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## **Mauritius – witnessing accelerating congestion**

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# Mauritius – witnessing accelerating congestion

*Over the last twenty years or so, Mauritius has undergone a revolution in the way its society lives and works. **Marcus Enoch** says Mauritian transport policy makers are already faced with many of the problems that beset more developed economies, but with less time, experience and resources to come up with a solution.*

**M**auritius is a tiny island in the Indian Ocean just 58km north to south and 47km east to west – roughly the size of Surrey. The population, already over 1.15 million is steadily growing as is prosperity - in the 15 years from 1980, the real per capita income more than doubled.



**The increasing pressure on the roads has led to only a slight increase in the length of road network – less than 7% in the ten years to 1996.**

Demand for transport has rocketed in recent years. For instance vehicle ownership, which in 1988 was just 39 per 1000 population reached 69 per 1000 in 1998. Motorcycle and moped growth was even faster, from 37 per 1000 in 1988 to 93 per 1000 ten years later. And although 69 per 1000 for cars is very low compared to a mature car-owning society such as the UK, in Mauritius the impact in terms of congestion, the rate of accidents and pollution has been devastating.

Vehicle density per kilometre increased from 40 to 101 in the sixteen years up to 1997 and is now by far the highest such figure in Africa. Congestion is particularly bad during peak times on the Curepipe to Port Louis corridor along which large dormitory communities have developed. Journey times have increased by 40% over a ten-year period - this despite the route

being served by 350 buses a day, a third of the country's public transport journeys.

In Mauritius as a whole, worsening congestion in 1991 was calculated to cost the Mauritian economy as a whole Rs200 million a year (equivalent to £8 million or 0.5 per cent of Mauritian GDP). Since then congestion has undoubtedly increased and in economic terms become more significant.

The number of road traffic accidents more than doubled between 1988 and 1998 to 18,055 per 100,000 population although fortunately the number of fatalities and seriously injured has not experienced as large an increase. Even so, in 1998 162 people still died as a result of a road collisions. Road accidents are estimated to cost the Mauritian economy around Rs 600 million a year. Air pollution levels are also worsening.

It is not just car use which is growing. Bus use too has increased dramatically and is expected to continue to do so. National Transport Authority figures record that 174 million journeys were made by bus in 1984. By 1992 this had risen to 268 million and is expected to pass 360 million this year.

The organisation of transport in Mauritius is, as in many countries, institutionally complicated especially when one considers that the entire population is less than, for example, that of Tyneside. While responsibility for transport is largely overseen at a Government level by the Department of Land Transport, Shipping and Port Development, planning, policy making, investment, management, design, construction, regulation and enforcement functions are carried out by a myriad of agencies and organisations. The majority of public investment in transport is made through general Government budgets. However an important source of additional money for the

maintenance programme in particular, is the Road Fund. Finance for this is raised through voluntary contributions together with a ten cents per litre levy on petroleum projects.

The organisation and regulatory structure of public transport too, is currently rather ad hoc and buses are run by a mixture of the Government-owned National Transport Corporation, private companies, or by a growing number of independent operators who have been encouraged to participate by the Government. Buses are given exclusive franchises to operate along set routes through licences issued by the NTC. However, in practice some operators behave more like dolmuses or jitneys than conventional buses, with buses leaving Port Louis in the evening peak period waiting until they are full before leaving. Uneconomic trips are often not performed and running times are not observed. At the same time fares have increased dramatically, by 20% in 1997 and 30% in 1994. Taxis are also widely used and in some cases act as supplementary buses. Taxis are licensed by the National Transport Authority but there are significant numbers of unlicensed taxis in operation.

The increasing pressure on the roads has led to only a slight increase in the length of road network - less than 7% in the ten years to 1996. However, considerable investment has been made in upgrading road quality and as a result the quality of the road network has markedly improved over the last decade. The First and Second Highway projects aimed to upgrade horizontal and vertical alignment and surfacing and bring signing and marking up to international standards.

Rail-based transport, which disappeared with the closure of the Curepipe to Port Louis service in 1964 is poised

to make a comeback and last year the Government was in the process of selecting a team to design and build an LRT system along the same route.

## OPTIONS FOR THE FUTURE

In a bid to deal with the worsening situation, in March 1997 a National Road Transport Policy was produced by the National Transport Authority and this outlined how transport policy should be directed over the next 15 years. In broad terms, the policy objectives and solutions proposed by the Mauritian government are similar to those advocated in the UK, the exception being that in Mauritius there are ambitious plans to extend the road network, an option which has been ruled out in the UK. But in other respects there are considerable similarities. Mauritian plans include the introduction of traffic management schemes, road pricing, a high priority for road maintenance, a more commercially viable financing regime for public transport and greater integration between modes of transport.

What is perhaps more significant is that in Mauritius, where car ownership is much lower than it is in the UK, the Government faces the same difficulties in implementing their programme. Despite the relatively low level of car use and the absence of a large car, or car-related industry, the car lobby is still able to exert strong pressure on the Government to encourage the growth in car use. From this, it seems the relationship that links more cars with greater prosperity and social progress is almost impossible to argue against, even on a tiny island in the middle of the Indian Ocean. Quite simply, as elsewhere in the world, the car is a 'must have' for the socially upwardly mobile household and democratically elected governments ignore this fact of life at their peril. The result is the Government has followed an effective policy of inaction, or at least of putting off inevitable but politically unpopular decisions.

## CONCLUSIONS

What is so compelling and depressing about the Mauritian case is that car ownership is still increasing very rapidly, despite being expensive and complicated to buy, despite being so expensive to run - and there being virtually nowhere to drive them - and in spite of their being a very cheap, well used and comprehensive transport system.

As a model, the Mauritian case demonstrates the process by which in-

creased economic activity and affluence leads to increased mobility, and how this in turn leads to an increase in car use and worsening in the quality of the environment through worse congestion, poorer air quality, and more road traffic collisions. More interesting perhaps, and more worrying, is that it points to a possible next stage in the cycle. This is where a deterioration in the environment results in fewer tourists wanting to visit, and more expensive costs to agriculture and industry wishing to transport goods. Hence a slow down in the economy.

There are two fundamental approaches to tackling this. One is to provide more capacity to accommodate the increasing demand for transport. Or one can attempt to reduce the demand. Unfortunately there are problems with both. While the current Mauritian policy of road building may make sense at first glance, ultimately the lack of resources - time, money, space - means that any such programme that would be able to keep up with the rapid increase in car use would be as undesirable as it would ultimately be ineffectual.

The Government will need to accept that more emphasis will need to be given to influencing behavioural change at the point of the system where more economic activity translates into greater transport demand. The problem with this is that policies aimed at limiting the use of the car are politically very unpopular.

In addition there is the so-called 'technology fix'. This seems to be the great hope of the developed western nations. Unfortunately for Mauritius, even if this is the case, it will probably occur too late to help them very much. This is partly because North America and Europe are likely to benefit far more quickly from technology improvements to their vehicle fleets, and partly because of their greater capacity to absorb the adverse effects of car use.

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This is a shortened version of a paper presented by Marcus Enoch, of the Energy and Environment Research Unit of the Open University, at the January meeting of UTSG in Liverpool. For more information or copies of the complete paper, you can contact Marcus Enoch. Tel: 0181 5036901. Fax: 01908 858407. Email: m.p.enoch@open.ac.uk



## Managing change in South Africa

In a speech last November the Minister of Transport in South Africa, Mr Abdulah Omar, explained how the spatial distortions of apartheid planning had located people at the periphery of the economic centres. It was a problem, he said, which until recently has been exacerbated by the concentration of new housing on cheaper land at the margins. Average distances to employment, explained the Minister, were already long by international standards, yet had to be travelled by a mostly disadvantaged majority.

He added that the public transport system was currently failing its customers - for most indicators including access time, journey time, fares, safety and security, customer goals were not being met for large numbers of passengers. The passenger transport vision for South Africa, he explained, had been set out in the Moving South Africa 20 year strategic vision and aimed for a core network of high volume and high frequency public transport corridors, especially in urban areas.

The Minister went on to say a National Land Transportation Bill had been drafted which would entrench public transport as a priority. In the past public transport management had been in the hands of the operators. Local authorities had focused on local roads, local traffic and in some cases on local whites-only municipal bus services. 'The creation of transport authorities with a mandate to plan, prioritise and monitor public transport services is indeed a huge and challenging step forward.'

He concluded by saying that regulated competition in public transport within the developing country context, was a major challenge, especially given the limited resources available.

'The creation of transport authorities with a mandate to plan, prioritise and monitor public transport services is indeed a huge and challenging step forward.'

**Abdulah Omar,  
Minister of  
Transport,  
South Africa**