

# Public transport services using animal power in Cuba

by

**Humberto Valdés Ríos**

*Grupo IT, Centro de Investigación y Desarrollo del Transporte  
Apartado postal 17029 La Habana, Cuba*

## Summary

*The paper discusses the background and socio-economic causes that stimulated the resurgence of the employment of animal power for passenger and freight transport in Cuba from 1991. This was a time when motorised services decreased dramatically due to shortages of foreign exchange, fuel and spare parts. In 2000, there were 16,200 two-wheel carts and four-wheel animal-drawn carriages, buses and wagons licensed for public service. Details are provided of the number of registered animal powered services for passenger and freight by province and by sector (State and non State). Most animal drawn transport services are owned and operated by private individuals. The Provinces of Matanzas, Holguín, Santiago de Cuba and Las Tunas have the most animal drawn vehicles registered for passenger transport. The Provinces with most registered animal traction cargo vehicles are Holguín, Villa Clara, Camagüey and Granma.*

*The institutional and regulatory framework created in 1998 is described. Provincial offices of the Ministry of Transport issue operational licenses to individuals and associations who offer public transport services for cargo or passenger traffic using horses or mules. Licenses are not needed for ox carts or pack transport. Details are given of the relevant legislation and regulations. Licenses are conditional on the health of the animals and the safety of the vehicles.*

*It is difficult to predict what will happen to the animal powered transport services when economic conditions improve. There is need for more information on all aspects of animal powered transport, including reasons for the recent decline in the number of horses in Cuba (presently around 450 000). Improved training is required for all concerned with planning and regulating animal-powered transport. There is need for more exchanges of experience on animal-powered transport at national and international levels.*

## Introduction and present economic context

Since 1990, the transport system of the Republic of Cuba, particularly the public transport of people and goods, has suffered from an exceptional economic emergency situation known as *el período especial de tiempo de paz*. This resulted from a combination of factors. In the first place, there were the profound political, economic and social changes that occurred in the socialist countries of Eastern Europe and the end of the Union of Soviet Socialist Republics (USSR). This led to the disintegration of Comecon (Council for Mutual Economic Assistance — *Consejo de Ayuda Mutua Económica*) that had linked Cuba and many socialist countries. Cuba had sustained 85% of its commercial trade with these countries and maintained strong bilateral and multilateral relations of economic, scientific and technical development assistance based on just and fair exchange. Taking advantage of this situation, from 1992 the government of the United States of America strengthened its economic blockade (both commercial and financial) which had been imposed on Cuba since 1961. At the same time, the processes of world globalisation and its prevailing neo-liberal policies have effectively imposed the will of the richest industrialised nations on the international financial institutions and the greater part of the Third World.

As a result of the economic emergency of the 1990s, it was necessary to cut imports drastically. Cuban industrial production was also reduced, as were the exports of goods and services. All sectors and branches of the national economy were seriously affected and, as a result, the standard of living of the Cuban population deteriorated. With limited national resources of foreign exchange, priority went to social necessities and economic diversification. Emerging sectors were formed and foreign investment encouraged as a solution to the problems of economic growth, diversification of exports, the

penetration of new markets, acquisition of advanced technologies, and the introduction of better business management practices. Economic policy was based on the continued recognition of socialist ideas and the fundamental role of State property, with the introduction of some capitalist enterprise management measures.

Transport was one of the sectors most seriously affected by the lack of foreign exchange, and public transport services for passengers and cargo were particularly affected. This was because land transport in Cuba was very dependent on imports. These included vehicles (buses, cars, coaches, trucks), spare parts and fuel. With fuel imports drastically reduced from US\$ 13m to US\$ 6m annually, and replacement parts difficult to obtain, the transport fleet was unable to operate efficiently and there were major reductions in public service routes and numbers of journeys. The limited availability of hard currency made it difficult to replace aging vehicles, with a resulting de-capitalisation of the transport sector. Most motor transport vehicles originated from Eastern Europe and the USSR, and it became increasingly difficult to obtain imported replacement parts or even the raw materials to produce them in Cuba.

As a result in the decline of public transport services, hundreds of thousands of workers were left with no means of transport to get to work punctually each day. Thus, from 1991 there was resurgence in the provision of animal traction public transport services.

## Historical perspective

The use of animal traction for transport in Cuba dates from the Spanish conquest of the island in 1492. Horses were imported and were first used to carry loads and troops. Later they were widely used by richer people and the public. In 1662 the first luxury carriage was introduced. The chaise, the *volanta* (two-wheeled gig) and the *quitrín* (light 2-wheel carriage) followed. Carts, wagons and other carriages were used for transporting people. In 1842 horse-drawn diligence-omnibuses were used in Havana. In 1878 the first regulations for carriages came into force. Animal traction transport in Cuba was the only means of transport up to 1898, in which year the first motorcar (manufactured by the La Parisienne factory) was used in Havana.

Horse-pulled omnibuses continued to be used in the early decades of the twentieth century. At the end of the 1920s the urgency for rapid transport was felt, although it was recognised that the motorised transport caused pollution. At this time animal-drawn buses and carriages were disappearing from the streets, roads and highways. The Cuban historian Emilio Roig de Leuchsenring noted "When the horse-drawn buses disappeared in the early days of the Republic, people realised that they had lost their favorite vehicle".

In Havana, load carrying animal-drawn carts persisted for many years after the end of the horse-drawn buses. Elsewhere in Cuba, horse-drawn carriages persisted, and have never stopped being used in cities such as Bayamo, Cárdenas and Ciego de Avila.

In the rural areas, work animals have never stopped being used for small-scale rural transport. Cuban farmers have traditionally used horses for riding and/or cart transport. Cowboys have ridden horses when inspecting or moving cattle herds. In the hills, mule trains have been used to move the coffee harvest, timber and other agricultural and forestry products. Some donkeys have also been used for transport.

As previously mentioned, from 1990 Cuba suffered an economic crisis resulting from the disintegration of the Soviet Union and Comecon. This was made worse by the strengthening of economic, commercial and financial blockade imposed by USA against Cuba. The shortage of fuel, spare parts and replacement vehicles caused a huge reduction in the availability of motorised public transport services. This started a progressive resurgence of animal traction transport in Cuba, both in urban areas and in rural zones, for the transport of freight and passengers. Animal-drawn carts, carriages and buses started to reappear in towns and cities, for freight and passenger transport. These were generally the result of individual initiatives, with the transport devices and animals being

operated by their private owners. Unlike the long-standing traditional designs of carriages, many newly constructed animal-drawn vehicles used parts, bearings and tyres derived from motor vehicles.

In the agricultural sector, there was a similar crisis, with insufficient fuel and spare parts to operate the large tractor fleet on a regular basis. Therefore there was a large increase in the use of animal traction for both tillage and transport. Oxen, and to a lesser extent horses, mules and donkeys, enabled agricultural tasks to continue. Animal traction was widely used to transport raw materials and produce, and to carry goods to and from market.

## Present use of animal-powered transport services

Animal-powered transport had been largely unregulated since the first half of the twentieth century. However, the State recognised the importance of animal power for public transport and in 1997, it re-established, through legal dispositions, regulations for freight and passenger transport using animal-powered vehicles.

From 1998, it became a requirement to obtain a License for Transport Operations in order to offer and operate animal traction transport services for freight or people. Throughout the country, private sector operators applied for licenses. In 2000 there were over 16 000 registered animal traction vehicles offering transport services, classified by type of vehicle and type of service, as shown in Table 1.

**Table 1. Types of registered animal-powered vehicles and transport services in Cuba in 2000**

<i>Vehicle type</i>	<i>Freight transport</i>	<i>Passenger transport</i>	<i>Total</i>
2-wheel carts	5047	1278	<b>6325</b>
4-wheel buses, carriages or wagons	71	9803	<b>9874</b>
<b>Total</b>	<b>5118</b>	<b>11081</b>	<b>16199</b>

*Source: Unidades Estatales de Tráfico, 2000*

The Licenses for Transport Operation are issued for the vehicles and not for the animals, so that riding horses are not included, nor are the pack mules and donkeys used for transport in mountainous zones. The regulations applied to public transport services using equids (horses, donkeys and mules). Ox carts and ox-drawn sledges were not included in the licensing programme.

As part of the research for this paper, information was sought from the municipal, provincial and national offices of the State Traffic Unit of the Ministry of Transport. These offices at municipality and provincial levels are responsible for issuing the Licenses for Transport Operation and maintaining records. However these units have limited resources and little knowledge about animal-powered transport. Little or no information was available on the number of passengers or quantity of freight transported using animal-powered transport services. Table 2 summarises the available information on the licensing of the animal traction vehicles and transport services in the different provinces of Cuba.

**Table 2. Distribution by Province and Sector of registered animal-powered vehicles for transport services in Cuba in 2000**

Provinces	State sector				Private sector			
	Freight transport		Passenger transport		Freight transport		Passenger transport	
	2-wheel	4-wheel	2-wheel	4-wheel	2-wheel	4-wheel	2-wheel	4-wheel
Pinar del Río	0	0	0	1	357	1	0	199
La Habana	0	0	0	0	395	6	0	141
Ciudad de La Habana	0	0	0	26	2	0	0	139
Matanzas	0	0	51	0	322	16	0	1496
Villa Clara	0	0	0	0	593	0	0	920
Cienfuegos	0	0	0	0	405	0	0	385
Sancti Spiritus	0	0	0	8	292	0	630	7
Ciego de Avila	0	0	0	0	96	0	128	294
Camagüey	0	0	0	0	564	2	447	725
Las Tunas	0	0	0	0	360	40	0	1162
Holguín	0	0	0	0	765	0	0	1399
Granma	0	0	0	6	563	6	22	824
Santiago de Cuba	0	0	0	0	218	0	0	1358
Guantánamo	0	0	0	0	59	0	0	684
Isla de la Juventud	0	0	0	0	56	0	0	29
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>51</b>	<b>41</b>	<b>5047</b>	<b>71</b>	<b>1227</b>	<b>9762</b>

Source: Unidades Estatales de Tráfico, 2000

From Table 2, it is clear that the State sector (all types of State enterprises) has very little involvement in animal-powered passenger transport (4% of the carts and 0.4% of buses and carriages). There appears to be no State participation in the provision of freight transport using animal traction. The private sector is responsible for the vast majority of the work of animal traction cargo and personnel transport, and it is private individuals, rather than private companies, that dominate the sector.

Table 2 shows that only four Provinces (Sancti Spiritus, Ciego de Ávila, Camagüey and Granma) have issued licenses for 4-wheel wagons for cargo transport.

The licenses issued are only for vehicles pulled by equids (horses, mules and donkeys). Oxen play an important role in local freight transport in rural areas, but the Ministry of Transport maintains no records of the numbers of ox carts and wagons. Horses pull most of the licensed vehicles, but mules are employed in some locations (including Bayamo). The number of horses in Cuba has been declining in recent years, particularly in the State Sector. The population of horses has almost halved since 1977. The [small] population of donkeys has been increasing. These are mainly used for breeding mules, although a few donkey carts are used. The populations of equids in Cuba are shown in Table 3.

**Table 3. The numbers of horses, mules and donkeys in Cuba 1967-1999, with the percentage of each in the State sector**

Year	All equids		Horses		Mules		Donkeys	
	Numbers 000s	% in State sector	Numbers 000s	% in State sector	Numbers 000s	% in State sector	Numbers 000s	% in State sector
1967	738	21	698	20	35	36	4.7	23
1970	692	21	659	20	29	42	4.1	27
1971	796		765					
1972	814		783					
1973	832		799					
1974	835		804					
1975	843	32	811	32	27	38	4.3	26
1976	846		815					
1977	849		819					
1978	834		807					
1979	841		813					
1980	840	29	812	29	25	43	3.7	27
1981	840	29	810	28	26	41	3.8	29
1982	820	29	790	27	26	38	3.8	26
1983	812	28	781	27	28	38	3.9	28
1984	792	28	759	28	29	38	4.0	30
1985	774	29	740	28	30	39	4.0	33
1986	753	30	718	30	31	41	4.0	35
1987	739	31	709	31	32	43	4.2	36
1988	665	35	630	35	31	48	4.5	40
1989	665	36	629	35	31	58	4.9	43
1990	633	37	597	37	31	50	5.2	44
1991	637	36	600	35	32	49	5.4	46
1992	645	34	607	33	33	49	5.7	46
1993	646	32	608	31	33	48	5.8	47
1994	636	20	597	19	33	37	5.9	36
1995	621	18	583	16	32	33	6.1	38
1996	604	17	568	16	30	32	6.3	38
1997	559	17	525	15	28	32	6.2	39
1998	464	16	434	15	24	31	6.1	39

Source: *Anuarios Estadísticos de Cuba, 1967-1998*

## Regulation of animal-powered transport services

The Resolution-Law number 168 of 26 November 1996, 'On Licensing for Transport Operation', states in Article 3 that:

'The transport services that require a license are those for freight transport, those for passenger transport and the auxiliary and related services, as defined and classified by the Ministry of Transport, which offer services in whatever means of transport by land, sea or river.'

By the Final Disposition of Resolution-Law 168, the Ministry of Transport was given the authority to dictate the corresponding Regulation, and the complementary orders which may be required to guarantee its achievement. By Resolution 97 of the Ministry of Transport of 24 March 1997, the 'Regulation of Licenses for Transport Operation' was approved and put into effect. This, in its fifth Section establishes that 'the persons that offer services of animal traction carriages and carts and human traction bicycles and tricycles, will apply for the license within the permitted time and will provide the necessary requisites so that it can be processed promptly by the Ministry'.

By 1 March 1998, all people offering transport services for freight or passengers using animal traction had to apply to their local Provincial or Municipal Office of the State Traffic Unit for a license. By Resolution 23-9 of the Ministry of Transport of 9 February 1998 it was established that, to obtain the Transport Operator's License for public service animal traction transport of cargo and passengers using two- or four-wheel vehicles, it is necessary to comply with the following requisites:

*In the case of a private operator:*

- Confirm identification by means of Identity Card.
- Confirm the ownership of the working animals by means of a certificate issued by the Office of Livestock Control of the person's town.

*In the case of a State enterprise:*

- Complete and submit, the original and a copy of the form 'Request for Transport Operator's License'.
- Complete and submit, the original and a copy of the list of the means to be used in the service offered, specifying the type, capacity and where based.
- Deliver a list of animals to be used, previously certified by the relevant Office of Livestock Control.

In the case of vehicles rented by an authorised organisation, the renting organisation must accredit the legal authorising document that allows rental use for transport service. Likewise the renter must demand the corresponding license that authorises offering the service.

The Resolution cited above also stipulates that, to obtain or renew the proof of license, the interested party must accredit the following requirements in the Provincial or Municipal Office of the State Traffic Unit: (Sections e and f apply only to private individuals or companies offering public transport services).

- a) Identity Card of the person making the request.
- b) Updated certification of ownership of the draft animals to be used, issued by the corresponding Office of Livestock Register and Control.
- c) Updated certification of the health of the draft animals to be used, accrediting their vaccination and good physical state, issued by the Municipal Office corresponding to the Institute of Veterinary Medicine.
- d) Updated certification of the technical inspection of the coach and cart, issued by a qualified person, which accredits its suitability for transport.
- e) Proof of payment of taxes or subscriptions as required by law.
- f) Valid civil responsibility insurance policy.

According to the regulations of Resolution 97 (of 24 March 1997) that came into force on 1 March 1998, everyone who obtains a license to offer public transport services, using animal power is obliged to:

- a) Strictly offer the service in the authorised category and with the vehicle registered in the License.
- b) Use only animals (equids) between 3 and 20 years old for the transport of freight or passengers.
- c) Transport a maximum of 8 people or 500 kg of cargo for each horse or mule used.
- d) Keep up-to-date certificates of the health of the animals and the technical inspection of the vehicles.
- e) Offer the services in the places and streets previously established.
- f) Keep the license plate in a visible place on the vehicle.
- g) Notify any change of address to the appropriate office of the State Traffic Unit.
- h) Apply the prices and the official tariff regulations in force for the activity.
- i) Make the necessary payments for the issue, renewal or updating of the License and for the taxes established by law.
- j) Obey the norms, regulations and other requirements established for the activity.

## Conclusions and recommendations

Since 1991, there has been resurgence in the use of animal power for cargo and passenger transport in Cuba. The proliferation of animal power has been associated with the special economic emergency situation which has, amongst other things, been characterised by a sharp contraction in motorised transport services. It is uncertain as to what will happen when the economic circumstances improve. However, since Cuba is a developing country, with limited supplies of foreign exchange and energy (especially fuel for motorised transport), the continued use of animal traction for transport will bring savings of these scarce resources.

Since 1998, the State has established regulations for issuing Transport Operating Licenses for transport drawn by horses and mules. These permit the quantification and control of the operators of these transport services. They also ensure a degree of control over the condition and health of the animals involved and the safety of the vehicles used for passengers and freight. However, the experts responsible for planning and regulating animal traction transport services have little knowledge concerning animal traction transport technology. It is therefore necessary to introduce this theme in the training of transport planners, at graduate, post-graduate and in-service levels.

This research has highlighted the lack of information on animal traction transport services in Cuba. There is need for more detailed research in this area. There should be comprehensive surveys of operators (owners or hirers) of the animals and vehicles. The objective should be to ascertain information concerning the technologies (designs of harnesses, carts, carriages, buses and wagons), the animals (type, condition, nutrition, management), owners, operators and users (type, gender, employment), areas of service provision and transport operations (numbers and types of passengers and freight load).

There has been a large reduction in the numbers of horses in Cuba in recent years. This could be a constraint to the further development of animal-powered transport. There is need for more information about the constraints to animal power and efficient ways of managing and using horses, mules and donkeys in urban and rural areas.

While it is difficult to predict how animal traction transport services will develop in Cuba, they clearly play an important role. It is necessary to promote the exchange of information and experiences within Cuba and to establish collaborative links with national and international groups in other parts of the world.

## References

- Anuarios estadísticos, 1967-1998. Oficina Central de Estadísticas, Ministerio de Economía y Planificación, La Habana, Cuba.
- Unidades Estatales de Tráfico, 2000. Personal communication with provincial offices and Ministerio del Transporte La Habana, Cuba.

*This paper was prepared as part of a national animal traction research programme supported by the British Department for International Development (DFID) and coordinated by the Instituto de Investigaciones de Mecanización Agropecuaria (IIMA). For further information see the website: <http://www.recta.org>*

*The paper was translated by Brian Sims, Silsoe Research Institute, Wrest Park, Silsoe, Bedford MK45 4HS, UK  
It was edited by Paul Starkey, Animal Traction Development, Oxgate, 64 Northcourt Avenue, Reading RG2 7HQ, UK*