The Water and Sanitation Industrialisation Masterplan Work

Presentation for SMME in Just Transition Participation

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Introduction

1. Masterplans in General
2. The Water and Sanitation Masterplan (DWS)
3. The Water and Sanitation Industrialisation Masterplan (DTIC)
4. Core Areas of Work and Opportunities

Introduction

Masterplans of South Africa

Industry Masterplans

- ❑Re-Imagined Industrial Policy
- ❑Develop key economic value chains
- ❑By promoting evidence-based co-ordination
- ❑Collaboration between government, Labour and key private businesses to unblock their growth
- ❑Both public and private sector dedicate resources and time for development of the Master Plan
- ❑Agree on areas for intervention, collaboration and commitments

Examples

- ❑The South African Steel and Metal Fabrication Master Plan 1.0
- ❑Plastics Industry Masterplan for Growth 2020
- ❑South Africa's Automotive Industry Master Plan to 2035
- ❑The Retail Clothing Textile Leather and Footwear
- ❑ The Sugar Value Chain Master Plan 2030
- ❑The South African Poultry Sector Master Plan
- ❑Development Of The Chemical Sector Masterplan

Masterplan Process

DTIC Green Industries Desk

DTIC Mandate high-level task team that brings together government , labor, business, associations etc. to address blockages and constraints in industry

Masterplans start with research and extensive stakeholder dialogues, and a series of sub-dialogues, associations

Most masterplans in actions have task teams that break up objectives or issues

The Minister appoints a facilitator to make tangible commitments i.e., procurement of more local goods

Some plans have a Project Management Unit – helps in implementing, tracking progress, reworking

Some MP won't take full route

TIPS

Two Water and Sanitation Masterplans

The Water and Sanitation Industrialization Masterplan (DTIC) 2022

The Water and Sanitation Industrialization Masterplan (DTIC)

Industrialisation Master Plan led by the DTIC

Aims to complement the 2018 DWS plan

Focus on industrial development, with strong links with other Master Plans, notably Iron and Steel, Plastics, and Chemical Masterplans

It focuses on the manufacturing base – manufacturing of products, components, equipment, parts

By focusing on the emergence and growth of locally designed, competitive manufactured products and services

The Water and Sanitation Masterplan (DWS) 2018

1. Identifies key actions in the water sector
2. Allocates roles and responsibilities to all in the water sector
3. Water security and equitable access to water and sanitation services for all in SA

- ❑ The South African Steel and Metal Fabrication Master Plan 1.0
- ❑ Plastics Industry Masterplan for Growth 2020
- ❑ Development Of The Chemical Sector Masterplan 2021

Core elements of the Water and Sanitation Industrialisation Master Plan

Continuous Process can Change

Vision

A well-functioning value chain that enables reliable, affordable, modern and sustainable water and sanitation supply, use and management while maximizing local economic development

Key objectives:

- Creating a competitive manufacturing industry that can supply the local and international market
- Creating an industry that can generate employment and build technical skills
- Reducing and replacing substandard imports to reduce the trade balance
- Transforming the industry through inclusive and broad-based participation in the value chain for workers and black industrialists

Developing and retain skills	Improving the industry competitiveness and capacity utilisation	Reducing cheap and sub-standard imports	Promoting export of local products / technologies	Strengthening R&D, standards and certification	Improving infrastructure spend and procurement processes

Water And Sanitation Industry Value Chain

Basin management | Abstraction | Storage | Distribution | Use & management | Treatment & discharge | Reuse, recycle, beneficiation

Engineering, procurement, construction and management (EPCM)

Construction material, equipment / machinery (cement, excavators, loaders, compactors, mixers)

Plastic or Iron and Steel Piping equipment (pipes, valves)

Pumping equipment (pumps)

Borehole equipment (drilling rig)

Construction material, equipment and machinery

Piping equipment

Pumping equipment

Sanitation ware
Iron, Steel, Ceramics, Plastics (pedestals, flushing cisterns, sinks, showers, wash basins, bathtubs, urinals, lavatory seats and covers, NGS)

Laboratories

Membranes

Chemicals

Water management / efficiency (meters, RWH, tanks, water-efficient appliances) Plastics reservoirs and tanks
Iron and steel reservoirs and tanks

Source: TIPS

1 Developing and Retaining Skills

Objectives

- Required skills range civil, chemical, mechanical and electrical engineers to artisans' technicians etc.
- Essential skills in the manufacturing and maintenance of equipment, products and services
- Support localization, industrial diversification and transformation of industry through skills development initiatives embedded
- Govt - 20 000 jobs that will be created through the R139 billion committed to water infrastructure projects (JOBS)

Current Initiatives

- DHET Presidency, NBI - Infrastructure Skills Workstream
- SAICE has already begun a mentoring programme for engineering graduates, in partnership with EWSETA.
- SACAP has taken forward a strategy to professionalize Building Control Officers to identify procure locally and identify local goods
- MerSETA has initiated a project which is identifying the challenges manufacturers have from product development, patenting
- Unemployed and Graduates – recruit, train, mentor

- DPWI)/ (CIDB) ,NBI ,DTIC ,SETAs ,WRC ,CBE
- MISA/COGTA/ Infrastructure South Africa, CIDB, Plumbing Industry Registration Board (PIRB)/ Institute of Plumbers South Africa (IOPSA)

2 Improving Infrastructure Spend And Procurement Processes

Infrastructure Spend

2024 Budget Review

In the water sector, gov- 11 strategic projects wit h an estimated value of R139.1 billion

How do we support local industry through government spend on water and sanitation goods

Water infrastructure projects expected to create about 20 000 temporary jobs during construction and 14 000 during the operational phases (NT)

In sanitation, it is estimated 32 871 jobs could be supported through delivering improved sanitation

to about 3.3 million people across the 10 most water-stressed municipal districts.

Private sector (mining, chemicals, residential construction, etc.)

- ❑ Department of Water and Sanitation
  - ❑ Capital investment, maintenance and asset management
  - ❑ Water Services Infrastructure Grant
  - ❑ Regional Bulk Infrastructure Grant
  - ❑ Water infrastructure
  - ❑ Policy and Strategy
  - ❑ Sanitation Planning
  - ❑ Water Planning
- ❑ DBE - Department of Basic Education
- ❑ DHET - Department of Higher Education and Training
- ❑ DHS - Department of Human Settlement
- ❑ DoH Department of Health
- ❑ SOE State Owned Enterprise
- ❑ National Department of Public Works
- ❑ 257 municipalities
- ❑ 9 water boards, namely: Rand Water, Bloem Water, Magalies, WaterWaterboards

2.1 Improving Designations & Procurement

Categories	Minimum threshold	Products
Revised pipe fittings	100 %	Steel Pipe Fittings And Specials; Galvanized; Forged 100% Lined and Coated; Galvanized, Lined and Coated 80%
Valve products and actuators	70%	All components 80% Valves (check, butterfly, ball, gate, diaphragm, knife, air, pinch, disc, sleeve), safety or release valves, taps, cocks, Pneumatic actuators – Double acting, Pneumatic actuators – spring, manual actuator, fire hydraulics, PRV, plugs valves, control valves
Residential electric water meters	50 to 70%	n/a
Pumps and MV Motors	70 %	Pumps (End Suction Centrifugal, Multistage Centrifugal, Horizontal split casing Pumps, vertical turbine pumps, slurry pumps, positive displacement, self-priming centrifugal, centrifugal process) 70 % MV Motors (Medium Voltage electric motor) 70 – 100%
Plastics pipes	tbc	Designation proposed in 2021

Local Procurement

1. Many of the water and sanitation goods and services are not designated
2. Or are inadequately designated.
3. I.e. Next generation sanitation (NGS/NSS) i.e. reinvented toilets, Loowat , etc.
4. Local Procurement - Utilize local procurement to fund and support local innovation

2.3 Local Procurement

Constraints

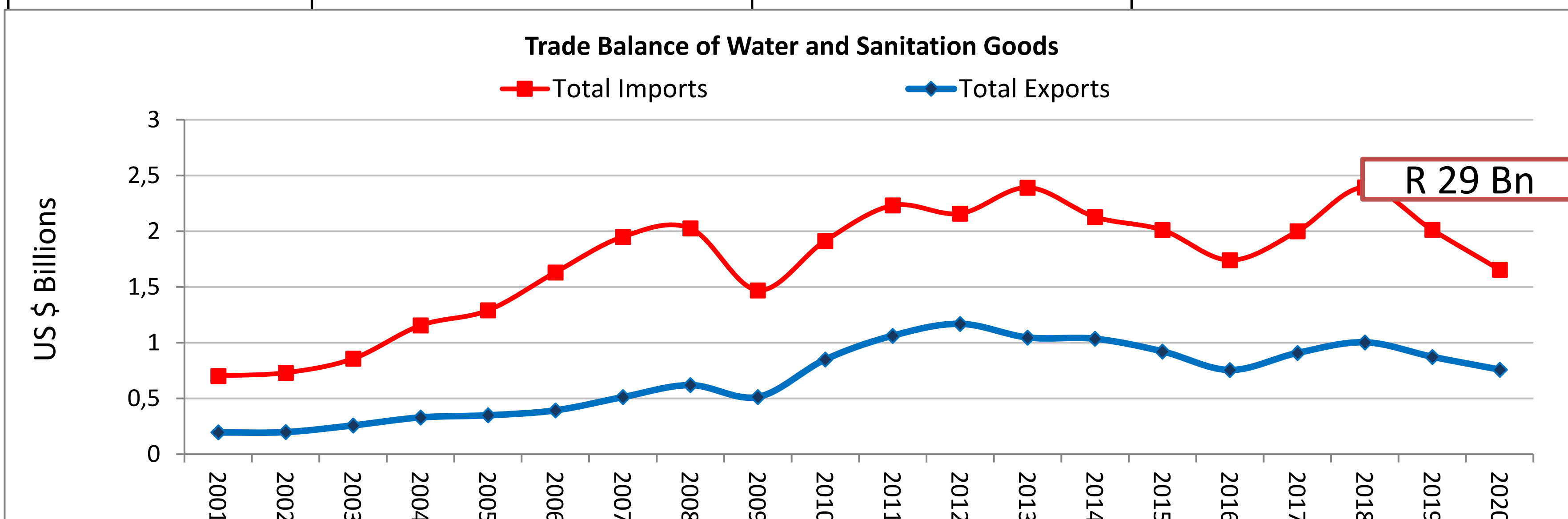
- Smaller suppliers find it difficult to track tenders
- Tenders are not always linked to supplier development programmes,
- Tenders are not written with innovative products in mind
- Failure of municipalities to identify projects in water and sanitation
- Review of MFMA
- Procurement processes inhibit the roll-out at scale of new products, particularly where only one supplier may produce the specific product in question
- Review of use of Municipal slow Supply chain management SCM

Current Measures and Future

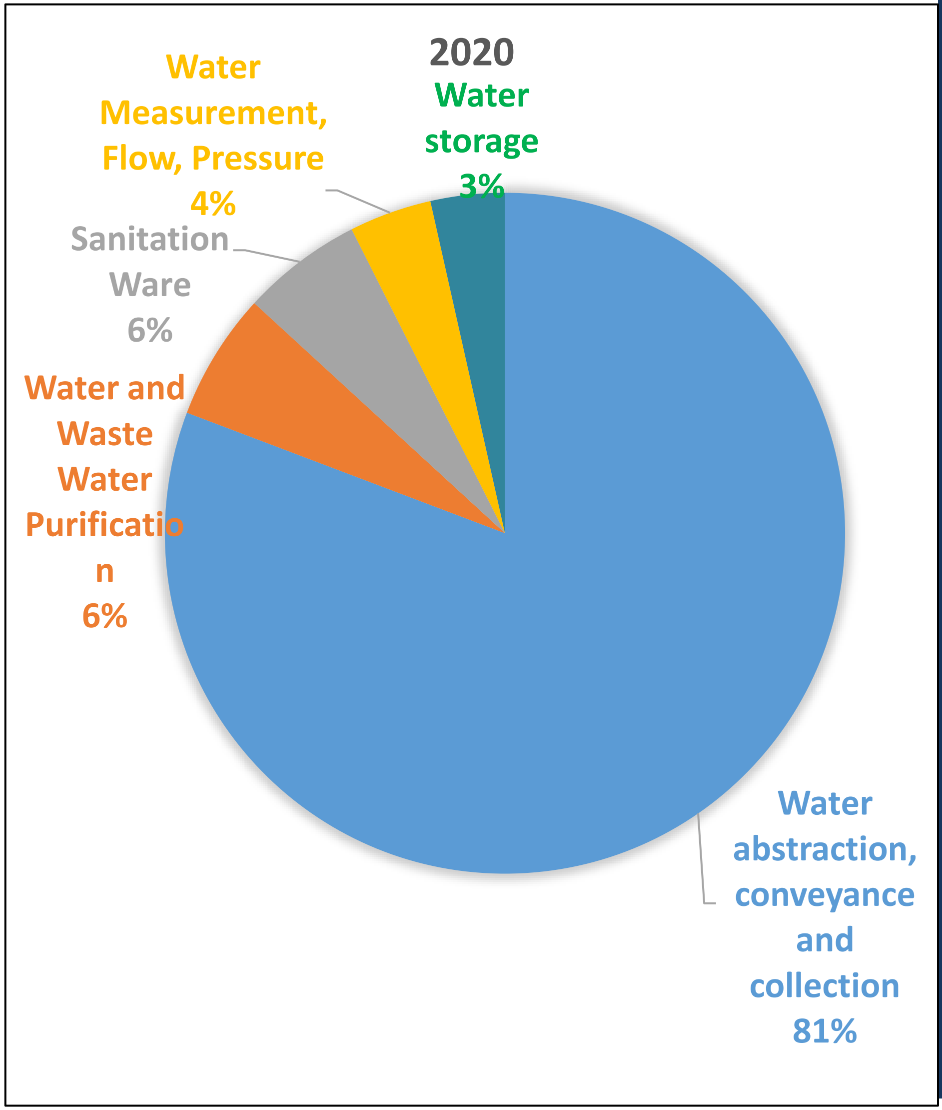
- Proudly SA Campaign
- The IOPSA and PIRB have committed to undertaking a process with ITAC/NRCS to review and elaborate water and sanitation-related product designations.
- Designate more water and sanitation goods more strategically and comprehensively
- Improve state capabilities in relation to identify local goods enforcement
- Push for National Treasury on new procurement strategies to fast-track the adoption of innovation
- Drive for Tenders linked to supplier development programmes,
- Incorporate new technologies/processes into building regulations and procurement
- Review PFMA/MFMA to address issues raised
- Strengthen import regulation

3Reducing Cheap &Sub-standard Imports

Water abstraction, conveyance and collection	1. Plastic Pipes 2. Iron and Steel Pipes 3. Valves 4. Pumps	**Sanitation Ware** **Iron, Steel** **Plastics** **Ceramic**	1. basins, lavatory seats, covers, bidets, lavatory pans, sinks, pedestals, baths, bidets, flushing cisterns, urinals etc
Water and Wastewater Purification	1. Chemicals 2. Filtering and purification	**Liquid meters and Water Measurement instruments**	1. Instruments, apparatus for measuring or checking the flow, level, pressure 2. Liquid meters
Water storage	1. Plastics reservoirs and tanks 2. Iron and steel reservoirs		



3.1 Reducing Cheap &Sub-standard Imports



- Plastic tubes, piping, fittings (China)
- Various Steel tubes and piping - seamless, open seam or cast iron (China, Germany, India, UAE
- Valves, tanks and vats (China)
- Centrifugal, reciprocal, rotary positive displacement pump (China, US, Germany)
- Liquid meters and measuring flow, level, pressure equipment (Germany, US, India)
- Chemicals i.e. lime, caustic soda, ammonia anhydrous (EU, US, Asia)
- Apparatus for water purification and filtering (Germany, US, China)
- Iron and steel reservoirs, tanks, vats (European Union, Malaysia and China)
- Plastic reservoirs, tanks and vats (Germany, Botswana)
- Iron ,steel sanitary ware i.e. basins ,baths (China)
- Plastics sanitary i.e. lavatory seats, covers, (China)
- Ceramic sanitary ware, (China)

3.2 Reducing Cheap &Sub-standard Imports

Plastic Masterplan

- The DTIC, Plastics SA & SARS have created a platform mainly to deal with under-invoicing, mis-declaration & dumping.
- Safeguarding the industry through adjusting the tariff
- ITAC has asked for affected tariff codes to be sent through for further investigation and policy analysis

Steel Masterplan

- Steel industry part of Local Content Compliance and Verification Unit
- (local manufacturers are audited and given certificate of compliance that are shared with state-owned entities
- SARS to provide more detailed (HS) information on imports of goods.
- Penalties for illicit imports and exports are not regarded as adequate.
- Proposal for a pre-surveillance system, whereby import permits are required and will be issued automatically.
- There are quarterly meetings between the steel industry and SARS (SARS Steel Downstream Forum) where reports on mis-invoicing, mis-declaration,

Constraints

- Eroding the local market and posing a threat to local firm's closures
- Poor service delivery due to breakdowns and constant repairs
- under-invoicing, mis-declaration and dumping
- Poor monitoring and policing of municipal procurement
- Imports are also exacerbated by the lack of support for technology and innovation

TIPS

4 Promoting Export Of Local Products

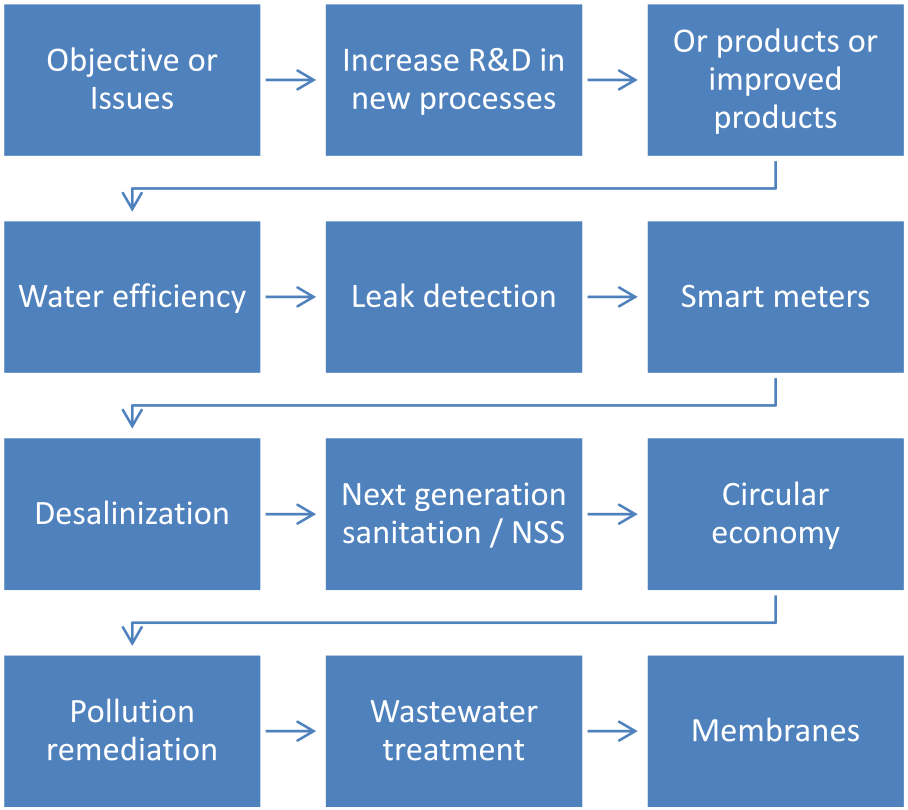
Issues Raised

- ❑Access to foreign markets and information costs
- ❑Challenges at border crossings and delays at the ports
- ❑Nontariff measures/ barriers
- ❑Cost of foreign certification
- ❑Competitiveness
- ❑Rising costs of utilities (water and electricity)
- ❑Inputs or raw material costs and availability

Current and Future Measures

- ❑ Support accreditation with international AEOC and AEOS programme
- ❑ Capacitate SABS to ensure manufactures meet standards and get certification on time
- ❑ Subsidizing certification to facilitate trade
- ❑ Provision of tax rebates on exports to assist in rescuing cost of export to international customers.
- ❑ IDC/DTIC on Export Credit insurance
- ❑ Drive for government negotiators for the ACFTA to ensure priority duty-free access for SA m
- ❑ Drive for SA Foreign Economic Representatives to compile a database the Regulations in targeted countries for SA
- ❑ Drive for African-wide market intelligence on products manufactured and gaps

5 Strengthening R&D



Current and Future

- ❑ Mature the coordination capacity of the National Forum for Water Innovator and Entrepreneur support initiatives.
- ❑ Establish shared risk funding consortiums to fund, resource and implement transformative, niche projects (experiments)
- ❑ Grant funding for engineering field testing of innovations
- ❑ Start-up capital for standards authority for emerging industries,
- ❑ Scale up, derisk and optimize Water Innovation Technical Readiness Funding for bulk (TRL 6 to 8),
- ❑ Leveraging support and budgets from municipalities as testbed partners (i.e. eThekwini Municipality and UKZN WASH Center)
- ❑ Engage National Treasury to ensure Public Procurement rules and interpretation thereof accommodate uptake of new technologies
- ❑ Develop skills linked to niche experiments to support artisanal skills via Technical and Vocational Education and Training colleges, SETAs and associations

5.1 Standards And Certification

Objective or Issues

1. Standards as technical barriers to trade
2. Testing and certification capacity constraints in the full market.
3. Enforcement is low, therefore the impact is sub-standard imports
4. Cost of certification is high, long waiting times SANAS
5. CIDB prescribes skills standards but there is non-compliance
6. Inadequate testing and certification capacity in the full market
   - SANS 10252(plumbing installations); SANS 151/VC 9006 (geysers)
   - SANS/ ISO 30500(sanitation systems); SANS 31800 (sanitation systems)
   - SANS 10257 (reconditioning of valves)

- Close significant gap between the standards and the available tests
- The SA watermark was developed, and it aids in validating product compliance.
- WRC has developed three accreditation protocols that relate to sanitation products.
- For non-sewer sanitation, WRC is working with industry stakeholders to develop a mark scheme to assist with SANS 3500
- Collaboration with universities, agencies and donors that have testing capacity.
- Accredit the private sector capabilities.
- Incentive to assist companies with technical compliance in terms of export products
- Industry to provide the non-compliant products on the market and submit to NRCS for purposes of specification.
- Regulating retail from importing sub-standard products
- SANAS accreditation subsidy

6 Capacity Utilisation & Competitiveness

General reduction in capacity utilization and competitiveness in the industries.

Component	Current capacity	Limitations
Steel piping	Production decreased, yet there is capacity to meet market demand, except for fittings	❑ Shortage of intermediate inputs, overpricing of local steel compared to the selling price in SACU; ❑ a lack of infrastructure spend, competition from HDPE and PVC plastic piping. Inefficient border controls.
Plastic piping	Manufacturers supplying PVC and HDPE water piping.	❑ Government funding, import parity pricing of polymers, excessive pricing of propylene and polymers, insufficient R&D, influx of imported products.
Valves	Credible suppliers of valves meeting international specifications. Vertically integrated. Local content designation of 70%.	❑ High utility charges and labour costs, labour unrest. Sub-standard imports from China
Chemicals	Sufficient capacity to supply chlorine. Positive trade balance. New firm forming a caustic soda plant in collaboration with TATA India.	❑ Insufficient local supply of caustic soda. ❑ Production of caustic soda highly hazardous nature and very prohibitive government regulations.
Pumps	120 firm, of which 62 manufacture all or some of their products locally whilst other import and assemble.	❑ Closure and downsizing of foundries. Lack of investment in new technology. ❑ Cheap imports. High production costs. Uncompetitive local raw material costs.
Water meters	Oligopoly Market, then few smaller players. 50-70% designated	❑ Weak demand. New entrants have increased industry supply capacity at a time of low demand. ❑ Cheap imports. Increases in the cost of energy, labour. New carbon tax
Membranes	Few manufacturing firms available. Raw materials are locally sourced.	
Pedestals	Traditional sanitary ware (Betta with 50% and Vaal Potteries with 30%). New entrants in NGS.	❑ Cheap imports. Brand loyalty.

6.1 Capacity Utilisation and Competitiveness

- Designate and encourage value chain localization.
- Determine price bands and acceptable margins for products
- Trade unions to facilitate a national drive for Proudly SA and buying South African to secure jobs.
- Brand owners and retailers to identify product ranges where locally manufactured products can replace existing imports and to enter into off-take agreements for locally produced products.
- Move to alternative sources of energy (e.g. solar, wind) by relaxing / expediting licensing requirements

7 DTIC Incentives + Others

Innovation Incentives	**Export Promotion Incentives**
❑ Technology And Human Resources For Industry Programme (Thrip)	❑ Export Marketing And Investment Assistance (Emia)
❑ Support Programme For Industrial Innovation (Spii)	❑ Sector-Specific Assistance Scheme (Ssas)
Manufacturing Investment Incentives	❑ Capital Projects Feasibility Programme (Cpfp)
❑ Automotive Investment Scheme (Ais)	**Infrastructure Investment Incentives**
❑ People-Carrier Automotive Investment Scheme (P-Ais)	❑ Special Economic Zone (Sez) Programme
❑ Medium And Heavy Commercial Vehicles Automotive Investment	❑ Critical Infrastructure Programme (Cip)
❑ The Black Industrialists Scheme (Bis)	**Services Investment Incentives**
❑ Agro-Processing Support Scheme (Apss)	❑ Global Business Services (Gbs)
❑ Aquaculture Development Enhancement Programme (Adep)	❑ South African Emerging Black Filmmakers Incentive
❑ Manufacturing Competitiveness Enhancement Programme (Mcep) Loan Facility	❑ Film And Television Production And Post-Production
❑ Clothing And Textile Competitiveness Improvement Programme (Ctcip)	❑ Sa Film And Tv Production And Co-Production
❑ Strategic Partnership Programme (Spp)	❑ Sa Film And Tv Production Incentive

Thank you

Draft of Reports Online

- ❑Research Report: Water and Sanitation Industry Master Plan
- ❑Policy Report: Water and Sanitation Industry Master Plan

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