

Environmental and Social Monitoring Form for Construction Stage

2022Q1

Notes: Ln88 - 88km Massangulo - Lichinga in the Main road the Quarry has been deactivated

3KM - Construction of N13 Intersection to Massangulo Vila Sede we have not large scale pollution because all the material applied for this project work comes from an external quarry.

Item	Location	Parameter/ Means of Monitoring	Result (Average / Max / Total, etc.)	Standard (Legal / International Standard)	Frequency	Remarks	
Air quality	Construction site	Visual inspection of mechanical condition and exhaust gas	Equipment in good mechanical condition.	X	Every day before working	N/A	
	Construction site	Visual observation of dust	Dust emission are minimized by regular and controlled watering twice a day.		Every day	Morning 7.00am and Afternoon 17.00pm	
		No. of complaint	There is no complaint.		Any time	No report of complaint during this period.	
	Boundary of ROW nearest to construction site	SPM10	January to March 2022 Average: 2.02 µg/m3, Max: 5 µg/m3 at Main Camp.	0.02 mg/m ³ (Japan, average 24h)	2 times in dry season and 2 times in rainy season	N/A	
			On 8th of February 2022 Average: 8.5 µg/m3, Max: 12 µg/m3 at Main Camp. Average: 9.01 µg/m3, Max: 14.2 µg/m3 at Massangulo main market			N/A	
			SO ₂			0 ppm	0.04 mg/m ³ (Japan, average 24h)
NO ₂			0 ppm			0.10 mg/m ³ (Japan, average 24h)	N/A
Water Pollution	River, stream, reservoir and other public water body where construction works are executed.	Visual observation	There is no record of activities with high potential for water pollution.	X	Every Month	There is only one river in the box culvert km 1-060	
Noise	Along N-13	No. of complaint	There is no complaint.	X	Any time	No report of complaint during this period.	
	Boundary of land plot nearest to the construction site	Noise Level	Main Camp (February 2022) Leq(5min) Min Ave Max Min Ave Max 42.6 59.5 62.2 44.8 55.3 69.8 Massangulo main market (January 2022) Leq(5min) Min Ave Max Min Ave Max 62.2 55.5 78.8 65.8 69.5 79.7 Borrow pit 02 (March 2022) Leq(5min) Min Ave Max Min Ave Max 71.02 81.1 92.1 66.5 71.1 88.2 Residential areas (February to March 2022) Leq(5min) Min Ave Max Min Ave Max 55.7 69.7 81.2 58.9 68.1 84.9	80dB (07:30am-05:00pm) 60dB (07:00pm - 07:00am) (Japan, Trunk Roads)	Every Month	The quarry is not operational. The high value is due to the wind and during working hours with road equipment	
			Main Camp (January 2022) Leq(5min) Min Ave Max Min Ave Max 49.3 55.5 68 60.1 70 76.5				
Sensitive Area (School, Hospital)			70dB (Japan, Sensitive Area)		Due to the completion of the road, the detour is between the houses and continues to be used frequently. Reason enough to always monitor.		
General waste	Waste storage at construction site, Waste Disposal Site	Waste Oil and other construction waste	Store Condition	X	Every day	Tires, filters and used oils have been stored in drums containers in the storage area of the workshop. They are reusing the remnants of metals to produce stove, roasting pans, signal board and funnel (ongoing)	
			Recycling Status				Recycling of metals drums
		Way of recycle	Produce stove, roasting pans, signal board and funnel.				
		General Waste	Recycling Status				Recycling of plastic bottles
			Way of recycle				For domestic use as containers for water/juice and cooking oil. They may also be used as plant pots although in small quantity.
			Way of treatment				Re-use (used by internal personal); Re-use in construction activities; Dumpsite.
Location of final disposal site	Within the Main-Camp.						
Ecosystem	Along N-13	Visual observation of animals (mammals, birds, reptiles, amphibians)	The presence of some Crow and Owl are observed.	X	Every day	Duringg the day some crows are on site and owl during the night	
			Nothing to report for the review period.				
Accident	Along N-13	Checking Traffic Accident Report	Nothing to report for the review period.	X	Every Month	Nothing to report for the review period.	
Land Acquisition	Along N-13	A: No. of land acquired/ B: to be acquired	A: 01 and B: 02	X	Once	02 parcel of land were acquired to date, for use as borrow pits. During the reporting period, the contractor was using only one borrow pit.	
		A: No. of HHs received compensation/ B: HHs to be compensated	A: 13 and B: 0			Progress Ratio: A/(A+B) = 228/(228+1) = 0.995633	Implementation of RAP had been finalized on July 24, 2021. The total number of RAP implementation done at completion of this activity is 13 cases.
		Complaint received	Complaints only occur during explanations and signatures of compensation agreements. The construction began after the implementation of the RAP. We have no record of complaints after commencement of construction.			In general, all affected people	All affected people have received their compensation.