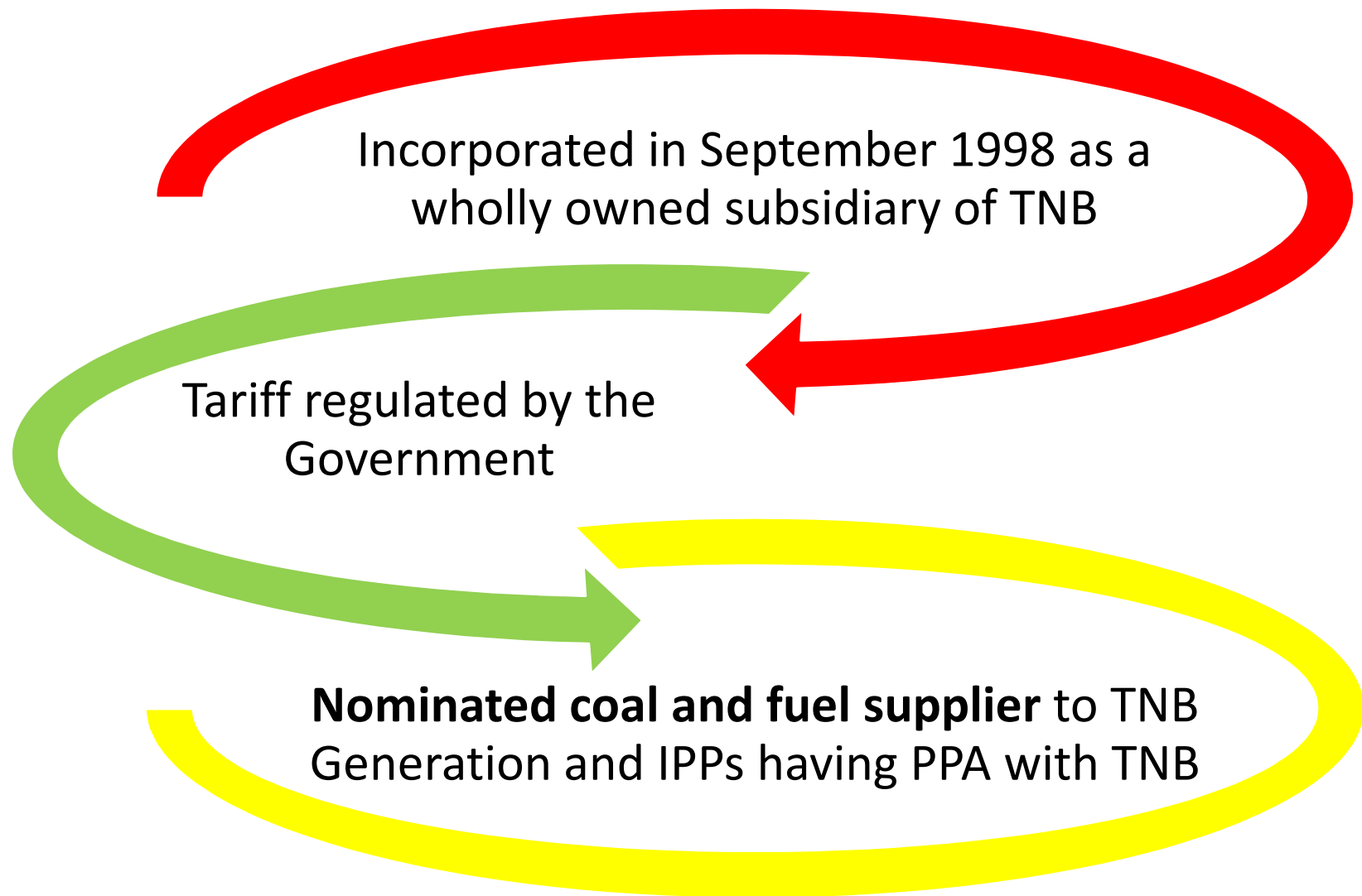


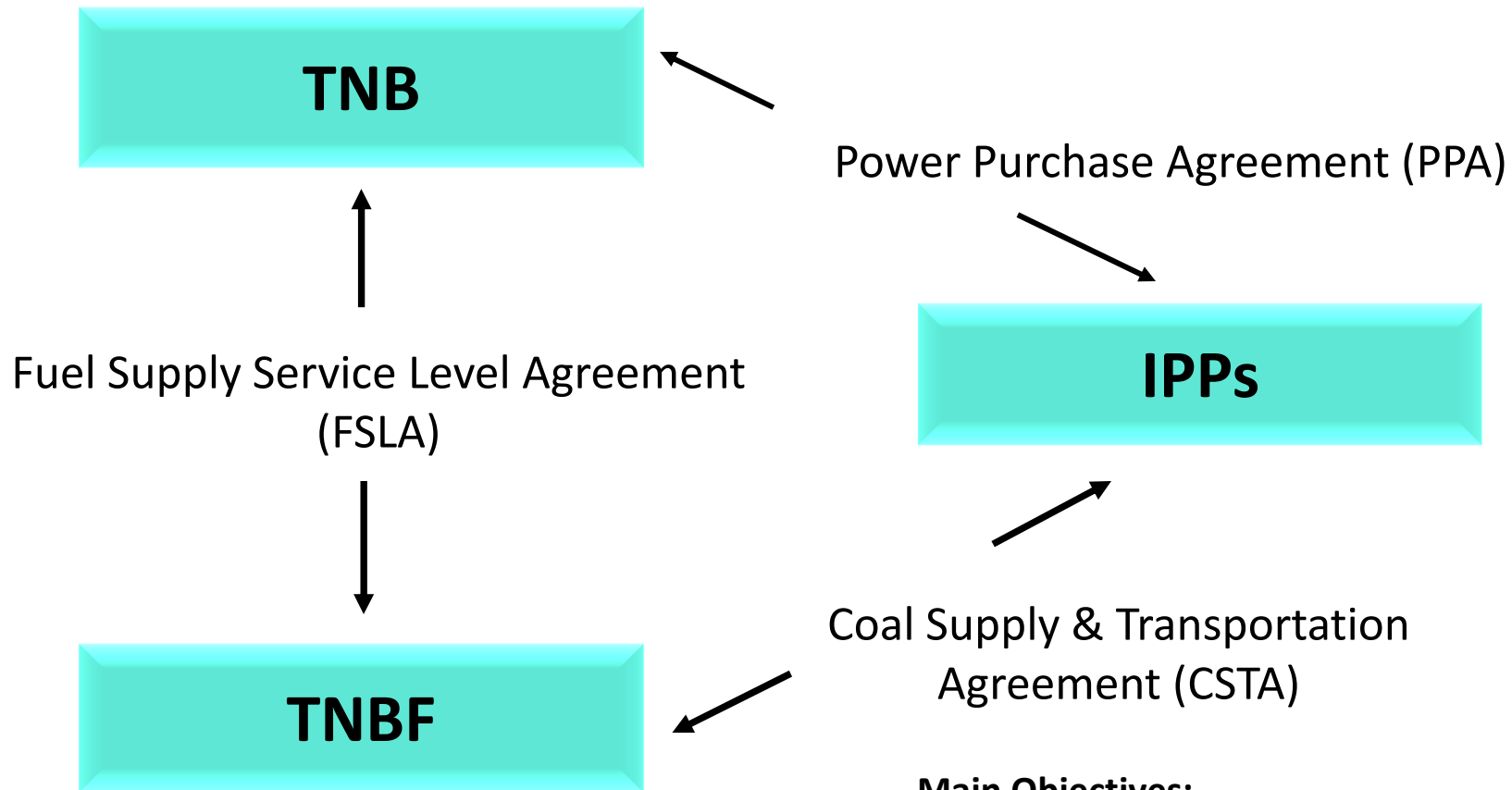
**CABARAN PEMBEKALAN BAHAN API
ARANG BATU KEPADA SEKTOR
PENJANAAN**

19 DECEMBER 2013

TNBF was formed as a result of Malaysian cabinet decision...



TNBF as an agent to TNB to procure fuel for the power generation as in the tri-party contractual structure...



Main Objectives:

- Security and Reliability of Supply
- Quality Assurance
- Least Possible Cost of Delivered Fuel

Close to 40mtpa by 2020...



Kapar Energy Venture
2 x 300 MW - 1988
2 x 500 MW - 2001

Janamanjung
3 x 700 MW - 2002

Tanjung Bin Power
3 x 700 MW - 2006

Jimah Energy Venture
2 x 700 MW - 2009

Manjung 4
1000 MW - 2015

Tanjung Bin Power
1000 MW - 2016

Manjung 5
1000 MW - 2017

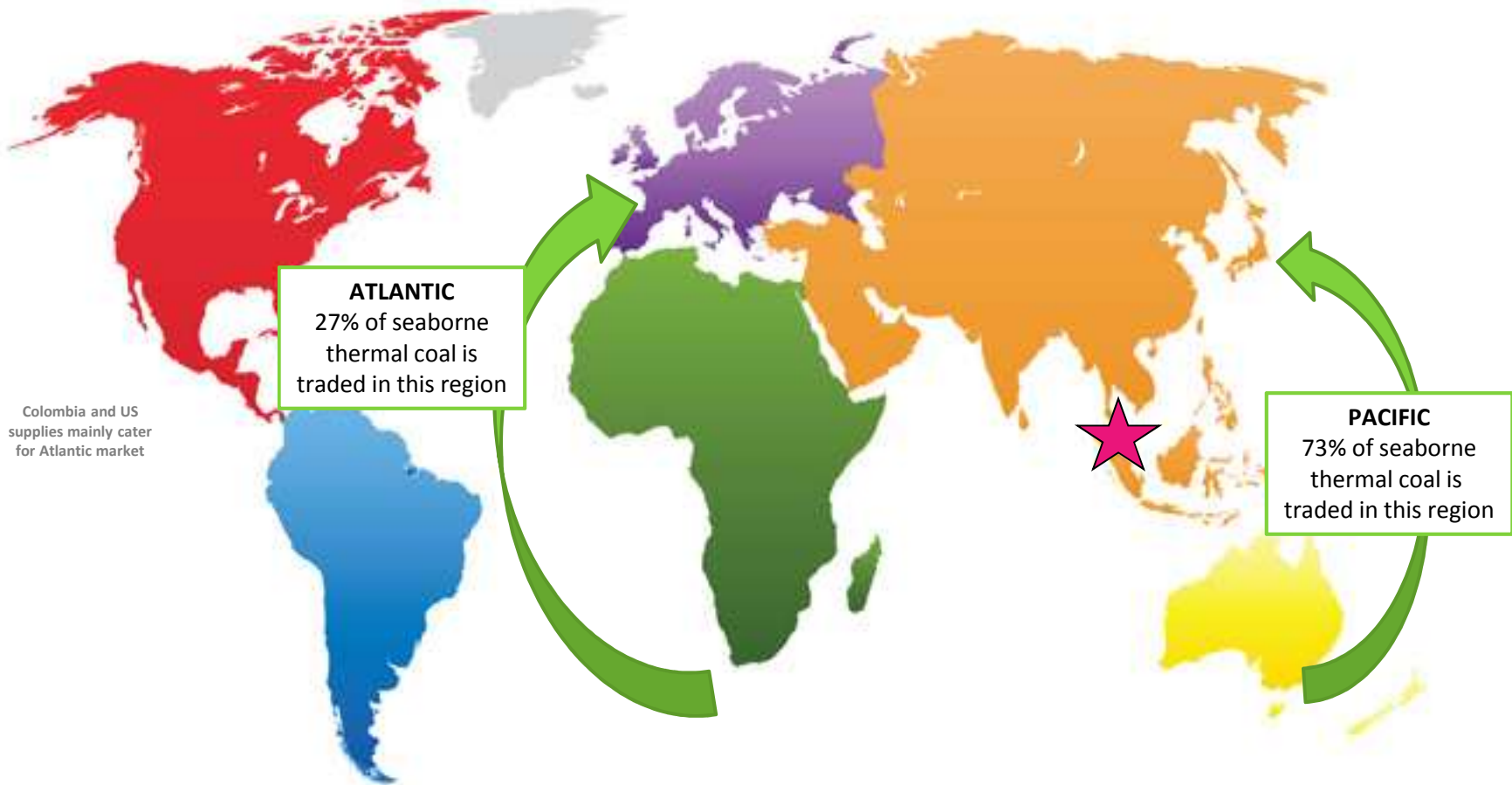
Track 3B (Greenfield)
2 x 1000 MW - 2018 & 2019



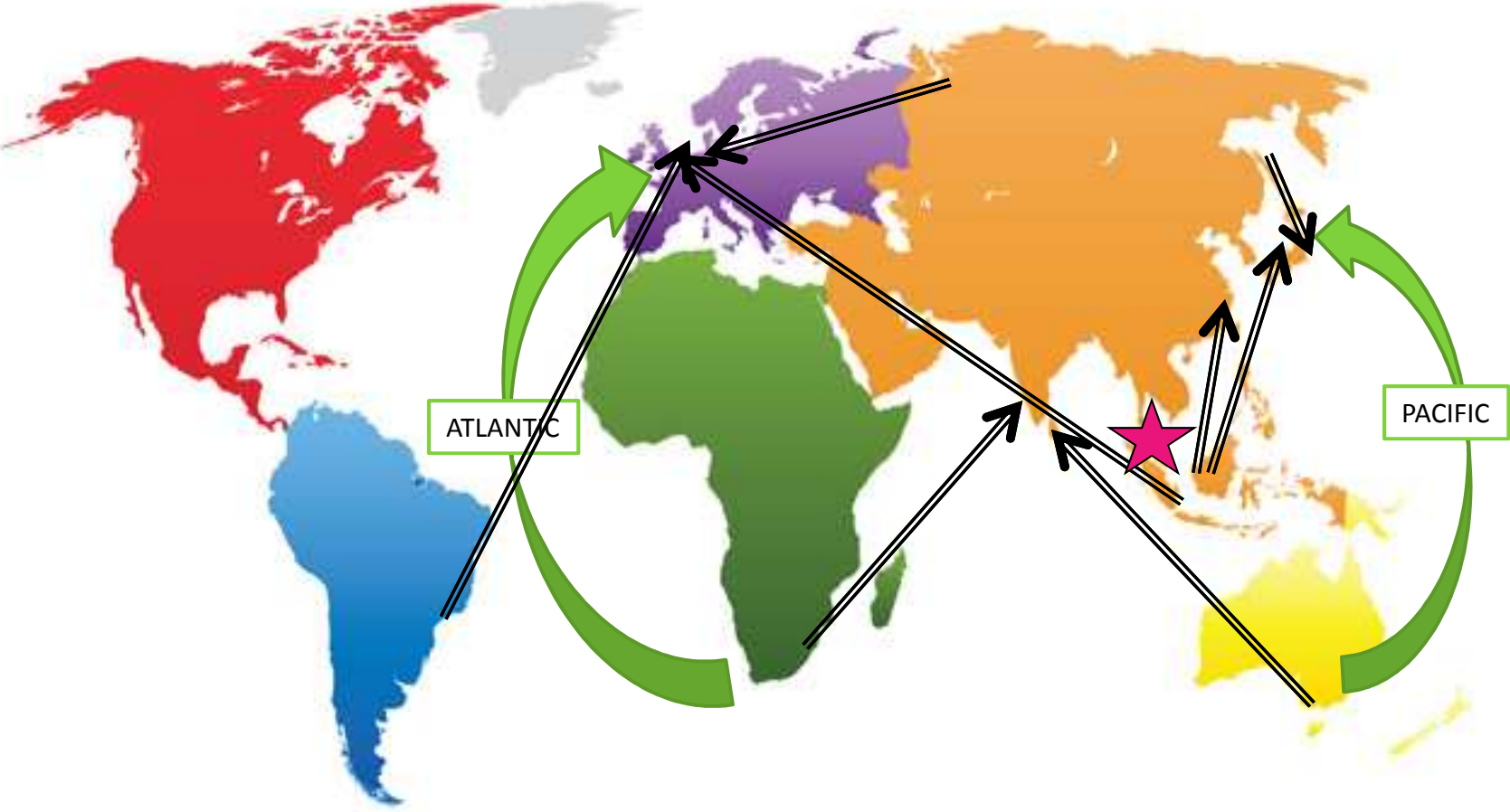
Plant	Capacity (MW)	Commissioned	Coal Requirement (mtpa)
TNB Kapar Ph. 2	2 x 300	1988	1.5
TNB Kapar Ph. 3	2 x 500	2001	2.5
Janamanjung	3 x 700	2002	6.0
Tg. Bin - IPP	3 x 700	2006	5.9
Jimah - IPP	2 x 700	2009	3.6
Janamanjung4	1000	2015	4.0
Tg. Bin4	1000	2016	4.0
Janamanjung5	1000	2017	4.0
GreenField*	2 x 1000	2018 and 2019	8.0
Total Capacity on Coal	12200		39.5

* Yet to be awarded

On a global front, TNBF has some arbitrage position being located in the middle of Atlantic and Pacific market...



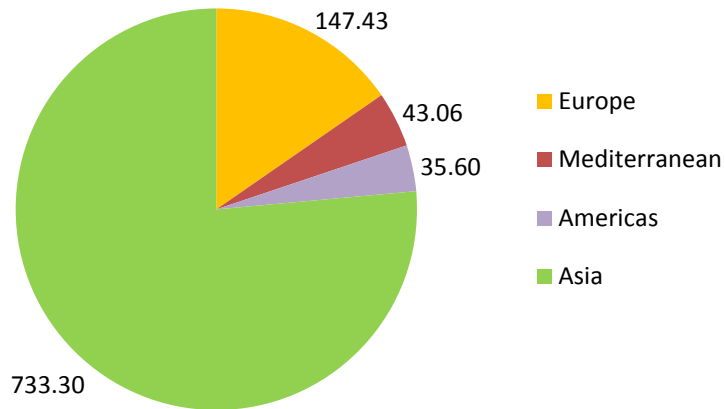
The two markets have converged in the recent years, giving more advantage to TNBF...



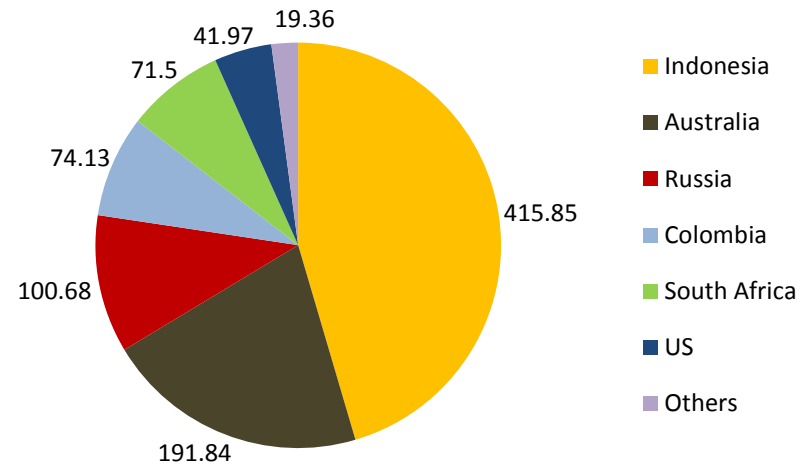
Asia is still the key dominant buyer...



Coal Demand 2013
Total : 959.4 million mt



Coal Supply 2013
Total : 915.3 million mt

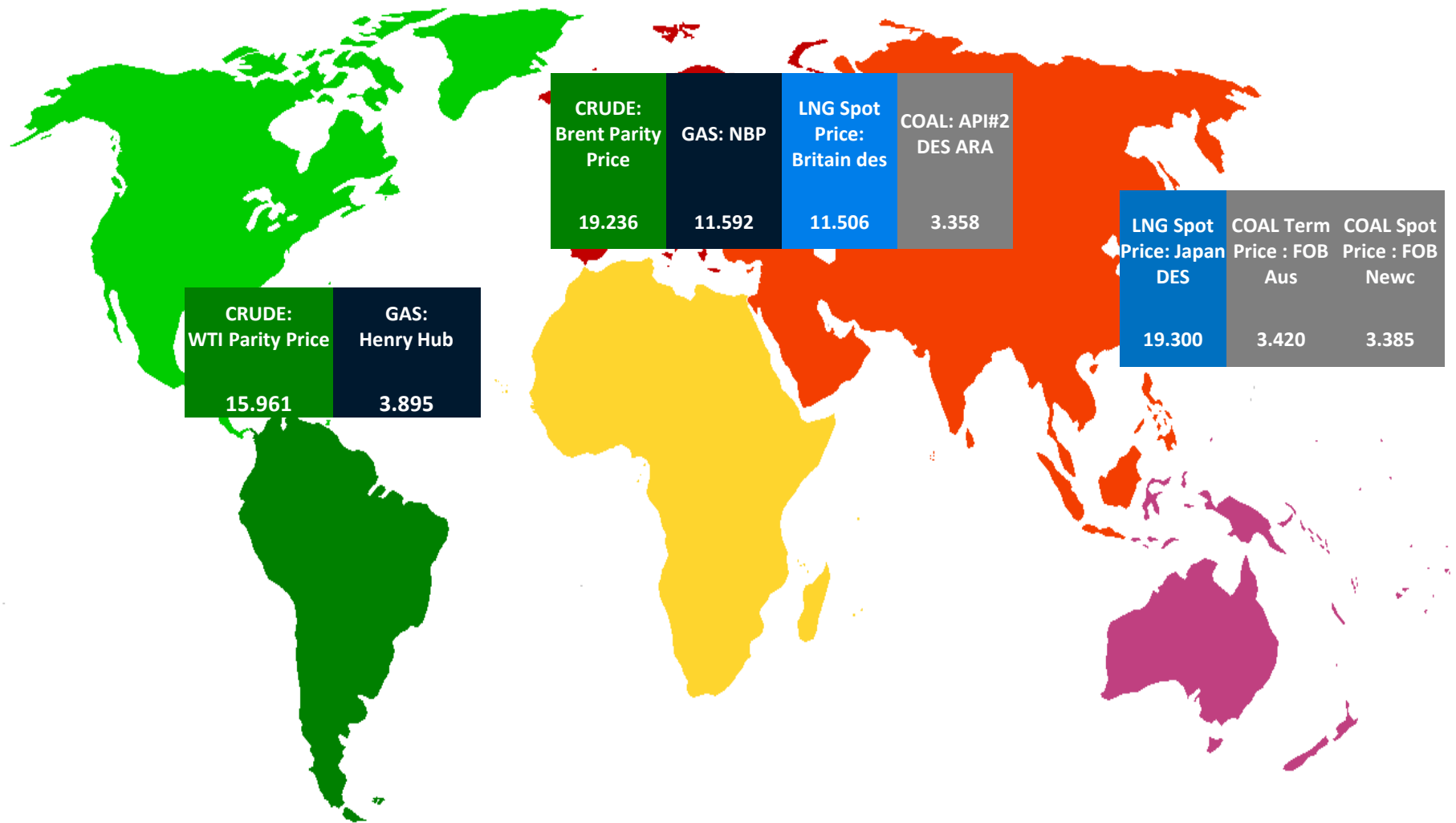


McCloskey forecasts undersupply of 44.1 million mt coal in 2013. However, TNBF foresees oversupply of coal due to weak demand from China and India. Lower domestic price and high stock pile has discouraged China from buying coal. Weaker Rupees also prevents Indian to import coal amid domestic coal crisis. Producers had to increase their production to broaden their profit margin due to depreciation of coal price.

Asian buyers dominate three quarters of the global coal production.

Indonesia remains as the largest world coal producer followed by Australia, Russia, Colombia and South Africa.

Coal is indeed still a competitive alternative...

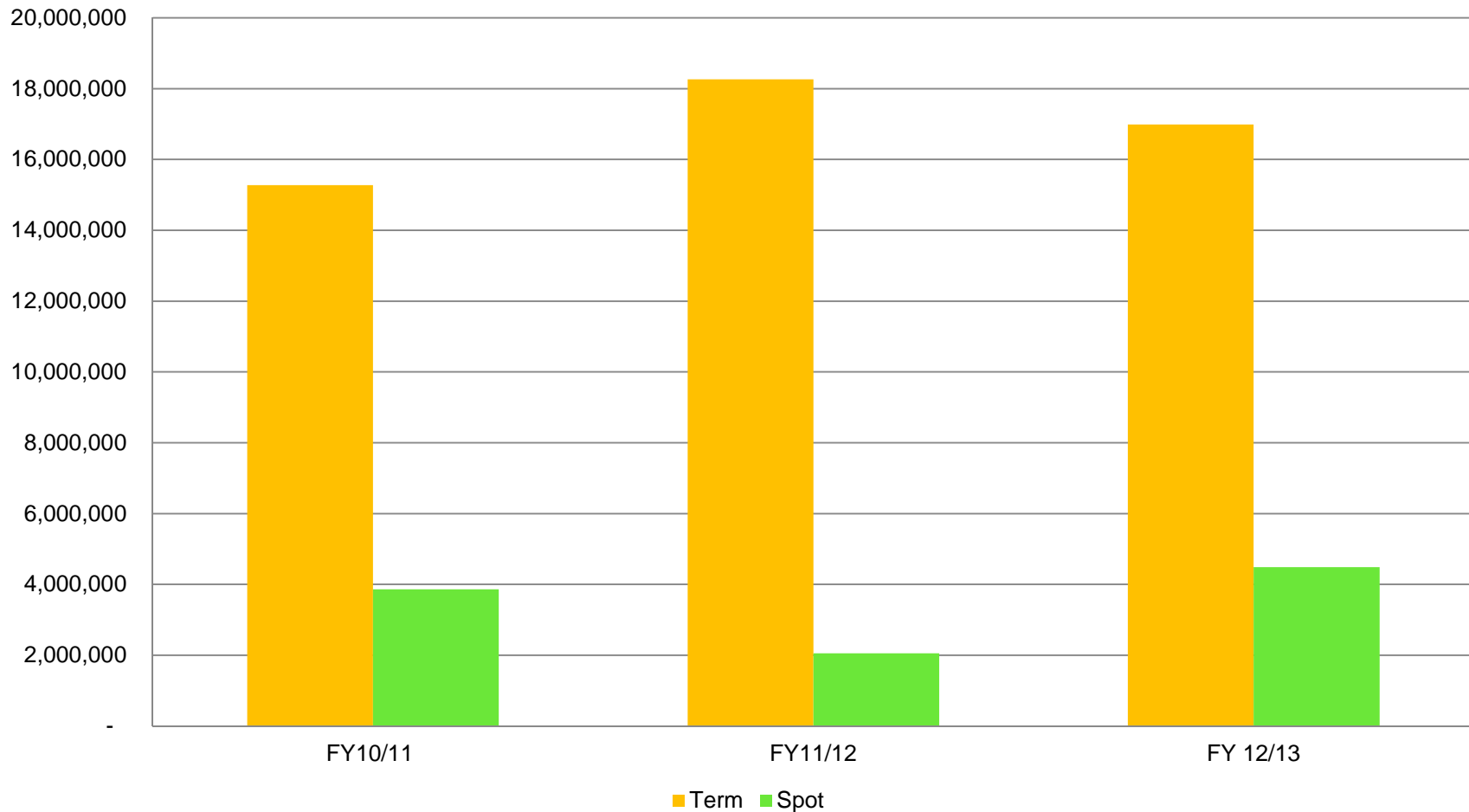


All figures in US\$/mmbtu by ICIS Heren.

TNBF mitigates price volatility by having long term and spot contracts...



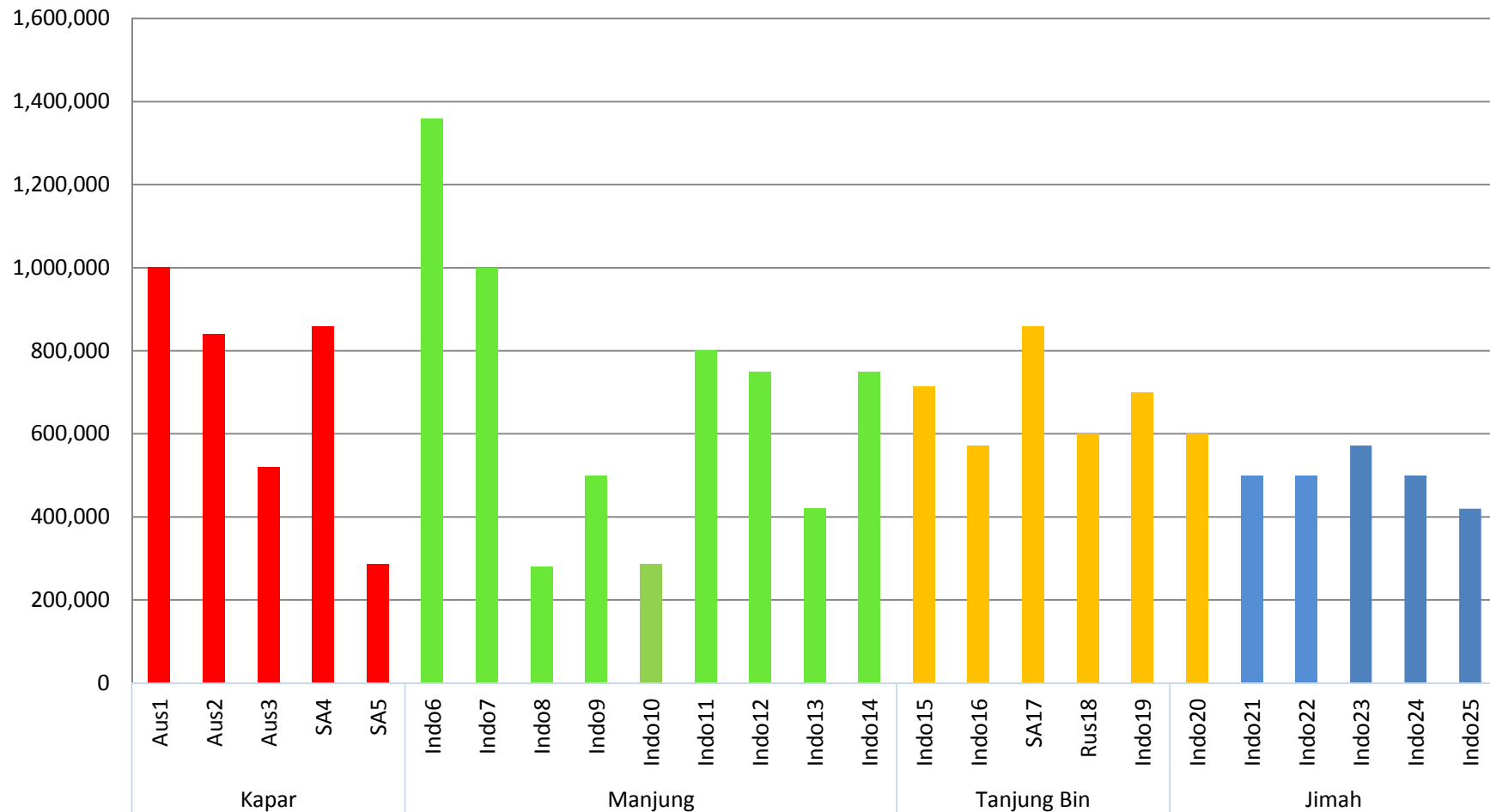
Procurement Tonnage : Long Term vs Spot



Contract terms are also staggered within a year and well diversified for each of the power stations...



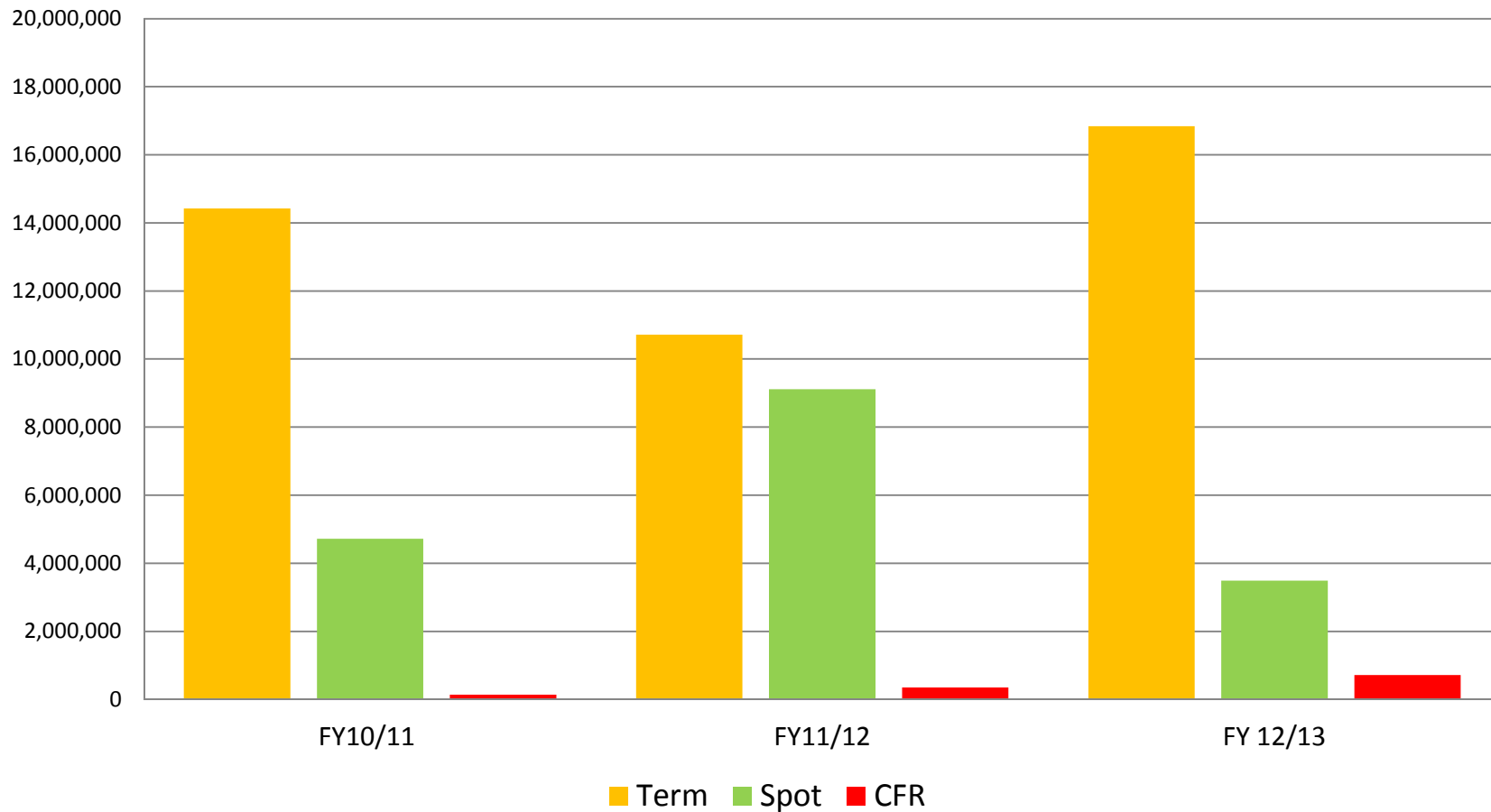
Long Term Contracts for Each Power Station



New suppliers are contracted on CFR basis to mitigate the risk of non performance...



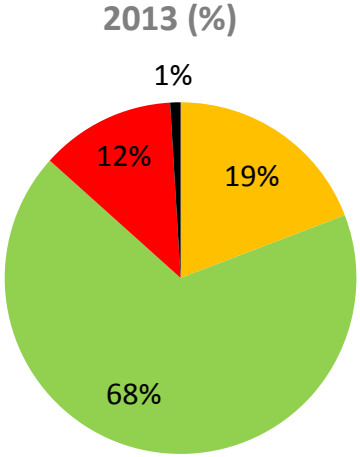
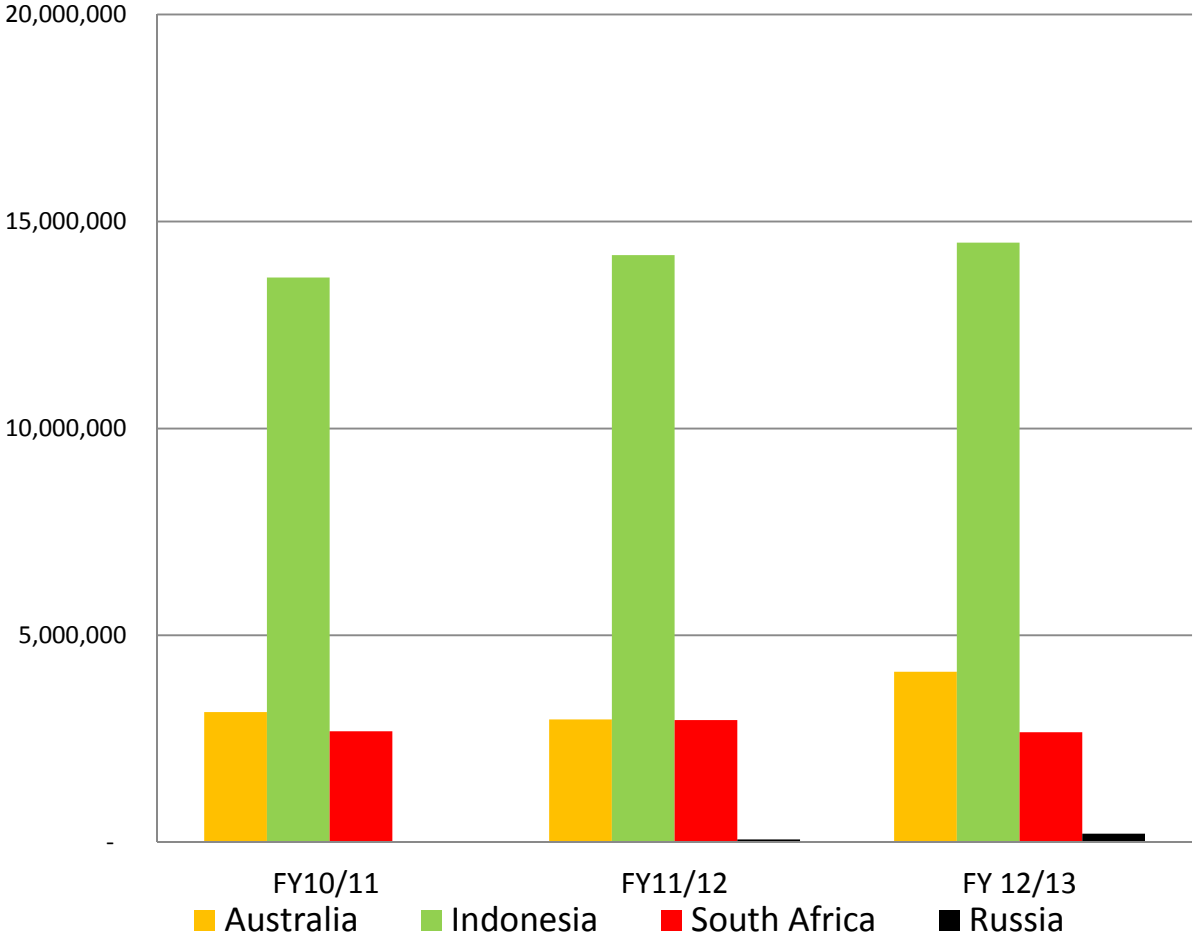
Freight Arrangement



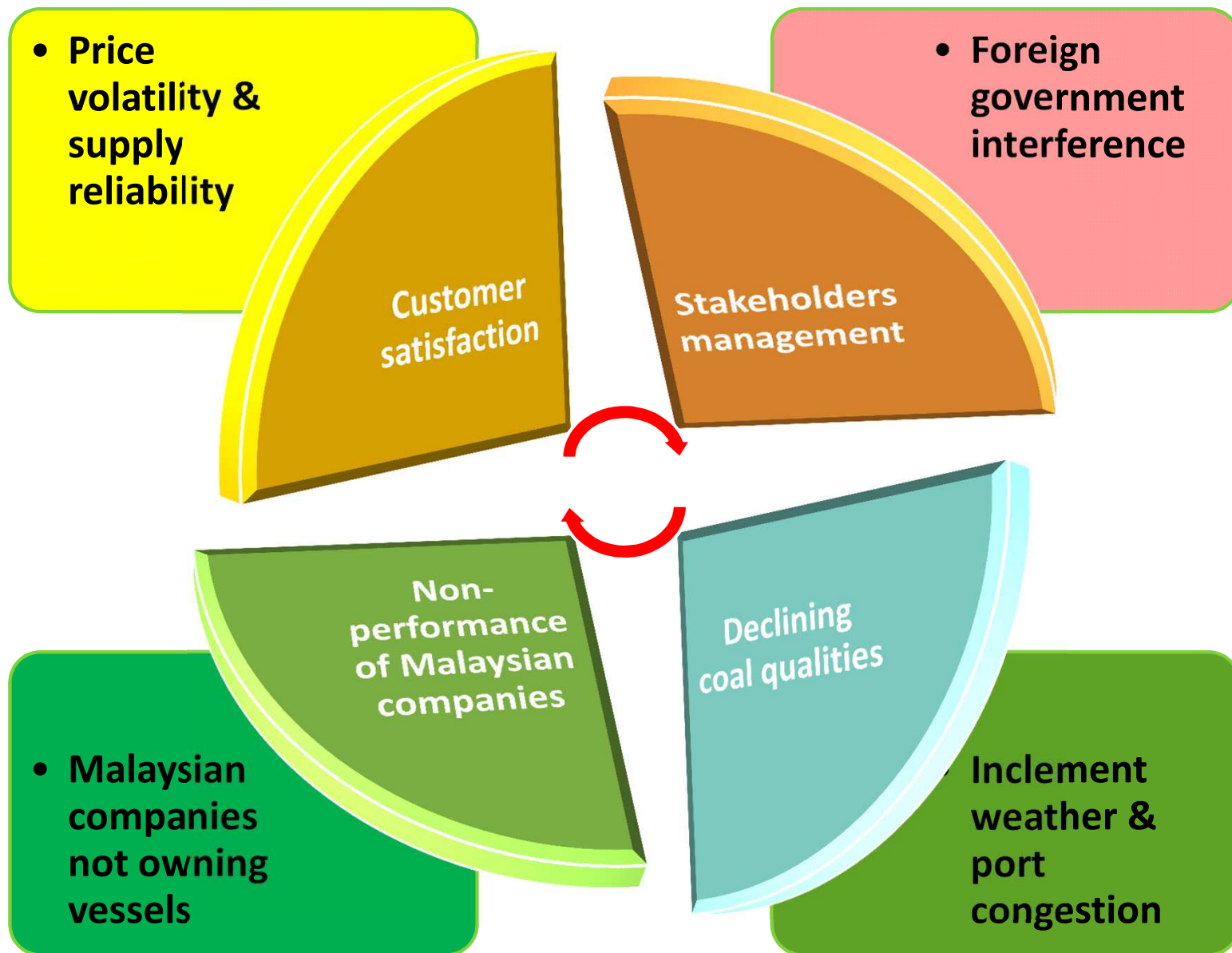
TNBF diversifies the source of coals to avoid heavy dependencies on certain country...



Distribution of Coal Sources



As in other business, TNBF too faces challenges in various aspects...



TNBF's mitigation plan in overcoming the challenges...



1. Customer Satisfaction

2. Stakeholders Management

3. Foreign govt intervention

- Meetings, port / mine visits
- Regular updates / reports
- Customer events, training, trial burn

Price volatility & supply reliability

- Annual price negotiations with suppliers
- Pricing strategies – indexed linked vs fixed
- Contracting strategies – long term vs SPOT
- Coal sources diversification

1. Non-performance of Malaysian companies

2. Malaysian companies not owning vessels

- Breach of contract – litigation / arbitration / black listing
- Implementation of TNBF CPPP

1. Declining coal qualities

2. Inclement weather & port congestion

- Regular updates from suppliers
- Prequalification
- Advise EC – future coal fired generation
- Coal sources diversification



THANK YOU