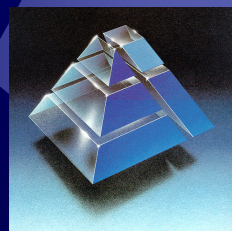
THE IMPACT OF ROAD USER CHARGES ON THE ECONOMY OF NAMIBIA

October 2004

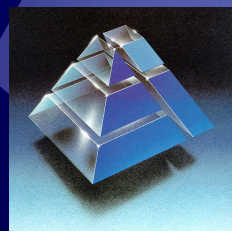
OUTLINE

1. Introduction
2. Broad overview of Namibia's macro economy
3. Role of Transport Sector
4. RUC instruments and their impact
5. Conclusions



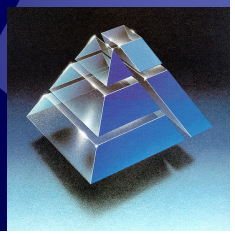
1. Introduction

- Road User Charges (RUC) system implemented in Namibia in 2000
- RUC system
  - independent
  - regulate road funding
  - based on principles of economic efficiency and
  - full cost recovery in equitable manner



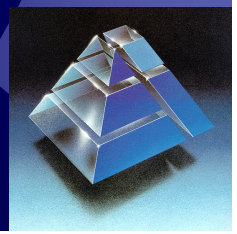
1. Introduction (cont'd)

- Objectives of RUC system
  - Revenue for road provision and maintenance raised from road users
  - Pricing to improve economic efficiency
  - Promote equity between categories of road users
  - Establish supply/demand transport infrastructure link
  - Increase transparency in road funding
  - Equity between road and rail promoted – full cost recovery from transport operators



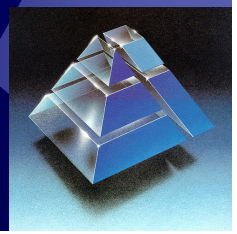
1. Introduction(cont'd)

- RUC instruments
  - Fuel levy
  - License fees
  - Cross-border charges
  - Mass-distance charges (implemented soon)
- Study done in 2003/4 to review RUC system and related aspects
- This presentation gives results of overview of impact of RUCs on the economy



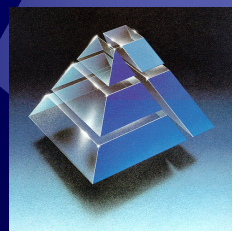
2. Broad overview of Namibia's macro economy

- Free economy with substantial direct and indirect public sector involvement
- Direct involvement through parastatals/public corporations e.g. TransNamib, Nampower and Namwater
- Primary sector plays important role
  - 23% contribution to economy (2002)
  - Mining, fishing and agriculture dominant



2. Broad overview of Namibia's macro economy (cont'd)

- Skewed income distribution
  - 5% of population earn 35% of income (2002)
- Well-developed trade
  - 49% of Gross Domestic Expenditure (GDE) imported, 48% of GDP exported
- Impact of transport sector therefore expected to be high
  - Large section of poor people
  - Large geographical area – goods and services transported over long distances



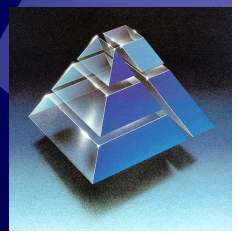
3. Role of transport sector in the economy

- Transport 4% of GDP

ECONOMIC CONTRIBUTION OF THE VARIOUS TRANSPORT MODES AT CURRENT PRICES

Transport Mode	Percentage composition
Road Commercial	20.2%
Public Transport	9.9%
Own Road Transport	57.8%
Total Road Transport	87.9%
Rail	9.2%
Air	2.0%
Sea	0.5%
Other	0.4%
Total	100%

Source: Social Accounting Matrix for Namibia (SAM)

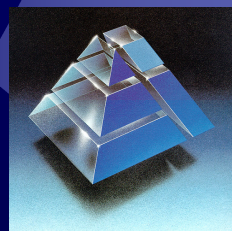


3. Role of transport sector in the economy (cont'd)

HOUSEHOLD CONSUMPTION CATEGORIES DEPENDENCY ON ROAD TRANSPORT

Consumption categories	Road Transport Dependency
Food	18.9%
Clothing	12.1%
Housing	16.7%

Source: Social Accounting Matrix for Namibia (SAM)



3. Role of transport sector in the economy (cont'd)

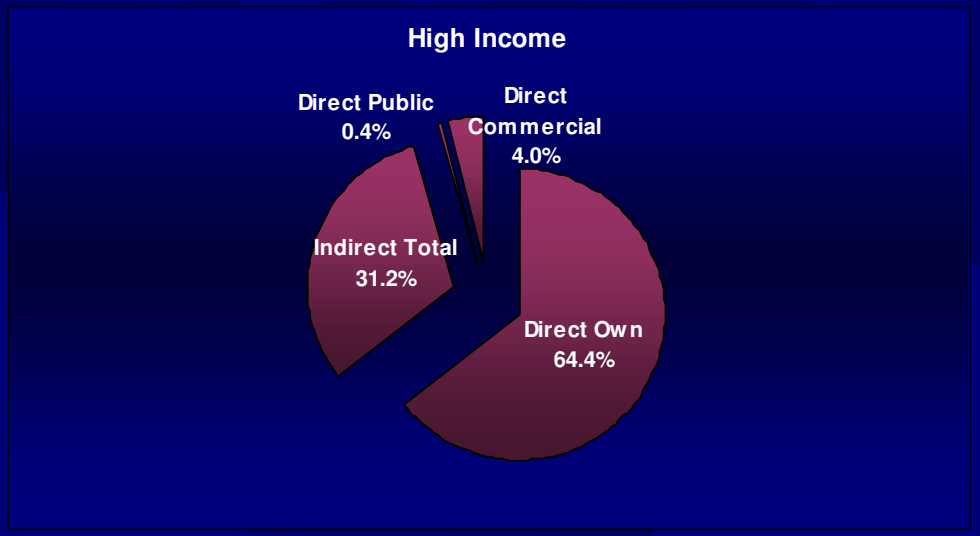
ROAD TRANSPORT USED BY HOUSEHOLDS

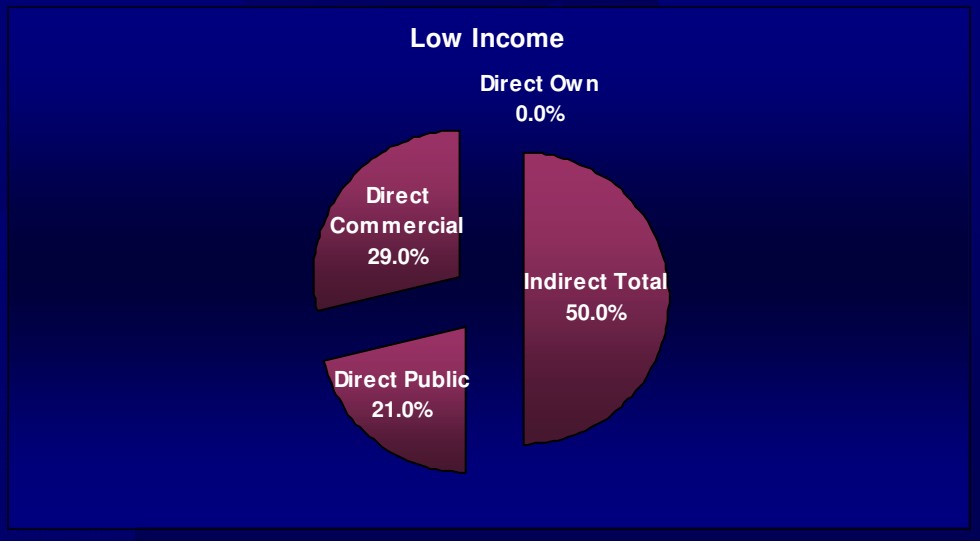
INCOME GROUP (percentile)	2002 AVERAGE INCOME PER ANNUM N$	ROAD TRANSPORT EXPENDITURE AS % OF TOTAL EXPENDITURE
PCI <P25	9,400	11.7%
P25 < = PCI < P50	14,100	11.1%
P50 < = PCI < R75	24,600	17.5%
P75 < = PCI < P90	54,900	19.0%
P90 < = PCI < P95	118,000	20.7%
P95 < =PCI < P99	229,000	22.9%
PCI > P99	460,000	25.0%
Average per household	39,920	15.2%

Source: Social Accounting Matrix for Namibia (SAM)

3. Role of transport sector in the economy (cont'd)

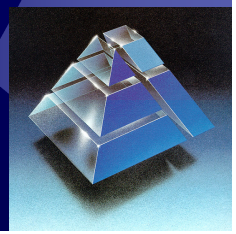
- Utilization of transport by households





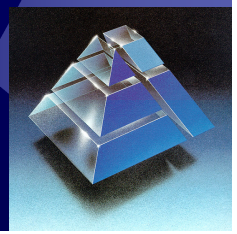
3. Role of transport sector in the economy (cont'd)

- Conclusions
  - Road transport is dominant mode in Namibia (88%)
  - High income groups
    - Spend more on transport as % of total income
    - Spend more on own transport (64%)
  - Low income groups
    - More dependent on public/commercial transport



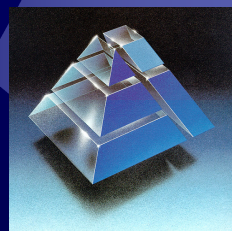
4. Impact of RUC on Economy

- Conceptual impact of RUC
  - Short-term : Inflationary due to transport cost increases
  - Long-term : Suppress inflationary effects due to lower Vehicle Operating Costs (VOCs)
  - RUCs result in improved efficiency with positive impact on economic growth potential
  - RUCs make transport costs more transparent, internalize externalities, apply user pays principle and eliminate cross-subsidies
  - RUC costs as % of Total Vehicle Operating Costs
    - Light Vehicles 3.3%
    - Heavy Vehicles 5.6%



4. Impact of RUC on Economy (cont'd)

- Current recovery from domestic road users N$506.5 million p.a.
- Total longer-term optimal required expenditure is N$926.3 million p.a. (MLTRMP and RFA Business Plan)
- Thus under-recovery of +/- N$420/year
- Increase of 83% in RUC levels needed
- However represents only small increase in total transport costs



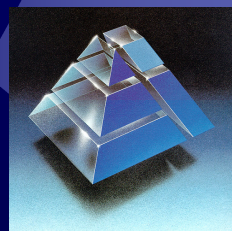
4. Impact of RUC on Economy(cont'd)

SHORT TERM

- Increase in RUC levels to optimal expenditure levels will increase transport costs (VOCs) with +/- 5%
- Household inflation rise if transport costs rise with 5%

INCOME GROUP (percentile)	5% TRANSPORT COST INCREASE
PCI < P25	0.60%
P25 < = PCI < P50	0.55%
P50 < = PCI < P75	0.85%
P75 < = PCI < P90	0.95%
P90 < = PCI < P95	1.05%
P95 < = PCI < P99	1.15%
PCI > = P99	1.25%
TOTAL CONSUMER INFLATION	0.75%

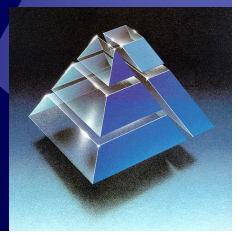
Source: Social Accounting Matrix for Namibia (SAM)



4. Impact of RUC on Economy (cont'd)

SHORT TERM (cont'd)

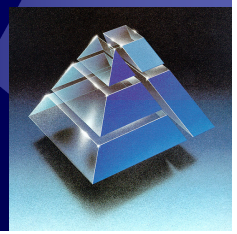
- The required 5% transport cost increase will therefore in the short term:
  - Increase PPI by 0.57 and CPI by 0.75 percentage points
  - Increase Government cost by 0.9 percentage points
- RUCs will increase VOCs over short term
  - Light Vehicles 2.8 %
  - Heavy Vehicles 4.6 %
    - Dependent on RUC instrument chosen
    - If MDC: heavy vehicles face highest increase



4. Impact of RUC on Economy (cont'd)

MEDIUM TO LONG TERM

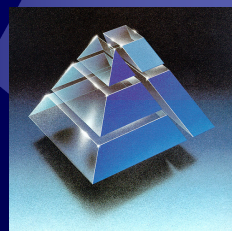
- Over the longer term, increase in RUCs to optimum level will result in
  - Decrease in transport costs
  - Maintain asset value of road network
- Resultant positive impacts on economy
  - Suppressed inflationary effect
  - Increased societal equity



4. Impact of RUC on Economy (cont'd)

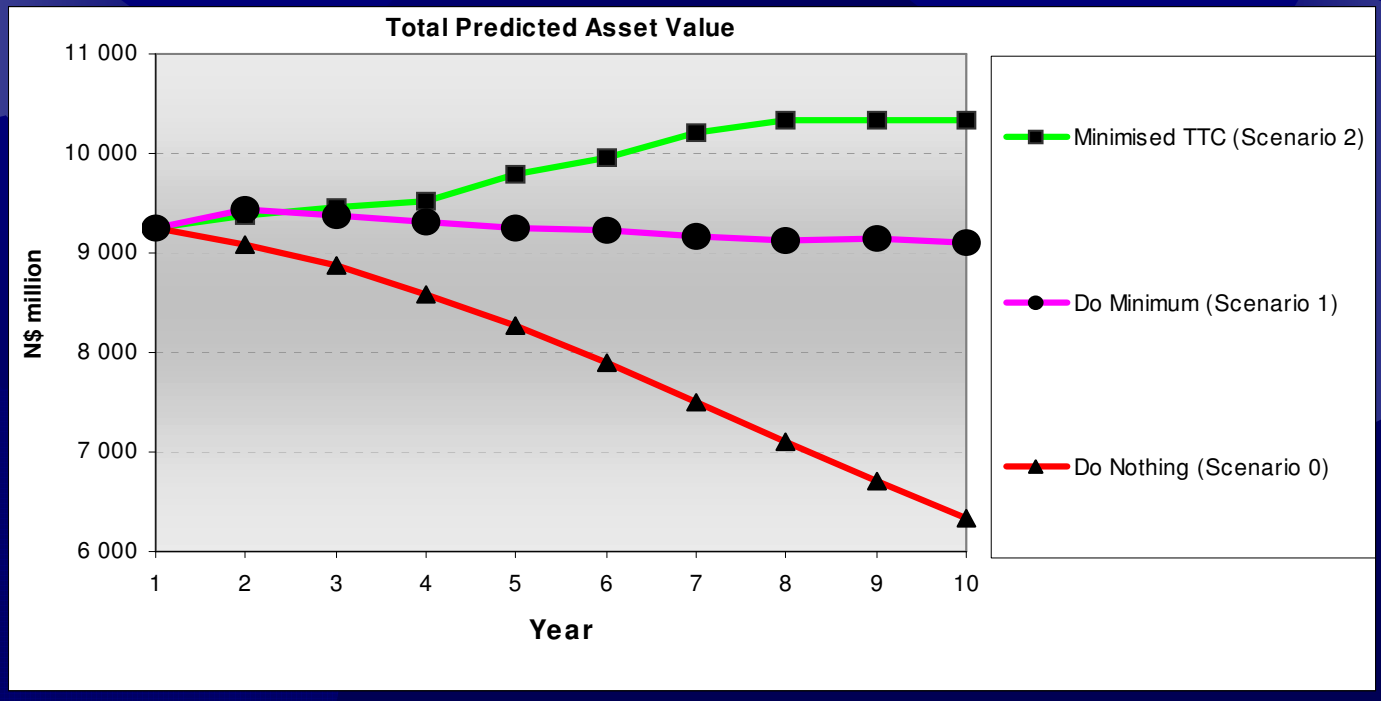
MEDIUM TO LONGER TERM (cont'd)

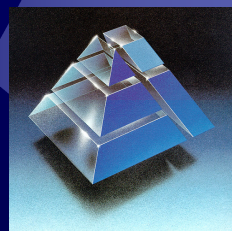
- Over long term however VOC savings due to better road condition
  - Optimal expenditure vs no maintenance
    - Light Vehicles 17% savings
    - Heavy Vehicles 25% savings
  - Optimal expenditure vs minimum or current funding level
    - Light Vehicles 8% savings
    - Heavy Vehicles 11% savings



4. Impact of RUC on Economy (cont'd)

- Road Asset Value after 10 years
  - Optimal expenditure : N$ 10.33 billion
  - Minimum maintenance : N$ 9.10 billion
  - No maintenance : N$ 6.33 billion
- Loss in Asset Value
  - Minimum maintenance: N$ 1.23 billion over 10 yrs
  - No maintenance: N$ 4 billion over 10 years



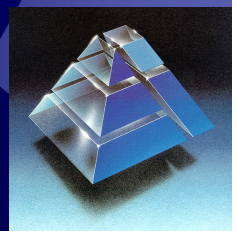


4. Impact of RUC on Economy (cont'd)

- Resultant long term positive impact of optimal expenditure on economy

Inflation	Percentage point increase in inflation relative to optimal expenditure	
	Minimum maintenance	No maintenance
Sector Inflation	0.57	1.66
Consumer Inflation	0.75	2.18
Government Inflation	0.90	2.61

Source: Social Accounting Matrix for Namibia (SAM)

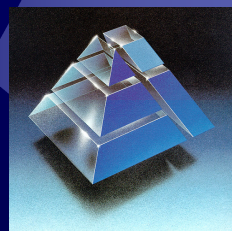


4. Impact of RUC on Economy (cont'd)

- Resultant long term positive impact of optimal expenditure on economy (cont'd)

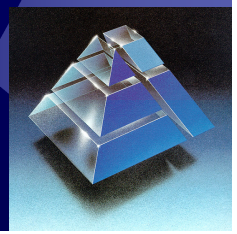
Societal Equity	% Decrease in Societal Equity relative to current level	
	Minimum maintenance	No maintenance
	6.6%	7.4%

Source: National Planning Commission-Central Bureau of Statistics



5. Conclusions

- Transport sector plays important role in economy of Namibia
- Road transport is the dominant mode
- Road transport expenditure has higher % impact in higher income groups



5. Conclusions (cont'd)

- Current expenditure should be increased by 83% p.a. on average to reach optimal level
- RUC costs as % of Total Vehicle Operating Costs very small
  - Light Vehicles 3.3%
  - Heavy Vehicles 5.6%
- Short term impact:
  - Increase in transport costs and therefore CPI
- Medium to long term impact:
  - Transport cost savings due to better roads
  - CPI suppressed due to lower costs
  - Road asset value will increase
  - Societal equity will improve
- RUCs in general bring more efficiency to the economy with positive impact on growth potential