

COPPER THEFT PREVENTION

An Analysis



CITY OF CAPE TOWN | ISIXENI SASAKHABA | STAT KAAPSTAD

THIS CITY WORKS FOR YOU



SARPA Annual Convention

Presented: Neil Arendse

Date: 29 July 2010

MOTHERCITY



Overview of Presentation

Background & Introduction

- Copper Industry
- Copper Price & Demand

Nature & Extent: Cape Town

- Copper Theft

Patterns & Trends

- Globally & Locally

Affected Stakeholders

- Primary & Secondary

Policies & Strategies

- Globally & Locally

Practices & Better Practices

- Developed & Developing countries

Conclusion & Recommendations

- Summary

BACKGROUND & INTRODUCTION



Copper-theft headaches:

'Sophisticated' thieves cause service blackouts

By Cassidy Olivier, The Province March 14, 2010

Consequence...

Background & Introduction

- ▣ Estimated Copper Theft costs SA R5 billion p.a.
- ▣ Copper Theft: Branded Red Gold Rush
- ▣ Draining resources; Hampering efficiency
- ▣ Copper Value increased 4% year on year: 1900
- ▣ World entering deficit condition; 100% increase MT
- ▣ Dallas experience 1500 cases: August 2006
- ▣ Copper Laundering: Cathode (Red Gold)
- ▣ Copper Thieves: Peddlers; *Organised or Addict*
- ▣ Scrap-yards: Hinge of Metal Supply Chain
- ▣ Proportion: seen as Terrorism

Cathode



Red Gold



NATURE & EXTENT: COPPER THEFT, SA & CAPE TOWN

Copper production dips at Palabora Mining

I-Net Bridge | Wed, 13 Jan 2010 17:48

Consequence...

Nature & Extent in SA

- ▣ Gwala 2009 media statement: Transnet is losing 27km cable per month.
- ▣ **Minister Barbara Hogan:** Eskom between 2004/05 and 2008/09 lost R69.2 million in stolen cable; replacement cost: R137.6 million
- ▣ **Transnet** spent R33.6 million on replacing cable in last financial year. Looking into Gyrocopters (R950 per hour).
- ▣ Considered by SAPS a Priority Crime; Treated: OC Approach; Nine task teams appointed: OC division
- ▣ Focused target points in SA: Utilities and Developments

Nature & Extent in Cape Town

- ▣ Compared to SA: USA faces; theft: dealers & suppliers
- ▣ Cape Town targets: Overhead, Underground, Robot & Street Lighting Cable
- ▣ Primary targets remain substations and their transformers and utility lines (whether overhead or underground) and their transformers; and underground cabling.
- ▣ Mostly arrested: Methamphetamine Addicts: Medical Study...
- ▣ Most cable thefts in CT small scale (<30m); Walkers

TIK LINK



PATTERNS & TRENDS

Patterns & Trends

Similar trends & causes identified between SA & USA:

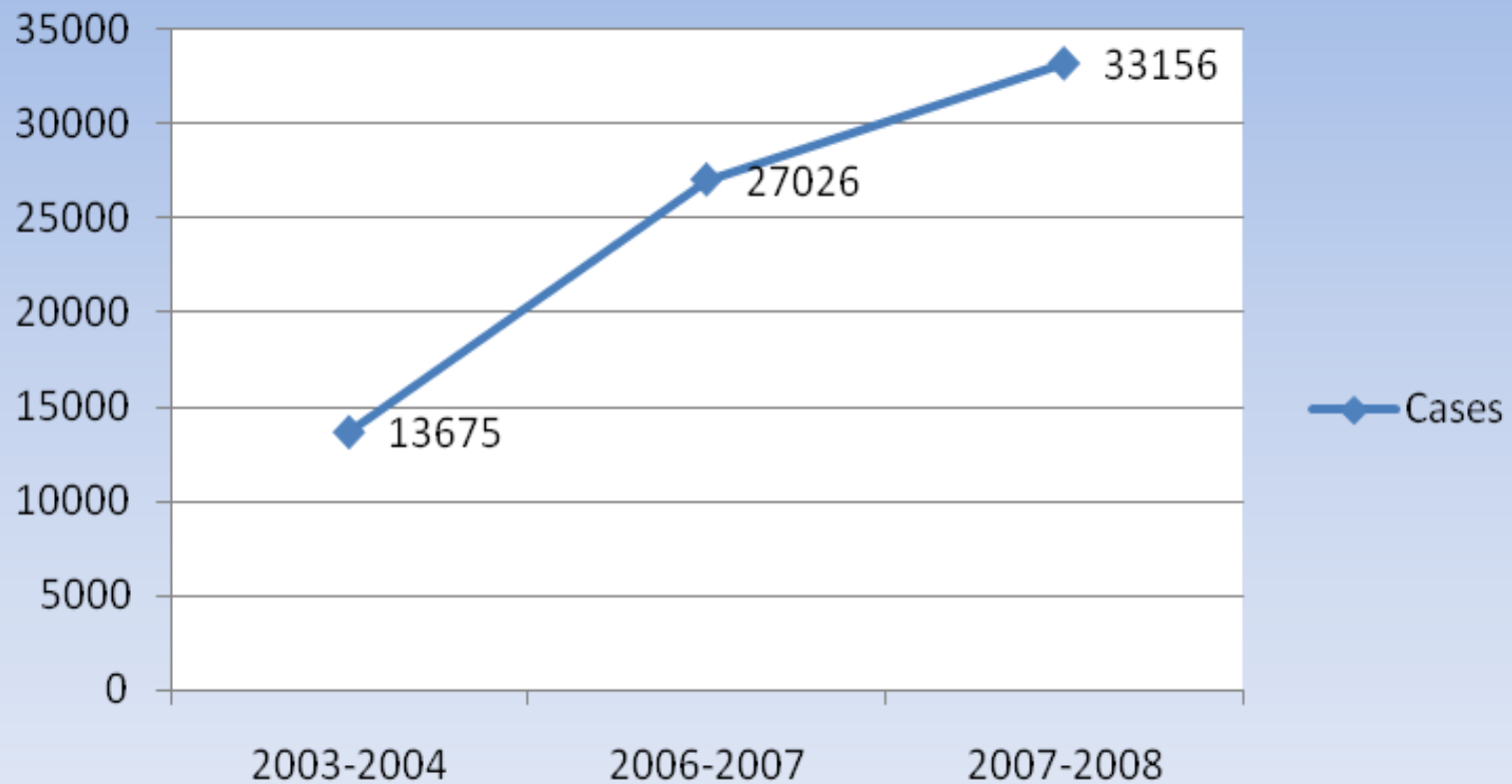
- ▣ Copper theft on rise due to surge in global demand
- ▣ Rise in copper price spur cable theft on
- ▣ Growing connection between thefts & drugs
- ▣ At nearly \$8000 per tonne; serious motivation for all
- ▣ International exports: China biggest buyer

SAPS Copper Theft Stats:

- ▣ 2003/04 - 13675
- ▣ 2006/07 - 27026
- ▣ 2007/08 - 33156

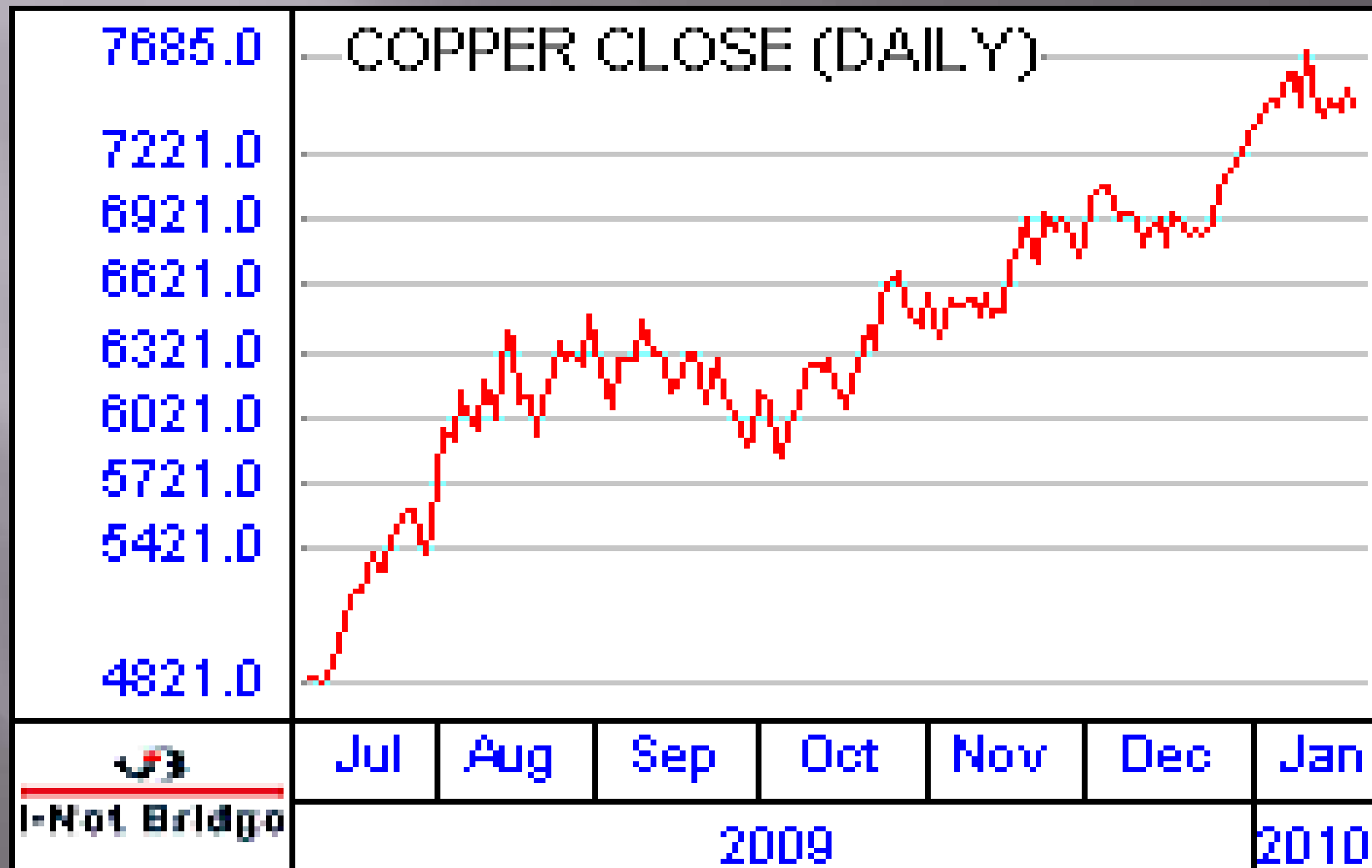
Copper Stats

Theft of Copper Cable



Copper Demand

Copper Price



Copper Price

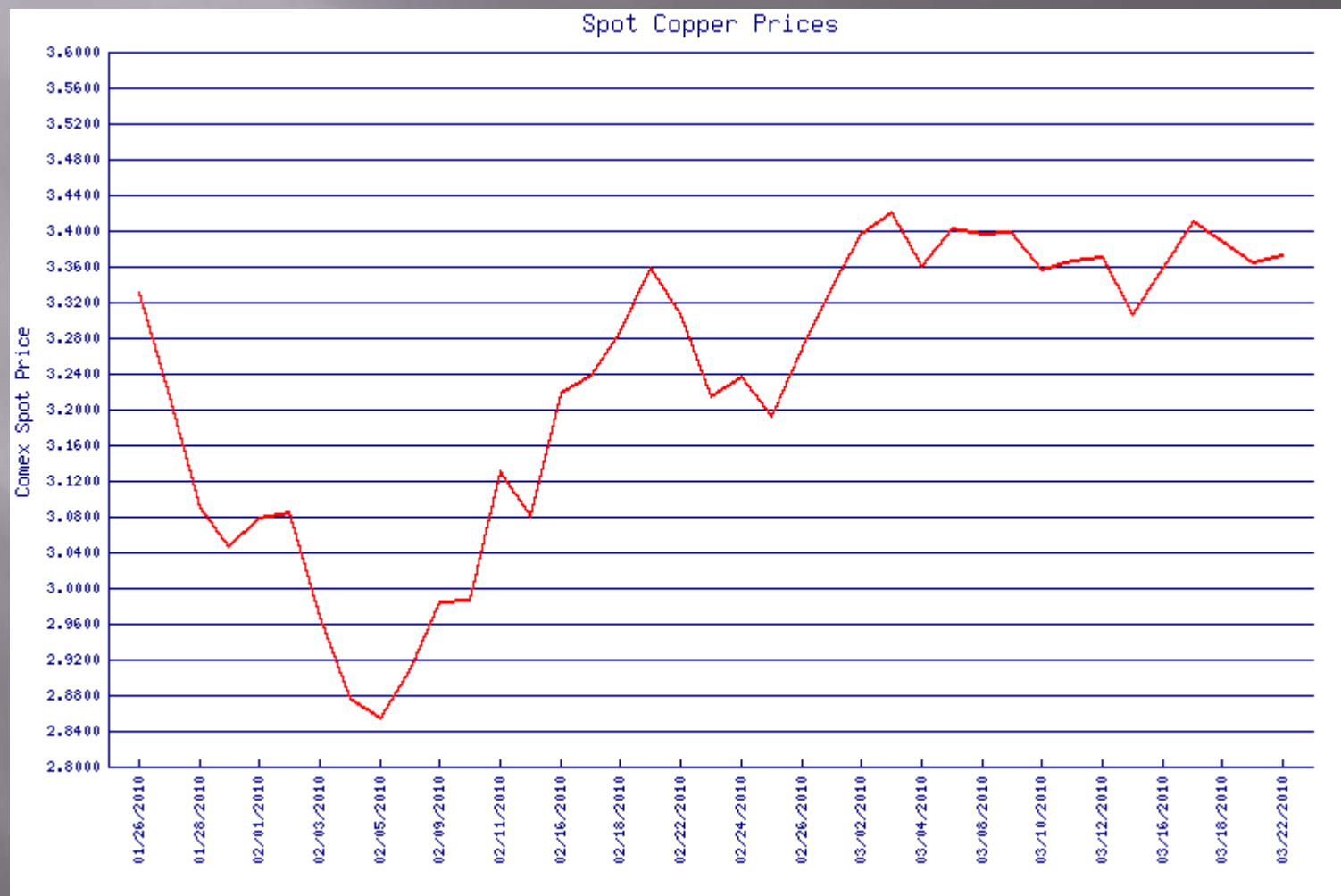
LC LiveCharts.Co.Uk

FTSE

FTSE100 Index



Copper Price



Cape Town Trends

TRENDS



TRENDS



TRENDS



TRENDS



TRENDS



TRENDS



Electrocutions also happen during Cable Theft



Electrocutions also happen during Cable Theft



Electrocutions also happen during Cable Theft



Electrocutions also happen during Cable Theft



Trends by Location: Internationally

Trends by Location

- ▣ **Australia**

Copper wiring stolen from power stations & scrap metal depots

- ▣ **Brunei**

July to Sept 2005: gang of thieves dismantled and stole parts from more than 60 power stations

- ▣ **Japan**

Reported 5700 metal theft cases in 2007

- ▣ **Russia**

Telephone lines & electricity cables leading to military bases stolen

- ▣ **UK**

Annual damage to industry (MT) est. 360 million pounds

PRIMARY & SECONDARY AFFECTED STAKEHOLDERS

Affected Stakeholders

Primary

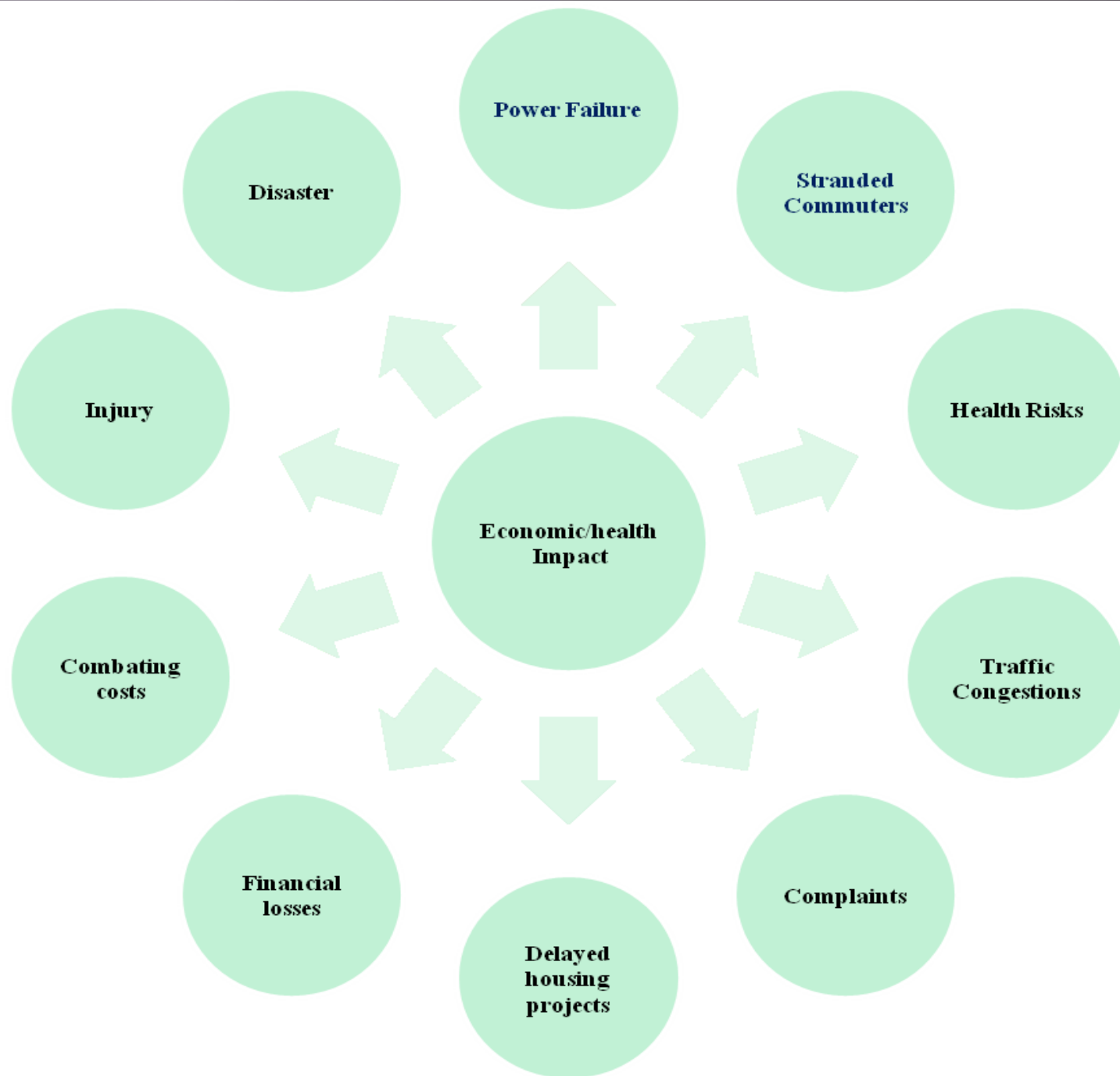
- Utilities
- Developers

Primary

- Preventers
- Customers

Secondary

- Economy
- All Citizens



POLICIES / STRATEGIES

Policies/Strategies In Place & Extent of Implementation

- ▣ **New Act:**

Second Hand Goods Act 6 of 2009. Promote self regulation and closing up loop holes. Deals with the dealer not the peddler. SA Common Law vs. Zimbabwe Electricity Act.

- ▣ **Crime Related:**

A call for MT viewed; same as Terrorism. Hennie Bekker IFP. Advancement of economic objective. Challenge with the reasonability of penalty.

- ▣ **Partnerships:**

NFM TT. Major Stakeholders. Focusing on markets internal & external. Transport Minister S'bu Ndebele, reviving safety committee: Prasa, Railway Police & Other. Crucial: partnerships with communities.

Policies/Strategies In Place & Extent of Implementation/...

- ▣ **Crime Reporting:**

Stakeholders implement crime report toll free numbers. Countries like USA link rewards to this. Largest being \$25000 and typical \$1000 positive info.

- ▣ **Re-Classification of Copper:**

With Transnet & Eskom loosing combined R70 million in 2009 due to copper theft serious consideration is re-classification. Declaring copper a precious or semi-precious metal. Challenges to consider in this regard e.g. Precious Metals Act referring to “raw” metal, etc.

EFFECTIVENESS OF STRATEGIES

Effectiveness of Strategies

- ▣ US Congress in considering Copper Theft Prevention Act of 2008 found: *“theft is on the rise due primarily because of the lack of pressure on the scrap and salvage yards that pay for copper and other precious metal without asking questions about where the material came from.”*
- ▣ Above: Pivotal in fight against Copper Theft. Should form part of any strategy to address the matter. *Although in New Act; difficult to prosecute.*

Effectiveness of Strategies

Evaluation of earlier recommendations made:

- ▣ Empower NFTCC
- ▣ Accurate Tracking of crime
- ▣ Specialised training of judicial officials
- ▣ Increased export control
- ▣ Marking of cables
- ▣ Creating Specialist Units
- ▣ Establishing a reward hotline
- ▣ Eradicate the backlog of dealer licenses
- ▣ New Act

PRACTICES IN DEVELOPING & DEVELOPED COUNTRIES

Practices in Developing & Developed Countries

- ▣ **Intelligence**

USA registered informers; \$1000 positive info.
Developing countries lagging behind.

- ▣ **Reduction of Copper Value:**

Copper weld (Copper wound: galvanised metal);
Coating with aluminium; non deterrent: damage

- ▣ **Money Exchange:**

No paying out cash; pay in bank accounts

- ▣ **Cable Protection:**

Nanotechnology; Alarms on sensitive cables; not deterrent for damage; CCTV

CCTV



CCTV



Practices in Developing & Developed Countries/...

- ▣ **Alternative Lighting:**

SA: High Mast Lighting, Australia: Solar Lighting

- ▣ **Legislation:**

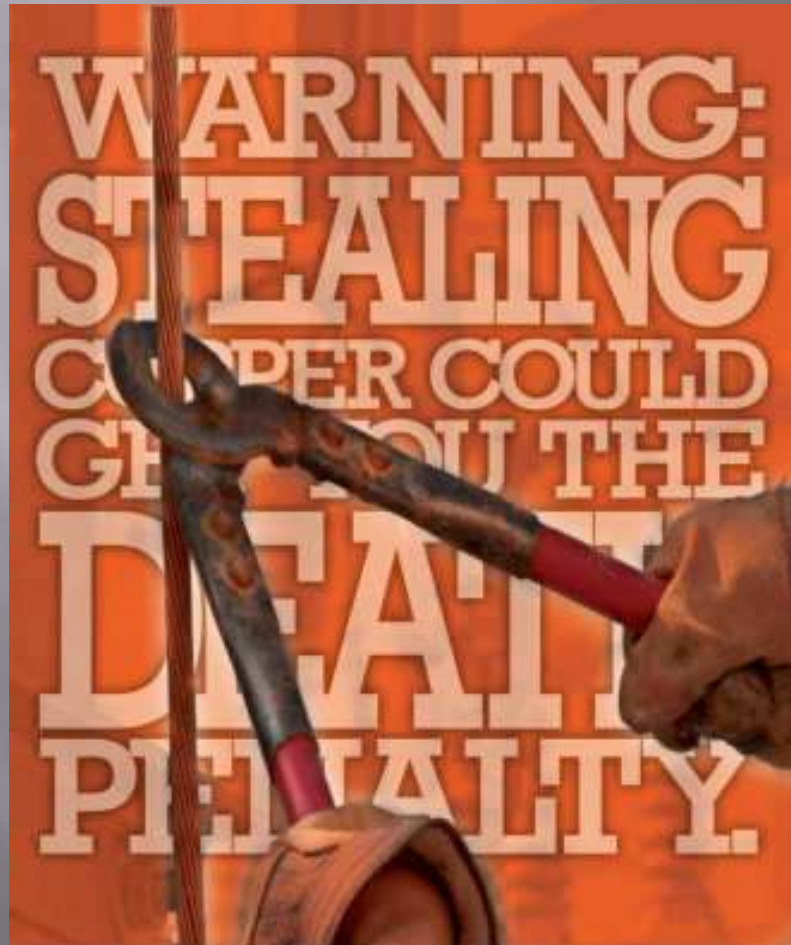
Zimbabwe amend Electricity Act: 2007; Developed countries pass law prohibiting any buys from convicted thieves (42% drop); Taking thumbprints of all sellers (reduction in these states); Kenia, Zambia, Uganda, Tanzania, Sierra Leone, etc. placed ban on all scrap metal exports; SL lifted this ban in 2008.

Practices in Developing & Developed Countries/...

▣ **Specialist Units:**

States experiencing serious metals theft: Dallas Metals Theft Unit; Fort Worth Police (Texas) Metals Theft Unit; Oregon Joint Metals Theft Task Force; Houston Metals Theft Unit; Phoenix Police (Arizona) Metals Theft Unit; in comparison SA dismantled SAP Specialist Unit; City of Cape Town establish Metals Theft Unit (Copperheads)

Practices in Developing & Developed Countries/...



- ▣ **Awareness:**
All stakeholders must understand epidemic. Communities driven to take responsibility. *Neighbourhood watches involved.* Awareness under dealers re issues of importance e.g. Training goods-receivers ID suspect goods

CONCLUSION & RECOMMENDATIONS

Conclusion & Recommendations

- ▣ Considering Cable Theft costs SA R5 billion p.a.
- ▣ Ben Coetzee (ISS) “Clear & Present Danger”
- ▣ Basic Economics – Demand long; Supply short; these intersect = Metals Theft rife
- ▣ All stakeholders – devise ways: protect assets; contribute: systems to disrupt “black market”
- ▣ Challenge remains: Scrap is Scrap – Character of seller considered – *not even effective enough*
- ▣ A strong focus on sting operations
- ▣ Increase in & publicity of convictions – Judiciary; remove perception: cable theft a victimless crime

Conclusion & Recommendations

- ▣ USA study: “Copper theft rarely results in jail time”. Perception to be eradicated!
- ▣ Need to take a leaf: Zim’s Electricity Act
- ▣ Awareness: ensure cable theft – public safety issue
- ▣ Serious need: Blend technology with Strategy
- ▣ Spending money: state-of-the-art high-tech security solutions – not stand alone remedy. Match with capable management & effective security policy
- ▣ Outsourcing the responsibility – **not enough!**
Stakeholders to take own responsibility!
- ▣ Serious in-house security

FINALLY/...

- ▣ All policies/strategies: subjected to official review
- ▣ **Copper Cable Theft can only be beaten through a collaborative approach!**

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Thank You!