Timor-Leste: 2021 economic survey

Webinar at Australian National University
by Charles Scheiner

10 February 2021
Topics

1. Current economic situation
2. State expenditures and revenues
3. The Petroleum Fund
4. Future oil and gas possibilities
5. Alternatives
Non-oil, non-state GDP *per capita* is stagnant.

Productive sectors have not grown since independence.
What do 820,000 Timorese people aged 15-64 do for work?

- **Unemployed, unpaid household, informal, retired or not seeking work**: 27%
- **Subsistence farmers & fisherpeople**: 27%
- **Students**: 21%
- **Employed by TL government**: 7%
- **Petroleum sector**: 0.1%
- **Private sector (incl. gov't contractors)**: 9%
- **Int'l agencies; local and int'l NGOs**: 1%
- **Self-employed (market, taxi, kiosk, etc.)**: 6%
- **Work or study outside TL**: 2%

Data compiled by LH from several sources.
The graph shows legal goods trade only. Three-fourths of donor spending and at least half of state spending leaves the country.
Dili is very different from the rest.

### Table 2.6 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini Coefficient, according to residence and municipality, Timor-Leste DHS 2016

<table>
<thead>
<tr>
<th>Residence/region</th>
<th>Poverty</th>
<th>Wealth quintile</th>
<th>Number of persons</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
<td>Second</td>
<td>Middle</td>
<td>Fourth</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>1.5</td>
<td>3.4</td>
<td>8.8</td>
<td>30.0</td>
</tr>
<tr>
<td>Rural</td>
<td>26.9</td>
<td>26.2</td>
<td>24.2</td>
<td>16.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aileu</td>
<td>16.6</td>
<td>33.3</td>
<td>27.2</td>
<td>17.1</td>
</tr>
<tr>
<td>Ainaro</td>
<td>35.0</td>
<td>27.1</td>
<td>20.8</td>
<td>13.5</td>
</tr>
<tr>
<td>Baucau</td>
<td>20.0</td>
<td>22.4</td>
<td>22.5</td>
<td>22.6</td>
</tr>
<tr>
<td>Bobonaro</td>
<td>15.6</td>
<td>22.0</td>
<td>29.8</td>
<td>22.5</td>
</tr>
<tr>
<td>Covalima</td>
<td>24.4</td>
<td>18.9</td>
<td>24.8</td>
<td>20.8</td>
</tr>
<tr>
<td>Dili</td>
<td>2.9</td>
<td>4.4</td>
<td>6.8</td>
<td>26.0</td>
</tr>
<tr>
<td>Ermera</td>
<td>30.0</td>
<td>32.8</td>
<td>21.9</td>
<td>11.2</td>
</tr>
<tr>
<td>Lautem</td>
<td>15.1</td>
<td>20.9</td>
<td>25.4</td>
<td>26.5</td>
</tr>
<tr>
<td>Liquiçá</td>
<td>17.0</td>
<td>28.3</td>
<td>24.1</td>
<td>18.8</td>
</tr>
<tr>
<td>Manatuto</td>
<td>18.7</td>
<td>19.3</td>
<td>25.5</td>
<td>21.7</td>
</tr>
<tr>
<td>Manufahi</td>
<td>24.2</td>
<td>22.7</td>
<td>20.2</td>
<td>21.6</td>
</tr>
<tr>
<td>SAR of Oecussi</td>
<td>45.7</td>
<td>18.7</td>
<td>16.8</td>
<td>10.6</td>
</tr>
<tr>
<td>Viqueque</td>
<td>30.3</td>
<td>22.0</td>
<td>24.3</td>
<td>15.0</td>
</tr>
<tr>
<td>Total</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
</tbody>
</table>

60% of Dili’s population are among the wealthiest 20% of Timorese, while only 7% are below the poverty line.

More than half of the families outside Dili live in poverty.
Budgeted & executed spending

- **Budgeted expenditure**
- **Total executed spending**
- **Executed recurrent spending**
- **Ref: Estimated Sustainable Income from PF**

Million US dollars per year

$2,000
$1,500
$1,000
$500
$0

The money doesn’t match the promises.

Sector breakdown for 2021
Total budget = $1,895 million

- Electricity 9%
- Education 10%
- Health 6%
- Agriculture 2.2%
- Tasi Mane 5%
- Water & sanitation 0.7%
- Infrastructure 7%
- Roads 13%
- Social security 3.4%
- Veterans 6%
- Military 2.4%
- Police 3.4%
- Executive 2.3%
- Judicial 1.9%
- Economy 2.7%
- ZEESM 1.5%
- Covid-19 1.7%
- Civil Society 1.2%
- Legislative 1.5%

The government's 'Priority' sectors of health, education, water and agriculture all together get only 18% of the budget.
Revenues in 2021 State Budget
$1,895 million total

86% is from the Petroleum Fund in the past, present or future.

- Above Estimated Sustainable Income from Petroleum Fund: 44%
- ESI from Petroleum Fund: 29%
- Taxes: 6.7%
- User fees & Autonomous agencies: 3.4%
- Donor budget support: 0.5%
- Loans: 3.7%
- Cash balance: 8%
- Carryover in RAEOA: 5.1%

Cash balance, carryover and loan repayments are Petroleum Fund money in the past or future.
Spending exceeds income.

State (including Petroleum Fund) income and expenditures

- Domestic revenues
- Oil & gas revenues (tax corrected)
- Return on P.F. investments
- Loans taken out
- Executed state spending
- Transfers from P.F.

Million USD per year

Petroleum Fund cash flow, 2005-2020

$23.1 bn received in oil and gas revenues
+$ 8.4 bn investment returns ($4.8 bn of this is unrealized)
-$12.5 bn withdrawn to pay for 85% of all state expenditures
$19.0 bn balance (including $0.7 bn loaned to TimorGAP)

Numbers after 2021 are based on Ministry of Finance budget projections, but reality never follows these projections.
### Petroleum Dependency (nominal USD)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Petroleum GDP</td>
<td>$4,234</td>
<td>$2,591</td>
<td>$1,496</td>
<td>$820</td>
<td>$895</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>(75%)</td>
<td>(64%)</td>
<td>(48%)</td>
<td>(33%)</td>
<td>(36%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-oil GDP</td>
<td>$1,396</td>
<td>$1,447</td>
<td>$1,594</td>
<td>$1,651</td>
<td>$1,599</td>
<td>$1,560</td>
<td>$1,674</td>
</tr>
<tr>
<td></td>
<td>(25%)</td>
<td>(36%)</td>
<td>(52%)</td>
<td>(67%)</td>
<td>(64%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Productive (agr. &amp; manuf.)</td>
<td>$308</td>
<td>$317</td>
<td>$300</td>
<td>$299</td>
<td>$297</td>
<td>$304</td>
<td>$317</td>
</tr>
</tbody>
</table>

- **State revenues in 2019:** $3,056 million
  - $2,101 million from investing the Petroleum Fund (including $1,707m unrealized)
  - $756 million from oil and gas revenues
  - $199 million from non-petroleum sources

- **Executed 2019 State Budget:** $1,242 million ($1,482m appropriated)
  - $969 million transferred from the Petroleum Fund
  - $199 million from non-petroleum (domestic) revenues
  - $50 million from loans which will have to be repaid

- State activities, paid for with oil money, are nearly half of the ‘non-oil’ economy because some of this money circulates in the local economy.

- Petroleum and investment ‘income’ goes to the state, not to the people.

*Only South Sudan, Libya (and Equatorial Guinea?) are more dependent on oil and gas exports than Timor-Leste was before 2014.*
Oil and gas income has been falling since 2012.

Production is dropping, and will not go back up even if prices do. The price will be irrelevant when there is nothing left to sell.

Dashed lines after 2020 are projections by the U.S. Energy Information Administration (oil prices) and the TL Ministry of Finance (2021 State Budget).
Timor-Leste’s neighbors have much more petroleum than it does.

<table>
<thead>
<tr>
<th></th>
<th>Timor-Leste (70% Sunrise)</th>
<th>TL without Sunrise</th>
<th>Australia</th>
<th>Brunei</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proved oil and gas reserves at end of 2019 (million barrels equiv.)</td>
<td>540</td>
<td>32</td>
<td>16,400 (16,200 without Sunrise)</td>
<td>2,500</td>
</tr>
<tr>
<td>Reserves per person (barrels)</td>
<td>420</td>
<td>25</td>
<td>650 (640 without Sunrise)</td>
<td>5,700</td>
</tr>
</tbody>
</table>
Bayu-Undan and Kitan are the only proven fields, and they are almost depleted.

Sunrise and Buffalo are in development.

There may be no others which are commercially viable.
## Current and future projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Operator (partners)</th>
<th>Oil &amp; gas reserve (mmBOE)</th>
<th>Possible future revenues (million USD)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayu-Undan current wells</td>
<td>Santos 46% (SK E&amp;S, Inpex, Eni, JERA/Tokyo Gas)</td>
<td>20</td>
<td>$209</td>
<td>Produced 800 mmBOE since 2004, will end in 2022.</td>
</tr>
<tr>
<td>Bayu-Undan infill wells</td>
<td>Santos 46% (SK E&amp;S, Inpex, Eni, JERA/Tokyo Gas)</td>
<td>20</td>
<td>$0</td>
<td>Three more production wells will be drilled in mid-2021 and may extend production 1-2 years.</td>
</tr>
<tr>
<td>Greater Sunrise</td>
<td>Woodside 33% (TimorGAP 57%, Osaka Gas)</td>
<td>1,080</td>
<td>?</td>
<td>Discovered in 1974. Seeking financing to proceed with development. High capital costs. TL will get 70% of state revenues.</td>
</tr>
<tr>
<td>Buffalo</td>
<td>Carnarvon 50% (Advance Energy)</td>
<td>31</td>
<td>$465</td>
<td>Produced 20 mmBOE in 1999-2005 for BHP and Australia. First new well planned for late 2021.</td>
</tr>
<tr>
<td>Onshore (Covalima &amp; Manufahi)</td>
<td>Timor Resources 50% (TimorGAP)</td>
<td>40</td>
<td>$600</td>
<td>First test wells planned for July 2021.</td>
</tr>
<tr>
<td>Chuditch</td>
<td>SundaGas 75% (TimorGAP)</td>
<td>588(?)</td>
<td>?</td>
<td>Shell drilled a test well in 1998 but did not continue. New owners will decide by the end of 2022 whether to drill another.</td>
</tr>
<tr>
<td>Three other contract areas</td>
<td>TimorGAP and Eni</td>
<td>?</td>
<td>unlikely</td>
<td>Not enough work has been done to estimate possible reserves. No wells planned.</td>
</tr>
</tbody>
</table>
The Greater Sunrise stalemate

- The project was stalled because Timor-Leste and the companies do not agree on how it should be developed.
- Woodside and its partners believed that an undersea gas pipeline to the Darwin LNG plant used for Bayu-Undan would be more profitable.
- Timor-Leste wants a pipeline from Sunrise to Beacu, to get more jobs and revenues, and to anchor the Tasi Mane project.
- Under contracts and treaties, the companies propose the development plan, but both governments need to approve it.
- Because of Australian spying, TL forced Australia to negotiate a boundary treaty, but the 2019 agreement did not settle where the pipeline will go.
- Timor-Leste bought 57% of Sunrise from ConocoPhillips and Shell to control the decision.
- The impacts of Covid-19 have caused companies everywhere to delay or cancel projects. In mid-2020, Woodside devalued Sunrise to zero.
- New leaders in TL’s petroleum sector are re-evaluating the project.
In 2010, TL began to plan a South Coast Petroleum Corridor.

During 2011-2019, TL expended more than $500 million on it.

In 2019, TL bought 57% ownership of Greater Sunrise for $650m ... and will now have to pay 57% of offshore development costs.

Total capital costs could exceed $20 billion.

No investors have shown interest.
What will Tasi Mane really cost?
This estimates capital expenditures only, not operational costs. Most have never appeared in state budget forecasts.

<table>
<thead>
<tr>
<th>Component</th>
<th>Location</th>
<th>Status</th>
<th>Spent through 2019</th>
<th>Budgeted 2020</th>
<th>Budgeted 2021</th>
<th>Budgeted 2022-2025</th>
<th>Estimated total capital cost</th>
<th>Percent budgeted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport</td>
<td>Suai</td>
<td>Constructed</td>
<td>75</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>100</td>
<td>91%</td>
</tr>
<tr>
<td>Supply base</td>
<td>Suai</td>
<td>Tender pending</td>
<td>51</td>
<td>1</td>
<td>5</td>
<td>745</td>
<td>900</td>
<td>89%</td>
</tr>
<tr>
<td>Highway</td>
<td>Suai-Fatukai</td>
<td>Mostly built</td>
<td>305</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>340</td>
<td>92%</td>
</tr>
<tr>
<td>Highway</td>
<td>Fatukai-Beaçu</td>
<td>Not started</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>22</td>
<td>1,320</td>
<td>2%</td>
</tr>
<tr>
<td>Airport</td>
<td>Viqueque</td>
<td>Not started</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>75</td>
<td>0%</td>
</tr>
<tr>
<td>Oil refinery &amp; pipelines</td>
<td>Betano</td>
<td>Pending design</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>1,500</td>
<td>1%</td>
</tr>
<tr>
<td>Gas pipeline, LNG plant &amp; port</td>
<td>Sunrise-Beaçu</td>
<td>Pending design, seeking</td>
<td>18</td>
<td>-</td>
<td>-</td>
<td>21</td>
<td>6,000</td>
<td>1%</td>
</tr>
<tr>
<td>57% share of Greater Sunrise Joint Venture</td>
<td>Offshore</td>
<td>Borrowed directly from the Petroleum Fund</td>
<td>650</td>
<td></td>
<td></td>
<td>650</td>
<td>650</td>
<td>100%</td>
</tr>
<tr>
<td>Interest on loan to buy into Sunrise JV</td>
<td>Offshore</td>
<td>Debt accrued in Petroleum Fund</td>
<td>21</td>
<td>30</td>
<td>32</td>
<td>141</td>
<td>512</td>
<td>44%</td>
</tr>
<tr>
<td>57% of Sunrise upstream capital expenditure</td>
<td>Offshore</td>
<td>Pending design, seeking financing</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6,840</td>
<td>0%</td>
</tr>
<tr>
<td>Administrative and other costs</td>
<td>Dili</td>
<td>Ongoing</td>
<td>46</td>
<td>14</td>
<td>68</td>
<td>-</td>
<td>500</td>
<td>26%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>1,174</strong></td>
<td><strong>49</strong></td>
<td><strong>112</strong></td>
<td><strong>948</strong></td>
<td><strong>18,737</strong></td>
<td><strong>12%</strong></td>
</tr>
</tbody>
</table>
What are the alternatives?

• Invest in human resources: education, health, and nutrition. These are prerequisites for everything else.

• Build infrastructure that people need: rural roads and water supply, local schools and clinics, decentralized renewable electricity.

• Don’t forget people outside the formal economy.

• Strengthen sectors which build on Timor-Leste’s strengths: agriculture, community-based tourism, small industries making products for domestic use.

• Adopt policies based on evidence and objective analysis, not on fantasies, politics or dreams.
Thank you.

Get more information at
La’o Hamutuk’s website
www.laohamutuk.org

La’o Hamutuk’s blog
laohamutuk.blogspot.com

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The following slides are not being presented during my talk, but they could be useful during the discussion.
More money goes out than comes in.

2019 trade:  

<table>
<thead>
<tr>
<th></th>
<th>services</th>
<th>non-oil goods</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>$448m</td>
<td>$592m</td>
<td>$1,040m</td>
</tr>
<tr>
<td>Exports</td>
<td>$91m</td>
<td>$26m (79% coffee)</td>
<td>$117m</td>
</tr>
<tr>
<td>Deficit</td>
<td>-$357m</td>
<td>-$566m</td>
<td>-$923m</td>
</tr>
</tbody>
</table>

Timor-Leste's External Balance of Payments

- Goods exports (non-oil)
- Goods imports
- Services exports
- Services imports
- Trade Balance (incl. oil & investments)
- Oil revenues
- PF investment earnings
- Trade balance (excl. oil & investments)

Millions of US dollars per year

State Budgets 2002-2021

State Revenues and Expenditures (including autonomous agencies)
2002-2019 executed 2020 enacted 2021 proposed

Narrow bars: revenue
- Donor direct budg. support
- Borrowing
- Carry-over from prior years
- Domestic revenues
- Petroleum Fund spent
- Est. Sustainable Income

Wide bars: spending
- Donor support
- Capital Development
- Minor capital
- Public transfers
- Goods & Services
- Salaries & Wages

The narrow bars show revenues from various sources.
The upper diagonally striped (lower left-upper right) area is loans which must be repaid in the future.
The white part shows unspent money carried over from the previous year to be spent this year.
The lower diagonally striped part is non-oil revenue from taxes, fees and autonomous agencies.
Most is from the Petroleum Fund (solid color), with the darker area showing the Estimated Sustainable Income (ESI).

We’ve moved from oil dependence to relying on our declining savings.

Balance in Timor-Leste's Petroleum Fund

Graph by La'o Hamutuk based on Timor-Leste Central Bank Monthly Reports, January 2021
Petroleum Fund investments have gradually diversified.
Where the Petroleum Fund gets its money

- Over-collected taxes
- Elang-Kakatua (2000-05)
- Kitan (2011-15)
- Bayu-Undan (2004-23)
- Returned over-collected taxes
- Petrol. Fund investment return

Annual revenue to TL (billion USD)
Timor-Leste is in debt.

- Laws in 2009 opened the door to foreign loans.
- Since 2012, TL has signed contracts to borrow $475 million:
  - $272 million from the Asian Development Bank (ADB) for roads
  - $134 million from the World Bank for roads
  - $69 million from Japan (JICA) for roads
- From these contracts, $223 million has been disbursed so far.
- Future borrowing is unclear, although Sunrise and the Tasi Mane Project may require borrowing billions of dollars.
- The 2021 Budget authorizes $420 million in new loan contracts.
- By 2023, Timor-Leste will be paying $27 million each year in debt service, which will rise to $56 million/year if $420m in new contracts are signed and money is disbursed.

*Not including a $50 million loan from China that was invalidated by the Audit Court.*
Since 1910, oil companies have drilled 95 exploration wells in Timor-Leste’s land and sea. They found eight commercially viable reserves. Kitan is the only one discovered in the last 20 years.
The Strategic Development Plan

• Issued in 2011, hopes to make Timor-Leste an Upper Middle Income Country by 2030.

• A vision and dream, not a realistic plan.

• Focuses on physical infrastructure, not sustainable or human development.

• Will require spending far beyond TL’s means.

• Promised reviews are not yet being done.