

Attachment 12: Environmental Checklist

Monitoring Form

Project: Mombasa Gate Bridge Project

Construction Phase (including Detail Design Phase)

1. Response/Actions to Comments and Guidance from Government Authorities and the Public

Monitoring Item	Monitoring Results during Report Period
Number and contents of formal comments made by public	
Number and contents from Government agencies	

2. Pollution

(1) Air Pollution (Ambient Air Quality)

Item	Unit	Measured Value (Mean)	Measured Value (Max)	Country's Standard	Standard for Contract	Referred International Standards *	Measurement Point	Frequency
PM10	ug/m3			150	150	50	Construction areas	Semiyearly
PM2.5	ug/m3			75	75	25		
NOx	ug/m3			125	125	40		
SO2	ug/m3			150	150	20		
CO	Mg/m3			4(1hr) 2(8hrs)	4(1hr) 2(8hrs)	10ppm		

(2) Water Pollution (Marine)

Item	Unit	Measured Value (Mean)	Measured Value (Max)	Country's Standard	Standard for Contract	Referred International Standards *	Measurement Point	Frequency
Total coliform count	MPN/250ml			-	-	-	Construction areas of piers	Semiyearly
pH				-	7.0-8.3	7.0-8.3		
Color	u. Hazen			-	-	-		
DO	mg/L			-	=>2	=>2		
Turbidity	NTU			-	-	-		
Oil and Greases	mg/L			-	-	-		
TSS	mg/L			-	-	-		
COD	mg/L			-	=<8	=<8		

*:MOE, Japan

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(3) Waste

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Condition of disposal in construction site			Every month during construction period

(4) Noise (Construction Noise)

Item	Unit	Measured Value	Country's Standards*	Standards for contracts	Referred international Standards	Measurement Point	Frequency
Noise	dB(A)		Residential 60(day) 35(night) Other areas 75(day)/35(night)	Same as left	-	Near construction sites	Every month during construction work

*: Permitted Noise Level on Construction Site, (EMCR, 2007)

3. Natural Environment

(1) Ecosystem

Item	Monitoring Results during Report Period	Survey Point	Frequency
Condition of flora and fauna (terrain and marine)		Mweza creek Ziwani Lake	Semiyearly
Condition of mitigation measures (drainage of embankment section)		Around Mweza creek and Ziwani Lake	Continuously during construction period
Replantation for cutting trees		Construction site	Continuously during construction period

(2) Geographical features

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Confirmation for that licensed quarry sites and borrow pits are selected			Time on selecting quarry sites and borrow pits

4. Social Environment

(1) Resettlement /Poor/Ethic Minorities and Indigenous peoples

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Progress of land acquisition and resettlement under RAP	RAP Implementation has just started since May 2024. Progress: 6%		Continuously during construction period

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(2) Resettlement /Poor

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Progress of land acquisition and resettlement under RAP	Not Started Yet		Continuously during construction period

(3) Local economies, such as employment, livelihood, etc.

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Implementation record on land acquisition/resettlement	Not Started Yet		During land acquisition and resettlement
Confirmation of construction record (situation of employment)	Not Started Yet		During construction stage
Sampling and analysis of marine water Confirmation of fish catch at Mweza creek	Not Started Yet		2 times a year

(4) Existing social infrastructure and services

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Record of utility relocation Site survey and interview	Not Started Yet	Under study by the Consultant	Before commencement of construction work

(5) Misdistribution of benefits and damages

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Yearly income of PAPs			Before and after resettlement

(6) Local conflicts of interest

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Interview of the Kenya Ferry Service about the operation			During construction period

(7) Cultural heritage

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Confirmation of CIA report and that needed procedure is taken			Before commencement of construction work

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(8) Landscape

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Confirmation of records of public consultations about bridge design			During detail design

(9) HIV/AIDS and other STDs

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Confirmation of records of construction activities including protection against HIV/AIDS			During construction period

(10) Working Environment

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Confirmation of safety plan of construction work			Before commencement of construction work
Confirmation of records of construction activities including safety			During construction period

(11) Accidents

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Confirmation of safety plan of construction work			Before commencement of construction work
(Implementation of safety plan) Confirmation of records of construction activities			During construction period

(12) Trans-boundary impacts or climate change

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
(Maintenance of construction machinery) Confirmation of construction records			During construction period
(Replanting) Confirmation of records of construction activities and field reconnaissance			After completion of replanting

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Operation Phase

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Number and contents from Government agencies	

2. Pollution

(1) Water Pollution (Marine)

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Color	u. Hazen			-	-	-		
DO	mg/L			-	=>2	=>2		
Turbidity	NTU			-	-	-		
Oil and Greases	mg/L			-	-	-		
TSS	mg/L			-	-	-		
COD	mg/L			-	=<8	=<8		

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(2) Waste

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of operation records about the road maintenance			Routine work on the operation

(3) Noise (Road Noise)

Item	Unit	Measured Value	Country's Standards*	Standards for contracts	Referred international Standards	Measurement Point	Frequency
Noise	dB(A)		-	Same as left	70(day) 65(night) *	6 locations along the approach roads	One time after the commencement of the Project

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*:MOE, Japan

3. Social Environment

(1) Resettlement /Poor

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Interview for PAPs and others			One time after the commencement the project

(2) Resettlement /Poor

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Progress of land acquisition and resettlement under RAP			Continuously during construction period

(3) Local economies, such as employment, livelihood, etc

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Review for RAP monitoring reports and interview on PAPs			One time after the commencement of the project
(Interview on the Kenya Ferry Service about the operation			One time after the commencement of the project

(4) Misdistribution of benefits and damages

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Review for RAP monitoring reports and interview on PAPs			One time after the commencement the project

(5) Gender

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Interview on the Kenya Ferry Service about the operation about ferry operation			Onetime after the commencement the project

(6) Children's rights

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
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Site survey and interview on community's persons about securing school-commuting pass			One time after the commencement the project
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(7) Accidents

Item	Monitoring Results during Report Period	Measured to be taken	Frequency
Review for the operation plan about securing safety.			One time after the commencement the project

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Criteria for Internal Monitoring	Indicators for Monitoring	Specifics	Quarter No.3 Review (%)	Cumulative (%)	Recommended Action	Responsibility	
On land acquisition and resettlement	Are resettlement implementation activities being achieved against agreed implementation plan?	Yes	10%	30%	KeNHA should secure the budget for Land Acquisition such as Fast Track Facilitation Money.	KeNHA	
	Percentage of scheduled funds received by the NLC?		0	0		Not yet started	
	Number of PAPs signing consent papers	Railways		0	0		Not yet started
		Ganjoni		0	0		
		Likoni		0	0		
		Mtongwe		0	0		
		Shika Adabu		0	0		
		Ngombeni		0	0		
	Percentage of land acquired for Project	Railways		0	0		Not yet started
		Ganjoni		0	0		
		Likoni		0	0		
		Mtongwe		0	0		
		Shika Adabu		0	0		
		Ngombeni		0	0		
	Percentage of PAPs that have received entitlements according to numbers and categories of loss set out in the Entitlement	Railways		0	0		Not yet started
		Ganjoni		0	0		
		Likoni		0	0		

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Criteria for Internal Monitoring	Indicators for Monitoring	Specifics	Quarter No.3 Review (%)	Cumulative (%)	Recommended Action	Responsibility
	Matrix?	Mtongwe	0	0		
		Shika Adabu	0	0		
		Ngombeni	0	0		
		Fishermen	0	0		
		Kaya	0	0		
	Progress in restoration of social infrastructure and services?	Specify by component Water, Electricity, Telecommunication, Swege	0	0		Not yet started
On livelihood restoration	Are PAPs able to access schools, health services, public transport, cultural sites and activities?	Specify concerns per location: Not Started Yet	0	0		Not yet started
	Percentage of PAPs receiving income and livelihood restoration activities	loss of jobs	0	0		Not yet started
		rental income	0	0		
		loss of fisheries	0	0		
		loss of trade	0	0		
Percentage of businesses that have received entitlements including transfer and payments for net losses resulting from lost business and stoppage of production?	Not Yest Started	0	0		Not yet started	

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Criteria for Internal Monitoring	Indicators for Monitoring	Specifics	Quarter No.3 Review (%)	Cumulative (%)	Recommended Action	Responsibility
Disclosure	Number of consultations that have taken place as scheduled including meetings, groups, community activities?	-PAPs Committee Meeting, -Public Baraza, -Coordination Meeting, -Introductory Meeting	11 Meetings	62 meetings		
Grievance Redress System	Number of complaints by Non PAPs	Railways	0	0		
		Ganjoni	0	7 non PAPs		
		Likoni	0	0		
		Mtongwe	0	0		
		Shika Adabu	0	0		
		Ngombeni	0	0		
	Number of disclosure meetings that have taken place?	-PAPs Committee Meeting, -Public Baraza, -Coordination Meeting, -Introductory Meeting	11 meetings	61 meetings	Conduct meetings at Mombasa Island and Likoni Side separately.	KeNHA NLC Consultant
	Have LPC and LECs been constituted for Railsays, Ganjoni, Likoni, Mtongwe, Shika Adabu, Ngombeni?	LPC Yes, Railsays: 9 Ganjoni: 13 Likoni: 9 Mtongwe: 5 Shika Adabu: 7 Ngombeni: 5				

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Criteria for Internal Monitoring	Indicators for Monitoring	Specifics	Quarter No.3 Review (%)	Cumulative (%)	Recommended Action	Responsibility
		LECs Yes, Railsays: 7 Ganjoni: 7 Likoni: 9 Mtongwe: 10 Shika Adabu: 7 Ngombeni: 5				
	Number of grievances handled by LPCs	Raidlways	0	0		Not yet started
		Ganjoni	0	0		
		Likoni	0	0		
		Mtongwe	0	0		
		Shika Adabu	0	0		
		Ngombeni	0	0		
	Has a GRC been set up within KENHA ?	Mombasa Island	0	0		In process
		Likoni	0	0		Not yet started
		Matuga	0	0		
Assistance to Vulnerable Groups	Number of Vulnerable Groups identified	Rail ways	0	0		Implementation has not started yet.
		Ganjoni	0	0		
		Likoni	0	0		
		Mtongwe	0	0		
		Shika Adabu	0	0		
		Ngombeni				
	Action taken to cushion vulnerable Groups					Not started yet

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Criteria for Internal Monitoring	Indicators for Monitoring	Specifics	Quarter No.3 Review (%)	Cumulative (%)	Recommended Action	Responsibility
	by location					
	Number of complaints received from Vulnerable Groups					Not started yet
Effectiveness of the GRC	Number of conflicts resolved by GRC		0	0		
	Number of grievances referred to the Environment and Land Court		0	0		
Effects Monitoring	What changes have occurred in patterns of occupation, production and resource use compared to the pre-project situation?					Not started To be assessed at implementation phase
	What changes have occurred in income and expenditure patterns compared to pre-project situation? What have been the changes in cost of living compared to pre-project situation? Have PAP incomes kept pace with these changes?					Not started. To be assessed at implementation phase
	What changes have taken place in key social and cultural parameters relating to living standards?					Not started. To be assessed at implementation phase
	What changes have occurred for vulnerable groups?					Not started. To be assessed at implementation phase

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Criteria for Internal Monitoring	Indicators for Monitoring	Specifics	Quarter No.3 Review (%)	Cumulative (%)	Recommended Action	Responsibility
Assessment	Over-all assessment of success in implementation of the EM	<ul style="list-style-type: none"> - RAP implementation - GRM - LIRP - Treatment of Vulnerable Groups - ESMP - Social and Cultural Monitoring 	10%	30%	RAP Implementation and GRM are progressing as scheduled according to implementation schedule. So far, inspection, inquiries and valuation are on-going at Island Section.	KeNHA NLC Consultant