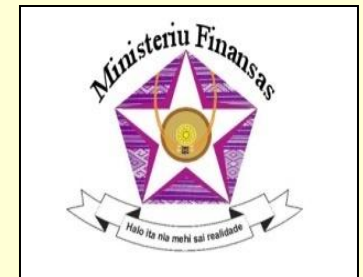




# Seminar for Civil Society: Timor-Leste Fiscal Regimes & ESI calculation

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Alistair Watson  
IMF Fiscal Affairs Department  
16 August 2010





# History

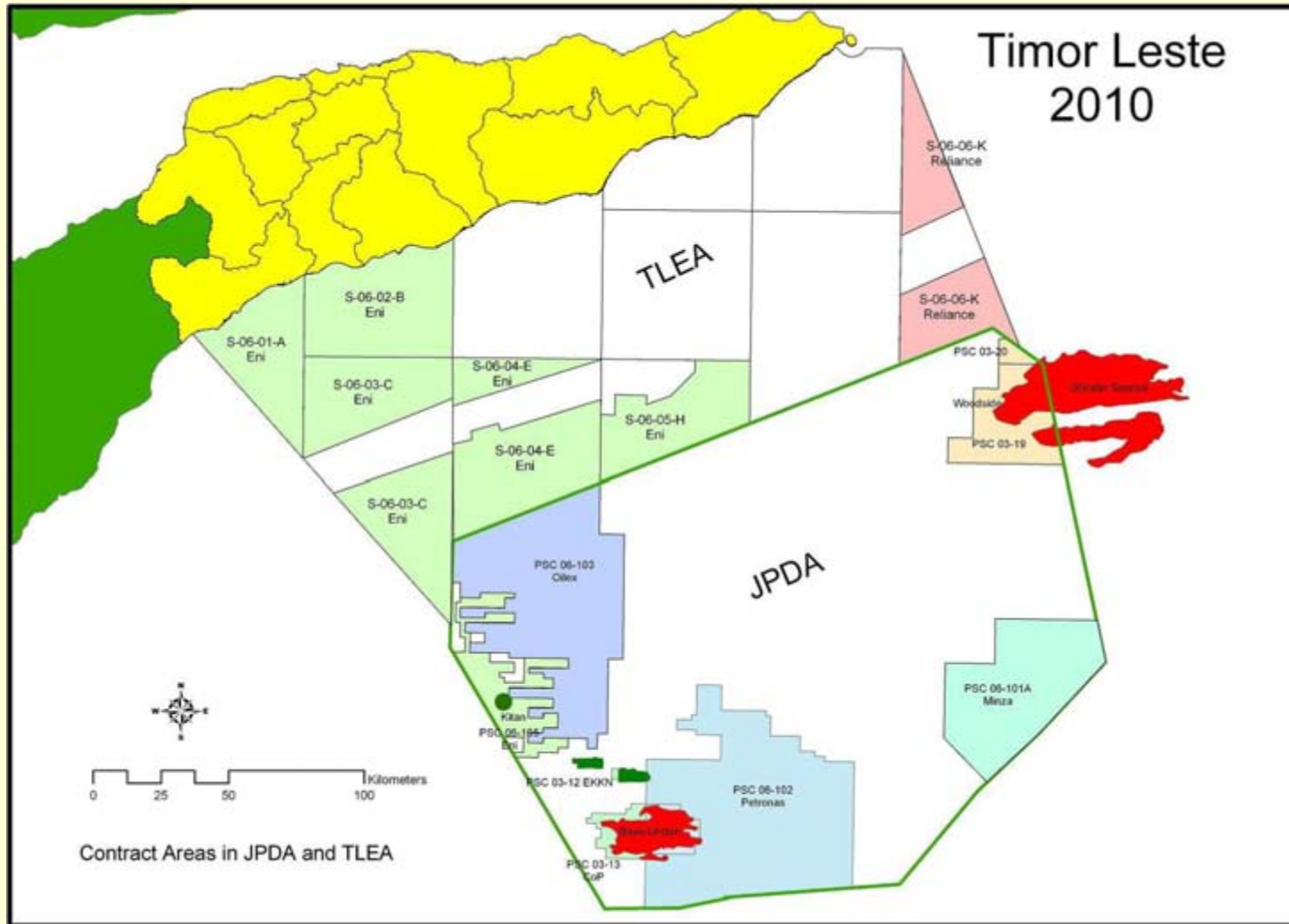


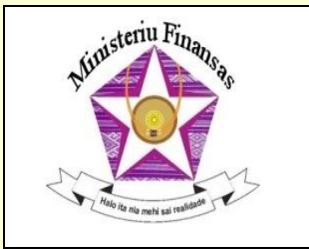
- Production sharing contracts issued under Timor Gap Treaty 1991
  - ZOCA Zone of Cooperation Area A
  - 50/50 sharing
- Timor Sea Treaty 2001\*
  - ZOCA becomes JPDA Joint Petroleum Development Area
  - 90/10 Sharing
  - Annex F: PSCs reissued with same terms for Bayu Undan (03-12; 03-13) and Sunrise (03-19; 03-20)

\* Timor-Leste ratified TST in 2002; Australia in 2003



# MAP





# Fiscal Regimes in Timor-Leste

	Production Sharing	T-L Income tax	Australia Income tax	Other treaties
<b>Timor Sea Treaty</b> Bayu Undan	ZOCA PSC +Appendix X	90% TBUCA	10% Australia Tax Law	
Sunrise (JPDA portion)	ZOCA PSC IUA	90% Indonesian Tax Law 99	10% Australia tax Law	CMATS (shares all upstream revenues 50/50)
New JPDA (Kitan)	New PSC	90% Taxes and Duties Act	10% Australia tax law	
<b>T-L Pet. Act</b> New T-L Exclusive areas	New PSC + 20% State Participation	100% Taxes and Duties Act	Not applicable	

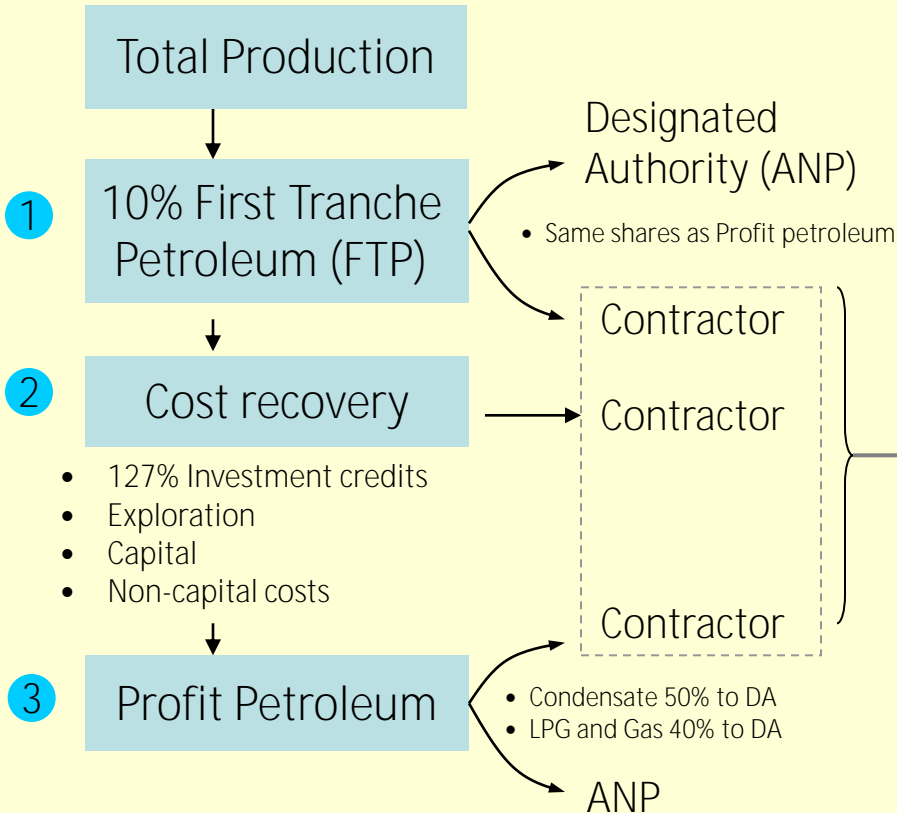


# Bayu Undan

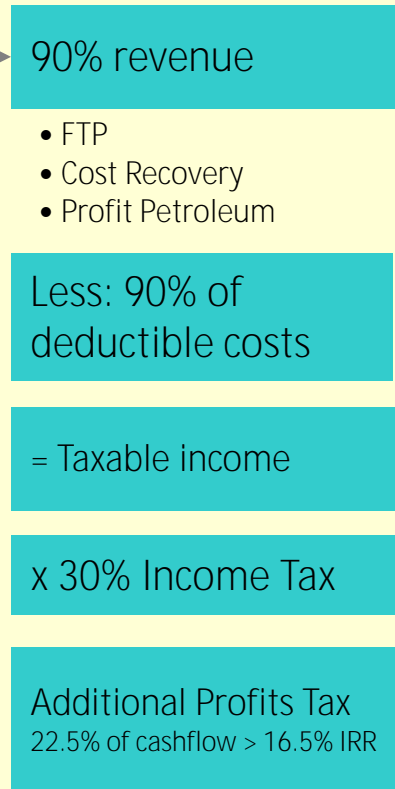
- Production Sharing contract
  - ZOCA
  - Amended by Appendix X to facilitate full gas development
- Timor-Leste Tax on 90%
  - Taxation of Bayu Undan Contractors Act
  - 30% Income Tax
  - Additional Profits Tax

# Bayu Undan

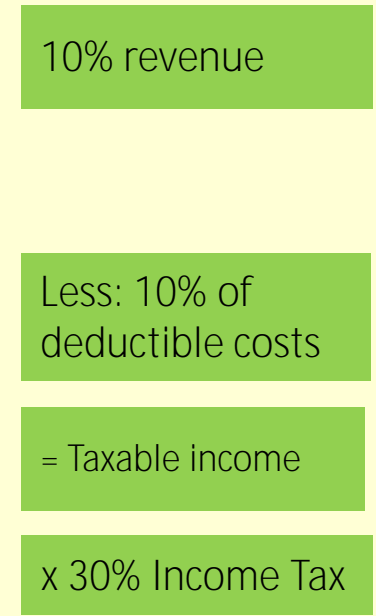
## Production Sharing



## T-L Income Tax



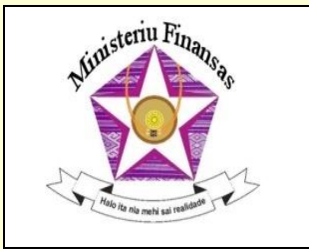
## AustraliaTax



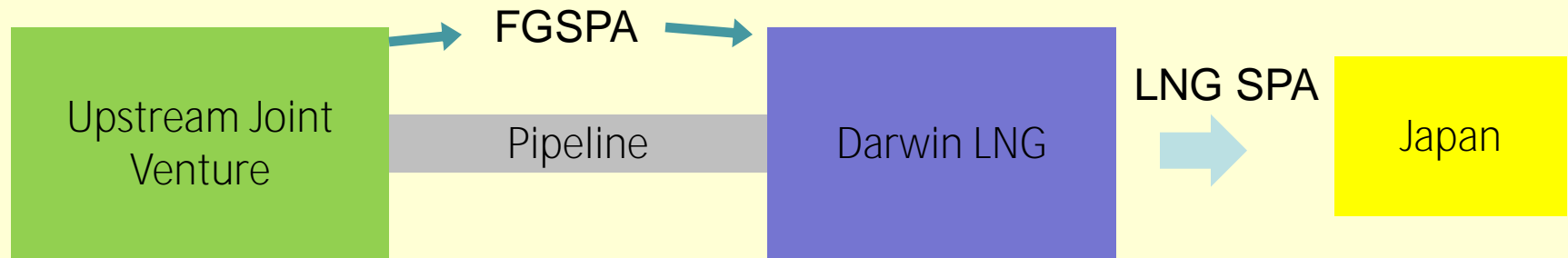
## Timor-Leste Petroleum Revenues

- 90% of DA FTP
- 90% of DA Profit Petroleum

- Income Tax
- APT (Additional Profits Tax)



# Sharing of LNG Revenue



- FGSPA = Feed Gas Sale and Purchase Agreement
- LNG SPA = LNG Sale and Purchase Agreement
- FGSPA and LNG SPA “back-to-back”



# LNG



1. Upstream gets 100% of LNG revenue
2. Upstream pays to LNG and Pipeline:
  - Capacity Reservation Charge (fixed)
  - Operating Cost Charge (actual costs)
3. CRC calculated to give DLNG and Pipeline 8% fixed return on investment over 15 years
4. Upstream keeps 100% of any LNG price increase or decrease





# LNG calculations



## Illustrative example of LNG calculations

\$million	Annual amounts	Higher LNG price	Lower LNG price
LNG revenue	1000	1100	900
change		100	-100
LNG CRC	100	100	100
Pipe CRC	40	40	40
LNG OCC	100	100	100
Pipe OCC	10	10	10
Net Upstream LNG revenue	750	850	650
change		100	-100

- Upstream takes all the downside, and gets all the upside
- Maximizes Timor-Leste share of price upside

Note: The figures are for illustrative purposes only



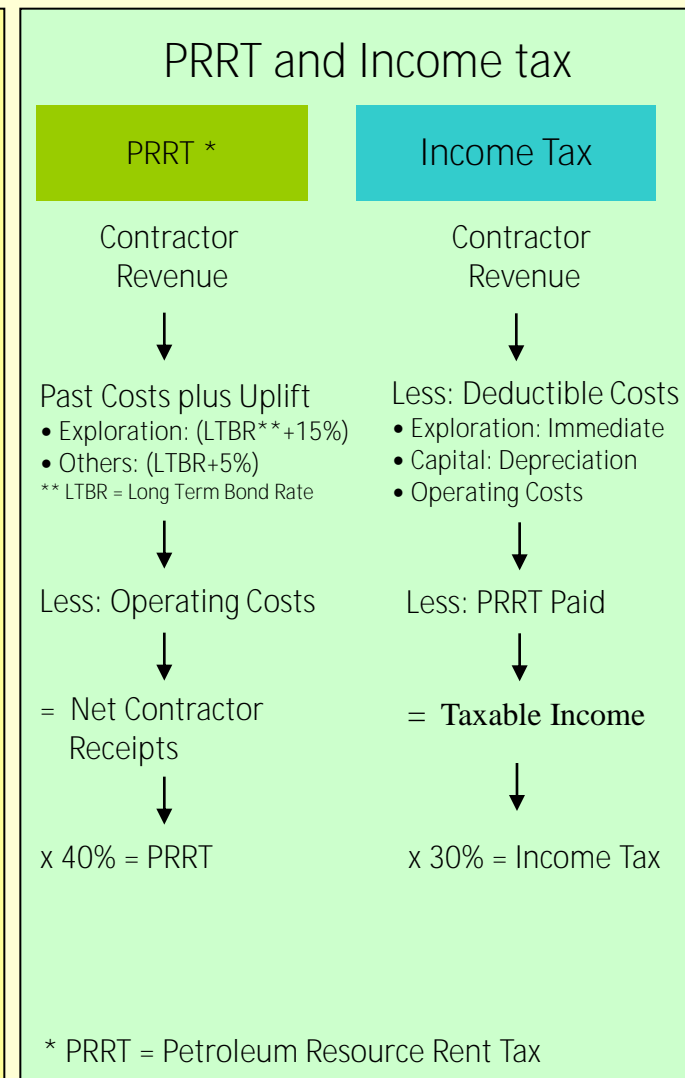
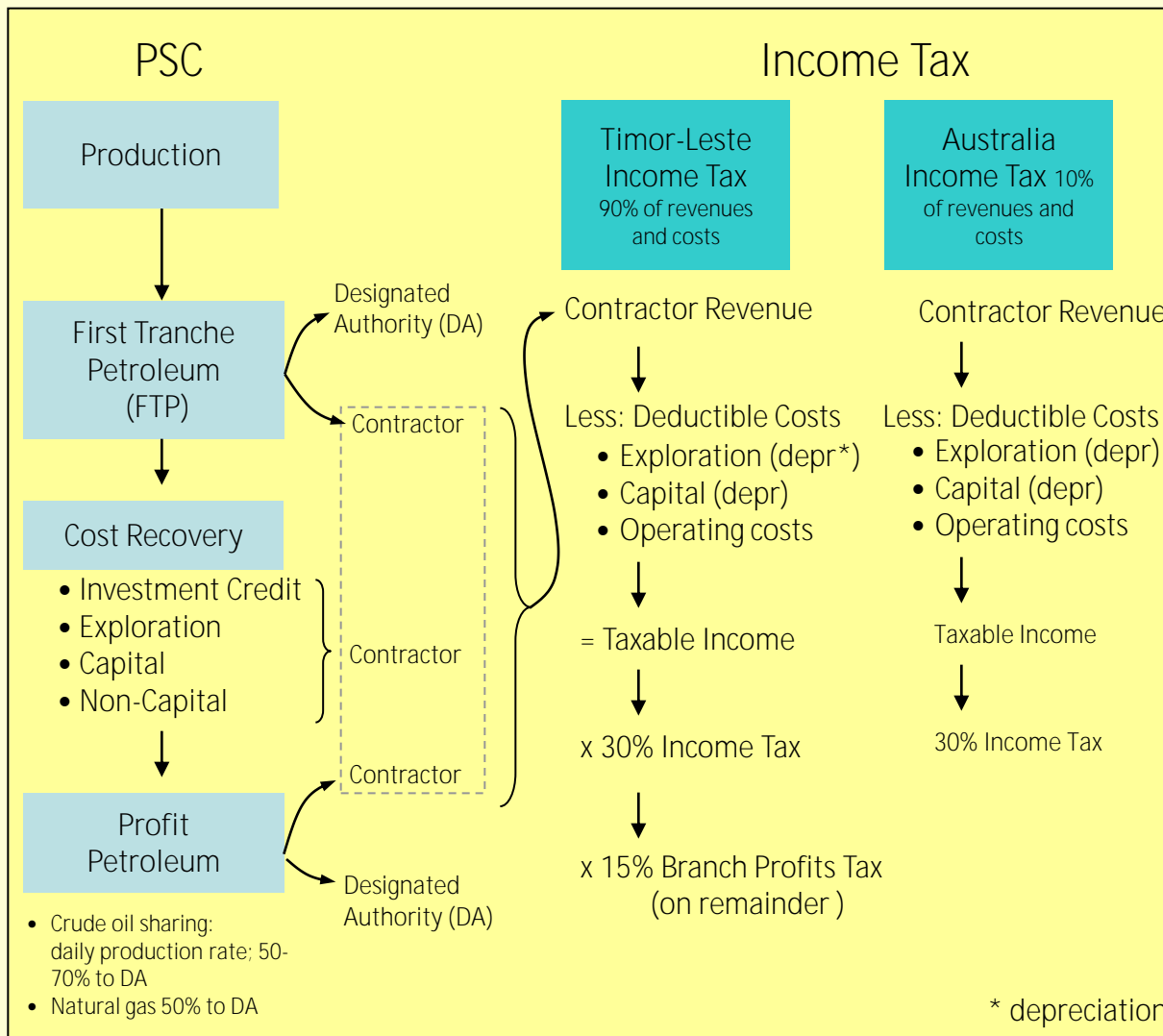
# Sunrise



- Timor Sea Treaty
  - Apportioned 20.1% JPDA; 79.9% Australia
- International Unitization Agreement (IUA)
  - Unitized development
  - Development plan
  - Pricing of gas sales for JPDA portion
    - 10.5% pre tax rate of return to LNG and Pipe
    - 14% pre tax rate of return to FLNG
- PSC 03-19 and 03-20 for JPDA
- Australian License outside JPDA

# JPDA – upstream (20.1%)

# Australia (79.9%)



Total revenues are collected and then shared 50:50 under CMATS

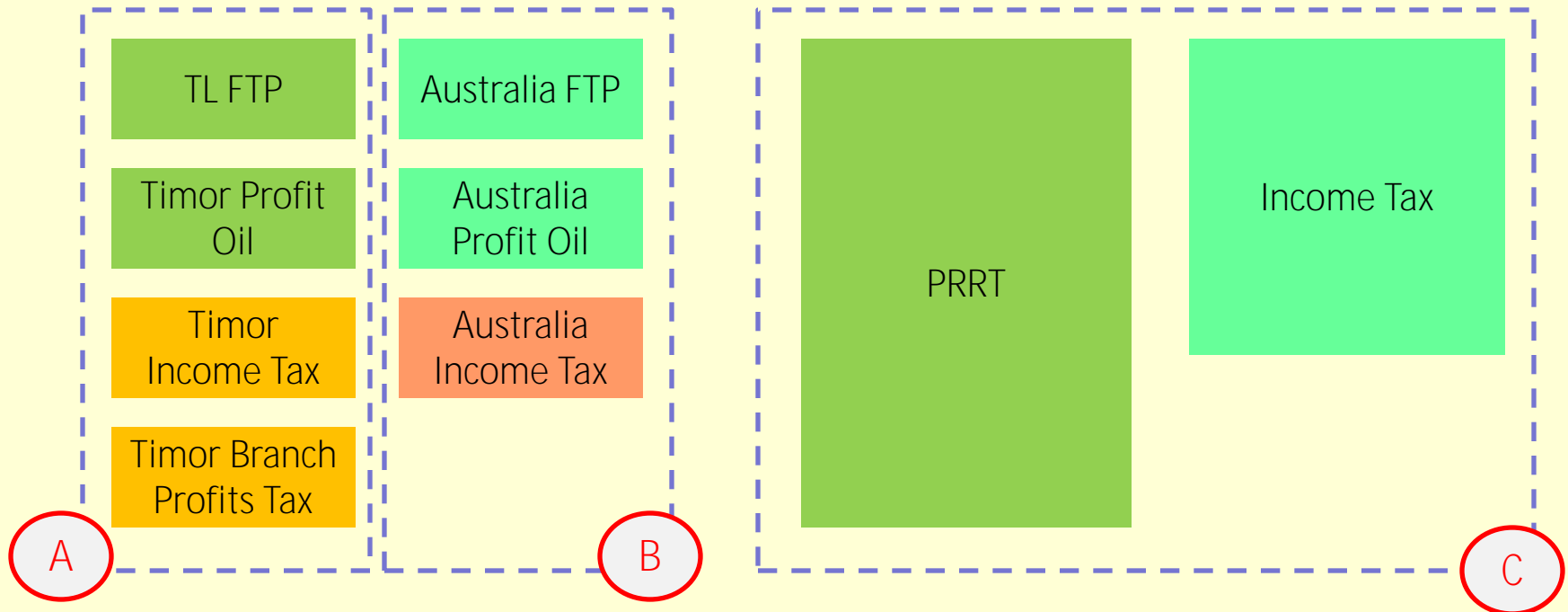


# CMATS



## JPDA

## Australia

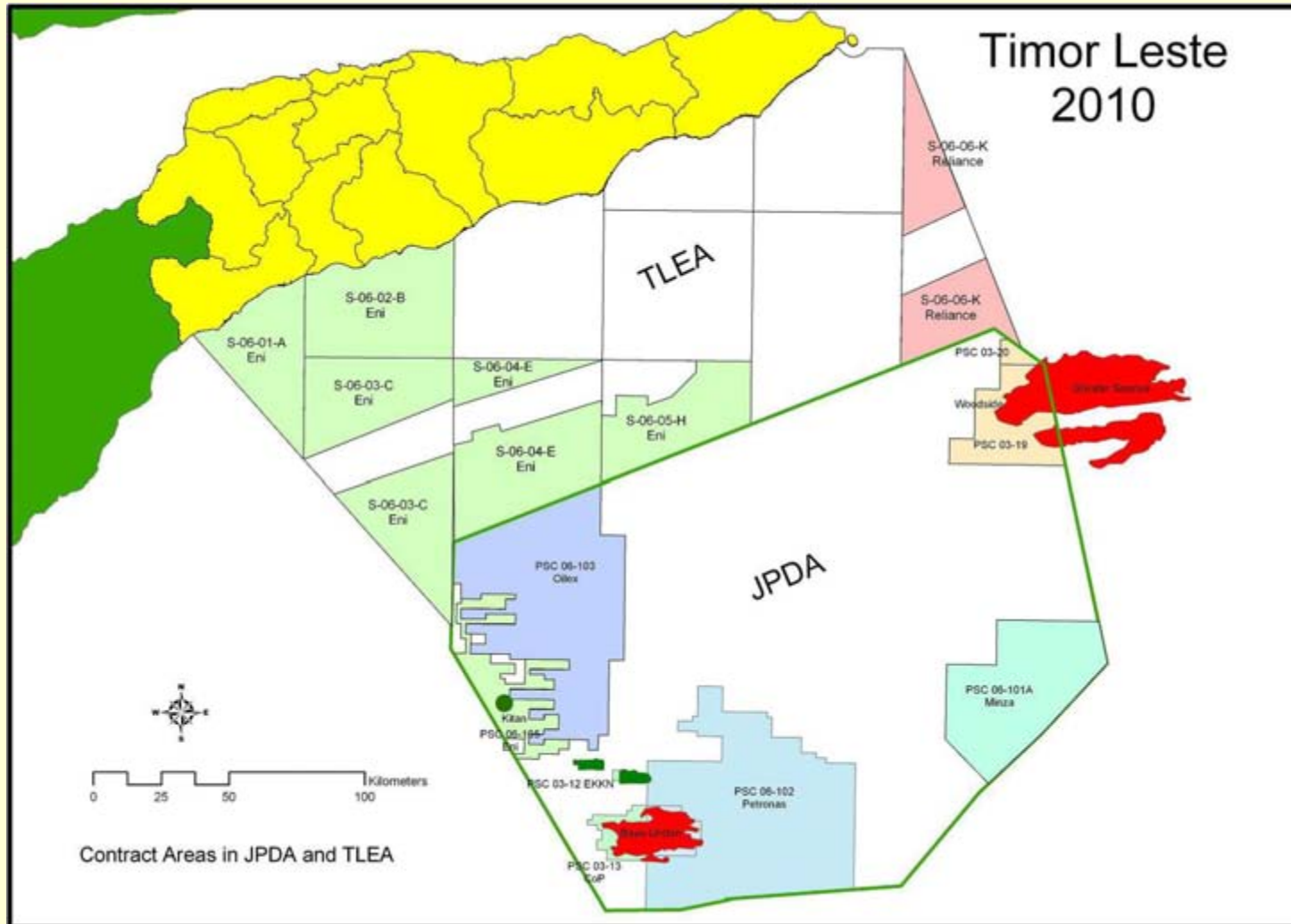


- A collected by Timor
- B + C collected by Australia
- Australia pays Timor  $(A + B + C)/2 - A$
- Timor and Australia each end up with 50%

TL and Australia agree not to pursue maritime boundary claims for life of Sunrise project



# MAP



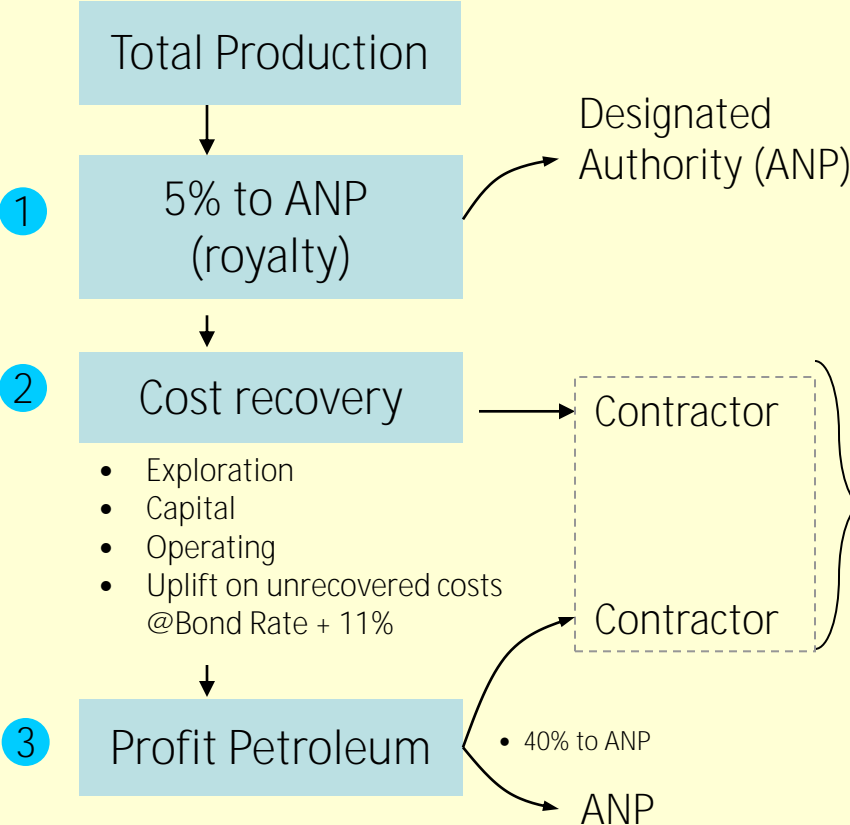


# New JPDA

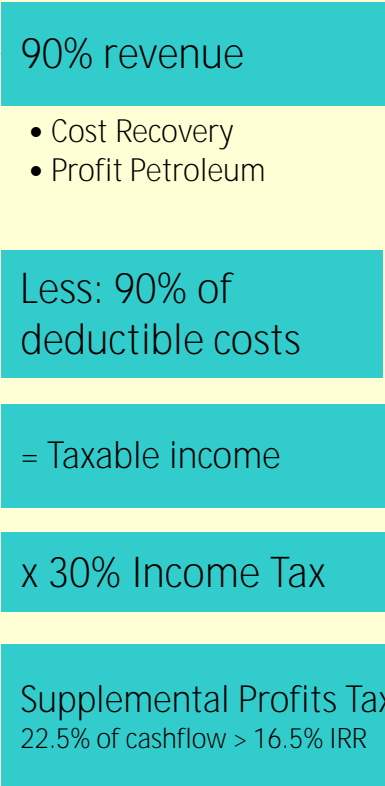
- New regime introduced in 2005
- Applies to any new project in JPDA\*
- New PSC agreed with Australia
- Timor-Leste applies Taxes and Duties Act on 90%
- Australia income tax on 10%
- Kitan is under new scheme but some features of cost recovery under old scheme are preserved

# New JPDA

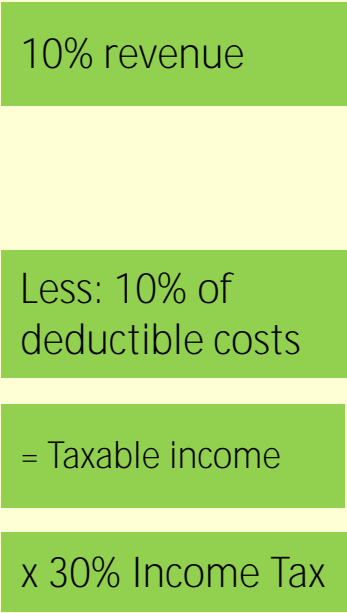
## Production Sharing



## T-L Income Tax



## AustraliaTax



## Timor-Leste Petroleum Revenues

- 90% of DA Royalty
- 90% of DA Profit Petroleum
- Income Tax
- SPT (Supplemental Profits Tax)



# Timor Exclusive Areas



- Introduced in 2005
- Applies to any new project outside JPDA
- PSC – same as new JPDA except TL has option to take 20% interest in any new project
- Timor-Leste Taxes and Duties Act on 100%
  - 30% income tax
  - 22.5% SPT after 16.5% return on investment
  - (SPT is the same as Bayu Undan APT)





# ESI calculation

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# Petroleum Revenues

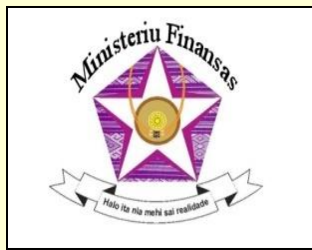


Good to have but...

- Temporary
- Uncertain
- Volatile

If all revenues consumed when received:

- Inflation
- Potential Waste
- Painful adjustments when revenue stops...



# Petroleum Fund



## Philosophy:

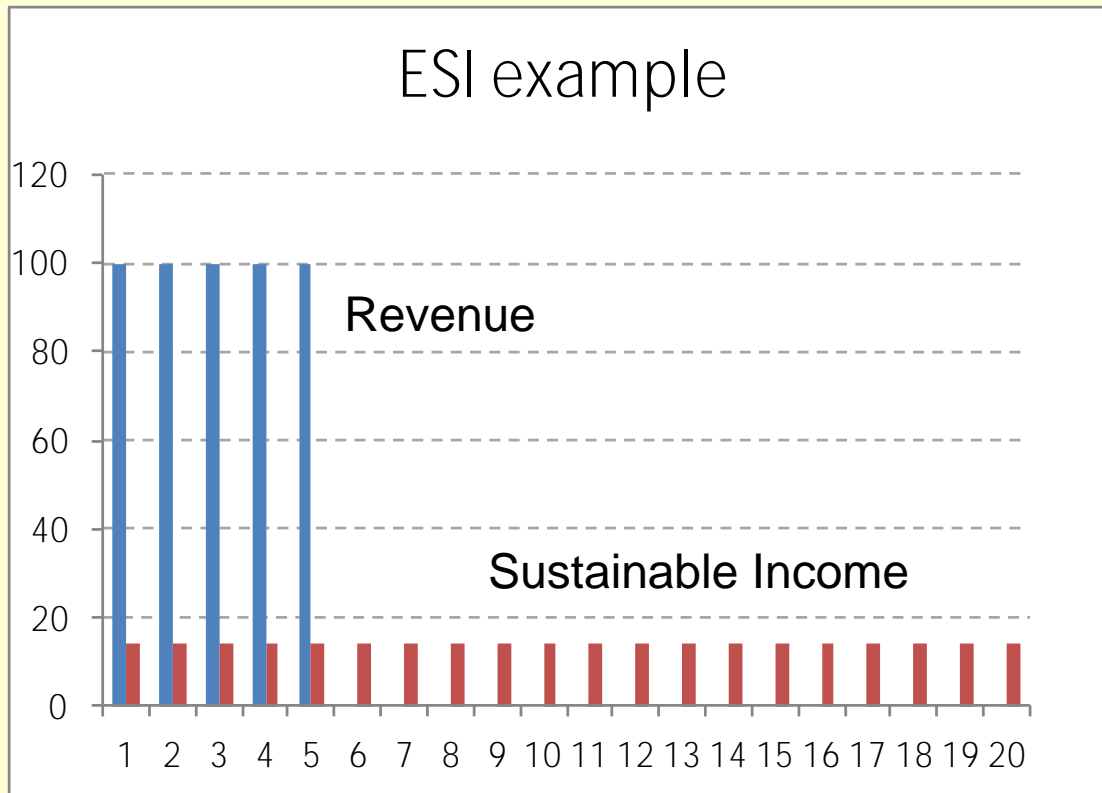
- Smooth consumption of oil revenues
- Smooth out volatility from oil prices
- Insulate economy; avoid inflation
- Save wealth for future generations

## PF Law:

- ESI is a benchmark for sustainable spending
- Higher withdrawals are allowed if justified, certified and approved by parliament



# Sustainable Income



- Turn \$100 per year for 5 years
- Into \$14 per year forever...



# Sustainable Income

	Year	1	2	3	4	5	6	7	8	9	10
500 Revenues		100	100	100	100	100					
Financial assets		0	86	175	267	361	458	458	458	458	458
Revenues Added		100	100	100	100	100	0	0	0	0	0
Withdrawals		14	14	14	14	14	14	14	14	14	14
3% Investment return		0	3	5	8	11	14	14	14	14	14
Closing balance in fund		86	175	267	361	458	458	458	458	458	458

- If 3% is assumed return on investments
- Spend 3% of value of future revenues
- Save the rest; build up investment fund
- After revenues stop, spend investment return forever



# Estimated Sustainable Income



- Petroleum Fund Law Article 9
  - No transfer in excess of ESI unless justified in long term interest of Timor-Leste
- ESI Calculation in Schedule 1 of PFL
  - Petroleum Wealth x 3%
- Petroleum Wealth =
  - Balance in the Petroleum Fund
  - Value today of future Petroleum Fund Receipts
- Discount rate for present value = US bond rate = assumed real investment return



# ESI calculation

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Schedule 1 in petroleum fund law

1. Estimate the balance in the petroleum fund as at the end of the current year
2. Forecast petroleum revenues over the remaining life of the project
3. Calculate the average US bond rate over the same period as the petroleum revenues
4. Calculate NPV of future revenues
5.  $\text{PFund} + \text{NPV} = \text{Petroleum Wealth} \times 3\% = \text{ESI}$



# Forecasting

Project  
Cashflows

- Production
- Oil Price
- Product prices
- Upstream costs
- Downstream costs



Fiscal Regime

- PSC rules
- Income tax rules



Timor-Leste  
revenues

- FTP
- Profit Oil
- Income Tax
- APT
- Other taxes

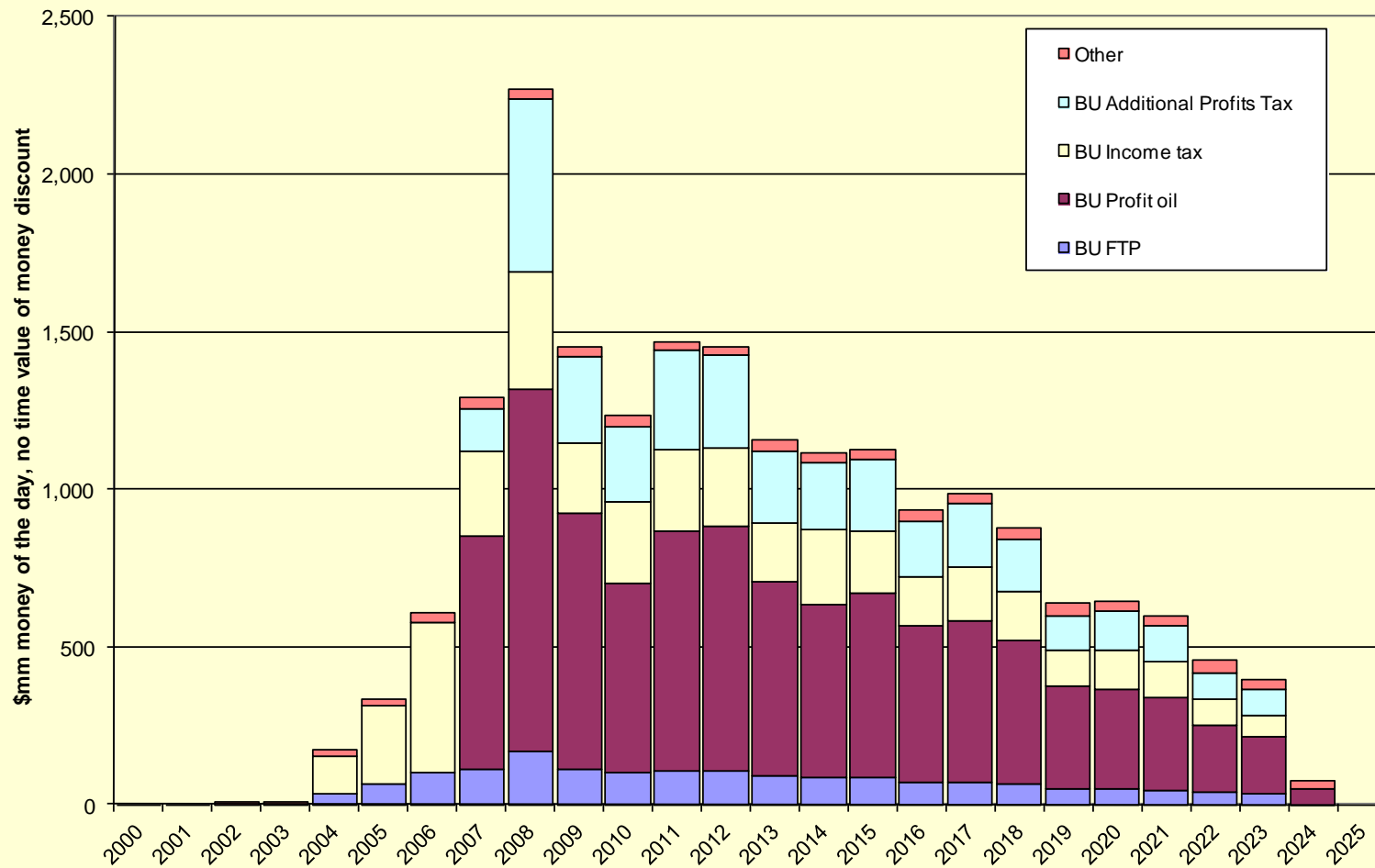




# Bayu Undan Forecast



Timor-Leste Petroleum Revenues





# 2010 ESI



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Projected Balance at 1 January 2010	\$5.2 Bn
Petroleum revenues from 2010	\$13.1 Bn
Present value of future revenues	\$11.4 Bn
Petroleum wealth	\$16.7 Bn
ESI (petroleum wealth x 3%)	\$502 M



# Data package from JV operator



- Production profiles – Low, Base, High
- Upstream capital costs
- Upstream operating costs
- Downstream Capital costs
- Downstream operating costs
- Revenue forecast – **“calibration case”**
- Analysis of changes since last forecast



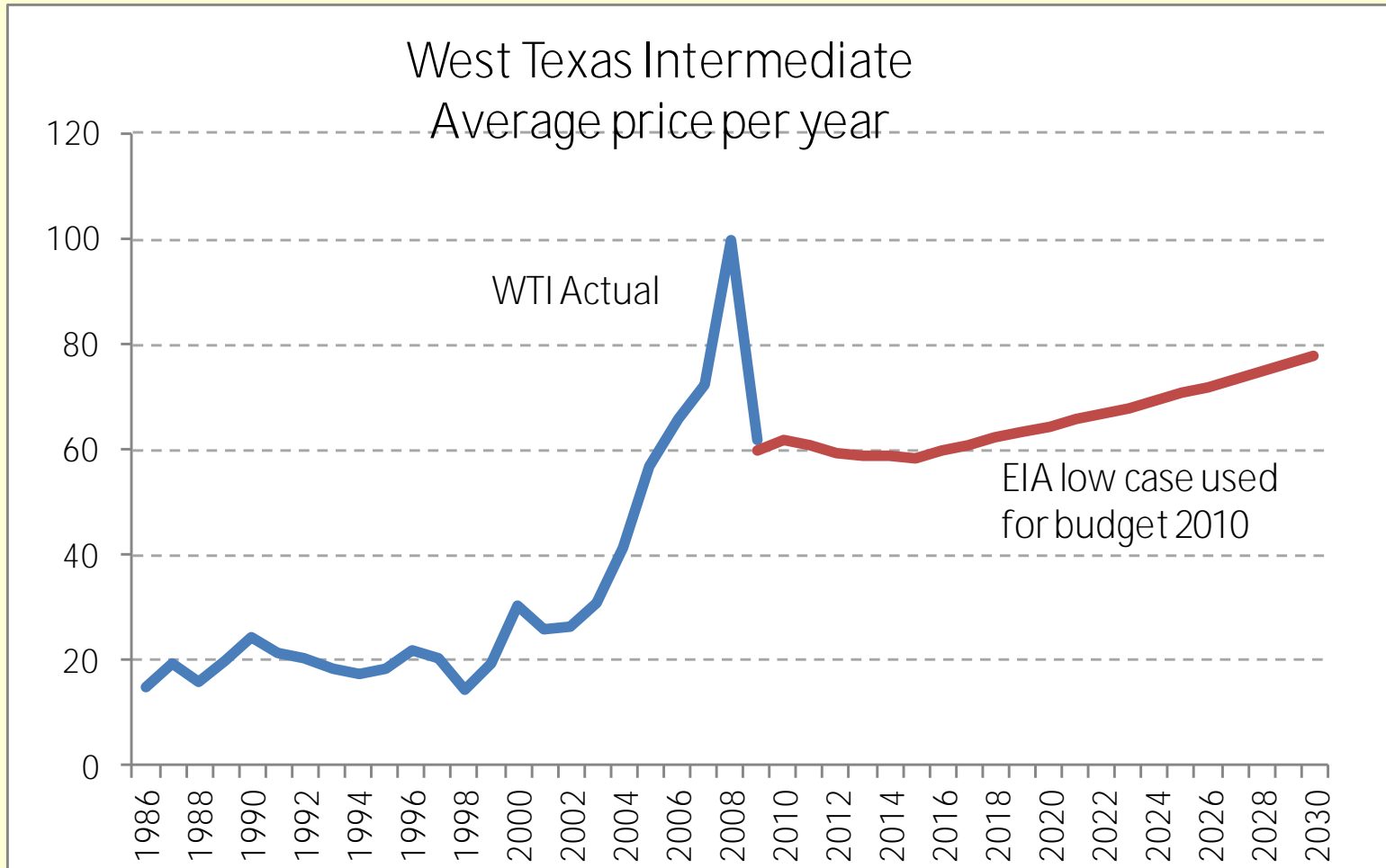
# Other data collected



- ANP: Condensate and LPG shipments and realized prices relative to WTI
  - Check COP production and analyze differentials
- NDPF: Petroleum Fund actual receipts
  - Reconcile to previous forecasts
- NDPR: Tax returns and receipts
  - Reconcile to previous forecasts

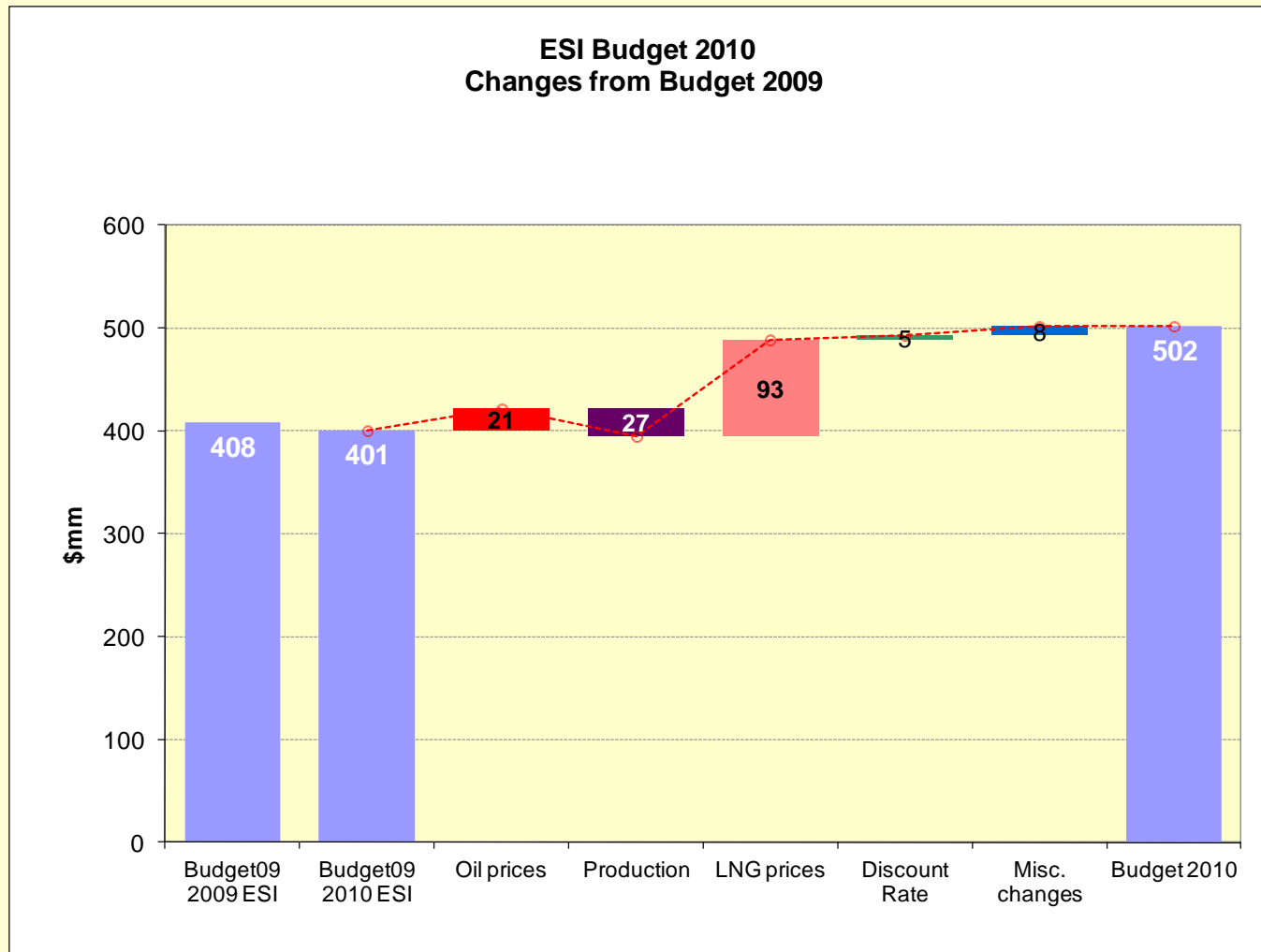


# Oil Price





# Changes in ESI





# Sensitivity Analysis



## Sensitivity analysis Estimated Sustainable Income Budget 2010

