

# ENVIRONMENTAL IMPACT ASSESMENT REPORT

## **KAMRANGKO KANDIKE TALATANI**

PROJECT-NI BIMING:  
MEGHALAYA INTEGRATED TRANSPORT PROJECT-NI (MITP) NINGO  
SALIRAM MEGHALAYA-NI SOROKRANGNA DETAILED PROJECT  
REPORT-KO TARIANI (DPR)

Ong-katatani Tarik: 06.01.2020

Tarigipa: BK

Nianiko dakgipa: BK/CB

Ra-chakaniko Dakgipa: BPS

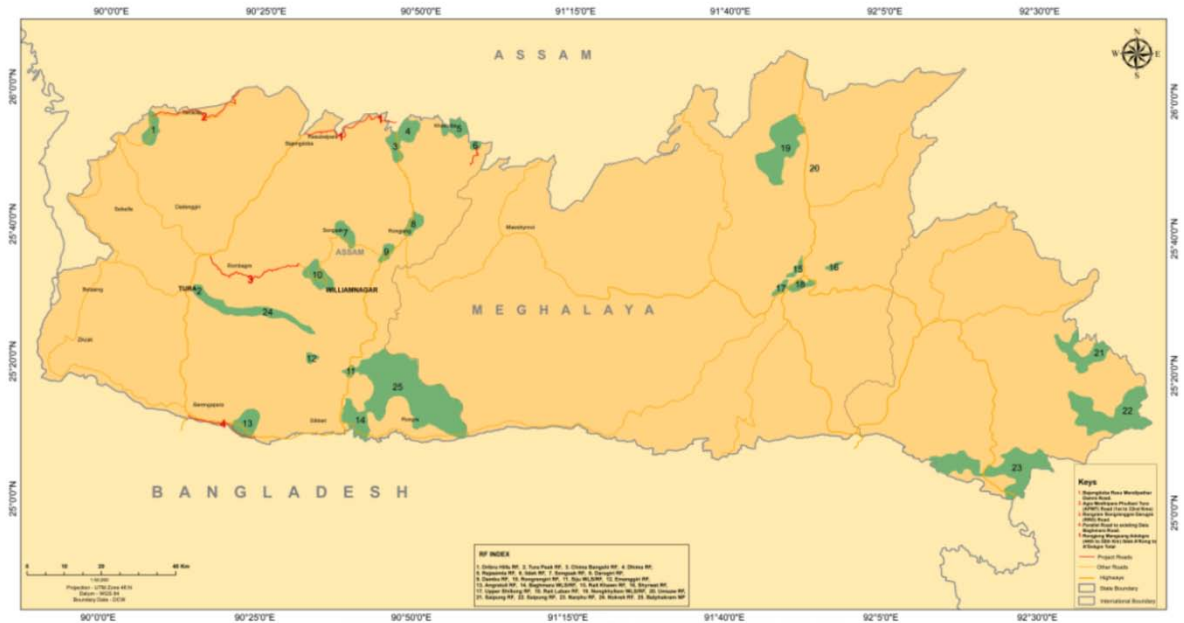


## KAMRANGKO KANDIKE TALATANI

1. India sorkari, Meghalaya sorkarini palo *MEGHALAYA Integrated transport project, MITP Phase - I Roads-na* tangka-paisako on-a gita World Bank-o tangka US \$ Million 82-na galaniko dakaha. Department of Economic Affairs (DEA) aro World Bank, MITP-na skanggipa US\$ million 110-ko (loan US\$ million 82 aro State Share US\$ million 28) on-a ku-rachakaha, jeni ningon Phase-I o a-dokni sorok km 266.82 ko namdapatani ko dakgen aro unbaksana gipin namdapatani kamrangko ka-gen. Phase-I ni ningo gimik sorok chol 10-ko seokaha, uarangara Salaram Meghalaya-oniko chol 5 aro Saliram Meghalaya-oniko chol 5 seokaha.
  
2. Meghalaya PWD, MITP-na Salaram Meghalaya-o km 140 mangna (Skanggipa gadango) DPR (Detailed Project Road) ko tariengaha. Agan-kupattianiko dakgipa kamni mongsonggipa miksonganiara MITP-ni Phase-I o Saliram Meghalaya-o district-ni mongsongggipa sorokrangko tarina gita DPR-ko tariani ong-a. Ka-mao on-sogipa mongsongbatgipa sorokrang gimik km 139.668 ong-gipana Detailed Project Report-ko tarina M/s APS Corporations Pvt. Ltd., Meghalaya-na pakwataha.

Sl. No	Sorokni Biming	Sorok Badita Km Bakroa
1	Bajengdoba-Resu-Mendipathar-Damra Sorok	35.860
2	Agia-Medhipara-Phulbari Tura (AMPT) Sorok (km 1-gipaoni km 32-gipaona)	31.955
3	Rongram-Rongrenggre-Darugre (RRD) Sorok	40.400
4	Da-o donggipa Dalu-Baghmara sorokko taridapenggipa	20.853
5	Rongjeng-Mangsang-A-dokgre (km 44-gipaoni km 55-gipaona) Ildek A-kongoni A-dokgreona	10.600
	<b>Gimik</b>	<b>km 139.668</b>

3. Sorok tariani project-ko ka-na mangsonganiko dakgipaming Meghalaya-o chel-chake rakkigipa biaprangni noksa.



4. Sorok tariani project-rangko talatani:

Sorok tariani project-rang pilakan Meghalaya PWD (Roads) NH-ni ningo ga-aka. Sorok tariani project-rangko ka-nagipa biaprangko ka-mao talatenga:

- a. **Bajengdoba-Resubelpara-Mendipathar-Damra Sorokko** tarina amenggipa North Garo Hills District-o ong-a aro Latitude:  $25^{\circ} 54'11.14''$  N oni  $25^{\circ} 55'56.94''$  N, Longitude:  $90^{\circ} 31'35.86''$  E oni  $90^{\circ} 46'21.016''$  E o ga-aka. Ua sorok saliramoni salaramona dakanga aro ua sorok NH51-oni a-bachenggen aro NH62-o bon-chotegen. Ua sorokko gari ge-sa re-na chake tarieming sorok a-samko name ro-ong ane tarigen. Uano gimik ge 144 sorok bibrarang donga, uarangoni T sorok bibra ge 131 aro Y sorok bibra ge 13 donga. Uano da-o donggipa sorok jolgimiko ge 6 dal-dalgipa dolongrang, ge 10 chonchonggipa dolongrang, ge 61 Slab Culvert-rang aro ge 74 HP Culvert-rang donga.
- b. **Agia-Medhipara-Phulbari-Tura (AMPT) Sorokko (km 1-gipaoni km 32-gipaona)** tarina amenggipa Sineboard-oni a-bachengeming Nidanpur-o bon-chotea je sorokan salaramoni saliramona dakanga. Ua sorok tarina amenggipa biapara Latitude:  $26^{\circ} 0'17.02''$ N oni  $25^{\circ} 56'5.08''$ N, Longitude:  $90^{\circ} 6'55.07''$ E oni  $90^{\circ} 20'59.41''$ E ni gisepgriko ga-aka. Ua soroko ge 64 chonchonggipa sorok bibrarang donga uarangoni T sorok bibra ge 59 aro Y sorok bibra ge 5 donga aro biap dam 95-o hume pipe, culvert aro dolongrang donga.

- c. **Rongram-Rongrengre-Darugre (RRD) Sorok** saliramoni salaramona dakanga. Sorok tarina amenggipa biapara Latitude:  $25^{\circ}33'13.58''\text{N}$  oni  $25^{\circ}35'55.37''$ , Longitude:  $90^{\circ}16'45.14''\text{E}$  oni  $90^{\circ}33'42.87''\text{E}$  o ga-aka aro sorok tarina amenggipa jolгимakan a-bri gita dakanga. Sorok jolгимiko a-a donggiparangara gama-ge-aniko dakgipa a-a, matchu-matterangko cha-amatgipa a-a, manderangni a-a, ba sorkarini a-arang ong-a. Ua sorokko gari ge-sa re-na chake tarieming sorok a-samko name ro-ong ane tarigen. Ua da-o dongenggipa sorok jolгимiko ge 75 sorok bibarang, ge 4 dal-dalgipa dolongrang, ge 23 chonchongipa dolongrang, ge 96 slab culvert-rang aro ge 134 HP culvert-rang donga.
- d. **Da-o donggipa Dalu-Baghmara sorokko taridapna amenggipa West Garo Hills District**-o ong-a aro Paulpara, Dalu-oni a-bachengeming Phakirkona-o bon-chotea. Ua sorok saliramoni salaramona a-kongarigipa biap gita dakanga aro Latitude:  $25^{\circ}12'35.43''\text{N}$  oni  $25^{\circ}9'43.51''\text{N}$ , Longitude:  $90^{\circ}13'50.28''\text{E}$  oni  $90^{\circ}24'31.75''\text{E}$  ni gisepgriko ga-aka. Sorok jolгимiko a-a donggiparangara gama-ge-aniko dakgipa a-a, matchu-matterangko cha-amatgipa a-a, manderangni a-a, ba sorkarini a-arang ong-a. Ua sorokko gari ge-sa re-na chake tarieming sorok a-samko a-achi dapgen. Uano chonchongipa sorok bibarang ge 45-mang donga, uarangoni ge 36 T sorok bibra aro ge 9 Y sorok bibarang donga. Da-o donggipa sorok jolгимiko ge 7 dal-dalgipa dolongrang, ge 4 chonchongipa dolongrang, ge 8 slab culvert-rang aro ge 65 HP culvert-rang donga.
- e. **Rongjeng-Mangsang-A-dokgre (km 44-gipaoni km 55-gipaona) Ildek A-kong oni A-dokgre-ona** sorok tariangna amenggipa North Garo Hills District-o ong-a aro Latitude:  $25^{\circ}49'55.18''\text{N}$  oni  $25^{\circ}55'56.94''\text{N}$  aro Longitude:  $90^{\circ}58'26.70''\text{E}$  oni  $90^{\circ}46'21.016''\text{E}$  ni gisepgriko ga-aka. Ua sorok salgipengoni salgroona dakanga aro a-briarigipa biap gita dakanga. Sorok jolгимiko a-a donggiparangara gama-ge-aniko dakgipa a-a, matchu-matterangko cha-amatgipa a-a, manderangni a-a, ba sorkarini a-arang ong-a. Ua sorokko gari ge-sa re-na chake tarieming sorok a-samko a-achi dapgen. Ua soroko ge 19-mang sorok bibra donga, uarangoni T sorok bibra ge 8 aro Y sorok bibra ge 11 donga. Ua da-o dongenggipa sorok jolгимiko ge 1 dal-gipa dolong, ge 4 chonchongipa dolong, ge 6 slab culvert aro ge 61 HP culvert-rang donga.
5. Da-ona kingkingde State Highway Agia-Medhipara-Phulbari-Tura (AMPT) sorokna (km 1-ni to km 32-ona) agrede bang-bata sorok jolгимikan gari ge-sa re-na chakgipasan ong-aia. Badiaba sorokrang namjaha aro badiabarang alamala namkalengkua aro mitam

sorokrangde bilongen namjabeaha. Badita apale sorokko tarigen, uan ka-mao janapgipa gita ong-gen.

6. Environmental Impact Assessment Report-ko Saliram Meghalaya-o sorok tariani project ming 5-ko ka-na mangsonganiko dakgipa pilaknan tariaha aro uako, kam ka-mitingo nengnikanirangko chagrongnagipa pilakon name nianiko dakeming tariaha. **Samtangtango donggiparangko nirok-simsakaniko dakna sorokni paktangtangan metre 500 Corridor of Impact-ko donna aro project influence zone-ko sorokoni km 10 ong-e sorok paktangtangchin donaha.**
7. Detailed Project Report-ni bakna Environmental Assessment Study-ko 2019 bilsini October aro December jani gisepo tariaha. Ian Environmental Impact Assessment-ni (EIA) report ong-a jekon World Bank-chi tangka on-enggipa Project-na Operational Policy 4.01-ko nangenggiparangko chu-sokatna taraiaha.
8. Corridor of Impact-ni ningogipa samtangtango donggiparangko 2019 bilsini November-December jarango consultant-rangchi nianiko dakaha. Balwani rokkom, gam-ani gadang, chini rokkom aro a-ani rokkomrangni sakkirangko chimonganiko dakeming PCB-chi ra-chakgipa laboratory-o nianiko dakaha aro project ka-enggipa biaprangna dongimin balwa aro gam-ani gadango gitan ong-a ine uarangko nianio man-aha.
9. Meghalaya a-doko sin-a-ding-anirangara a-a chu-a ba on-anio pangchaka. Sal raka-mikka wanio pangchake, Meghalaya-o rokkom bri bilsini-karirang donga. Sorok tarina mangsonganiko dakgipa biaprangara Meghalaya a-dokni saliram district-rango ong-a aro saliram Meghalaya-ara a-briarigipa biap ong-an baksana salgrochipak a-kong dakgipa biap ong-a.
10. Sorok tariani project-na mangsonganiko dakgipa biaprang Seismic Zone V-o ga-aka, jean India-ni seismic zone map-ni gitade dal-gipa banggrianirang ong-naba donggipa biap ong-a (IS 1893 - Part I: 2002). Sorok tariani project-ko ka-na amenggipa bakrangara banggrianirang ong-gipa biap ong-ani gimin chanchianiko dakeming IRC: 6-2014-ni ningo on-gipa ainrango pangchake rikanirangko dakna mangsonganiko dakaha.
11. Sorok tariani project-ka ka-na amenggipa biaprang jolгимikon a-arang donggipara ripinge rakkigipa buring-bolgrimrang, songni manderangni buringrang aro sorok rikamrango nok-jamrang donggipa biap ong-a.

## 12. Do-o-matrangni Rokkomrang:

Sorok tariani project-ko ka-na amenggipa biaprango donggipa do-o-matrangni rokkomrangko ka-mao mesokatenga:

Sl.	DO-O-MATRANG					
No.	Sorokni Biming	Matburingrangni rokkomrang	Do-orangni rokkomrang	Me-plipni rokkomrang	Chipu-matpu dakgiparangni rokkomrang	Na-tokrangni rokkomrang
1	Bajengdoba-Resu-Mendipathar-Damra Sorok	6	86	15	34	26
2	Agia-Medhipara-Phulbari-Tura (AMPT) Sorok (km 1-gipaoni km 32-gipaona)	8	74	9	54	29
3	Rongram-Rongrengre-Darugre (RRD) Sorok	7	99	15	44	28
4	Da-o donggipa Dalu-Baghmara sorokko taridapenggipa	8	57	10	30	25
5	Rongjeng-Mangsang-A-dokgre (km 44-gipaoni km 55-gipaona) IldekA-kongoni A-dokgreona	7	94	15	44	21

13. Buring-bolgrim/Chelchake rakkigipa biap/Nosto ong-ninggipa biaprang dongani aro kam ka-na bilko man-a nangani:

### a. Bajengdoba-Resubelpara-Mendipathar-Damra Sorok

Sorok tarina amenggipaoni km 10-onade National Park, aro Wild Life Sanctuary-rang dongja aro ripinge rakkigipa buring-bolgrimrangba dongja. Ua sorokko tarina amenggipana MoEF-ni Amendment (dt. 1<sup>st</sup> December, 2009) on Environmental Notification (September 14, 2006), Government of India-o pangchake, maming bil man-a nangani dongja maina ua biaprango sorok tarina gita ua biaprang Category 'A' ba 'B' ni ningo ga-akja.

**b. Agia-Medhipara-Phulbari-Tura (AMPT) Sorok (km 1-gipaoni km 32-ona)**

Ua sorokko tarina amenggipa biaponi km 10-onade ripinge rakkigipa biaprang dongja. Agia-Medhipara-Phulbari-Tura (AMPT) Sorokni (km 1-gipaoni km 32-gipaona) bakrango buring damgni donga, indiomangba ua bako sorok tarina gita maming bil man-a nangani dongja maina sorok tarina amenggipana ua buring-bolgrimni bakrangoniko a-arangko nangdapjaenga. Sorok tarina amenggipa biaprang Asian mongma batsotram biap damsni donga indiba ua biaprangara Meghalaya-o mongma batsotram biap ine sorkarichi parakgipa biaprang ong-a aro ua biaprangara chel-chakaniko nanggipa biaprang ong-a maina Asian mongmarangara **Schedule-I (WPA-1972) aro IUCN-ni ningo gimaangenggipa mongmani rokkomrang ine parakgipa ong-a**. Uni gimin, ua sorok tarina amenggipa biapara ‘**Category B-o**’ ga-aka aro India sorkarini EIA niamrang aro World Bank-ni niamrango pangchake Meghalaya-ni State Impact Assessment Authority-oniko (**SEIAA**) bilko man-a nanggipa ong-a.

Mongma batsotram biaprangara:

<b>MONGMA BATSOTRAM BIAPRANG</b>		
<b>SI No.</b>	<b>Biapni Biming</b>	<b>CH/BM</b>
<b>1</b>	Mothapara	2/150
<b>2</b>	Mothapara	2/200
<b>3</b>	Borogobol	4/280
<b>4</b>	Belguri	5/810
<b>5</b>	Nanguapara part -2 (khasipara)	9/330
<b>6</b>	Nanguapara part -2	9/690
<b>7</b>	Hollaidanga Reserve Forest	29/100

**c. Rongram-Rongrengre-Darugre (RRD) Sorok**

RRD sorok joljol salgipengchipak Nokrek National Park donga aro Km 7-mang ong-a aro ua sorokan Nokrek Biosphere Reserve-ni salgrochipakni sima-ariko ong-ata. Iarangni a-selan ua ‘**Category B**’ o ga-aka aro India sorkarini EIA niamrang aro World Bank-ni niamrango pangchake Meghalaya-ni State Impact Assessment Authority-oniko (**SEIAA**) bilko man-a nanggipa ong-a.

**d. Da-o donggipa Dalu Baghmara sorokko taridapna amenggipa:**

Ua sorok buring damgni gita dakanga, uarangara Gobrakura R.F. aro Angratoli R.F. Ua sorokoni km 11 mang chel·ao Balpakram National Park donga aro km 20 mang chel·ao Baghmara Pitcher Plant Sanctuary donga aro indake ua sorok tarina amenggipa ua damgni ripinge rakkigipa buringoni chel·a. Ia sorok tarina amenggipana MoEF-ni Amendment (dt. 1<sup>st</sup> December, 2009) on Environmental Notification (September 14, 2006), Government of India-o pangchake maming bil man·a nangani dongja maina ua biapara sorok tarina gita Category ‘A’ ba ‘B’ ni ningo ga·akja.

**e. Rongjeng-Mangsang-A·dokgre (km 44-gipaoni km 55-gipaona) Ildek A·kongoni A·dokgreona**

Rongjeng-Mangsang-A·dokgre (km 44-gipaoni km 55-gipaona) Ildek A·kongoni A·dokgreona dakanggipa sorok Ildek R.F. (km 50/300-oni km 51/900-ona) gita dakanga. Ua sorokko tarina gita maming bilko man·a nangani dongja maina sorok tarina gita Ildek R.F.-ni a·ako nangdapjaenga. Sorok tarina amenggipa ripinge rakkigipa biaprang gita dakangja indiomangba sorok tarina amenggipani a·bachenggipa bak Ildek chibima jolo chel·chake rakkina nanggipa bang·a janggi gnanggiparang donga. Ua sorokko tarina gita MoEF-ni Amendment (dt. 1<sup>st</sup> December, 2009) on Environmental Notification (September 14, 2006), Government of India-o pangchake maming bil man·a nangani dongja maina ua biapara sorok tarina gita Category ‘A’ ba ‘B’ ni ningo ga·akja.

**14. Bol Den·ani**

Gimik ge·bonga project-rangon bolrangko den·a nangani donga. Pilak den·gimin bolrangni pal walku salopna man·batgipa bolni rokkomo pangchake bol pangsa den·gipana pang 10 ge·dapaniko dakgen. Project ka·nagipa biap damprako bol den·a nanggiparangara:

Sl.	Bol Den·ani	
No.	Sorokni Biming	Bol Pang
1	Bajengdoba-Resu-Mendipathar-Damra Sorok	134
2	Agia-Medhipara-Phulbari-Tura (AMPT) Sorok (km 1-gipaoni km 32-gipaona)	54



3	Rongram-Rongrengre-Darugre (RRD) Sorok	155
4	Da-o donggipa Dalu-Baghmara sorokko taridapenggipa	53
5	Rongjeng-Mangsang-A·dokgre (km 44-gipaoni km 55-gipaona) Ildek A·kongoni A·dokgre	37

15. Ming 5 sorok tariani project-ko ka·na mangsonganiko dakgipa biaprang gimikon do·o-matrang donggipa biap ong·a. Indiomangba, sorok tariengmitingo ua biapona matburingrangni cha·ambani aro a·a cho·giparango ga·akani dongbrejawa. Uandakgipa a·sel ong·aoniko champengna gita a·a cho·gipa biaprango metre 2.4 chu·e silchekchi kadule dongen. Matburingrang a·a cho·gipaona ga·akonanggenchimoba, uarangko nisiatjawa aro ua matburingrangko contractor-rang, PMU aro Forest Department baksa bakrime naljoke watatpilaniko dakgen.

16. A·a Cho·ani:

Sorok tariani project ming 5 gimikon a·a cho·ani donggen aro a·briko sugipa a·arangko cho·bilbilgen aro da·o donggipa sorok aro culvert-rangkoba cho·gen. Cho·gimin a·arangko soroko dapna jakkalgen aro gitthagipa a·arangko a·a galna don·gimin biaprango galgen. Badita a·a cho·na nanga, uko ka·mao mesokatenga:

Sl.	A·A CHO·ANI	
No.	Sorokni Biming	Badita Cho·na Nanggen (CUM)
1	Bajengdoba-Resu-Mendipathar-Damra Sorok	154196.44
2	Agia-Medhipara-Phulbari-Tura (AMPT) Sorok (km 1-gipaoni km 32-gipaona)	600.86
3	Rongram-Rongrengre-Darugre (RRD) Sorok	114081.00
4	Da·o donggipa Dalu-Baghmara sorokko taridapenggipa	7620.86
5	Rongjeng-Mangsang-A·dokgre (km 44-gipaoni km 55-gipaona) Ildek A·kongoni A·dokgre	223464.57

17. Sorok tarianichi nengnikanirangko chagrongaoniko champengna gita kosako janapgiparangna agreba, Environmental Management Plan-ba nengnikanirangko champengani aro kam ka-ani bidingo agan-ku-pattianiko dakaha, jekon project-ko kam ka-engmiting somoio jakkalgen. Nengnikanirangko champengsona kamrangko ka-gipa name chu-sokna man-a gita nirok-simsakaniko dakani bewalrangkoba tariaha.
18. Sorok tariani project mingprakna Environment Management Plan-ko, EIA Study-o nianiko dakmitingo man-gipa nengnikanirangko champengsoani kamrangko talatna gita tariaha. Uarang sorokko tarina skang, sorok tariengmitingo aro sorok tarimane re-na jakkalaona kingking nengnikanirangko champengani kamrangko taldapataniko daka. Iarangko dakachi sorok taridapengmitingo samtangtanga nengnikanirangko on-gipako namatna man-gen. Environment Management Plan-ko Bidding Document-ni bak dakatgen aro jamano uarangko Contractor-ni EMP-ko tarina gita Contractor-rang jakkalgen.
19. Pilak sorok tariani project-rango EMP-ko kam ka-na tarisamsogiparangko, project-ko kam ka-enggipa sakantini dakna nanggnirang aro daito ra-na nanggnirangko masina man-a gita janapaha. Project gimikni PMU-ko PWD-ni Chief Engineer-chi dilenga jean project-ko chu-soke kam ka-na gita daito ra-na nanggipa ong-gen aro Chief Engineer-na Environmental Officer dakchaniko on-gen. PMU-ni dolko Project Management Consultant-ni (PMC) Environmental Officer dakchakaniko on-gen. EMP-ko kam ka-na daito ra-na nangchongmotgipade Contrator-an ong-gen.
20. Contractor-ni Environmental Engineer aro Health Safety Officer-an samtangtango donggiparangko naljoke rakkina kam ka-na nanggen. Ua official-rangni sakantio dakna nanggnirang aro daito ra-na nanggnirangkoba EMP-on talataha. PMU staff-rangna project-ni bidingo skie on-a aro kam ka-ani bewalrangko namdapatna nanggen maina staff-rangchi jako ra-na nangenggipa samtangtango naljoke rakkiani kamrangara uamangna gitalgipa kam ong-gen. Skie on-ani aro kam ka-ani bewalrangko namdapataniara project-ni bidingosan ong-aijawa indiba PWD-o ruuta somoirangna kam ka-angna man-a gitaba ong-gen.
21. Sorok tarianiko dakengmitingo samtangtango donggiparangko bilongbee nosto ong-atjana gita salantio nirok-simsakaniko dakna sorok tarina amenggipa cholpraknan Environmental Monitoring Program-ko tariaha. Ia programme-o Performance Indicator aro Process Indicator-rang donga. Performance Indicator nirok-simsakaniko dakna nanggipa bakko

amgen aro kam ka-engmiting somoio agan-parakjringaniko dakgen. Ian project-ko ka-anichi samtangtangna maiko ong-atenga, uko uina dakchakgen. Unbaksana, Process Indicator donga, jean kamrang baditana nambee chu-sokenga, uko nianio dakchakgen.

22. Samtangtango donggiparangni bidingo agan-parakaniko dakna gita, sorok tariani project mingpraknan agan-parakaniko dakani niamrangko donaha jerangkon ka-mao talatenga:

- Samtangtango donggiparangko naljoke rakkina kam ka-enggipani bidingo contractor-chi PMC-na salantio agan-parakaniko dakani
- PMC-chi antigniprako aro jaanti PMU-na agan-parakaniko dakani
- Management-na PMU-chi jagittamprako Audit ka-ani.

EMP-ko kam ka-enggipa gimikkon External Agency-chi Annual Audit ka-gen aro World Bank-na agan-parakaniko dakskachina gita PMU-na agan-parakgen.