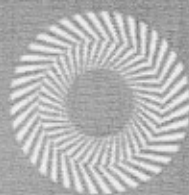




PRESENTATION TO PORTFOLIO COMMITTEE ON TRANSPORT RAILWAY INFRASTRUCTURE

MAY 2010

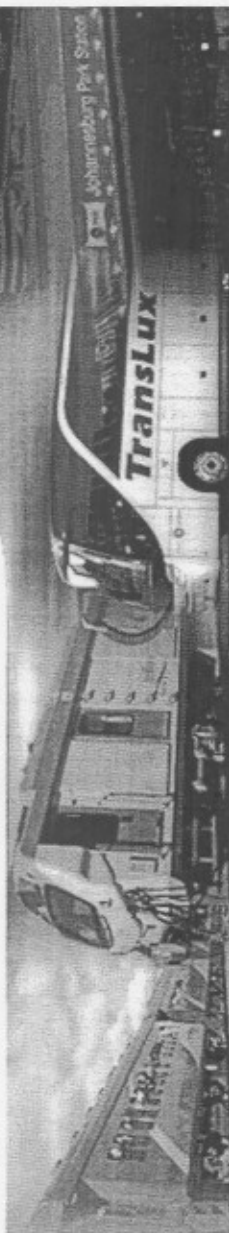


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PASSENGER RAIL AGENCY
OF SOUTH AFRICA

Shosholoz Meyl
A personal experience



CONTENTS

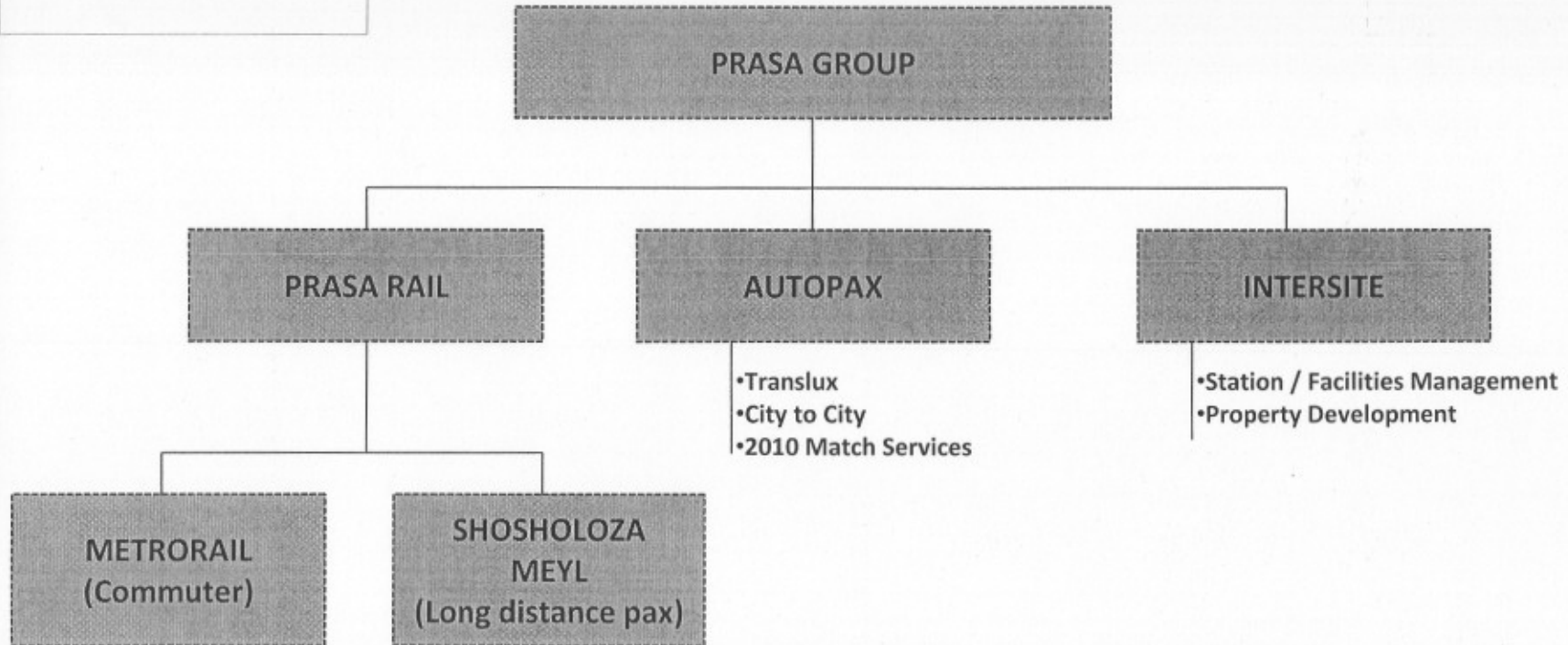
1. CURRENT PASSENGER RAIL INFRASTRUCTURE

- Status
- Condition
- Investments

2. PLANNING, EXPANSION AND MODERNISATION OF PASSENGER RAIL INFRASTRUCTURE

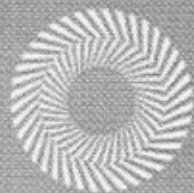


PASSENGER RAIL AGENCY OF SOUTH AFRICA





CURRENT INFRASTRUCTURE



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PASSENGER RAIL AGENCY
OF SOUTH AFRICA

Shosholozza Meyi
A pleasant experience



PASSENGER RAIL INFRASTRUCTURE INTRODUCTION

- Commuter Rail Infrastructure = 2 228km rail track owned by PRASA (2 000km electrified).
- Shosholoza Meyl over TFR infrastructure = Provide services over 3 180km (Reliance on TFR priorities and costing – R300m p.a.).
- Stations:
 - Commuter Rail provided at 470 stations of which PRASA owns 317 stations.
 - Long distance services provided at 130 stations of which approximately 50 stations in process of transfer to PRASA.



RAIL PASSENGER INFRASTRUCTURE DEFINED

- Track & Structures. (Bridges, footbridges, fencing and drainage).
- Signaling.
- Electrical (OHTE).
- Telecommunications.
- Station infrastructure: Platforms, station buildings and passenger facilities
- Intersite manages 374 stations and 4 200 hectares of land/property.



RAIL INFRASTRUCTURE (TRACK AND STRUCTURES)

TRACK & STRUCTURES

- Bridges and structures (e.g. footbridges): Regular maintenance required.
- Formation – Rail reserve with structures: Regular maintenance required.
- Ballast: Regular sifting and repacking.
- Perway (track): Replaced when worn (40 – 60 years).
- Sleepers: Replace old wooden sleepers.
- Fencing: Replace and maintain.
- Level crossings: Manage and eliminate (incidents)

Status: Good and safe condition – 3% of train delays. Started spending in time – Cannot neglect.

Capital budget for replacement program (R1 250m – MTEF period).

- Condition based prioritisation matrix on priority corridors.
- Track: Additional capital to address turn-outs: To improve service levels up to 10%.

Issues:

- Age and Vandalism
- Maintenance cost
- Modernisation
- Network improvements

SUB-SYSTEMS TO MANAGE LEVEL CROSSING RISKS



NATIONAL LEVEL CROSSING INVENTORY

REGION	
CAPE TOWN	42
DURBAN	15
TSHWANE	3
WITS	3
TOTAL	63

NATIONAL LEVEL CROSSING RISK EVALUATION

LOCATION	10 YEARS INCIDENT HISTORY	RISK VALUE
KOELENHOF	12	800
FAURE	2	80
FIRGROVE	2	80
ROCKEY BAY	7	800
GARANKUWA	7	640



PRASA SIGNALING PROGRAM

- 80% of infrastructure related train delays (Overall – 2.4%).
- Situation has deteriorated, with 100% increase over the past 2 years.
- **Reasons:** Age related condition and capacity to maintain.
- Likely to remain a challenge for next 2 years.
- PRASA 10 year signal program commencing in 2010. 10 Year program – R6bn.
- R1 972m over MTEF period – R600m in current financial year.



SIGNALING

ELEMENTS

- Ensure safe movement of trains.
- Train direction and control: Frequencies and following distances.
- Regulate Traffic: Detect presence of trains.
- Signals: Driver authority and speed indicators on sections.

CONTEMPORARY TECHNOLOGY FOR MODERN RAILWAYS

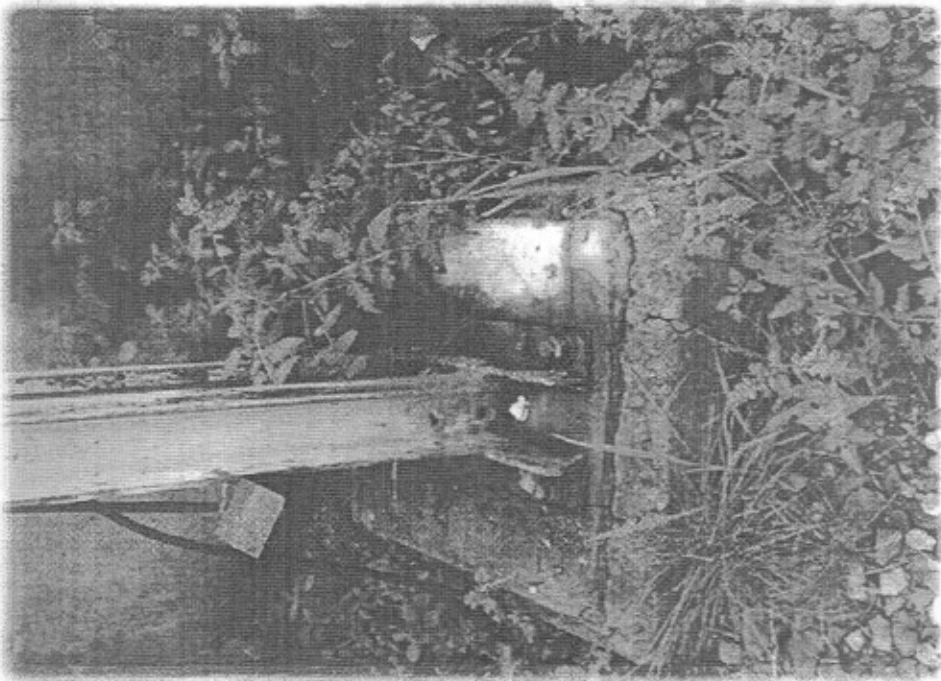
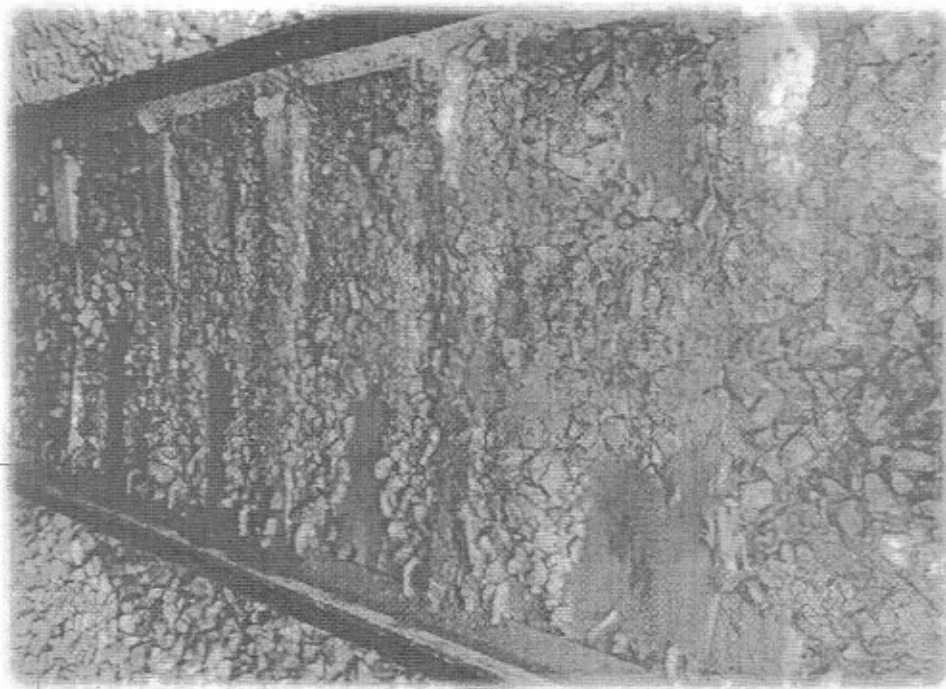
- Traffic Management: Plan and correct fluidity.
- Automated Train Protection: Driver error.
- Communication based signaling: Minimise line side signaling.
- Automated Train Operations: Driver has supervision role.

OVERHEAD ELECTRICAL

- Overhead electrical power structures (Masts).
- Power lines.
- Transformers and sub-stations.
- Condition impact currently not significant on train delays – Need to maintain and replace.
- Manage balance between condition and available funds.
- Transformers old.
- Masts: Foundation cracking, rusting and drainage → Stray current (60%) .
- Intervention program: R100m 2010/11.
- Gautrain stray current mitigation: R140m.



DRAINAGE & CORROSION



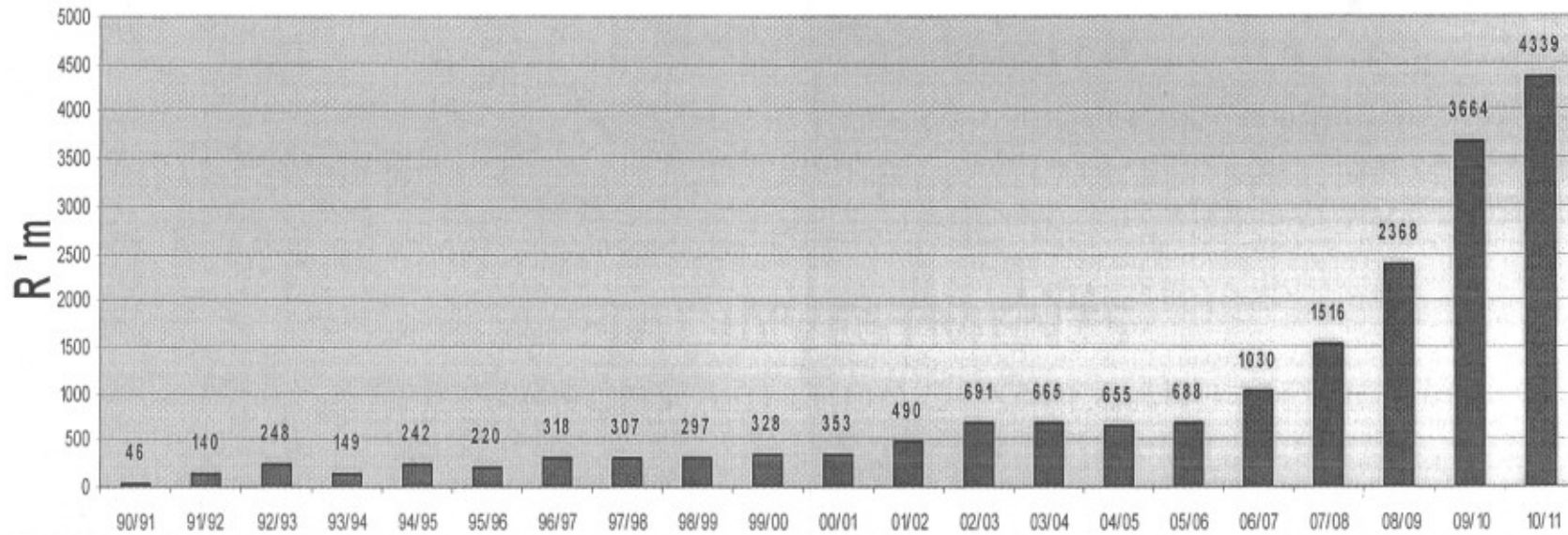
DRAINAGE & CORROSION



CAPITAL INVESTMENTS

INVESTMENTS AFTER CONSOLIDATION OF SARCC AND METRORAIL

CAPITAL INVESTMENTS (R'm)



• Investment Backlog – R20bn

• Rolling Stock fleet Recapitalisation – R60bn

SARCC CAPITAL EXPENDITURE & ROLLING STOCK

2008/09 – 2010/11

Rolling Stock refurbishment program still requires more than 50% of capital allocation

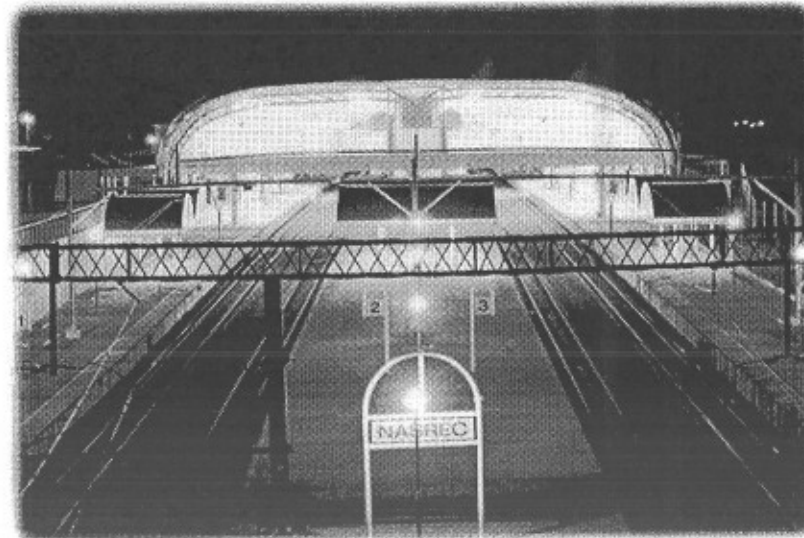
MTEF	RM		
	2008/09	2009/10	2010/11
SARCC Capital MTEF Funding	2 368	3 664	4 439
Rolling Stock Allocations	1 456	2 274	2 139
Percentage allocated to Rolling Stock	59%	60%	48%



COMPLETING 2010 PROJECTS (Total investment = R2bn)

CONSISTING OF 75 SUB PROJECTS

- New stations (Nasrec, Moses Mabhida, Orlando, Rhodesfield and Windermere).
- 2010 station upgrades (Cape Town, Doornfontein, Rissik, North End, Durban, Kwa Mashu, Kwa Myandu).
- Operational improvements on 2010 corridor stations – 50 stations countrywide.
- Nasrec Infrastructure Intervention.
- SAPS facilities.
- Footbridges and Access.
- Communication and Passenger Information.
- Platform Alignment projects.



CAPITAL INVESTMENTS

CAPITAL PROGRAMME	2010/11	2011/12	2012/13	Total MTEF
PRASA Rail	375	519	719	1 613
Capital Intervention Projects (Minor works, safety & SNP)	272	409	579	1 260
Rolling Stock facilities upgrade	103	110	140	353
Accelerated Rolling Stock Programme	1 866	2 710	3 121	7 697
General overhaul of Metrorail coaches	1 665	2 500	2 811	6 976
General overhaul of Shosholoza Meyl coaches	100	100	193	393
General overhaul of Shosholoza locomotives	101	110	117	328
Intersite Property Management	380	539	439	1 358
Station improvement programme	100	109	200	409
Station upgrades/transit oriented developments	200	230	239	669
Mobopane station upgrade	80	200	-	280
Infrastructure	1 368	1 951	1 707	5 026
Signaling & Telecommunications	680	644	708	2 042
Overhead Traction Equipment	-	470	557	1 027
Multi-modal: Footbridges and Structures	-	100	106	206
Perway, Bridges and Electrical	243	330	342	915
Bridge City	180	202	-	382
Cape Town International Airport	120	50	-	170
Greenview – Pienaarspoort project	120	155	-	275
Khayelitsha Rail Extension	15	-	-	15

