

# ACCESSIBILITY CHALLENGES FACING MAURITIUS AND LA RÉUNION

M-ANNICK LAMY-GINER

Université de La Réunion <malamy@univ-reunion.fr>

## Abstract

Mauritius and La Réunion, two islands located in the South West Indian Ocean, could not be more different. One, a highly ambitious island state striving to maintain its position on the international chessboard, contrasts with the other, an island endowed with greater resources and controlled by a powerful state. However, both islands are isolated and far away from mainland centres. In their determination not to remain isolated from the international community they have forged sea and air links with the rest of the world. Mauritius seems to have been more successful at this than its neighbour. Nevertheless, sea and air transportation not only contributes to their extroversion but also reflects their extra-regional dependency and shared interests. However, accessibility is not only about developing links with the outside world but relates to domestic mobility and alternative forms of transport to tackle the traffic congestion on both islands.

## Key words

La Réunion, Mauritius, island, accessibility, transport, tourism

## Introduction

The islands of Mauritius and La Réunion lie 180 kilometres apart in the South West Indian Ocean. Together with Rodrigues, a Mauritian possession, they form part of the Mascarene Archipelago. Mauritius gained its independence in 1968 while La Réunion is a French overseas department and a European external region. The former has a population of 1.2 million, the latter a population of 800,000. Both islands are small: Mauritius has a surface area of 1,865 km<sup>2</sup> and La Réunion has 2,512 km<sup>2</sup>. Because of their geographic proximity and similar history, Mauritius and La Réunion are referred to as 'sister islands'. However, this term cannot hide the fact that both islands at times openly compete with one another. Each island strives to become the main port and preferred tourist destination in the region and Mauritius outperforms its neighbour in these respects.

La Réunion and Mauritius are small islands surrounded by ocean (Figure 1) and lie several hundred kilometres from the nearest land: 800 km from the coast of Madagascar and 2,400 km from Africa to the west. To the south the islands of Amsterdam and St Paul are more than 2,800 km away. Australia is 6,000 km to the

## Lamy-Giner – Accessibility Challenges for Mauritius and La Réunion

east. La Réunion and Mauritius also lie a fair way from the major maritime routes in the S.W. Indian Ocean. Isolation, therefore, remains the leading constraint for these small island territories. As a result, there is a strong sense of ‘insularity’ on both islands.



Figure 1 – Location of La Réunion and Mauritius

Fortunately, both islands are accessible by air and sea. While Mauritius inherited port infrastructures in the first half of the 18th Century, La Réunion did not have a port until the end of the 19th Century. The first air services began in the 1960s when both islands were joined to their respective home country. Since then, the two islands, spurred by a sense of rivalry, have continually undertaken major programmes to expand their infrastructures and improve their communication links. The ports and airports on both islands are vital outlets to the outside world. Their reliance on sea and air links is beyond doubt. Ports enable the inflow and outflow of imports and exports while

airports ensure passenger traffic. Air links are crucial for a small island heavily dependent on tourism like Mauritius.

Accessibility in these small island territories impacts economic activity, human communities and businesses generally, and must therefore be analysed in conjunction with mobility, since road traffic is the only viable mode of transport. With more and more vehicles on the roads and a road network unable to cope, traffic inevitably raises a problem. Obviously, on these small islands where car ownership is near-universal and where road congestion is a frequent problem, accessibility becomes a crucial issue (Lamy-Giner, 2011: 283).

The aim of this article is to examine how air and sea links can contribute to departmenting, and how they help in the economic development and viability of these two small, politically different island territories in the S.W. Indian Ocean. Another underlying question concerns how integrated they are in the world economy. We also need to understand how and why accessibility and internal communications have become a major challenge for these two island territories faced with a shortage of surface area, uneven demographic coverage and high population growth. I adopt a comparative approach to address these questions.

## I. The Regional Context

### a. Similarities between the myriad islands of the S.W. Indian Ocean

The S.W. Indian Ocean comprises a myriad of islands that either form archipelagos (Seychelles, Comoros) or are isolated. However, the surface area differs significantly from one island to another. Madagascar ranks as one of the largest islands in the world (587,000 km<sup>2</sup>, the surface area of France, earning it the nickname of *Grande Ile*). The Seychelles atolls or Coral Islands (Tromelin, Glorieuses) are tiny rocks, some of which have less than 1 square km of land surface. These islands have a number of features in common. In terms of climate, almost all are located in cyclonic zones, although the Seychelles, located at a higher latitude, is largely unaffected by tropical storms. The risk of cyclones must be taken into account since it determines agricultural policies, demographic distribution and economic activity. The Comoros and Mayotte, protected by Madagascar, remain less affected than the Mascarenes and *Grande Ile*. These islands receive heavy rain: annual average rainfall typically exceeds 2,500 mm (increasing to a maximum of 8,000 mm on the wind-exposed mountain slopes of La Réunion). In the Mascarenes, the trade winds may blow strongly, especially on the windward side (eastern part of the islands), during the southern hemisphere winter. A wet region (eastern part) contrasts with a dry region (western part).

All these islands were French possessions at one time or another in their history. What remains of this colonial period? La Réunion is today the only French department in the region. It will shortly be joined by Mayotte (in 2011), 95% of whose inhabitants supported the proposal to make the island a French department. However, the Union of the Comoros (comprising three islands: Grande Comore, Anjouan and Mohéli), which gained its independence in 1974, does not agree and still claims Mayotte<sup>1</sup>. Madagascar, another former French colony, became independent in 1960. The Seychelles (1756 to 1814) and Mauritius (1715 to 1810) both belonged to France but

their affiliation is only a distant memory. French is the only official language on La Réunion and Mayotte whereas the Seychelles, Mauritius, Madagascar and the Comoros have several official languages, including English and French. However, in La Réunion, Mauritius and the Seychelles, a large proportion of the population speaks Creole<sup>2</sup> (at home, in the school playgrounds or even in government departments).

Several islands in the S.W. Indian Ocean are thinly populated. An example is Cargados Carajos (or St-Brandon), a Mauritian dependency comprising 22 small islands 450 km north of Mauritius. Some Mauritian fishermen regularly stay there. In addition, the *Iles Eparses* ('Scattered Islands') that comprise five islands (Bassas da India, Europa, Juan de Nova and the Glorieuses in the Mozambique Channel and Tromelin to the north of La Réunion) are inhabited by some scientists and military personnel. Since 2005 they form an integral part of the TAAF (French Southern and Antarctic Territory) and constitute a fifth 'district'. They include a rich ecosystem and were given nature reserve status in 1975. France has built weather stations<sup>3</sup> and a few military bases there. Each island has high potential in that it lies within its own exclusive economic zone<sup>4</sup> (EEZ). In this, context, Madagascar claims all the *Iles Eparses* while Mauritius claims Tromelin Island. An agreement was eventually signed in June 2010 between France and Mauritius on the joint administration of Tromelin. However, some people in Madagascar resent the fact that they were excluded from the negotiations and signing of the agreement.<sup>5</sup>

Madagascar has been inhabited since the end of the first millennium while La Réunion and Mauritius were only populated a little over three centuries ago. These S.W. Indian Ocean islands are also a cultural melting-pot, another feature they share with one another. La Réunion has an ethnic mix of Europeans (mainly descendants of French settlers who came to the island in search of a better life), Africans (brought to the island as slaves to work on the coffee and sugar plantations), Indians (descendants of indentured workers who came to work in the sugar cane fields after the abolition of slavery) and Chinese (who emigrated of their own free will to run shops and start up businesses). On Mauritius, there is a similar population profile but in different proportions. The Indian diaspora is far larger: 70% of the population versus 30% on La Réunion. While this melting-pot society, with its tendency towards inter-marriage, does not seem to raise a problem on La Réunion, some dissension is palpable on Mauritius. Minority and often poor communities such as the Creoles (descendants of African slaves) are increasingly intolerant of the supremacy of the Indo-Mauritians (Hindus particularly), as demonstrated in occasional clashes<sup>6</sup> (eg during sports events).

Almost all these islands have turned inland, away from the sea. In the Mascarenes, the slaves preferred to take refuge and find shelter inland than to escape by sea (Eve, 2005: 44). French settlers, exhausted by months spent crossing the sea (experiencing storms and hardships such as scurvy), finally developed an aversion for the sea, particularly since shipwrecks were fairly common and remained in the collective memory. The inhabitants of these islands were more farmers than fishermen. The territorial waters of La Réunion, the Comoros and Mauritius contain few fish species owing to their narrow continental shelf. Malagasies today barely recall the fearless voyages their forefathers undertook to the Comoros Islands and Mozambique in the 18th Century (Géographie Universelle, 1994: 420). Only the Seychellois and inhabitants of Mayotte turned seafarers—but only as a source of food.

b. Isolation: an issue?

According to Bonnemaïson, “islands are by definition separate and isolated. The greater the separation, the greater the insularity” (1997: 122 – author’s translation). Isolation is clearly a major problem for small island territories (Guébourg, 2006: 19). The smaller the island, the more acute the problem. According to Taglioni, “it is difficult to adopt a satisfactory quantitative approach to small-sized and isolated territories, two factors that define insularity” (2006: 673 – author’s translation). All islands in the region are quite far from the mainland. The closest are the islands in the Mozambique Channel, although they lie more than 300 km from the African coast. La Réunion and Mauritius are several hundred kms from the nearest land. Moreover, 10,000 km separate La Réunion from mainland France as opposed to 7,000 km in the case of Martinique and 16,000 km in the case of the Wallis and Futuna Islands. The proximity with the future department of Mayotte is very relative since Longoni is over 1,400 km from Saint-Denis. The closest island is Tromelin but it is only one square kilometre in surface area. The other surrounding islands are Madagascar and Mauritius. However, Madagascar’s political situation, which has been erratic since independence, hardly makes it attractive to its neighbours. Madagascar no longer lures poor Creole emigrants from the uplands of La Réunion as it did many years ago.

La Réunion and Mauritius, located to the east of Madagascar, are only 200 km apart. Rodrigues, a Mauritian possession and the third largest island in the Mascarenes, lies over 600 km to the north-east. This 110 km<sup>2</sup> mass of land is the most remote of the islands in the S.W. Indian Ocean. It seems to live in a time warp, as pointed out by writer Jean-Marie Le Clézio: “You feel the slow pace of life, the remoteness, an estrangement from the world of ordinary folk which suggests eternity, the infinite.” (1986: 34 – author’s translation). Besides Rodrigues, the other Mauritian dependences, also referred to as outlying islands, are Cargados Carajos and Agalega; the latter is located 1,200 km to the north of Port Louis. These outlying islands cover only 35 km and are minimally populated (300 people live permanently on the two islands that comprise Agalega). Fish stocks around Cargados Carajos Islands are plentiful, and the Agalega Islands contain coconut plantations.

Mauritius lays claim to the 65 islands making up the Chagos Archipelago. These islands are isolated but occupy a central and strategic position in the Indian Ocean 4,200 km to the north-west of Australia, 1,600 km from the southern tip of India and 2,000 km to the north east of Mauritius. The Republic of Mauritius maintains that the British who appropriated the Chagos Islands in 1965 violated international law and UN resolutions: by breaking up a state still not independent, Mauritius argues that the intangibility of colonial borders was violated,<sup>7</sup> and that the right of peoples to self-determination was infringed since the entire population of the Chagos were expelled to the Seychelles and Mauritius (Oraison, 2003: 115). In 1966 the British granted the Americans a 50-year lease on Diego Garcia, the main island of the Chagos. Diego Garcia has become one of largest military bases in the world with a fleet of bomber aircraft and nuclear submarines and some 1,700 military and civil personal temporarily stationed on the island. The Chagossiens (still called *Ilois*) who live in exile are supported in their struggle by the Mauritian Government; they have not abandoned their native country, but time is against them and there will soon be no more native Chagossiens to continue the struggle, especially as in October 2010 Great Britain introduced a Marine Protected Area<sup>8</sup> in the EEZ around the Chagos.

II. Ports and Airports: Vital Lifelines for Islands

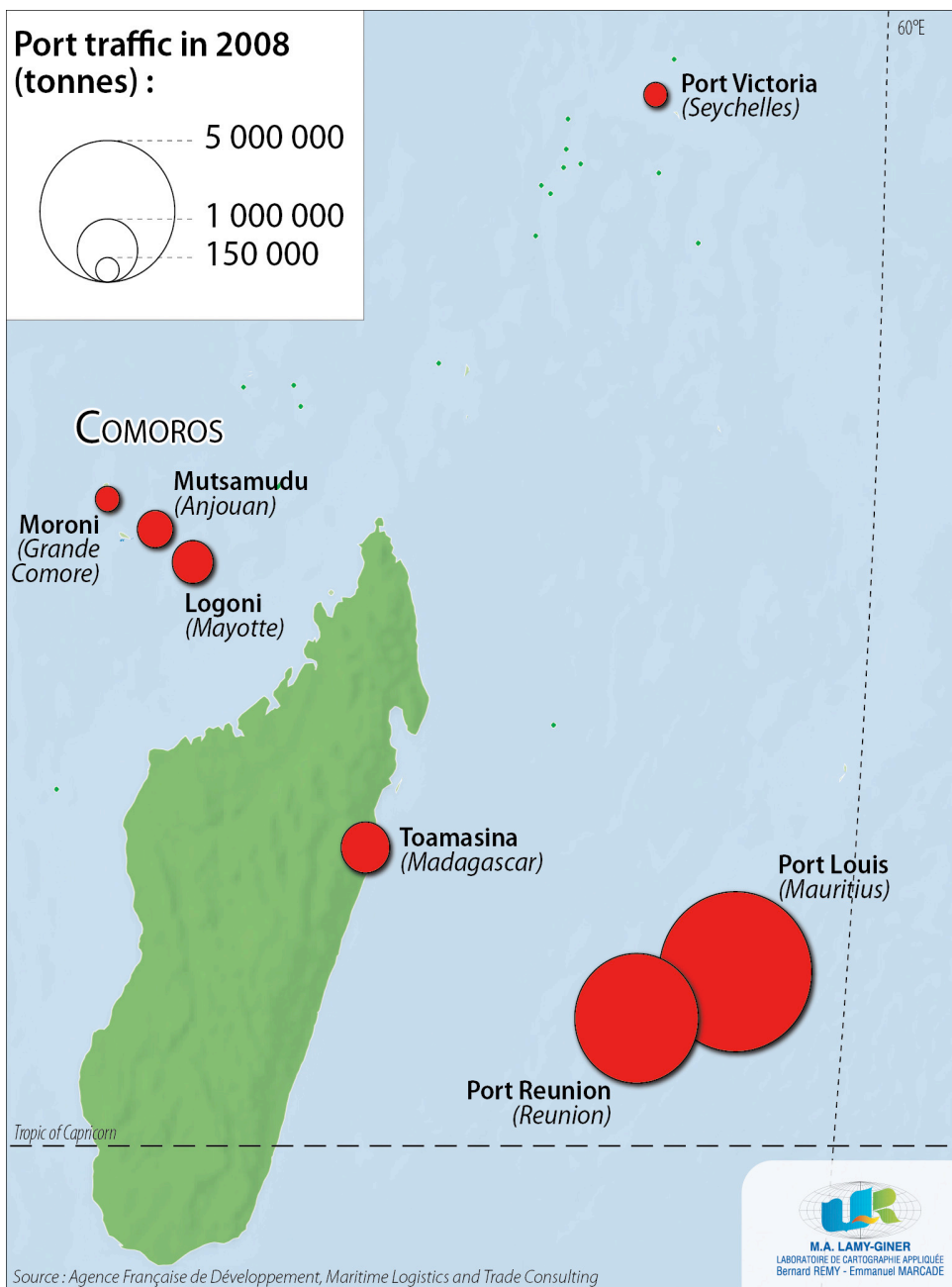


Figure 2 - S.W. Indian Ocean islands' port traffic

**a. Maritime communications**

On islands, ports more than airports are essential transit points for imported and exported goods (Lamy-Giner, 2006: 4). On the islands of La Réunion and Mauritius, some 98% of imported and exported goods pass through ports. The low cost of maritime transport partly explains the volume of port traffic on the two islands. In addition, a sea vessel can carry far greater quantities of goods than an aircraft. Only perishables or urgent consignments (small auto or computer spare parts not available in stock) are transported by air. Ports are clearly a lifeline for both islands (Guébourg, 2006: 23). Most foodstuffs and commodities arrive at ports. Domestic industrial goods and agricultural produce are insufficient to meet the needs of the local population. Although these products exist on the market, they are often more expensive than imported products (since economies of scale are impossible given the small market and lack of market outlets). While most of the maritime trade of both islands (between two thirds and three quarters) is in imports, some local produce is also exported, in particular sugar and sugar derivatives (eg molasses, rum).

La Réunion and Mauritius have some of the busiest ports in the region (Figure 2) (Lamy-Giner, 2006: 1). The La Réunion port of Le Port, located in the north west of the island, handled 3.9 million tonnes of traffic in 2009. Also located in the N.W. of the island, Port Louis handled 5.9 million tonnes of traffic and is part of the island's capital that bears the same name. Port La Réunion stretches over two sites three kilometres apart. The first, Port West, opened in 1886. Its main purpose was to export byproducts derived from the processing of sugar cane. The second, Port Est, was opened a century later. Together they cover a surface area of 90 ha and comprise 2.1 km of wharfs. Port Louis, ideally located on the Spice Route (between Maluku in (present-day) Indonesia and Western Europe), inherited port infrastructures during French colonisation at the initiative of the island's Governor Mahé de Labourdonnais in the 1730s. Today, port facilities equipped with 2.4 km of wharfs stretch over 230 ha. Both ports fiercely compete with one another to become the leading regional port.

On islands, more than on other territories, ports are strategic points of entry and exit that provide a bridgehead to the outside world and the globalisation process. The broader and greater their volume of trade, the more integrated they are. Of the two islands, Mauritius has the higher and more diversified volume of traffic. Its main trading partner is the European Union (EU), which accounts for 66% of Mauritian exports. France and the United Kingdom are its first and second partners respectively. They mainly import textiles and garments that are exempt of import duties under the European Union - Eastern and Southern Africa Agreement (EU-ESA<sup>9</sup>). Europe is the leading supplier of transport facilities, plant and machinery. Textiles are central to trade relations with the United States (third largest trading partner). Their trade relations are partly governed by the African Growth and Opportunity Act (AGOA), which exempts agricultural produce and textiles from customs duties. Mauritius has also tightened commercial ties with its regional partners, in particular with member countries of the Southern African Development Community (SADC) and Common Market for Eastern and Southern Africa (COMESA). In this regard, South Africa, the economic heavyweight within the SADC, is the second larger supplier (coal, bitumen) to the island. Like Mauritius, La Réunion has a high volume of trade with Europe (one third of its maritime traffic). However, exchanges continue to increase with Africa and Asia. In Africa, South Africa and Kenya are the two main suppliers: the former supplies coal and

hydrocarbons; the latter cement. In Asia, La Réunion has forged relations with Thailand (clinker), India (rice) and China (textiles). In Latin America, Argentina ships vegetable oil and cereals to the island. Consequently, the two islands, owing to their volume of imports and exports—however slight—contribute to world trade thanks almost exclusively to their port facilities and logistics.

Until the 1990s both islands were small regional transit centres. However, rivalry between them has spurred them to become the region's main ports as a guarantee to further integration into the region's economy. By becoming hubs, they also aimed to forge links with the region's secondary ports, more or less well served by the major trans-oceanic routes. Mauritius has superseded La Réunion as the regional transshipment hub for the surrounding islands. At Port Louis, transhipped goods (mainly containers) amount to a total of 108,000 Twenty Foot Equivalent Units (TEU), which accounts for a little more than one third of its containerised traffic. Mauritius was chosen in 2002 by two major shipping companies, MSC and Maersk, as a distribution point. Above all, Port Louis is a stop-off on shipping routes between Africa and Asia. Safmarine, a subsidiary of Maersk, chose 10 hubs, including Port Louis, on its East Africa-Far East route. Some containers are therefore unloaded in the Mauritian port before being shipped by feeder<sup>10</sup> to Rodrigues, La Réunion, Madagascar and Mayotte. MSC uses Port Louis more as a hub on its service between South Africa and north east Asia (Cheetah Service). On La Réunion, the number of transhipped containers, which totalled 19,000 TEU in 2008, fell to 2,000 TEU in 2009. A revised strategy by the shipping company CMA-CGM explains this drastic change; the ship operator chose Djibouti as its south west Indian Ocean hub<sup>11</sup> in preference to La Réunion. In addition, Mauritius offers more appeal than its neighbour in that it has additional assets such as a larger site, deeper water and lower harbour fees.<sup>12</sup> However, Maersk tends to keep away from the island since the Mauritian port occasionally suffers from congestion problems. The ship operator is increasingly turning to its Salalah hub (in Oman) to serve the S.W. Indian Ocean islands by feeders. For both these islands, ports are therefore key to the circulation of goods<sup>13</sup> while airports handle most of the passenger traffic.

### c. Air services at two small regional airport centres

It took one month at sea to reach the Mascarenes from the British or French mainland after the Second World War. The first air services, albeit somewhat unreliable, were launched at that time. It then took 4 to 5 days to reach the S.W. Indian Ocean from Europe. During the 1960s, the 15-hour journey required only two stop-offs (Djibouti to travel to La Réunion and Djibouti, and Saint-Denis to travel to Mauritius). Today, there is an 11-hour non-stop flight between Saint-Denis de la Réunion and Paris. The modernised transportation has therefore facilitated links between the islands and the rest of the world. Air transport, primarily owing to its speed, plays a key role in opening the islands to the outside world (Gay, 2000: 17-18). It provides the physical link between the islands under overseas administration and their mainland (Vergé-Depré, 2008: 98). In the S.W. Indian Ocean, where maritime passenger transport is almost nonexistent, aircraft are the only mode of transport for people wishing to travel within or outside the region. La Réunion's main airport (Roland Garros) is located at Sainte-Marie; its second, smaller airport (Pierrefonds) is located in the south of the island. Together these airports handled 1.7 million passengers in 2009, of which 40%



Lamy-Giner – Accessibility Challenges for Mauritius and La Réunion

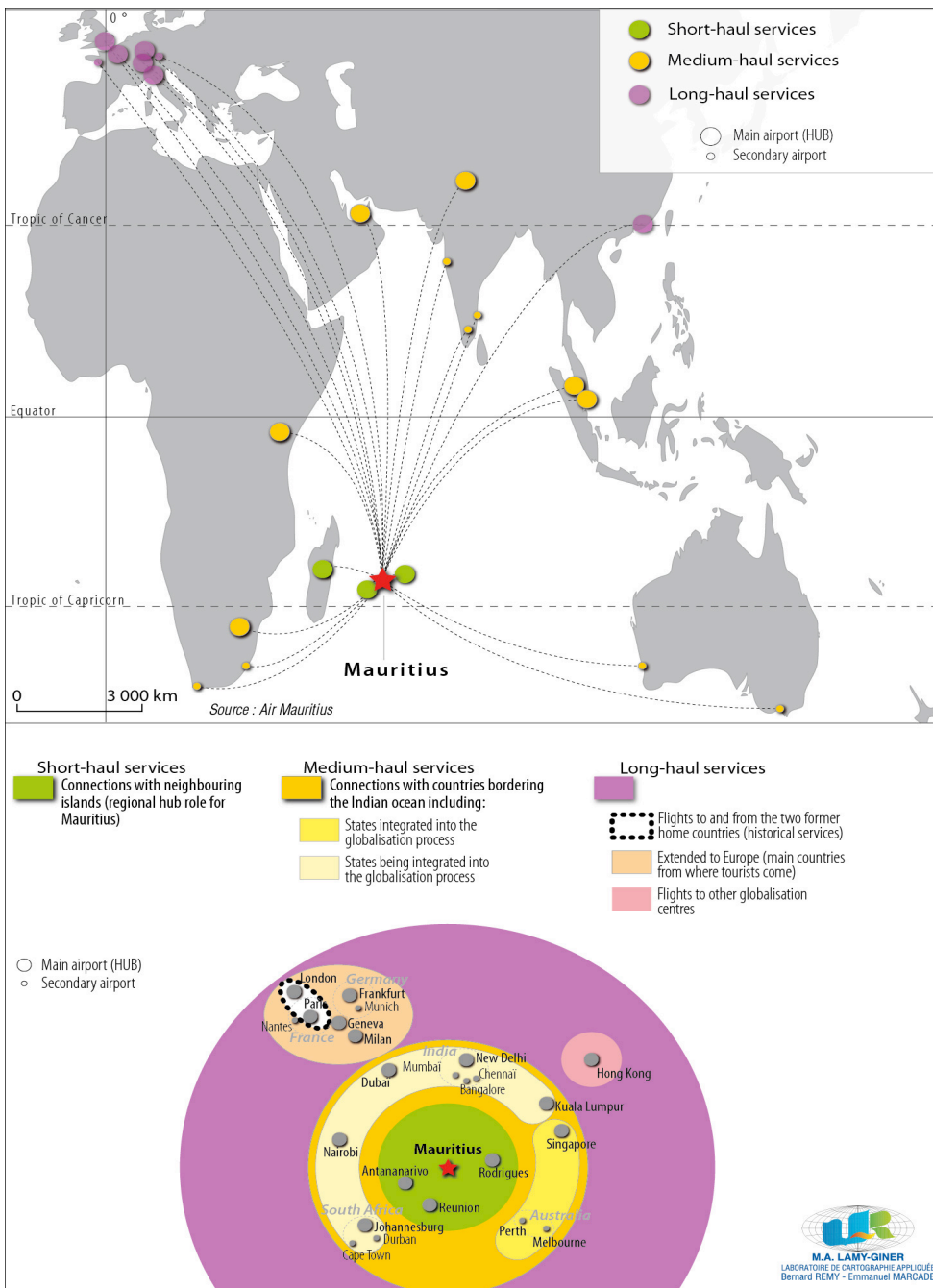


Figure 3 – The operational radius of Air Mauritius

were local passengers. Roland Garros airport alone accounted for 99% of the air traffic. Mauritius has an international airport located in the South East of the island (Plaisance, officially called Sir Seewoosagur Ramgoulam Airport in tribute to the first Mauritian Prime Minister). In 2009 it handled 2.4 million passengers (arrivals plus departures) of which 4% were local passengers. Consequently, few Mauritians, apart from the ruling class, chose to travel. For other Mauritians, their low incomes preclude travel (the average monthly salary in the primary and secondary sectors is 11,000 Rupees or 270 Euros, versus 19,000 Rupees or 460 Euros in the service sector). La Réunion islanders, whose living standard is higher,<sup>14</sup> travel more often. Most La Réunion passengers head for Mauritius, a holiday destination that is close, safe (unlike Madagascar where political crises against a backdrop of violence are frequent) and inexpensive (unlike the Seychelles, which mainly specialises in upmarket tourism) and mainland France ('Visiting Friends and Relatives, or VFR, tourism'). While Mauritius may be regarded as a small regional air hub, the other islands are heavily dependent on a handful of air services with the mainland or with a few neighbouring islands. Out of La Réunion's 250 weekly air services, 25% are with France, 70% with Mauritius, Madagascar and Mayotte and the remainder with South Africa, Thailand or Australia.

For islands that depend on tourism such as Mauritius, air communications are crucial (Germanaz, 2008: 294). Their economic viability partly relies on the invisible links forged with captive tourist markets. Often on this type of island, the promotion of tourism has facilitated the building of modern airport infra-structures. Mauritius, which attracted some 900,000 tourists in 2009, is by far the leading tourist destination in the region, ahead of La Réunion (420,000), the Seychelles (160,000) and Madagascar (155,000<sup>15</sup>). Two thirds of these tourists come from Europe. They are mostly French and British although the number of Italians and Germans is increasing. Tourists from La Réunion (some 100,000) form a sizeable proportion (11% of total arrivals) of tourists who visit Mauritius.

Mauritius has daily or weekly flights to over 15 countries around the world (30 airports served). A dozen airlines, including European airlines (British Airways, Air France and Corsairfly) and regional airlines (South African Airways, Air Seychelles and Air Austral) serve Mauritius. But the leader is the national airline, Air Mauritius, which operates a network of some twenty destinations (Figure 3), carries half of the passengers. With a fleet of twelve aircraft, Air Mauritius operates direct flights to several European, Asian, African and regional destinations. The geostrategic game plan for Air Mauritius is simple: it must control air services in the Indian Ocean, operate historical services (with the two former home countries) while expanding in Europe (Germany, Italy, Switzerland), as well as leveraging its cultural heritage (India, China) (Germanaz, 2005: 46; 2008: 302). After posting record profits between 1967 (when the airline was founded) and mid-2000, Air Mauritius has experienced a sharp decline in business since 2005. This downturn is related to international market factors (eg increase in fuel prices, the world financial crisis) that have clearly impacted the airline industry generally. The chikungunya epidemic<sup>16</sup> was an aggravating factor. Moreover, Mauritian air space has recently been partially deregulated.<sup>17</sup> In such a context it is not surprising that Air Mauritius reported net losses of 84 million Euros in 2008. While a noticeable recovery may be observed in 2009, the current financial year still posts net losses of 6.9 million Euros.

## Lamy-Giner – Accessibility Challenges for Mauritius and La Réunion

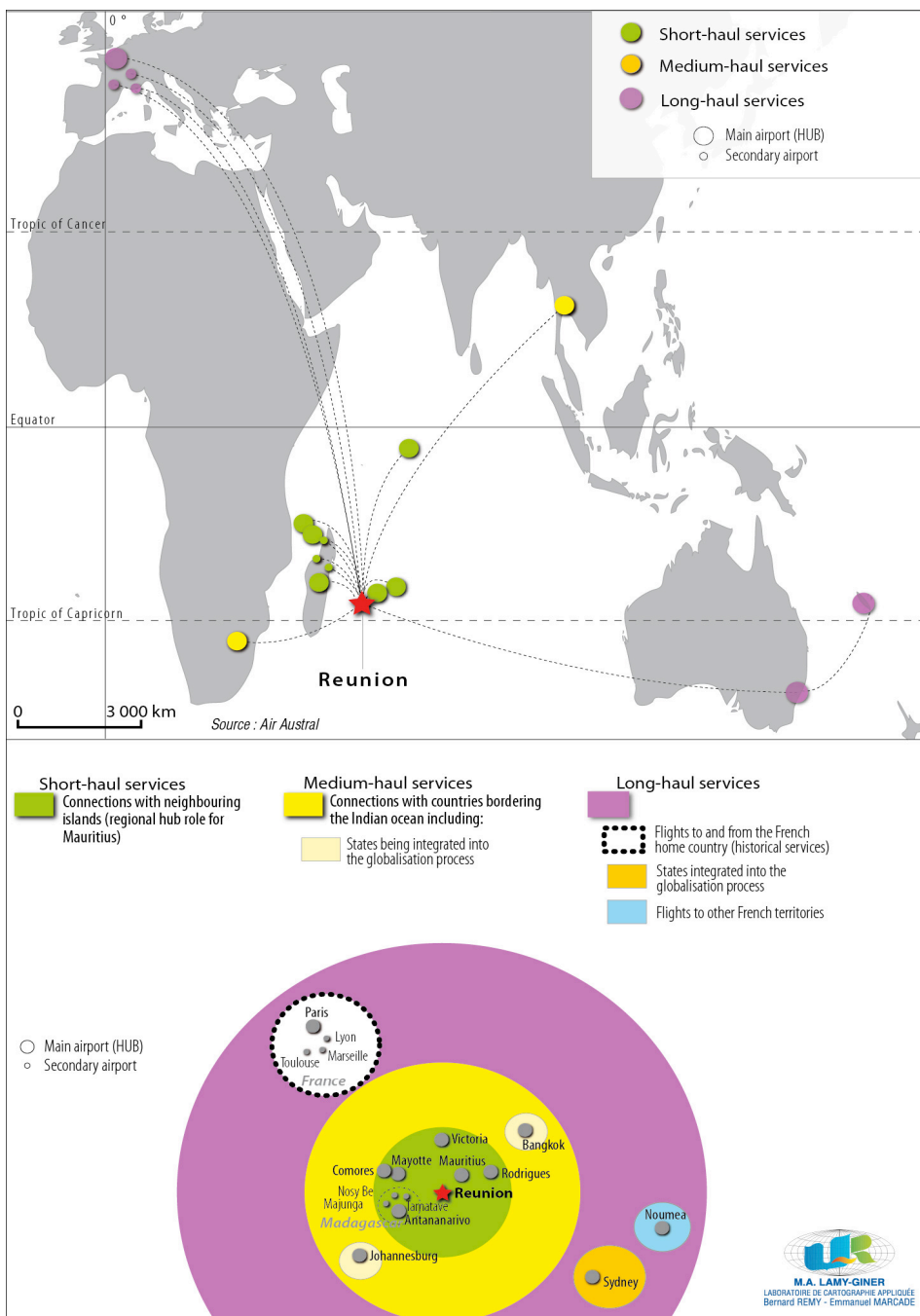


Figure 4 – The operational radius of Air Austral

La Réunion is less popular as a tourist destination than Mauritius. While *Réunionnais* (La Réunion islanders) travel more than Mauritians, the volume of passenger traffic is far less than with its close neighbour. In addition, direct flights operate to fewer destinations. In Europe, the French mainland is the only destination to which there are direct flights. To travel to certain countries (Singapore, India, China, Malaysia, Kenya), *Réunionnais* must transit via Mauritius, the small regional airport hub. For a wider range of destinations it is essential to transfer via Johannesburg, the main regional hub. Air Mauritius is a source of pride for the Mauritians, while Air Austral<sup>18</sup> is a source of pride for the *La Réunionnais*. Air Austral, with 51% of passenger traffic, is La Réunion's leading carrier ahead of Air France (21%) and Corsairfly (16%), two mainland airlines. The range of countries served, although more limited than the destination served by Air Mauritius, covers not only the French mainland but also the Indian Ocean (Mauritius, Madagascar, Seychelles and Mayotte on short-haul routes and South Africa, Thailand and Australia continuing to New Caledonia as medium and long haul destinations) (Figure 4).

While La Réunion may boast two airports, Pierrefonds is only used for regional or local services. It is connected by two daily services to Mauritius and by one weekly service to Madagascar. Daily air shuttles also operate with Roland Garros for passengers arriving from or travelling to the French mainland. Nonetheless, La Réunion has more efficient airport infrastructures than its neighbour. With its two landing strips, one of which is 3,200 metres long, Roland Garros can service four wide-body jet aircraft simultaneously, whereas Mauritius has only one air terminal or one landing strip. As a result, Plaisance airport becomes saturated at peak times. This is explained by the fact that most aircraft arriving from Europe land and take off at similar times. Ultimately, the solution is to build a second runway and a second air terminal without the need to build another airport (at one point planned in the north west of the island). To fund the modernisation and expansion work, due to begin in 2012, Mauritius has borrowed US\$ 260 million from the Exim Bank of China. A new airport tax has been introduced to help repay the loan.

Given the relative diversity of air services offered from La Réunion and Mauritius, both these islands are well connected by air links with the rest of the world (unlike the Comoros, Madagascar or the more distant islands of Zanzibar or Lamu). Airport infrastructures are without doubt effective means to open these two island territories to the outside world. In addition, on La Réunion, air services benefit from a 'territorial continuity' contribution, a grant intended to facilitate travel to the French mainland by *Ultramarins* (French nationals who live overseas) and to meet public service obligations (continuity, regularity and reduced airfares for children) (Gay, 2008: 72-73). However, to what extent does the principle of territorial continuity apply when airfares are unacceptably high? On La Réunion, an oligopoly prevails since only three airlines operate air services to the French mainland. In this context of distorted competition, airfares in economy class can exceed 1,900 Euros in high season. Moreover, an air ticket between La Réunion and Mauritius (a distance of 200 km) ranges from 220 to 380 Euros. Clearly, air services are not sufficiently competitive or diversified. In addition, these exorbitant airfares inhibit tourism at a time when La Réunion's central uplands region has an increased profile after being listed as a UNESCO World Heritage site (in 2010).<sup>19</sup> On Mauritius, prices (air tickets and tourist services generally) are more affordable. Consequently, the options open to tourists are limited.

The volume of freight traffic is similar on both islands: 28,000 tonnes on the French island and 37,000 tonnes on the neighbouring island. The comparative isolation of both islands is perhaps most keenly felt by the local population on a daily basis for goods imported by air. Perishables (varieties of yogurt or cheeses not produced locally, for instance) unloaded from aircraft cost 3 to 4 times more than in Europe. The price of goods imported by air or sea is inflated by shipment costs and *octroi de mer*<sup>20</sup> (excise duties). On La Réunion as in other DOMs (overseas departments), high prices are largely explained by the fact that imported goods are subject to shipment costs and excise duties, while local products are subject to high production costs (given the limited market).

### III. Two Islands Stifled by Traffic Congestion

Since the closure of the last section of rail track operating between Possession and Saint-Denis in 1976, roads are the only mode of travel on La Réunion. The same applies on Mauritius, where rail infrastructures were gradually closed down during the 1960s at the same time as the sugar cane industry became less profitable. On La Réunion and Mauritius, travel today is mainly by motor vehicles (85% on the former island, 60% on the latter) with little scope for public transport, which remains limited. The political decision to abandon rail travel has led to near-universal car ownership.

In 2010, La Réunion had 317,000 private vehicles in circulation versus only 140,000 in 1990, ie an increase of 126% over the period. This growing need among *La Réunionnais* households to drive is due to a more spread-out habitat, due to distances between the home and the workplace and the concentration of business and service centres in a few coastal towns (Saint-Denis, Le Port and Saint-Pierre) (Lamy-Giner, 2011: 7). The latter alone account for almost half of jobs on the island and comprise large trading and retail areas. This generates a high influx of people and goods from or to other towns, mainly travelling along the island's sole coastal road network. The inadequate road network in the lowlands<sup>21</sup> and along the coast causes miles of traffic jams every day (Figure 5). The opening of a new dual carriageway, the *Route des Tamarins* in the west of the island, has greatly improved driving, making traffic a little more fluid between north and south. This new road also improves connections with the Western Uplands and will help to promote their development since these mid-altitude areas will be developed to house some of the additional 250,000 people expected between now and 2030. However, it is a temporary measure and a viable alternative to near-universal car ownership on the island remains to be found (Lamy-Giner, 2011: 293).

Moreover, the *Route des Tamarins* cannot hide the fact that there are many black spots on La Réunion's other roads. A few drops of rain are enough to prompt the Departmental Division of Public Works (DDE) to modify traffic on the dual carriageway between le Port and Saint-Denis (known as the 'Coastal Road'). The dual carriageway then becomes a single-lane, two-way road causing traffic paralysis at rush hour. Are the traffic jams every morning at the western entry point into Saint-Denis affecting tens of thousands of drivers due to a lack of global, long-term vision? The fact remains that the western access point into Saint-Denis (despite the *Boulevard Sud* which bypasses the town centre) is a bottleneck. As municipal officials look for another solution to

## Lamy-Giner – Accessibility Challenges for Mauritius and La Réunion

bypass the island's capital, Saint-Denis is becoming a congested town like Papeete in Tahiti or Fort-de-France in Martinique.

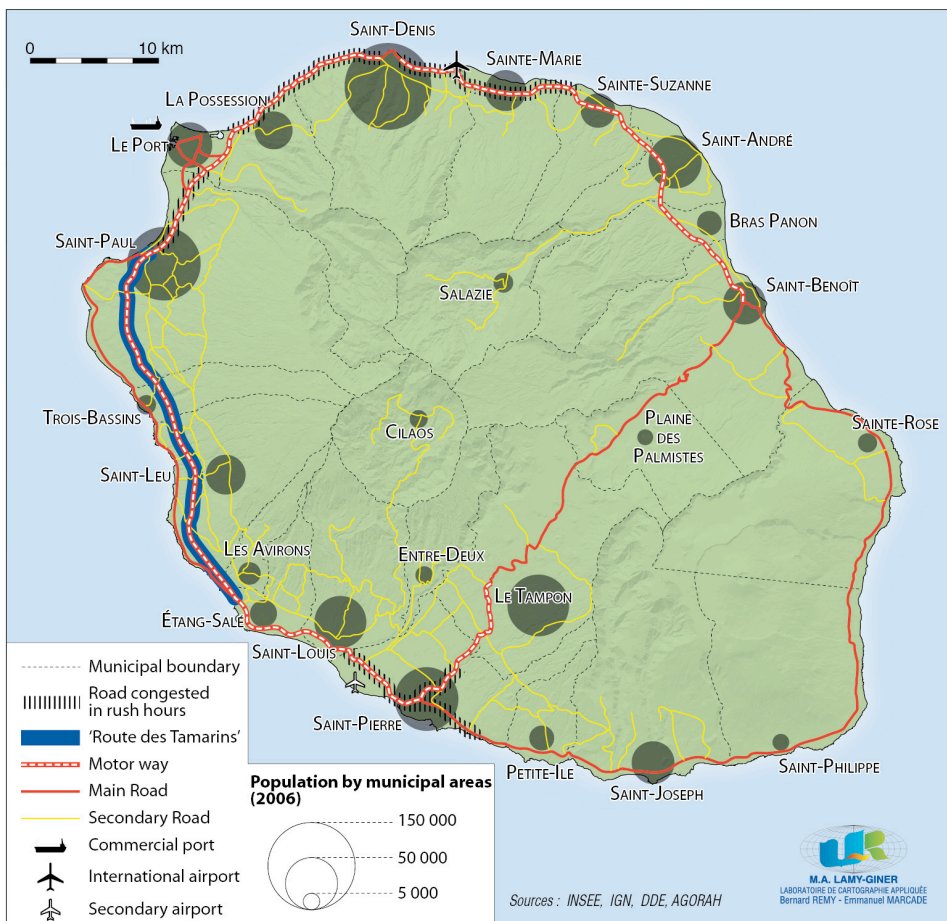


Figure 5 – La Réunion: a coastal road network

On Mauritius there are fewer vehicles in circulation (280,000) than on La Réunion although its population is higher. Living standards are lower and car ownership is more limited. However, car ownership is escalating: there were only 78,000 vehicles in the country in 1986. A sudden economic upturn (following industrialisation during the 1970s and the creation of export duty-free zones specialised in textiles), urbanisation and the rise in living standards triggered this hike in car ownership (Folio, 2008: 284). On Mauritius, regional planning is quite different from that in the French department. It revolves around a central urban axis (Jauze, 2005: 150). Business activities and living accommodation are concentrated in the interior of the country along the conurbation that stretches between Port Louis (the capital) and Curepipe. This 20 km-long urban corridor comprises 44% of the Mauritian population. The capital, the island's business and financial centre, accounts for half of the labour market (retail outlets, port

## Lamy-Giner – Accessibility Challenges for Mauritius and La Réunion

activities). The Mauritian capital is home to the various administrations, the Stock Exchange, headquarters of companies, banks and insurance companies. More than 150,000 Mauritians head towards the capital every morning.

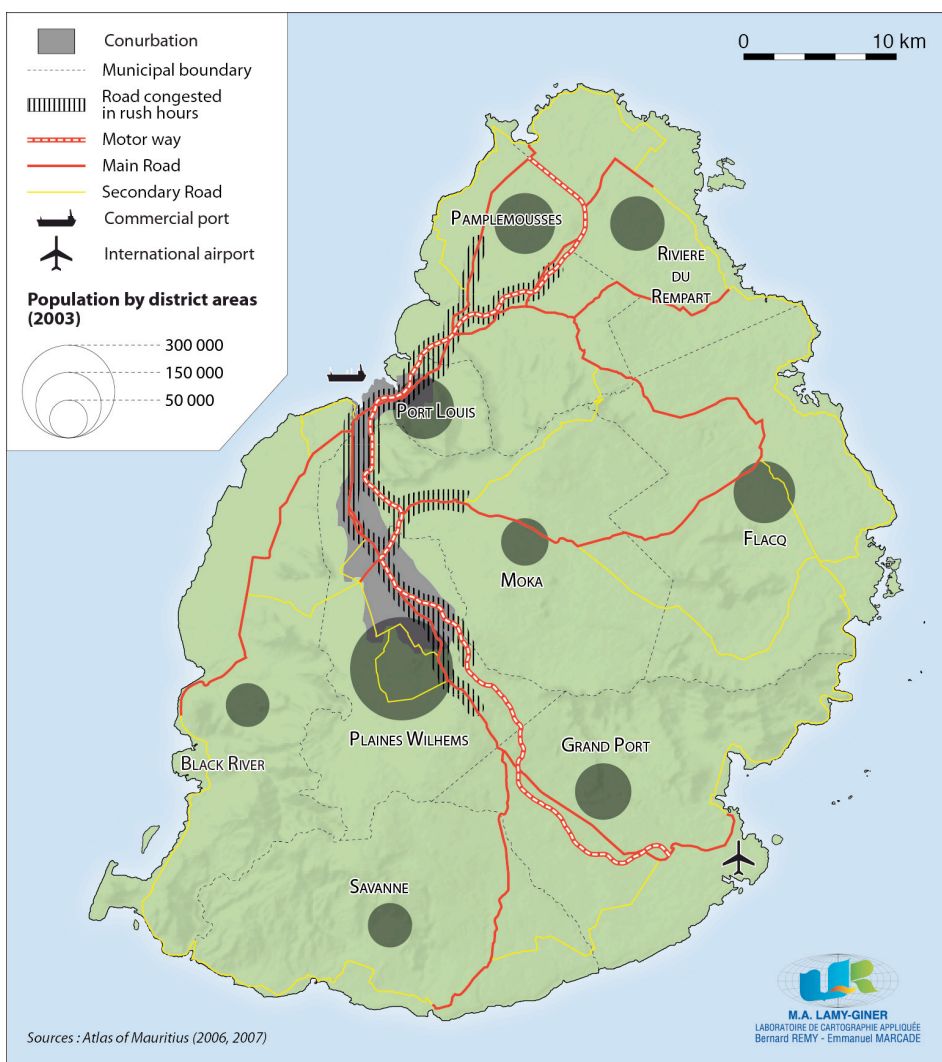


Figure 6 – Mauritius: a central road network

The problem is that the island's road network mainly leads to this conurbation and no road bypasses the capital (Figure 6). Over 50,000 vehicles line up at the entry to Port Louis between 6.30-9.30 am. It takes two hours to drive the 20 km between Curepipe and Port Louis. The Mauritian capital is on the verge of suffocating. The number of trucks heading to or leaving the port in addition to private vehicles worsens the situation. A dual carriageway was opened between Mahébourg in the south west of the

island, close to the airport, and Grand Baie, the island's main beach resort but it crosses the centre of Port Louis. It is therefore saturated at rush hour. Plans to bypass Port Louis are under review but their cost (3-4 billion Rupees) is prohibitive (Folio, 2008: 290-291).

In summary, the challenge facing the public authorities on La Réunion and Mauritius is to slow down and/or stop the escalation in car ownership. The solution is necessarily to provide public transport other than buses.<sup>22</sup> Rail transport has again become a priority. On La Réunion, construction work on a tram-train network should have begun in 2010 but the new majority in the Regional Council Executive aborted the project. This costly (1.6 billion Euros) and, as some would argue, poorly conceived project, has temporarily been shelved. Nonetheless, for both these islands where traffic has become a problem—and sometimes a nightmare—a future alternative to road traffic will have to be found.

## Conclusion

Insularity is related to territorial isolation and partitioning but it also implies interchange and the circulation of goods and people (Vergé-Depré, 2008: 98). In the case of La Réunion and Mauritius, sea and air links have largely erased physical and historical isolation at different periods in their history to the extent that today they are air and sea transit points in the south west Indian Ocean. The same does not apply to the Comoros, Rodrigues or Madagascar, which have poor accessibility and occupy peripheral locations in relation to their neighbours and the rest of the world. However, the fact remains that these two 'sister islands' at times suffer from their comparative isolation. Exorbitant airfares and high prices of imported goods testify to the fact that their distance from urban centres or from the international financial centres comes at a cost.

Internal accessibility remains an issue for these two islands hampered by traffic congestion. This impacts upon the economy (eg employees who arrive late for work, delays in the delivery of goods), the environment (pollution), the social sphere (stress, fatigue), household and company purchasing power (spending on fuel). The inevitable solution is rail transport, recalling the island's former *petit train lontan*<sup>23</sup>, which could provide a sustainable mode of transport. It would enable the island's most underprivileged classes to benefit from affordable, low-cost travel and provide a viable alternative to road transport. It could also use clean(er) energy. The challenge facing these islands is to offer a mode of transport that is no longer a privilege.

## End Notes:

---

<sup>1</sup> During the referendum on independence in 1974, about two thirds of the Mahorais chose to remain French. However, instead of combining the results of the referendum on the four islands as agreed, France considered the results island by island, which enabled her to keep control of the forth island of the Comoros.



<sup>2</sup> Creole is a word of Spanish origin meaning 'locally raised'. Creole is an oral language dating from around the 17th Century during the colonisation of isolated and often insular communities. Creole is a mixture of words brought by the colonial settlers (the ruling class) and of borrowings from the languages of different ethnic groups colonised or of ethnic groups who arrived in successive waves (slaves, indentured workers). The Creole language of La Réunion and Mauritius draws on 'old' French that was adapted as a vernacular between peoples who came from Madagascar, Africa and India. Although these peoples originated from a common language community, La Réunion or Seychellois Creoles have to a large extent become mutually incomprehensible owing to the distance between these islands.

<sup>3</sup> These weather stations play a vital role in monitoring and forecasting cyclones for French territories and neighbouring countries that are members of the Indian Ocean Commission (IOC).

<sup>4</sup> Although, as Taglioni points out, "the 1984 agreement states that the isolated islands are unsuitable for human settlement or indigenous economic activity and do not have an exclusive economic zone or a continental shelf" (Taglioni, 2006: 667 – author's translation).

<sup>5</sup> This agreement provides for the joint management of fishing stocks and covers cooperation on environmental protection and archaeological research on the island and in its marine habitat.

<sup>6</sup> The death of the Creole singer Kaya in prison in February 1999 triggered violent riots in Mauritius between the Creole and Hindu communities (Boudet, 2000: 153).

<sup>7</sup> The British represent that the Chagos Archipelago forms a legal entity that is distinct from Mauritius and as such has never been part of Mauritius but was administered by the British colonial government of Port Louis for reasons of convenience (Guébourg, 2006: 232).

<sup>8</sup> Fishing is being gradually banned and access to fishing grounds more strictly controlled. The marine reserve also bans settlement on the archipelago islands (apart from Diego Garcia), which further breaches the rights of the Chagossiens.

<sup>9</sup> This agreement replaces the Cotonou Convention that granted duty-free and quota-free status of products originating from ACP countries (Africa, Caribbean, Pacific) whereas these countries were under no obligation to open their markets to European goods. The EU-ESA economic partnership agreement, which is compatible with World Trade Organisation (WTO) rules, unlike the Cotonou agreements, provides for the opening of Mauritius' market to European goods within the next 15 years. It was signed in August 2009. The ESA group includes Mauritius, Madagascar, the Seychelles, Zambia and Zimbabwe.

<sup>10</sup> Feeders are ships, often with low capacities, that shuttle between secondary ports ('feederised' ports) and a main port or hub.

<sup>11</sup> This shipping route, called the Max-Mascarenes Express Service, was opened in December 2008. It links Djibouti to the ports of Victoria (Seychelles), La Réunion, Port Louis, Toamasina (Madagascar) and Longoni (Mayotte).

<sup>12</sup> The estimated cost of handling a 3,000 TEU container vessel (including port duties, manoeuvring, towing and assistance fees) is US\$35,000 on Mauritius versus 7US\$3,000 on La Réunion and US\$64,000 at Toamasina.

<sup>13</sup> Port Louis and Port La Réunion together handle less than 60,000 cruise passengers a year (both departures and arrivals). Maritime passenger transport between the two islands by *MS Mauritius Pride* accounts for half this figure.

<sup>14</sup> I should qualify this statement since on La Réunion, one fifth of the population (beneficiaries of minimum income support, dependent spouses and children) receive the *Revenu minimum d'insertion* (460 euros for a single person, 690 euros for a couple). However, La Réunion is the French department with the highest rate of unemployment (30%). In addition, some 50,000 public service workers receive additional payments (salaries are over 35% higher than in mainland France).

<sup>15</sup> Madagascar lost half its tourists between 2008 and 2009 as a result of the political situation in the country.

<sup>16</sup> A viral disease spread by mosquitoes. A major flare-up of 'chick' occurred on all islands in the S.W. Indian Ocean between February 2005 and April 2006. Over 250,000 cases were recorded on La Réunion. On Mauritius, no statistics were disclosed so as not to damage the country's economy or dent its postcard image for tourists.

<sup>17</sup> Until recently, Mauritius restricted access to its air space, a policy based on bilateral agreement with other countries (and with airlines). Fares are jointly set by Air Mauritius and the partner airline. Until that time, no airline, apart from Air India, was permitted to carry passengers to destinations other than the country of departure. To counter this uncompetitive policy, changes were introduced: a private airline, CatoAir, is now licensed to operate domestic flights and a second French airline (Corsairfly) now operates flights to Mauritius.

<sup>18</sup> The airline was set up in 1974 to fly to the *Iles Eparses*. It began commercial services the following year under the name of La Réunion Air Service (services to Mayotte started in 1977). It acquired its current name, Air Austral, in 1990. Limited to medium-haul routes until 2000, the airline began flying to and from the French mainland in 2003. In 2009, the airline generated net profits of 4 million euros. The airline's main shareholder is Sematra, a joint public-private company including La Réunion's Regional Council and Chamber of Commerce and Industry as main stakeholders.

<sup>19</sup> See <http://whc.unesco.org/en/list/1317> - accessed May 2011.

<sup>20</sup> Tax levied in French overseas departments on certain imports (except basic commodities). The idea is to protect local production from foreign competition. The import tax may be as high as 25% on some products.

<sup>21</sup> The term is used to distinguish from the uplands (mountainous interior) and denotes the coastal plains and the low-lying hills.

<sup>22</sup> Services are irregular owing to road congestion. Short of special traffic lanes, buses are cram-packed.

<sup>23</sup> *Petit train lontan* means 'little train of yore' in Creole.

## Bibliography

Bonnemaison, J (1997) 'La sagesse des îles' ('The wisdom of islands'), in Sanguin, A-L (eds) *Vivre dans une île* ('Island Life'), Paris: l'Harmattan: 121-129

Boudet, C (2000) 'Emeutes et élections à Maurice' ('Riots and elections in Mauritius'), *Politique africaine* n79: 153-164

Eve, P (2005) 'Les Hauts Bourbonnais: pour une lisibilité des disparités' ('High Bourbonnais: understanding the disparities'), in Jauze, J-M and Guebourg, J-L (eds) *Inégalités et spatialité dans l'océan Indien* ('Regional Inequalities in the Indian Ocean'), Paris: l'Harmattan: 43-60

Folio, F (2008) 'Le secteur du transport terrestre à l'heure des recompositions' ('The land transport sector at the time of reorganisation'), in Jauze, J-M (eds) *L'île Maurice face à ses nouveaux défis* ('Mauritius faces new challenges'), Paris: l'Harmattan: 279-292

Gay, J-C (2000) 'La mise en tourisme des îles intertropicales' ('Tourism's stake in the intertropical islands'), *Mappemonde* n58: 17-22

- - - - (2008) *L'outre-mer français, un espace singulier* ('French Overseas Territories, a singular space'), Paris: Belin

Géographie Universelle (1994) 'Le Sud-Ouest de l'océan Indien' ('The South-West Indian Ocean'), in Dubresson, A, Marchal, Y and Raison, J-P (eds) *Les Afriques au Sud du Sahara*, Paris: Belin/Reclus: 420-450

Germanaz, C (2005) 'De l'escale au réseau: suite typologiques et fonctions d'îles' ('On the call to the network: typological suites and features of the islands'), in Bernardie, N and Tagioni, F (eds) *Les dynamiques contemporaines des petits espaces insulaires*, Paris: Karthala: 27-48

- - - - (2008) 'Les ailes d'Air Mauritius' (The wings of Air Mauritius), in Jauze, J-M (eds) *L'île Maurice face à ses nouveaux défis* ('Mauritius faces new challenges'), Paris: l'Harmattan: 293-307

Guébourg, J-L (2006) *Petites îles et archipels de l'océan Indien* ('Small islands and archipelagos of the Indian Ocean'), Paris: Karthala

Jauze, J-M (2005) 'Urbanisation et inégalités spatiales dans les Mascareignes' ('Urbanization and spatial disparities in the Mascarene'), in Jauze, J-M and Guébourg, J-L (eds) *Inégalités et spatialité dans l'océan Indien* ('Regional Inequalities in the Indian Ocean'), Paris: l'Harmattan: 143-158

Lamy-Giner, M-A (2006) 'Port-Louis et Port Réunion, ports majeurs du Sud-Ouest de l'océan Indien', *Géococonfluences*, (Port Louis and Port Réunion, major ports of the South-West Indian Ocean), *Geoconfluences* – online at : <http://www.geoconfluences.ens-lsh.fr/doc/transv/Mobil/MobilScient5.htm> - accessed January 2011

- - - - (forthcoming 2011) 'Les transports à La Réunion sur la voie du développement durable' ('Transport in Reunion Island, on the way to sustainable development'), in Taglioni, F (ed) *Actes du colloque Insularité et développement durable* ('Proceedings of a Symposium on insularity and sustainable development'): 283-303

Le Clézio, J-M (1986) *Voyage à Rodrigues* ('Voyage to Rodrigues'), Paris: Gallimard

Oraison, A (2003) 'Diego Garcia: enjeux de la présence américaine dans l'océan Indien' ('Diego Garcia: issues of the American presence in the Indian Ocean'), *Politique africaine* n207: 115-132

Taglioni, F (2006) 'Les petits espaces insulaires face à la variabilité de leur insularité et de leur statut politique' ('Small insular spaces in relation to the variability of their insularity and their political status'), *Annales de Géographie* n652: 664-687

- - - - (2007) 'Les petits espaces insulaires au cœur des revendications frontalières maritime dans le monde' ('Small insular spaces at the centre of international maritime border claims'), *L'espace Politique* n1: 153-164

Unattributed (2006) *Resource Atlas for Mauritius and Rodrigues* (2006), Vacoas: Editions le Printemps

Vergé-Depré, C (2008) 'Transport aérien et territoires insulaires: l'exemple des Petites Antilles' ('Air transport and insular territories: the example of the Lesser Antilles'), *Annales de Géographie* n659: 97-109