

MINES AND GEOSCIENCES BUREAU XII

Koronadal City, South Cotabato

QUALITY, ENVIRONMENT, SAFETY AND HEALTH (QESH) RISK ASSESSMENT

Prepared By:		HERNANI G. ABDON MR										Doc No. MGB-TM-2019-02																			
Approved By:		CONSTANCIO A. PAYE, JR., CESO IV REGIONAL DIRECTOR										Revision No.: 0																			
PROCESS/ACTIVITY STEPS		Details of Risk/Aspects/Hazard			Quality Risk	Envi. Aspect	Health and Safety Hazard	Consequence/Impact	Probability	Impact	Risk Rating (L, M, H, VH)	Existing Controls Measures (Elimination, Substitution, Engineering, Administration and PPE)	Probability	Impact	Risk Rating (L, M, H, VH)	New Controls Measures	Responsible	Due Date	Probability	Impact	Risk Rating (L, M, H, VH)										
Process/Activity: Area Status and Clearance for Mining Rights Application devolved to LGUs under RA 7160 for SSMC, SAG and Quarry Permit, Guano Permit, etc. below 5 hectares (DENR ADM. ORDER NO. 2010-21)												Type of Activity: Routine <input checked="" type="checkbox"/> Non-routine <input type="checkbox"/>										Environmental Condition: Normal Operation Condition <input checked="" type="checkbox"/> Abnormal Operation Condition <input type="checkbox"/> Emergency Operation Condition <input type="checkbox"/>									
1	Checks, receives/records application and endorsed to RD for appropriate action.	Absence receiving officer	/				Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L																	
		Absence of the RD	/				Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L																	
		Unlicensed use of computers and ICT softwares	/				Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None																
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/				Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None																
		Improper usage of computers, printers, and copiers	/				Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None																
		Erroneous paper printing that results to over consumption of paper	/				Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None																
		Radiation from computers, TV and others		/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None																
2	Endorses the application for deputation to MMD for evaluation	Absence of the MMD Chief	/				Delayed issuance of ASC	C	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None																
3	Logs and releases request to MMD chief for appropriate action.	Absence of designated MMD receiving officer	/				Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None																
		Unlicensed use of computers and ICT softwares	/				Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None																
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/				Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None																
		Erroneous paper printing that results to over consumption of paper	/				Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None																
		Radiation from computers, TV and others		/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None																
5	Review and endorses the request to the MLSS for appropriate action.	Absence of MLSS Chief	/				Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None																
6	Logs and releases to the MLSS for appropriate action.	Absence of designated MMD receiving officer	/				Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None																
		Unlicensed use of computers and ICT softwares	/				Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None																
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/				Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None																
		Erroneous paper printing that results to over consumption of paper	/				Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None																
		Radiation from computers, TV and others		/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None																
7	Assigning of personnel in-charge.	Absence of MLSS Chief	/				Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None																
		Absence of MLSS Personnel	/				Delayed issuance of ASC	C	3	M	Administration: 1. Proper scheduling of MLSS personnel leave				ARPL/MLSS	2-May-19	B	3	L												

8	Checks, evaluates, verifies the survey plan, project and plot the application to the regional/enement control map - If the survey plan is in order and the area applied is open for location, prepare area status/clearance. - If survey plan has deficiency, advise/inform the LGU concerned cc: applicant. - If the area is closed for mining location, return the application to the LGU concerned cc: applicant. Preparation of area clearance/status and transmittal Affix initial for signing of MLSS Chief	Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None									
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None									
		Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None									
		Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None									
		Inappropriate use of cutter/blade during pencil sharpening	/			Cut/incision/laceration	B	1	L					Elimination 1. Replacement of ordinary pencil to mechanical pencil 2. Replacement of cutter/blade into pencil sharpener	MLSS	3-May-19	A	1	L				
	Final checking / evaluation of the area status/clearance and MLSS chief affix initial for signing of MMD Chief	Absence of MLSS Chief	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None									
	MMD Chief affix initial for signing of the Regional Director (RD)	Absence of the MMD Chief	/			Delayed issuance of ASC	C	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None									
	RD signs the area status/clearance and/or transmittal	Absence of the RD	/			Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None									
	Recording and releasing of ASC	Absence of recording officer	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None									
		Absence of the RD	/			Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None									
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None									
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None									
		Improper usage of computers, printers, and copiers	/			Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signnages	C	1	L	None									
		Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None									
		Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None									
Process/Activity: Deputation of Geodetic Engineer (Section 236 of DENR Adm. Order No. 2010-21)						Type of Activity: Routine ___ Non-routine ___					Environmental Condition: Normal Operation Condition ___ Abnormal Operation Condition ___ Emergency Operation Condition ___												
	Checks, receives/records application and endorsed to RD for appropriate action.	Absence receiving officer	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None									
		Absence of the RD	/			Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None									
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None									
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None									
		Improper usage of computers, printers, and copiers	/			Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signnages	C	1	L	None									
		Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None									
		Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None									
	Endorses the application for deputation to MMD for evaluation	Absence of the RD	/			Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None									
	Logs and releases request to MMD chief for appropriate action.	Absence of the MMD Chief	/			Delayed issuance of ASC	C	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L	None									
		Absence of designated MMD receiving officer	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None									
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None									

	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None					
	Absence of MLSS Chief	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None					
	Absence of designated MMD receiving officer	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None					
	Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None					
	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None					
	Review and endorses the application for deputation to the MLSS for appropriate action.	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None					
	Reviews and checks/evaluates the application for deputation and endorses to Engr III/Engr II/Cartographer II for appropriate action.	/			Delayed issuance of ASC	C	3	M					Administration: 1. Proper scheduling of MLSS personnel leave	ARPL/MLSS	2-May-19	B	3	L
	Checks and evaluates the application and its supporting documents as to its completeness; If incomplete, prepares transmittal for the return of the application documents. If complete, prepares the deputation order and recommends to the section chief for approval. Prepares transmittal letter to the applicant and affix initial in the letter and deputation order	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None					
	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None					
	Recommend the application for deputation to the division chief for approval and affix initial in the letter and deputation order	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None					
	Recommend the application for deputation to the Regional Director for approval and affix initial in the letter and deputation order	/			Delayed issuance of ASC	C	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L						
	RD approves and signs the transmittal letter and deputation order	/			Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L						
	Recording and releasing of the transmittal letter and deputation order	/			Delayed issuance of ASC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L						
	Absence of the RD	/			Delayed issuance of ASC	B	2	L	Administration: 1. ARTA and MGB Special Order	A	2	L						
	Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L						
	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L						
	Improper usage of computers, printers, and copiers	/			Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L						
	Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L						
	Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L						
Process/Activity: Issuance of Ore Transport Certification (OTC)					Type of Activity: Routine <u>L</u> Non-routine <u>___</u>					Environmental Condition: Normal Operation Condition <u>L</u> Abnormal Operation Condition <u>___</u> Emergency Operation Condition <u>___</u>								
Step 1	Receives, logs and records the letter-requests/form and forwards to the RD thru the secretary	/			Non-issuance/delayed of OTC	D	3	H	Administration: 1. Formulated of OTC request form	A	3	L	None					

		Absence receiving/releasing officer	/			Delayed issuance of OTC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None				
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None				
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None				
		Improper usage of computers, printers, and copiers	/			Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None				
		Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None				
		Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None				
Step 2	RD reviews/evaluates request and endorses to MMD for appropriate action. for appropriate action.	Absence of the Regional Director	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
Step 3	Logs and releases request to MMD chief for appropriate action.	Absence receiving/releasing officer	/			Delayed issuance of OTC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None				
		Absence of the MMD Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
Step 4	Endorses the request to the MTES for appropriate action.	Absence of the MTES Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
		Absence of the MMD Record Disignate	/			Delayed issuance of OTC	B	3	L	Administrative: 1. MTES personnel acts as alternate in the absence of MMD Record Personnel	A	3	L	None				
Step 5	Logs and releases to the MTES for appropriate action.	Absence of the MMD Record Disignate	/			Delayed issuance of OTC	B	3	L	Administrative: 1. MTES personnel acts as alternate in the absence of MMD Record Personnel	A	3	L	None				
		Absence of the MTES Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
		Absence of the MTES Personnel	/			Non-issuance/delayed of OTC	A	3	L	Administrative: 1. Available MTES personnel in the office	A	3	L	None				
Step 6	Assigning of personnel in-charge.	Absence of the MTES Personnel	/			Non-issuance/delayed of OTC	A	3	L	Administrative: 1. Available MTES personnel in the office	A	3	L	None				
Step 7	Prepares Order of Payment (OP) for signing of the Admin and Finance Division (AFD)	Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None				
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None				
		Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None				
		Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	L	Administration: 1. Reusing of printed paper for OPs, drafts, and scratch	C	2	L	None				
Step 8	Verification of ore/rock samples	Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	C	3	L	Administration: 1. Reusing of printed paper for OPs, drafts, and scratch	C	2	L	None				
		Absence of the MTES Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
		Absence of the MMD Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
Step 9	Final review and comments by the Regional Director	Absence of the Regional Director	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
Step 10	Issuance of OTC and affixing of initials	Absence of the MTES Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
		Absence of the MMD Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
		Absence of the Regional Director	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
Step 11	Signing of OTC	Absence of the MTES Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
		Absence of the MMD Chief	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
		Absence of the Regional Director	/			Delayed issuance of OTC	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None				
Step 12	Recording and releasing of OTC	Absence receiving/releasing officer	/			Delayed issuance of OTC	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None				
Process/Activity: Addressing Complaint						Type of Activity: Routine <input type="checkbox"/> Non-routine <input type="checkbox"/>						Environmental Condition: Normal Operation Condition <input type="checkbox"/> Abnormal Operation Condition <input type="checkbox"/> Emergency Operation Condition <input type="checkbox"/>						
	Receives, logs and records the complaint and forwards to the RD thru the secretary	Absence receiving/releasing officer	/			Delayed ocular and actual investigation	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None				
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None				
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None				

	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Radiation from computers, TV and others	/		Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None					
RD reviews/evaluates and forwards to the	Absence of the Regional Director	/		Delayed ocular and actual investigation	C	3	M	Administrative:	A	3	L	None					
Logs and releases complaint to the concerned division.	Absence MMD officer	/		Delayed ocular and actual investigation	B	2	L	Administrative: 1. Provided Alternate receiving/releasing officer	B	2	L	None					
Logs and endorsed the complaint to MMD Chief.	Absence receiving/releasing officer	/		Delayed ocular and actual investigation	B	2	L	Administrative: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None					
	Absence of the MMD Chief	/		Delayed ocular and actual investigation	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None					
Evaluate, review and endorses the complaint to the concerned section (MLSS, MTSS, MTES) for appropriate action.	Absence of the Section Chiefs	/		Delayed ocular and actual investigation	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None					
Logs and releases complaint to the concerned section (MLSS, MTSS, MTES) for appropriate action.	Absence of the MMD Record Disignate	/		Delayed ocular and actual investigation	B	3	L	Administrative: 1. MTES personnel acts as alternate in the absence of MMD Record Personnel	A	3	L	None					
	Absence of the Section Chiefs	/		Delayed ocular and actual investigation	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None					
Assigning of personnel in-charge to address the complaint.	Absence of Section Chief	/		Delayed ocular and actual investigation	B	2	L	Administrative: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None					
	Absence of MMD Personnel	/		Delayed ocular and actual investigation	B	2	L	None				None					
Initial gathering of data of the problem	Absence of Records Officer	/		Delayed ocular and actual investigation	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None					
				Insufficient data to used during the investigation	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	A	2	L	None					
Coordination, scheduling, planning and/or the ocular inspection/investigation/verification with LGUs (if necessary).	Unavailability of LGU representative during the conduct of ocular inspection/investigation/verification	/		Delayed ocular and actual investigation	B	2	L	None				None					
Actual field inspection/investigation/verification with LGU (if necessary)	Unavailability of LGU's (Province, Municipality, Barangay) for Courtesy call	/		Delayed ocular and actual investigation	B	2	L	None				None					
	Presence of lawless armed group	/		Injury/Fatality	A	5	M	Administration: 1. Coordination and courtesy call with LGU concerned 2. Rescheduling of investigation	A	4	L						
	Extreme weather condition during the actual investigation	/		Illness and sickness	C	2	L	Administration: Rescheduling of Actual field inspection/investigation/verification	B	2	L	None					
								PPE: 1. Provision of Field Work Jacket 2. Provision of Umbrellas 3. Provision of water canister	B	2	L	None					
	Road accident during transportation (pick-up)	/		Injury/Fatality	A	5	M	Administration: Preventive maintenance of government vehicle	A	3	L	None					
								Administration: Refresher course in road courtesy and defensive driving	A	3	L	None					
								Administration: Accomplish the checklist before departing	A	3	L	None					
								Administration: No driving with expired license	A	3	L	None					
				Damage to MGB XII Property	C	2	L	Administration: Preventive maintenance of government vehicle	A	3	L	None					
								Administration: Refresher course in road courtesy and defensive driving	A	3	L	None					
								Administration: Accomplish the checklist before departing	A	3	L	None					
								Administration: No driving with expired license	A	3	L	None					
	Road accident during transportation (rented habal-habal)	/		Injury/Fatality	A	5	M	PPE: 1. Provision of Motorcycle helmet	A	3	L	None					
Prepare/draft technical report with conclusion and recommendation/s photographs and maps, (if necessary)	Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None					
	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments	B	3	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Radiation from computers, TV and others	/		Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	L	Administration: 1. Reusing of printed paper for OPs, drafts, and scratch.	C	2	L	None					
Initial review draft report by the division chief	Absence of the MTES Chief	/		Delayed Submission of Report	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None					
	Absence of the MMD Chief	/		Delayed Submission of Report	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None					
Final review by the Regional Director	Absence of the Regional Director	/		Delayed Submission of Report	C	3	M	Administrative: 1. Anti-Red Tape Act	A	3	L	None					

	Submit final report with conclusion and recommendation/s	Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None						
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None						
		Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None						
		Radiation from computers, TV and others		/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None						
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	L	Administration: 1. Reusing of printed paper for OPs, drafts, and scratch	C	2	L	None						
	Furnish to the complainant and to the concerned offices	Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None						
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None						
		Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None						
		Radiation from computers, TV and others		/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None						
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	L	Administration: 1. Reusing of printed paper for OPs, drafts, and scratch	C	2	L	None						
	Recording and releasing of final report	Absence receiving/releasing officer	/		Delayed Submission of Report	B	2	L	Administrative: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None						
Process/Activity: Acceptance, Processing of Exploration Permit Applications (EXPA) and Issuance of Exploration Permit (EP)						Type of Activity: Routine <u> </u> Non-routine <u> </u>			Environmental Condition: Normal Operation Condition <u> </u> Abnormal Operation Condition <u> </u> Emergency Operation Condition <u> </u>										
Step 1	Receives, logs and records the letter - request/form and forwards to the RD thru the secretary	Absence receiving officer	/		Delayed endorsement of application to concerned section	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None						
		Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None						
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None						
		Radiation from computers, TV and others		/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None						
Step 2	MMD Chief endorses the application to the MTES for review and evaluation.	Absence of the MMD Chief	/		Delayed endorsement of application to concerned section	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None						
		Absence of the MTES Chief	/		Delayed endorsement of application to concerned personnel for evaluation	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None						
		Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	B	3	L	None						
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None						
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None						
Step 3	Mining Tenement Evaluation Section (MTES)-MCE checks and evaluates the application and its mandatory acceptance requirements and other documents as to its completeness and qualification requirements pursuant to Section 19 of DAO No. 2010-21	Absence of personnel who will evaluate the EP application	/		Delayed in the evaluation of EP application	B	2	L	Administrative: Endorsement of EP application to available mining claims examiner to evaluate the ep application	B	2	L	None						
		Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None						
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None						
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None						
	Subsequent final plotting of the applied area in the MGB Control map and GIS tenement database	Absence of geodetic engineer and/or cartographer in the plotting of the EP applied area	/		Delayed in the plotting of the ep applied area in the mgb control map	B	2	L	Administrative: Endorse to available personnel with knowledge in the plotting of the applied area in the MGB control map	B	2	L	None						

Prepares transmittal letter for the payment of the registration fees and other charges including deficiencies with the advice for the submission of application for Certificate of Environmental Management and Community Relation Records/ Certificate of Exemption (CEMCR/COE) and Environmental Work Program (EnWP).	Absence of the MTES personnel	/		Delayed endorsement of application to concerned personnel for evaluation	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
Affixing initials and signature of RD of the concerned personnel	Absence of concerned personnel	/		Delayed in transmitting letter for the payment of registration fees	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
Receives the deficient documents and prepare Order of Payment (OP) for the registration fees and other charges. Issues official receipt (OR) Logs and effects the registration of registrable instruments.	Absence receiving officer	/		Delayed endorsement of application to concerned section	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None					
Prepares transmittal letter furnishing one(1) copy of the duly stamp-received application to the proponent. Signs the transmittal letter.	Absence of the MTES personnel and officers for initials/signature	/		Delayed transmission of letter	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
Reviews and evaluates the Exploration Work Program. Endorse through memorandum by the MMD Chief the CEMCR/COE application, EnWP, EWP, and Location Map to MSESDD for Evaluation	Absence of the MTSS and MSESDD personnel in the evaluation of said documents	/		Delayed evaluation result	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
Prepares letter request for area status/clearance (AS/C) to the DENR Sectors and other government agencies including endorsement to NCIP for FPIC/CP	Absence of the mining claims examiner in charge in the drafting of the letter	/		Delayed endorsement to NCIP for FPIC/CP and for requesting AS/C to the DENR Sectors	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
Receives NCIP: CP/FPIC/MOA CNO Receives the area status/clearance from DENR Sectors and endorses to RD for information and for further action.	Absence receiving officer	/		Delayed endorsement of FPIC/CP and Area Status/Clearance to the concerned section	B	2	L	Administration: 1. Provided Alternate receiving/releasing officer (MGB SO No. 167, series of 2017)	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Radiation from computers, TV and others	/		Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None					
Receives, evaluates and forward the AS/C to MTES for appropriate action. - Prepares the OSSC AS/C - Signs the OSSC AS/C	Absence of MMD receiving officer	/		Delayed on drafting/finalizing AS/C OSSC	C	2	L	Administration: 1. Provided Alternate MMD receiving/releasing officer	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					

Prepares the Notice of Application for publication, posting and radio announcement including transmittal letters. Forwards the location map/sketch plan and the Notice of Application to MLSS for review of the technical description of the applied area - MMD chief affix initial - MMD chief endorses the Notice of application/transmittal letters to the Regional Director (RD) for signing/ approval. - RD signs and approves the notice of application/transmittal letters. - Releasing of the approved notice of application/transmittal letters - Effects the publication and radio broadcast. EP application shall be posted in the ff offices: • MGB Regional Office; • Local Government Units (LGU) Office	Absence of the MTES personnel and officers for initials/signature and preparation for posting of ep application Absence of the MLSS personnel and officers for review of the technical description Absence of officers to affix initials and signature	/		Delayed posting of the ep application	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
Receives the proof of publication, posting and radio announcement and endorse to RD - Reviews, evaluates and endorses to MMD Chief , MTES for further action. Verifies if there is protest or adverse claim filed by any party to the application in the Panel of Arbitrators (POA).	Absence of officers in the endorsement of received documents to MTES for further action	/		Delayed on drafting/finalizing AS/C OSSC	C	2	L	Administration: 1. Provided Alternate MMD receiving/releasing officer 2. ARTA	B	2	L	None					
	With protest/adverse claims			The application will be held in abeyance, if there is a valid protest, until such time that resolution favourable to the applicant has been made by the POA, Mines Adjudication Board (MAB) or Court of Appeals (CA). If decision has been made against the application. The application will be denied/rejected.	C	2	L	None									
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
RPA issues certification no protest/opposition	Absence of officers to issue certification of no protest/opposition	/		Delayed issuance of RPA certification	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
Reviews/evaluates the NCP CR/FPC/MOA and effect registration	Absence of the Mining Claims Examiner personnel in the evaluation of said document	/		Delayed evaluation result	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
MCE/MTES conducts final review and evaluation of all submitted documents	Absence of the Mining Claims Examiner personnel in the evaluation of said document	/		Delayed evaluation result	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None					
	Improper usage of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	C	3	M	Administration: 1. Reusing the printed paper as scratch or draft	B	3	L	None					
	Lacking documents	/		Delayed issuance of Exploration permit to applicant	C	2	L	Administrative: 1. Implementation of three-letter notice	B	3	L	None					

	MGB CO issue clearance to MGB RO for the issuance of EP - Receives the clearance letter from MGBCO. - Forwards clearance to RD for appropriate action. - Forwards the clearance letter to MMD Chief for appropriate action. - Prepares Draft Exploration Permit for review by MMD Chief and RD	Absence of the Mining Claims Examiner personnel in the in the drafting of letter Exploration permit Absence of officers in affixing initials and signature	/			Delayed issuance of Exploration permit to applicant	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None				
	MTES/MCE effect the registration and subsequent logging of the EP in the registry book. - MTES/MCE Prepares and issue Memorandum of Payment to the Permittee for Payment of occupation fees to the concerned Municipal and Provincial Treasurer's Office.	Absence of the Mining Claims Examiner personnel in the in the drafting of letter Exploration permit Absence of officers in affixing initials and signature	/			Delayed issuance of Exploration permit to applicant	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None				
	Receives proof of payment of occupation fee and endorse to RD for appropriate action. RD forwards the proof of payment to the MMD for further action. MMD Chief endorses to MTES/MCE for appropriate action.	Absence of the Mining Claims Examiner personnel to draft letter for the official release of Exploration permit to all concerned agencies such as MGBCO, Province, City/ies/municipalities, Barangays etc. Absence of officers in affixing initials and signature	/			Delayed transmission of copies of exploration permit to the concerned agencies and applicant	B	2	L	Administrative: 1. Anti-Red Tape Act	B	2	L	None				
Process/Activity: Vulnerability and Risk Assessment (Planning Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition								
Step 1	*Received directives from MGB Central Office the total number of VRA target Municipalities/Cities for the year.	Delayed transmission of the directives Limitation in choosing target municipalities	/				D	1	L					None				
Step 2	Select the proposed target Municipalities/cities for VRA activity (prioritization)	Limited targets in a year	/			Delay in the conduct of VRA in other municipalities	C	3	M	Include municipality/city belonging to the 3-5 years group where the 1:10,000 scale geohazard mapping was previously conducted Include municipality/city with recorded landslide and/or flooding incident for the past two (2) years If all of the year's VRA targets belonged to the previously conducted geohazard mapping within 3-5 years ago, selection and prioritization will be dependent on the level of difficulty of their terrain/area. (easy/moderate/difficult)	A	3	L	None				
Step 3	Prepare and finalize the list of the target municipalities/cities	Request from other LGUs to include their respective municipality as target in the given year	/			Exclusion of municipalities from the list of targets Delay in the conduct of VRA in other municipalities	B	2	L	None				None				
Step 4	Submit list to MGB Central Office	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	A	3	L	None				
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	A	3	L	None				
		Use of computers, printers, and copiers	/			Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	A	3	L	None				
		Radiation from computers, TV and others	/			Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	A	3	L	None				
Step 5	Include in WFP and Travel Plan		/				B	3	L	None				None				
Step 6	Submit to Regional Planning Officer	Absence of the Regional Planning Officer	/			Delay in the conduct of VRA	C	3	M	Administration: 1. Submit to available Planning Personnel in the office	A	3	L	None				
Process/Activity: Vulnerability and Risk Assessment (Post-Planning Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition								
Step 1	Schedule fieldwork dates for each target municipalities/cities based from the approved WFP and Travel Plan.	Schedule of intervening trainings and activities	/			Delay in the conduct of VRA	C	3	M	Strategize division of teams to accommodate targets for the month.	B	3	L	None				
Process/Activity: Vulnerability and Risk Assessment (Pre-Fieldwork Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition								
Step 1	Prepare Introduction/ Courtesy letter addressed to the Municipal/City mayor informing the activity to be conducted and ask for a copy of shapefile of their municipal and barangay boundary.	Incorrect syntax and semantics usage	/			Unclear communication Poor impressions from the receiving party	C	3	M	Route drafted letter for review Trainings in basic and advance writing	B	3	L	None				
Step 2	Introduction letter was sent through LGU's email address as an advance copy.	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/	/		Partial or total equipment/gadget/system shutdown Delay in sending introduction/courtesy letter to the LGU	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	1	L	None				
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in sending introduction/courtesy letter to the LGU	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	1	L	None				
		Use of computers, printers, and copiers	/			Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None				
		Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	1	L	None				

	Hand carry introduction letter to the LGU.	Unavailability of office vehicles Unavailability of conveying personnel	/			Delay in sending introduction/courtesy letter to the LGU Delay in the conduct of VRA	C	3	M	Provision of vehicle to be hired (Rent-a-car)	C	2	L	None				
		Unavailability of the receiving party (LGU)	/			Delay in the conduct of VRA	C	3	M	Inform concerned LGU prior to delivering introduction/courtesy letter. Direct to concerned department.	C	2	L	None				
Step 3	Courtesy meeting with the LGU	Unavailability of the concerned LGU	/			Delay in the conduct of VRA	C	3	M	Inform concerned LGU prior to the courtesy meeting	C	2	L	None				
Step 4	Obtain secondary data for data processing from the LGU	Unavailability of the secondary data	/			Delay in data processing	C	3	M	Obtain data from external sources such as PSA, NAMRIA, NSO etc.	C	2	L	None				
		Unavailability of the personnel handling the secondary data	/			Discrepancies in the processed data	C	3	M	Constant follow-up with the LGU to obtain secondary data	C	2	L	None				
		Secondary data not in shapefile format (JPEG)	/			Delay in data processing	C	2	M	Georeference and digitize the file using ARCGIS Software	C	2	L	None				
		Secondary data not in Luzon 1911 datum	/			Delay in data processing Discrepancies in the processed data	D	2	M	Project Datum to Luzon 1911	C	2	L	None				
Step 5	Prepare basemaps using obtained secondary data	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown Delay in processing secondary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing secondary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers, printers, and copiers	/	/		Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radation from computers, TV and others	/		/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
Process/Activity: Vulnerability and Risk Assessment (Fieldwork and Post-Fieldwork Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition				Emergency Operation Condition				
Step 1	Schedule fieldwork dates per barangay in the municipality with the MDRMO	Unavailability of the MDRMO Unavailability of the BLGU	/			Delay in the conduct of VRA	C	3	M	Constant communication with the MDRMO	C	2	L	None				
Step 2	Conducts courtesy call to the barangay captain/Officer of the day.	Unavailability of the BLGU	/			Delay in the conduct of VRA	C	3	M	Constant communication with the MDRMO to coordinate with BLGU Seek for any locals knowledgeable of the barangay information	C	2	L	None				
Step 3	Interview the barangay officials as to how many puroks, sitios and zones are registered in the barangay.	Unknowledgeable barangay official Creation of unregistered new puroks/sitios/zones	/			Delay in the conduct of VRA Compromised primary data	C	3	M	Seek for barangay documents pertaining to the needed information Seek for any locals knowledgeable of the barangay information	C	2	L	None				
Step 4	Request guide from barangay officials to accompany the MGB VRA Team to all puroks, zones, sitios in the barangay	Unknowledgeable barangay official Unavailability of the designated guide	/			Delay in the conduct of VRA	C	3	M	Seek for any locals knowledgeable of the barangay Seek for any maps containing informations of the puroks/sitios/zones of the barangay	C	3	L	None				
Step 5	Get GPS locations and photo documentations of all puroks, sitios, zones and; flood and landslide prone areas.	Inaccessible purok/sitio/zone due to terrain difficulty or force majeure	/	/	/	Lack of acquisition of primary data	C	4	H	Revisit area if there's adequate assessment time Obtain information from the locals knowledgeable of the to-be-assessed purok/sitio/zone Frequent PM of the field equipment Provision of back-up field equipment	B	3	L	None				
		Imprecise information from the designated guide	/			Delay in the acquisition of primary data	C	4	H	Cascade knowledge from trained field personnel to the neophyte field personnel	C	2	L	None				
		Breakdown of field equipment	/			Imprecise acquired primary data	C	4	H	Send new and unknowledgeable personnel for trainings concerning the said activity	C	2	L	None				
		Inadequate knowledge of the field personnel in using field equipment and assessing the areas	/															
Step 6	Load gathered GPS coordinates to ARCGIS software	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers	/	/		Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radation from computers, TV and others	/		/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
		Corruption or inadvertent deletion of acquired GPS data	/			Delay in processing primary data Reassess barangay puroks/sitios/zones Consumption of resources (time, money etc.)	C	4	H	Provide back-up immediately after data acquisition	C	2	L	None				

Step 7	Load gathered photos of the assessed areas (puroks/sitios/zones and others.)	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				
		Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers	/	/	Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radiation from computers, TV and others	/	/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
		Corruption or inadvertent deletion of acquired photos	/		Delay in processing primary data Reassess barangay puroks/sitios/zones Consumption of resources (time, money etc.)	C	4	H	Provide back-up, immediately after data acquisition	C	2	L	None				
Step 8	Project the GPS coordinates from WGS 84 Datum to Luzon 1911 Datum	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				
		Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers	/	/	Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radiation from computers, TV and others	/	/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
Step 9	Process acquired data and lay-out basemap in A3 format for manual delineation of flood and landslide rating with gathered locations.	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				
		Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers	/	/	Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radiation from computers, TV and others	/	/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
Step 10	Geologists will delineate manually the flood and landslide rating per barangay.	/		Unavailability of the geologist who conducted the assessment due to intervening activities or force majeure Inadquate knowledge and training of the geologist who assessed the area	C	4	M	Delay in data processing Imprecise processed data	Cascade acquire information to other members of the VRA team Send new and unknowledgeable personnel (geologist) for trainings concerning the said activity Cascade knowledge from the trained personnel to the neophyte geologist	C	2	L	None				
Step 11	Scanning of delineated basemaps	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				
		Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers, printers, and copiers	/	/	Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radiation from computers, TV and others	/	/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				

Step 12	Processing (georeferencing and digitization) of the scanned basemaps	Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers	/			Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radiation from computers, TV and others	/		/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
Step 13	Checking of the processed basemaps by the Supervisor/Team Leader	Unavailability of the Supervisor/Team Leader due to intervening activities or force majeure	/			Delay in data processing	C	3	M	Send processed data through email Seek for other knowledgeable and trained personnel for checking	C	2	L	None				
Step 14	Ready processed basemaps for the processing and generation of Exposure Maps	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown Delay in data processing	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None				
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	C	2	L	None				
		Use of computers	/			Increased power consumption and power demand	C	3	M	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	2	L	None				
		Radiation from computers, TV and others	/		/	Eye strain	C	3	M	Administration: 1. Observe distance from the computer screen	C	2	L	None				
Process/Activity: Quadrangle Mapping (Planning Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition								
Step 1	Received directives from MGB Central Office the total number of Quadrangles and its target provinces, municipalities/cities for the year.	Delayed transmission of the directives	/				D	1	L		A	1	L	None				
		Limitation in choosing target numbers of quadrangle	/				B	2	L		B	2	L	None				
Step 2	Select the proposed target quadrangle and its provinces, municipalities/cities for Geological Quadrangle Mapping Survey activity (prioritization)	Limited targets in a year				Delay in the conduct of Geological Quadrangle Mapping Survey	C	3	L	Selection and prioritization will be dependent on the level of difficulty of their terrain/area. (easy/moderate/difficult)	A	3	L	None				
Step 3	Submit list to MGB Central Office	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	A	3	L					
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software	A	3	L					
		Use of computers, printers, and copiers	/			Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages								
		Radiation from computers, TV and others	/			Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen								
Step 4	Include in WFP and Travel Plan		/				B	3	L		A	3	L					
Step 5	Submit to Regional Planning Officer	Absence of the Regional Planning Officer	/			Delay in the conduct of GGMS	A	3	L	Administrative: 1. Submit to available Planning Personnel in the office	A	3	L					
Process/Activity: Quadrangle Mapping (Post-Planning Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition								
Step 1	Schedule fieldwork dates for each target quadrangle and its provinces, municipalities/cities based from the approved WFP and Travel Plan	Schedule of intervening trainings and activities	/			Delay in the conduct of GGMS	C	3	M		B	3	L					
Process/Activity: Quadrangle Mapping (Pre-Fieldwork Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition								
Step 1	Prepare introduction/courtesy letter addressed to the provincial governor, municipal/city mayor informing the activity to be conducted	Incorrect syntax and semantics usage	/			Unclear communication Poor impressions from the receiving party	C	3	M	Route drafted letter for review Trainings in basic and advance writing	B	3	L					
		Unavailability of office vehicles	/			Delay in sending introduction/courtesy letter to the LGU, PENRO, CENRO	B	3	L	Rent vehicle	C	2	L					
Step 2	Courtesy meeting with the LGU, PENRO, CENRO	Unavailability of conveying personnel	/			Delay in the conduct of GGMS	C	3	L	Inform concerned LGU, PENRO, CENRO prior to delivering introduction/courtesy letter	C	2	L					
		Unavailability of the receiving party (LGU, PENRO, CENRO)	/			Delay in the conduct of GGMS	C	3	L	Inform concerned LGU, PENRO, CENRO prior to the courtesy meeting								
Process/Activity: Quadrangle Mapping (Fieldwork and Post-Fieldwork Stage)						Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition								
Step 1	Schedule fieldwork dates per barangay in the municipality with the PENRO and CENRO	Unavailability of the PENRO and CENRO Unavailability of the BLGU	/			Delay in the conduct of GGMS	C	3	M	Constant communication with the PENRO AND CENRO								
Step 2	Conducts courtesy call to the barangay captain/officer of the day.	Unavailability of the BLGU	/			Delay in the conduct of GGMS	B	3	M	Constant communication with the PENRO, CENRO to coordinate with BLGU Seek for any locals knowledgeable of the barangay information								
Step 3	Request guide from barangay officials/constituents to accompany the MGB GGMS Team to all target areas in the barangay	Unknowledgeable barangay official Unavailability of the designated guide	/			Delay in the conduct of GGMS	C	3	M	Seek for any locals knowledgeable of the barangay Seek for any maps containing informations of the access roads, streams, rivers and drainage system of the barangay								

Step 4	Get GPS locations and photo documentations of lithology, mineralization, alteration, structures, topography and drainage of a quadrangle mapping area.	Inaccessible purok/sitio due to terrain difficulty or force majeure Inaccessible purok/sitio due to insurgency or force majeure Imprecise information from the designated guide Breakdown of field equipment Inadequate knowledge of the field personnel in using field equipment and assessing the areas	/	/	/	Lack of acquisition of primary data Delay in the acquisition of primary data Imprecise acquired primary data	C	4	H	Revisit area if there's adequate assessment time Obtain information from the locals knowledgeable of the to-be-assessed purok/sitio Frequent PM of the field equipment Provision of back-up field equipment Cascade knowledge from trained field personnel to the neophyte field personnel Send new and unknowledgeable personnel for trainings concerning the said activity										
Step 4	Load gathered GPS coordinates to ARCGIS software	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program										
	Unlicensed use of computers and ICT softwares		/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software										
	Use of computers			/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages										
	Radiation from computers, TV and others		/		/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen										
	Corruption or inadvertent deletion of acquired GPS data		/			Delay in processing primary data Reassess barangay purok/sitios Consumption of resources (time, money etc.)	C	4	H	Provide back-up immediately after data acquisition										
Step 5	Load gathered gps locations and photos of the surveyed areas (barangays, purok/sitios and others)	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program										
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software										
		Use of computers		/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages										
		Radiation from computers, TV and others	/		/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen										
	Corruption or inadvertent deletion of acquired photos		/			Delay in processing primary data Reassess barangay purok/sitios Consumption of resources (time, money etc.)	C	4	H	Provide back-up immediately after data acquisition										
Step 6	Project the GPS coordinates from WGS 84 Datum to Luzon 1911 Datum	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program										
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software										
		Use of computers		/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages										
		Radiation from computers, TV and others	/		/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen										
Step 7	Process acquired data and lay-out base map in A3 format for manual delineation of lithology, structure, alteration, mineralization, topography and drainage with gathered locations.	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/			Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program										
		Unlicensed use of computers and ICT softwares	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software										

		Use of computers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages											
		Radiation from computers, TV and others	/	/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen											
Step 8	Geologists will delineate manually the lithostratigraphy, mineralization, alteration, structures, section, topography and drainage	Unavailability of the geologist who conducted the mapping due to intervening activities or force majeure Inadequate knowledge and training of the geologist who mapped/surveyed the area	/		Delay in data processing Imprecise processed data	C	4	M	Cascade acquire information to other members of the VRA team Send new and unknowledgeable personnel (geologist) for trainings concerning the said activity Cascade knowledge from the trained personnel to the neophyte geologist											
Step 9	Scanning of delineated basemaps	Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown Delay in processing primary data	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program											
		Unlicensed use of computers and ICT softwares	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) Delay in processing primary data	C	3	M	Administration: 1. Implementation Information System Strategic Plan (ISSP) 2. Acquisition of license computer software											
		Use of computers, printers, and copiers	/		Increased power consumption and power demand	C	2	L	Administration: 1. Put off computers monitors, printers and copiers when not in use 2. Provision of energy conservation signages											
		Radiation from computers, TV and others	/	/	Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen											
Process/Activity: Groundwater Resource Assessment		Type of Activity: Routine / Non-routine			Environmental Condition: Normal Operation Condition / Abnormal Operation Condition / Emergency Operation Condition															
Pre-Fieldwork Phase																				
Step 1	Preparation of Travel Documents	Absence of signatory personnel	/		Delayed Fieldwork	C	2	L	Administrative: 1. Keep to date on the where-abouts of the signatories days before the departure to process travel documents in advance											
Step 2	Preparation of maps and gathering of secondary data	Unavailability of actual base map of the study area	/		Waste of resources (time and office supplies)	C	1	L	Administrative : 1. Request data to LGU concerned prior to fieldwork											
Step 3	Planning and Fieldwork Strategy	Intervening activities which disrupt the planned schedule and activities	/		Delayed Fieldwork	D	1	L	Administrative: 1. Designate concerned personnel to attend to intervening activities											
Fieldwork Phase																				
Step 1	Courtesy call to LGU	Absence of concerned LGU personnel	/		Delayed Fieldwork	D	2	M	Administrative: 1. Send communication to LGU in advance via email or fax											
Step 2	Conduct groundwater resource and vulnerability assessment																			
Step 2a - Groundwater Quality Assessment																				
Step 2a.1	Identification of sampling point	Absence of concerned barangay official	/	/	Insufficient groundwater data	C	1	L	Administrative: 1. Advice Municipal/City LGU to inform in advance the barangay officials regarding the activity											
Step 2a.2	Sampling	Distant Identified sampling point	/		vulnerability of field personnel with respect to security issues, animal and insect bites	C	2	L	PPE: 1. wearing of helmet, boots, trek pants Administrative Provision of focal guide/buddy system 2. Carry first-aid kit											
	Use of nitric Acid for Sample Preservation	Corrosive acid	/	/	May cause health hazard to the person handling it.	A	4	L	PPE: Provision of proper PPE for safety.	A	4	L	Engineering: Provision of Spill Kit in case of spillage	GD/FAD						
		Accidental spillage of nitric acid	/	/	Fatal if inhaled	A	4	L	Admin: Only analyst will add nitric acid to the water sample	A	4	L	PPE: Provision of chemical cartridge respirator	GD/FAD						May 10, 2019
			/	/	May cause severe eye burn and loss of vision or permanent damage	A	4	L	Admin: Wear appropriate protective glasses or chemical safety goggles	A	4	L	PPE: Provision of protective glasses or chemical safety goggles	GD/FAD						
			/	/	May cause severe irritation causing sunburn	A	4	L	Admin: Wear appropriate neoprene gloves and protective clothing (lab gown) to prevent skin exposure	A	4	L	PPE: Provision of neoprene gloves and protective clothing (lab gown)	GD/FAD						
	Use of Nitrate NitraMer AccuVac Ampul (containing cadmium) in the determination of Nitrates	Generation of Hazardous waste	/	/	May cause health hazard to the person handling it.	C	3	M	Administration: Implement proper waste storage and disposal	C	1	L	Waste in ampul are stored in a plastic bottle, and contained in a Polyethylene Drums							
Step 2a.3	Analysis	Instrument Failure	/		Error/unreliable measurement	D	1	L	Administrative: 1.Regular calibration and preventive maintenance Substitution: Replacement of unserviceable instrument											
Step 2a.4	Instrument Storage and Protection	Instrument Failure	/		Error/unreliable measurement	D	1	L	Administrative: 1.Regular calibration and preventive maintenance Substitution: Replacement of unserviceable instrument											
Step 2b - Water Sources Inventory (Well and spring)																				
Step 2b.1	Courtesy call to the barangay official	unavailability of barangay officials knowledgeable to their groundwater utilization	/		Insufficient hydrogeologic data	C	2	L	Administrative: 1. Acquisition and reviewing of previews works											
Step 2b.2	Collection of water Sample	unavailability of barangay officials or local guide	/		Insufficient hydrogeologic data	C	2	L	Administrative: 1. Interview well owner 2. Acquisition of well data from other local water providers											
Step 2c - Georesistivity Survey																				
Step 2c.1	Conduct of georesistivity survey	Unfavorable (rough terrain, inaccessible) site	/		Complexity of data processing and interpretation	C	1	L	Administrative: 1. Pre-selected favorable sites											
		Equipment Failure	/		Complexity of data processing and interpretation			L	Administrative: 1. Preventive maintenance of equipment											
Step 2c.2	Data interpretation and analysis	IT failure	/		Unreliable and delay of results	C	2	L	Administrative: 1. Preventive maintenance of IT equipment											
Post fieldwork Phase																				
Step 1	Report and map preparation	IT failure	/		Unreliable and delay of results	C	2	L	Administrative: 1. Preventive maintenance of IT equipment											

Step 2	Report review, finalization, and submission	Absence of concerned reviewer	/			Untimely submission of report	C	2	L	Administrative: Promote online review of reports	1.									
Step 3	Archiving and disposal	Deterioration of hard copy reports caused by insects, temperature and relative humidity	/			Damaged or loss of maps and reports	C	2	L	Administrative: 1. Implementation of e-copy in the safe-keeping of reports and maps										
Process/Activity: Groundwater Resource Assessment		Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition														
Pre-Fieldwork Phase																				
Step 1	Preparation of Travel Documents	Absence of signatory personnel	/			Delayed Fieldwork	C	2	L	Administrative: 1. Keep to date on the where-abouts of the signatories days before the departure to process travel documents in advance										
Step 2	Preparation of maps and gathering of secondary data	Unavailability of actual base map of the study area	/			Waste of resources (time and office supplies)	C	1	L	Administrative : Request data to LGU concerned prior to fieldwork	1.									
Step 3	Planning and Fieldwork Strategy	Intervening activities which disrupt the planned schedule and activities	/			Delayed Fieldwork	D	1	L	Administrative: 1. Designate concerned personnel to attend to intervening activities										
Fieldwork Phase																				
Step 1	Courtesy call to LGU	Absence of concerned LGU personnel	/			Delayed Fieldwork	D	2	M	Administrative: 1. Send communication to LGU in advance via email or fax										
Step 2 Conduct groundwater resource and vulnerability assessment																				
Step 2a Groundwater Quality Assessment																				
Step 2a.1	Identification of sampling point	Absence of concerned barangay official	/			Insufficient groundwater data	C	1	L	Administrative: 1. Advice Municipal/City LGU to inform in advance the barangay officials regarding the activity										
Step 2a.2	Sampling	Distant Identified sampling point	/			vulnerability of field personnel with respect to security issues, animal and insect bites	C	2	L	PPE: 1. wearing of helmet, boots, trek pants Administrative Provision of local guide/buddy system 2. Carry first-aid kit	1.									
	Use of nitric Acid for Sample Preservation	Corrosive acid	/			May cause health hazard to the person handling it.	A	4	L	PPE: Provision of proper PPE for safety.		A	4	L	Engineering: Provision of Spill Kit in case of spillage					GDFAD
		Accidental spillage of nitric acid	/			Fatal if inhaled	A	4	L	Admin: Only analyst will add nitric acid to the water sample PPE: Provision of mask		A	4	L	PPE: Provision of chemical cartridge respirator					GDFAD
			/			May cause severe eye burn and loss of vision/or permanent damage	A	4	L	Admin: Wear appropriate protective glasses or chemical safety goggles		A	4	L	PPE: Provision of protective glasses or chemical safety goggles					GDFAD
			/			May cause severe irritation causing sunburn	A	4	L	Admin: Wear appropriate neoprene gloves and protective clothing (lab gown) to prevent skin exposure		A	4	L	PPE: Provision of neoprene gloves and protective clothing (lab gown)					GDFAD
	Use of Nitrate NitraVer AccuVac Ampul (containing cadmium) in the determination of Nitrates	Generation of Hazardous waste	/			May cause health hazard to the person handling it.	C	3	M	Administration: Implement proper waste storage and disposal		C	1	L	Waste in ampul are stored in a plastic bottle, and contained in a Polyethylene Drums					
Step 2a.3	Analysis	Instrument Failure	/			Error/unreliable measurement	D	1	L	Administrative: 1.Regular calibration and preventive maintenance Substitution: Replacement of unserviceable instrument	1.									
Step 2a.4	Instrument Storage and Protection	Instrument Failure	/			Error/unreliable measurement	D	1	L	Administrative: 1.Regular calibration and preventive maintenance Substitution: Replacement of unserviceable instrument	1.									
Step 2b Water Sources Inventory (Well and spring)																				
Step 2b.1	Courtesy call to the barangay official	unavailability of barangay officials knowledgeable to their groundwater utilization	/			Insufficient hydrogeologic data	C	2	L	Administrative: 1. Acquisition and reviewing of previews works										
Step 2b.2	Collection of water Sample	unavailability of barangay officials or local guide	/			Insufficient hydrogeologic data	C	2	L	Administrative: 1. Interview well owner Acquisition of well data from other local water providers	2.									
Step 2c Georesistivity Survey																				
Step 2c.1	Conduct of georesistivity survey	Unfavorable (rough terrain, inaccessible) site	/			Complexity of data processing and interpretation	C	1	L	Administrative: 1. Pre-selected favorable sites										
		Equipment Failure	/			Complexity of data processing and interpretation			L	Administrative: 1. Preventive maintenance of equipment										
Step 2c.2	Data interpretation and analysis	IT failure	/			Unreliable and delay of results	C	2	L	Administrative: 1. Preventive maintenance of IT equipment										
Post fieldwork Phase																				
Step 1	Report and map preparation	IT failure	/			Unreliable and delay of results	C	2	L	Administrative: Preventive maintenance of IT equipment	1.									
Step 2	Report review, finalization, and submission	Absence of concerned reviewer	/			Untimely submission of report	C	2	L	Administrative: Promote online review of reports	1.									
Step 3	Archiving and disposal	Deterioration of hard copy reports caused by insects, temperature and relative humidity	/			Damaged or loss of maps and reports	C	2	L	Administrative: 1. Implementation of e-copy in the safe-keeping of reports and maps										
Process/Activity: Application For Leave		Type of Activity: Routine / Non-routine				Environmental Condition: Normal Operation Condition / Abnormal Operation Condition Emergency Operation Condition														
Step 1	Admin Assistant receives,records and checks the leave application duly initiated by the division chief concerned Forwards the leave application to HRMO for processing	Absence of receiving/releasing personnel	/			Delayed processing of leave application	C	2	L	Administration- Assigning of personnel as alternate receiving/releasing personnel		B	1	L						None
Step 2	HRMO processes the leave application	Absence of HRMO	/			Delayed processing of leave application	C	2	L	Administration- Assigning of personnel as alternate in processing of leave application		B	1	L						None
		Radiation from computers during the computation of leave credits	/			Eye strain resulting to poor eye sight	D	1	L	Elimination- Purchase of LED computer monitors		C	1	L						None
			/						L	Administration Relax your eye as needed		C	1	L						None
			/						L	Engineering Well lit/adjust work environment		C	1	L						None
		Unlicensed use of computers and ICT softwares during computation of leave credits	/			Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)		C	1	L						None
			/						L	Elimination Acquisition of license computer software		C	1	L						None
		Ergonomic Hazards	/			May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed		B	1	L						None
			/						L	Administration: Provision of swivel chair		B	1	L						None
		Erroneous paper printing that results to over consumption of paper	/			Solid waste pollution	D	1	L	Administration: Reusing of printed paper		C	2	L						None

Step 3	HRMO forwards leave application to FAD Chief for approval/disapproval	Absence of the FAD Chief	/		Delayed approval by the FAD Chief & RD	C	1	L	None				Administration: Issuance of SO RE:HRMO to sign in behalf of FAD Chief	HRMO	May 3, 2019			
Step 4	FAD Chief forwards leave application to Regional Director for signature and approval	Absence of the Regional Director	/		Delayed approval by the RD	D	1	L	None									
		For Vacation Leave: Disapproval of leave application in the absence of the service	/		Disapproved vacation leave	B	2	L	None									
Step 5	Admin Assistant releases approved leave to concerned personnel and files a copy of the approved Leave.	Absence of releasing personnel	/		Delayed releasing of the approved leave to the concerned employee	C	2	L	None	B	1	L	Administration: Assigning of personnel as alternate releasing personnel					
		Misplaced approved leave form	/		No copy of the approved leave for the Admin and the concerned employee	A	1	L	None				Administration: The FAD will facilitate in providing the approved leave for the concerned employee	Admin Assistant/HRMO				
Process/Activity: Reimbursement of Traveling Expenses Voucher																		
Type of Activity: Routine / Non-routine					Environmental Condition: Normal Operation Condition / Abnormal Operation Condition					Emergency Operation Condition								
Step 1	Accounting Clerk to receives, records and evaluates the completeness of documents. If complete, records to log-book. If Incomplete, return to claimant.	Absence of the personnel who will receives, records and evaluates the completeness of documents relative to the reimbursement	/		Delayed processing of Reimbursement	C	2	L	Administration: Assigning of personnel as alternate receiving, recording and evaluating	B	1	L	None					
Step 2	Forwards to Budget Unit for ORS	Absence of Budget Assistant	/		Delayed processing of Reimbursement	C	2	L	Administration: Assigning of personnel as alternate Budget Assistant	B	1	L	None					
Step 3	Budget Officer will check the fund availability and indicates to which PPA code travel should be charged	Over usage of computer resulting to increase in power consumption	/		Increase in carbon footprint contributing to climate change	C	2	L	Administration: 1. Turn off computer monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
					Increase in electricity expenses	C	2	L	Administration: 1. Turn off computer monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
		Radiation from computers during the checking and sourcing of fund availability	/		Eye strain resulting to poor eye sight	D	1	L	Elimination: Purchase of LED computer monitors	C	1	L	None					
									Administration: Relax your eye as needed	C	1	L	None					
									Engineering: Well lightened work environment	C	1	L	None					
		Unlicensed use of computers and ICT softwares during the checking and sourcing of fund availability	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None					
									Elimination: Acquisition of license computer software	C	1	L	None					
		Ergonomic Hazards	/		May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None					
									Administration: Provision of swivel chair	B	1	L	None					
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments	B	2	L	None					
Step 4	Attachment of Obligation Request Status (ORS)	Travel Order and linary wort coincide	/		Delayed processing of Reimbursement	B	2	L	Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	2	L	Administration: Return the documents to the owner for revision/correction Remind the claimant about the proper procedure					
		Radiation from computers during the attachment of ORS	/		Eye strain resulting to poor eye sight	D	1	L	Elimination: Purchase of LED computer monitors	C	1	L	None					
									Administration: Relax your eye as needed	C	1	L	None					
									Engineering: Well lightened work environment	C	1	L	None					
		Unlicensed use of computers and ICT softwares during the attachment of ORS	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None					
									Elimination: Acquisition of license computer software	C	1	L	None					
		Ergonomic Hazards	/		May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None					
									Administration: Provision of swivel chair	B	1	L	None					
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown that result to delay of processing of reimbursement	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments	B	2	L	None					
									Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program									
Step 5	Approves availability of funds in Obligation Request Status and Releases to Accounting Unit	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	D	1	L	Administration: Reusing of printed paper	C	2	L	None					
		Absence of budget officer	/		Delay of processing of vouchers	D	2	M	Substitution: Accountant may sign the approval	C	1	L	None					
Step 6	Prepares, records and attach JEV to DV	Absence accounting clerk	/		Delay of submission of vouchers	D	2	M	Substitution: Accountant may prepare and record JEV	C	1	L	None					
		Radiation from computers during the attachment of ORS	/		Eye strain resulting to poor eye sight	D	1	L	Elimination: Purchase of LED computer monitors	C	1	L	None					
									Administration: Relax your eye as needed	C	1	L	None					
									Engineering: Well lightened work environment	C	1	L	None					
		Unlicensed use of computers and ICT softwares during the attachment of ORS	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None					
									Elimination: Acquisition of license computer software	C	1	L	None					
		Ergonomic Hazards	/		May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None					
									Administration: Provision of swivel chair	B	1	L	None					

		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown that result to delay of processing of reimbursement	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	2	L	None					
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	D	1	L	Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program Reusing of printed paper	C	2	L	None					
Step 7	Accountant Processes documents as to completeness of	Absence of accountant	/		Delay of processing of vouchers	D	2	M	Administration: FAD Division Chief seeks approval of RD for	C	1	L	None					
Step 8	Accounting Clerk Double checks signatures in attachments and follow up signatures for portions not signed. Releases documents to ORD for approval of payment.	Absence receiving/releasing personnel	/		Delay of processing of vouchers	D	2	M	Administration: Alternate receiving/releasing officer	C	1	L	None					
Step 9	RD approves payment. ORD Secretary returns vouchers to Finance Section	Absence releasing personnel	/		Delay of processing of vouchers	D	2	M	Administration: Alternate receiving/releasing officer	C	1	L	None					
Step 10	Cashier prepares LDDAP-ADA/Issues Checks	Absence of the RD Absence of cashier personnel	/		Delay of payment	D	1	L	Administrative: Cashier and assistant cashier may alternate each other if the other is not available to issue LDDAP-ADA or check	C	1	L	None					
		Lacking of signatories	/		Delay of Payment	C	2	L	None									
Process/Activity: Liquidation of Cash Advance						Type of Activity: Routine <input checked="" type="checkbox"/> Non-routine <input type="checkbox"/>			Environmental Condition: Normal <input checked="" type="checkbox"/> Operation Condition <input type="checkbox"/> Abnormal Operation Condition <input type="checkbox"/> Emergency Operation Condition <input type="checkbox"/>									
Step 1	Receives and Pre-examines completeness of documents. If complete, records to log-book. If Incomplete, return to claimant.	Absence receiving/releasing personnel	/		Delay of processing of liquidation vouchers	D	2	M	Administration: Alternate receiving/releasing officer	C	1	L	None					
Step 2	Reviews and examines documents	Absence of accountant	/		Delay of processing of liquidation vouchers	C	2	L	None				None					
Step 3	Records JEV	Absence accounting clerk	/		Delay of processing of liquidation vouchers	D	2	M	Substitution: Accountant may prepare and record JEV Administration: 1. Turn off computer monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
		Improper and/or over usage of computers, copiers and printers resulting to increase in power consumption	/		Increase in carbon footprint contributing to climate change	C	3	M	Administration: 1. Turn off computer monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
		Radiation from computers, TV and others	/		Eye strain	C	2	L	Administration: 1. Observe distance from the computer screen	C	2	L	None					
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown	C	3	M	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	3	L	None					
Step 4	Approves liquidation	Absence of accountant	/		Delay of processing of liquidation vouchers	C	2	L	None				None					
Step 5	Releases to COA	Absence receiving/releasing personnel	/		Delay of processing of liquidation vouchers	D	2	M	Administration: Alternate receiving/releasing officer	C	1	L	None					
Step 6	Releases Certification of Liquidation of Previous Cash Advance	Absence receiving/releasing personnel and its alternates	/		Delay of processing of liquidation vouchers	D	2	M	Administration: Alternate receiving/releasing officer	C	1	L	None					
		Absence of accountant	/		Delay of processing of liquidation vouchers	C	2	L	None				None					
Process/Activity: Request of Cash Advance						Type of Activity: Routine <input checked="" type="checkbox"/> Non-routine <input type="checkbox"/>			Environmental Condition: Normal <input checked="" type="checkbox"/> Operation Condition <input type="checkbox"/> Abnormal Operation Condition <input type="checkbox"/> Emergency Operation Condition <input type="checkbox"/>									
Step 1	Accounting Clerk to receives, records and evaluates the completeness of documents. If complete, records to log-book. If Incomplete, return to claimant.	Absence of the personnel who will receives, records and evaluates the completeness of documents relative to the reimbursement	/		Delayed processing of Reimbursement	C	2	L	Administration- Assigning of personnel as alternate receiving, recording and evaluating	B	1	L	None					
Step 2	Forwards to Budget Unit for ORS	Absence of Budget Assistant	/		Delayed processing of Reimbursement	C	2	L	Administration- Assigning of personnel as alternate Budget Assistant	B	1	L	None					
Step 3	Budget Officer will check the fund availability and indicates to which PPA code travel should be charged	Over usage of computer resulting to increase in power consumption	/		Increase in carbon footprint contributing to climate change	C	2	L	Administration: 1. Turn off computer monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
			/		Increase in electricity expenses	C	2	L	Administration: 1. Turn off computer monitors, printers and copiers when not in use 2. Provision of energy conservation signages	C	1	L	None					
		Radiation from computers during the checking and sourcing of fund availability	/		Eye strain resulting to poor eye sight	D	1	L	Elimination- Purchase of LED computer monitors	C	1	L	None					
			/						Administration Relax your eye as needed	C	1	L	None					
			/						Engineering Well lightened work environment	C	1	L	None					
		Unlicensed use of computers and ICT softwares during the checking and sourcing of fund availability	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None					
			/						Elimination Acquisition of license computer software	C	1	L	None					
		Ergonomic Hazards	/		May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None					
			/						Administration: Provision of swivel chair	B	1	L	None					
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	B	2	L	None					
Step 4	Attachment of Obligation Request Status (ORS)	Travel Order and Itinerary worth coincide	/		Delayed processing of Reimbursement	B	2	L	Administration Return the documents to the owner for	B	2	L	None					
		Radiation from computers during the attachment of ORS	/		Eye strain resulting to poor eye sight	D	1	L	Elimination- Purchase of LED computer monitors	C	1	L	None					
			/						Administration Relax your eye as needed	C	1	L	None					
			/						Engineering Well lightened work environment	C	1	L	None					
		Unlicensed use of computers and ICT softwares during the attachment of ORS	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None					
			/						Elimination Acquisition of license computer software	C	1	L	None					

		Ergonomic Hazards		/	May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None				
									Administration: Provision of swivel chair	B	1	L	None				
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown that result to delay of processing of reimbursement	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments	B	2	L	None				
									Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program								
Step 5	Approves availability of funds in Obligation Request Status and Releases to Accounting Unit	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	D	1	L	Administration: Reusing of printed paper	C	2	L	None				
		Absence of budget officer	/		Delay of processing of vouchers	D	2	M	Substitution: Accountant may sign the approval	C	1	L	None				
Step 6	Prepares, records and attach JEV to DV	Absence accounting clerk	/		Delay of submission of vouchers	D	2	M	Substitution: Accountant may prepare and record JEV	C	1	L	None				
		Radiation from computers during the preparation, recording and attachment of JEV to DV	/		Eye strain resulting to poor eye sight	D	1	L	Elimination: Purchase of LED computer monitors	C	1	L	None				
									Administration: Relax your eye as needed	C	1	L	None				
									Engineering: Well lightened work environment	C	1	L	None				
		Unlicensed use of computers and ICT softwares during the preparation, recording and attachment of JEV to DV	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None				
									Elimination: Acquisition of license computer software	C	1	L	None				
		Ergonomic Hazards	/		May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None				
									Administration: Provision of swivel chair	B	1	L	None				
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown that result to delay of processing of reimbursement	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments	B	2	L	None				
									Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program								
Step 7	Accountant Processes documents as to completeness of documents, proper computation, etc. Reviews, examines and approves cash availability, legality of claims	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	D	1	L	Administration: Reusing of printed paper	C	2	L	None				
		Absence of accountant	/		Delay of processing of vouchers	D	2	M	Administration: FAD Division Chief seeks approval of RD for issuance of urgent vouchers	C	1	L	None				
Step 8	Accounting Clerk Double checks signatures in attachments and follow up signatures for portions not signed. Releases documents to ORD for approval of payment.	Absence receiving/releasing personnel	/		Delay of processing of vouchers	D	2	M	Administration: Alternate receiving/releasing officer	C	1	L	None				
Step 9	RD approves payment. ORD Secretary returns vouchers to Finance Section	Absence releasing personnel	/		Delay of processing of vouchers	D	2	M	Administration: Alternate receiving/releasing officer	C	1	L	None				
Step 10	Cashier prepares LDDAP-ADA/Issues Checks	Absence of the RD	/		Delay of payment	D	1	L	None								
		Absence of cashier personnel	/		Delay of payment	C	2	L	Administrative: Cashier and assistant cashier may alternate each other if the other is not available to issue LDDAP-ADA or check	C	1	L	None				
		Lack of signatories	/		Delay of Payment	C	2	L	None								
Process/Activity: Procurement (Vehicle Rental, Supplies & Catering Services)																	
Type of Activity: Routine / Non-routine																	
Environmental Condition: Normal Operation Condition / Abnormal Operation Condition																	
Emergency Operation Condition																	
Step 1	Fill up purchase request and submit to supply section 2 weeks before scheduled travel	Absence of the Supply section personnel to receive the PR	/		Delay in the processing of Purchase Request for vehicle rental	C	2	L	Administration: Assigning BO as alternate personnel to receive PR in the absence of the Supply personnel				None				
		Wrong information in the Purchase Request form	/		Delay in the processing of Purchase Request for vehicle rental	C	2	L	Administration: Verify with the end-user	C	1	L	None				
		Radiation from computers during the preparation of purchase request	/		Eye strain resulting to poor eye sight	D	1	L	Elimination: Purchase of LED computer monitors	C	1	L	None				
									Administration: Relax your eye as needed	C	1	L	None				
									Engineering: Well lightened work environment	C	1	L	None				
		Unlicensed use of computers and ICT softwares during the preparation of purchase request	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None				
									Elimination: Acquisition of license computer software	C	1	L	None				
		Ergonomic Hazards	/		May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None				
									Administration: Provision of swivel chair	B	1	L	None				
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown that result to delay of processing of reimbursement	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments	B	2	L	None				
									Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program								
Step 2	Approval of PR by Regional Director	Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	D	1	L	Administration: Reusing of printed paper	C	2	L	None				
		Absence of RD	/		Delay in the processing of Purchase Request for vehicle rental	C	1	L	None				None				
Step 3	Preparation of Request For Quotation	Radiation from computers during the preparation of request for quotation	/		Eye strain resulting to poor eye sight	D	1	L	Elimination: Purchase of LED computer monitors	C	1	L	None				
									Administration: Relax your eye as needed	C	1	L	None				
									Engineering: Well lightened work environment	C	1	L	None				
		Unlicensed use of computers and ICT softwares during the preparation of request for quotation	/		Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights)	B	2	L	Administration: Implementation Information System Strategic Plan (ISSP)	C	1	L	None				
									Elimination: Acquisition of license computer software	C	1	L	None				
		Ergonomic Hazards	/		May result to sore muscles	C	1	L	Administration: Take a break for body stretching as needed	B	1	L	None				

									Administration: Provision of swivel chair	B	1	L	None					
		Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others)	/		Partial or total equipment/gadget/system shutdown that result to delay of processing of reimbursement	C	2	L	Engineering: Repair/troubleshooting of existing software and equipments	B	2	L	None					
		Erroneous paper printing that results to over consumption of paper	/		Solid waste pollution	D	1	L	Administration: 1. Provision of PC/network security software 2. Regular PM of IT equipment/program	C	2	L	None					
Step 4	Delivery of RFQ to supplier	Road accident while transporting the RFQ with the use of office vehicle	/		Injury/Fatality	A	5	M	Administration: Preventive maintenance of government vehicle	A	3	L	None					
									Administration: Refresher course in road courtesy and defensive driving	A	3	L	None					
									Administration: Accomplish the checklist before departing	A	3	L	None					
									Administration: No driving with expired license	A	3	L	None					
			/		Delay in the delivery of RFQ	A	2	L	Administration: Refresher course in road courtesy and defensive driving	A	1	L	None					
									Administration: Accomplish the checklist before departing	A	1	L	None					
									Administration: No driving with expired license	A	1	L	None					
			/		Damage of Office Vehicle	A	4	L	Administration: Refresher course in road courtesy and defensive driving	A	3	L	None					
									Administration: Accomplish the checklist before departing	A	3	L	None					
									Administration: No driving with expired license	A	3	L	None					
		Unavailability of Office vehicle to deliver the RFQ	/		Delay in the delivery of RFQ	C	3	M	Administration: Utilization of personal motorcycle of personnel	B	3	L	None					
		Smoke emission beyond the allowable/tolerable threshold during the use of office vehicle	/		May contribute to air pollution	C	4	H	Administration: Preventive maintenance of employee's personal office vehicle	C	2	L	None					
									Administration: Accomplish the checklist before departing	C	2	L	None					
		Use of motorcycle during the transportation to supplier if the Office Vehicle is unavailable	/		Prone to road accident	A	4	L	PPE: Issuance of motorcycle helmets	A	4	L	None					
									Administration: Refresher course in road courtesy and defensive driving	A	3	L	None					
									Administration: No driving with expired license	A	3	L	None					
Process/Activity: Procurement INSTALLATION OF LAMPS, SMOKE DETECTORS, AND OTHERS						Type of Activity: Routine / Non-routine /			Environmental Condition: Normal Operation Condition / Abnormal Operation Condition / Emergency Operation Condition									
	Replacement of busted fluorescent lamp. Installation of new fluorescent lamp.	Fall from the ladder	/		Physical injuries such as bruises, fractures and concussion. Death	B	4	M	None.	B	4	M	Administration: Established standard operating procedure for working at heights.	MSESDD c/o IAL				
		Struck against detached fluorescent lamp or materials used	/		Physical injuries such as bruises, lacerations and fractures	B	3	L	None.	B	3	L						
		Ergonomic hazards (such as congested workstation, improper adjustment of ladder, improper posture)	/		Musculoskeletal disorders such as neck and upper limb disorders, lower limb disorders, back pain and back injuries	A	2	L	None.	A	2	L						
Process/Activity: LIFTING OF NEW PURCHASED SUPPLIES AND EQUIPMENT						Type of Activity: Routine / Non-routine /			Environmental Condition: Normal Operation Condition / Abnormal Operation Condition / Emergency Operation Condition									
	Lifting (water containers, newly purchased equipment, etc.)	Ergonomic hazards (such as congested workstation, improper posture)	/		Musculoskeletal disorders such as neck and upper limb disorders, lower limb disorders, back pain and back injuries	B	2	L	None.	B	2	L						
		Slippery pathways	/		Physical injuries such as bruises, fractures and concussion	B	3	L	None.	B	3	L						
		Fall from stairways or stuck against objects obstructing the pathways	/		Physical injuries such as bruises, fractures and concussion	B	3	L	None.	B	3	L						
Process/Activity: LIFTING OF NEW PURCHASED SUPPLIES AND EQUIPMENT						Type of Activity: Routine / Non-routine /			Environmental Condition: Normal Operation Condition / Abnormal Operation Condition / Emergency Operation Condition									
	Monitoring, Inspection, Investigation and Inventory	Vehicle accident	/		Physical injuries such as bruises, fractures and concussion. Death	C	5	H	Administration: Pre-inspection of vehicles before travel. Implementation of maximum speed limit.	C	2	L						
		Absence or unavailability of technical personnel in-charge	/		Delayed or postponement of monitoring. Unaccomplished target that may result to low performance rating	B	4	M	Administration: Appointment of alternate.	B	2	L						
		Unavailability of service vehicle	/		Schedule of monitoring will not be met	D	2	M	Administration: Vehicle rentals, assistance from stakeholders and commuting.	B	1	L						
		Uncalibrated equipment	/		Inaccurate readings	C	3	M	Administration: Regular calibration of equipment.	B	2	L						
		Generation of solid waste from purchased foods or snacks	/		Land or water pollution	D	2	M	Administration: Segregation of waste. Provision of tumblers to employees for drinking water. Implementation of Bring-Your-Own-Baon.	B	2	L						
		Food poisoning	/		Gastroenteritis, nausea, dizziness, headaches. Death	C	5	H	Administration: Provision of tumblers to employees for drinking water. Implementation of Bring-Your-Own-Baon.	B	2	L						
		Inconsistent or wrong data obtained	/		Confusion among monitoring team members which will result to delay in the preparation of report. Delay in the submission of report.	B	3	L	None.	B	3	L						
		Changes in the schedule	/		Delayed or postponement of monitoring. Unaccomplished target that may result to low performance rating	B	3	L	None.	B	3	L						
		Use of fuel	/		GHG emissions, air pollution and resource depletion. Climate change. Global Warming	D	2	M	Administration: Minimize consumption of fuel.	C	3	M						

		Underground collapse	/		Physical injuries such as lacerations, abrasions, bruises, fractures and concussion. Suffocation or asphyxiation. Death.	B	5	H	Administration: Provision of Personal Protective Equipment (PPE) to fieldmen. Personal Protective Equipment (PPE): Full brim skull guard/hard hat, miners cap lamp, miners belt, self rescuer (SRS) steel toe boots, reflectorized vest/jacket	B	3	L							
		Civil disturbances	/		Physical injuries such as lacerations, abrasions, bruises, fractures and concussion. Delayed or postponement of monitoring.	C	5	H	None.	C	5	H	Administration: Implementation of the emergency response procedure for civil disturbances. Coordination with the local government, authorities and stakeholders.						
		Arm attack, ambush, road blocks or hostage	/		Physical injuries such as lacerations, abrasions, bruises, fractures and concussion. Death. Delayed or postponement of monitoring.	C	5	H	Administration: Coordination with the local government unit and stakeholders.	B	3	L							
		Equipment (vehicle) breakdown (flat tires, overheating, etc.)	/		Delayed or postponement of monitoring. Unaccomplished target that may result to low performance rating.	C	3	M	Administration: Pre-inspection of vehicles before travel.	B	2	L							
Process/Activity: GATHERING OF DOCUMENTS AND DATA					Type of Activity: Routine / Non-routine					Environmental Condition: Normal Operation Condition / Abnormal Operation Condition					Emergency Operation Condition				
	Gathering of data for monitoring	Misplaced, unfiled or lost documents	/		Delay in obtaining data or information.	C	2	L	Administration: Tagging of steel cabinets, boxes or storage area.	C	2	L							
		Inconsistent or wrong data	/		Confusion among monitoring team members which will result to delay in the preparation of report. Delay in the submission of report.	B	3	L	None.	B	3	L							
		Over exposure to computer screens (radiation)	/		Eye strain, blurred vision, dry red eyes, eye irritation, headaches and neck or back pain	D	3	H	Administration: 5-minute break after 20 minute exposure to computer.	C	2	L							
		Fall from or struck by an object while retrieving documents stocked or filed from heights	/		Physical injuries such as bruises, fractures and concussion or even death	B	3	L	None.	B	3	L							
		Struck against office furniture or cabinet while looking for documents	/		Physical injuries such as bruises, fractures and concussion	B	3	L	None.	B	3	L							
Process/Activity: REPORTING					Type of Activity: Routine / Non-routine					Environmental Condition: Normal Operation Condition / Abnormal Operation Condition					Emergency Operation Condition				
	Preparation of Report	Use of electricity	/		Indirect GHG emission from purchased electricity. Climate change. Global Warming.	E	3	H	Administration: Established an energy conservation program. Turning off appliances and equipment when not in use.	D	1	L							
		Delayed submission of reports	/		Lowering of performance rating. No PBB.	D	4	H	Administration: Implementation of No Report, No Travel Policy. Constant follow-up of technical personnel.	D	4	H							
		Ergonomic hazards (such as improper adjustment of workstation and chair, improper sitting posture)	/		Musculoskeletal disorders such as neck and upper limb disorders, lower limb disorders, back pain and back injuries	B	2	L	None.	B	2	L							
		Over exposure to computer screens (radiation)	/		Eye strain, blurred vision, dry red eyes, eye irritation, headaches and neck or back pain	D	3	H	Administration: 5-minute break after 20 minute exposure to computer.	C	2	L							
		Inconsistent or wrong data	/		Confusion among monitoring team members which will result to delay in the preparation of report. Delay in the submission of report.	B	3	L	None.	B	3	L							
		Generation of solid waste from use of pens	/		Land or water pollution	B	3	L	None.	B	3	L							
		Generation of solid waste from use of paper clips	/		Land or water pollution	B	3	L	None.	B	3	L							
		Generation of solid waste from use of staple wires	/		Land or water pollution	B	3	L	None.	B	3	L							
	Generation of solid waste from use paper	/		Land or water pollution	B	3	L	None.	B	3	L								
Process/Activity: PROCESSING AND RELEASING					Type of Activity: Routine / Non-routine					Environmental Condition: Normal Operation Condition / Abnormal Operation Condition					Emergency Operation Condition				
	Receiving of Applications for permits, certificates, etc.	Absence of personnel in-charge and its alternates	/		Delayed in the issuance of permit, certifications, etc. Ease of doing business (frontline services timeline) not met. Possible complaints from costumers.	B	4	M	Administration: Appointing of alternate. Implementation of Ease of Doing Business Act (R.A. 11032) and Citizen's Charter.	B	2	L							
		Absence of signatories	/		Delayed in the issuance of permit, certifications, etc. Ease of doing business (frontline services timeline) not met. Possible complaints from costumers.	C	4	H	Administration: Implementation of Ease of Doing Business Act (R.A. 11032) and Citizen's Charter.	B	2	L							
		Generation of solid waste from use paper	/		Land or water pollution	B	3	L	None.	B	3	L							
		Generation of electronic waste from use of ink bottles	/		Land or water pollution	B	3	L	None.	B	3	L							
		Generation of solid waste from use of staple wires	/		Land or water pollution	B	3	L	None.	B	3	L							
		Generation of solid waste from use of paper clips	/		Land or water pollution	B	3	L	None.	B	3	L							
	Releasing of permits, certificates, etc.	Generation of solid waste from use of logbook	/		Land or water pollution	B	3	L	None.	B	3	L							
		Generation of solid waste from use of pens	/		Land or water pollution	B	3	L	None.	B	3	L							
		Use of electricity	/		GHG emissions, air pollution and resource depletion. Climate change. Global Warming.	E	3	H	Administration: Established an energy conservation program. Turning off appliances and equipment when not in use.	D	1	L							
		Ergonomic hazards (such as improper adjustment of workstation and chair, improper sitting posture)	/		Musculoskeletal disorders such as neck and upper limb disorders, lower limb disorders, back pain and back injuries	B	2	L	None.	B	2	L							
		Over exposure to computer screens (radiation)	/		Eye strain, blurred vision, dry red eyes, eye irritation, headaches and neck or back pain	D	3	H	Administration: 5-minute break after 20 minute exposure to computer.	C	2	L							
		Contagious disease originated outside the office	/		Absenteeism of MGB personnel due to sickness. Delay in the processes and services.	B	1	L	None.	B	1	L							
Process/Activity: UTILITY, MAINTENANCE AND KITCHEN					Type of Activity: Routine / Non-routine					Environmental Condition: Normal Operation Condition / Abnormal Operation Condition					Emergency Operation Condition				
	Cooking	Fire	/		Physical injuries such as lacerations, abrasions, bruises, fractures and contusion. Death.	B	5	H											
Process/Activity: UTILITY, MAINTENANCE AND KITCHEN					Type of Activity: Routine / Non-routine					Environmental Condition: Normal Operation Condition / Abnormal Operation Condition					Emergency Operation Condition				

		Earthquake		/	Physical injuries such as lacerations, abrasions, bruises, fractures and concussion. Death.	B	5	H									
		Oil spill		/	Fire (Physical injuries such as lacerations, abrasions, bruises, fractures and concussion. Death) Land or water pollution.	A	5	M									
		Severe weather		/	Physical injuries such as lacerations, abrasions, bruises, fractures and concussion. Death.	A	5	M									

MGB XII STRATEGIC DIRECTION

PHILIPPINE DEVELOPMENT PLAN	STRATEGIC DIRECTION	ORGANIZATION OUTCOME	ISSUES					INTERESTED PARTIES	NEEDS	EXPECTATIONS	RISK	RISK PRIORITY	OPPORTUNITIES	OPPORTUNITIES LEVEL	ACTION PLAN/IMPLEMENTATION	CONTROLS	ASSESSMENT	PERFORMANCE INDICATOR
			INTERNAL		EXTERNAL									Legend: Significance - High Valuable - Medium Usefulness - Low		Elimination Engineering Substitution Administration PPE		
			Strengths	Weaknesses	PESTLE	Opportunities	Threats											
Ensuring People-Centered, Clean, and Efficient Governance	The MGB, as steward of the country's mineral resources, is committed to the promotion of sustainable mineral resources development. MGB aims to be the leading geosciences and georesources bureau serving the public and nation with scientific reliability.	001. Natural Resources Sustainably Managed. Mining Regulation Services – Mineral Investment Promotion Program	<ul style="list-style-type: none"> - Available Competent Personnel with Technology and Resources, Equipment and Logistics - Established Guidelines, Policies and Process Flow Chart - Knowledgeable on Information Technology - Skills/Knowledge on the evaluation and processing of mining applications - Good interpersonal relationship, customer service, leadership - Service oriented personnel, personnel willing to extra mile, good and dynamic division chiefs - IMS(ISO 9001:2015, ISO14001:2015, OSHAS 18001:2007) - Existing approved mining laws and its implementing rules and regulation on responsible mining - Continuing professional development education - Established financial, civil service, procurement, and auditing policies - Existing policy for paperless communications and submission of reports (e.g. Online Submission of Reports, AAO's for GSIS loan, Electronic files for draft, PSISOP updating) - Well-maintained office facility - Standardized SHES and tenement work program monitoring checklist 	<ul style="list-style-type: none"> - Unfilled vacant positions - Ageing personnel - Lack of coordination with other sections/division - Difficulty in the adoption of new technology/ies - Negative work attitude - Conflicting/ inconsistencies of rules and regulations to national laws - Difficulty in the adoption of new learnings - Newly designated BAC Secretariat and needs training 	Political	<ul style="list-style-type: none"> - Change of National levels, local levels and DENR leadership supportive to mining - Stronger IEC campaign on responsible mining - RDC 12 support to mineral industry - Provincial and municipal leaders supportive to responsible mining - Increase of mining projects and revenues with the local government unit resulting to boost economic activities 	<ul style="list-style-type: none"> - Moratorium in the acceptance, processing and/or approval of mining permit and/or new mining projects - Disinformation and anti mining sentiments of some provincial and municipal leaders - Conflicting/ inconsistencies of local ordinances to national laws - Unreceptive anti mining politicians - Sudden change of policies - Lack of active support of Provincial LGUs to mining - Existing ban on open pit mining in Provincial ordinances 	<ul style="list-style-type: none"> - DENR -MGB Central and Regional Offices - National and Local government units (provincial, municipal, barangay) - Civil Society Organizations (CSOs)/Non-Government Organizations (NGOs)/Peoples Organization (PO) - Mining companies/cooperatives/association, etc - Third party contractor, supplier, service providers and others - Academe - Religious groups/Sectors 	<ul style="list-style-type: none"> - Pro mining political leader/s - Consistent mining and other related laws - Strong political will in the implementation of mining projects - Active participation of local officials in the MRF/CMMT 	<ul style="list-style-type: none"> - Responsible mining industry - Progressive rehabilitation of disturbed areas - Timely submission of policy proposals - Increased revenue relevant to mining 	<ul style="list-style-type: none"> - Non-issuance of new mining permits/contracts - Proliferation of illegal mining operation. - Less involvement/participation of LGUs 	E4 (VH)	<ul style="list-style-type: none"> - Change of National levels, local levels and DENR leadership supportive to mining - Proposed Department Administrative Order (DAO) for progressive rehabilitation and restoration of disturbed areas - Stronger IEC campaign on responsible mining - RDC 12 support to mineral industry - Provincial and municipal leaders supportive to responsible mining - Increase of mining projects and revenues with the local government unit resulting to boost economic activities 	<ul style="list-style-type: none"> - High - High - Medium - High - High - High 	<ul style="list-style-type: none"> - Regional Consultations with PMRB members and other stakeholders - Dialogues with concerned sanggunians - Identification and Declaration of a minahang bayan(MB) areas - Provincial and municipal leaders supportive to responsible mining - Increase of mining projects and revenues with the local government unit resulting to boost economic activities - Investigation of complaints of illegal mining activities - Issuance of CDO to all illegal mining operations/sites - Deputation of P/CENROs, PNP, Mayors, Brgy. Captains - Confiscation/seizure/apprehension of illegally sourced minerals/mineral products including equipment and conveyances. - Filing of complaints/charges filed with the Provincial/City Prosecutors office - Mineral Resources Enforcement & Regulatory Program - Mining Regulation Services – Mineral Investment Promotion Program - A. Issuance of mining contracts/permits and other mining rights related permits - FTAA/MPSA/EP/ISAG/MPP/SMP/Authority to Verify - A. Approval and Monitoring of SHES Programs - EPEP - AEPEP - SDMP/CDP - ASHP 	<ul style="list-style-type: none"> - Administration - Timely submission of position paper/comments - Administration - Processing and approval of permits/contracts excluded in the moratorium - Administration - Gathering of insights/position of existing policies - Administration - Regular dialogues with concerned sanggunians giving priority to the areas with illegal mining activities - Administration - Technical assistance to and serve as PMRB Secretariat - Administration - Immediate deployment of technical personnel and coordination with other law enforcement agencies - Administration - Coordination with the Provincial Governor/City Mayor for the immediate issuance of CDO - Administration - Issue Authorization to confiscate/seize/apprehend - Administration - Coordination with the Department of Justice (DOJ) 	<ul style="list-style-type: none"> - Weekly/Monthly Performance Staff Meetings - Monthly Divisional Meetings - Top Management Review 	<ul style="list-style-type: none"> - No. of Regional Consultations with PMRB members and other stakeholders - No. of Dialogues with concerned sanggunians - A. Number of mining permits that are issued by MGBRO, such as EP, ISAGP and MPP (for projects with capital investment of PHP ≤ 200 Million), but excluding EP renewals - Applications/renewal for the permits that are endorsed to MGBCO/DENR for clearance
			Economic	<ul style="list-style-type: none"> - Increase in excise tax collection in mineral products 	<ul style="list-style-type: none"> - Pronouncement of government in the abrupt/exaggerated increase of mineral excise taxes 				<ul style="list-style-type: none"> - Pull-out of mining investors 	E4 (VH)	<ul style="list-style-type: none"> - Increase in excise tax collection in mineral products 	High	<ul style="list-style-type: none"> - Dialogue with stakeholders and mining investors 	<ul style="list-style-type: none"> - Administration - Attendance in regular EDC and RDC meetings 	<ul style="list-style-type: none"> - Quarterly Meetings 	<ul style="list-style-type: none"> - No. of dialogues/meetings attended 		
			Social	<ul style="list-style-type: none"> - Implementation of community development projects and social benefits 	<ul style="list-style-type: none"> - Growing influence of anti-mining groups (IPs and Communities) - Entry of insurgents - Sudden influx of migrants - Diminishing image of the mineral industry due to the "sins of the past" under the old mining law 				<ul style="list-style-type: none"> - Few mining projects to be developed - Unstable peace and order situation 	C2(Low)	<ul style="list-style-type: none"> - Implementation of community development projects and social benefits 	High	<ul style="list-style-type: none"> - Responsible Mining Stakeholders Forum - Dialogues with Sanggunian - Dialogues with Other Groups - Radio/TV Guestings - Press releases/Photo Releases/Feature Stories 	<ul style="list-style-type: none"> - Administration - Regular dialogues/consultation s/IEC through trimedia 	<ul style="list-style-type: none"> - Monthly/Semi-annual/Annual 	<ul style="list-style-type: none"> - No. of Dialogues with Sanggunian - No. of Radio/TV Guestings - No. of Press releases/Photo Releases/Feature Stories 		
			Technological	<ul style="list-style-type: none"> - Upgrade technological equipment - Personnel training on current IT equipment and programs 	<ul style="list-style-type: none"> - Rapid technological changes which renders the existing IT practices/equipment programs obsolete - Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others) - Breakdown of GPS, camera and laptops, data server, mapinfo and arcgis software 				<ul style="list-style-type: none"> - Obsolescence of present IT equipment and programs - Partial or total equipment/gadget/system shutdown 	D1 (Low)	<ul style="list-style-type: none"> - Upgrade technological equipment - Personnel training on current IT equipment and programs 	Low	<ul style="list-style-type: none"> - Preventive maintenance of IT equipments - Replacement of unserviceable/obsolete equipment/program - Capacity building of IT personnel - Enhancement and upgrading of network security (use Unified Threat Management (UTM)) 	<ul style="list-style-type: none"> - Elimination - Declare unserviceable/obsolete equipment/program and replace with new equipment/program - Engineering - Repair of existing software and equipments - Administration - Provision of PC/network security software - Regular PM of IT equipment/program 	<ul style="list-style-type: none"> - As needed - As needed - Semi-Annual 	<ul style="list-style-type: none"> - No. of preventive maintenance of IT equipments conducted - No. of unserviceable/obsolete equipment/program replaced - No. of IT Training attended - No. of software version upgraded or enhanced 		

					Legal	- Strict implementation of mining and other related laws - Poor or non-compliance to the pertinent provision of mining and other related laws - Existence of illegal mining activities					- Irresponsible mining - Proliferation of illegal mining activities	D2 (Medium)	- Strict implementation of mining and other related laws	High	- Review of Performance of Mining Permits/Contracts - Monitoring of approved mining contracts/permits - Tenement Compliance/Work Program - SHES Programs Hiring of Legal Officer and technical embedded personnel to PENROs Investigation of complaints of illegal mining activities Issuance of CDO to all illegal mining operations/sites Deputation of P/CENROs, PNP, Mayors, Brgy. Captains Confiscation/seizure/apprehension of illegally sourced minerals/mineral products including equipment and conveyances. Filing of complaints/charges filed with the Provincial/City Prosecutors office.	Administration - Coordinate with the provincial/city Legal Officers Administration - Immediate deployment of technical personnel and coordination with other law enforcement agencies Administration - Issue Authorization to confiscate/seize/apprehend Administration - Coordination with the Department of Justice (DOJ)	- As needed/Quarterly	- No. of Mining Permits/ Contracts reviewed - No. of approved mining contracts/permits monitored -No. of Legal Officer and technical embedded personnel to PENROs hired - No. of investigation of complaints of illegal mining activities conducted - No. of issued CDO to all illegal mining operations/sites - No. of deputized of P/CENROs, PNP, Mayors, Brgy. Captains - No. of confiscated/seized/apprehended illegally sourced minerals/mineral products including equipment and conveyances. - No. of complaints/charges filed with the Provincial/City Prosecutors office - No. of appearance in court hearings
					Environment	- Strict implementation of mining and other related laws - Passage of DAO on progressive rehabilitation of disturbed areas - Application of standard monitoring checklist and scorecards - Poor or non-compliance to environmental requirements - Existence of environmentally destructive/illegal mining activities					- Suspension, stoppage and CDO of mining operation - Pollution and environmental damage	C2(Low)	- Strict implementation of mining and other related laws - Passage of DAO on progressive rehabilitation of disturbed areas - Application of standard monitoring checklist and scorecards	High	- Issuance of suspension and stoppage of mining operation - Review of Performance of Mining Permits/Contracts - Monitoring of approved mining contracts/permits - Tenement Compliance/Work Program - SHES Programs - Hiring of Legal Officer and technical embedded personnel to PENROs - Investigation of complaints of illegal mining activities - Issuance of CDO to all illegal mining operations/sites posing imminent danger - Deputation of P/CENROs, PNP, Mayors, Brgy. Captains - Confiscation/seizure/apprehension of illegally sourced minerals/mineral products including equipment and conveyances. Filing of complaints/charges filed with the Provincial/City Prosecutors office Conduct of Multi-Partite Monitoring by the Multi-Partite Monitoring Team (MMT) and Mine Rehabilitation fund Committee	Administration - Coordinate with the provincial/city Legal Officers Administration - Immediate deployment of technical personnel and coordination with other law enforcement agencies Administration - Issue Authorization to confiscate/seize/apprehend Administration - Coordination with the Department of Justice (DOJ)	- As needed/Quarterly	- No. of suspended Mining operation - No. of Mining Permits/ Contracts reviewed - No. of approved mining contracts/permits monitored -No. of Legal Officer and technical embedded personnel to PENROs hired - No. of investigation of complaints of illegal mining activities conducted - No. of issued CDO to all illegal mining operations/sites - No. of deputized of P/CENROs, PNP, Mayors, Brgy. Captains - No. of confiscated/seized/apprehended illegally sourced minerals/mineral products including equipment and conveyances. - No. of complaints/charges filed with the Provincial/City Prosecutors office - No. of appearance in court hearings
Promoting Philippine Culture and Values	The MGB, as steward of the country's mineral resources, is committed to the promotion of sustainable mineral resources development. MGB XII is aware of its contribution to national economic growth and countryside community development.	Support Services to OO 001, Natural Resources Sustainably Managed, Mining Regulation Services – Mineral Investment Promotion Program and OO 003, Adaptive Capacities of Human Communities and Natural Systems Improved	- Available Competent Personnel with Technology and Resources, Equipment and Logistics - Established Guidelines, Policies and Process Flow Chart - Knowledgeable on Information Technology	- Unfilled vacant positions - Ageing personnel - Lack of coordination with other sections/division - Difficulty in the adoption of new technology/ies - Negative work attitude - Limited knowledge on the evaluation and processing of SHES programs	Political	- Revision of the Merit Selection Plan (HRMPSB) Outsourcing of support personnel - Political endorsement - Effect of Change in Government Structure to employment status (End of Contractualization)					- Recruiting of incompetent personnel - Lack of support from contracts of service personnel	C2(Low)	Revision of the Merit Selection Plan (HRMPSB) Outsourcing of support personnel	Low	Implement Competency-based system (CBS), MGB Qualification Standards and revised Human Resource Management Placement Selection Board (HRMPSB) Competitive bidding of support personnel	Administration - Require submission of results of Job knowledge test (JKT), Ethics Oriented Personality Test (EOPT), General Aptitude Test (GAT) and Management Test Background investigation (BI)	Human Resource Management Placement Selection Board (HRMPSB) Assessments/Deliberations - Comparative Assessment/ Evaluation by HRMPSB	Number of comparative assessments made Number of HRMPSB resolution Minutes of the Meetings Attendance Sheets
	Learning organization, performance governance system and competency-based system (recruitment, selection and placement, career/training development) of human resource	Effective, efficient and competent human resource	- Skills/Knowledge on the evaluation and processing of mining applications - Good interpersonal relationship, customer service, leadership - Service oriented personnel, personnel willing to go extra mile, good and dynamic division chiefs - Integration of MGB XII QMS to IMS (ISO 9001:2015, ISO 14001:2015, OSHAS 18001:2007)	- Conflicting/ inconsistencies of rules and regulations to national laws - Difficulty in the adoption of new learnings - Newly designated BAC Secretariat and needs training	Social	Opportunity to implement compliance and monitoring of CSC Rules and Regulations Delayed Submission of Required Documents (SALN, JPCR, PDS, DTR, etc) Potential of hiring young licensed professional Improvement of employee's health and wellness					Lower Rating of Performance Based Bonus (PBB) Ageing Skilled Technical Personnel Unexpected health breakdown condition of personnel	D1 (Low) D2 (Medium) C2 (Low)	Opportunity to implement compliance and monitoring of CSC Rules and Regulations Potential of hiring young licensed professional Improvement of employee's health and wellness	High High High				

Expanding Economic Opportunities in Industry and Services Through Trabaho and Negosyo	MGB XII contributes to national economic growth and countryside community development and promotes geological studies as integral element of socio-economic development. MGB also envisions a mineral industry with broad community and political support while positively and progressively assisting in government's program on poverty alleviation and contributing to the general economic well being of the nation.	001. Natural Resources Sustainably Managed. Mining Regulation Services – Mineral Investment Promotion Program 003. Adaptive Capacities of Human Communities and Natural Systems Improved							C4	- Increase revenue collection through TRAIN law implementation - Revision of local revenue ordinances on mining - Propose increase of mining fees and charges through amendment of DAO 2005-08 - Amendments of fiscal provision	High	Submission of position paper on the lifting of selective moratorium OO1 Mineral Resources Enforcement & Regulatory Program Mining Regulation Services – Mineral Investment Promotion Program A. Issuance of mining contracts/permits and other mining rights related permits FTAA/MPSA/EP/ISAG/MPP/SMP/Authority to Verify Dialogues with concerned sanggunians Identification and Declaration of a minahang bayan(MB) areas Hiring of technical embedded personnel to PENROs Mineral Resources Enforcement & Regulatory Program Mining Regulation Services – Mineral Investment Promotion Program A. Issuance of mining contracts/permits and other mining rights related permits FTAA/MPSA/EP/ISAG/MPP/SMP/Authority to Verify A. Approval and Monitoring of SHES Programs • EPEP • AEPEP • SDMP/CDP • ASHP	Administration - Timely submission of position paper/comments Administration - Gathering of insights/position of existing policies Administration - Regular dialogues with concerned sanggunians giving priority to the areas with illegal mining activities Administration - Technical assistance to and serve as PMRB Secretariat Administration - Selection and Promotion Board (SPB) and supervision Administration - Immediate deployment of technical personnel and coordination with other law enforcement agencies Administration - Coordination with the Provincial Governor/City Mayor for the immediate issuance of CDO Administration - Issue Authorization to confiscate/seize/apprehend Administration - Coordination with the Department of Justice (DOJ)	Weekly/Monthly Performance Staff Meetings - Monthly Divisional Meetings - Top Management Review	No. of position paper on the lifting of moratorium A. Number of mining permits that are issued by MGBRO, such as EP, ISAGP and MPP (for projects with capital investment of PHP ≤ 200 Million), but excluding EP renewals.											
																Economics	- Amendments of the fiscal provision of mining act and the fees and charges - Updating local revenue ordinances on mining - Increase in revenue collection and contribution to Regional Gross Domestic Product (RGDP) - Poverty Alleviation - Stable and favorable metal prices and currency	- Fluctuation of metal prices and demands - Higher cost of mining operation which adversely affects profitability - Fluctuation/drain of foreign currency exchange - Foreign capital flight - Decline of stock market mining investor - Increase prices of local commodities	- Decrease in mining job opportunity - Lesser mining revenue collection	E4 (VH)	- Amendments of the fiscal provision of mining act and the fees and charges - Updating local revenue ordinances on mining - Increase in revenue collection and contribution to Regional Gross Domestic Product (RGDP) - Poverty Alleviation - Stable and favorable metal prices and currency - Increase of mining operations/investors	High	- Issuance of mining permits/contract excluded in the moratorium - Approval of SHES Programs (SDMP/CDP/NGP/MFP and others) - Assist in the updating local revenue ordinances on mining	- Administration - Regular monitoring of approved mining permits/contracts/programs - Participation in consultative meetings	- Quarterly/Semi-annual/Annual Biennial/Annual - As needed	- No. of mining permits/contract issued - No. of SHES Programs (SDMP/CDP/NGP/MFP and others) approved - No. of consultative meetings attended
																Social	- Implementation of community development projects and social benefits - Displacement of communities - Entry of insurgencies - Sudden influx of migrants - Diminishing image of the mineral industry due to the sins of the past under the old mining law	- Growing influence of anti-mining groups (IPs and Communities) - Displacement of communities - Entry of insurgencies - Sudden influx of migrants - Diminishing image of the mineral industry due to the sins of the past under the old mining law	- Few mining projects to be developed - Unstable peace and order situation	C2(Low)	- Implementation of community development projects and social benefits	High	- Responsible Mining Stakeholders Forum - Dialogues with Sanggunian - Dialogues with Other Groups - Radio/TV Guestings - Press releases/Photo Releases/Feature Stories - Approval and monitoring of SHES Programs (SDMP/CDP/NGP/MFP and others)	- Administration - Regular dialogues/consultation s/IEC through trimedia - Administration - Coordination with stakeholders (NCIP, LGU and others)	- Monthly/Semi-annual/Annual	- No. of Dialogues with Sanggunian - No. of Dialogues with Other Groups - No. of Radio/TV Guestings - No. of Press releases/Photo Releases/Feature Stories - No. of SHES Programs (SDMP/CDP/NGP/MFP and others) approved and monitored
																Technological	- Upgrade technological equipment - Personnel training on current IT equipment and programs	- Rapid technological changes which renders the existing IT practises/equipment programs obsolete - Emerging technologies that can affect/penetrate efficiency of present system (vulnerability to hacking, IT virus and others) - Breakdown of GPS, camera and laptops, data server, mapinfo and arcgis software	- Obsolescence of present IT equipment and programs - Partial or total equipment/gadget/system shutdown/breakdown	D1(Low)	- Upgrade technological equipment - Personnel training on current IT equipment and programs	Low	- Preventive maintenance of IT equipments - Replacement of unservicable/obsolete equipment/program - Capacity building of IT personnel - Enhancement and upgrading of network security	- Elimination - Declare unservicable/obsolete equipment/program and replace with new equipment/program - Engineering - Repair of existing software and equipments - Administration - Provision of PC/network security software - Regular PM of IT equipment/program	- As needed - As needed Semi-Annual	- No. of preventive maintenance of IT equipments conducted - No. of unservicable/obsolete equipment/program replaced - No. of IT Training attended - No. of software version upgraded or enhanced

					Legal	<ul style="list-style-type: none"> - Strict implementation of mining and other related laws 	<ul style="list-style-type: none"> - Poor or non-compliance to the pertinent provision of mining and other related laws - Existence of illegal mining activities 				Irresponsible mining	O2 (Medium)	<ul style="list-style-type: none"> - Strict implementation of mining and other related laws 	High	<ul style="list-style-type: none"> - Review of Performance of Mining Permits/Contracts - Monitoring of approved mining contracts/permits - Tenement Compliance/Work Program - SHES Programs - Hiring of Legal Officer and technical embedded personnel to PENROs - Investigation of complaints of illegal mining activities - Issuance of CDO to all illegal mining operations/sites - Deputation of P/CENROs, PNP, Mayors, Brgy. Captains - Confiscation/seizure/apprehension of illegally sourced minerals/mineral products including equipment and conveyances. - Filing of complaints/charges filed with the Provincial/City Prosecutors office. 	<ul style="list-style-type: none"> - Administration - Coordinate with the provincial/city Legal Officers - Administration - Immediate deployment of technical personnel and coordination with other law enforcement agencies - Administration - Issue Authorization to confiscate/seize/apprehend - Administration - Coordination with the Department of Justice (DOJ) 	- As needed/Quarterly	<ul style="list-style-type: none"> - No. of Mining Permits/ Contracts reviewed - No. of approved mining contracts/permits monitored - No. of Legal Officer and technical embedded personnel to PENROs hired - No. of investigation of complaints of illegal mining activities conducted - No. of issued CDO to all illegal mining operations/sites - No. of deputized of P/CENROs, PNP, Mayors, Brgy. Captains - No. of confiscated/seized/apprehended illegally sourced minerals/mineral products including equipment and conveyances. - No. of complaints/charges filed with the Provincial/City Prosecutors office - No. of appearance in court hearings
					Environment	<ul style="list-style-type: none"> - Strict implementation of mining and other related laws - Approval of proposed DAO on the integration of EMB and MGB with DENR - Passage of DAO on progressive rehabilitation of disturbed areas - Application of standard monitoring checklist and scorecards - Established Green Courts in Region XII 	<ul style="list-style-type: none"> - Poor or non-compliance to environmental requirements - Adverse economic impact of environmentally destructive/legal mining activities 				<ul style="list-style-type: none"> - Suspension, stoppage and CDO of mining operation - High cost of environmental rehabilitation and compensation of damages - Pollution and environmental damage 	C2(Low)	<ul style="list-style-type: none"> - Strict implementation of mining and other related laws - Approval of proposed DAO on the integration of EMB and MGB with DENR - Passage of DAO on progressive rehabilitation of disturbed areas - Application of standard monitoring checklist and scorecards - Established Green Courts in Region XII 	High	<ul style="list-style-type: none"> - Review of Performance of Mining Permits/Contracts - Strict Monitoring of approved mining contracts/permits - Tenement Compliance/Work Program - SHES Programs - Investigation of environmental complaints related to mining activities - Issuance of CDO to all illegal mining operations/sites posing imminent danger - Deputation of P/CENROs, PNP, Mayors, Brgy. Captains in the implementation of mining laws. - Confiscation/seizure/apprehension of illegally sourced minerals/mineral products including equipment and conveyances. - Filing of complaints/charges filed with the Provincial/City Prosecutors office and green courts - Conduct of Multi-Partite Monitoring by the Multi-Partite Monitoring Team (MMT) and Mine Rehabilitation Fund Committee 	<ul style="list-style-type: none"> - Administration - Coordinate with the provincial/city Legal Officers - Administration - Immediate deployment of technical personnel and coordination with other environmental law enforcement agencies - Administration - Issue Authorization to confiscate/seize/apprehend/dismantle - Administration - Coordination with the Department of Justice (DOJ) and green courts 	- As needed/Quarterly/Semi-Annual/Annual	<ul style="list-style-type: none"> - No. of suspended Mining operation - No. of Mining Permits/ Contracts reviewed - No. of approved mining contracts/permits monitored - No. of Legal Officer and technical embedded personnel to PENROs hired - No. of investigation of complaints of illegal mining activities conducted - No. of issued CDO to all illegal mining operations/sites - No. of deputized of P/CENROs, PNP, Mayors, Brgy. Captains - No. of confiscated/seized/apprehended illegally sourced minerals/mineral products including equipment and conveyances. - No. of complaints/charges filed with the Provincial/City Prosecutors office - No. of appearance in court hearings
Vigorously Advancing Science, Technology, and Innovation	<ul style="list-style-type: none"> - Promotion of geological studies as an integral element of socioeconomic development, environmental protection and human safety. - Development and adoption of environmental and geoscientific technologies. 	-003. Adaptive Capacities of Human Communities and Natural Systems Improved	<ul style="list-style-type: none"> - Availability of Advanced Equipments, Softwares and Trained Personnel - Standardized Procedure and Guidelines on Vulnerability and Risk Assessment, Groundwater Resource Assessment, Subsidence Hazard Assessment and Coastal Geohazard Assessment - Available and Adequate Funds - Available Competent Technical Personnel with Technology, Resources, Equipment and Logistics - Available established guidelines, policies and process flow chart - Knowledgeable on Information Technology - Skills/Knowledge on the evaluation and processing of mining applications - Establish Templates on Technical Report and Map Generation and other Data - Knowledgeable in MapInfo and ArcGIS 	<ul style="list-style-type: none"> - Satellite Imagery affected in some areas due to cloud effect - Renewed cycle of natural hazards - Intervening Tasks and Activities - Needs additional Field Equipment such as GPS, Laptops and Camera - Delayed Map/Data Integration Workshop for Quadrangle Geological Survey Report on cross-region Quadrangle Mapping Targets 	Political	<ul style="list-style-type: none"> - Integration of MGB generated data and maps into the CLUP of LGUs - Increase of awareness among the LGU's and private clients the importance of geological studies prior to any construction, development and occupancy of certain infrastructure projects - Increase understanding of LGU's on Geohazard and Geological Maps and Technical 	<ul style="list-style-type: none"> - Presence of Insurgents in some fieldwork areas - Negative perceptions of some LGU's on mining, results to limited support of some LGU's to the Geosciences Division Activities 	<ul style="list-style-type: none"> - DENR - Local government units (provincial, municipal, barangay) - Mining companies - Bureau of Internal Revenue(BIR) - Local investors with the host and neighboring communities 	<ul style="list-style-type: none"> - Stable and favorable metal prices and currency - Legitimate mining investors - Amendments/ revision of taxes, fees and charges 	<ul style="list-style-type: none"> - Improve standard of living 	<ul style="list-style-type: none"> - Failure to conduct the geohazard assessment - Lack of knowledge in interpreting of some LGU's to MGB generated data and maps 	C2(Low)	<ul style="list-style-type: none"> - Integration of MGB generated data and maps into the CLUP of LGUs - Increase of awareness among the LGU's and private clients the importance of geological studies prior to any construction, development and occupancy of certain infrastructure projects - Increase understanding of LGU's on Geohazard and Geological Maps and Technical Reports - DENR leadership supportive of geohazard studies and risk resiliency programs 	Medium	<ul style="list-style-type: none"> - Coordination with LGUs and law enforcement agencies prior to the following activities: <ul style="list-style-type: none"> - Conduct of geohazard field mapping/survey and geological site scoping - Updating of geohazard maps - Conduct of ground subsidence assessment - Conduct coastal geohazard assessment - Conduct groundwater resource assessment - Conduct EIC(lectures, workshops and others) to LGUs on map interpretation 	<ul style="list-style-type: none"> - Administration - Coordination with the concerned LGUs and Law enforcement agencies - Administration - Regular updating of geohazard maps, ground subsidence assessment, coastal geohazard assessment, groundwater resource assessment 	- Monthly/Semi-annual/Annual Performance Assessment	<ul style="list-style-type: none"> - Number of LGU's utilizing the maps and data generated by MGB - Number of clients served through logbooks and issued geological site scoping reports - Number of LGU's furnished by Final Technical Reports
					Economic	<ul style="list-style-type: none"> - Upgrade geological equipment - Personnel training on current IT equipment and programs - Acquisition of license computer software 	<ul style="list-style-type: none"> - Expensive cost of acquiring advanced geoscience equipment, program and technology - Unlicensed use of computer and ICT software 				<ul style="list-style-type: none"> - Unavailable advanced geoscience equipment, program and technology - Failure to conduct geosciences fieldworks - Malfunctioning of software and corrupted files - Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) 	D2 (Medium)	<ul style="list-style-type: none"> - Upgrade geological equipment - Personnel training on current IT equipment and programs - Acquisition of license computer software 	High	<ul style="list-style-type: none"> - Submit list with product specification of geoscience equipment, program and technology to MGB for purchase - Borrow available geoscience equipment, program and technology from other MGB regional offices - Preventive maintenance of geological equipment/program - Replacement of unserviceable/obsolete equipment/program - Capacity building of GD personnel - Acquisition of license computer software - Enhancement and upgrading of network security (use UTM) - Implementation Information System Strategic Plan (ISSP) 	<ul style="list-style-type: none"> - Engineering - Repair of malfunctioning software and corrupted files - Administration - Provision of PC/network security software - Regular PM of IT equipment/program - Administration - Identification of available advanced geoscience equipment, program and technology - Administration - Coordination with other MGB regional offices - Provision of back-up accessories of geological equipment 	- As needed/Annual	<ul style="list-style-type: none"> - No of submitted list with product specification of geoscience equipment, program and technology to MGB for purchase - No. of borrowed available geoscience equipment, program and technology from other MGB regional offices - No of preventive maintenance of geological equipment/program - No. of replaced of unserviceable/obsolete equipment/program - No. of capacity building of GD personnel conducted - No. of acquired of license computer software - No. of enhancement and upgrading of network security (use UTM) - ISSP implemented
					Social	<ul style="list-style-type: none"> - Updating of maps (1:50,000 to 1:10,000 scale) maps 	<ul style="list-style-type: none"> - Misconception/misinterpretation of maps by the community 				<ul style="list-style-type: none"> - Non-utilization of MGB generated maps 	C2(Low)	<ul style="list-style-type: none"> - Updating of maps (1:50,000 to 1:10,000 scale) maps 	High	<ul style="list-style-type: none"> - Conduct of regular IEC and map interpretation workshop for the utilization of MGB generated maps 	<ul style="list-style-type: none"> - Administration - Dialogues/IEC and map interpretation workshop - Administration - provision of digital copies of maps 	- As needed	<ul style="list-style-type: none"> - Number of IEC and map interpretation workshop conducted

					<p>Technological</p> <ul style="list-style-type: none"> - Upgrade geological equipment /programs - Personnel training on current geological equipment /programs - Integration of MGB generated data and maps into the CLUP, DRRM and Planning and Development Office of LGUs - Geohazard awareness and disaster risk mitigations 	<ul style="list-style-type: none"> - Rapid technological changes which render the existing geological equipment /programs obsolete - Breakdown of GPS, camera and laptops, data server, mapinfo and arcgis software 					<ul style="list-style-type: none"> - Obsolescence of present geological equipment /programs - Partial or total equipment/gadget/system shutdown/breakdown 	D1(Low)	<ul style="list-style-type: none"> - Upgrade geological equipment /programs - Personnel training on current geological equipment /programs - Integration of MGB generated data and maps into the CLUP, DRRM and Planning and Development Office of LGUs - Geohazard awareness and disaster risk mitigations 	Low	<ul style="list-style-type: none"> - Submit list with product specification of geoscience equipment, program and technology to MGB for purchase - Borrow available geoscience equipment, program and technology from other MGB regional offices - Preventive maintenance of geological equipment/program - Replacement of unserviceable/obsolete equipment/program - Capacity building of GD personnel - Acquisition of license computer software - Enhancement and upgrading of network security (use UTM) - Implementation Information System Strategic Plan (ISSP) 	<ul style="list-style-type: none"> - Engineering - Repair of malfunctioning software and corrupted files - Administration - Provision of PC/network security software - Regular PM of IT equipment/program - Administration - Identification of available advanced geoscience equipment, program and technology - Administration - Coordination with other MGB regional offices - Provision of back-up accessories of geological equipment 	- As needed/Annual	<ul style="list-style-type: none"> - No of submitted list with product specification of geoscience equipment, program and technology to MGB for purchase - No of borrowed available geoscience equipment, program and technology from other MGB regional offices - No of preventive maintenance of geological equipment/program - No of replaced unserviceable/obsolete equipment/program - No of capacity building of GD personnel conducted - No of acquired license computer software - No of enhancement and upgrading of network security (use UTM) - ISSP implemented
					<p>Legal</p> <ul style="list-style-type: none"> - Upgrade geological equipment and programs - Acquisition of licensed ICT software 	<ul style="list-style-type: none"> - Use of units with unlicensed ICT software 				<ul style="list-style-type: none"> - Vulnerability to litigation for violating RA 8293 (Intellectual Property Rights) 	D2 (Medium)	<ul style="list-style-type: none"> - Upgrade geological equipment and programs - Acquisition of licensed ICT software 	High	<ul style="list-style-type: none"> - Acquisition of license computer software - Implementation Information System Strategic Plan (ISSP) - Coordinate with MGB CO for the provision of licensed software 	<ul style="list-style-type: none"> - Administration - Inventory and prioritization of units with unlicensed ICT software for purchase of licensed software 	- As needed	<ul style="list-style-type: none"> - No of acquired license computer software - Implemented Information System Strategic Plan (ISSP) - Coordinated with MGB CO for the provision of licensed software 	
Ensuring ecological integrity, clean and healthy environment.	Strengthen environmental protection, human safety and social safeguards for mineral resources development	001. Natural Resources Sustainably Managed. Mining Regulation Services – Mineral Investment Promotion Program 003. Adaptive Capacities of Human Communities and Natural Systems Improved	<ul style="list-style-type: none"> - Availability of Advanced Equipments, Softwares and Trained Personnel - Standardized Procedure and Guidelines on Vulnerability and Risk Assessment, Groundwater Resource Assessment, Subsidence Hazard Assessment and Coastal Geohazard Assessment - Available and Adequate Funds - Available Competent Technical Personnel with Technology, Resources, Equipment and Logistics - Available established guidelines, policies and process flow chart - Knowledgeable on Information Technology - Skills/Knowledge on the evaluation and processing of mining applications - Establish Templates on Technical Report and Map Generation and other Data - Knowledgeable in MapInfo and ArcGIS 	<ul style="list-style-type: none"> - Satellite Imagery affected in some areas due to cloud effect - Renewed cycle of natural hazards - Intervening Tasks and Activities - Needs additional Field Equipment such as GPS, Laptops and Camera - Delayed Map/Data Integration Workshop for Quadrangle Geological Survey Report on cross-region Quadrangle Mapping Targets 	<p>Political</p> <ul style="list-style-type: none"> - Change of DENR leadership in strict implementation of mining, environmental and other related laws - Proposed Department Administrative Order (DAO) for progressive rehabilitation and restoration of disturbed areas - Proposed DAO for the Integration of EMB, MGB with DENR for strict enforcement of mining, environmental and other related laws - Partnership with mining companies in the implementation of the unified IEC campaign on responsible mining - RDC 12 support to mineral industry - Provincial and municipal leaders supportive to responsible mining - Implementation of climate change adaptation and mitigation policy - Implementation of DAO 2015-07, Mandating mining contractors to secure ISO 14001 certification. 	<ul style="list-style-type: none"> - Lax in the implementation of environmental policies - Conflicting/ inconsistencies of local ordinances to national laws - Sudden change of policies - Lack of active support of Provincial LGUs to large scale mining in the region. 			<ul style="list-style-type: none"> - Non-compliance to the mining, environmental and other related laws as well as the terms and conditions of the mining permits/contracts - Lack of support of some LGU in the implementation of mining, environmental and other related laws 	D2 (Medium)	<ul style="list-style-type: none"> - Change of DENR leadership in strict implementation of mining, environmental and other related laws - Proposed Department Administrative Order (DAO) for progressive rehabilitation and restoration of disturbed areas - Proposed DAO for the Integration of EMB, MGB with DENR for strict enforcement of mining, environmental and other related laws - Partnership with mining companies in the implementation of the unified IEC campaign on responsible mining - RDC 12 support to mineral industry - Provincial and municipal leaders supportive to responsible mining - Implementation of climate change adaptation and mitigation policy - Implementation of DAO 2015-07, Mandating mining contractors to secure ISO 14001 certification. 	<p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>High</p>	<ul style="list-style-type: none"> - Substantial evaluation of TSHES Programs - Strict Monitoring of approved mining contracts/permits - Tenement Compliance/Work Program - SHES Programs - Implementation of standard monitoring checklist and scorecards as tool for evaluating compliance - Strict enforcement in the implementation of DAO 2015-07, Mandating operating mining contractors to secure ISO 14001 certification. - Issuance of suspension and stoppage of mining operation - Review of Performance of Mining Permits/ Contracts - Investigation of environmental complaints related to mining activities - Issuance of CDO to all mining operations/sites posing imminent danger - Deputation of P/CENROs, PNP, Mayors, Brgy. Captains in the implementation of mining laws. - Confiscation/seizure/apprehension of illegally sourced minerals/mineral products including equipment and conveyances. - Filing of complaints/charges filed with the Provincial/City Prosecutors office and green courts 	<ul style="list-style-type: none"> - Administration - Assistance in the conduct of mining audit of MGB CO - Administration - Strict enforcement on fines and penalties for violators - Administration - Regular monitoring of the approved mining contracts/permits and result of ISO Audit - Administration - Immediate deployment of technical personnel and coordination with other law enforcement agencies - Administration - Coordination with the Provincial Governor/City Mayor for the immediate issuance of CDO - Administration - Issue Authorization to confiscate/seize/apprehend - Administration - Imposition of fines and penalties - Administration - Coordination with the Department of Justice (DOJ) 	- Quarterly/Semi-annual/Annual/As needed	<ul style="list-style-type: none"> - No of evaluated TSHES program - No of TSHES monitoring conducted to include the use standard monitoring checklist and scorecards and strict implementation of DAO 2015-07 - No of issued of suspension and stoppage of mining operation - No of review of Performance of Mining Permits/ Contracts conducted - No of investigation of environmental complaints related to mining activities conducted - No of issued CDO to all mining operations/sites posing imminent danger - No of deputation order issued to P/CENROs, PNP, Mayors, Brgy. Captains in the implementation of mining laws. - No of Confiscated/seized/apprehended illegally sourced minerals/mineral products including equipment and conveyances. - No of filed complaints/charges filed with the Provincial/City Prosecutors office and green courts 		
					<p>Economic</p> <ul style="list-style-type: none"> - Availability of cheap anti-pollution devices and technology - Mining company is committed to invest in the environmental protection, rehabilitation and restoration measures 	<ul style="list-style-type: none"> - Cost implementation of environmental protection, rehabilitation and restoration measures - High cost of rehabilitation and compensation of damage areas 				<ul style="list-style-type: none"> - Poor implementation of environmental protection, rehabilitation and restoration measures 	C2 (Low)	<ul style="list-style-type: none"> - Availability of cheap anti-pollution devices and technology - Mining company is committed to invest in the environmental protection, rehabilitation and restoration measures 	High	<ul style="list-style-type: none"> - Strict Monitoring on the implementation of TSHES monitoring conducted to include the use standard monitoring checklist and scorecards and strict implementation of DAO 2015-07 - Issuance of suspension and stoppage of mining operation - Review of Performance of Mining Permits/ Contracts 	<ul style="list-style-type: none"> - Administration - Assistance in the conduct of mining audit of MGB CO - Administration - Strict enforcement on fines and penalties for violators - Administration - Regular monitoring of the approved mining contracts/permits and result of ISO Audit 	- As needed	<ul style="list-style-type: none"> - No of TSHES monitoring conducted to include the use standard monitoring checklist and scorecards and strict implementation of DAO 2015-07 - No of issued of suspension and stoppage of mining operation - No of review of Performance of Mining Permits/ Contracts conducted 	

