



## Viewpoint

## Developing an equitable and sustainable mobility strategy for Havana



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## ABSTRACT

The particular political, economic and social conditions of the state of Cuba, in the Caribbean, have created unique possibilities for the development of a sustainable transport system in its capital city, Havana. This paper reports on the outcomes of a project to identify the possibilities and priorities for a long-term strategy for equitable and sustainable mobility for Havana. This involved almost 100 participants from Cuba and the UK in the 12 months from June 2013.

Overall, the study found a high degree of agreement amongst the transport policy community as to the three key transport issues facing Havana:

- high level of unmet demand,
- lack of available financing,
- poor state of the transport system.

Perhaps more surprisingly, it also produced a near consensus amongst the participants that any future policy should seek to increase the quality of the public transport system by:

- increasing levels of investment,
- securing efficiency savings,
- working 'smarter'.

However, it also found that this unified view is challenged by a desire for the car market to be deregulated, which would engender a very different policy approach. A strategic choice is needed now, to determine whether Havana follows a North American-style trajectory of rapid growth in car use or a less car-dependent pathway.

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## Introduction

Due to its political, economic and social history, Cuba is in a unique position as regards the possibilities for the development of a sustainable transport system in its capital, Havana.

This paper reports on the outcomes of a UK-Cuban project, promoted by the Cuban government and supported by the British Embassy in Havana, to identify the possibilities and priorities for a long-term strategy for equitable and sustainable mobility for the city of Havana. 'The curious case of Cuba' sets out exactly why the case of Cuba (and by extension Havana) is so special,

the self-explanatory 'Methodology', 'Findings from the workshops' and 'Discussion' follow and finally the 'Conclusion' outlines a series of recommendations for decision-makers and practitioners in Havana and beyond.

*The curious case of Cuba*

Table 1 presents some selected key demographic and transport indicators for Havana and Cuba.

Cuba is a curiosity because, though only 90 miles from Miami, political differences with the United States of America (USA) since the Socialist Revolution in 1959 have meant that the island's population of 11 million people has been diplomatically and economically isolated from its erstwhile dominant trading partner since

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**Table 1**

Selected transport indicators and key demographics for Havana and Cuba, 2013 except where indicated. Sources: ONEI (2014), DPPF (2014), EIU (2014), WHO (2013).

Characteristic	Unit	Havana	Cuba
Estimated GDP	US\$ per capita	n/a	5137
Population	no.	2,117,343	11,210,064
Population density	person/km <sup>2</sup>	2907	102
Urbanisation	%	100	77
Area	km <sup>2</sup>	727	110,860
Paved roads	km	29,820	3330
Road density	km/km <sup>2</sup>	0.55	4.58
Automobile ownership	no./1000 individuals	37 (est.)	28–38
Bus fleet	no.	928	23,288
Bus density	no./1000 individuals	0.4	10.9
Bus passengers	no./day (2012)	860,000	n/a
Traffic accidents	no./year	4965	11,627
Injuries	no./year	1320	8710
Fatalities	no./year	152	708

1961. Economic support was subsequently forthcoming from the Soviet Union and its allies, which by 1989 accounted for 85% of foreign trade (Díaz-Briquets & Pérez-López, 1995). However, this too ceased with the collapse of the socialist economies of Eastern Europe from late 1989 to 1993, and especially of the Soviet Union itself in December 1991. The disappearance of the Soviet trading system deprived Cuba of foreign exchange, reducing import capacity by 75% (from 8.1 billion Cuban Pesos in 1989 to 2.0 billion Cuban Pesos in 1993). Unsurprisingly, these events led to the adoption of emergency measures, with the government tightly rationing scarce resources, including oil, resulting in reductions in the supply of public utilities, scheduled blackouts, and reduced industrial production. From 1989 to 1993, fuel imports were cut by 76%, and imports of transport equipment fell by 86%; the government also began to introduce economic reforms to increase hard-currency revenues through foreign investment and restructure the Cuban economy to become more market-based.

At the same time as cutting supplies of fuel, vehicles and spare parts, and severely curtailing investments in road, rail, and marine/port infrastructure, the Cuban authorities introduced several innovative behavioural and technological solutions (Enoch, Warren, Valdés Ríos, & Henríquez Menoyo, 2004; Jaffe & Soligo, 2000; Warren & Enoch, 2006). These included:

- Promoting walking and cycling and the use of animal traction for both agriculture and local transport, especially outside Havana.
- Reorganising bus routes and bus systems in order to maximise efficiency and increase patronage (in Havana).
- Discouraging unnecessary or unwarranted journeys as well as the proactive provision of collective taxis, organised hitch-hiking and an acceptance of higher occupancy in all modes of transport along with fuel rationing.
- Encouraging employers to provide transport to and from work for their employees in the form of enterprise buses.

Fig. 1 shows the impact of the economic crisis and the effect on public transport usage in Cuba: a slight downturn in the late 1980s (as Cuba's economic relationship with the former Soviet Union began to deteriorate) was followed by a far sharper decline that continued until 1995. By 2012, the latest year for which data are available, passenger levels remained approximately half as much as the peak in 1984–85. Moreover, there is another slight drop after 2009; this may be explained by two factors: fiscal retrenchment, including curtailment of budgets for public transport, as part of a renewed drive to restructure the economy, and a move away from

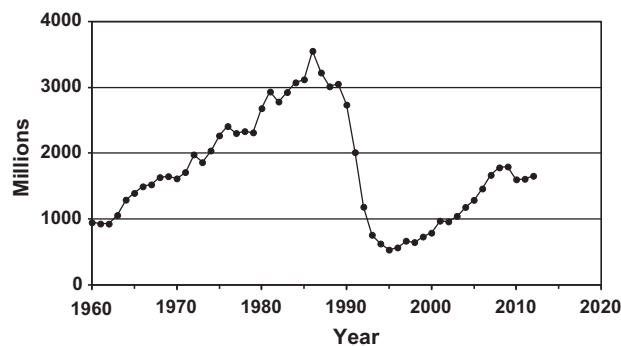


Fig. 1. Passenger transport on state-owned enterprises in Cuba (millions of passenger-km/year). Source: ONEI (2014); authors' calculations

buses to other modes, particularly taxi and *rutero* (a cheap form of taxi) – both of which have seen a marked increase in ridership over the same period (Correa, 2013). In short, the graph indicates that public transport is at a new juncture, with signs of a shift in the choice of service, arising from economic conditions and policy choices.

#### Transport in Havana

Havana is located on the northern coast of Cuba and is one of the island's 15 administrative provinces. In terms of urban structure, Colantonio and Potter (2006) comment that the city evolved in four stages:

1. The colonial city (1514–1898) – built by the Spanish and heavily influenced by the need to construct a defensible location.
2. The pseudo-republican city (1898–1959) – whereby rapid urban expansion was facilitated by an influx of US investment unconstrained by a land-use planning framework.
3. Revolutionary Havana (1959–1989) – government policy aimed to correct the urban–rural imbalance which saw a significant decrease in investment in the city.
4. The 'Special Period' (1990–present) – led to the government recognising that tourism could play a vital role in rekindling the vitality of the city.

Consequently, the original roads of the city still form the main thoroughfares that radially connect the eastern and western edges of the Bay of Havana to the old colonial centre and to the suburban areas towards the south, which have been supplemented by a network of orbital routes constructed more recently. Enoch et al. (2004), Winkler et al. (2007) and Gugger and Spoerl (2008) provide perhaps the most comprehensive descriptions of the transport system in Havana, albeit slightly dated, noting the demand patterns for transport and the myriad of interesting ways that it is provided there.

Administratively, the Province of the City of Havana is subdivided into 15 municipalities (Enoch et al., 2004). Within this framework, four public bodies are responsible for managing transport as follows:

- The *Ministerio del Transporte* (MITRANS) – is responsible for public transport at the national level.
- The *Departamento del Transporte* (DPT – the Havana City Transport Department) – overseeing implementation of policy and the operation of the various modes of public transport (suburban rail, bus, regional bus, educational transport, etc.).

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