ability to absorb project impacts as successfully as other impacted groups. Mitigation of vulnerable groups may include support during the physical process of moving or assistance with financial planning with compensation funds.

According to international standards, a RAP implementation process should be seen as an opportunity to enhance development in the project area. This necessitates the design and funding of development programmes in line with regional and local development opportunities that could also contribute to the restoration of livelihoods and stimulation of the local economy.

Other aspects of RAP implementation that will need funding are internal and external monitoring and evaluation of the RAP as well as the establishment and management of a Grievance Mechanism and Procedure.

All of the mentioned compensation and mitigation components must be translated into a single integrated RAP budget. This will provide the Project Proponent with a clear understanding of the financial implications of the RAP implementation process.

The following categories should be considered during the budgeting, however the budgets required will depend on the extent of the displacement:

- Development and implementation of an engagement and communication system;

- Implementation of a grievance mechanism;
- Detailed household surveys of affected households;
- Development of eligibility and entitlement matrix;
- Design of resettlement options and site selection process;
- Payment of compensation;
- Development and implementation of a livelihoods restoration programme;
and
- Monitoring and evaluation.

In line with international standards, projects that induce displacement are required to monitor and report on the effectiveness of RAP implementation. This includes progress with the physical and economic displacement and restoration of livelihood activities, the disbursement of compensation, the effectiveness of consultation and participation activities by the affected communities and the sustainability of livelihood restoration and development efforts. The monitoring mechanism provides the basis to assess the success of the resettlement process and the effectiveness of the various implementation processes and measures.

Monitoring can be done via a wide range of mechanisms including primary and secondary data collection methods. The most commonly used methods are interviews with displaced people, review and analysis of secondary project sources such as minutes and reports and key stakeholder and focus group interviews such as with government representatives and NGOs. Site visits and inspections as well as compliance audits are typically used to verify compliance with RAP implementation measures and progress toward desired outcomes.

The monitoring mechanism will typically provide for two types of monitoring, namely internal monitoring and external monitoring. Internal monitoring is usually conducted by the RAP implementing body (the Project Proponent) as an internal project management tool with the purpose of ensuring that implementation measures are resulting in desired outcomes and if not, to define and implement corrective measures immediately.

External monitoring is usually conducted by an independent third party with the express purpose of gauging whether implementation is compliant with the approved compensation and mitigation measures as captured in the RAP. In the event that stated monitoring objectives and outcomes are not achieved, the external monitor makes recommendations to rectify this.

Both internal and external monitoring requires the following:

- The design of a monitoring plan and procedure;
- The identification of key monitoring objectives; and
- An overview of the roles and responsibilities of all parties involved in monitoring activities.

Examples of performance milestones could include:

- Number of Public meetings held;
- Census, assets inventories, assessments, and socio-economic studies conducted;
- Grievance redress procedures in place and functioning;

- Compensation payments disbursed;
- Housing lots allocated;
- Housing and related infrastructure completed;
- Relocation of people completed;
- Income restoration and development activities initiated; and
- Monitoring and evaluation reports submitted.

Finally, it is required that monitoring results are well documented, that suggested corrective and preventive actions are implemented, and that there is follow-up on these actions to ensure their effectiveness.

In conclusion, although the proposed Kariba Dam Rehabilitation Project will not result in any resettlement at this stage, if needed, a RPF (this document) outlining the general principles to be followed if any physical or economic displacement were to occur has been produced.

While host governments often take responsibility for the resettlement of project affected people, the Project Proponent still remains with the responsibility to ensure that the outcomes of the resettlement is consistent with IFC's performance standards on involuntary resettlement.

Therefore, this RPF was developed to provide the ZRA with an understanding of the principles, procedures and organisational arrangements that will be required from the Governments of Zimbabwe and Zambia as well as from the Project Proponent during implementation.

20 Annex G. COVID-19 Prevention and risk management Proposed Plan

1. Introduction - Recommendations to the government and project

The project will follow this guidance note to prevent and managed risk associated to Covid19 pandemics or other zoonotic diseases outbreaks and to prepare a Covid 19 prevention and risk management plan, following the government installed protocols, the World Bank Interim Note and other measures to agree during project implementation.

The Budge to cover any expense related to the preparation and implementation of this plan will be cover by the project contractors and ZRA.

1. The WHO recommend the following steps to manage a health emergency such as the COVID 19 through four steps:

i) Prevention and mitigation measures,

ii) Preparedness,

iii) Response, and

iv) Recovery (figure below). More information can be found here:

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/infection-prevention-and-control>

There are also courses available online at the WHO that can be taken by the EHS teams.

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training>

2. The Prevention and Response for Covid19- in the project needs to ensure proper prevention measures and readiness to respond in case of an outbreak.



Please arrange Plan in at least 3 sections:

- I) prevention and mitigation (including movement of people, social distancing, supply and facilities available, training),
- II) response (contingency plan)
- III) Monitoring. Ensure plan has been agreed and signed with the medical staff that will support the project (health clinic, doctor hired by the project, or other). A template for monitoring the workforce or community is attached at the end.

- a. The contractors must ensure protection supplies on site to increase protection and minimize spread in the community by outside workers.
- b. Improve the Contingency or Emergency plan in a case of an outbreak;
- c. Give maximum priority to the health of all workers and surrounding communities
- d. Prepare the weekly Monitoring report
- e. Perform a simulation exercise at least 1 month after starting the works

2.2 Detailed measures and recommendations

A	Movement of workers/contractors				
	Describe the measures applicable for Managing movement of international workers from other places to the work sites				
2	Describe the measures applicable for Managing movement of workers from local communities who do not live in the project sites				
3	Describe the measures applicable for Managing movement of casual workers who do not live in the project areas				
	Describe the measures applicable for Managing movement of contractors that visit the project site to deliver workers, materials, food, water, others? List them all				
B	Hand washing stations				
	<p>-Install hand washing stations areas with a table to place - liquid soap, hand sanitizer and paper towel to hand drying. Placed poor-concrete in the foot of this water stations and a simple drainage channel to carry to water away from the site and avoid accumulation of water in the area.</p> <p>-Place <i>Water tanks</i> with clean water for washing hands. Contractors to demonstrate water with zero Total Coliforms and zero <i>E. coli</i>.</p> <p>-Indicate the locations where these stations have been placed.</p> <p>-Request social distancing when using the hand washing station</p> <p>-Placed a board with a poster or text indicating how to properly wash the hand and communication to Avoid touching the face</p>				
C	Personal Protection Equipment (PPE)				
	<p>1-PPE to be in place – Include requirements and evidence of purchase and stock of the following PEP equipment by contractors</p> <table><tr><td>PPE</td><td>N95 mask, disposable groves, tissues, hand sanitizer, etc.</td><td>Monitored with Copies of purchased – volume and number in site or in transit</td></tr></table> <p>2.PPE must be in quantity depending of the number of workers working per day in the camp. Please remember that under a potential emergency that PPE should be store for health workers, sick workers and potential collaboration with local health facilities.</p> <p>3.Explain How often the workers are required to change mask and gloves</p> <p>4.Indicate how much time will the current supply on site will last (weeks or months)</p> <p>5. Explain the PPE available for medical staff – comply with the WHO recommendations:</p>		PPE	N95 mask, disposable groves, tissues, hand sanitizer, etc.	Monitored with Copies of purchased – volume and number in site or in transit
PPE	N95 mask, disposable groves, tissues, hand sanitizer, etc.	Monitored with Copies of purchased – volume and number in site or in transit			

	<p>https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-%282019-ncov%29-outbreak</p> <ul style="list-style-type: none"> ○ Do not re-use single-use masks. ○ Discard single-use masks after each use and dispose of them immediately upon removal. ○ Replace masks as soon as they become damp with a new ○ clean, dry mask.
D	Social distancing
	<p>1-The plan needs to include measures to prevent infection by social distancing.</p> <p>-Explain how these measures will be enforced in the movement of workers, and workers coming from local communities, common areas such as canteens, shower areas, washing cloth areas, etc.</p> <p>-Add the WHO recommendations: <i>bent elbow or use paper tissue if coughing or sneezing, dispose of the tissue immediately after use, and perform hand hygiene. Read more detail in the WHO website- updated March 19, 2020.</i></p> <p>https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-%282019-ncov%29-outbreak</p> <p>-Describe waste management protocol to collect contaminated used paper towel and used PPE. Contractors must define a protocol to collect used PPE and discarded properly and no disposed in the dumping areas or rivers o wetlands where other people can become contaminated.</p>
E	Measures in common areas (canteen, offices, showers, washing areas, etc)
	<p>1. The plan needs to include a section to describe measures and enforcement to prevent infection in common areas of workers such as materials rooms, canteen, cars.</p> <p>-describe how social distancing will be enforced in the common areas like canteens.</p> <p>-describe How the mealtimes are going to be managed to prevent infection to workers</p> <p>-describe the protection measures for kitchen personnel exposed to many workers coming to eat.</p>
F	Dormitories at camp site
	<p>1.Please describe all measures taken to prevent zoonotic diseases like malaria, dengue, etc and avoid presence of animals, rats, bats, mosquitos in the rooms that can transmit diseases to workers. In order to improve ventilation – the project needs to repair doors, mosquito nets.</p> <p>-opening every day their rooms for short periods to increase aeration. All windows with broken mosquito nets will be fixed. Additional mosquito bed nets will be provided to all workers.</p>
G	Waste management and cleaning
	<p>1. The recommended disinfectant by the WHO is soap and water or alcohol-based hand rub (hand sanitizer that contains at least 60% alcohol).</p> <p>-describe the areas that will be clean using disinfectants – office areas, cars, washing area, bathrooms, etc.</p>
	<p>2.Describe how the contaminated waste will he handled (used masks, used gloves, used paper towel, used paper tissues, used material used with sick people, etc).</p>

	<ul style="list-style-type: none"> -describe the people responsible for waste collection of PPE and cleaning -Describe what protection PPE will be given to these workers, training, -Indicate the disposal site and waste management procedure
H	Training
5	<p><i>Describe the Trainings activities that the PIU and contractors will implement. There are many topics that need to be explained before the works, during the works and before the works are accepted,</i></p> <ul style="list-style-type: none"> ➤ <i>Hand washing, protect others when coughing</i> ➤ <i>Avoid hand checking, kissing or hugging</i> ➤ <i>Community protection</i> ➤ <i>Protocol in areas of common areas: offices, traveling, transportation of materials, construction sites, etc.</i> ➤ <i>Procedure in case to get sick and information of contact in case of emergency</i>
I	Communication of the Covid 19 Prevention and Response Plan
	Describe how the PIU and contractors will communicate to the workforce, their roles and responsibilities; these should be outlined clearly, and the importance of their behavior to co-workers, local communities and their families, etc.
J	Emergency Response - <i>Contingency Planning for an Outbreak</i>
	<p>1. Coordination local health centers. The PIU and contractors will maintain close communication with the local health department, according to the spread of covid-19 to update the plan.</p> <p>- Ensure that the medical team lead the preparation of this contingency plan, coordinate with the district medical facilities and other contractors in area, and with local community.</p>
	<p>2. MEDICAL workers. Make sure the medical staff as required in the bidding document is compliance.</p>
	<p>3. Please describe the Emergency Command Team and responsibilities</p> <ul style="list-style-type: none"> ✓ PIUs, Environmental and Social Specialists ✓ Medical staff by the contractor ✓ Health authorities from the district?? ✓ Managers, Site supervisors ✓ Workers coordinators ✓ Communities ✓ other
	<p>4.PPE for medical staff.</p> <p>-Describe protocol for health care interaction with sick patient, to ensure health staff wear personal protective equipment (PPE)?</p> <p>-Confirm the PPE supply for medical staff, as minimum there must have: N-95 masks, single use gloves, goggles or a face shield</p>

	<p>5. Response Protocol</p> <p>1. Plan proposed to move someone displaying symptoms to the observation room. Response protocol must be more detailed.</p> <p><i>- Indicate protocol to manage at least 10% of the workforce if this become ill</i> <i>-Indicate protocol in case the ill workers need ventilation or medical treatment no available in the camp.</i> <i>-Describe the arrangement made with local or private medical facilities to attend sick workers. --Indicate the number of patients that these clinics could provide medical attention- indicate the distance from the camp sites to these clinics.</i> <i>-Is the local medical facility well equipped (ICU, ventilators, etc)?</i></p> <p><i>-Indicate the protocol in case health workers become sick.</i> <i>-Indicate protocol in case closer clinics are in Rwanda and borders are closed</i> <i>-Indicate how the project will maintain safety on site and of the community if many workers become ill</i> <i>-Ensure clauses in contract of contractors cannot fired sick workers</i> <i>-Ensure clauses in contract of contractors they will be pay during their sick leave</i> <i>-Ensure clauses in contract of contractors in case workers die for the virus- how compensation will be pay to the family and the payment of funeral.</i></p>
	<p>7.The emergency response protocol must be clearly described. The response protocol must include:</p> <ul style="list-style-type: none"> ✓ Command team and coordination with local Health facilities ✓ The medical team must lead the Training and provision of PPE to health workers ✓ Monitoring plan for health in workers and sick people ✓ Protocol of communication with local community ✓ Protocol and criteria for Isolating sick people or decision to move to clinic ✓ Protocol in case health workers become sick and are place in isolation rooms ✓ Protocol to manage transportation of sick people to other health facilities ✓ Protocol for Communication with the family of sick people ✓ Responsible to feed and care sick people in health facilities ✓ Protocol in case of death of workers from Rwanda or from other countries (compensation, insurance, etc). ✓ What is the plan to manage workers if restrictions are imposed in Rwanda or the project area?
	<p>Monitoring</p>
	<p>Describe the monitoring plan that will be implemented by the project and medical staff.</p> <p>An example template is attached. This report will be sent to the PIU-weekly. The PIU will inform the Bank of the results of all project sites.</p>
I	<p>Other</p> <ul style="list-style-type: none"> a. PIUs role in raising awareness in community b. Agreed with communities how to manage their concerns c. PIU must hold constant meetings with local workers so the contractor understands their responsibilities to reduce the risk for them and the local communities d. PIU have a responsibility to ensure community safety. e. PIU should coordinate with district and contractors in the case of an outbreak in the local communities

Covid19 Plan- Monitoring template for reporting/monitoring the situation of the workforce.

Name of the Project		
During the COVID19 outbreak, it is necessary to monitor the spread of the disease and to confirm that prevention arrangements are in strict compliance		
Each contractor should be asked to provide the following data on a weekly basis;		
The contractors may decide that their medical staff are best placed to provide this information.		
Project staff will do weekly audits to check project situation		
Contractor:		
Date:		
Reported by:		
Medical staff present on site:		
Number of Workers on site:		
Metrics/Indicators	Status	Respond/ fill this column
Number of Worker movements	Number arriving / Number departing	
Numbers of workers presenting with acute onset of the following symptoms:		
• Fever (>103F/37.8C)	Number:	
• Muscle aches/chills	Number:	
• Cough (dry or phlegm)	Number:	
• Runny nose	Number:	
• Headache	Number:	
• Fatigue	Number:	
<input type="checkbox"/>	Total number	
<input type="checkbox"/>	Proportion of total workforce:	
Numbers of community members presenting with acute onset of the following symptoms:		
• Fever (>103F/37.8C)		
And one or more of:	Number:	
• Muscle aches/chills	Number:	
• Cough (dry or phlegm)	Number:	
• Runny nose	Number:	
• Headache	Number:	

• Fatigue	Number:	
<input type="checkbox"/>	Total number	
<input type="checkbox"/>	Proportion of total workforce:	
Medical PPE stocks:		
1. Masks (surgical)	Number:	
2. Masks (N95)	Number:	
3. Googles/face screens	Number:	
4. Gowns/aprons	Number:	
5. Gloves	Number:	
Worker training in social distancing, hand washing, hygiene practices	Number undertaken:	
Audit of worker behavior	Number of observations: (compliant)	Number of observations: (non-compliant)
Audit of project cleaning, quality of cleaning, materials and PPE use	Number of observations: (compliant)	Number of observations: (non-compliant)
Audit of hand washing facilities (including soap, paper towels; hand sanitizer) and isolation facilities	Number of observations: (compliant)	Number of observations: (non-compliant)
Please describe and explain		
Confirm Interaction with national healthcare providers		
Number of workers transferred into care of national healthcare providers:		
Brief note on assistance requested or provided to local healthcare providers:		