



**DEPARTMENT OF ENVIRONMENTAL
AFFAIRS AND TOURISM**

DANIDA



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**NATIONAL WASTE MANAGEMENT
STRATEGY IMPLEMENTATION
SOUTH AFRICA**

WIS NEEDS ANALYSIS

**WESTERN CAPE PROVINCIAL WASTE
INFORMATION SYSTEM WORKSHOPS
22 OCTOBER 2004**

FINAL REPORT

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TABLE OF CONTENTS

| | | |
|-------------------|--|----------|
| 1 | Workshop opening, welcome and introduction | 1 |
| 2 | Purpose of the Workshop | 1 |
| 3 | Presentations | 1 |
| 3.1 | Western Cape Provincial WIS – plans and progress..... | 1 |
| 3.2 | Western Cape Provincial PRTR – plans and progress..... | 3 |
| 3.3 | NWMSI WIS Overview..... | 3 |
| 3.4 | NWMSI WIS Framework | 3 |
| 4 | Needs Analysis | 4 |
| 4.1 | Why do we need a WIS..... | 4 |
| 4.2 | Why don't we already have a WIS in place ?..... | 4 |
| 4.3 | If we fulfil all of these requirements will we be able to implement a WIS? | 4 |
| 5 | Discussion Session..... | 5 |
| ANNEXURE A | Partici-planning outputs | |
| ANNEXURE B | Workshop delegate list | |

1 Workshop opening, welcome and introduction

Mr Gotlieb Arendse, Director: Pollution and Waste Management and Mr. Eddie Hanekom, Deputy-Director: Waste Management welcomed everybody to the workshop. Mr Arendse stressed that information management and the development and implementation of a national waste information system (WIS) is long overdue, since without ITC the Province cannot be at the forefront of integrated waste management. He stressed the importance of the WIS for Departmental service delivery, for managing waste, assessing the state of the environment, supporting administrative procedures and aiding decision making.

Mr Arendse however cautioned that the sharing of information between Government Departments, during the establishment of the WIS, was very important to ensure that systems are integrated. However, he stressed that the WIS to be developed must be economically efficient to operate and must not place undue burden in terms of operation, on the Provincial Departments.

2 Purpose of the Workshop

Ms Godfrey outlined the purpose of the workshop as being:

- For the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) to share with National Government their progress and plans in the development of a Provincial Pollution and Waste Information System (PWIS);
- For National Department of Environmental Affairs and Tourism to share with representatives from Province and Local Government, the objectives of the National Waste Management Strategy Implementation Project, and in particular the objectives, outputs and activities of the national waste information system;
- To identify the needs with respect to waste information and information systems by Local and Provincial Government;
- Through information sharing, to build capacity within the Local, Provincial and National Government around waste information systems.

3 Presentations

3.1 Western Cape Provincial WIS – plans and progress

Mr Kamaseelan Chetty provided an overview of the Western Cape WIS:

- Current problems wrt waste management
 - Illegal dumping – litter, hazardous waste, medical waste, abattoir waste, use of stormwater drains
 - Burning of waste – tyres, chemicals, community waste, at schools
 - Poor access control to facilities – living and scavenging on landfills
- Critical needs:
 - Track waste from generator to disposer
 - Who is disposing of waste, volumes, types

- Ensure accountability
- Control measures
- Pollution and Waste Information System (PWIS) critical to support these needs
- Development Step 1
 - Research – locally and internationally
 - Fact finding visits
 - Workshops with internal staff
 - Findings:
 - different approaches to WIS development in SA
 - different systems supporting different needs
 - no significant progress wrt to PRTR
- PWIS
 - Would be a lot of data overlap if had a separate PRTR and WIS – have gone with a single PWIS – Pollution and Waste Information System
 - Collect info on pollutant releases and transfers
 - Waste generators, transporters, treatment facilities, landfills
- Modular system - components
 - Secure access
 - Compliance management
 - Complaints management
 - Management information system (GIS, reports)
 - Waste management
- Who should report
 - Business and industry – major
 - Various institutions e.g. universities
 - Waste handlers and transporters
 - Waste management facilities (recyclers, landfills etc)
- System
 - Electronic – web based system
 - Hard copy reporting forms – fax, post
 - Will require info to go firstly to municipality who will capture the info on behalf of DEA&DP, or can also go directly to DEA&DP
- Info used for
 - Planning
 - Reports
 - Support regulation and enforcement
 - Track status of applications
 - Decision support – future authorisations
 - Monitor programs and compliance
 - Information source – all
- Progress to date
 - Phase 1:
 - Situational analysis, including HW and informal areas
 - List of decommissioned, existing and planned facilities
 - In house user needs assessment
 - Information request letters, registration and reporting forms
 - System specs
 - Software development – *currently on this task*

- Phase 2: Deployment (training awareness)
- Environmental modelling

3.2 Western Cape Provincial PRTR – plans and progress

Mr Shadley Mackenzie provided an overview of the Western Cape PRTR component of the PWIS:

- Pollutant releases or transfers to the environment across all media (air, water, soil)
- Promoting pollution prevention and cleaner production by focussing on reporting from generators
- Identify areas of action – hot spots
- List of chemicals/pollutants to report on
- Point vs non-point sources
- Which industry sectors to report
- Reporting thresholds (facility size, chemical use, volumes)
- Draft list of 123 pollutants – prioritised to 20 key pollutants for reporting

Examples of report format:

| Chemical substance | Usage for reporting period | Releases to | | |
|--------------------|----------------------------|-------------|-------|------|
| | | Air | Water | Land |
| 1....20 | | | | |

Measuring of releases can either be done through direct monitoring or estimation. A guide is currently being developed. Method used to determine measurement is recorded on reporting form. Five (5) approved methods for estimating releases.

3.3 NWMSI WIS Overview

Mr Obed Baloyi, Deputy Director: WIS from the Department of Environmental Affairs and Tourism gave an overview of the National Waste Management Strategy Implementation (NWMSI) Project, in particular addressing the national context, the NWMSI project outputs and activities, the project deliverables and the way forward in terms of development and implementation.

3.4 NWMSI WIS Framework

Ms Linda Godfrey, Local Support Consultant to the DEAT gave an overview as to the current thinking with regards to the framework of the national waste information system, i.e. the system concepts, information providers, reporting obligations and the roles and responsibilities.

Ms Godfrey stressed that a phased implementation is planned, such that not all needs may be met in the short to medium-term. DEAT will provide, as part of the project, the minimum software required by local and provincial government, however, DEAT will not be prescriptive should local or provincial authorities wish to develop their own systems, so long as these systems can provide the information required by national DEAT. She outlined that the first step in the development of the WIS, was to determine the needs of Local and Provincial Authorities, to ensure that the national

WIS took cognisance of these needs in the development of the WIS Framework Document.

The DEAT presentations used are available for further review on the project web site, at www.nwmsi.co.za

4 Needs Analysis

In order to determine the specific waste information and information system requirements of those stakeholders represented at the workshop, the Partici-PlanningTM process was utilised. Questions were posed to the audience and delegates were requested to provide a short written responses to each question.

The following three questions were posed to the audience:

- Why do we need a Waste Information System ?
- Why don't we already have a Waste Information System in place ?
- If we fulfill all of these requirements will we be able to implement a Waste Information System ?

Each of these questions is dealt with in more detail below and the responses received detailed in Annexure A.

4.1 Why do we need a WIS

The main responses received as to why a WIS is required were the following:

- Gather data of waste role players, location, type, quantity
- To facilitate waste management planning
- To aid decision making
- To aid enforcement
- Support information dissemination
- Thereby improving waste management

4.2 Why don't we already have a WIS in place ?

The main responses received as to why we don't already have a WIS or a successful were:

- Lack of knowledge of how to go about developing a WIS
- Lack of planning and coordination
- Lack of political pressure
- Lack of capacity (human, financial, IT)
- Lack of legislation to enforce
- Unclear of roles and responsibilities

4.3 If we fulfil all of these requirements will we be able to implement a WIS?

It was agreed by all present, that if we can address all of the above aspects, it is feasible that a sustainable national waste information system can be implemented in

South Africa. The question raised though is whether the WIS, once developed, will be successful in terms of its original objectives.

5 Discussion Session

Following the presentation and planning session, the workshop was opened for general discussion and questions. The details of the discussions can not be summarised here, however, the basis of the discussions focussed on information sharing, lessons learnt and likely expectations from national government as to waste information required from local and provincial government.

Some of the questions are listed below:

- What industrial area/sector is the Western Cape PWIS going to focus on ?
 - Concentrated on Cape Town industrial area
- What if no one reports voluntarily to the PWIS ?
 - Do not want to use stick, but rather work together with industry, although legal framework does exist at national level to enforce, if required.
- Involving industry in the development of WIS?
 - There will be capacity building exercises to equip Industry, Local and Provincial Authorities on the usage of WIS. Awareness programmes will be used to inform about the development of the WIS.
- Neighbouring States?
 - The importance of knowing what is happening beyond our borders as waste is transported outside boundaries.
- General comment on WIS hosting fees for other provinces or local municipalities who are not able to afford:
 - This is practice in other countries that the national WIS is not hosted by government but by private institutions or para-statal. A few Provinces and Local Municipalities are ahead of the National Department on the development of WIS, hence at the moment there is no common tool that provides support on collection of waste information.

**ANNEXURE A
PARTICI-PLANNING**

**Question A:
Why do we need a waste information system ?**

A1 Gather data of waste role players, location, type, quantity

- To determine major and minor polluters
- To identify what and how much waste is being generated and transferred
- To have knowledge of types and of wastes released
- Waste handling ‘hot spots’
- Determine current state
- Identify key role-players in waste handling
- To get an idea of the amount of waste that’s generated
- To know what’s happening to waste being generated
- Monitor trends in waste management

A2 To facilitate waste management planning

- Assist in a more structured and coordinated approach to waste management
- To plan effectively and create a safe living environment
- Future planning for landfill space
- Planning tool
- To promote waste exchange and industrial symbioses systems
- WIS to support core business
- Better practices of waste management

A3 To aid decision-making

- To inform decision-making
- To support decision-making
- Best and most efficient ways to manage waste types

A4 To aid enforcement

- To be able to control and manage types and amounts of waste released
- Track the cradle to grave process in terms of waste management
- To keep track of what industries are doing and how they operate.
- Identify areas in the system with loopholes (non-compliance)

A5 Support information dissemination

- Provide information for managers
- Awareness and education

A6 Thereby improving waste management

- To protect degrading of the natural and living environment
- Effective management
- Improve waste management

Question B: Why don't we already have a Waste Information System in place ?

B1 Lack of knowledge of how to go about developing a WIS

- Lack of knowledge
- International practices not known
- Waste management not requiring specialised skills pre-2000

B2 Lack of planning and coordination

- Silo culture (protection)
- Different WIS report formats in different regions – no genetic approach to what information collected and in what depth
- Public knowledge about waste threats is poor (no awareness campaigns)
- Lack of planning
- Lack of coordination in forming a system
- Lack of strategic thinking
- Other matters taking priority
- The need to have one was never realised
- Were focussed on end-of-pipe problems not IWM
- Command and control approach has 'blocked' vision and discouraged officials
- Environmental issues low on the agenda, housing, job creation etc. sway masses from political point of view
- Red tape (bureaucracy)
- Lack of initiative to start a WIS – too much information to gather and process for local authorities

B3 Lack of political pressure

- Lack of political drive
- Unwillingness of Government to 'show teeth' to some industrial sectors
- No drive to develop or implement

B4 Lack of capacity (human, financial, IT)

- Gathering of necessary information could take more time and resources
- Lack of capacity and resources
- Capacity and IT systems not developed (all records in filing cabinets or lost)
- Capacity and training
- Manpower
- Lack of finances
- Financial constraints/limitations
- Lack of technology and resources
- Lack of information technology in the past
- IT – software, connectivity, cost

B5 Lack of legislation to enforce

- Was not a requirement in legislation
- Process for implementing a WIS is time consuming (insufficient by in from stakeholders)
- Older generation legislation not clear and focus on end of pipe solutions
- Lack of legislation: require collection info/stats

B5 Unclear of roles and responsibilities

- Lack of clear roles and responsibilities
- Lack of communication amongst government tiers
- Delay between NWMS and Implementation – Provinces lost faith in objectives and approach

**ANNEXURE B
DELEGATE LIST**

**MPUMALANGA PROVINCE
WORKSHOP DELEGATE LIST**

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