

UEM PROGRAMME

Short Term Technical Assignments Facility

**Progress Report
2006 to Mar. 2008**

ANNEX 2

Presentations of Short Term Technical Assignments of The Urban Environmental Management Programme

This document is annex 2 to the progress report on the STTA facility, which will be presented to the Steering Committee of the Programme on its meeting # 8, 25. March 2008. It provides a brief introduction to the assignments conducted or in execution of the facility.

An overview of all assignments, incl. budget figures, current status etc. is found in Annex 1.

Further info on each assignment, incl. products, ToR etc. are published on www.uemp.co.za or may be requested via ble@deat.gov.za.

M-01-2006 eThekweni (Siva Chetty) Refinery Flaring - SA standards & benchmarking.

This assignment produced a technical scheme for monitoring all flares of refineries with regard to time, incidents, air pollution, cumulated air pollution etc., etc. With SA adaptations this scheme is of a quality similar to those used in the USA, Canada and the EU. While this assignment established the technical scheme, to implement it will further initiatives from RSA governments (3 spheres). These required initiatives are political, budgetary and management initiatives.

The project was executed by eThekweni in collaboration with a working group of eThekweni, Cape Town, Sedibeng, Johannesburg and DEAT.

M-02-2006 eThekweni (D. Roberts, Jessica Ridge) Catalogue of Renewable Energy options - tailor made for the city

The assignment has provided a catalogue of the technologies of renewable energy including assessments of their applicability in the eThekweni metro area.

Based on the priorities of the city the assignment has identified and studied the following technologies and made the following recommendations for actions:

1. Solar thermal energy – private sector
 - Implement separate solar hot water projects in low-income and middle-income houses
2. Solar thermal energy – public sector
 - Implement solar hot water projects for commercial/institutional buildings
3. Bio-fuels – public and private
 - Develop a programme for the transformation of the municipal petrol-fuelled vehicle fleet to a 10% bio-ethanol blend. Make this available, also for private vehicles.
 - Develop a programme for the transformation of the municipal diesel-fuelled vehicle fleet to 100% bio-diesel. Make this available, also for private vehicles.
4. Sewage /wastewater

- Institute a feasibility assessment of opportunities for the use of sewage gas and sewage solids as energy sources has a potential for electricity generation or pelletised solids.
- Institute a feasibility assessment to compare opportunities for using landfill gas at new landfill sites
- Biogases from the sugar industry, likewise has a potential for electricity production

M-03-2006 Ekurhuleni (Oupa Mosia)**LA-21 catalogue, tailor made for the City Municipality**

ToR available (July 2007) for a assignment/ process to consult with stakeholders in the M administration etc. and provide the document with a 5 (or 10) year prioritized action plan for an overall LA21 correct management and development of the Municipality.

Awaits Ekurhuleni.

M-04-2006 JBG (Lunelle Serobatse)**Air emission and modeling**

While the city of Johannesburg has invested in hardware and software for air quality monitoring and modeling of international standard, the staff does not have the training in this. Training is provided in two sessions from Cambridge Environment Research Institute in London (who has developed the software). The total investment will enable the City administration to in house production of air pollutions scenarios of potential planning solutions. These will be of international standard, and comparable with other cities of RSA and in the world which uses similar software and methodologies.

M-05-2006 SED (Lizette Venter)**Environmental Retreat - Expert drafting of proceedings**

Sedibeng is a district municipality comprising 3 very different municipalities. Environmental management includes a great many responsibilities, distributed between the DM and the 3 M. In addition Sedibeng is a national high priority area and the focus for interventions from DEAT on air pollution, EMF etc. No comprehensive strategy for the prioritization and execution of these responsibilities is in place to date.

Sedibeng has taken the initiative of a 2 d. WS with massive participation from the parties, including DEAT to flesh out the opportunities and to scope such a comprehensive plan. The proceedings will be the formal platform for further materialization of the plan, and the drafting of these proceedings has been assigned to experts from the School of Environmental Sciences and Development, North West University in RSA.

M-06-2007 Ekurhuleni (Mandla Sithole)**Organizational structure of the Environmental Department**

After the Municipal election of 2005 the Municipality of Ekurhuleni embarked on a restructuring of the administration. One outcome so far is the formation of the new Environmental Department out of 4 previous directorates. The new department has a staff of some 5000.

The Department has embarked on setting up the (new) structure, based on the strategic needs and requirements to the department, the capacities and resources brought together, etc. The assignment has analyzed these needs, has set up a structure and made recommendations for taking it further.

M-07 CT (Craig Haskins), WC and DEAT Energy Poverty Catalogue

The CT / WC area is by at large provided with electricity from one provider. This makes it technically feasible to set up schemes for consumption and payment for electricity by which unnecessary and excessive overspending is taxed, and the achieved revenue recycled into energy saving measures directed at the poor.

In general the poor are more prone to suffer from insufficient energy supply. The assignment has made recommendations for the pricing and other measures to ensure that will facilitate a more reliable energy supply to the poorer segments of the population. The project was hosted by CT in dialogue with interested partners, including, WC and DEAT.

M-08 eThekweni (Siva Chetty). An Integrated Scheduled Trade Permit + Guidance manual and training materials

In South Africa many ferromanganese and primary steel foundries can be found. All of these are potentially very harmful polluters of the surrounding air, and a health hazard to adjacent settlements. Still there is a limited scope for and approach to the regulation and permitting of ferromanganese foundries.

Based on a specific case this assignment will establish an integrated permit scheme.

Industrial Process Engineer N-01-2006 DEAT-Air, Peter Lukey

Toxicologist and Epidemiologist N-02-2006 DEAT-Air, Peter Lukey

There are gaps in knowledge and capacity in each of these two fields, in which new legislation and regulation will be crucial in the future. The solution provided by these *two* parallel assignments is a capacity transfer from the international community of expertise into permanent advisor positions DEAT. Plans and budgets in place for a permanent technical advisor position in each of the fields. The knowledge transfer from abroad will come through by the foreign technical assistance in three sub tasks:

- Definition of the permanent position in DEAT
- Selection of the best qualified candidate
- Introduction and “mentorship” to the candidate in the first period of employment.

WASTE MANAGEMENT BILL - International Technical assistance**N-03-2006 DEAT Waste Zanele Mwusi****N-03a-2006 Extension****WASTE MANAGEMENT BILL - Documentation of WMB****N-04-2006 DEAT-Waste Zanele Mwusi****N-04a-2006 Extension****WASTE MANAGEMENT BILL - Pricing of the Bill****N-05-2006 DEAT-Waste Zanele Mwusi**

In the preparation of the Waste Management Bill, which DEAT sent to the Parliament (in 2007) for political process these STTAs were mobilized in order to:

N-03: Provide technical international benchmarking, standards and other inputs

N-04: Document and process the public participation procedure of the Bill

N-05: Provide financial overviews of the costs and the distribution of costs between spheres of government and other stakeholders

International (3) and South African (4+5) consultants have provided these inputs.

UEMP - Website – Establishment + Management of year 1**N-07-2006 DEAT-EQP, Ranjini Pillay**

The web site, www.uemp.org.za was established through a Short Term Technical Assignment.

The Web site includes presentations of the programme, of the partners, of current and upcoming activities, the STTA facility etc. Also it provides an archive of all documents produced by or having direct relation to the programme.

Greening of the RSA stadia 2010 Joanne Yawitch**N-07-2007 DEAT-EQP, Ranjini Pillay.**

Following dialogue with FIFAs South African Organizational Committee, DEAT embarked on the idea of conducting an environmental screening of all 10 stadia identified for the WC 2010. The screening identifies prices and prioritizes the environmentally etc. sustainable solutions and measures. The process is based on a dialogue with each stadium authority & staff.

The PSC (#5) made a special budget allocation for this undertaking, and 4 stadia have accepted the offer and are in the process of the screening.

Green accounts on the national budget**N-08-2007 DEAT, Vinny Pillay**

This assignment is to undertake research and analysis to identify least-cost high-impact *budget interventions* that would promote sustainable development. In relation to the national budget it will:

- Identify key areas for intervention and determine whether the existing regulatory framework adequately addresses priority environmental concerns;

- Determine the potential role for market-based instruments to complement the regulatory framework to achieve environmental goals;
- Highlight immediate opportunities to augment on-budget funding allocations to mainstream environmental concerns into social and infrastructure projects and programmes such as low cost housing according to priority areas identified above,

The project is conducted by DEAT in collaboration with the National Treasury and was completed in Nov 2007, inputs from this was also made into the budget speech of the Minister of Finance.

Medical Waste Survey

N-08-2007 DEAT, C-Directorate: Pollution & Waste Man., Kelello Ntoampe

Since the last surveys of Health Care Waste were made in 2005, the capacity of each province has changed, presumably diminished considerably, leading to dumping and other illegal and hazardous (to human health etc.) procedures, countrywide.

The assignment will provide a renewed, reliable overview of generation rates, treatment capacities and costs in relation to health care waste in the 9 provinces of South Africa. This will feed into policies and planning.

EMF - Technical support

N-12 P KZN Province, Christian Tham and Spume Novele

KZN has embarked on the preparation of an Environmental Management Frameworks (EMF) in pursuance of sustainable development in the UMhlatuze (Richards Bay) port area, Local Municipal area (KZ 282), in compliance with the requirements of Chapter 8 of the National Environmental Management Act (NEMA) 1998. The assignment will provide the necessary technical assistance and CB of KZN staff for the conduction of the process of this EMF.

IWMP - Technical support

N-13 P KZN Province, Dr. Shauna Costley

KZN has embarked on the preparation of Integrated Waste Management Plans (IWMPs) in 10 district municipalities. The Province and in part the UEMP (as "on budget support" fund these undertakings, which may be seen as an on the ground implementation of the Waste Management Bill. Guidelines for the municipal production of IWMP exist in several provinces and are on their way from DEAT. Through an integrated course based on the DEAT guideline, the assignment will assist the municipality staffs in the production of the IWMPs.
