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## **ABSTRACT**

### **Mainstreaming NMT in transport policy and planning in Transition economies: A case for Accra**

It is a World Bank policy though to provide for Non-Motorised Transport the general attitude and commitment by decision makers, planners and engineers in Ministries Department and Agencies is quite ambivalent. The bank has granted several millions of dollars to fund road projects in third world countries with a presupposed inevitable condition of providing Non-Motorised Transport (NMT) facilities. Unfortunately some decision-makers have viewed the provision of NMT facilities as inappropriate use of funds since they only care probably about the motor carriageway on which they could drive their motor vehicles. The irony is that money is granted for the road projects on the condition that NMT has been incorporated. Where provision has been made they are piecemeal and they lack the basic requirements of NMT facilities. Whilst it is easy for motor vehicle to travel on an all weather road facility such is not the case for Non-motor Vehicle (NMV). In most countries, whilst there exist comprehensive master plan documents for motor carriageway networks there is no such provision for NMT. Ghana is one such case. One major contributory factor is that presently there is no National Transport Policy which identifies and prioritises NMT stating clearly its objectives and role in economic development.

This therefore creates an opportunity for Civil Society Organizations (CSOs) to advocate and spearhead the development of Bicycle masterplans which meets the basic requirements of NMT facilities. The challenge here is how to strategize to have decision makers buy-in and own the concept. The approach therefore is to adopt an integrated planning concept which attempts to make provision for all modes in a most efficient and effective manner. CSOs could bring their expertise to bear and this must be very strategic to ensure acceptance and buy-in by local authorities. On the international donor front CSOs should use available products to advocate for the proper integration of NMT in projects and donors should sponsor development of comprehensive NMT master plans.

## 1.0 Introduction

Bicycle as a means of transport is not new in Ghana. It is still an efficient means of transport in the North of Ghana. Though few people cycle in the south of Ghana comparatively, it is generally not an acceptable means of transport. For most motorists they indicate that cyclists are a nuisance. Nonetheless due to several reasons such as traffic congestion, during peak hours, cost of transport etc bicycle use is trickling up in the south. Cyclists defy all threats and despite dangers posed by motor vehicles and insist on their use of the roadway. This poses potential safety issues. A serious look at cycling for that matter non-motorised transport by the government is incumbent.

This paper attempts to give an overview of the cycling situation in Ghana.

### 1.1 CSO Involvement in Accra

#### 1.1.1 NMT in transport policy and Planning

In 1974 Ghana's road and traffic regulations was revised when she had to change from driving on the left to drive on the right. Since then there has been major changes in urban traffic management in most of the regional capitals. Ironically, road traffic regulations have not been revised until recently to cope with the changing trends of road traffic. This is a basic problem in that policy is dynamic and should be reviewed to reflect the changing needs and trends of the sector. The Centre for Cycling Expertise participated in the stakeholders meeting that sought to review and solicit input in the new Road traffic Act. The ACT683 of 2004 now incorporates provisions for NMT, which was muted by the centre.

In terms of infrastructure provisions, it is a World Bank policy though to provide for Non-Motorised Transport the general attitude and commitment by decision makers, planners and engineers in Ministries Department and Agencies is quite ambivalent. The bank has granted several millions of dollars to fund road projects in third world countries with a presupposed inevitable condition of providing Non-Motorised Transport (NMT) facilities. Unfortunately some decision-makers have viewed the provision of NMT facilities as inappropriate use of funds since they only care probably about the motor carriageway on which they could drive their motor vehicles. The

irony is that money is granted for the road projects on the condition that NMT has been incorporated. Where provision has been made they are piecemeal and they lack the basic requirements of NMT facilities. Whilst it is easy for motor vehicle to travel on an all weather road facility such is not the case for Non-motor Vehicle (NMV). In most countries, whilst there exist comprehensive master plan documents for motor carriageway networks there is no such provision for NMT. Ghana is one such case. One major contributory factor is that presently there is no National Transport Policy, which identifies and prioritises NMT stating clearly its objectives and role in economic development. The Ministry of Road transport has engaged a Consultant to draft a National Transport Policy for Ghana. The Centre through stakeholder and private meetings is providing relevant information to the Consultant to ensure that the needs of NMVs are adequately catered for in the policy document. Owing to the fact that there is no existing plan that characterises NMT the Centre has been working assiduously in collaboration with the Department of Urban Roads to develop the first ever Bicycle Masterplan (BMP) for the Capital City and eventually for the regional capitals. As part of this the Centre has conducted mobility survey studies to provide information on Cyclists especially as this is non-existent. The BMP document which will be a strategic policy document will at the same time provide information for a comprehensive network of the National Capital territory and provide some details such as what type of bike facility is required for a particular route. Already, the Centre has also supported International Consultants working for the Department of Urban Roads to provide for the relevant Bicycle infrastructure in preliminary designs in recent Contract. Portions of the networked developed have been adopted. The bike network is shown on page 5.

Obviously one major issue is the lack of technical know-how of integrating NMT into road network. Without mincing words our University trains engineers generally to design for motorcars. I cannot agree more with Steve Norris (The Chairman of The National Cycle Strategy Board, UK) in making this statement at the recent velocity Conference in Paris quote and unquote *"We don't lack enthusiasm because we have it; we don't lack money because we can raise it What we lack is technical knowledge in the UK"*

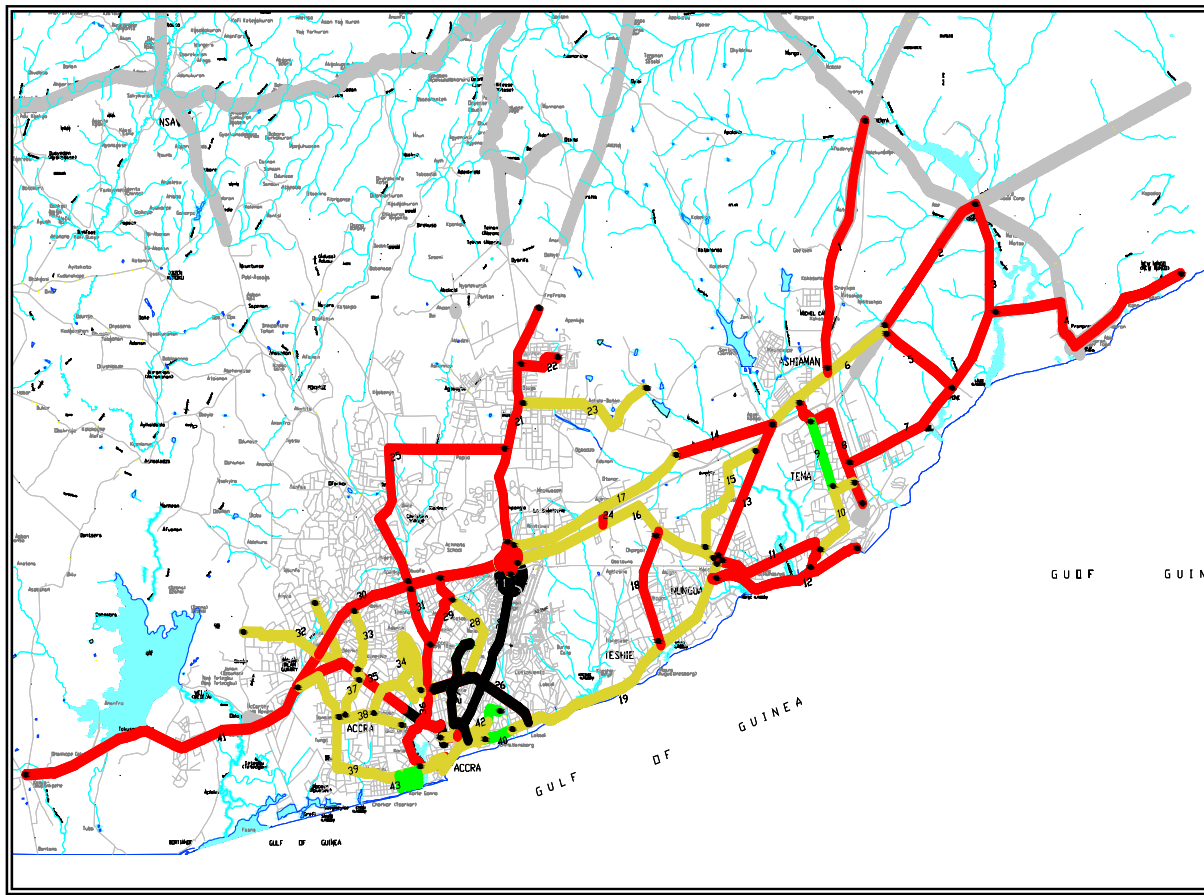


Fig 1: Accra Bicycle Master plan

The general lack of knowledge in this area provides a platform and interface for CSOs such as CCE to stand in the gap. The Centre recently organised a workshop for city planners and Engineers to discuss issues on NMT including planning and design. The Centre has also supported some staff in Government agencies to attend international conferences on NMT to give them a better appreciation of the facts.

### 1.1.2 The Cycling Situation in Ghana

Owing to the fact that cycling is prominent in the North of Ghana, and trickling up in the south, cycling and for that matter non-motorised transport should be identified as a policy aim. Such is not the case. In a recent urban project in Bolgatanga (the capital of the Upper East region of Ghana), the design of road network, which made special provision for cyclists, was rejected by the decision-makers of the region and demanded a dual carriageway. The reason being that there was a dual carriageway through every regional capital, which they conjectured, was a mark of significance in all the regional capitals. This was complied with on political grounds and cycle

provision for an area with high rate of bicycle use was rejected. This may not be only considered as a lack of political will but more importantly the absence of an integrated and coherent transport system policy for the nation as a whole. Cyclists in Bolgatanga compete with motorised transport on the roadway and tacitly have a right of way.

In the early 90's Accra the capital of Ghana under the urban transport project sponsored by the World Bank, saw a facelift in the central business district (CBD) and some parts of the capital. Under this project approximately 50km of cycle track (NMV routes) was earmarked with approximately 13 Km being constructed. At present cyclists hardly use these tracks for a number of reasons some of which are stated below.

- Absence of NMV provision in transport policy and road traffic regulation
- Lack of knowledge of cycle provision
- Cycle track lack coherence and leads to nowhere
- A vehement attitude by motorised traffic towards non motor traffic
- Obstruction on cycle tracks by hawkers and advertising boards
- Inadequate provision of traffic signalling at intersections for NMV.
- Inadequate safety provisions for cyclist



Fig. 1 Cycle track along graphic road



Fig. 2. Cycle track along ringway estate road

As it were these cycle tracks in the CBD and other parts of the city are not being used as one would have expected. Presently, cyclists could be identified in the stream of traffic. From the standpoint of safety, the situation is very crucial. Government therefore needs to critically review her position on non-motorised

transport. The Centre has been advocating for the technical review of the existing provisions and has compiled a photo-data indicating already what needs to be done at specific locations. From recent studies conducted by the centre, it was revealed that the major issue for ardent cyclists was safety. Indications were also that should the infrastructure be improved to accommodate cyclists many more people will take to cycling. From the mobility surveys it was revealed that nearly nine percent of the responders commute by bike.

### **1.1.3 Attitudes towards NMT : Culture or transport**

Some people admit that cycling is not a Ghanaian or rather southern Ghana culture. Others say the warm weather does not make cycling conducive. Well, good enough. Shall we ponder over these thoughts?

- Is it our “culture” to queue hours on end under the same weather conditions during peak hours for public transport?
- Is it our “culture” to drive cars? We do not manufacture them.
- A notion for the poor? In fact in that case can the poor really afford a bike?

Ghana is neither a vehicle nor oil producing country. Motor vehicle has been adopted for the purposes of transport and not culture. In this light cycling could therefore be looked at as an alternate means of transport and not as a cultural semblance. Cycling has a tremendous economic significance on economies.

From a study by Interface for cycling Expertise, it has been discovered that in the developing countries, more than 1.3 billion people have to survive on less than 1 dollar a day. For this group, as well as for large group of less poor people, transport is a very costly item, and a bus ticket is an enormous outlay that is often simply too expensive,.

If such people are provided with a cheap means of transport like the bicycle, the reduction in travel cost has a number of positive effects:

- Increased disposable income due to lower travel costs
- Access to a larger labour market
- Larger potential market

- Better access to amenities such as health car
- More time for social, economic and recreational activities.

The poorest groups can only purchase a bicycle if they receive direct financial support. In the Tanzanian city of Morogoro, 65% of all journeys are travelled on foot, and the bicycle would be a good alternative on many of those journeys. The fact that a quarter of bicycle journeys are made with a hired bicycle confirms that it too expensive for many people to buy a bicycle. Yet, although people do not have the money to buy their own bicycle, the total amount they spend in one year on public transport is often higher than the price of a bicycle.

The study further indicates that, on a bicycle you can travel an average of four times further than walking in the same amount of time. Both when walking and cycling, you can cover a greater distance if the road surface is good quality.

Some African examples give an idea of the economic opportunities: in the city of Temeke in Tanzania it was calculated that a market attended mainly by people on foot is accessible to 115,000 people, but it is too far away for some people. Improving the route network for pedestrians would shorten the travelling time and make the market accessible to 190,000 people.

In cities with a lot of congestion, the bicycle is not only faster than walking; it can also be faster than travelling by car or bus, particularly on journeys. The average speed of car traffic during the rush hour is often no greater than 10 kilometres per hour. The average speed of a bus over a whole day is often lower than that of the bicycle anyway – for example in Bogotá this is just 9 kilometres per hour. There fore, cyclist can save not only money, they can also save time.

Better facilities also increase the potential of bicycle for transporting goods. A bicycle can transport up to 200 kilos of goods on a hard, flat road surface. This is less on an unpaved road surface.

In one of its reports, the World Bank describes a situation in Ghana. In villages just outside the capital city of Accra, women sell oranges they have cultivated themselves

at very low prices, because demand is limited in their immediate environment. They walk to markets in the village, carrying the oranges on their heads. Around 15 kilometres further away in the city of Accra, the supply of oranges is low and the prices are high. A distance like this can easily be covered by bicycle. If these women had bicycles, they could increase their income considerably. Furthermore, they would then have more time and energy to cultivate their land and then increase their production. The bicycle would increase both their sphere of activity and their transport capacity. A bicycle can transport approximately 50 kilos of goods at a speed of 8 to 10kph. Walking, it is possible to transport around 25 kilos at a speed of 3 to 4 kph. The transport capacity of the bicycle is therefore around 5 times greater than on foot, apart from the energy saved.

The study draws an inference that the bicycle is cheaper than all other means of transport. Particularly in developing countries, bicycle use has significant effects on the level of prosperity. Moreover, it considerably increases access to the labour market and the accessibility of markets, when people's only alternative is to walk. Amenities also become more accessible.

#### **1.1.4 The Bicycle**

Bicycle influx into the country is shocking and interesting. The following chart in Fig 1 shows bicycle imports into the country. It therefore indicates that over the past nine years the estimated total number of bicycles imported into the country is nearly 3 million. What we need to know is the cycle ownership in the urban areas and generally for the region. A previous study by Grieco et al shows that cycle ownership in the three uppermost regions (i.e. Upper West, Upper East and Northern) was around 53 per 1000 persons some 65% higher than that of Accra. The Centre suggests a review of this study in that there is a strong feeling that the trend is changing. Bicycle ownership in Accra may be increasing.

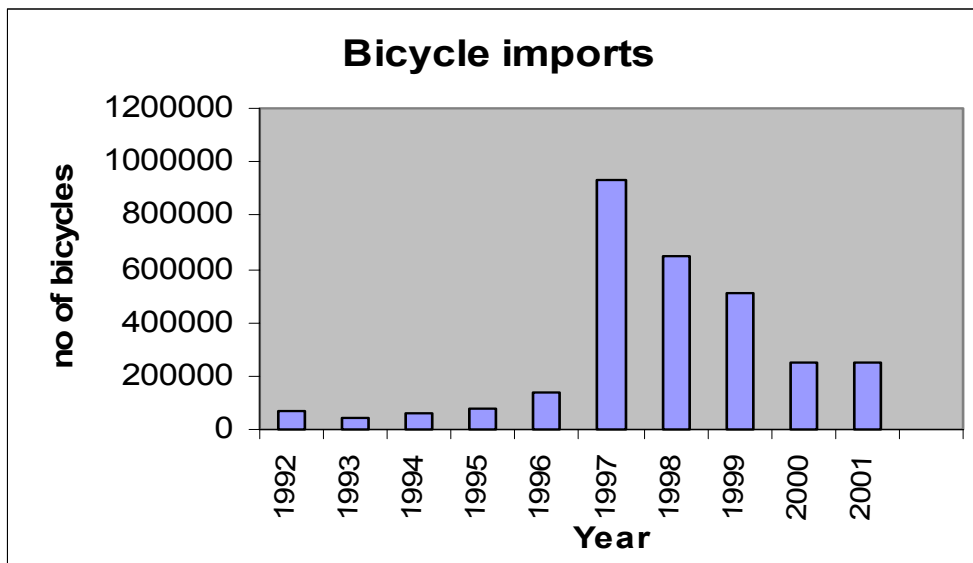


Fig 1. Bicycle imports. (Source GSS, External trade section, May, 02)

Another area that may be worth knowing is the importation trend. Imports from 1992 to 1996 were less than 100,000 and suddenly increased by 1000% in 1997. The imports show a gradual decline from 1998 to 2001. Generally riding bicycle south of Ghana is an arduous task. It may be an interesting research to ascertain the reason behind the decline in importation.

Bicycle imports into Ghana do not attract duty. Today, both new and used bicycle can be obtained from the open market. A Used mountain bicycle, which is in fairly good condition cost about US\$ 40 whilst a racer bicycle costs about US\$ 50. A new bicycle costs US\$50-400 depending on the brand.

## 1.2 Highlights of CSO involvement in Developing Countries

The following gives a highlight on missions and aims of CSOs in different countries and what they are doing in contributing to promoting and giving the bicycle a good image.

### **The Association for Advancing Low Cost Mobility (AALOCOM) in Tanzania**

#### Mission

To consolidate efforts to promote the use of low cost mobility /means of transport to improve opportunities for social / economic advancement with emphasis on poverty

alleviation and to influence integration of the Low Cost Mobility (LCM) issues in the country's policy and planning including taxation policy as well as design of road

#### Aim

Implement a demonstration project involving mobilizing 6 groups of self-employed women and youth, provide them with work-bicycles, training and related resources, boost transportation efficiency, level of access, productivity and income of groups of self employed women and youth in Tanzania, establish compelling individual case studies that demonstrate how Low Cost Mobility (LCM) and LCM initiatives are vital to economic development and poverty alleviation, lay foundation for larger projects.

A Demonstration Project to enhance Safe Routes to Schools by facilitating the creation of cycling and pedestrian environment, which is safe for schoolchildren. These "Safe Routes" are also expected to benefit other citizens, especially the elderly and the disabled.

The Demonstration Project aims at enhancing Safe Routes to Schools by facilitating the creation of cycling and pedestrian environment, which is safe for school children. These "Safe Routes" are also expected to benefit other citizens, especially the elderly and the disabled.

### **Centre for the Study of Development Society VSIDS and Lokayan, India.**

#### Missions

CSDS has a particular focus on policy research with special emphasis upon socially disadvantaged and marginalized groups of civil society. Lokayan started out as a project of CSDA. Its principal aim is to work on people's development and democracy besides promoting meaningful dialogue between policy makers, statesmen, bureaucrats, academics and intellectuals and social activists on those issues.

#### Aim

Through the project we wish to address two components of low cost mobility, cycle and cycle rickshaw. Both modes of transport are important components of low cost

mobility and cater to different constituencies. Cycle is a mode of individual and personal mobility. Cycle rickshaw is a mode of public transportation. If the urban infrastructure, policy, and plans are modified, the entire scenario of mass mobility has the potential to change. It would have far reaching impact on the poor and marginalized sections of society, but the changes thus brought in would benefit the society at large. Self-reliance would increase. Import of petroleum products would be reduced which would bring about a qualitative improvement in the quality of life. Effects of environmental degradation and pollution would be considerably reduced. Employment opportunities for the poor would be augmented and the road system based on unequal access and utilization of the urban road space would be transformed.

### **First African Bicycle Information Office, FABIO, UGANDA**

#### **Mission**

To empower the people of Uganda by accessing them with bicycles, quality information, imparting skills and knowledge on issues of development, promotion of non-motorized mobility as well as advocating and lobbying for its recognition as a key tool of production.

#### **Aim**

- Enhance networking, advocacy, and lobby
- To share practical experiences from places where related programmes have been successful. Transfers of such expertise to the local service deliveries so as to ensure sustainability
- Influence change of attitude and cultures that affect promotion of low cost mobility
- Enhance existing efforts
- Collect, analyse package and disseminate relevant information to all stakeholders (documentation)
- To share information of successful stories within and without Africa.

## **Firefly Brigade in the Philippines**

### **Mission**

The Firefly Brigade is a citizens action group to work for clean air and a habitable, people-friendly environment in our cities. Bicycle advocacy is one arena of development work. As many in the sustainable transport movement stress, our work is not about bicycle lanes, bicycles racks or bicycles alone. Our work with bicycles is about many “big” words like accessibility for all, social equity and ecological sustainability. It is about health and safety, public participation and transparency. Thus, bicycle advocacy is about using the bicycle as a means to raising the voices of local communities (especially poor communities), pedestrians, and non motorized transport users to push for making a difference with positive impacts.

### **Aim**

- To pilot a demonstration program on the use of the bicycle as an entry point in addressing focal concerns on the environment, on economics and on people's empowerment
- To use the bicycle as an entry point to plan, implement, and evaluate a community-based integrated development program with potential for expansion and replication
- To utilize the experiences and insights of this program for vigorous policy and legislative advocacy to push for the bicycle and non motorized transport in Philippine transport planning.

## **Intermediate Technology Development Group ITDG East Africa in Kenya**

### **Mission**

To build the technical skills of poor people in developing countries enabling them to improve the quality of their lives and that of future generations. The Organization is working in seven technology areas – Urban Livelihoods and Shelter, Energy, Transport, Manufacturing, Food Security, Agro-processing and Disaster Mitigation (including conflict management and resolution)

#### Aim

- To build capacities of local communities and institutions in planning, designing and implementing cycling infrastructure
- To develop appropriate policy and regulatory framework for cyclists and other road users
- To establish a sustainable system for effective planning, designing, implementation and maintenance of local cycling infrastructure developed
- To enhance commitment, improve capacity and linkages of stakeholder organization to lobby for resources and influence policy
- To build technical expertise in planning and implementing cycling infrastructure projects of staff in partner institutions
- To increase cycling awareness and enhance road safety for cyclists
- Share and disseminate information, lessons and experiences from the with partners locally, regionally and internationally

#### **Sociedade Brasileira de Transito Amigos da Dicidade SABICI and the Bicycle Association of Florianopolis and region VIACICLO**

#### Mission

To link organizations that promote cycling as a mode of transport and to guarantee the inclusion of requirements for non motorized transport in the planning and design of traffic and transport, is the mission of SABICI VIACICLO aims to pursue effective and high-quality policies to promote cycling as a mode of transport.

#### Aim

To establish an expertise centre that will provide consultancy services to cities that participate in the program. These services include training and technical assistance for bicycle infrastructure projects and pilot projects in the cities. Another aim is to gather and develop expertise about bicycle policies and make his information available for the cities that participate in the program

## **2.0 Opportunities and Constraints**

The CSO's opportunity in this area is the fact that there is a technological gap. This therefore creates an opportunity for Civil Society Organizations (CSOs) to advocate and spearhead the development of Bicycle masterplans, which meets the basic requirements of NMT facilities. The challenge here is how to strategize to have decision makers buy-in and own the concept. The approach therefore is to adopt an integrated planning concept which attempts to make provision for all modes in a most efficient and effective manner. CSOs could bring their expertise to bear and this must be very strategic to ensure acceptance and buy-in by local authorities. It is very important to identify key stakeholders (i.e. Ministries, Departments and agencies (MDAs)) and individuals who share this view and vision and bring them along with you. Once this has gained acceptability at this level relevant products, which have been jointly developed by stakeholders, could be laid before international donors for support. Beyond this local CSO could liaise with International CSOs in this area to lobby with available products to advocate for the proper integration of NMT in projects and donors should sponsor development of comprehensive NMT master plans. In the Accra situation CCE is working closely with the department of Urban Roads and the Ministry of Tourism and Modernisation of the capital city on such products. CCE has counterpart staff from here that constantly discusses and develops issues and plans.

It is important to note that in Ghana, similar to many developing countries less than ten percent of the population own motorcars. Yet most of the infrastructure provision supports mostly this minority. Pedestrian walkways and cycle ways are only constructed when there is major road rehabilitation whilst it is obvious that the greater population especially in built up areas are walking and cycling. These are real issues for discussion. While some donors may require that NMT is pre-requisite for funding this provision rather becomes piecemeal. If donor funding is provided to improve the quality of life of the people then it should be in the interest of the donors to ensure that the social and psychological impact of the projects are evidently addressed

### 3.0 The way forward

Cycling as mentioned earlier should be considered as a policy aim and not one of the elements of transport. Government therefore should draft a sustainable national transport policy to incorporate non-motorised transport. This would require a comprehensive study of non-motorised transport in the country and a preparation of a strategic document, which includes policy formulation, infrastructure provision and implementation procedures and safety provisions. To remove obstacles from the use of bicycle the following measures are proposed:

- Government must make bicycle use a political agenda. Govt officials should be heard making and giving positive impression about the use of bicycle.
- The Ministry of Roads and Transport must pursue a vigorous review of road design standards. Design engineers must therefore receive training through seminars and short courses in bicycle infrastructure provisions.
- A vigorous education strategy that seeks to inform the general public on the new Road Traffic Act.
- Bicycle provisions must now be demand driven. Areas where bicycle use is prominent should be identified and provision made. In the event of the availability of the BMP it should not be difficult to improve on the network in the capital and environs.
- Regular and aggressive advertisement (both print and electronic media) about the importance of the bicycle at this time in our economy
- The general populace must be made aware that the motor vehicle is inefficient for short distances and that the bicycle is the most efficient means for distances up to 5km which is commonly the average trip distance in most urban areas.

### 4.0 Some disturbing issues

Presently cyclists may be seen riding on urban arterials where some motor vehicle may be driving at 80km/hr. Cyclists may be seen on 3-lane facilities where speeds of motor vehicles are relatively high. This is an unpleasant situation, which creates potential for accident.

## 5.0 Gender issues

Current human development indices show that women are still a vulnerable group.

- Female unemployment is about 50% higher than that for male.
- 49.8% have never attended school
- 3% attain secondary or higher education compared to 29.1% and 9% respectively for males.
- Adult literacy is lower among females at 42% than among their male counterparts at 64%

(Vision 2020 document, 1997)

In most rural setting women spend and travel all day either to look for water or to forage for firewood and others. They have to carry these loads on their heads. Most women find themselves in situations like these due to financial encumbrance. Education is really the key to empowering women to become financially liberated. Education will assist women to make informed choices. In a recent Feeder Road Project the rural folks had access to credit and could purchase bicycles with trolleys. This scheme, being the first of its kind was aimed at reducing head potorage for the women folks.

Some questions remain to be answered? Where are these bicycles supposed to be ridden? If on our roads, are other motorists well informed to accommodate cyclists?