



# Overcoming Vulnerabilities to Rising Oil Prices: Options for Asia and the Pacific

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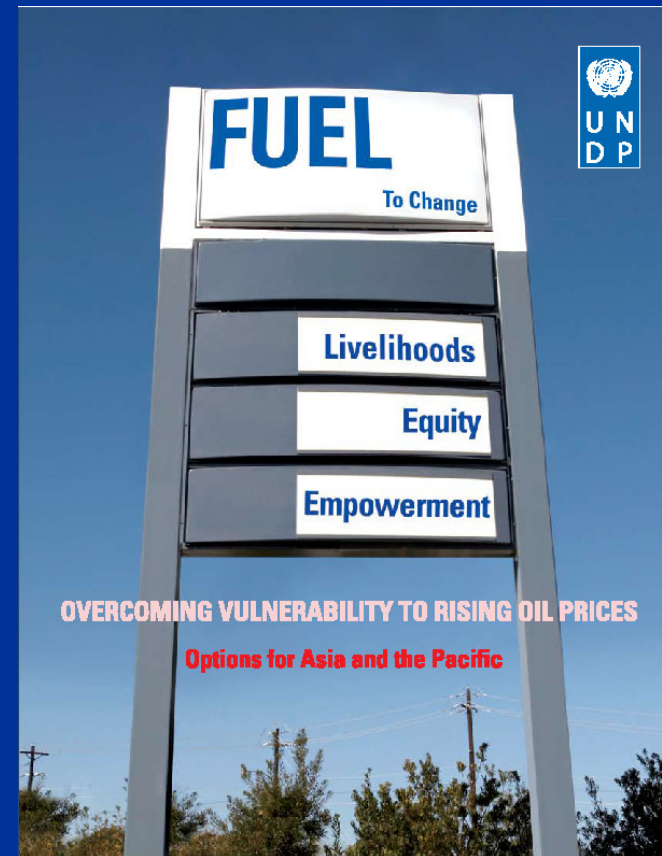
Apia, Samoa

**United Nations Development Programme**

# STRUCTURE OF PRESENTATION



1. Causes of Price Increases
2. Macro-economic Impacts
3. Impacts of Oil Prices on the Poor
4. Capturing Oil Price Vulnerability
5. Possible Policies for Reducing Vulnerability
6. References



# CAUSES OF OIL PRICE INCREASES

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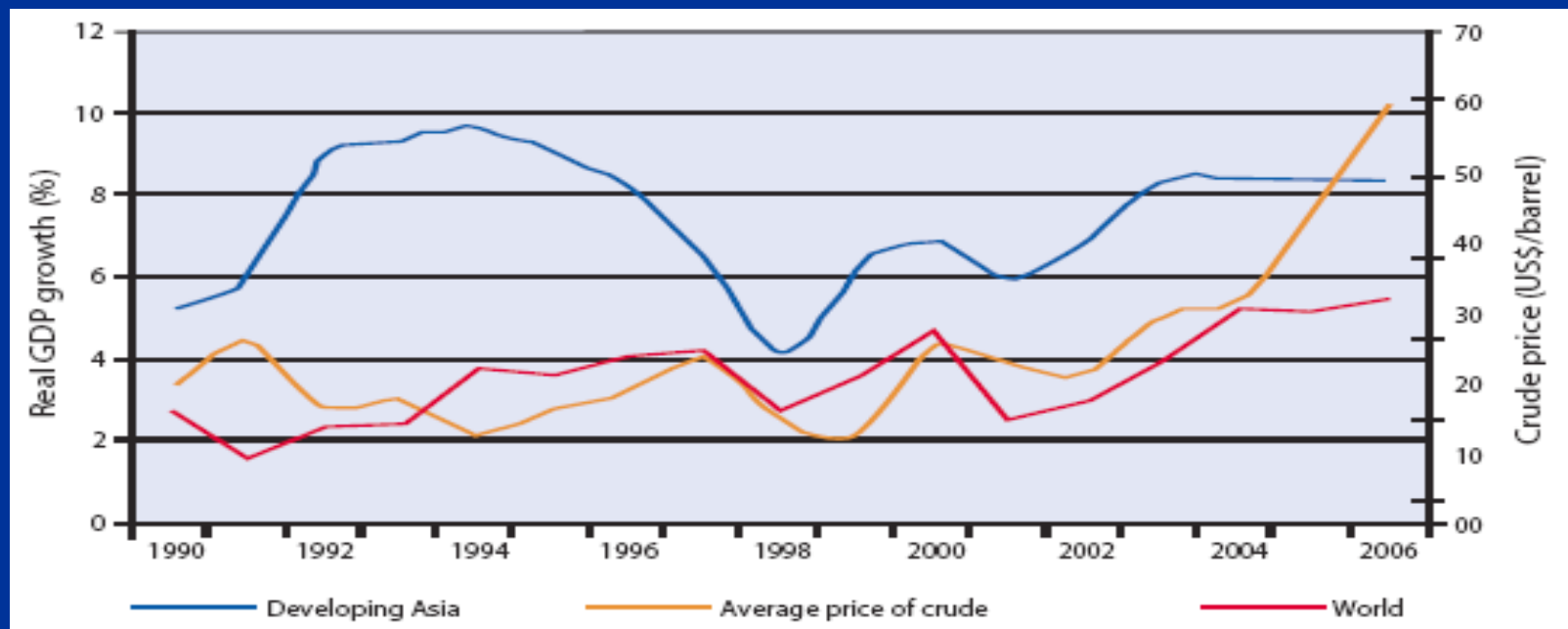


- 1970s shock caused by disruptions in supply, but the **reasons today are different**:
  - Growth in world oil demand
  - Shrinking buffers, i.e. less surplus production capacity among OPEC members, reduced oil inventories and less surplus refining capacity in consuming countries
  - Oil supply insecurity (mainly Middle East)
  - Speculation in the world oil market
  - Underinvestment in exploration and refining

# MACRO-ECONOMIC IMPACTS – ASIA



- So far observed impact limited in most of Asia. Economic growth has continued:



- But some increase in inflation

# MACRO-ECONOMIC IMPACTS – ASIA

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- Why limited macroeconomic impact, especially in Asia?
  - This time the price rises have come in the midst of a global economic boom (i.e., despite the price increases countries have been able to maintain their economic momentum)
  - Governments have often shielded consumers from the price increases through subsidies, which has helped to curb inflation
  - Rising exports have enabled even some of the poorest countries to finance oil import bills
  - **BUT**: it is possible that the macro-economic effects simply have been delayed, and could emerge in the future especially if recent increases represent the start of a long upward trend

# MACRO-ECONOMIC IMPACTS – PACIFIC

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- Overall finding: The economies in the Pacific sub-region appear to have been hardest hit by the rise in oil prices
- Specific findings on macro-economic variables:
  1. GDP growth: Between 2004 and 2005 the average growth rate fell
  2. Foreign exchange reserves: The Pacific sub-region is the only one to have seen a deceleration in foreign exchange inflows

# MACRO-ECONOMIC IMPACTS – PACIFIC



- Macro-economic impacts in the PICs assessed in AusAID paper from 2006. Examples include:
  - **Oil-based fuels represent by far the biggest component of merchandise imports for PICs.** In 2005, fuel imports as a percentage of total merchandise imports ranged from 14 per cent in Vanuatu to 30 per cent in Solomon Islands
  - **In Tonga and Samoa, the value of fuel imports was more than double the aggregate of all merchandise exports in 2005**
  - **In 2006, based on the rises in fuel prices that have already occurred, the fuel import bill for Fiji will rise by about F\$160 million,** which is equivalent to about 13 per cent of merchandise exports and represents about **30 per cent of Fiji's foreign reserves**
  - In 2004, fuel imports were equivalent to 20 per cent of GDP in Kiribati. **By 2006, this share is expected to rise to 29 per cent of GDP**

# IMPACTS OF OIL PRICES ON THE POOR

## – ASIA

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- Survey of 500 households in 14 poor rural and urban communities in China, India, Indonesia and Lao PDR.  
**Between 2002 and 2005:**
  - 171 percent more for cooking fuels
  - 120 percent more for transportation
  - 67 percent more for electricity
  - 55 percent more for lighting fuels
  - 33 percent more for petroleum-based fertilizers and other agricultural inputs
- Between 2002 and 2005, **the amount each surveyed household spent for its energy needs increased by 74 percent**

# IMPACTS OF OIL PRICES ON THE POOR – PACIFIC

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- Recent media examples from the PICs:
  - ‘The rising cost of oil has been increasing electricity prices in the Pacific so much that in Papua New Guinea rural schools are now spending 70 per cent of their budget on diesel for their generators’ (June 2007)
  - ‘The Fiji government has announced the removal of a value-added tax on some basic food items as a way of helping the country's poor cope with rising fuel prices’ (Nov 2006)
  - ‘Like a stiff slap in the face, a three-month fuel shortage endured by citizens of Kosrae in...FSM has turned into crisis, with gasoline prices averaging nearly US\$4 per gallon on the island’ (Dec 2005)

# CAPTURING OIL PRICE VULNARABILITY

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- Communiqué from the Pacific Energy Ministers Meeting (PEMM), held in Cook Islands, 25-26 April 2007:
  - ‘Pacific Island countries are extremely vulnerable to oil price shocks, a fact of deep concern. Even moderate increases in world fuel prices cause significant damage to their economies’

# CAPTURING OIL PRICE VULNARABILITY

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- Is it possible to quantify the extend of such vulnerability?
- **Oil Price Vulnerability Index (OPVI)** developed that captures the three commonly accepted aspects of vulnerability:
  - 1) Hazards – international events not under a country's control;
  - 2) Resistance – represents the resilience and fundamental strength of an economy; and
  - 3) Damage – social vulnerability and tracked by indicators of human development

# CAPTURING OIL PRICE VULNARABILITY

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- Three dimensions of the OPVI with the following variables:
  - 1) **Economic strength** (economic capacity to afford oil imports): balance of payments: current account, budget balance, import cover and oil import dependence
  - 2) **Economic performance**: GDP per capita and oil intensity of GDP
  - 3) **Economic growth with low share of oil** (importance of oil to growth): real GDP growth rate and share of oil in primary energy consumption

# CAPTURING OIL PRICE VULNARABILITY



- OPVI. Ranking of Asia-Pacific countries:

Table 3-1 Ranking of countries based on weighted dimension scores and composite OPVI

Rank	Countries	OPVI	Strength	Performance	Low-oil-growth	Weighted Total Score
1	Iran	1.00	2.16	0.79	-0.15	2.81
2	China	0.78	0.87	0.50	0.40	1.77
3	Malaysia	0.72	1.06	0.51	-0.08	1.50
4	Bhutan	0.56	-0.20	0.25	0.70	0.75
5	India	0.49	-0.03	0.14	0.33	0.44
6	Papua New Guinea	0.46	0.81	-0.07	-0.45	0.30
7	Indonesia	0.45	0.32	0.08	-0.11	0.23
8	Thailand	0.44	0.23	0.17	-0.18	0.22
9	Mongolia	0.43	0.34	-0.23	0.07	0.18
10	Viet Nam	0.42	-0.18	0.53	-0.26	0.10
11	Myanmar	0.40	0.08	-0.27	0.20	0.01
12	Philippines	0.39	0.14	-0.13	-0.05	-0.04
13	Afghanistan	0.38	-0.24	-0.20	0.38	-0.06
14	Nepal	0.38	0.41	-0.47	-0.01	-0.07
15	Bangladesh	0.34	-0.08	-0.41	0.24	-0.25
16	Pakistan	0.34	-0.22	-0.17	0.14	-0.25
17	Lao PDR	0.31	-0.55	-0.25	0.40	-0.39
18	Fiji	0.28	-0.12	-0.11	-0.31	-0.55
19	Samoa	0.24	-0.05	-0.51	-0.17	-0.73
20	Sri Lanka	0.18	-0.81	0.00	-0.18	-0.99
21	Solomon Islands	0.18	-0.52	-0.20	-0.29	-1.01
22	Cambodia	0.17	-0.36	-0.53	-0.16	-1.05
23	Vanuatu	0.17	-0.30	-0.45	-0.32	-1.07
24	Maldives	0.00	-2.76	1.08	-0.16	-1.84

Least vulnerable  
 Medium  
 Most vulnerable

• Of the seven (7) most oil price vulnerable Asia-Pacific countries (4) four are PICs

• Most vulnerable country is a SIDS, i.e. Maldives

• PNG, an oil exporter, is an PIC exception

# CAPTURING OIL PRICE VULNARABILITY

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- The following should be noted on the OPVI:
  - Results from 24 Asia-Pacific countries. The reason only five (5) PICs initially was included is to do with difficulties in getting access to comparable data, but it is the intention to include additional PICs as data becomes available
  - Reflect current positions of 24 Asia-Pacific countries based on a limited set of variables
  - The Index is relative to this group of countries

# POSSIBLE POLICIES FOR REDUCING VULNARABILITIES



Strategic Directions	Possible Policies
1. Managing Oil Price Risk	<ul style="list-style-type: none"> <li>•Pricing policies: targeted subsidies, tax adjustments, price restraints, compensation schemes,</li> <li>•Financing tools</li> </ul>
2. Enhancing Oil Supply	<ul style="list-style-type: none"> <li>•Strengthen oil exploration and extraction</li> <li>•Establishing or increasing refining capacity</li> <li>•Diversifying sources of oil</li> <li>•Engaging in barter</li> </ul>
3. Restraining Oil Demand	<ul style="list-style-type: none"> <li>•Increase efficiency in transport, industry, agriculture and households</li> </ul>
4. Diversifying fuels	<ul style="list-style-type: none"> <li>•Natural gas and coal</li> <li>•Renewable sources of energy</li> </ul>
5. Preparing for Emergencies	<ul style="list-style-type: none"> <li>•Building strategic reserves</li> <li>•Rationing to ensure essential supplies</li> </ul>

# POSSIBLE POLICIES FOR REDUCING VULNARABILITIES



Strategic Directions	Possible Policy Examples from PICs
Managing Oil Price Risk	<ul style="list-style-type: none"> <li>•Regional bulk fuel procurement initiative and Framework Agreement endorsed at the 2008 Pacific Islands Forum Meeting in Tonga</li> <li>•Replicate the ‘Samoa models’ for supply of liquid petroleum based fuel products including: a) publicly owned fuel import terminals; b) periodically call for international tenders; and c) rigorously enforced, formula-based fuel price reviews, applied on a monthly basis</li> <li>•Introduction of new price control mechanisms, which would have the aim of decrease in fuel prices. E.g. in Dec 2005 the Cook Islands changed the conditions of the pricing template</li> </ul>
Restraining Oil Demand	<ul style="list-style-type: none"> <li>• E.g. in Fiji and Samoa the introduction of Energy Efficiency Service Companies (EESCOs) that address energy efficiency issues for commercial, industrial and government clients have a great potential for developing long term energy efficiency improvements</li> </ul>
Diversifying Fuel	<ul style="list-style-type: none"> <li>• Renewable energy in particular solar, hydro &amp; biomass (and wind in a few PICs)</li> </ul>

# POSSIBLE POLICIES FOR REDUCING VULNARABILITIES

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- Proposal for a Asia-Pacific Compensatory Oil Finance Facility (AP-COIL) for Least Developed Countries (LDCs) and Low Income Countries (LICs). AP-COIL would assist Asia-Pacific LDCs and LICs by way of:
  - Enhance their liquidity to overcome balance of payments and fiscal deficits; and,
  - Financing essential structural changes in their energy economies to reduce their dependence on oil

# POSSIBLE POLICIES FOR REDUCING VULNARABILITIES

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- Key finding of the report: **high oil prices will affect the LDCs and LICs the most.** These countries have: a) modest economic growth; b) high indebtedness; c) low foreign reserves and d) balance of payments at the margin
- If prices remain high or rise further, these countries will struggle to finance their growing import bills
- **Prolonged liquidity problems will force many countries to resort to external borrowings,** the rise in debt and debt services squeezing their capacity to invest in critical economic, social and infrastructure development thus undermining their prospects for achieving the MDGs

# POSSIBLE POLICIES FOR REDUCING VULNARABILITIES

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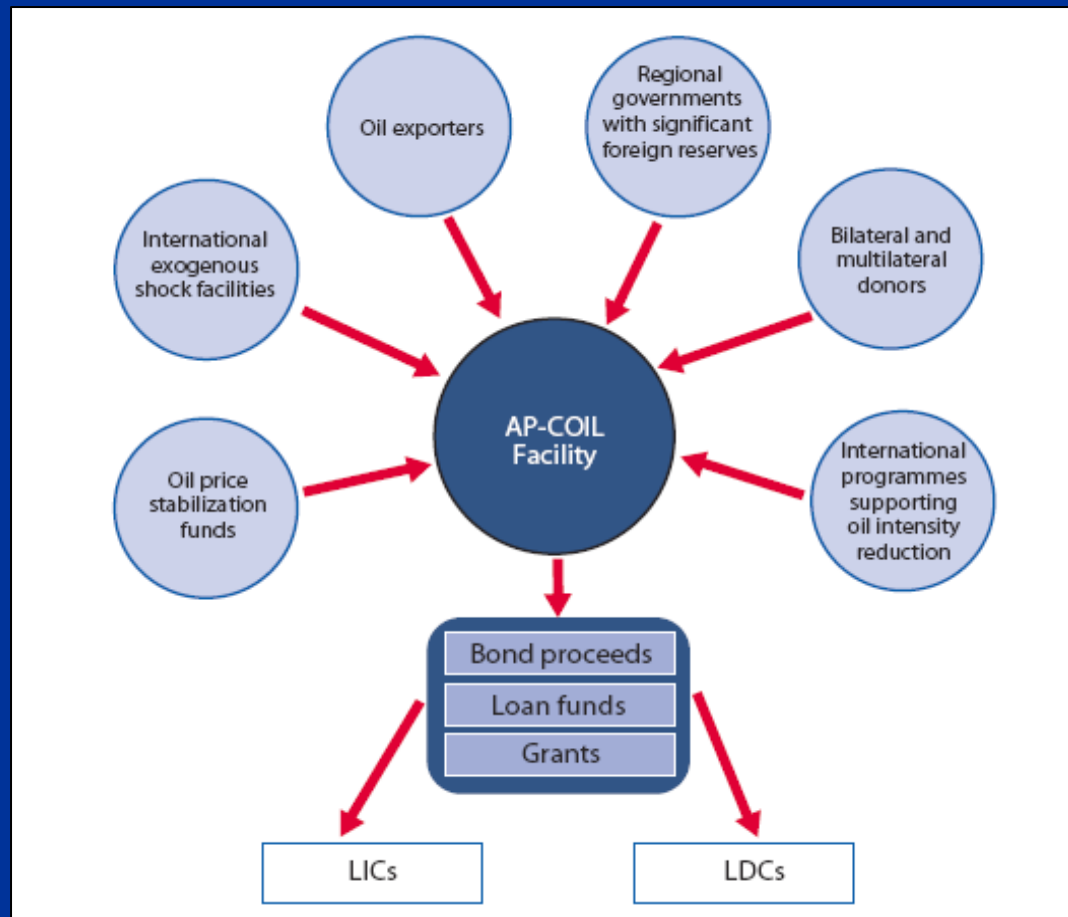


- Rationale for AP-COIL include:
  - Poorer countries of the Asia-Pacific region are besieged by mega-trends outside their control. Thus the notion of ‘compensation’: those who benefit from high oil prices (oil exporters) or bear substantial responsibility for them (large importers with the ability to pay) help those who are disadvantaged by the phenomenon
  - Present oil price rise has lasted for an extraordinary time
  - Even if oil prices come down in the short-term there is no assurance that a new uptrend will not occur
  - Poorer countries of the region are already suffering from high oil prices
  - Without focused external assistance, these countries will find their economic and social development prospects dimming further in an area of protracted high oil prices

# POSSIBLE POLICIES FOR REDUCING VULNARARILITIES



- AP-COIL flow of funds:



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