

# Attachment 15

## Environmental Monitoring Form for Service Stage

Environmental Monitoring Form for Service Stage

Item	Location		Parameter/Mean of Monitoring	Result (Average/ Max /Total..)	Standards (Local/Inter Standard)	Frequency	Remarks				
<b>Air Quality</b>	BTB-KP 300 BTB Bypass Intersection with NR-57 BMCH-KP 356	Road site	SPM10	N/A	0.05 mg/m <sup>3</sup> (WHO, average 24h)		Air quality is conducted by MoE for 3 locations in rainy season: BTB Bypass, KP310, and KP351+600				
		200m away from road side									
		Road site									
		200m away from road side									
	BTB-KP 300 BTB Bypass Intersection with NR-57 BMCH-KP 356	Road site	SPM2.5	N/A	0.02 mg/m <sup>3</sup> (WHO, average 24h)						
		200m away from road side									
		Road site									
		200m away from road side									
	BTB- KP310 BTB Bypass Intersection with NR-57 BMCH-KP 356	Road site	SO <sub>2</sub>	0.008 mg/m <sup>3</sup> 0.013mg/m <sup>3</sup>	0.30 mg/m <sup>3</sup> (MoE, average 24h)		- 2 times in dry season - 2 times in rainy season				
		100m away from road side									
		Road site									
		200m away from road side									
BTB- KP310 BTB Bypass Intersection with NR-57 BMCH-KP 356	Road site	NO <sub>2</sub>	0.015 mg/m <sup>3</sup> 0.019 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup> (MoE, average 24h)							
	200m away from road side										
	Road site										
	200m away from road side										
BTB Bypass Intersection with NR-57 BTB Bypass Intersection with NR-57	Road site	CD	0.85mg/m <sup>3</sup>	20 mg/m <sup>3</sup> (MoE average 8h)		Omni Commune, BTB					
	200m away from road side										
	Road site										
	200m away from road side										
<b>Air Quality</b>	BTB- KP351+600	100m away from road side	TSP	0.282mg/m <sup>3</sup>	0.33mg/m <sup>3</sup> (MoE average 24h)		In Boung Pring Commune, Thmar Koul District, BTB				
								NO <sub>2</sub>	0.017mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup> (MoE, average 24h)	
									SO <sub>2</sub>	0.012mg/m <sup>3</sup>	0.30 mg/m <sup>3</sup> (MoE, average 24h)
										TSP	0.22 mg/m <sup>3</sup>
<b>Air Quality</b>	BTB- KP 310	100m away from road side	TSP	0.171 mg/m <sup>3</sup>	0.30 mg/m <sup>3</sup> (MoE, average 24h)		In O Taki Commune, Thmar Koul District, BTB				
				CD	0.14 mg/m <sup>3</sup>			20 mg/m <sup>3</sup> (MoE average 8h)			

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<b>Noise</b>	BTB-KP 300, ROW boundary	Noise Level	60dB (06:00-18:00) 50dB (18:00-22:00) 45dB (22:00-06:00) (MoE, residential area)	Visual regularly check and maintain all equipment
	BTB Bypass Intersection with NR-57, ROW boundary		N/A	Not action in this time
<b>Vibration</b>	BMCH-KP 356, ROW boundary	Vibration Level	65Hz (05:00-17:00) 60Hz (17:00-05:00) (Lab. MoE)	Visual regularly check and maintain all equipment
	BTB Bypass Intersection with NR-57, ROW boundary			
<b>General Waste</b>	BMCH-KP 356, ROW boundary	Discharged amount		Sell to local private collector
	Along the road and public gathering	Recycled amount	N/A	Septic tank (waste water) some give to local waste collector and some put in the underground (solid waste)
		The way of recycle	N/A	
		Treated amount	N/A	
	Location of final disposal site		Surveyed 1 time per year base on the data of institution for garbage collection	
<b>Subsidence</b>	Building and other structures in BTB Province	Rising up of building is visually inspected		Visual inspection
	Building and other structures in BMCH province	Visual observation of animals, reptiles, and amphibious		Visual inspection
<b>Ecosystem</b>	Along NR-5			1-2 time in dry and in rainy season. There are not sensitive animals species in the project sites. (rice filed and residents)
	BTB bypass			2 times in dry season and 2 times in rainy season
	SS bypass			2 times in dry season and 2 times in rainy season
				Not action

Remarks: Past trend and current statute including remedial measures, if necessary.