PAPUA LNG PROJEK

SOTPELA RIPOT

TOTAL E&P PNG LIMITED

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Sotpela Ripot

1. Plen bilong Kirapim Wok

Total E&P PNG Limited (TEP PNG) na ol kampani husait i wok bung wantaim, itingting long kirapim wok Papua LNG Projek (displa Projek). Dispela Projek em wok bung namel long TEP PNG (40.13%), ExxonMobil PNG Antelope Limited na ExxonMobil PNG Elk Limited (37.03%) na PAC LNG Assets Limited, PAC LNG International Limited, PAC LNG Investments Limited, PAC LNG Overseas Limited na PAC LNG Holdings Limited (22.84%). Dispela projek igat tupela hap, 'Upstream' na 'Downstream'. Upstream wok bai istat long Elk na Antelope na kam mak long banis bilong PNG LNG long Caution Bay. 'Downstream' bai istap insait long banis bilong PNG LNG long Caution Bay. Projek bai igat opereta igo pas long 'Upstream' na opereta igo pas long 'Downstream'. Kampani igo pas long olgeta 'Upstream' wok em TEP PNG.

Dispela Projek bai kamapim wok long rausim na klinim gas na 'condensate' long 'Elk' na 'Antelope' insait long 'Petroleum Retention License 15' (PRL 15), long Galf Provins, Papua Niugini. Bai igat tupela 'pipeline' ilusim PRL-15 na ron antap long graun igo abrusim Muro na kamap long 'Orokolo Bay'. Na behain bai ron ananit long solwara igo kamap long 'Caution Bay' na igo insait long banis bilong PNG LNG 'Plant Site'. PNG LNG 'Plant Site' long 'Caution Bay' istap tupela ten (20) kilomita arasait long Pot Mosbi (Map ES1.1). Dispela em ol sampela bikpela wok mak bilong Projek

- Long hap we 'Well pads' na 'wells' istap long en, bai igat 'pipeline' ikarim gas imiks wantaim pipia na wara igo long 'Central Processing Facility' (CPF).
- Long CPF wok bilong klinim gas bai ikamap we masin bai rausim pipia na wara na lusim 'gas' na 'condensate' istap.
- Bai igat tupela 'pipeline'. Wanpela liklik na naraplea em bikpela. Sais bilong liklik em '10 inch' na bikpela em '40 inch'. Bikpela 'pipeline' bai karim gas na liklik bai karim 'condensate' long CPF na igo olgeta lo PNG LNG 'plant site' long Caution Bay.
- Bai igat ol operesen lo sapotim ol wok olsem niupela kemp we ol wok manmeri bai istap na wok, woksop bilong masin, hap bilong putim ol samtin bilong mekim wok projek, niupela rot long sapotim projek, na surukim ples balus igo longpela, hap lo kisim ston na hap bilong putim pipia bilong projek.

Hettok bilong ol narapla sait blo displa Projek istap lo Tebol ES1.1

Taim projek ikamap klostu long pinis bilong em, bai kampani kamapim wanpela plen long rausim olgeta samtin bilong projek yusim long kamapim wok. Dispela plen tu bai ilukluk long stretim olgeta pipia we projek ibin kamapim.

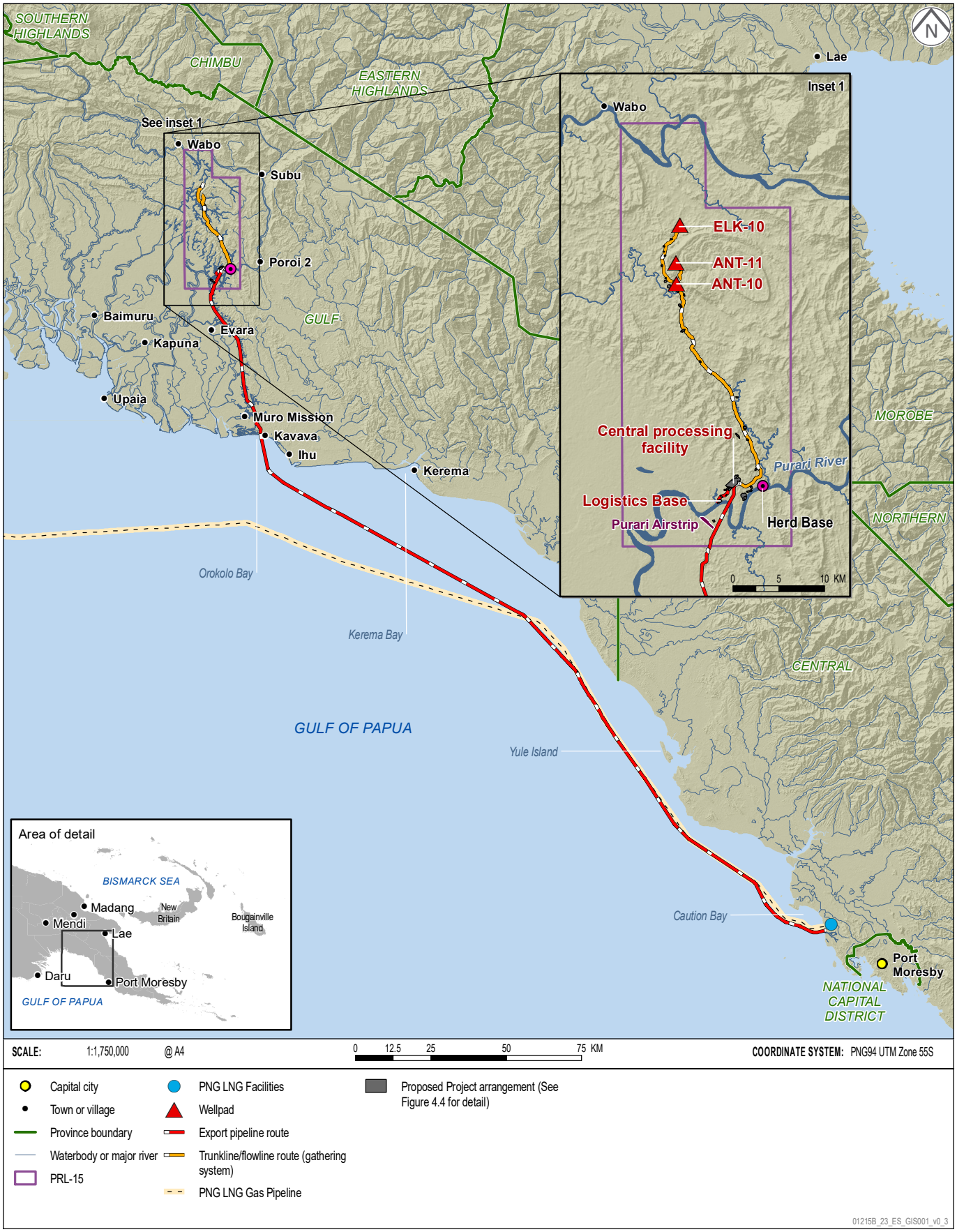
Klostu taim bai projek kamapim 'Basic Engineering'[1] wok.

As tingting bilong Projek em long kamapim 'gas' na 'condensate' we istap long 'Elk' na 'Antelope' 'gas field' insait long PRL-15 na salim igo long narapela kantri na tu long insait yet long PNG. Projek bai tingting strong na wok hat long lukautim ol pipol, busgraun, wara, na tu luksave long wok gavman na bisinis.

1 Dispela em wanpela wok bilong ojek ol ikolim 'Front-End Engineering and Design' (FEED).

Papua LNG Project | Environmental Impact Statement

FIGURE ES1.1



Tebol ES1.1 – Bikpela toktok bilong kamapim Projek

US$4 billion Wok painimaut itok olsem, namel moni mak bilong kamapim wok projek long 'upstream' iolsem US$4 billion sapos ol bin mekim long yia 2018. Na antap long dispela ibai igat narapla wok ('subsequent compression phases') we moni mak bai olsem US$0.9 billion.	**'840 MMscfd'** Long wanwan krismas namel mak bilong gas we projek bai kamapim. Lukolsem Projek bai winim klostu olsem '820 MMscfd' (antap mak bilong 'gas') 'gas' na '15,000 barrels' long wanwan dei long salim igo long narapela kantri.
'6.2 to 7.5 trillion cubic feet (Tcf)' Taim 'gas' ikam long antap long graun bai ibruk igo long 'gas' na 'condensate' bai lukolsem 'condensate' bai igat '15' igo long '20' 'bbl' long wanwan 'MMscf' 'gas' mak.	**Tripela (3) 'wellpads'** Igat tupela 'production pad' bilong 'gas', wanpela long 'Elk' na narapela long 'Antelope'. Igat narapela 'wellpad' bilong wara istap long 'Antelope'. Igat nainpela 'well' olgeta.
Tupela ten (10) na faivpela (5) krismas Faivpela (5) krismas bilong wok kamapim projek na tupela ten krismas (20) bilong ronim Projek na salim 'gas'. Dispela wok bilong Projek bai ron olgeta aua na olgeta dei long olgeta wik.	**Siksti (60) kilomita 'export pipeline' ron antap long graun na tupela handrit na siksti (260) kilomita 'export pipeline' ron ananit long solwara** 'Export pipeline' ron antap long graun bai istat long tamblo sait long arere bilong PRL-15 igo kamap long nambis bilong 'Orokolo Bay'. Lo displa hap, 'export pipeline' bai katim solwara bilong Galf bilong Papua na bihainim wankain rot olsem PNG LNG 'pipeline' na kam kamap long banis bilong PNG LNG long 'Caution Bay'. Strong bilong 'pipeline' bai igo inap fopela ten (40) krismas.
936 ha Hap ples we Projek bai kamap em klostu olsem nain handrit na tripela ten na sikis (936) 'ha'. Lo displa hap graun, klostu olsem'20%' em we sampela wok bilong ol narapela lain ibin kamap bipo.	**Klostu 6,000-pela wokmanmeri taim Projek em bisi stret** Namba blo ol wokmanmeri ibai namel long 50 igo inap 6000 long taim Projek ikamap long traipela mak.

'EIS' em wanpela wok painimaut long luksave long wanem samtin iken kamap long busgraun, wara, enimol na ol diwai istap long en taim projek ikirap na wok igo. Dispela wok painimaut tu bai iluksave long hau ol manmeri isave stap, raun na kaikai na tu hau ol isave bihainim pasin tumbuna. Dispela wokpainimaut (EIS) imakim hau projek ibihanim olgeta lo bilong PNG waintaim lo bilong kampani na tu ol bikpela toklukaut we olgeta kantri save behainim Dispela projek bai kisim dinau moni long ol bikpela benk[2].. Long kisim dispela dinau, Projek bai bihainim ol lo we 'International Finance Corporation' (IFC) imakim long lukautim busgraun na wara na ol pipol (IFC 2012). Projek tu bai bihainim lo we 'World Bank Group' imakim long lukautim busgraun na wara na gutpela sinduan bilong ol pipol (IFC 2007).

2. Hap we Projek bai stap

2.1 Bus, graun na wara long hap bilong Projek

Dispela Projek bai ikaramapim sampela maunten, graun tamblo long maunten na nambis tu we istap tamblo long bikpela maunten ol ikolim 'Central Range'. Hap bilong projek em ikaramapim ol kainkain bus, graun na wara. Wara Purari wantaim olgeta hanwara bilong em isave pulim wara long dispela hap na igo bungim sol wara.

Long antap insait long PRL-15 igat sampela liklik maunten na baret. Tamblo igat ol flatpela graun na tais wara Purari na hanwara bilong em na wesan graun long 'Orokolo Bay' (Piksa ES2.1).

Long hap solwara we projek bai ikamap istat long 'Orokolo Bay' na go ananit long solwara ('Gulf of Papua') igo inap long 'Caution Bay'.

2 Dispela wokpainimaut (EIS) bilong busgraun, wara na pipol ikam arere long banis bilong PNG LNG Projek long 'Caution Bay'.

Piksa ES2.1 – Wara Purari tanimtanim olsem snek igo bungim solwara

Piksa: BMT WBM

2.2 Ol diwai na animol long wara na graun

Bus, graun na wara helpim gro bilong planti kainkain bus, gras na kain samting olsem, na tu ol enimol isave kaikai lo en. Dispela hap igat faivpela (5) kain bus istap (maunten bus (Piksa ES2.2), bus arere long wara, bus bilong tais na bush mangro,na bus arere long nambis). Ol binatang na pis ol samting istap insait long wara ('freshwater, estuarine, wetland') isave behainim hap we ol save kisim kaikai isi na stap long em. Sampela binatang na pis bai ilaik stap long bus arere long wara, bus tais na bus mangro. Hap we 'export pipeline' bai ron ananit long solwara igat kaikain hap we ol solwara gras istap na rif istap arere long 'Caution Bay' tasol.

Long yia 2000 ikam inap nau, igat bikpela wok katim diwai ikamap long hap we projek istap. Dispela hap igat planti mak bilong ol manmeri wokim ples, wokim gaden, na tu ol mak bilong ol kampani painim 'oil' na 'gas' bipo.

Piksa ES2.2 – Liklik Hap we Maunten Bus bilong bipo istap yet

Piksa: Iain Woxvold

2.3 Pipol, moni na pasin tumbuna

Insait long hap bilong projek igat olsem tripela ten na aet (38) ples-hauslain (Piksa ES2.3), wanpela kemp bilong ol kamman na wanpela gavman stesin. Tupela ples-hauslain, Mapaio pis Kemp na Poroi 1, istap insait long lisens hap bilong PRL-15. Sevenpela (7) tokples istap insait long hap bilong projek. Olgeta dispela tokples igat wankain tumbuna stori, kastom na tumbuna pasin. Ol dispela lain istap long PRL-15 na long wara Purari na hap bilong 'export pipeline'. Ol pipol bilong projek area isave yusim bus, graun na wara long kisim kaikai (Piksa ES2.4). Ol ples-hauslain long hap bilong projek ibin igat save long wok bilong ol narapela projek ikamap pinis long ples bilong ol olsem katim diwai na salim.

Long hap bilong projek igat nainpela (9) klinik iwok gut na narapela tripela (3) ino orait tumas. Na tu igat tripela ten na tu (32) ol skul istap insait long hap bilong projek. Nambawan wok painimaut ('baseline study') isoim olsem igat olsem ples tumbuna ibin stap bipo na kastom samting long em na tu igat ol ples tumbuna stori istap long en insait long hap bilong projek.

Piksa ES2.3 – Kain haus istap long ples-hauslain

Piksa: ERIAS Group

Piksa ES2.4 – Wok Painim Pis long Wara Purari bungim solwara

Piksa: ERIAS Group

3. Wok bilong kisim tingting olgeta lain

TEP PNG iluksave olsem bung wantaim ol 'stakeholder' em bikpela samting. Taim wok painimaut (EIS) ikamap, ol ibin bungim ol 'stakeholder' bilong projek. Long yia 2015 kam inap nau kampani (TEP PNG) ibin mekim ol 'program' we igat kainkain wei long wok bung wantaim ol 'stakeholder' bilong projek.

TEP PNG bai wok yet long bungim olgeta 'stakeholder' long sait bilong projek. TEP PNG wantaim 'Conservation and Environment Protection Authority' (CEPA) bai mekim wanpela bikpela wok long toksave long olgeta 'stakeholder' long sait bilong wok painimaut (EIS) ol ibin mekim long behainim s.55 bilong lo bilong busgraunwara *(Environment Act 2000)*. (igat plen blo displa wok bai kamap lo bilong yia 2020).

4. Skelim ol Senis na Gutpela Samting Projek bai ikamapim

Senis na gutpela samting projek bai ikamapim em ol kain olsem:

- Kisim graun.
- Rausim bus.
- Stretim graun.
- Karim kago na pipol igo kam (long sip, balus na rot).
- Sanapim kemp na ronim kemp bilong sotpela taim na tu long stap longpela taim.
- Wok Drilim.
- Wok kamapim, ronim na lukautim 'pipeline'.
- Skelim na stretim ol pipia.
- Sanapim bris bilong kago bilong sip, rausim wesen long sip kam soa long wara long 'Logistics Base'.
- Masin bilong kilim 'gas' (CPF), lukautim wara igat rabis na pipia 'gas'.
- Pulim wara long graun na lukautim wara ron antap lo graun.
- Digim ston.
- Kaikai bensin na disol.
- Kisim manmeri long wok na kago bilong projek.
- Stretim olgeta samtimg taim projek ipinis.

Sotpela ripot bilong luksave long ol senis bai ikamap we dispela wok painimaut (EIS) ibin skelim istap insait long Tebol ES4.1. Sampela moa toktok long mekim klia ol displa sotpela ripot i stap long Sapta 11 go inap long 17 blo dispela wokpainimaut (EIS).

Tebol ES4.1 – Ol sampelakain senis we dispela wokpainimaut (EIS) iskelim olsem ol iken kamap bikos long dispela projek EIS

Antap long Graun
Graun ken suruk na gris bilong graun ken go daun.
Swit bilong wara ananit long graun ken lus na tu wara antap long graun iken sot.
Strong bilong wara long karim ol pipia iken igo daun.
Swit bilong wara antap long graun iken lus.

Tebol ES4.1 – Ol sampelakain senis we dispela wokpainimaut (EIS) iskelim olsem ol iken kamap bikos long dispela projek EIS (go mo yet)

Antap long Graun
Ol namba bilong kainkain enimol, pis, binatang, bus na gras isave stap long wara bai iken igo daun taim ples ol istap igo sot.
Ples bilong kainkain enimol, pis, binatang, bus na gras iken igo bagarap.
Namba bilong kainkain enimol, pis, binatang, bus na grass bai iken igo daun.
Bilong Solwara
Swit bilong solwara iken lus.
Ol namba bilong kainkain enimol, pis, binatang na gras save stap long solwara bai iken igo daun taim ples ol istap isenis.
Pipol na Tumbuna Pasin
Pasin sindaun bilong ol pipol iken bagarap.
Bikhet na raskol pasin iken igo bikpela.
Ol pipol iken sot long graun long mekim gaden, painim abus, wokim haus na kisim ol samting bilong bus.
Ol senis (gutpla na nogut) long painim wok, wok bisnis na wei blo kisim moni.
Ol sevis bilong gavman olsem skul na haussik bai sot.
Ol birua bilong ol kainkian sik iken kamap bikpela.
Ol lida ikamp long tumbana kastom iken bugim hevi wantaim ol yangpela lain husait tu ilaik kamap lida.
Ples tumbuna ibin stap bipo na igat kastom samting long en na tu ples tumbuna we igat stori long en, iken lus.
Ol kaikai, ol timba na ol narapela samtimg yumi save kisim long bus iken igo sot.
Gutpela bilong ol pipol (Amenity)
Sampela senis o birua iken kamap long sindaun na helt bilong ol ples lain na ol wokmanmeri.
Lukluk bilong ples iken isenis tasol ino gutpela tumas.
Gokam bilong pipol na kago (long sip, balus na rot) iken igo kranki.

Projek iken kamapim sampela senis nogut. Projek igat wei long laukautim na stretim ol dispela kain senis. Nambawan wei em long abrusim olgeta dispela kain senis. Tasol sapos abrusim ino inap, projek mas wokim dispela senis igo liklik. Na sapos wanpela senis nogut ikamap orait, projek imas stretim dispela hap bihain, na tu wokim kompensasen, o mekim wanpela wok bekim long narapela hap. Wok painimaut (EIS) iskelim olsem planti ol senis bin ikamap bipo, olsem iliklik tru o liklik tasol (taim projek glasim wantaim ol samting bilong lukautim na stretim senis). Long taim bilong 'FEED', sapos sampela senis nogut istap (bikpela liklik or bikpela tru) bai projek ilukluk long sampela wei gen long lukautim na stretim dispela senis. Projek bai bung waintain ol 'stakholder' long wokim wei bilong mekim wok bekim long narapela hap na kompenseson tu.

Tupela provins (Galf na Sentrol) bai ikisim win moni ('royalties' na 'development levies'). Ol papagraun we Minista luksave olsem 'landowner' bilong projek bai kisim helpim ('statutory benefits') ikam long gavman. Ol lain stap arere long hap bilong projek itu bai kisim sampela halevim long projek kain olsem skul bilong wok, kisim, wok na bisnis long projek.

5. Wei blo lukautim Busgraunwara na Pipol

Projek igat lo bilong em yet bilong lukautim gutpela sindaun na pasin-wok bilong ol pipol na busgraunwara. Dispela lo bilong projek bai makim rot bilong projek bai ron, glasim na ripotim.

Projek bai imekim wanpela het plen (ESMP) bilong lukautim busgraunwara na ol pipol. Bai igat ol liklik lukaut plen ananit long dispela het plen. Ol lukaut plen bai imakim rot bilong Projek bai ikamapim tingting ('Project commitment') igo insait long wok bilong kampani na tu putim wei bilong glasim ol senis projek ibringim, na long glasim ol rot long stretim long gutpela wei.

Olgeta kontrak TEP PNG bai imekim wantaim ol kontrakta iwok long Projek imakim olsem ol imas behainim tingting bilong het plen (ESMP). Long luksave long sampela samting ino kamap long mak, bai igat wanwan wok panimaut long het plen. Dispela het plen bai ilukluk long kaikai bilong tingting bilong Projek ('Project Commitment'), na tu em bai lukluk long Tokorait Pepa long busgraunwara ('Environment permit conditions') taim iredi. Het plen tu bai ilukluk long senis ('design refinement') ikamap long Projek na ol senis ikamap long lo bilong gavmen.

Wok bihanim ol lo na plen bilong projek na tu ol tingting bilong Projek we kampani itok bai wokim em mas wokim stret bikos gavman bai luksave long ol dispela wok. Ol plen na wok imas bihainim stret na noken tru abrusim mak. Bai igat wok painimuaut oltaim na ripot bihanaim ol dispela ol wokmak.

Sampela moa ol toktok na luksave

Dispela ripot (EIS) em mas igo aut long pablik long bihainim lo bilong busgraunwara bilong kantri ('*Environment Act 2000')*.