

Monthly Environmental Monitoring Form Reported to JICA
Form-2 for Construction Phase

Project Name : The Project for Rehabilitation of Irrigation Facilities in Rwamagana
Implementing Agency : Rwanda Agriculture and Animal resources Development Board (RAB)

Location : Rwamagana District
Monitoring Agency : RAB/Rwamagana District

Date Reported : 09/01/2020
Enforcement Agency : The Contractor (Tobishima Coporation)

1. Contractor(s)

Contractor(s) Environmental Awareness	Yes/No	Actions Required	Contractor Response / Comment
Contractor(s) are aware of mitigation requirements?	Yes	Follow up the implementation of mitigation measures	
Contractor(s) have a copy of EMMP?	Yes	Monitoring their EMMP	

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- An accident and emergency response manual is available	Yes	Yes	-	No
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3. Water Quality at Outlet of Discharge from Sedimentation Pond and Concrete Waste Water

Item	Unit	Baseline Data			Monitoring Result			Model of Equipment used	Standards max. Limits *1*2*3	Action Required (Yes/No) Describe if Yes:	Contractor Response / Comment
		Location	Amount measured	Date	Date	Location	Amount measured				
3.1 BUGUGU site											
pH	-	Up stream	-	-	31 January 2020 (sunny)	Up stream	8.10	IDAODAN pH Meter	<9.0	No	
		Middle stream				Middle stream	7.80				
		Down stream				Down stream	7.50				
TSS or mg/L	mg/L	Up stream	730	8-Jan-19	31 January 2020 (sunny)	Up stream	32.00	Portable TSS Meter	900	No	
		Middle stream	670	after heavy rain		Middle stream	25.00				
		Down stream	520			Down stream	19.00				
Turbidity	NTU	Up stream	288	8-Jan-19	31 January 2020 (sunny)	Up stream	102.00	Lutron tu-2016	300	No	
		Middle stream	194	after heavy rain		Middle stream	49.00				
		Down stream	122			Down stream	38.00				
3.2 CYIMPIMA site											
pH	-	Up stream	-	-	No construction activities	Up stream		IDAODAN pH Meter	<9.0	No	
		Middle stream				Middle stream					
		Down stream				Down stream					
TSS or mg/L	mg/L	Up stream	580	8-Jan, 2019	No construction	Up stream		Portable TSS	900	No	
		Middle	900			Middle					

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*2 In case if TSS of baseline data was already exceed the set standards by RS110/2009, the figure measured by baseline data shall be used as maximum tolerance limit.
 *3: In case Contractor(s) prefer Turbidity to TSS, the Contractor measure TSS and Turbidity in the Baseline survey and identify the turbidity level at pre-construction stage which shall be used as maximum tolerance limit.

4. Water Quality in Alternative Water Supply Facilities (After drilling)

Item	Unit	Baseline Data Date: Oct. /2016	Monitoring Result		Model of Equipment used	Standards max. Limits	Action Required (Yes/No) Describe if Yes:	Contractor Response / Comment
			Date:	Amount measured				
pH	-	6.0				6.5-8.4		
EC	µS/cm	160-255				0-3000		
Nitrates	mg/L	33-51				50		
TDS	mg/L	79-125				0-2000		
Total Hardness	mg/L	62-94				500		
F-	mg/L	0-0.2				0.6-1.2		
SO ₄ ²⁻	mg/L	6				150		
Total Coli.	CfuX/100ml	1.0-1.3				0		
Chloride	Mg/L	31-43				500		
Fe	mg/L	0.21-0.91				1-3		
Mn	mg/L	0.04-0.06				0.1-0.5		

*1: WHO Water quality guidelines, use range in domestic potable water

5. Natural Environment

Item	Monitoring Result		Action Required (Yes/No) Describe if Yes:	Contractor Response / Comment
	Date	Nest of protected bird nests found on the trees to be affected? Yes/No		
Relocation of Bird nests		No	N/A	