

# **URBAN NON-MOTORISED TRANSPORT (NMT): A CRITICAL LOOK AT THE DEVELOPMENT OF URBAN NMT POLICY AND PLANNING MECHANISMS IN SOUTH AFRICA FROM 1996 - 2006**

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## **ABSTRACT**

With problems of congestion and pollution in urban areas perhaps greater work is needed in terms of both infrastructure and policy alignment when it comes to urban non-motorised transport (NMT). The objective of reviewing transport planning and policy mechanisms that prevailed during 1996 and 2006 is to assess whether existing planning and policy mechanisms; (1) allow for the integration of NMT into the transport system and into infrastructure and land use planning; (2) the mechanisms facilitate the evaluation of policy to improve NMT; (3) allow for the development of road design and maintenance standards that recognise NMT as a traffic component and thereby allowing for the reduction of pedestrian and cyclist fatalities.

Literature and international experience suggests that for NMT it is non-government organisations that influence government and lobby for changes in policy, It is also found that once a policy is in place it is the local "street-level bureaucrats" who shape the policy and the in South Africa such a national policy and/or master plan has been lacking.

This analysis finds that the planning mechanisms have not always been in place during the period under review. Once they were in place, however, these mechanisms have allowed for revision and non-government influence in order to adequately recognise NMT. The challenge then became one of advocacy as has not been sufficient national and street level policy advocacy for NMT. Prevailing planning mechanisms are therefore not yet making NMT an imperative. With the challenge of policy advocacy for NMT, it is important to briefly compare policy advocacy theory with the prevailing urban NMT arena.

The production of planning documents (the Provincial Land Strategic Frameworks and the municipal Integrated Transport Plans ITPs) has failed to produce enough provincial strategies. Only two provincial NMT Plans exist to date; in the Western Cape and Kwazulu-Natal. During the review period there was no National NMT policy or provincial master plan, only a national NMT project. Between 1996 and 2006 there was no provincially driven urban NMT project.

## **1. INTRODUCTION**

Transport systems are beginning to threaten the very liveability of the cities they serve. According to the IEA (2002: 18), by 2030 60 percent of the world's population will live in urban areas. The benefits of NMT facilities in the urban context are numerous, including (but not limited to) reduced energy use, capital investments, pollution, and congestion.

NMT, around the world, is shedding the stigma of being primarily a rural mode of transport. Half of China's population rides bicycles and as many as 30 to 40 percent of Europeans follow suite, yet not even 1 percent of South Africans choose cycling as a mode of transport (Xinhua News Agency, 2007 and NHTS, 2003:50,57). The objective is not to regurgitate the advantages of NMT but to assess how successful South Africa's policy and planning mechanisms facilitated the growth of NMT in urban areas between 1996 and 2006 (for a discussion on the advantages of NMT see Guitink, Holste and Lebo, 1994)

Through a qualitative analysis; this paper seeks to analyse urban NMT policy and planning mechanisms in South Africa over a period of ten years (1996-2006); though invariably the focus must point to the historical context as well as some developments in the pipeline. This analysis aims to find out whether these mechanisms foster or deter the use of NMT. To find this out; all relevant policy and planning documentation (as well as any resultant project in place during this time) must be scrutinised to assess whether they are in line with international experience and policy analysis theory.

As a means of improving NMT this paper also addresses a major shortfall for this transport mode; which is policy advocacy. This analysis finds that the theory of coupling of streams (problem, policy/alternatives, and political streams) by Kingdon (1995) can be used to explain the major streams or components that determine if NMT gains attention in the agenda setting stage of the South African transport planning and policy making process arena, in as far as the South African urban context.

## 2. URBAN NMT IN SOUTH AFRICA

In the Department of Transport's Rural Transport Strategy, NMT is said to include Wheelbarrows; Animal-drawn vehicles (Donkeys/Horses); Bicycles; Bicycle trailers; and pedestrians. However, the focus of this paper will invariably be more on walking and cycling. Cycling in South Africa is seen primarily in two distinct lights – as a means of recreation, or a necessary mode of transport for the poor who can afford nothing else besides the other alternative, which is to walk. According to the Moving South Africa Strategy (MSA, 1998) NMT users can be divided into those that walk or cycle as a result of the unavailability of any other mode (stranded group). The second group consists of those that chose NMT over other modes (the strider group). NMT is more attractive for commuters over shorter distances.

In South Africa NMT use is more prevalent among lower income users; 58 percent of workers earning R500 or less walk to work. According to the NHTS, as income increases the proportion of NMT user's declines. In South Africa NMT users (pedestrians and cyclists) make up the majority of people who travel to work in rural areas (52.6%). As seen in Table 2.1, however, NMT does not do as well in urban and metropolitan areas.

**Table 2.1: The mode of travel of workers in the 2003 household surveys**

Area and type	Percentage of commuters					
	Train	Bus	Taxi	Car	Walk/cycle	Other
Metropolitan areas	11.2	8.1	28.4	41.0	9.1	2.2
Urban areas	1.7	6.2	27.0	35.5	25.6	4.1
Rural areas	0.5	11.6	15.1	15.8	52.6	4.4

NHTS: 2003

RTMC data suggests that pedestrians and cyclists are the most likely road users to die from road accidents. As seen in Table 2.2 the number of cyclists killed in road accidents is a relatively small percentage of the total number of fatalities.

**Table 2.2: South Africa's Pedestrian and cyclist fatalities (1984 – 2006 Oct)**

Year	Pedestrian fatalities		Cyclist fatalities		All fatalities
	Total	% of all fatalities	Total	% of all fatalities	
1984	4 348	45,2%			9 621
1985	4 042	45,0%			8 972
1986	4 359	46,6%			9 343
1987	4 723	47,7%			9 905
1988	4 990	46,7%			10 691
1989	5 118	47,0%			10 877
1990	4 985	44,7%	307	2,8%	11 157
1991	4 897	44,2%	316	2,9%	11 069
1992	4 445	43,8%	238	2,3%	10 142
1993	4 115	43,5%	282	3,0%	9 470
1994	4 122	41,3%	304	3,0%	9 981
1995	4 165	40,6%	277	2,7%	10 256
1996	3 718	37,8%	236	2,4%	9 848
1997	3 722	38,4%	244	2,5%	9 691
1998	3 452	38,1%	220	2,4%	9 068
2004	5 381	42,7%	357	2,8%	12 770
2005	5 950	47,2%	373	2,9%	14 315
2006	5 771	37,5%	328	2,1%	15 388

1985-1988 taken from Greenwood and Floor (1991:2)  
 1984-1998 taken from the RR192/126: " Pedestrian Facility Guidelines: Manual to Plan, Design, and Maintain Safe Pedestrian Facilities", Department of Transport, which quotes South African Central Statistical Services (1991, 1997) and the AA Road Traffic Safety Foundation (1998) statistics.  
 2004-2006 figures taken from RTMC (2006)

Through the use of the human capital approach de Haan (1993) found that the total cost of road accidents involving pedestrians amounted to approximately R715 million per annum (calculated according to 1991 rands. For a discussion on this and other approaches to road accident costing refer to Elvik (1994).

Safety in South Africa constitutes one of the barriers to NMT use, others are related to geographic conditions, e.g. major streams, steep slopes, climatic conditions, land use developments restricting users' movement, high volume roads, freeways and rail lines, particularly those with limited points of safe crossing.

A significant group of commuters (23%) walked to work nationally (in 2003), this is down from 26 percent in 1998. Cycling deteriorated to less than 1 percent in 2003 from 1 percent in 1998. Between 1998 and 2003, NMT modes, therefore, failed to increase their share of users. This is even when socio-economic and economic conditions have been favourable to this (NHTS, 2003 and [www.info.gov.za/aboutsa/transport.htm](http://www.info.gov.za/aboutsa/transport.htm)).

## BOX 1 URBANISATION IN SOUTH AFRICA

Other, political, economic and, socio-economic factors that mitigate for increased urban NMT use between 1996 and 2006 include:

- With the abolishing of the Group Areas Act of 1950 (Act No. 41 of 1950) in 1990 migration to urban areas then became far more permanent in nature. According to Viljoen (2005:40-41) many migrants now bring their families with them and this means not only demand for employment but also additional educational and health infrastructure.
- In 1996 an estimated 21 million (roughly 60 percent) of all South Africans people lived in urban areas (large towns, cities, and metropolitans). South Africa's urban population is estimated to have grown by one million people per annum after this. Gauteng's population is expected to double from seven million to fourteen during the years between 1997-2011 (Viljoen, 2005:40-41).
- It is argued in Viljoen (2005:40-41) that despite economic growth and the fact that South Africa's cities have increased their absorption rates and job creation; the industrial sector has not been able to meet the huge demand for employment. The increase in urbanisation and the unrelenting urban poverty suggests a need for not only urban transport but also low-cost modes of travel.

### 3. URBAN NMT POLICY AND PLANNING

The objective of interrogating a number of transport policy and planning processes is to assess whether national transport policy and planning mechanisms; allow for the objectives stated in the introduction. The focus is on the policy planning mechanisms that developed during 1996 and 2006 and then also the resultant projects.

#### 3.1. NMT planning and Policy Mechanisms

Apart from the ill-disciplined behaviour of road users (drivers, cyclists and pedestrians), the road environment is not always conducive to safeguarding the different modes of NMT; as a result in August 2003 the Engineering Manual To Plan And Design Safe Pedestrian And Bicycle Facilities was published by the DOT. (This consolidates and replaces the 1987 and 1993 manuals). The challenge that remains is to ensure that these specifications are followed in new development plans (Heyen-Perschon, 2005: 3). The manual, since 1987 has lacked the legislation to make it enforceable.

The White Paper on National Transport Policy (Sept. 1996) is the most fundamental policy document to which all other transport related policy and strategic documents should fall in line. When looking at the organisations that made submissions to the DOT while the document was a Green Paper; no NMT advocacy groups or organisations made submissions. There are current efforts within the DOT to address the fact that the White Paper fails to make mention of NMT or map out strategic objectives for this mode in the same manner that it does for the other modes.

Stemming from the White Paper On National Transport Policy and the National Land Transport Interim Arrangements Act, No.45 of 1998; the National Land Transport Transition Act (NLTTA) sets out national planning requirements with respect to land transport. It seeks to promote integration of land transport policy among all spheres of government and thereby enhances integrated transport planning. To achieve this the NLTTA obliges planning authorities to produce a number of strategic documents. The NLTTA is largely

similar to the New Zealand's Land Transport Act of 1998. The New Zealand model provides that Regional Land Transport Strategies be in line with section 175(2) of the Land Transport Act; in South Africa the Provincial Land Strategic Framework (PLSF) is a legal requirement in terms of section 22 of the National Land Transport Transition Act.

The NLTTA process aims to increase transport planning by national, provincial and, local governments. This process brought the first national regulation that acknowledged NMT. In 2002, among other requirements the Minister of Transport regulated that in preparation of PLTFs provincial planning authorities should:

- Take into account Non-motorised forms of transport;
- PLTFs must contain an indication of how non-motorised transport is provided for in the general road plan of the province, Also;
- There must be a detailed strategy to promote and encourage the use of non-motorised transport (Government Gazette Vol. 445, No. 23568, 24/07/2002 Regulation Gazette, No. 7421 No. R.1004).

The delays and lack of coherent NMT plans in the PLTFs is partly as a result of the National Land Transport Strategic Framework (NLTSF) unfortunately still in its draft state. Of the nine provinces, the DOT received seven PLTFs and none of these spelt out any strategy outside of the Shova Kalula programme, there was, therefore, no NMT planning or strategising before this programme. Projects such as the Nama Khoi and Kgalagadi Bicycle Pilot Project in the Eastern Cape all have a rural focus. The North West PLTF aims to advance NMT where volumes are not high enough to justify a return on investment and informal business. This also suggests a rural focus and the use of NMT as an urban poverty relief measure. This is somewhat admirable, considering that besides these two PLTFs, other PLTF do not detail NMT strategies. The Gauteng PLTF's NMT strategy was still in its tendering process by the end of 2006 and Gauteng is currently without any NMT strategy.

There have been some positive developments at provincial level. The Western Cape, through its Provincial Spatial Development Framework, has looked to enhance NMT. This framework requires that every municipality develop plans for fully integrated human settlements as well as Non-Motorized Transport (NMT) plans, which include pedestrian and cycle path networks. The Provincial government also aims to introduce a provincial NMT policy in 2007 (MEC Marius Fransman: 2006).

Integrated Transport Plans (ITPs) a mechanism that forms the transport component of municipal Integrated Development Plan (IDPs). Integrated development planning is an essential tools for local government in South African (MEC Trevor Fowler, 2003). The purpose of such planning is to develop strategic development plans for a five-year period in an area. The Municipal Systems Act of 2000 prescribes such planning, and the Integrated Development Plan (IDP) has legal status.

The Minimum requirements for the preparation of ITP have undergone two subsequent revisions and these have been gazetted. In order to take into account the level of detail needed in these plans - by the end of 2006 there were three types of ITPs. Core cities and metropolitan municipalities (mandated by their respective MECs) are to prepare Comprehensive Integrated Transport Plans (CITPs). All other district municipalities are to prepare District Integrated Transport Plans (DITPs). All local municipalities are to prepare Local Integrated Transport Plans (LITPs) (Government Gazette, 01/08/2003 No. 25245 No. R.1092. Government Gazette, Vol 496 06/10/2006 No. 29264)

Part of the problem with PLTFs is that they are meant to reflect what is in the ITPs yet there is yet no regulation that NMT should be incorporated into municipal ITPs. In South Africa, it is particularly important that pedestrian and bicycle considerations be comprehensively integrated into the planning process. Effective pedestrian and bicycle-orientated land-use and transportation systems planning can have significant benefits for NMT use and for this, research is needed at local government level. If the requirements for ITPs do not include NMT, then municipalities have no obligation to identified NMT network needs and NMT corridors. If this is corrected, moving forward, then IDPs will include clear goals regarding pedestrian and cyclist needs and objectives. It is within the IDP that NMT can access local government funds.

### 3.2. NMT Projects

Before 2001 there was no direct government programme, policy, or planning mechanism to encourage the use of NMT. The Department of Transport (DOT), with its national bicycle initiative known as Shova Kalula initiated the first national NMT programme in South Africa's history. This programme initially aimed to target the estimated 350,000 secondary school students and 445,000 primary school students who currently walk more than 3 km to school and who did not have access to subsidised buses and trains. Shova Kalula also aimed to provide bicycles to the estimated 573,000 urban workers and 472,000 rural workers who walk for more than 20 minutes daily to get to work (DOT, 2007).

Like the Ugandan NMT Master Plan where the lobbying for reform came from development agencies; the initial impetus for the Shova Kalula programme came from the non-government organisation, though the programme is driven by government (Mahapa, 2003:i). Stakeholder involvement in this programme, since 2001, has been substantial and consistent with NMT and policy analysis theory. The programme was conducted in partnership with provincial and local governments, NGOs, (mainly Afribike (from 2001 till 2002) and partners in the US, UK and the Netherlands.

Shova Kalula comprises of low-cost, new and used bicycles and a delivery chain that includes a container-based shop, a cycle repair training course and light engineering modifications to produce load carrying work-cycles. It also incorporates a scholar programme and a women's training programme. The total number of Shova Kalula bicycle shops established to date is 22. The target market is price sensitive as can be seen from the link between the number of units sold and the extent of subsidisation. In some cases bicycles are sold for R98, 00. Shova Kalula has expanded to the infrastructural component of NMT through the funding of citywide bicycle-transport infrastructure networks. Between 2001 and 2006, the programme set up bicycle micro businesses nation-wide used these to distribute affordable bicycles.

Overall, most provinces supported the introduction and implementation of the Shova Kalula Project. Table 3.2.1 reflects the amount allocated and bicycles distributed with DoT funds to various provinces for the Shova Kalula programme based on the assessment of business plans. The total number of bicycles distributed by provinces with the funding from the DoT is 2478. The amount that has been set aside for funding of the project by the government is R10 Million, up to this far; a total amount of R7 954 000 (excluding the R836 000 that was budgeted for the Eastern Cape) has been committed for this project. The money was allocated according to business plans, which were received from all provinces except for the Western Cape (their business plan is outstanding despite follow ups and letters written to them), though the Western Cape provincial NMT strategy has been developed. The figure for Gauteng includes the R750 000 spent on the Attridgeville NMT infrastructure (DOT, 2007).

**Table 3.2.1: Shova Kalula programme (as per the end of June 2006)**

Province	Amount allocated in rands	Bicycle distributed
KwaZulu-Natal	1 900 000	300
Free State	879 000	250
North West	845 000	1138
Northern Cape	1 025 000	200
Gauteng	1 600 000	90
Limpopo	800 000	250
Mpumalanga	905 000	200
Eastern Cape	836 000	50
Western Cape	000 000	0
<b>Total</b>	<b>8 790 000</b>	<b>2 478</b>

Source: DOT, 2007

Challenges with regards to this programme are said to revolve around the sustainability of the programme and the fact that there has previously been no financial commitment from local government. The distribution of bicycles is said to be unsustainable if it is not coupled with a demand responsive bicycle track network. As a result of the lack of space on the shoulders of some urban roads and the lack of research into where the demand is for bicycles; it is difficult to build such a network (DOT, 2007).

The DOT has recognised the need for additional funding. As from 2007 - to make it possible for the distribution of 1 million bicycles in ten years (2007-2017) – each provincial government will be obliged to contribute R5 million towards NMT for each financial year. According to Mr Whity Maphakela (who is the Senior Project Manager of the Shova Kalula programme for the DOT, there is still a need for national NMT policy and legislation from which the programme will be based and planning authorities will be able to enforce NMT planning and funding.

According to the World Bank; to be fully effective, NMT strategies should fall within the framework of a national NMT policy. According to Mr. Maphakela, the policy must reflect what occurs on the ground and for this research at local level is needed insofar as what the policy should address. This is consistent with the circular policy cycle and with the argument made by Hill & Hupe (2002:49-50) when specifying the role of street-level bureaucrats. Hill & Hupe (2002:49-50) argue that street-level bureaucrats sharpen, shape, and formulate policies; making them conducive to the environment they are dealing with. Street-level bureaucrats work at the lower level of the bureaucracy, as delivery-point officials, who interact with their customers or clients on a daily basis. They are responsible for implementing policies given to them by their superiors. Any efforts within the DOT to formulate both a walking and a cycling policy will require street-level bureaucrats and policy advocacy in order to make such policies relevant to rural and urban NMT users and potential users.

In South Africa there is a considerable non-governmental and private sector involvement in NMT (though this is has not translated into policy advocacy). The Bicycle Empowerment Network (BEN) (a section 21 company) supports and promotes cycling in the Western Cape. Despite the province's failure to submit a business plan (and therefore were not able to access any funding from the DOT through the Shova Kalula Project) BEN has remained financially viable over a period of four years (2002-2005). With support from the private sector, BEN has built up total assets worth R928 931; increasing total assets figure by R289 418 from the 2004 financial year (BEN annual reports, 2004 and 2005).

In view of the social benefits associated with cycling and the efforts made by the Western Cape government in so far as the involvement of the private sector in the development of a Western Cape NMT strategy, the private sector has also come on board. In 2004,

Vodacom, one of South Africa's mobile Network providers, sponsored 110 bicycles through a schools program organised by the BEN. BEN's subsequent evaluation of the program indicated that in 2005 there was a 70 percent improvement in school attendance by the students. Out of the 110 bikes originally distributed, more than two-thirds were still being used regularly a year later.

#### 4. POLICY ADVOCACY

For problems to reach the policy formulation and the policy implementation stage (Dunn, 1994: 17) 'Why do decision makers pay attention to one issue rather than another?' this is what Kingdon (1995: 2) aims to answer and the theory he proposes can explain NMT advocacy in South Africa.

In this context the word 'Agenda' does not refer to a list of subjects to be discussed in a meeting. Here, an agenda will refer to problems and subjects that government officials and related officials are paying attention to at some point in time. How much attention is given to an issue will depend on how high up on the agenda the issue is (Kingdon: 1995: 3) Howlett and Ramesh (1995: 113) distinguish between two types of agenda setting, namely systemic and institutional. The systemic agenda is a broader set of issues facing society; an issue here may or may not receive attention. The institutional agenda, on the other hand, is the list of problems receiving formal attention by the government. Therefore, the public agenda (systemic agenda) is an agenda for discussion while the institutional agenda is an agenda for action.

Kingdon (1995: 90) points out systematic indicators that elevate a subject into becoming an issue for agenda consideration. One way of understanding and then reinforcing the development of NMT is by dissecting the number of components needed to alleviate NMT as an issue. Kingdon identifies three critical components (stream) and concludes that it is the coupling of these streams that ensures that an issue receives attention at the decision agenda. The theory of coupling of streams (Kingdon's (1995) problem, policy/alternatives, and political streams) can therefore provide a unique way of viewing NMT development

##### *Problem stream:*

Problems in a policy arena may lead to a matter coming to prominence. Problems are said to start from an abnormal condition. It is only when this condition has been noted and government officials feel that a change should be enforced will the condition become a problem (Kingdon: 1995: 111). There are numerous ways problems gain recognition from government. If set targets are not being achieved managers recognise this as a problem. NMT between 1996 and 2006 gained much attention as a result of the socio economic problems that are proven to be mitigated by NMT. NMT is seen to remedy a number of urban problems and this is one of the ways policy makers and planners are beginning to take NMT seriously.

##### *Policy/Alternatives stream:*

Policy analysts, as part of the policy cycle will participate in agenda setting. According to Kingdon (1995: 139) it is not often government agencies that formulate alternatives but often it is research consultants and academics that advocate for policy changes. I have already highlighted how the *problem* stream can be one route whereby an issue can grab the attention of policy makers. As a policy alternative- an issue can also get attention in the systemic agenda. But what makes policy makers consider other alternatives instead of others? There are two critical components an idea needs in order to stay in contention for consideration. Policy alternatives should also be congruent with values of the community; policies should also be technically feasible in order to get serious consideration



### *Political stream:*

The final stream that Kingdon points out is the political spectrum. To this point Kingdon: (1995:155) states that both visible and hidden participants influence policy. Visible actors are those that get highlighted by the media and get public attention (in transport in SA this would be the National Minister for transport and senior government officials.) Hidden actors are for example, academics and specialists in their fields (in transport policy and planning, the policy consultants and analysts who mainly formulate alternatives from which visible actors will set the agenda) (Kingdon: 1995: 199). Change in this stream can come from deliberate campaigns to change perceptions and create a social movement. NMT is starting to gain advances in the political stream with the Minister of Transport and other government officials partaking in NMT demonstrations.

## **5. RECOMMENDATIONS AND CONCLUSIONS**

### *Coupling of streams:*

Part of the reason for the rising fatality rate of pedestrians and cyclists is because NMT advocates have not been able to influence planning and policy. NMT alternatives are in the systematic and not the institutional agenda. Within the policy cycle an issue moves from being virtually ignored (like NMT throughout the 1990s) to penetrating the government agenda (as NMT has done with the between 1996 and the formulation of the Shova Kalula programme) where the issue is known and government officials are paying attention to the issue but no action is taken. When the issue gains more momentum, it then moves to the decision agenda where it not only receives attention but also stimulates decisions from policymakers (it can be argued that NMT is yet to stimulate serious and wide-spread action from government). There is therefore a need for decisive action in a coordinated manner to strengthen the streams and effective advocacy. The manner by which NMT has gained attention in policy-making agendas in countries such as Uganda and the Netherlands corresponds with Kingdon's (1995:3) coupling of streams theory. In this case the problem stream being coupled with the policy/alternatives stream. When an issue such as urban NMT is able to couple all three streams (briefly defined here) then urban NMT will penetrate the institutional agenda. Here the NMT policy being advocated is seen to be suitable for the problem at hand and also to be compatible with the dominant political ideology (Kingdon, 1995: 201-202).

It is important, therefore, for policy practitioners, in order to get attention for their NMT recommendations, to come up with policies that anticipated not only problems in the problem stream but also factors such as budgeting and public values together with political acceptance (which is discussed below) (Kingdon: 1995: 201-202). National government should also look to strengthen each of these advocacy streams.

Though this was not the case until 2002; NMT planning mechanisms are in place and integrated into both the land transport and land use planning mechanisms. This is thanks to the regulations and amendments that have occurred in the NLTTA process. These amendments are in line with the policymaking process as depicted by Dunn (1994: 17). National transport policy evaluation and the revision of planning mechanisms in South Africa are adequate. NMT, from the above analysis still has to influence the urban action agenda. Specific economic, socio-economic, political factors, allow for the growth of NMT both in urban South Africa and in other countries. NMT however needs to be further integrated into the municipal ITPs.

According to DOT officials, there has not been enough capacity at local level to ensure that the ITPs (along with other required documents) are prepared and form part of the transport component of municipal IDPs. With PLTFs, most did not have any strategy for NMT and

none of those that did managed to address NMT for urban areas. Therefore though the NLTTA process allows for the integration of transport into land use plans there are capacity constraints that hinder meaningful compliance.

To achieve the integration of NMT, as a mode of transport, the DOT is set to formulate the South African National Cycling Strategy, Animal Drawn Vehicles Guidelines, and the Walking and Pedestrian Guidelines (DOT Strategic Plan 2006-2009). There is yet no national policy on NMT or master plan to ensure continues NMT recognition, implementation and a review process. Between 1996 and 2006, it is evident that NMT has only been an add-on in as far as planning and the NLTTA process. Projects are also not grounded on any national NMT policy or master plan. Some provinces have, therefore, not placed NMT high on the agenda. Other provinces recognise the importance of NMT and have sourced international organisations dealing with NMT for assistance without the guidance of national government.

One of the problems noted above is that there is very little research that has been done on the benefits of NMT in urban South Africa. The NHTS (2003) provides critical and previously unavailable statistics on NMT modes. It is then the street bureaucrats that should localise such research and ensure that transport policy takes local conditions into account.

## 6. REFERENCES

- [1] BEN annual reports, 2004 and 2005. Bicycle Empowerment Network
- [2] De Haan, L. M. An estimate of the unit cost of road traffic collisions in South Africa for 1991. RR 91/113
- [3] DOT 2007, Interviews were conducted with Mr Whity Maphakela: Senior project manager, Shova Kalula programme at the DOT and Mr Elmon Maake: Deputy Director, Policy Strategy and Implementation.
- [4] DOT Strategic Plan. 2006-2009. Branch Transport Policy, Research and Economic Analysis (accessed 10 May 2006) URL> <http://www.transport.gov.za/>.
- [5] Dunn, W. N. 1994 Public policy analysis: an introduction, 2<sup>nd</sup> ed. Englewood Cliff. Prentice-Hall.
- [6] Elvik, R. 1995. "An Evaluation Of Official Economic Valuations Of Traffic Accident Fatalities in 20 Motorised Countries" in Accident Analysis and Prevention Vol 27, No 26, Pg 237-247
- [7] Greenwood P.D. and Floor B.C. 1991. RR 91/113 An estimate of the unit cost of road traffic collisions in South Africa for 1991 Commissioned by the South African Roads Board
- [8] Guitink, P. Holste, S. and Lebo, J. 1994. Non-Motorized Transport: Confronting Poverty Through Affordable Mobility. The World Bank: Transportation, Water And Urban.
- [9] Heyen-Perschon, J. 2005. Making the African cities mobile: Non-motorized transport solutions in African cities, The case of Jinja/Uganda, ITDP Europe.
- [10] Hill, M. and Hupe, P. 2002. Implementing public policy. London. SAGE Publications.
- [11] Howlett, M. and Ramesh, M. 1995. Studying Public Policy: policy cycles and policy subsystems. Oxford. Oxford University Press.

- [12] I-ce, 2000. The significance of non-motorised transport for developing countries: strategies for policy development, World Bank, Urban Transport Strategy Review. (<http://wbln0018.worldbank.org/transport/utsr.nsf>).
- [13] IEA. 2002. Bus Systems For The Future: Achieving Sustainable Transport Worldwide. OECD
- [14] Jacobsen, P L .2003. "Safety in numbers: More walkers and bicyclists, safer walking and bicycling". In Injury Prevention Vol 9. pp 205-209.
- [15] Kingdon, J. N. 1995. Agendas, alternatives and public policy. 2<sup>nd</sup> ed. New York, Harper Collins College.
- [16] Mahapa, S. 2003. Integrating Gender Into World Bank Financed Transport Programmes: Case Study, South Africa, Shova Kalula (Accessed 2 August 2006) URL> <http://www4.worldbank.org/afr/ssatp/Resources/HTML/Gender-RG/module6/index-p3.html>
- [17] MEC Marius Fransman. 2006. Address by the MEC for Transport & Public Works Velo Mondial Conference 6th February 2006 (accessed 20 June 2006) URL>[www.velomondial2006.com/pdf/MEC%20Marius%20Fransman.pdf](http://www.velomondial2006.com/pdf/MEC%20Marius%20Fransman.pdf)
- [18] MEC Trevor Fowler. 2003. Address by Gauteng Development Planning and Local Government MEC Trevor Fowler on the tabling of Departmental Annual Report to the Legislature (accessed 15 May 2006) URL><http://www.gpg.gov.za/docs/sp/2003/sp0826c.html>
- [19] MSA. 1998. Moving South Africa Strategy: Urban Passengers: Current Situation and System Performance. (Accessed 20 June 2006) URL><http://www.transport.gov.za/projects/msa/msareport/msadraft82.html>
- [20] NHTS. 2003. National Household Travel Survey 2003 Technical Report. Department of Transport.
- [21] Pedestrian Facilities", Department of Transport, Pretoria
- [22] RR192/126: "Pedestrian Facility Guidelines: Manual to Plan, Design, and Maintain Safe
- [23] Viljoen, J.H. 2005. Migration Patterns Of Foreign Informal Traders At The Hartebeespoort Dam. University of South Africa.
- [24] Xinhua News Agency. 2007. Half Of Urban Residents Choose Bicycle For Commuting. (Accessed 4 January 2007) URL><http://www.china.org.cn/english/China/194908.htm>