

KA EXECUTIVE SUMMARY

JONG KA PAR MAWSHUN

HA

UMSOO-MOOTANG, THANGSKAI, JAINTIA HILLS, MEGHALAYA

KA PAR MAWSHUN

NA KA BYNTA KA 1.5 MTPA CEMENT PLANT

(JINGHEH : 128.52 HA)

NA KA BYNTA KA

2.0 MTPA LIMESTONE PRODUCTION

JONG KA

M/s. ADHUNIK CEMENT LIMITED

KA EXECUTIVE SUMMARY

1.1 KA JINGSDANG

Ka ADHUNIK GROUP (AG) ka long kawei na ki kharkhana shna nar rod (Iron & Steel bad Ferro Alloys), mynta la kumba 40 snem eiei. Ka la don ruh ka jingtip ba la tbit bha ha kaba iadei bad kane ka jait kam. La seng ia ka ADHUNIK GROUP (AG) da u (L) Mahadeo Prasad Agarwal, bad dei hapoh ka jingialam jong u ba kane ka company ka la kiew na kawei ka por sha kawei pat. Kane ka seng ka don ki kharkhana ha ki thain mihngi jong ri India kum ha West Bengal, Orrisa, Jharkhand, bad Meghalaya, ha kaba ki la lah ban pyndonkam ia ki mar poh khyndew, ki nongtrei kiba tbit, bad kumta ter ter.

Ka Adhunik Cement Limited (ACL), kaba long kawei na ki tnad jong ka ADHUNIK GROUP ka don jingthmu ban pynurlong ia ka kharkhana dewbilat jong ki ka ban ym ktah than ia ka mariang (Greenfield cement plant), kaba pynmih kumba 1.33 MTPA u dewbilat ha ka jylla Meghlaya. Ia ka Environmental Clearance na ka bynta kane, la dep ioh na ka MoEF.

1.2 KA JINGTHMU

Ka ACL ka don jingthmu ban pynmih haduh 2.0 MTPA u mawshun na ki par mawshun kiba don ha Umsoo- Mootang, Thanskai, Jaintia Hills District, Meghalaya, ban pyndap ia ki jingdonkam ha ka kharkhana shna dewbilat ka jong ki. Kane ka par mawshun ka don ha ka jaka ba la shu shimwai, kaba heh kumba 128.52 hectare.

Na ka bynta ban wai ia kane ka par mawshun , la mang pisa kumba Rs. 8.75 crore eiei.

1.3 KA JINGLONG KA MARIANG HA KANE KA THAIN

Ka jaka ha kaba la iit jingtip bniah bha (study area) ha kaba iadei bad ka jinglong jong ka mariang ha kane ka jaka ban tih ia u mawshun ka saphriang haduh kumba 10 kilometer radius na ka par mawshun kaba don ha Umsoo- Mootang, Thangskai, Jaintia Hills District, Meghalaya.

Kum shibynta jong ka Environmental Impact Assesment, ia ki kam jurip halor ka jinglong jingman jong ka mariang ha kane ka jaka, la sdang ha ki bnai tlang jong u December 2009 haduh February 2010.

Ka jingshem ha kaba iadei bad ka jingbeh lyer ka long kummne:

Ha kine ki bnai, la shem ba ha kiba bun ka por, ka lyer ka ju beh na shaphang Shathie sha Sepngi - Shathie – Sepngi (S to WSW). Ka jingbeh lyer sha kane ka phang ha ka jingsted kaba duna ia ka 1.0 kmph ka long 68.71% , bad 18.71% pat, ha ka por ba ka lyer ka beh ha ka jingsted ka long hapdeng 1.0 – 15.0 kmph.

Ha kaba iadei pat bad ka jingdon ki pum-pum (Particulate Matter, PM10) bad ki lyer bih kum ka Sulphur dioxide (SO₂) bad Nitrogen dioxide (NO_x), la buh 7 tylli ki Ambient Air Quality station ban jurip ia ka jinglong jingman jong kitei ba la kdew haneng ha kane ka thain ba don ka par mawshun.

Ka jingshem ka long kummne harum:

La shem ba kine baroh ki long kiba biang katkum ki kyndon ba la buh da ka National Ambient Air Quality (NAAQ). Katkum ka jingshem, ka daw kaba pynlong ia ka jingdon jong kine, i.e. PM10, SO₂ , NO_x, ha ka lyer ka dei na ka jingiaid ki kali bad kiwei kiwei ki jingtrei jingtah ba marjan bad kane ka jaka jingjurip.

Summary Of Ambient Air Quality

98 TH PERCENTILE VALUES (µg/m ³)		
PM10	SO ₂	NO _x
31.7 – 38.5	< 5	13.2 – 14.8

Note : CO values are observed less than 1 ppm during study period.

Ia ka jingsawa (Noise level), la shim ha ki 6 tylli ki shnong kiba don hapoh ka 10 km radius jong ka par mawshun.

Ka jingshem ka long ba ka ka jingsawa ka long hapdeng 44.4 - 60.9 dB (A) ha ka por mynsngi, bad 37.8 – 43.1 dB (A) ha ka por mynmiet.

Ha kaba iadei pat bad ka jinglong jingman jong ka um (Water quality), la ioh lum na ki 4 tylli ki tyllong um ba shu tih (ground water), bad 2 tylli pat na ki wah kiba don marjan jong kane ka par mawshun ban test ia ki. La shem ba ka jinglong jingman jong ka um ka biang ha baroh ki liang katkum ka drinking water Standards of IS 10500.

Ia ka jinglong jong ka khyndew ha kane ka jaka , la shem ba ka khyndew ba la ioh ban lum na ki 7 tylli ki jaka, kim don ki jakhlia ba pynsniew.

Ha kane ka jaka, la shem ba don 12140 ngut ki nongshong shnong. Na ki shispah ngut, 0.01 % ki dei ki Schedule Caste bad 91.8% pat ki dei ki Schedule Tribe. Ha kaba iadei pat bad ka jingnang jingstad, la shem ba kumba 64.4% ki dei kiba la nang ban pule puthi. Kumba 41.0% ki dei kiba trei ba ktah, bad bun na ki kidei kiba im na ka rep ka riang.

1.4 ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

1.4.1 AIR ENVIRONMENT

Ka Adhunik Cement Limited (ACL), ka thmu ban pynmih kumba 2.0 MTPA u mawshun na kane ka par ban pyndap ia la ka jong ka 1.5 MTPA Kharkhana pynmih dewbilat.

Ka jingktah na ka kharkhana pynmih bor ding, dewbilat bad par mawshun la dep khein ba kan mih na kine harum

- 1.3 Million TPA of Clinker
- 1.5 million TPA of Cement
- 25 MW Coal Based Thermal power Plant &

- 2.0 million TPA of Limestone

Ka jingmih na kitei ha neng la shem ba ki long kumne harum:

OVERALL SCENARIO, ($\mu\text{g}/\text{m}^3$) (Winter 2009-10)

	PM10	SO₂	NO_x
Baseline Concentration	38.5	<5	7.8
Predicted Concentration	25.44	19.69	26.44
Overall Scenario	63.94	24.69	34.24
NAAQ limit for Rural and residential area.	100	80	80

Ka shnong Thangskai ka don hapoh 0.5 km na ka par mawshun. Ka ACI ka thmu ban pynduna ia ka jingmih pum pum da kaba synreit um bad ban thung dieng.

Ki Lad Jingiada:

- Da kaba pyndonkam da ki wagon drill kiba don ki dust collectors.
- Ban pyndonkam da ki drill kiba nep ban sam thleiw ha ki maw. Bad ban pyndonkam da ki bom kiba dei ki millisecond delay detonator.
- Yn synreit um ha baroh ki lynti iaid ha man la ka por. Kumba 20 m³/day ka um la thmu ban pyndonkam ha kaba iadei bad kane.
- Yn pyn bha ki surok na ka por sha ka por ban lait na ki jing pum pum.
- Yn ym pynbthei bom bad tih mawshun ha ki por jur lyer.
- Yn ym shah ia ki trok ban kit palat pud ia u khyndew lane u maw ban lait na ka jinghap ha por ba kit.
- Ia ki nongtrei baroh ha ka jaka trei yn pynbiang da ki masks.
- Ia ki kali bad ki machine baroh yn peit bad sumar bha ban pynduna ia ki jingmih tdem na ki.

- Yn thung dieng thung siej sawdong ka par ban iarap pynduna ia ka jing pum pum.

1.4.2 NOISE ENVIRONMENT

Ka jingsawa ka mih naba pyndonkam ia ki machine ha ka jingsam thliew, pyn bthei, compressors, ka jingiaid ki kali bad kiwei kiwei. Yn nym don kano kano ruh ka jingktah ia ki jaka ba don hajan ka par. Hynrei kane ka jingsawa kan dei tang ha ka jaka trei ba marjan bad ka machine.

Ki Lad Jingiada:

- Ia ki kali bad ki machine baroh yn peit bad sumar bha ban pynduna ia ki jingsawa na ki.
- Ia ki nongtrei baroh ha ka jaka trei yn pynbiang da ki ear plugs.
- Yn pynduna ia por trei ia ki nongtrei ha ki par.
- Yn pyndonkam da ki rukom pynbthei bom katkum ka juk mynta.
- Ban pyndonkam da ki bom kiba dei ki millisecond delay detonator bad proper stemming ban pynduna ia ka jingsawa.
- Yn ym shah ban pynher stet ia ki trok palat ia ka 25 kmph khnang ban lait na ka jingsawa ki trok thylli.

1.4.3 WATER ENVIRONMENT:

La shem ba ki don katto katne tylli ki wahduid kiba mih lane don ka tyllong jong kin na jan kane ka par mawshun kiba tuid shaphang sepngi bad shaphang shathei-mihngi sha ka wah Wahlareng kaba iakynduh pat bad ka wah Parang kumba 5km shaphang shathei- sepngi. Bun na kine ki wah ki tyrkhong bad ki kham heh um tang ha ka por lyuir.

Ka ACL ka don jingthmu ban den ia ka um ha katto kattne tylli ki jaka ban lait na ka jing shah rong noh ka khyndew kaba sboh (silt) ha kine ki wahduid. Ia ka um kaba la long kumba la dep jiar pat, yn pyntuid pat sha ki wahduid ba marjan. Kane kan iarap ia ka jingshahrong noh ka khyndew (erosion & siltation).

La shem ruh ba ha kane ka thain, ym don kum kata ka jaka ha kaba ka um ka lang shapoh khyndew (water table), hynrei don tang ki kynja wahduid kiba rit bha kiba tuid shathei shapoh ka khyndew sha ba la jylliew bha kat haduh ba ka jingtih maw kan ym ktah eiei ia kine.

Ka jingpyndonkam ia ka um ha kane ka par kan long kumba 30 m³/shisngi. Na kane, kumba 1 m³/shisngi kan dei ka um kaba la pynmih hadien ba la dep pyndonkam ia ka ha ki kharkhana shna tiar. Kane ka um kaba mih na ka kharkhana pat, yn pynkhuid ia ka ha shuwa ban pyndonkam pat ha kaba synreit um ia ki jingthung jingtep.

Ka um jakhlia pat kaba mih hadien ba la dep pyndonkam kum ha ka sait ka khlieng, sum ka sait, ter ter, kaba mih na ki office lane ki iing kiba don ha ka par, yn pyntuid ia ka sha ki septic tank lane ki soak pit.

1.4.4 LAND ENVIRONMENT

Ki solid waste lane u shyiap bad ka khyndew kiba mih tam na ki par kiba don kumba 24 million ton , yn theh ia ki ha ka jaka ba la pynkhreh lypa kaba heh kumba 19 hectare eiei. Kane ka jaka theh ka jrong kumba 25 meter ha kaba la don 5 tylli ki terrace kiba jrong kumba 5 meter kawei kawei.

1.4.5 AFFORESTATION

Ka ACL ka don jingthmu ba hadien ba la dep tih ia u mawshun na kine ki par, yn thung pat da ki dieng bad kiwei kiwei ki jait jingthung, ryngkat bad ka jingsyllok bad ka Forest department, ha baroh kawei ka par.

1.4.6 CONTROL OF GROUND VIBRATIONS

Ki Lad Jingiada ha kaba iadei ban punduna ia ka PPV kaba mih na ka jingpynbthei bom ki long kummne :

- Ban pyndonkam da ki short delay detonator ha ki thliew ban pynbthei bom.

- Ia ka jing pynbthei bom ha ka par, yn pyndonkam da ka sequential blasting machine.
- Yn pynduna ia ka rukom thep ia ki bom.
- Yn pynduna ia ki thliew ban buh bom.
- Ia ka rukom pynbthei bom, yn shim khia ba nym don kano kano ka jingktah ia ki ing ki sem ba marjan ka par mawshun.
- Katkum ka jinglap ia ka jinglong jong ka khyndew ha kane ka par, ia ki charge weight yn khein ha ka jingjingai ba pher ba pher khnang ba ka threshold PPV value kan long tang kumba 10 mm/s eiei.
- Ha man ka por ba pynbthei bom, yn shim khia ban sumar bad ban peit bniah ia ka rukom trei bad pynbhtei. Yn don ruh u officer ha man ka por ban peit ia ka rukom trei.

1.4.7 SOCIO ECONOMIC ENVIRONMENT

Ha kane ka par ym don kano kano ka jaka sah briew bad kan nym don ruh kano kano ka jingktah ia ki nongshong shnong ne ia ki shnong . Na ka kane ka jingtih mawshun, ki briew na ki shnong ba marjan jong kane ka par kin ioh jingmyntoi ha ki liang ai kam ai jam lane ki kam ba har rukom (direct & indirect employment).

1.4.8 OCCUPATIONAL HEALTH & SAFETY MEASURES

Na ka liang ka koit ka khiah ki nongtrei ba tih mawshun, kin shah ktah bha na ki pum pum, jingsawa bad ki jingkhieh. Ka ACL ka thmu ban peit bniah ia ki rukom trei ba biang ban nym ktah than ia ki nongtrei.

Ka M/s ACL kan sa shna la ka jong ka jaka ai jingsumar, kaban don u doctor, ki nurse, u compounder bad u pathologist na ka bynta ki nongrtei ha kharkhana dewbilat bad ka par mawshun.

Kin don ruh ki jing piet pyrman ha kaba iadei bad ka koit ka khiah jong ki nongtrei. Yn ai jinghikai ruh man ka por ia ki nongtrei ha liang ka jingkhuid, ka mariang bad ka rukom iada na ki jingpang. Yn don ruh ki prokram ba ai jingtip shaphang ki jingpang AIDS, Malaria, Filariasis etc.

1.5 ANALYSIS OF ALTERNATIVES (TECHNOLOGY & SITE)

Ha ka par mawshun, ka ACL ka don jingthmu ban tih da ka rukom ba khot ka Open Cast Mechanized method. Ia kum kane ka rukom tih yn pyntrei da kaba shu sam thliw, pynbthei bom, ban thep bad ban kit da ki kali heh kum ki Heavy Earth Moving Equipment. Ia une u mawshun, yn nym lah ban shu tih na jrong namar u long u maw uba eh bad uba bha.

1.6 ENVIRONMENTAL MONITORING PROGRAMME

Ka ACL kan sa peit bniah ia ka jinglong ka mariang katkum ki jingbthah ba la ai ka CPCB/IBM/MoEF.

ENVIRONMENTAL MANAGEMENT CELL

Kan don ruh kawei ka Environmental Cell, ha kaba yn lam khlieh da u Manager jong ka mines. Ka kamram jong u kan long ban peit bniah ia ka rukom trei ban nym ktah ka mariang.

1.7 PROJECT BENEFITS

Ki briew kiba ha ki shnong ba marjan kane ka par, kin ioh jingmyntoi ba har rukom kum ha ka liang ai kam ai jam bad kiwei kiwei. Ka ACL ka don jingthmu ban trei ki kam ban ioh jingmyntoi ia baroh ki paid ba marjan katei ka par kum ha kine harum :

- Pule puthi
- Ka imlang sahleng
- Ka koit ka khiah
- Ki rukom kamai pisa
- Ha ka rep ka par
- Ka ai jinghikai computer
- Ka kam pynroi ia ki kynthai bad ki samla

Ka ACL ka la mang 10 lakhs tyngka ban pyntrei ia kine ki kam ba la kdew haneng.

1.8 BUDGET FOR ENVIRONMENTAL MANAGEMENT PLAN

Na ka 8.75 crore jong ka jingpynlut baroh, kumba 85 lakh tyngka ei ei la thmu ban pynlut na ka bynta ka jingpyntrei kam ia ka Environmental Management Plan.

The diagram illustrates a sequence of terms in a series. It consists of a series of horizontal lines of decreasing length, arranged in a descending staircase pattern. The lines are labeled with the following terms: a_1 , a_2 , a_3 , a_4 , a_5 , a_6 , a_7 , a_8 , a_9 , a_{10} , a_{11} , a_{12} , a_{13} , a_{14} , a_{15} , a_{16} , a_{17} , a_{18} , a_{19} , a_{20} , a_{21} , a_{22} , a_{23} , a_{24} , a_{25} , a_{26} , a_{27} , a_{28} , a_{29} , a_{30} , a_{31} , a_{32} , a_{33} , a_{34} , a_{35} , a_{36} , a_{37} , a_{38} , a_{39} , a_{40} , a_{41} , a_{42} , a_{43} , a_{44} , a_{45} , a_{46} , a_{47} , a_{48} , a_{49} , a_{50} , a_{51} , a_{52} , a_{53} , a_{54} , a_{55} , a_{56} , a_{57} , a_{58} , a_{59} , a_{60} , a_{61} , a_{62} , a_{63} , a_{64} , a_{65} , a_{66} , a_{67} , a_{68} , a_{69} , a_{70} , a_{71} , a_{72} , a_{73} , a_{74} , a_{75} , a_{76} , a_{77} , a_{78} , a_{79} , a_{80} , a_{81} , a_{82} , a_{83} , a_{84} , a_{85} , a_{86} , a_{87} , a_{88} , a_{89} , a_{90} , a_{91} , a_{92} , a_{93} , a_{94} , a_{95} , a_{96} , a_{97} , a_{98} , a_{99} , a_{100} .