A PARTNERSHIP TOWARDS SUSTAINABLE TRANSPORT: THE URBAN TRAN:SIT MODEL

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ABSTRACT

Sustainable transport is about more than just promoting alternatives to the private automobile, it requires changes to town planning, street design, human behaviour and technology. In order to effectively implement sustainable transport at a local authority level, it also requires a change in the way projects are prioritised, planned, implemented and budgeted for. The City of Cape Town has highlighted the need for a sustainable transport system for the City in its Integrated Transport Plan. Sustainable Energy Africa, through its Urban Tran:SIT Programme, is working with the Directorate of Transport, Roads and Stormwater at the City of Cape Town to assist them in the implementation of their sustainable transport vision.

This paper will describe the unique way in which the programme works from within the City in the form of a partnership between the NGO Sustainable Energy Africa and the City of Cape Town. It will also highlight the key activities taking place for the duration of the project, including the identification of blockages and obstacles to implementing the sustainable transport vision and developing sustainable transport tools and guidelines to assist with decision-making and project implementation.

1. INTRODUCTION

South Africa, as a fast growing developing country, is at a transport crossroads. Transport planning has focussed on the supply side of road transport, with limited focus on transport demand management. This is emphasised by the perception that building more roads will reduce congestion, and focus on the needs of private vehicle users will provide the best conditions. The road network capacity has reached capacity in most of the major cities in South Africa and the scope to expand these networks is limited, due to space constraints as well as increased awareness around the detrimental impacts that the private vehicle has on the environment (Sustainable Energy Africa, 2006).

Transport is South African cities accounts for approximately 50% of total energy consumption. With the energy crisis being experienced in South Africa, the need to promote sustainable transport in South African cities was identified. Transport is also a critical component in economic efficiency in a city, which is particularly related to congestion in cities. In Cape Town, transport accounts for 54% of total energy consumption (CCT, 2003) and is responsible for over 4 million tons of CO_2 emissions per year.

The transport and related environmental and socio-economic problems in the country are

encouraging a move towards sustainable transport, although this is still on a small scale. Sustainable transport practice looks at supporting those lifestyles and movement patterns which depends the least on non-renewable and polluting energy sources. It encourages walking, cycling and public transport use over private vehicle use and it supports integrated planning approaches, which move towards sustainable cities.

The City of Cape Town (CCT), through its Integrated Transport Plan, has identified sustainable transport as a key vision of the city. This vision, which aims "*to provide a world class sustainable transport system that moves all its people and goods effectively, efficiently, safely and affordably*", is very broad in its approach, but can focus future planning in the City (CCT, 2006b).

Sustainable Energy Africa (SEA), a Cape Town based NGO, is working with the transport department at the City of Cape Town to promote sustainable transport. The partnership, known as the Urban Tran:SIT Programme, aims to build capacity in local government to develop more sustainable transport policy, strategy and implementation in order to reduce global emissions, improve air quality, address welfare issues and to improve the economic efficiency of the sector.

At the core of the programme is the promotion of sustainable transport and building capacity to address these skills needed. Capacity within the City of Cape Town for sustainable transport planning is currently limited and existing resources are often focussed on more immediate problems requiring attention. Unless longer term sustainability issues are prioritised as well, this cycle is difficult to break.

The Tran:SIT Programme, through funding from the British High Commission, has used a "working from within" model in the City of Cape Town. A Sustainable Transport Professional has been placed in the Transport Planning Department to promote and direct sustainable transport approaches in the City.

This paper will describe the unique way in which the programme works from within the City in the form of a partnership between the NGO Sustainable Energy Africa and the City of Cape Town. It will also highlight the key activities taking place for the duration of the project, including the identification of blockages and obstacles to implementing the sustainable transport vision and developing sustainable transport tools and guidelines to assist with decision-making and project implementation.

2. KEY ACTIONS AND ACTIVITIES OF THE URBAN TRAN:SIT PROGRAMME

The programme aims to facilitate sustainable transport planning and implementation in Cape Town through an integrated approach. The model includes the involvement of the Transport Planning Department at the City of Cape Town, the NGO Sustainable Energy Africa, who support the sustainability aspects of the project, as well as support from the Centre for Transport Studies at the University of Cape Town in terms of technical support.

As part of the Tran:SIT Programme a Sustainable Transport Professional, whose position is funded by the Tran:SIT Programme, is placed within the Transport Planning Department to integrate sustainable transport approaches and practices in the work of the City of Cape Town, particularly with regard to the 2010 World Cup, the City's corporate strategy as well as enhancing the Travel Demand Management (TDM) strategy and sustainability benchmarking

of the City. The Sustainable Transport Professional also provides the Municipality with advice, information and available options to further the Tran:SIT Programme, as well as institutionalising the transport, energy and environmental issues.

The Sustainable Transport Professional will direct sustainable transport aspects of the department and focus the integration of the sustainable transport vision with on-the-ground implementation of the projects. This is initially done through demonstration projects, which will be discussed in more detail at a later stage. Capacity building and awareness raising also play a key role in the initial Tran:SIT programme activities. These will be discussed in more detail below.

2.1 Capacity Building

One of the key aspects of the Tran:SIT Programme is capacity building, not only within the Transport Department, but throughout the City and more broadly in other local authorities, government departments and external stakeholders. Capacity building activities and initiatives that have taken place include the following.

2.1.1 "Change Management" Implementation Workshop

A one-day "Change Management" workshop was organised and held for key officials from the Transport, Roads and Stormwater (TR&S) Directorate in September 2007. the overall aim of the workshop was to build capacity within the TR&S Directorate in order to ensure that all officials are familiar with the vision and goals of the City's Integrated Transport Plan (ITP) and to provide them with a better understanding of how to integrate sustainable transport approaches into the work undertaken in order to meet the goals of the ITP (CCT, 2007b).

During the workshop four main blockages to more sustainable transport practice within the City were identified, namely

- Lack of capacity to implement the ITP vision
- Not designing for sustainability
- Incomplete understanding of the transport system in the City of Cape Town
- Poor integration of housing, land-use and transport policies and budgets

In order to address these blockages, various immediate and longer term action items were identified. These include

- A review of the current guidelines for transport planning and design
- A training programme focussing on sustainable transport implementation at a local level
- A review and refining of the Sustainable Transport Indicators in the ITP
- The development of a project evaluation tool based on the sustainable transport indicators
- Promotion of interdepartmental teams/working groups
- Allocation of budget for the maintenance of infrastructure

A Review of the Current Guidelines for Transport Planning and Design

The current guidelines used for transport planning and design are a key obstacle to the implementation of the sustainable transport vision. Most of these are based on American

standards and generally do not take into account local and sustainability requirements. There is a need to develop appropriate standards and guidelines (tools that will be used on a daily basis) that will promote sustainable transport on a local level rather than following international trends.

An initial "workplace practice review" of the City's TR&S Directorate was undertaken by the Tran:SIT Project Team in November and December 2007. The purpose of this review was to identify, as specifically as possible, interventions which SEA can make in partnership with the City staff, to assist in turning the 'sustainable transport' vision in their ITP into concrete outcomes. Various recommendations were made, although the three main recommendations identified were the need to address the staff capacity shortages, the need for specific capacity building around key sustainable transport themes that can be implemented in Cape Town and the need to review the available data and update this where necessary in order to assist in the development of local area plans for the City of Cape Town. It was realised that if the City does not address the capacity shortages in the department, it would limit the ability to implement the other recommendations (CCT, 2007a).

Further identification of the gaps in the current transport planning and design guidelines and manuals will take place during 2008 and a process of revision for these documents will be identified in consultation with other stakeholders, including national and provincial governments.

A training programme focussing on sustainable transport implementation at a local level

A follow-up training opportunity (two-day workshop) by Eduardo Vasconcellos, an internationally renowned transport expert, has been organised for February 2008. The main objective of the training is to provide an opportunity for local technicians to develop or improve the ability to analyse urban mobility conditions. A subsequent objective is to develop the ability to analyse the social and environmental impacts of mobility and transport changes. The proposed activities are intended to generate a capacity to understand and analyse mobility factors and impacts. Other similar opportunities will be identified by the Tran:SIT project team over the remainder of the project.

A review and refining of the sustainable transport indicators in the ITP

These indicators will need to be reviewed in terms of the usability of the indicators, the data availability of the indicators, the general understanding of the indicators. It was also suggested that the indicators be weighted according to the project-type that is being evaluated, in order to ensure that they are usable on projects at all scales. Once the sustainable transport indicators in the ITP have been reviewed and revised, the indicators will be benchmarked against those of other South African cities as well as with those of international cities. In additional, an international review of comparable cities and a review of international best practice need to be undertaken.

The development of a project evaluation tool based on the sustainable transport indicators

There is a need to evaluate new projects, particularly those being developed for the 2010 World Cup, in terms of the sustainable transport indicators. A project evaluation tool / process

based on these indicators needs to be developed.

Promotion of interdepartmental teams/working groups

The importance of interdepartmental teams/working groups for projects was highlighted. The Directorate should promote sustainable transport for projects as well as strategy and policy development. It was noted that this is particularly important in the case of the Housing Department, as effective communication between the two departments is not taking place. Senior management reflection and action on staffing and organisational strategy and co-operation with other departments is requirement.

Allocation of budget for the maintenance of infrastructure

Another key obstacle to the successful implementation of projects (not only those with a sustainable transport approach) is the lack of budget for the maintenance of infrastructure once a project has been finalised. It is important that this is included in project planning and budgets.

2.1.2 Information / knowledge sharing

The Urban Tran:SIT Programme includes information development and dissemination in order to increase knowledge around sustainable transport and assist in its implementation in South Africa. Various methods are used to share this information, including the following:

- Tran:SIT website, which highlights sustainable transport projects implemented by the City of Cape Town, as well as acting as a resource for sustainable transport reports, legislation and other documents as well as web resources. It also advertises conference, events and presentation focussing on sustainable transport and other themes of interest. (www.sustainable.org.za/transit).
- The e-Tran:SIT is a bi-monthly newsletter which focuses on sustainable transport themes. Each edition will have a different theme and the theme will be linked to the showcased content on the Tran:SIT website. Some of the themes already discussed include Transport and Climate Change, Biofuels, Public Transport, Urban Street Design and Green Cars
- A number of Tran:SIT Updates have been developed, which provide easy to understand information on key components of public transport. The Tran:SIT Updates published to date focused on “Making the Case for Public Transport”, “An Introduction to Sustainable Transport” and “Energy, Climate Change and Transport”.

In April 2007, Network Information Sharing Workshops were held with key Metropolitan Municipalities, namely eThekwini, Tshwane and Ekhuruleni in order to provide them with an introduction to the Tran:SIT Programme; to share information about sustainable transport; and to inform them about projects taking place within the City of Cape Town.

In addition, the Sustainable Transport Professional is involved in information / knowledge sharing and providing input into various projects / programmes on sustainable transport matters on an ongoing basis with members of the City’s Transport Department, other departments, other spheres of government as well as non-governmental organisations through meetings, workshops, committees, working groups etc.

2.1.3 Raising Awareness Initiatives

Various initiatives have been undertaken to raise awareness about sustainable transport within the City of Cape Town. These include:

- Sustainable transport movie weeks where a documentary focusing on sustainable transport or general environmental issues is shown to staff within the City. This is generally an open invitation to all staff members in order to raise awareness of the environmental issues in the world today.
- A sustainable transport exhibition was held during the City's "Transport Month" in October, in order to raise awareness of sustainable transport as well as the work that the City of Cape Town is doing.

2.2 Pilot Projects

The City's ITP has identified Travel Demand Management (TDM) as a key initiative in moving towards a more sustainable transport system. Accordingly, as part of the Tran:SIT Programme three TDM projects were identified to be implemented as pilot projects. TDM is a general term for strategies that result in more efficient use of transportation resources. The objective of TDM in the City of Cape Town is to promote a diversity of sustainable travel modes and practices that will influence the choices made by commuters in order to reduce the overall number of trips, minimise travel time and optimise travel costs – especially during the peak periods.

The three TDM projects being implemented are

- Promoting Higher Vehicle Occupancies;
- Park and Ride Facilities
- Large Employer Programmes

2.2.1 Promoting Higher Vehicle Occupancies

The main objectives of the Higher Vehicle Occupancies project are to increase the average vehicle occupancy and reduce vehicle-kilometres of travel. The promotion of Higher Vehicle Occupancies will focus on commuters that will benefit from sharing cars with other commuters while providing them with more opportunities to travel. Specific actions include the following:

- To establish an information desk and phone-in service whereby commuters can get information on how to car pool and what the legal issues are, as well as information on the other TDM projects;
- To establish a ride-matching database and website that will enable individual drivers to match with other commuters that have similar trip needs;
- To develop a marketing campaign in order to encourage and increase awareness of higher vehicle occupancies;
- Lobby for legislation changes as the current legislation does not allow for carpooling.

Key outcomes of the project are to: increase the average vehicle occupancy; reduce total vehicle-kilometres of travel; increase the number of private car commuters that carpool; increase awareness of the benefits of carpooling; and to improve travel benefits for those that choose to increase their vehicle occupancy.

2.2.2 Park and Ride Facilities

There are currently several Park and Ride facilities in Cape Town, many of which are underutilised or totally dysfunctional. The short-term focus of the project is to use the available parking capacity at stations on rail lines that also have existing spare capacity. Stations along the Northern and Southern lines have been identified.

Specific actions include:

- Survey of current park and ride facilities in the City and to establish their current usage as well as the operational issues impeding their use. Once the survey has been completed and evaluated, the most appropriate stations will be selected for the necessary upgrade / expansion;
- Minor civil works to improve parking areas, sidewalks and walkways;
- Design and construction of shelters and sheltered walkways;
- Installation of signage, line marking and lighting;
- Letting of contracts to provide security at the areas;
- Launching and maintaining an advertisement campaign;
- Monitoring and measuring of operations; and
- Appointment of a security guard at each selected station.

Key outcomes of the project are:

- To provide an opportunity for commuters to transfer from a low occupancy mode to a high and more efficient occupancy mode;
- provide an accessible, convenient, safe and secure facility for commuters to park their vehicles/bicycles;
- reduce total vehicle-kilometres of travel;
- use existing spare capacity both in terms of public transport capacity and parking area capacity; and
- Identify possible expansion options of existing parking areas and possible integration with other land uses.

2.2.3 Large Employer Programmes

The aim of the Large Employers Programme (LEP) is to develop partnerships between the City of Cape Town and other large employers in order to assist large employers to focus on the travel needs of their employees in an effort to reduce congestion. It is proposed that the City, the Provincial Government of the Western Cape (PGWC) and three large companies are initially targeted to take part in this pilot project.

Specific actions include:

- To identify large employers in the City Bowl that would be prepared to initiate a pilot programme to encourage their employees to use other modes of transportation; and
- To develop a pilot programme in conjunction with the large employers (including the PGWC) to assist them in reducing the number of single vehicle trips to/from the company. This programme could include encouraging of car pooling through preferential parking for carpools, subsidies or rewards for carpools, subsidising public transport tickets, work-at-home programmes through telecommuting and providing facilities, including parking for bicycles.

Key outcomes of this project include increasing the availability of alternatives to driving alone by providing the employees with options to use higher occupancy modes; to reduce vehicle kilometres of travel and possibly pollutant emissions; develop partnerships between the City and larger employers and make them aware of their responsibilities towards a sustainable transport system; and to develop a monitoring programme on vehicular commuter trips (CCT, 2006a)

3. LESSONS LEARNT

The Urban Tran:SIT Programme tested that model of working from within in the City of Cape Town and through the duration of the project a number of lessons have been identified. These include a need for a passionate leader within the City to hold sustainable transport and promote it within the City. A political champion, such as the Executive Councillor or Mayor is ideal to promote this message, but there is a need to a leader at official level to hold this and run with it, in support of the rest of the Department. There has been support for this programme with the City of Cape Town, but capacity constraints and 2010 World Cup priorities have meant that progress towards sustainable transport has been delayed in some cases.

The Sustainable Transport Professional needs to have a clear job description that identifies what they will be working one and which themes and concepts are covered under their titles. It is easy in an organisation with severe capacity constraints, for the Sustainable Transport Professional to be seen as “another pair of hands” and to be brought into work that is not clearly linked to the focus of the programme.

The City of Cape Town procedures and processes are bureaucratic in nature and can results in delays in aspects of the project, such as the implementation of demonstration projects. This will need to be budgeted into the programme in future, as this generally cannot be ignored when working in a local authority environment. The capacity constraints within the Department have also impacted on the implementation of the projects.

As mentioned above, the 2010 World Cup and implementation of related projects are currently the priority for the City and much of the capacity within the staff has been given to that. This has to some extent limited the interaction with some key officials in the department as well as limited interaction at capacity building and awareness raising workshops. A core group of officials have, however, been activity involved in the programme and their input has been very valuable to the process.

There is a need to share the results with other local authorities and this may have been more successful if the network of cities with Sustainable Transport Professionals had been expanded and regular information sharing sessions could have taken place. This is however one of the proposals for the future of the project, once this programme end in March 2009. The results seen in Cape Town should be shared with other local authorities.

Finally, it is clear from the Urban Transit Programme that capacity building and awareness raising are key to the successful implementation of the project. Currently the staff does not have the time to research new trends or build their capacity around new thinking and the capacity building workshops have provided this information to them in easy to digest parts. As the staff becomes more equipped with the knowledge around sustainable transport and sustainability in general, they are able to successfully implement projects that promote

sustainable modes and promote a more environmentally friendly city.

4. CONCLUSION

The City of Cape Town has identified sustainable transport as a key component in its move towards a sustainable city in the future. The implementation of this vision does however mean a shift in the current way that the City operates. The City has acknowledged that the capacity constraints are a key blockage to the implementation of this vision, and that until this is addressed, large scale changes to the way in which the planning and implementation take place will be limited.

The Tran:SIT partnership has provided the city with a creative opportunity to assess how sustainable transport can play a role in the City's Transport Planning. Through the partnership, additional (new) capacity in the form of the Sustainable Transport professional will focus work in sustainable transport without taking away from other staff capacity. Project members from Sustainable Energy Africa can assist in providing input in terms of the sustainability aspects as well as focus information and training requirements for the City of Cape Town. This is particularly useful in providing the relevant sustainable transport information that the City staff members may not have time or capacity to do. The linkages with the Centre for Transport Studies at the University of Cape Town mean that the City has access to technical information that can direct their projects and work.

The shift towards sustainable transport will be a long process, particularly when comparing this to other priorities experienced in the City, including housing, health and education. The reality however is that the global environmental concerns, including air pollutants and climate change as well as the impacts of global oil peak, which will mean an increased cost in fuel prices, and this means that there is a need to change the way work is done. The work made through this partnership, will facilitate this change in the City and can be a lesson for other cities. Although the results of this partnership cannot yet be clearly visualised, it is clear that the City is thinking about transport in a more integrated way, focusing on more efficient energy modes and promoting the practices of sustainable transport.

5. REFERENCES

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