Managing Oil and Gas
for transparency, equity
and sustainability
Experiences from Timor-Leste

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Timor-Leste Institute for Development Monitoring and Analysis

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Contents

This presentation will discuss experiences, successes and challenges in managing oil and gas revenues and companies in Timor-Leste. We hope it will help Myanmar decide what to do and what to avoid.

1. Timor-Leste and Myanmar compared: petroleum dependency, petroleum wealth, poverty.
2. Are we cursed by our nonrenewable natural resources?
3. Timor-Leste’s Petroleum Fund: goals, implementation and experience to date.
Timor-Leste is the second-most petroleum-export dependent country in the world.

This dominates our history, our government, our economy ... and our future.
### In 2011

<table>
<thead>
<tr>
<th></th>
<th>Timor-Leste</th>
<th>Myanmar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td>1.2 million, 15% urban</td>
<td>50 mill., 34% urban</td>
</tr>
<tr>
<td><strong>Land area</strong></td>
<td>15,000 km², 8% arable, 1% irrigated</td>
<td>654,000 km², 15% arable, 3% irrig</td>
</tr>
<tr>
<td><strong>Land borders</strong></td>
<td>260 km</td>
<td>5,876 km</td>
</tr>
<tr>
<td><strong>Coastline</strong></td>
<td>783 km</td>
<td>1,930 km</td>
</tr>
<tr>
<td><strong>GDP/capita</strong></td>
<td>$3,950 ($960 non-oil)</td>
<td>$830 ($770 non-oil)</td>
</tr>
<tr>
<td><strong>State revenues</strong></td>
<td>$3.4b</td>
<td>$2.0b</td>
</tr>
<tr>
<td><strong>State expenditures</strong></td>
<td>$1.1b</td>
<td>$4.3b</td>
</tr>
<tr>
<td><strong>Foreign debt</strong></td>
<td>0 (no longer)</td>
<td>$8.1b</td>
</tr>
<tr>
<td><strong>All Exports</strong></td>
<td>$3.0b</td>
<td>$9.5b</td>
</tr>
<tr>
<td><strong>Non-petrol. exports</strong></td>
<td>$0.02b</td>
<td>$5.5b</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td>$1.3b</td>
<td>$5.5b</td>
</tr>
<tr>
<td><strong>Population in poverty</strong></td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Children under 5 underweight</strong></td>
<td>41%</td>
<td>30%</td>
</tr>
</tbody>
</table>

### In 2011

<table>
<thead>
<tr>
<th></th>
<th>Timor-Leste</th>
<th>Myanmar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oil reserves remaining</strong></td>
<td>520 million bbl</td>
<td>50 million bbl</td>
</tr>
<tr>
<td><strong>Oil production</strong></td>
<td>30 million bbl</td>
<td>8 million bbl</td>
</tr>
<tr>
<td><strong>Reserve/production ratio</strong></td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td><strong>Gas reserves remaining</strong></td>
<td>1,050 mmboe</td>
<td>1,870 mmboe</td>
</tr>
<tr>
<td><strong>Gas production</strong></td>
<td>32 mmboe</td>
<td>76 mmboe</td>
</tr>
<tr>
<td><strong>Reserve/production ratio</strong></td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td><strong>Oil and gas revenues</strong></td>
<td>$3.0b</td>
<td>$3.7b (?)</td>
</tr>
<tr>
<td><strong>SWF earnings</strong></td>
<td>$0.28b</td>
<td>--</td>
</tr>
<tr>
<td><strong>Non-oil revenues</strong></td>
<td>$0.11b</td>
<td>$0.25b (?)</td>
</tr>
<tr>
<td><strong>State oil dependency</strong></td>
<td>97%</td>
<td>92%</td>
</tr>
<tr>
<td><strong>Economy oil dependency</strong></td>
<td>76%</td>
<td>7%</td>
</tr>
</tbody>
</table>
**Myanmar has less gas than other gas producers in Asia-Pacific (except T-L)**

<table>
<thead>
<tr>
<th>Natural gas: Proved reserves at end 2011</th>
<th>BP lists Timor-Leste’s 5 tcf as part of Australia.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trillion</strong></td>
<td><strong>Trillion</strong></td>
</tr>
<tr>
<td>feet</td>
<td>cubic metres</td>
</tr>
<tr>
<td>Australia</td>
<td>132.8</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>12.5</td>
</tr>
<tr>
<td>Brunei</td>
<td>10.2</td>
</tr>
<tr>
<td>China</td>
<td>107.7</td>
</tr>
<tr>
<td>India</td>
<td>43.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>104.7</td>
</tr>
<tr>
<td>Malaysia</td>
<td>86.0</td>
</tr>
<tr>
<td><strong>Myanmar</strong></td>
<td><strong>7.8</strong></td>
</tr>
<tr>
<td>Pakistan</td>
<td>27.5</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>15.6</td>
</tr>
<tr>
<td>Thailand</td>
<td>9.9</td>
</tr>
<tr>
<td>Vietnam</td>
<td>21.8</td>
</tr>
<tr>
<td>Other Asia Pacific</td>
<td>12.1</td>
</tr>
<tr>
<td><strong>Total Asia Pacific</strong></td>
<td><strong>592.5</strong></td>
</tr>
</tbody>
</table>

**Source:** BP World Energy Review 2012

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**2011 UNDP Human Development Report**

<table>
<thead>
<tr>
<th>Data (most from 2009)</th>
<th><strong>Timor-Leste</strong></th>
<th><strong>Myanmar</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>HDI rank out of 187 (and index)</td>
<td>147 (0.495)</td>
<td>149 (0.483)</td>
</tr>
<tr>
<td>Life expectancy (years)</td>
<td>62</td>
<td>65</td>
</tr>
<tr>
<td>Mean years of schooling</td>
<td>2.8</td>
<td>4.0</td>
</tr>
<tr>
<td>Expected years of schooling</td>
<td>11.2</td>
<td>9.2</td>
</tr>
<tr>
<td>Gross National Income (GNI) per capita</td>
<td>$3,005</td>
<td>$1,535</td>
</tr>
<tr>
<td>Non-income HDI rank</td>
<td>156</td>
<td>144</td>
</tr>
<tr>
<td>Maternal mortality (per 100,000 births)</td>
<td>370</td>
<td>240</td>
</tr>
<tr>
<td>Fertility rate (per adult woman)</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Multidimensional poverty index</td>
<td>.360</td>
<td>.154</td>
</tr>
<tr>
<td>People in multidimensional poverty</td>
<td>68%</td>
<td>32%</td>
</tr>
<tr>
<td>People in severe poverty</td>
<td>39%</td>
<td>9%</td>
</tr>
</tbody>
</table>
People have lived in Timor-Leste for at least 5,000 years.

Portuguese colonized nearly 500 years ago.
- They brought Catholicism but little development or education.
- Onshore oil exploration started in 1890s.

Australia, then Japan, invaded in 1941-45.
- 40,000-60,000 Timorese killed in WWII, which didn’t involve them.

Portugal’s military dictatorship resumed control in 1945.
- Offshore oil exploration began in the 1960s.

- After Carnation Revolution brought down Portuguese dictatorship
- TL declared independence 28 November 1975 ... but 10 days later

Indonesia invaded on 7 December 1975.
- Indonesia killed 100,000-200,000 Timorese in 24-year occupation.

Referendum in 1999, then 2-½ years of UN rule.
Finally independent on 20 May 2002.
Basic Statistics for Timor-Leste

- About 50% of people live below the poverty line.
- 80% live in rural areas, largely by subsistence farming.
- Two thousand children under age 5 die from preventable conditions every year ... fifty times as many as people of all ages are killed by violence (39 in 2010).
- In 2010, TL exported $16 million (coffee).
- In 2010, TL imported $288 million (everything).
State expenditures in 2012: $1,674 million
$1,495 million (89%) will come from the Petroleum Fund.

Non-oil GDP in 2012: $3,751 million
$2,497 million is from exporting nonrenewable oil and gas. Together with $324 million from Petroleum Fund investments, this is 75% of our entire economy and 97% of state revenues. It is declining and could end by 2024.

State activities paid with oil money are about half of Timor-Leste’s “non-oil” economy as they are recycled through the local economy.

Petroleum income doesn’t provide jobs or money for people – it all goes to the State.

Although the Petroleum Fund can improve equity between generations, it does not guarantee good governance or eliminate corruption, and will not last long if current policies continue.

South Sudan is the only country which depends more on oil and gas exports than Timor-Leste.

TL’s oil wealth is not enough.

Timor-Leste’s Annual Petroleum Revenues (discounted 3.7% / year)

If Sunrise construction starts in 2016.

- Total 2012-2051: $32.6 billion (discounted)
- In Petroleum Fund: $9.5 billion
- Possible other: $10.0 billion (<5% chance)
- Total: $52.1 billion
- Spent over 40 years: $1.30 billion per year
  = $3.6 million per day.
- Timor-Leste population in 2051: 3.8 million
  Average 2011-2051 = 1.9 million.
- Total oil revenues: $1.85 per person per day.
- In 2012, TL will spend $3.76/person/day, of which $3.36 will come from oil and gas.

Graph by La’o Hamutuk based on government and company estimates. December 2011
2. The ‘Resource Curse’

Oil income flows easily (for a while), but comes with damaging consequences, policies and practices.

Signs of the “resource curse” in TL (1)

• Seeing money as the solution to every problem
  It’s easier to buy a scholarship than to build a university.

• Spending without thinking
  Real state expenditures are growing 28% every year.

• Lack of realistic long-term planning
  The Strategic Development Plan is but a dream.

• Import dependency
  Timor-Leste has a billion-dollar non-oil trade deficit.

• Inflation from little local productive capacity
  (“Dutch disease” -- prices went up 17% in Dili in 2011.)
  Our economy cannot absorb the cash in circulation.
Signs of the “resource curse” in TL (2)

- Ignoring non-oil development and revenues
- Acting as if the oil money will last forever
  Both producing fields will be emptied by 2024.
- Borrowing today, to repay tomorrow
  TL will borrow a half-billion dollars in the next five years and billions more after that.
- Wealth goes mainly to the urban elite.
  Most people won’t benefit from highways, airports and oil processing, but will feel the burden of loan repayments.
- Petroleum sector “captures” decision-making.
  Few creative ideas to develop agriculture, education, tourism, small industries, food processing, etc.

State Budgets 2002-2012

- The State Budget goes up 28% per year more than inflation, faster than the economy and faster than every nation except Zimbabwe.
The 2012 Budget is for infrastructure.

### Allocation of the 2012 State Budget ($1,674 million US Dollars)

<table>
<thead>
<tr>
<th>Category</th>
<th>Allocation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>$894 million</td>
<td>33%</td>
</tr>
<tr>
<td>Governance</td>
<td>$179 million</td>
<td>7%</td>
</tr>
<tr>
<td>Services</td>
<td>$174 million</td>
<td>6%</td>
</tr>
<tr>
<td>Benefits</td>
<td>$245 million</td>
<td>15%</td>
</tr>
<tr>
<td>Development</td>
<td>$57 million</td>
<td>3%</td>
</tr>
<tr>
<td>Security</td>
<td>$87 million</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>$39 million</td>
<td>2%</td>
</tr>
<tr>
<td>Contingency</td>
<td>$21 million</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>$18 million</td>
<td></td>
</tr>
</tbody>
</table>

#### Income in the 2012 state budget

Total revenue: $1,674 million

- **ESI from Petroleum Fund**: 39.7%
- **Above ESI from Petroleum Fund**: 49.6%
- **Taxes**: 5.7%
- **User fees**: 1.1%
- **Autonomous agencies**: 1.2%
- **Borrowing**: 2.6%
La’o Hamutuk

Symptoms we have alleviated:

- **Spending the money as fast as it comes in.** The Petroleum Fund separates state revenues from oil income.
- **State budgets go up and down with world oil prices and field production.**
- **Money disappears before it gets to the State.** Companies deposit oil revenues directly into the Fund.
- **When the oil is gone, nothing will be left.** If invested and spent wisely, Fund earnings will continue.
- **Invasion, occupation and war** Australia steals via negotiations, companies cheat on taxes, but this is much less bloody than before 1999.

3. T-L’s Petroleum Fund

We have $10 billion in the bank, but how long can it sustain us after the oil and gas is gone?
Why do we have a Petroleum Fund?

- **Decouple** oil revenues from state spending.
- **Stabilize** against oil market price variations.
- Earn investment return for **sustainability** when oil and gas are used up.
- Improve **transparency** and management of oil revenues, prevent corruption.
- Ensure spending decisions are open and democratic.

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Money from where, to where?

![Diagram showing the flow of Timor-Leste's Petroleum Revenue Streams]

- **Purchasers of condensate & LPG**
  - Bayu-Undan Joint venture: CaltexPhillips (57%), Santos (15%), INPEX (11%), Eni (12%), Tokyo Electric and Gas (9%)
  - Operating costs: $1,117
  - Profit: $585
  - PF Investment income: $206
  - $1.2 million

- **Purchasers of LNG**
  - Bayu-Undan gas liquefied in Darwin
  - $1.5 million

- **Autoridade Nacional Petroleu**
  - (Australia-TL joint agency)
  - AU$1.24 million

- **Timor-Leste Petroleum Fund**
  - End-of-2010 balance: $6.9 million
  - Australia share: 10%
  - $1.24 million

- **Timor-Leste State Budget**
  - $758 million executed in 2010
  - $641 million recurrent
  - $215 million capital
  - $3 million To spend in 2011

- **State operations & services**
  - Education, health, infrastructure, public works, police, agriculture, social assistance, FDFI, courts, administration, etc.
State services shouldn’t rise and fall with world oil market prices

‘Estimated Sustainable Income’

- Intended to maintain a steady flow of revenue to the state budget.
- 3\% of (Fund Balance + NPV of future oil and gas revenues)
- Could provide constant revenues forever.

**But**

- Investment real return has been less than 3\%.
- Population, prices and expectations grow.
- Overspending is too tempting and easy.
In 2010, Petroleum Fund withdrawals exceeded spending. They may again in 2012, as the entire budget will not be executed.

If current trends continue, TL will not be able to finance its budget in six years.

Assumptions:
- Oil price projections: EIA Reference case (more optimistic than MoF cases), assuming Greater Sunrise pipeline to TL is built now.
- Petroleum Fund investments return 3.9%/year nominal. During 2010-11, the fund earned 2.7%/year.
- Domestic (non-oil) revenues increase 15.2% year, growing to 10.2% year after 2019. During 2009-2012, domestic revenues increased only 24%/year.
- State expenditures increase 36.6%/year, declining to 11.8%/year after 2010. During 2011-2012, expenditures increased 41%/year.
- Includes only $484 million in loans listed in GSD 2012.

Results:
- Petroleum Fund will be all spent by 2018.
Lessons from Timor-Leste’s petroleum revenue experience

- A Sovereign Wealth Fund and transparency are not enough to prevent the resource curse.
- It’s easy to make rules before oil money pours in, but hard to follow them after it comes.
- People expected too much from the Fund.
- Laws are not strong enough.
- Temptation to overspend is very powerful.
- Non-Government actors need to be stronger.

4. Government transparency

Timor-Leste officials are proud of transparency, including EITI and other aspects.

How well does it work?
Timor-Leste’s Transparency Pillars

1. Best practice Petroleum Fund and revenue management
2. EITI + PWYP, global standards
3. Transparency portal
   - Budget Execution
   - Procurement
   - Foreign Assistance
   - Government results
4. Broadcast Parliamentary budget debates
5. Publish Council of Ministers decisions

These are Government claims. Practice is not consistent.

2005: TL Petroleum Act

- Oil production contracts must be public.
- Standard PSC – no bonuses or other special payments.
- Open, transparent bidding rounds.

But

It does not apply to contracts signed before 2005, which cover the two largest fields.
We find information in many places.

- Transparency portal
- Central Bank Petroleum Fund Reports
- ANP, IAB and MoF reports on Petroleum revenue management
- Budget documents & execution reports
- EITI reports
- IMF, World Bank, ADB and oil company reports
- Televised budget debates
- Unofficial sources and leaks

But the new National Oil Company TimorGAP is less transparent and accountable.

Timor-Leste and the EITI process

- 2007: EITI qualification process starts; after July elections new government continues it.
- 2008: MSG active, workplan published
- July 2010: EITI certifies T-L as the third compliant country in the world (after Azerbaijan and Liberia).
Controversial issues in MSWG

- Sharing information from EITI Multi-Stakeholder Working Group discussions
- Disaggregation by time, project, and revenue stream
- Truly independent certification

After 2009, La’o Hamutuk decided not to continue in the MSWG, as we preferred an “outside” strategy, rather than simply to publicize EITI as the final transparency standard.

We’re proud to be the first EITI compliant country in Asia!

But
- EITI reports for 2010 and 2011 are not yet published.
- Civil society input mostly ignored.
- Too aggregated.
- Doesn’t show company cheating or penalties.
- Won’t show state-company collusion.
- No truly independent audit until 2012.
We know where we get revenues.

From October 2005 through March 2012, $13.3 billion was paid into our Petroleum Fund ($3.1 billion was taken out).

- **Petroleum Fund investment return**: Earnings from investing Timor-Leste’s Petroleum Fund in bonds and stocks.
- **ANP interest**: In early 2012, the ANP collected A$15.6 million in excess interest from Bayu-Undan (B-U).
- **Taxpayer income**: Dividends from all projects paid through the Ministry of Finance (mostly B-U). Includes penalties in Dec 2010 and 12/2011.
- **Bayu-Undan condensate profit oil**: Additional royalties payable after B-U capital investment was recovered in late 2005.
- **Kilian-First Tranche Petroleum (KFP)**: Royalties on Kilian-1 (K-1) production, starting in late 2011 and ending around 2016, sold at sea.
- **Bayu-Undan LAG FTP**: Royalties on natural gas piped to Darwin, starting in 2000 and ending around 2028.
- **Bayu-Undan UPG FTP**: Royalties on liquids produced from Bayu-Undan field, sold at sea.
- **Bayu-Undan condensate FTP**: Royalties on liquids extracted from Bayu-Undan gas, sold at sea.
- **Erlang-Kakatua condensate FTP**: Royalties on liquids produced from Erlang-Kakatua field, ending in 2007, sold at sea.

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We know the income and outgo.

**Petroleum Fund quarterly income and outgo**

- **Initial transfer**
- **Investment income**
- **TSO**
- **Taxpayer receipts**
- **Withdrawals**

The diagram shows the quarterly income and outgo of the Petroleum Fund from 2005 to 2012.
We know how much is in the fund.

Balance in Timor-Leste's Petroleum Fund

But the “resource curse” remains.

- Rapid budget escalation to unsustainable spending levels
- Denial that the oil and gas will run out soon
- Poor planning
- Preference for showy mega-projects
- Neglect of human resources and non-oil sectors
- Inflation, increasing gap between rich and poor
- Greed, corruption, mismanagement.
Many challenges lie ahead.

- Accessing and analyzing public information to understand and influence policies. State leaders, public servants, journalists, civil society and citizens need to use the information.
- Resisting the temptation to overspend.
- Ensuring that children, rural poor, women and other vulnerable people’s rights are respected.
- Preventing the oil companies from stealing.
- Making the national oil company transparent and responsive to public needs.
- Developing a sustainable economy.

Thank you.

You will find more and updated information at

- La’o Hamutuk’s website [http://www.laohamutuk.org](http://www.laohamutuk.org)
- La’o Hamutuk’s blog [http://laohamutuk.blogspot.com/](http://laohamutuk.blogspot.com/)

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