

exploration & production



# PERFURASAUN ESPLORASAUN TIMOR-LESTE

Konsulta Maksoin-lisuk (stakeholder) (Parte 2)

24 Agostu 2010

eni

---

PART TWO:

- Environmental studies completed by Eni

---

PARTE RUA:

- Estudo ambiental ne'ebé completa hosi Eni



eni

exploration & production

# environmental studies/estudu ambiental sira

---

Review of literature and existing data

- Timor Sea climate
  - Ocean currents
  - Water temperature and salinity profiles
  - Regional marine biology
  - Protected species
  - Socio-economics (e.g. fisheries)
- 

Revizaun literatura nian no dados ne'ebé eziste ona

- Klima Tasi Timór nian
- Korrente Tasi-boot nian
- Temperatura bee nian no perfíl salinidade nian
- Biolojia Tasik (Marítimu) rejionál
- Espésie Protejidu sira
- Sosio-Ekonimiku (e.g. peskador sira)



exploration & production



eni

Sources of information:

- Australian government data (e.g. CSIRO, DEWHA, BoM)
  - Timor Leste data (e.g. timorNET)
  - Published scientific studies
  - Information from previous oil & gas projects
- 

Fonte informasaun nian:

- Dadus governu australianu nian (e.g. CSIRO, DEWHA, BoM)
- Dadus Timor-Leste nian (e.g. timorNET)
- **Estudu sientífiku ne'ebé publika ona**
- Informasaun hosi projetu petróleu & gás ida uluk nian



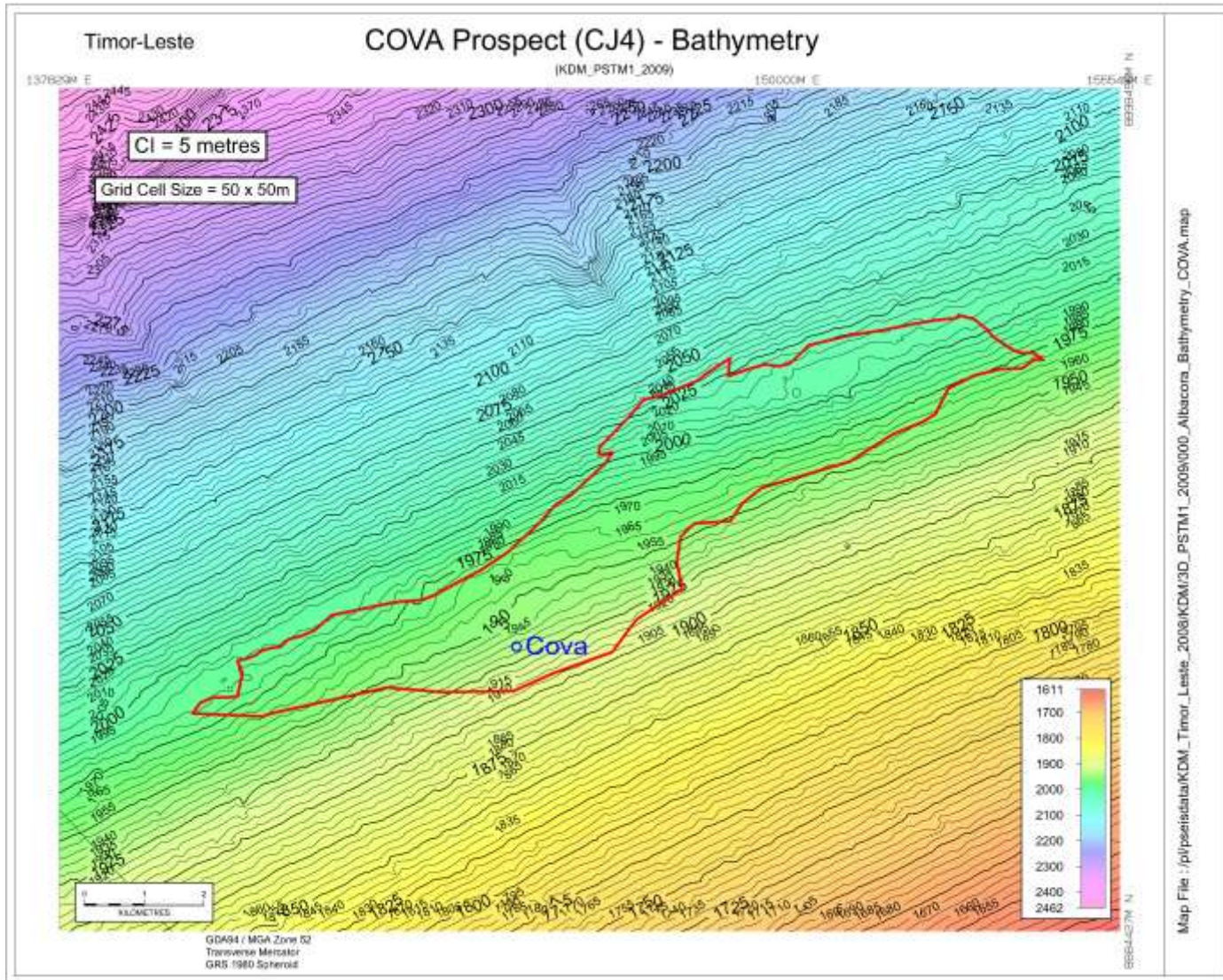
### Site-specific information

- Bathymetry survey
    - Water depth
    - Features of the seabed
  - Sampling of Kitan oil (same reservoir)
- 

### Informasaun spesífiku sítiu nian

- Levantamentu batimetria
  - **Bee nia lale'an**
  - Karakterístika tasi-okos nian
- Amostra petróleu Kitan nian (rezervatóriu ne'ebé hanesan)



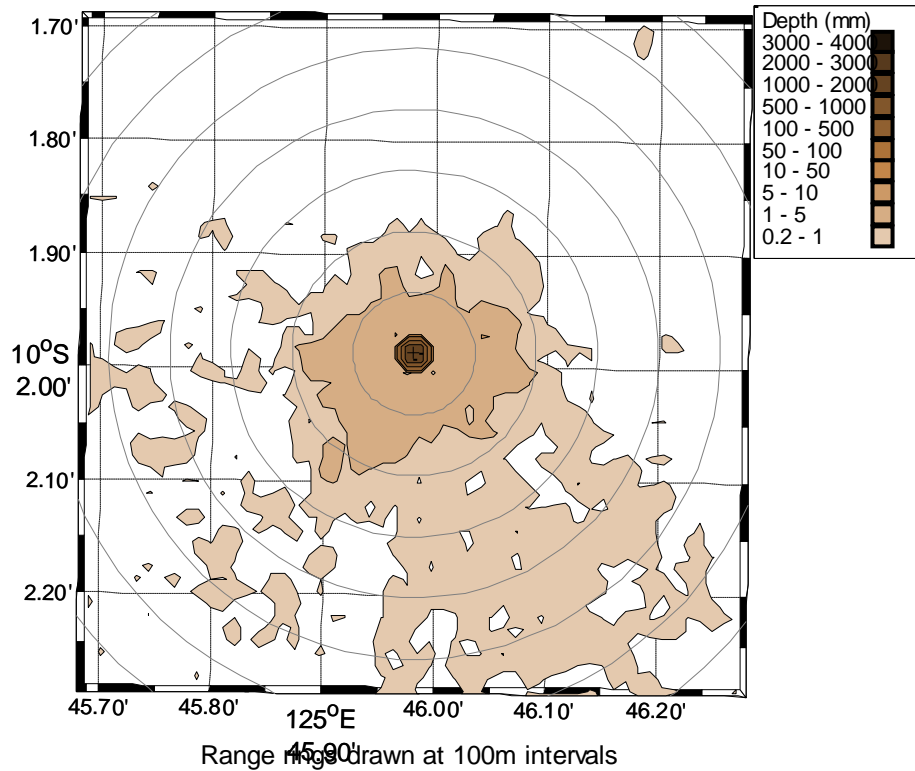




- Computer-based modelling
    - Drilling discharges (drill cuttings)
    - Accidental oil spills
  - Each model simulates:
    - Currents and winds of the Timor Sea
    - Behaviour of the discharge (e.g. settling of cuttings, evaporation of oil)
- 

- Modelu ne'ebé bazeia ba komputadór
  - Sasaoek perfurasaun nian (perfurasaun nia eskavasaun)
  - Fafakar petróleu asidentál
- Modelu ida-idak hakfudik/finje:
  - Korrente no anin Tasi Timór nian
  - Hahalok sasoek nian (ez. Klarifikasaun eskavasaun, evaporasaun petróleu)

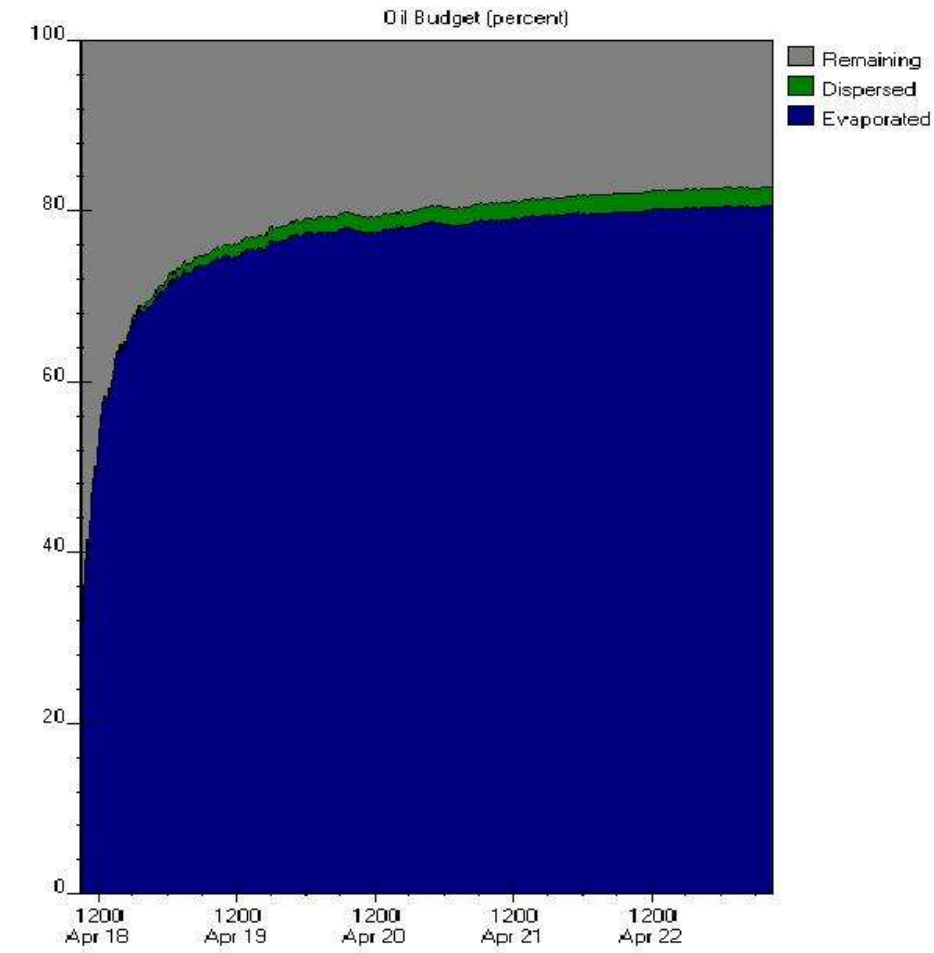




- Drill cuttings are predicted to drift up to 700 m from the *Saipem 10000*, and settle in a thin layer on the seabed (<1 mm)
- Perfurasaun nia eskavasaun ne'e prevee atu butuk hamutuk to'o 700 m hosi *Saipem 10000*, no akomoda iha dalas mihis iha tasi-okos nian (<1 mm)



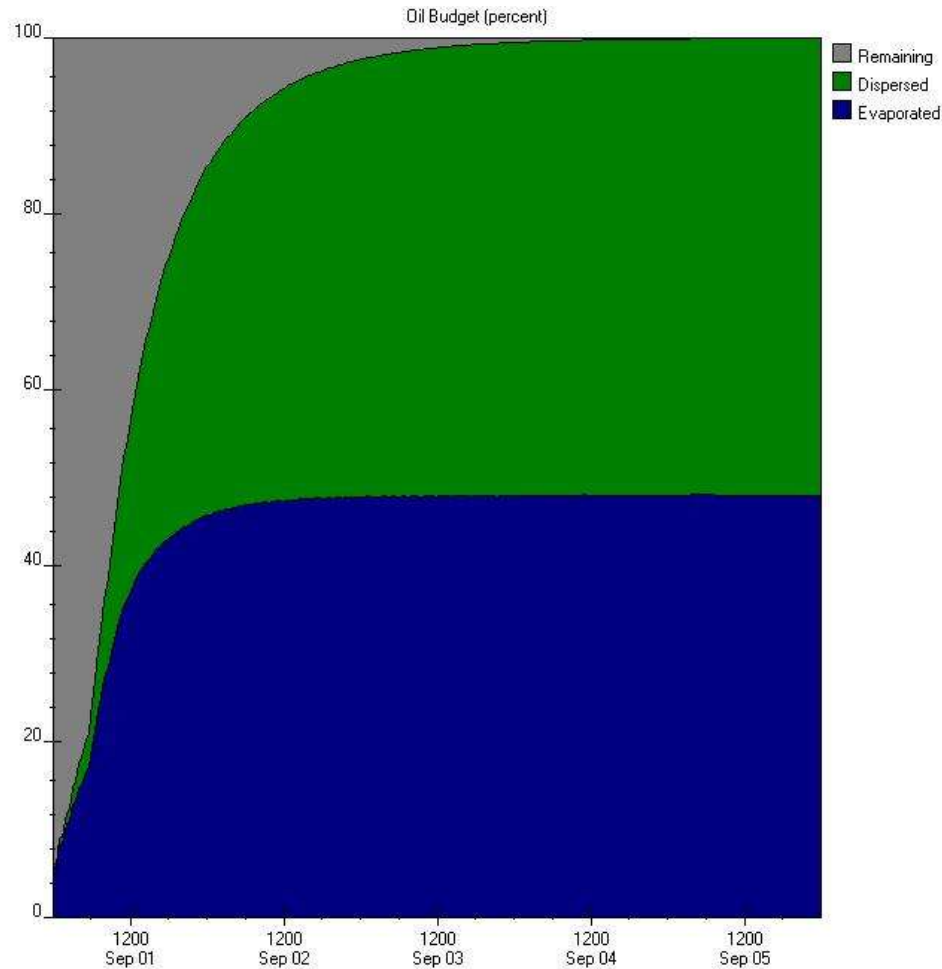




- Cova oil is expected to be similar to Kitan oil
- Kitan oil evaporates quickly, with 70–75% gone in 48 hours

- **Petróleu Cova nian ne'e** hein atu hanesan ho petróleu Kitan nian
- Petróleu Kitan evapora ho lais, ho 70–75% lakon iha oras 48

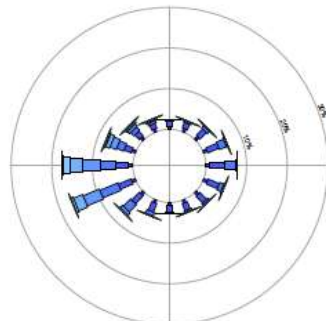




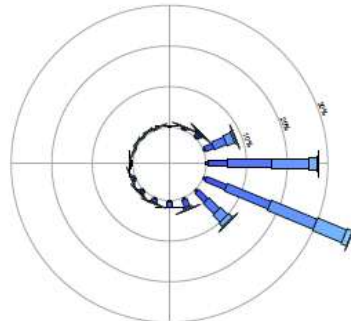
- Diesel is a light, persistent oil
  - 50% evaporates in the first 24 hrs. The other 50% disperses into the water within 72 hours
- 
- **Gazóleu ne'e nu'udar**  
Petróleu ida ne'ebé kmaan, persistente
  - 50% evapora iha oras 24 dahuluk. 50% seluk lakon ba iha oras 72 nia laran



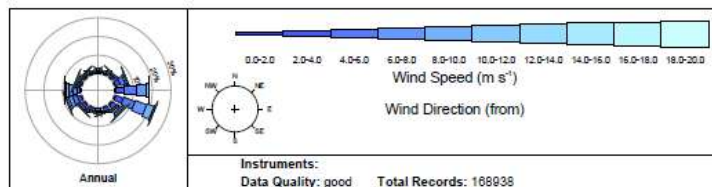
Combined Seasonal  
00:00 01 July 1997 to 23:00 30 June 2007



Summer  
(Oct Nov Dec Jan Feb Mar)



Winter  
(Apr May Jun Jul Aug Sep)



## Oil spill modelling

- EIS: winter conditions
- Revision to EIS: drilling in October-November (summer conditions)
- Wind direction: Westerly

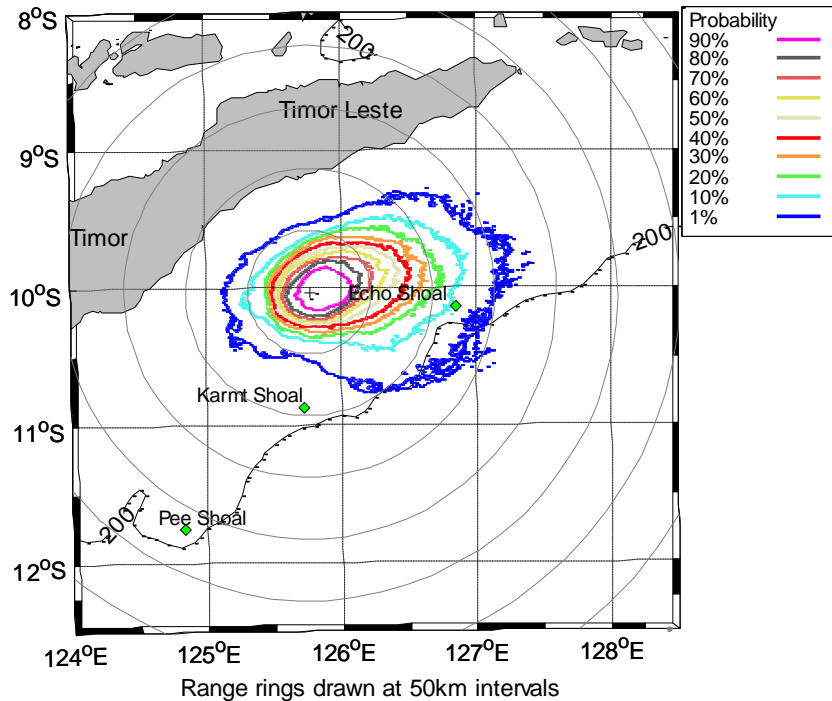
## Modelu Fafakar petróleu nian

- EIS: kondisaun sira invernu nian
- Revisaun ba EIS: perfurasaun iha fulan Outubro-Novembru (kondisaun sira invernu nian)
- Diresaun anin: ba oeste



eni

exploration & production



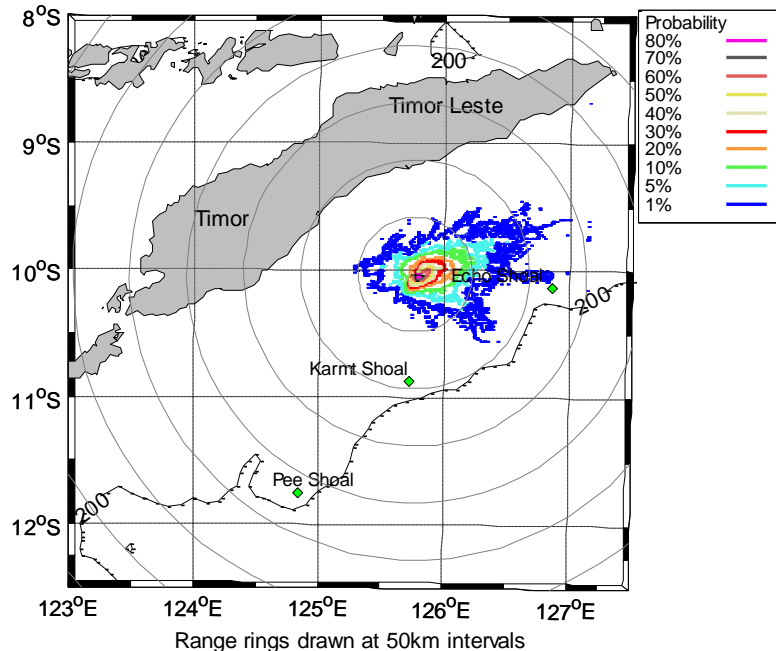
Well blowout (8 weeks):

- In summer, no contact with the coast is predicted
- The slick would stay in the Timor Sea, and evaporate into the air or disperse into the water.

Posu ne'ebe rebenta (Semana 8):

- Iha tempu invernu, sei laiha kontaktu ho tasi ibun nebe bele sasi'ik
- Rai rahun sira sei hela iha tasi Timor no sei evapura ba iha a'ar ou dispersa iha be laran





## Diesel spill (80m<sup>3</sup>):

- In summer, no contact with the coast is predicted
- The slick would stay in the Timor Sea, and evaporate into the air or disperse into the water.

## Fafakar Gazóleu (80m<sup>3</sup>):

- Iha tempu invernu, sei laiha kontaktu ho tasi ibun nebe bele **sasi'ik**
- Rai rahun sira sei hela iha tasi Timor no sei evapura ba iha a'ar ou dispersa iha be laran

