

PROJECTNI KATTA BICHONG

DURA BIJA BISIK-O RONG·TE BIKOTANI

Biap:

**SONG: DURA BIJA BISIK,
P.O. – DHANUA, P.S. GAROBADHA,
DIST. – WEST GARO HILLS, STATE – MEGHALAYA**

RONG·TE BIKOTANI DAL·ANI (AREA) 2.00 HECTARES (4.94 ACRES.)
DURA BIJA BISIK, NOKMA OF DURA BIJA BISIK A·KING NO. III-26 (8)
IN BURUNG ONGGIJAGIPA (NON-FOREST AREA) BIAP

BILSIO BADITA BIKOTGEN: 48,935 Cubic BILSI PRAKO 1,32,124 Tons (mAX) BILSIPRAKO
BOULDER BA RONG·TE KO PORAIE NIANI SOMOI: OCTOBER 2021 TO DECEMBER 2022

[Project Listed under activity 1(a) Mining of Minerals of EIA Notification, 2006 and falls under
category 'B1' as the area of mining is in Cluster]

APPLICANT

SHRI KALDOK CH. SANGMA

**SONG: CHIRAN SONGMA, P.O. SELSELLA, DIST.- WEST GARO HILLS,
STATE - MEGHALAYA**

RO·ONGKO CHON·A BA BIKOTANA AM·ENGGIPA
M/S. Jharkhand State Mineral Development Corporation Ltd.
Ranchi, Jharkhand

GOLPO DILGIPA



Sathi Planners Pvt. Ltd., Lake Avenue,
Kanke Road, Ranchi – 834 008

TALATANI

1.0 AGANCHENGANI

1.1 Project

la chanchiengagioa project-ra Dura Bija Bisik songo rong'te ba boulder ko bikotani ong'a, bikotna am'enggipa biapde — Dura Bija Bisik, P.O. — Dhanua, P.S. — Garobadha, Dist. — West Garo Hills, State — Meghalaya, aro bikota am'enggipa biap ni dal'ara 2.00 Hectares (4.94 Acres.) ong'a.

la project ra 2,35,283 cubic meters (6,35,265 Tons) rong'te rangko donsogimin salrango bikotna miksongani donga. Bilsiprako batbeoba 48,935 Cubic meters ba 1,32,124 Tons bikotna miksongani ba plan kaani dongaha.

1.2 Project Ka'nagipa ko nirokigipa mande

The project nirokigipa mande, Shri Kaldok Ch. Sangma ong'a, songara— Chiran Songma, P.O. — Selsella, Dist.- West Garo Hills, State - Meghalaya, aro ua mande- Shri Kaldok Ch. Sangma, ua agamin rong'te ko bikotna ba cho'na gita, Smt. Kaljak Sangma songara Chiran Songma, P.O. - Selsella, P.S — Tura, Dist.-West Garo Hills, State- Meghalaya oniko bilsa 3 (gittam) na a'a ko para(lease) ko ra'aha. Aro is a'ako mikkangchi nangnikua ong'ode, para ragipa aro para on.gipa baksa meligrike agreement ba see jote on'aniko dakangkugen aro rong'terangko bikotkugem. la see jote onaniko _____, 20_____ a'a nokgipa aro a'a ko para ragipa baksa dakangaha. Lol koba Meghalaya Government ni gita, Meghalaya Minor Mineral Concession Rules ni ningao, 2016 on 7th December, 2020.

1.3 Para onani bilsa: 5.14 Bilsa na

1.4 Project kanagipa biap aro Rama Jalangrang

Ro'ong bikotana am'enggipa bipa de 5 kms Dura Bija Bisik songode in Salgro Salaram Chipak onga aro District ni Head quarter Tura on 29 km. chelao in Salgro-Salaram chipak onga. Ua biapon- Dura Bija Bisik songan sepangbatgipa onga aro ua songoni chela 73.37 km, Salgro Salaram chipak gaaka. Sepangbatgipa Train station Mendi Pathar onide Salgro Salaram chipak, 73.37 km ni chelao donga. Shillong Airport de 202.36 Km Salgro Salaram chipak donga. Ro'ong bikotna amengagipa bipa, S.H.-2 (Singimari — Tura road) oni 0.35 Km (aerial distance) Salgipeng Salaram chipak gaakskaa.

Table 1: Project -ko kam kanagipa biapni gimin janapani

Particulars	Details		
Village	Dura BijaBisik under Mouza no.- III 26(8)		
Co-ordinates	Village- Dura BijaBisik , Dist.- West Garo Hills		
	Point	Latitude	Longitude
	1	25° 39' 18.400" N	89° 57' 32.800" E
	2	25° 39' 18.500" N	89° 57' 35.400" E
	3	25° 39' 22.800" N	89° 57' 36.400" E
	4	25° 39' 25.000" N	89° 57' 33.500" E
	5	25° 39' 22.600" N	89° 57' 30.900" E



1.5 Maidakgipa Project ong'achim

la project ra gesan dakgipa project onga, jeon rongte ko cho'e a'aniko bikotgen aro ia project ra activity 1(a) ni ningao, Mining of Minerals ni ningo Schedule of EIA Notification, 2006 aro Category-B1, Mining Lease area in cluster ni ningao donmanako mangipa project ong'a.

1.6 Report ba Talataniko miksoingani

la EIA(Environmental Impact Assessment) Report-ko Terms of References (TOR) o pangchake State Environment Impact Assessment Authority (SEIAA), Meghalaya, 26th November, 2021 vide letter no. ML/SEIAA/MIN/WGH/P-214/2021/1267 ni dongimin niam o pangchake taria. Aro ia report ko Environmental Clerance ba mamungba champengani dongjana gita naim o pangchake tariaha.

1.7 Maina ia Project-ko nangachim

Boulder ba rong'tean building rikgiparangona, rama tarigiparang na aro gipin kamrangna nangchotngmotgipa ong'a. Gimiko rikaninion rong'tean nangchongmotgipa and nangtelaigipa bostu ong'a. Una agreba chonchongipa rong'te rangko cement rangmung brina aro traing ni ramarangna jakkala aro nanga. Daonni anching ni government ni dakenggipa kamranga rama challangrangko aro nangipa rikanirang ko buildingrangko namdapatani ong'a. Uarang ko dakna gita nanga gita aro chuonga gita, daldalgipa rong'te rangko aro rong'teni chiprangkon rama challang ko tarina gita an'chingni Meghalua a'dokna bangen nangenga. la rong'te bikotani Project ra songo ba songni chela bipaosa ong'gen. Uni gimin songni mande rangna kam ka'e cha'na gita ba nama cholko on'gen. Una agre ba ia project ko a'bachenganichi, songni nokchi tangkani gita ba janggi tangani gita namdapatani mangen. Aro dalgipa aro rakgipa rong'teranga rama rikkam ba chibima rikkam rango a'a beako champengna gita jakkalna bilongen nama.

2.0. DONGSOGIMIN RO'ONGKO HISABANI

Dura Bija Bisik Stone Mine comes under Category - B (semi mechanized category). Therefore, conceptual plan of the mine has been prepared on the basis of life of the deposit considering the proved existence of the mineral up to 40 m RL. Conceptual mining plan has been prepared following the guidelines of IBM, keeping in view the present knowledge of the deposit, topography of the area, surface drainage pattern, mineable reserves available, mining technology and sites for waste disposal, etc.

Table 2: Quantity Geological & Mineable Reserves

Reserve	Quantity (Cubic Meters)	Quantity (Tons)
Geological Reserve	3,78,846.00	10,22,884.20
Mineable Reserve	2,41,878.60	6,53,072.22
Extractable Reserve	2,35,283.00	6,35,265.00

Source: Mining Plan



3.0. PROJECT NI GIMIN TALATANI

Ro'ongko bikotani ba Mining ko adha machinerangchi aro adha mande chi dake cho'e kamko ka'gen. Rong'te ko a'kolrang puani aro nangode dynamite rangko jakkale blast ka'ani ba bretatanirangkoba rong'te rakgipako bikotaniko dakgen. Indiba nomgiparangko de blast kajawa. Jack hammer drill ba a.kol puanirangko dake rong'te rangko dynamite chi bretatgen. SMS slurry explosive and dynamite ko bretatna jakkalgen.

Ro'ongko bikotanai biap ko talatani ko Table-3 o mesokenga

Table 3: Mine kanagipa biap ni gimin talatani

Sl.No	Description	Particulars		
1.	Mine lease area	2.00 Ha (4.94 Acres).		
2.	Forest Area	Nil		
3.	Mining Planned Period	3 years		
4.	Approval of Mining Plan	Mining Plan has been approved by Divisional Mining Officer, East Garo Hills, Williamnagar, DMO-W/MP/61/2020/335 dated 25.03.2021		
5.	Type of mine	Opencast Mine		
6.	Method of mining	Semi-mechanized open cast mining. Shovel Dumper combination with deep hole drilling & blasting shall be used.		
7.	Total Reserve	Geological Reserve – 378,846 Cum. Mineable Reserve – 241,878.60 Cum Extractable Reserve – 235,283 Cum		
8.	Proposed Production	Years	Annual Production Plan	
			In Cubic Meters	In Tons
		1st	48,427	1,30,753
		2nd	48,935	1,32,124
		3rd	46,872	1,26,554
		4th	47,414	1,28,017
		5th	43,636	1,17,816
		Total	2,35,283	6,35,265
9.	Ore to Waste ratio	1:0.068 (On cum to cum basis)		
10.	Life of Mine	5.14Years		
11.	Period of Lease applied	5 years		
12.	Working Regime	300 days / 3 Shifts per day / 8 hours per Shift		
13.	Bench height / bench width	5m height- 6m/7m width		
14.	Final Bench Slope	45%		



Sl.No	Description	Particulars
15.	Over Burden Generation	16,000 Cum in 5 Years 11,400 Cum in 1 st Year
16.	Topsoil to be generated	Nil
17.	Ultimate working depth at the end of plan period	60 mRL
18.	No. of waste dumps	1 Nos. of Waste dump proposed
19.	Area of waste dumps up to conceptual stage	0.03 Ha.
20.	Fuel Requirement	HSD – 384 liters / day (115.20 KL/year)
21.	Requirement of Explosive	22.5 tons per year
22.	Requirement of Water	12.90 KLD
23.	Requirement of Power	Nil. 20 KVA DG Set proposed
24.	Transportation	Through Tipper within lease area. By truck, outside lease area
25.	Project Cost	Rs. 83.44 lakhs

4.0. Bilsi prako Rong'te bikotani

Bilsiprako roing'te ko bikotna chanchiani. Bilsi 5 Na chanchianiko Table 4 o mesokenga:

Table 4: Rong'te bikotana miksogani-Bilsi 3 na

Bilsi	Rongte Bikotani		Over Burden (OB)
	Cubic Metres	Tons	Cubic Metres
1 st Bilsi	42,263	114,110	19,877
2 nd Bilsi	42,264	114,112	0
3 rd Bilsi	42,263	114,110	0
Gimik	126,790	342,333	19,877

5.0. Mande ko ba Labour rangko nangani

Rong'te bikotani biapo, Jongkipara Stone Mine o, chugimik 23 name changgijagipa, alamala changgipa aro name name changgipa manderangko nangnikani gita kam kana rakkigen aro ua manderangko, DGMS dongimin niam ni gita A'a nokgipa on'gen. Bak 10 ni bak 9 ko songo donggipa manderang ko dormant ko one contactual o kamo rakkigen.



6.0 MININGO NANGGIPA BOSTURANG -RONG'TE, CHI, CURRENT, PETROL/DIESEL

Table 5: Jakkalana nanggipa bosturang

Nanggipa Bosturang	Nangani	Unit
Diesel	384 (115.2)	Litres /day (kl / year)
Bretana jakkalgipa bosturang	22.5	kg/year
Detonators	1,500	Nos./year

Chi ko nangani

Chi ko camp o jakkalna gita, adumuko komiatna satna aro bolrangko ge'o chi runa gita jakkalna nanggen. Salantin 3.63 m3 is project na nanggen:

Table 6: Chi ko nanganirang

Purpose	Salantio jakkal nanggipa chi (litre)
Camp-o ba noko jakkala	0.35
Akol puna aro adumuna chi satna	2.10
Bolna chi runa	10.45
Chugimik	12.90

Ringna ba songna rita gita chi ko ringwell ba chiakol niko jakkalgen. Gipin kamrangna, jekai, a'kol puna, adumuna chi satna aro bol rangna chi runa de chi tanker niko bree jakkalgen.

Currentko Nangani

Current ba electricity no nangjawa. Mine kana jakkalgipa machine gimikan diesel chi chalaigipa ong'a. 60 KVA Generator ko ba mine kagipa biap o dongen.

7.0. A.A MAIDAKE JAKKALGENCHIM

Table 7: Dongsoenggipa a'a and jakkalnasienga mine kaani biap

Sl No.	Maidake a-ako jakkalgenchim	Dongsoenggipa a-a		Jakkalna siengagagipa a-a		Jakkalna chanchigipa a-a	
		Ha	Acre	Ha	Acre	Ha	Acre
1	Rong'te ko bikotna	0.00		1.50		1.50	Water Body – 0.89 Ha. Plantation- 0.61 Ha.



SI No.	Maidake a-ako jakkalgenchim	Dongsoenggipa a-a		Jakkalna siengagagipa a-a		Jakkalna chanchigipa a-a	
		Ha	Acre	Ha	Acre	Ha	Acre
2	Offices/ Store /Crusher/ Magazine etc.	0.00		0.01		0.01	
3	Galchakna	0.00		0.03		0.03	
4	Mine kaa ni Rama	0.00		0.01		0.01	
5	Drain	0.00		0.03		0.03	
6	Name donggipa A.A	0.00		0.42		0.42	
7	Rong'te Donchakna	0		0		0	
	Jakkalgimin	0.00		0.00		0.00	
	Jakkalkugijagipa	2.00		0.00		0.00	
	Chu'gimik	2.00		2.00		2.00	

8.0. PROJECT NI KOROS

Project ko start ka'na gita **Rs. 83.44 lakhs** ko jakkalgen and chalaina gita bilsil prako **Rs. 11.25 lakhs** ko jakkalgen.

9.0. PROJECT NI NAMGNI

Rong'te an mingsa nangchongmotgipa rangoni ong'a aro uko jakkale nok aro dgintang dingtang rikanirangko aro development ka'na gita rikna man'a. Rong'te a rakbegipa are ru'utbee baigipa ong'ani gimin rama are nokrangko rikna jakkala. Rong'te ni demand daororo nok rikna gita, industry rangko rikna are gipin gipin nangipa rangko rikna gita bilongen demand ong'bea. Dingtang dingtang development ni kam rangko daka rikanichi gimiknan namgni are silroroaniko ra'baa.

1. Direct ba in-direct kamrangko ong'katani

Komibeoba sak 23 ko is project ba rong'te bikotanio kamko on'gen are gipin mande rangko rong'te rangko salna garini driver ni kam are gari tarigipa are chona dokanrango dongtimna kamko on'gen.

2. la project Jongkipara songnasana ongaigija gipin sambao donggipa songrangnaba namgniko are silroroaniko ra'bagen.

Rama jalang: Gital rama jalangrangko tarigen and dongsoengagipa rama jalangrangko taridapgen



Anti ba bajar: Songo donggipa mande rangni tangka paisani gita nambatataniko mane anti ba bajar rangba nambata bosturangko palna gita mangan aro project sambaona doka rangba sokbagen.

Nanggipa rikanirang: la chanchienggipa project ni a'sel nangipa rikanirangko abachengna gita rong'te rangko chuonga gita on'gen.

Burung bolgrim rangko bariatgen. 3,484 bol pangrangko ge'na gita is projectni sam ba wilwilao aro rama joljol ge'na gita chanchie donsoaha.

3. la rong'te bikotna am'gipa project, songni nokni namdapanina aro silroraanina bilongen dakakchaka ni ong'begen. lako dakanichi songni nokni manderang tangka paisa ni gita bilakbatgen aro paoraia skianioba bilakbatgen.
4. la project State aro Central Government-naba kajina gita tangkakoba bikote ongen.

10.0. SAMTANGTANGO (ENVIRONMENT) DONGGIPANI GIMIN TAIATANI

Nangchongmotgiparang- balwani quality, jokenggipa aro a'ningo donggipa chini obosta ba quality, a'a ni obosta, burung ni bol wa'a aro matburung rang , sambao songdongenggipa manderangni obosta.

4.1 SAMTANGTANGO(ENVIRONMENTAL) MASIE RA'ANI

a chanchienggipa project ko a'bachengna gita, samtangtango donggipa sam bol, chi aro balwa rangko **March, 2019 to May, 2019** ona poraie aro masie niaha. Ua sandie aro poraie nianio, balwa ni quality ba obosta, kosako jokgipa aro a'ningo donggipa chiko, gamani (noise) aro a'a ni quality ko rabae name test kae niaha.larangko test ka'e nion kamao ongipin table o gita result ko man'aha.

Maiko Test Ka.aha	Baita Dam	Talatani	Jakkalana mangipa Level
Balwani Quality	8	- PM2.5: 21.10$\mu\text{g}/\text{m}^3$ and 42.90$\mu\text{g}/\text{m}^3$ - PM10: 48.30$\mu\text{g}/\text{m}^3$ to 76.30$\mu\text{g}/\text{m}^3$ - SO2: 8.20$\mu\text{g}/\text{m}^3$ to 26.40 $\mu\text{g}/\text{m}^3$ - NO2: 4.20$\mu\text{g}/\text{m}^3$ to 13.70 $\mu\text{g}/\text{m}^3$ - CO: 0.108$\mu\text{g}/\text{m}^3$ to 0.188$\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$ 100 $\mu\text{g}/\text{m}^3$ 80 $\mu\text{g}/\text{m}^3$ 80 $\mu\text{g}/\text{m}^3$ 2 mg/m^3
Kosako Jokenggipa Chi ni quality	8	- pH (at 25$^{\circ}\text{C}$): 6.75 to 6.89 - Total Hardness: 128.70 to 135.25mg/l - TDS: 291.70 to 297.40mg/l	6.5-8.5 200-600 mg/l 500-2000 mg/l
A'ani ningao donggipa Chi ni quality	2	- pH (at 25$^{\circ}\text{C}$) 6.67 to 6.88 - Total Hardness 65.08 to 72.20(mg/l) - TDS 128.50 to 133.80mg/l	----

Maiko Test Ka.aha	Baita Dam	Talatani	Jakkalana mangipa Level
A'aniQuality	8	• pH 7.03to 7.25 • EC 0.318 to 0.338 mS/m • Potassium K 119.24to 128.21 (Kg/hect) • Avl. Nitrogen N 238.54 to 259.45(Kg/hect) • Organic matter 0.67 to 0.76 (kg/hect.)	----
Gam'ani ko toani	8	• Day Time (6:00 a.m. to 10:00 p.m.) 64.20Leq dB(A) to 73.10Leq dB(A) • Night Time (10:00 p.m. to 6:00 a.m.) 51.90 Leq dB(A) and 59.60 Leq dB(A)	75 Leq dB (A) 70 Leq dB (A)

11.0. PROJECT KO CHALAIMITINGO BALWANA , CHI-NA , KA NA , BOLWA'ARANGNA, MATBURUNq RANGNA ARO SAMBAO DONGGIPA MANDERANGNA MAI ONGGENCHIM UKO TALATANI

11.1 Nokrangko rikmiting somoi

la rong'te ni mining ni project o , mamungkoba rikani dongjawa. Ala ma la rike office dakna, toilet, nengtakna aro accident ongarango sanna tarigipa nok na agrede dongjawa.Uni gimin sambao donggipa sambol rangna mamungba nosto ongani dongjawa.

11.2 Kam ka'miting somoio

11.2.1 A'a ko jakkalani somoio

Mine ka'na chanchigipa biap ni a'a de kam ka.mitingode dingtang ong'gen. Rong'te bikotmiting somoi rango a'a' rang ko cho'e a'ani chuanirang komianggen and bon'gen.

Dongsogimin a'a ko ma mung dakeba jakka lna skang taridapani dongjawa.

11.2.2 A'ako choani balwa maiba namgijani ong'en aro uko chamengani rama

Rong'te bikotode, a'dumu bange ong'katgen. Rong'te rangko a'a ko choe bikotgen. Una agreba a'dumu a'kol puanichi aro blast ka'anichi ong'katgen aro garirang re'anichiba ong'katgen. Sulphur dioxide (SO₂), Oxides of Nitrogen (NOx) dakgipa balwarangde gariko jakkalanichi, generator chalaianichi, excavator jakkalanichi ongkatskagen.



A'kolrangko puani

Rong'te ko bretatna gita a'kolrangko rong'te o pugen and uni a'selba a'dumu ong'katgen. A'kol puna gita matsramgipa drill bit rangko jakkalgen. Jeon a'kol puengachim, uno chi rangko rugen.

A'kol pugipa kam ka'gipa manderangna a'dumuoniko naljoke rakkina gita mask rangkoba on'gen.

Blast ka'ani ba bretatani

Blast ka'ode agrepile a'dumu ong'jawa. Indiba blast ka'miting somoi a'dumu baksa wal'ku bang'e ong'gen aro ua somoio balwa raka ong'ode kamachipak donggipa biaprangchi balangen.

Site Mixed Emulsion (SME)/ Site Mixed Slurry (SMS) explosives rangko sandie nieblast ka'na jakkalgen.

Una agreba, somoi namjaode, ba weather namjaode, jekai, walo ba mikka wana am'o blast ka.nirangko dakjawa.

Rong'te salani rama

Rong'te ko bikoton, uarangko truck rango gate, dane dona gita dongimin biapona salanggen. Una agreba breenggipa mande rangna ba gipin biapragonaba truck o gaten salanggen. Rong'te rangko salna jakkalgipa rama kutcha rama ong'ani gimin gari tyre rangni a'sel a'dumu ong'katgen.

- Gari jakkalgiprang de agre walku ong'jawa maina jakkalna gipa garirangko name maintain kae jakkalgen. Baita walku ong'engachim ukoba Emission test rangchi meter o nigen, jedakode agre walku ong'jana gita.
- Chi satkikigipa gari 12,000 liter chakgipako rong'te walgipa ramao satkikigen. Ramarango chi satkikigipa ko pangna somoigita satkikigen jedakode agre a'dumu ong'jana gita.
- Garirangko name tarie jakkalgen.
- Nangana bate rong'te rangkoba truck o gatna on'jawa aro gari rangkoba agre tarake salna on'jawa.

11.2.3 Mine ka'o jokenggipa chiring chibimana mai ong'genchim aro uko maidake naljokgen

Rong'te ko bikotmitingo mamung namgija chi rang ong'katajawa. Toilet o jakkalgipa chi rangkoba toilet a'kolosa name wate galgen.

Rong'te bikotna am'gipa biap o mamungba chiring jokanggipa dongjani gimin gipin chiring rangko nosto ka'jawa. Uan dake gipin chiringrangkoba chonatani chol dongjawa. Uni gimin chiring chibisiko rong'te bikoatnichi mamung ba nosto ka'atani dongjawa.



Rong'te rangko bikotani a'sel chi ko nosto ong'atani ba nosto ka'ani japangrang ko mesokatenga:

- Office aro nengtako jakkalgipa chi rang.
- Mikka wao jokbrakgipa chi.

Rong'te bikotgipa biaponi chi rang a'aplchi joke katjana gita name tarigen, je dakode moilarangba a'palchi balangjana gita.

Chi ko moila ongatjana gita champengani cholrang

- Jabolrangko galgipa biapo wilwile dale drain ko chogen aro ua drain on mikka wajoko chi rang skonggen aro mikka ni chi rang ko a'kolona watatgen.
- Noko ba office jakkalgipa chirangko soak pit o na watagen aro sok pit o niko bolrangna nangode jakkalgen.

Una agreba, kam ka'gipa manderangna nama ringani chi aro nama toilet rangko tarie on'gen.

11.2.4 Mine ka'o a'a ning'o donggipa chi mai ong'genchim aro Naljokani

Chi level ni kosako donggipa rong'te rangko bikotna amaengani ni a'a ningo donggipa chi rang mamung dakeba nosto ong'jawa. Uni gimin chirangko 'akolrangniko pump rangchi saldona nangjawa. Mikka wao ua a.kolrangko chi gapode , u chirangko ramarangko runa aro bol rangna runa jakkalskagen.

Chi ko moila ongatjana gita champengani cholrang

- Chi level ni kosako donggipa rong'te rangko bikotna amaengani ni a'a ningo donggipa chi rang mamung dakeba nosto ong'jawa. Uni gimin chirangko a'kolrangniko pump rangchi saldona nangjawa. Agre a'kolrangko mikkani a'sel chi gapode pumpchi chiringrangona wate galgen. Nangana bate chi store ong'giparangko wate galna gita dal'a pump ko install ka'gen.
- Nangani gita retaining wall, drain aro dal'a drain rangko chi name jokna gita tarigen. Moilarangko chimongna gita chamber ge'gittam donggipa tanki koba metre 3 apale tarigen jeon garini moilarang, amangrang chimongna gita man'gen. Last gipa chamber o de chi rongtalana agre dongjawaha aro ua chiko nanga gita wate galgen. Ua chamber o 1.5 chua aro 1.2 apala aro 1.5 apao dewaliko ba gatgen.

11.2.5 Mine ka'o gamani/dildilani ong'o mai ong'genchim aro Naljokani

Name sandie niani gitade rong'te bikot gipa biapode agre hala ba sound ong'ja aro mamung been nosto ong'aniba dongja.



Rong'te bikota am'gipa biapo de sound de donggen and kam ka'ani ba garirangni sound rangde banga bangijade donggen.

Rong'te ko bikotmiting somoi rango blast kaani sound,a.kol puani, gari rangni aro dingtang dingtang machine rangni sound de donggen.

Mine o ra iarangni a'sel noise ba sound ong'katgen

- A'kol puani ba drillong
- Blast ka'ani
- Garini aro gipin gipin machine rangni sound.

Sound ko komiatna dakgipa cholrang

- Sound komigipa machine rangkosa bregen aro nanga ong'ode sound rangko komiatna extra bosturangko tekdapgen.
- Generator na silensor ko tekgen.
- Blast kamiting o gama niko komiatna nanga gita blast ka'ani bostuko jakkalgen.
- Diesel gari aro machine rangko jerangan bangbate gamachim uarangko name tarie jakkalgen. Gari ni aro machine ni silensor rangko name tarironggen.
- Agre gamaniko chelchakna gita Protective devices ba chelchakani gananirangko kam kagiparangnaba on'gen.
- Mine ka.gipa biapni wilwilao bolrangko ba gamako komiatna ge'gen.

11.2.6 Blast ka'o mai ong'genchim aro Naljokani

Rong'te ko bikoton, rong'te rangko nomatna aro be'atna gita blast kana gita nanga. Blast kamiting somoi pangnan dikdiksana namen rake gam'a. Blast ka'mitingo gam'ade pangnan maichi blast ka'enga, baita a'kol dal'a, maidakgipa dong'te uno pa ngchaka.

Gam'aniko komiatani cholrang

Nanga gita is kamao segimin kamrangko name nigen:

- Blast ka'na jakkalgipa bostu: Name sandiani jamansa baita bilake blast ka'na nanga uko dakgen aro blast kaani bosturangko on'gen.
- Nanga gita simsake blast ka'gen.
- Stem ba a'kolko mituani bosturang: Stemming material ba a'kolko mituketgipa bosturangko jakkalgen.



- NONEL daggipa ko nangtelana agrede jakkajawa.
- Delay system: Kasine kasine blast kaaniko daken
- Blast ka'ani somoi: Blast ka'aniko salona agre de dakjawa.
- Blast ka'ani chang: Antio chang 3 ba chang 4 na bate blast kajawa.
- Warning: Blast kana skang pangnan siren ko game watgen aro manderangna sambao donggipa manderangna masiataniko dakgen.
- Changna sa agre de apsan biapo blast ka'taitaijawa.

11.2.7 Blast ka'o chonchongipa rong'te rang bilo ong'genchim aro Naljokani

Rong'te bichemchem

Blast ka'miting somoio, chonchongipa rong'te rangchi manderang saakna manjana gita aro machine rangko nosto ong'atjana gita, chelchakaniko name tarigen. Rong'te ni rokom gita, a'kol pua dal'ani gita blast kamitingo bichemchem rong'terang metre 100 ba metre 150 na bate tilja ine nikaha. Bichemchem rong'te rangni bila bilaniko chelchakna gita is kamao janapgimin cholrangko dakna miksongaha:

1. Muffle blasting ba mitipe blast ka'aniko jeon nok jam rang 200 metre chelao donga, uko indagipa blasting ko ka'gen.
2. Name chelgriek rong'te o a'kolrangko pugen aro name measure kaesa blast ka'gen.
3. Mituketaniko rong'tena batpile dakjawa.
4. Gonggegipa a'kol rangko rong'te ko nigrike pugen.
5. Mana dipetde nomgipa rong'te sambarango de blast kajawa.
6. Bichemchem rong'te rangko blast kana skangan name rontalatgen.
7. Rong'te o pugipa a'kol ko baita tua uko name pangnan check karonggen.
8. Warning rangko, lekka rangko name tape dongen blast kana skangde.
9. Blast kamiting somoio chelchakna gita nok rangko rikgen aro name nokingrangko ba tin raki pachi pinggen.
10. Una agreba, blast kana skang, blast kana gipa biaprangko kam ka'gipa manderang donga ma dongja ha uko name re'e nichengen. Aroba security guard rangko biapo dongen napgipa aro ong'katgipa biaprangko dongen.



11.2.8 Samtangtango Dongipa burung bolgrim aro matbuburung rangna mai ong'genchim aro Nalajokani

Mine kanagipa biap sambao- National Park, Wild Life Sanctuary, Bio-sphere Reserve, Elephant Reserve, Tiger Reserve or Elephant Corridor dakgiparang mamungba dongja. Aroba Schedule-I o dongipa bolrang aro matburung mine kagipa biap dongja. Indiba mine kamitingo mana dipetde ramram bol wa'a rangkoba nosto kajawa.

Chanchisogimin gita, pang 835 bolrangko mine kagijagipa biaprangko aro rama joljolge'aniko dakgen.

Rong'te rangko chomitingo aro salangmiting somoi rango mande rangna a'dumu dakade dakgen aro balwa ba a'dumu rara daken. A'dumu dakako control kana gita, truck rangko cover ka'e salgen aro pangnan somoi gita ramarangko chi jipjipgen. Rama rangko a'dumu rangko komiatna gita bolrangkoba ge'gen. Moila banggipa chirangde mine kagipa biaponi ongikatjawa, uni gimin mamung dakeba health na ba chi na nosto ko onjawa.

11.2.9 Songnoki manderang mai namgniko man'gen and nengnikaniko champengsoani

Project ko start ka'na skang name sing'sandie songo noko donggipa manderang aro nokdangni janggi tangani bewalrang aro obostarangko project ko tariaha. la project namgnirangko bang'en songni manderangna bang'en on'gen ineba nikaha. Ka'mao project ni a'sel mai namgnirangko man'genchim uko sulsul mesokatenga:

- la project ka.anio gipinrangna a'ako para ondapna ba a'arangko breani mamung miksangani dongja. Uni gimin, R&R plan kode jakkaljawa.
- Kamrangko man'gen - la mining ko a'bachengna gita sak 23 manderangko songonikon rakkigen. Gipin manderangde is mine ka'gipaon gipin gipin kamrangko ka'e chana man'gen.
- Dongsoenggipa nok jamrang nosto ong'jawa.- Mine ka.gipa biapo skanggipa songni nokni manderangna kamko on'chengen aro man'a dipet a'palni manderangko kam ka'na gita on'jawa. Uni gimin kam ka.giparangna dingtang biaprangko aro nok rangko on'a nangjawa .
- Nok jamrang nambatgen
- Mining ka'gipa biapo namgijagipa balwarangko name simsake watanikodaken aro indaken nanga batede balwani pollution ko mikkangchiba komiatgen.
- Be'en bimangni an'sengbaljokani aro name dongani rangkoba skie onaniko dakgen.

- Somoi somoio manderanko check up ka.anirangkoba daken, sam rangkoba sualgen and skie on'anirangkoba dakgen. Kam kagipa manderangni nokdangrangkoba sao dingode samrangko on'gen.
- Nanga ong'ode projectko ka'enggipa company-ni manderang, songni manderangmung somoi of gronggen agangrikaniranko dakgen jedakode is project-ko name chalaina mangel. Aro songni manderangna ba namgniko namgniko dakgen.
- Songni nokni manderangna bol wa'a rangko maidake ripingna nangachim aro maidake chiring chibisikko tange rakkina nangachim, uarangko skie on'aniranko ba dakanggen.
- Mine ka'gipa biapo chuonga gita samrangkoba don'gen aro altue jakkal man'a gita name dongen. place.
- Ringani chi ko chuonga gita me'dikrango ba biap namao dongen.
- Su'buchakna aro ki'chakna toilet rangko name tarigen and name rong'tale rakkigen.

12.0. JABOLRANGKO NAME GALANI

Kosako dong'gipa a'a rang komiebeoba 16,000 cubic meter donga. A'mangrang agre bangjaoba ua a'mangrangko name cho'e dongen and uko jamano bolrangko ge'na jakkalgen. A'mangrangko galchakgipa biaprangko wilwile dale nala chogen jedakode gipinchi chi mane katangjana gita.

13.0 BOL WA'ARANGKO GEDAPANI

Bol wa'a rangko jakkalna nanggi jagipa biaprangko ripinggen aro rama joljol bolrangko ba name ge'gen aro dake dakanichi a'dumurangkoba komiatna gita man'gen. Gimik pang 3,484 bolrangkoba ge'gen. Bolrangko ge'na gita, Rs.4.44 lakhs tangkarangko chame donaha and bilsianti, Rs.0.75 lakh tangkarangko ge'gimin bolrangko biroka chame donmanaha.

14.0 MIKKA CHI KO CHAKE JAKKALANI

A'a rangko mikka wamitingo mane katangjana gita aro a'ningo donggipa chirangko tange rakkina gita, mine ka'gipa biap o tarianiko daken. Mikka ni chi ko domdakna gita, chi tankiko name rongtalna manjole, chamber donge tarigen.Ua tankiona chi jokbana gita name slope ong'e chi ramakoba tarigen.



Chimonggimin mikka chi rangko bolrangna chi runa, ki'na subuna aro a'dumurangko komiatna runa jakkalgen. Una agreba a'ningo donggipa chirangko nosto ong'jana gita aro tange rakkina gita nanga kamrangko ba ka'gen.

Hisab ka'ani gitade mikka waani chi 4500 cum/bilsi rang ko chimongna gita man'gen. Aro unoniko 4,950 /cum/bilsi a'ningo donggipa chirangko tange rakkina gita a'a ningaona wate don'gen. Dongrikenggipa 2,475 cum/bilsi ko bolrangna chi runa aro a'dumurangko komiatna jakkalgen.

15.0 SAMTANGTANGO DONGGIPA BOL WAA RANGKO NIROKNA CHAMGIPA TANGKA

Samtangtango dongenggipa bol waa, chiring chibisik aro matburung rangko name nosto ong'gija rakkina gita bilsi prako **Rs. 3.05** lakhs tangkarangko chamaha.

16.0 SONGNI NOKNI MANDERANGKO TOMDILO KOROS KA'NAGIPA TANGKA

Ministry of Environment, Forest & Climate Change ni bidingo 30th September, 2020 o rai ongimin gita, EAC jinma ni meeting ongmiting somoi, songni nokni nangnika gita kam rangko kaangna nanggen and nengnikanirangko ba kam kae on'a gita nangen. Songni nokni nengnikanirang dongode uarangko maidake dangdike ongenchim, uarangkoba name lekkao see done tarina gita nanggen. Songni mande rang maiba nengnikanirang donggenchim ong'ode uarang nengnikanirangko kame ka'e on'a gita tangka **Rs.3.0** lakh koba chame donaha.

17.0 SAMBAO DONGGIPA BOL WAA RANGKO NAME RAKKIE DONANIKO CHANCHIANI

MP je dakgipa project rangko implement kaon, name aro mamungkoba nosto kagija project ko kaanirangko nirokani dongimin niam donga. For each stage of the program, the EMP lists all the requirements to ensure effective mitigation of every potential biophysical and socio-economic impact identified in the EIA. Environmental Management Plan manede sambao donggipa boll waa rangko name rakkiani chanchiani geprak kamnan nanggipa kobor rangko on'gen. Samtangtango donggipa bol waa, chring chibisik rangko name tange nosto ong'gija rakkina gita, is company **Rs.13.44** lakhs aro **Rs.6.25** lakhs rangko bilsio koros kana gita chamanaha.