

**Summary Of Environmental and Social Management Plan (ESMP) Of
DHM Building**

Impacts	Magnitude	Duration	Extent	Nature	Mitigation Measure	Monitoring Responsibility	Remarks
Impacts on Socio-Economic and Cultural Aspect							
Construction Phase							
Arrival of workers during construction stage	Moderate	Medium term	Local	Direct	<ul style="list-style-type: none"> - Workers will be hired according to the intensity & need of work - Employee Management Plan (<i>periodic</i>) will be prepared and submitted by contractor - Temporary labour camp will be made with required facility 	DHM & Supervision Consultant	
Occupational Health and Safety issue	Moderate	Medium term	Site specific	Direct	<ul style="list-style-type: none"> - Awareness to safe work procedure among contractors crew - Use of safety equipments such as helmet, gloves, boots, mask, earplugs, net safety, belt etc is ensured - Awareness to communicable diseases among contractor crew - Keep First aid box at site - Temporary toilet will be made at site - Availability of safe drinking water at site - No one outsider will be allowed to enter the construction site except Ground Water Development Committee officials/visitors - Fencing of construction site will be done appropriately 	DHM & Supervision Consultant	
Labour and wage issues	Moderate	Medium term	Site specific	Direct	<ul style="list-style-type: none"> - Equal opportunities will be provided for male and female crew for employment 	DHM & Supervision Consultant	
ESMP for Reconstruction and Refurbishment of DHM Office Building							Page 1

					<ul style="list-style-type: none"> - Child labour is strictly prohibited - Labour will be paid timely; monthly basis - Local (valley based) labour will be given priority in works (<i>if interested</i>) 		
Social security	Moderate	Medium term	Site specific	Direct/In direct	<ul style="list-style-type: none"> - Works will be done during day time - Sexual harassment and gender discrimination is treated as gender violence - Gambling and alcoholism will not be permissible at site and camp - Male and female crew will have separate room for accommodation - Cultural and religious harmony will be maintained at site and camp 	DHM & Supervision Consultant	
Traffic Management	Low	Medium term	Site specific	Direct	<ul style="list-style-type: none"> - Heavy vehicle/machine (truck, tripper, dozer, loader, excavator etc.) is not allowed to enter into ring road from 6:00 am to 8:00 pm as per government rule - Information board will be kept focusing public vehicle passing nearby construction site requesting gear down their speed - A security guard will be at gate of site to control vehicles entering the site 	DHM, Supervision Consultant and Traffic Police	
Operation and Maintenance Stage							
Social Security	High	Long Term	Site specific	Direct	<ul style="list-style-type: none"> - Building will be guarded by security guards 24 hours a day - CCTV cameras will be installed in the lifts, entrance and corridors 	DHM	
Labour safety issues	Low	Short term	Site specific	Direct	<ul style="list-style-type: none"> - Use of safety equipments such as helmet, gloves, boots, mask, earplugs, net safety, belt etc is ensured - Availability of First aid kit at maintenance site - Information board is installed to make aware for outside visitor 	DHM	
Impacts on Physical Environment							
Construction Phase							

Change in land use and landscape disturbances	Low	Short term	Site Specific	Direct	<ul style="list-style-type: none"> - Equipments shall be handled properly - Haphazard disposal will be strictly prohibited 	DHM/SC /DUDBC	
Earthwork excavation and spoil disposal	Low	Short term	Local	Indirect	<ul style="list-style-type: none"> - Debris and earthwork generated will be collected, segregated and reused. - The contractor should be excavate with fully protection measures so that no more slide should not be occur - The excavation work should not affect the local buildings and roads as well. - The Spoil will be disposed with environment friendly manner 	DHM/SC /DUDBC/ KMC	
Stockpiling of construction materials	Insignificant	Short term	Low	Direct	<ul style="list-style-type: none"> - Haphazard disposal will be controlled - Construction materials, grease, paints will be properly arranged - Residual construction materials will be reused for other purpose 	DHM/SC/ DUDBC/ MoUD	
Increase in vehicle movement in the locality due to transportation	Insignificant	Long term	Local	Direct	<ul style="list-style-type: none"> - Any damage to the access road will be repaired - transportation of construction material will be done at night or early morning - Prior information should be given for the vehicles to manage the traffic near to the construction site through boarding - 	DHM/SC/ DUDBC	
Groundwater extraction	Low	Short term	Site Specific	Direct	<ul style="list-style-type: none"> - Rainwater harvesting technology will be applied - Rechargeable pits will be constructed - The should be ensured that the extraction work will not affect the groundwater level around the project site. 	DHM/SC/ MoUD /DUDBC	
Drainage system	Insignificant	Short term	Local	Direct	<ul style="list-style-type: none"> - Waste water will be collected and treated - Urination and defecation in open areas and water-bodies should be strictly controlled - Temporary toilets will be constructed 	SC/ MoUD	

					<ul style="list-style-type: none"> - The drainage should be managed with environment friendly manner - - 	/DUDBC	
Air and noise pollution	Low	Short term	Site specific	Direct	<ul style="list-style-type: none"> - Green sticker vehicles will be hired - Maintenance of old equipment. - Water will be sprinkled continuously - Poly sheets will be used to cover the material - Cement, soil, sand will be covered by poly sheet - Vehicles like dozers, mixer, vibrator and marble cutting machine will be operated only at day time - Construction activities will be done at day time - Old equipment will not be used - Earplug will be provided to the worker involved in equipment operations - The contractor should make the arrangement for no increase of dust and air pollution around the project area during construction 	DHM/SC/ MoUD	
Unexpected impacts if arrived					<ul style="list-style-type: none"> - The contractor will consult with the supervision consultant and client to solve if any unexpected impacts will arrive during the construction - 		
Solid waste management including demolition waste	Low	Long term	Local	Direct	<ul style="list-style-type: none"> - Debris will be reused - Container will be kept inside the construction site to collect the waste - The waste management will be done at the construction camp site themselves - The construction waste should not be dispose in and around the area haphazardly - 	SC /DUDBC/ KMC/	
Change in Water Table/ Water Quality	Moderate	Long term	Local	Direct	<ul style="list-style-type: none"> - Rainwater harvesting technology will be used for the maintenance of Groundwater table. - Rechargeable pits will be constructed to recharge ground water - there should not be haphazard's groundwater extraction. 	DHM/SC/ MoUD /DUDBC	

Water Demand / Supply & Waste water Disposal	Low	Long term	Local	Direct	<ul style="list-style-type: none"> - Treated Water will be of Nepal's National standard - Only insufficient water will be extracted 	DHM/SC/ MoUD/DU DBC/KMC	
Visual disruption to existing landscape and obstruction of sunlight	Moderate	Long term	Local	Direct	<ul style="list-style-type: none"> - Proper setbacks as per National Building Code will be maintained 	DHM/SC/ DUDBC	
Air and noise pollution including indoor air pollution	Low	Long term	Local	Direct	<ul style="list-style-type: none"> - Air purification systems will be installed on generators. 	DHM/SC	
Fire hazard and other emergency response system	Low	Long term	Local	Direct	<ul style="list-style-type: none"> - Smoke detection devices will be installed - Earthen and Electrification will be properly done - Fire extinguisher will be installed - Emergency reservoir tank will be made - National Building Code, 2005 will be followed 	DHM/SC/ DUDBC	
Uninterrupted and efficient power supply	Low	Short time	Site specific	Direct	<ul style="list-style-type: none"> - 24 hours electricity supply through backup generators. 	DHM/SC /DUDBC	
Movement of vehicles and parking	Moderate	Long term	Site specific	Direct	<ul style="list-style-type: none"> - Haphazard parking will not be allowed - Traffic signs will be placed - Speed limit of vehicle inside business complex will be maintained 	DHM/SC /DUDBC/t raffic police	
Surface runoff and drainage	Moderate	Long term	Local	Direct	<ul style="list-style-type: none"> - Rechargeable pits will be installed - Greenery area will be maintained 	Proponent /MoUD	

systems						/DUDBC	
Solid waste management	Moderate	Long term	Local	Direct	<ul style="list-style-type: none"> - Waste segregation, reused and disposal by different colored dustbins - Awareness raising programs on waste management - Coordinate with KMC authority 	Proponent /MoUD /DUDBC/ KMC	
Impacts on Chemical Environment (all phases)							
Change in water quality and	Moderate	Long term	Local	Indirect	<ul style="list-style-type: none"> - Leadless paints will be used - Quality assurance and quality control 	MoUD /DUDBC	
Impacts on Biological Environment (All phases)							
Loss of open space and vegetation	Moderate	Long term	Site specific	Direct	<ul style="list-style-type: none"> - No wildlife present - Development of greenery area 	Proponent	