## Sub-Saharan Africa Transport Policy Program

SSATP Report No 09/04/CKR







# POVERTY AND URBAN MOBILITY IN CONAKRY

Final Report

Africa Region World Bank



September 2004

## POVERTY AND URBAN MOBILITY IN CONAKRY

## **Final Report**

Prepared by SITRASS,

International Solidarity on Transport and Research in Sub-Saharan Africa

Sub-Saharan Policy Transport Program (SSATP)
Africa Region
World Bank

The Sub-Saharan Africa Transport Policy Program (SSATP) is a joint initiative of the World Bank and the United Nations Economic for Africa (UNECA) to facilitate policy development and related capacity building in the transport sector of sub-Saharan Africa.

The findings, interpretations, and conclusions expressed here are those of the author and do not necessarily reflect the views of the World Bank, UNECA or any of their affiliated organizations.

Autres publications sur le site Internet du SSATP

www.worldbank.org/afr/ssatp

## **Summary Assessment**

This study, conducted by the SITRASS network on behalf of the World Bank, is aimed at assessing in detail the conditions applicable to mobility and access to urban services by the poor populations of Conakry, so as to provide background for the identification of targeted programs of action. The study is based on fieldwork conducted in the fall of 2003, with a similar study being carried out simultaneously in Douala: personal interviews and household surveys on daily mobility, focused on the poorest individuals and households (see inset on methodology). This summary assessment sets forth the main findings of the study and the proposed lines of action.

#### A. A deficient transport system, restricted mobility at a high price

Urban mobility in Conakry is characterized by two major constraints: (i) an inadequate road network that provides poor spatial coverage and in some sections is in extreme disrepair; (ii) an inadequate and disorganized public transport system. These two constraints, along with the city's linear structure and the concentration of administrative and economic activities on or near the Kaloum peninsula, exert considerable pressure on urban travel conditions.

#### A.1 INADEQUATE TRANSPORT SUPPLY

The road network, which comprises three major radial trunk roads and just a few transverse roads, can hardly service the outlying areas. The household survey data confirm that living far away from the central area greatly reduces the chances of accessing paved roads (only 18 percent of households located in the most distant peripheral neighborhoods, compared to 65 percent of households in the city center). The poor have somewhat more ground to cover before attaining the paved roads than the non-poor because they are usually more likely to live on the outskirts.

The poor cannot afford private vehicles and public transport is their only option other than walking. Public transport supply consists of minibuses (magbanas) and shared taxis plying routes along the major radial trunk roads. However, there are not nearly enough of them during peak hours. From our study, we gathered that commuters see the magbanas as relatively cheap but offering shoddy service. Conversely, taxis are the mode of public transport with the quality of service judged the least inadequate, but most low-income users consider it too expensive. Overall, the views expressed on public transport are quite negative and transport supply falls short of meeting demand in terms of both quality and quantity.

#### A.2. THE FINANCIAL BURDEN OF MOBILITY

On average, it costs 50 percent more to take a taxi than a *magbana*, i.e. 460 Guinean Francs (GF), as against GF 300. The official fares (GF 300, as compared to GF 200) do not adequately reflect the actual cost to passengers because the fare for the journey often has to be negotiated based on distance, time, baggage, or according to route "shortening" practices, which drive fares

Summary Assessment ii

sharply upward. While the *magbana* is the "poor man's means of transport," it is so mainly because its fares are more affordable. The location of the home is a determining factor in transport inequalities. Traveling by public transport is on average 30 percent more expensive for people living in the outermost suburbs than if they lived in the city center (GF 470 as against GF 360).

Poor households spend on average 19 percent of their income on urban transport, whereas the non-poor spend 12 percent. For one in every four poor households, that proportion is 30 percent, and yet, the use of public transport by poor households is quite reduced. Members of poor households spend two times less on public transport than those in non-poor households; accordingly, the poor account for a smaller proportion of public transport passengers than do the non-poor.

These findings are a major warning sign of the pressure on household and individual budgets due to essential travel needs to ensure livelihood activities. Tight budgets severely limit transport use by the poorest urban dwellers. Easing this constraint entails either increasing their incomes or reducing public transport fares.

#### A.3 WALKING AS A WIDESPREAD MEANS OF TRANSPORT

The poor travel as much as the non-poor but use motorized transport far less often than the non-poor do. In Conakry, walking is by far the chief means of transport, and more so among the poor (see table). Most pedestrian travel is over short distances but long journeys on foot are not uncommon, which points to the mismatch between public transport supply and needs, as well as to fares that are too high for the poor.

Travel on foot is usually under harsh conditions, not to mention the discomfort always involved in walking during difficult weather conditions (severe heat and heavy rains). Pedestrians face two types of obstacles: lack of or insufficient roadways and sidewalks, and nuisances due mainly to the city's conditions (poor lighting, unsafe roads, filth, etc.) Many of Conakry's pedestrians therefore use the railway tracks as a walkway, particularly during the rainy season, because there is no danger from oncoming motor vehicles and because the track bed is relatively dry.

In addition to more limited use of public transport, the poor walk more often before and after their public transport trip than the non-poor. There are several reasons for this: they take the minibus more frequently and minibuses usually only run on paved roads, they live in areas inadequately served by public transport, and they rely on walking to reduce transport expenditure, by keeping the distance traveled by public transport short and the fare low.

On weekdays, the poor travel less for work and education (30 percent) than for household-related activities (40 percent, mostly for shopping or to obtain supplies). Social activities account for the third major reason (30 percent). Walking is the main mode of travel, whether it be for household-related activities (86 percent), to attend school (76 percent), for social activities (74 percent), and even to commute (72 percent, as against 49 percent for the non-poor).

Summary Assessment iii

## Daily mobility indicators for Conakry's poor and non-poor (individuals aged 11 years and over, averages from Monday to Friday)

	Poor	Non-poor
Total number of trips per individual and per weekday	3.8	3.9
Modal split:		
- Walking	78%	61%
Walking for 30 minutes or more	11%	9%
- Minibuses (magbanas)	14%	15%
- Shared taxis	6%	20%
- Other public transport vehicles (buses, undeclared cabs, etc.)	1%	1%
- Private vehicles	1%	3%
Percentage of public transport users walking more than 5 minutes at the start		
and end of their public transport trips	41%	21%
Travel Time Budget	1 hr 20 min	1 hr 45 min

## A.4 STRANDED IN THE RESIDENTIAL NEIGHBORHOOD OR CONSTRAINED ACCESS TO THE CITY

Mobility needs are strongly determined by gender, age and occupation. Two major mobility profiles are showed in evidence among the poor:

- ✓ The dominant profile is one of mobility organized in the vicinity of the home. Mobility takes place in the neighborhood of residence and most trips are made on foot. Trips to distant neighborhoods to pay a visit or to run domestic errands are rare, as is public transport use. This is the general profile of non-working people, men and women alike, but the same holds true for most students and a large number of the working poor.
- ✓ The second type of mobility profile applies to the employed, older students, and job seekers whose out-of-home activities take them to the city. They therefore have to weigh the pros and cons of the financial burden and difficulty of access to public transport on the one hand, and the discomfort of walking on the other.

#### B. Many difficulties accessing basic services

Problems accessing urban services, as well as getting to work, seem to pose more restrictions on poor urban dwellers than others and tend to accumulate, thus weighing heavily on living conditions in disadvantaged households.

#### B.1 GETTING TO WORK - AN OBSTACLE COURSE

When times are hard, getting to work is more difficult and yet even more crucial. In poor households, each working person provides on average for 4.4 non-working persons (3.3 in non-poor households).

Although salaried workers frequently use public transport to get to work, its use by workers from the informal sector is less frequent because of the close proximity of home and work and their more irregular income flows. A combination of factors (long distances, waiting and connection times, peak hour traffic jams) explains the long travel times when using public transport, especially the *magbanas*. The hardships are even more acute among poor workers, because when they work "in town" many of them have to walk to get there, thus covering even longer distances.

Summary Assessment iv

Getting to town, however, means accessing higher paying jobs. The poor, independent merchants who work in the city and use public transport to get there earn on average a third more than those who work close to home (28 percent more after transport costs have been deducted). The fact remains, however, that some workers can find themselves spending a large share of their income on travel between work and home.

Whether workers walk or use costly and difficult public means of transport, hardship seems to be the common denominator of commuting. Finding an available vehicle is often an ordeal, as mentioned by a second-hand clothes female vendor: "I can easily spend two hours waiting to get to Madina. Getting into a vehicle along with other workers also trying to get to work takes serious muscle power."

#### **B.2** Problems getting to school

In human capital development-driven poverty reduction strategies, access to education plays a key role. In Conakry, however, full primary school access for children is not guaranteed. Access is consistently lower among the poor than the non-poor. In fact, official declarations of enrolment do not accurately reflect actual attendance and just over three in four enrolled children actually attended school the day before.

Conditions for access to school seem to be adverse for poor households. Students live farther away from the schools they attend and have a greater tendency to get there on foot. Indeed, more often than not private schools are hardly ever an affordable alternative for low-income families. Problems getting to school appear to be the second major obstacle to high enrolment (coming in behind the quality of education offered in public schools and well behind private school fees). Poor households experience more difficulties than the non-poor in getting to school, which adversely affects their children's chances of success.

#### B.3 HEALTH SERVICES — A LUXURY FOR MOST

Most people in Conakry do not consider going to hospitals and clinics (whether public or private) and they deem the service offered by local health centers unsatisfactory.

Private clinics are too costly, particularly for poor households, and accessibility to the two public hospitals is difficult. The situation is worse for people living far away from the city center. Whereas average travel time to public hospitals for poor households is less than 30 minutes for people living downtown, it is almost two hours for those living in the outermost suburbs, which severely affects how often people use health services. Public dispensaries are also too few and too under-equipped to qualify as alternatives closer at hand. Given the inadequate health service supply and the high cost involved, self-medication and traditional medicine become the only affordable solutions, with people opting for modern medicine only under more exceptional circumstances.

#### B.4 GETTING TO MARKET AND WATER SUPPLY – A PROBLEM EVERY DAY

Walking is the mode of transport used to get to market (for over 90 percent of households), even when the market is located in distant neighborhoods (still over 70 percent). Travel time to the market is longer in the isolated areas of the city. The main difficulty mentioned by urban dwellers is the cost of the service (i.e., product prices), which was of greater concern than actually getting there.

A mere 30 percent of poor households (and 50 percent of non-poor households) have a water tap in the property, and service interruptions are frequent in poor homes. Although water points are usually close to home, a minority (15 percent) of poor households cover distances of over 100 m to fetch water—a task still essentially reserved for women, and often the young.

Summary Assessment v

#### **B.5** A HINDRANCE TO SOCIAL INTEGRATION

In an environment where the prospects of working or saving up are slight, maintaining a social network is a means of maintaining a stake in the future or, at the very least, providing a safety net offering minimum protection in the event of a crisis. Even though our information on the social integration of the residents of Conakry is partial, the data reveal the key role of sociability in the day-to-day lives of urban dwellers.

But, for people to become part of the social solidarity network they must be able to get to the people they rely on, who are scattered around the city. It takes time and an outlay of personal funds to pay visits, attend ceremonies, and take part in social organizations and the like, even though money is often exchanged during such social activities. More specifically, transport's dampening effect (financial and time cost) plays a decisive role in how often people can undertake socially-driven travel. The difficulties in maintaining social relations are constant among the poor who finally cannot develop social integration.

#### C. Proposed lines of action

Given the extent of the problems, it would be difficult to justify placing special emphasis on a policy that targets only the poorest. However, settling for a transportation policy intended mechanically to benefit all social groups falls short of the mark. What is needed, rather, is improvement in the overall functioning of the transport system while simultaneously focusing on those components of supply that are best suited to meeting the needs of the poor.

#### C.1 ACTIONS—ROAD SYSTEM

Free up access to isolated districts by giving high priority to local roads, and finding suitable road designs that can accommodate the lightest vehicles and can be sustainably maintained.

<u>Improve road and traffic conditions for public transport operators</u> so as to increase their productivity and efficiency.

#### C.2 ACTIONS — PEDESTRIAN TRAFFIC CONDITIONS

<u>Provide more space for pedestrian walkways</u>, whether in the isolated suburban neighborhoods, along the major trunk roads, or on the sidewalks in the city center. The actions needed must facilitate pedestrian flows through a series of improvement measures that have a low unit cost but are closely coordinated and driven by strong political will.

Explicitly include walking as a mode of transport in urban development policies so as to limit the nuisances associated with the overall urban environment.

#### C.3 ACTIONS — PUBLIC TRANSPORT SUPPLY

<u>Organize multimodal transport by taking into account the existing modes of transport</u>, that is, buses and *magbanas* on the trunk roads, and shared taxis serving the suburbs. Actions targeting the road system and negotiations with representatives of transport operators may help make it easier to provide minimal public transport service in poor/landlocked neighborhoods.

<u>Encourage productivity-driven fare reductions</u>. The levels of fares necessary for unsubsidized enterprises to break even puts them largely out of the reach of poor users. Comprehensive actions to improve productivity (improved traffic flow, efficient operation of roadside stops and

Summary Assessment vi

stations) should make it possible to lower fares. Doing so presupposes that the elaboration of a public transport plan for Conakry will be undertaken in the first place.

<u>Create an Organizing Authority for public transport</u>. Its responsibilities would include organizing the network into tiers, dealing with trouble spots in the road system, issuing zone permits, providing support to operators, negotiating fare setting, and providing information to users. The clarification of responsibilities as regards organizing transport in Conakry is a prerequisite.

<u>Enhance employment in the transport sector by improving the sector.</u> The urban transport sector (predominantly small-scale) offers many unskilled jobs open to the poor. Efforts should be focused on improving working conditions, which are harsh in this sector.

#### C.4 ACTIONS – MAKE BASIC SERVICES AVAILABLE LOCALLY

<u>Provide neighborhoods with basic services</u> (especially the unplanned districts in outlying areas). Indeed, addressing the needs of the poor does not just involve the transport supply side, but it also involves the question of where basic services (schools, health centers, markets, standpipes, etc.) are located, with a view to reducing the distances that must be covered. The conditions affecting accessibility to services should be taken into account beginning at the design phase, in coordination with the authorities concerned.

Summary Assessment vii

#### Methodology

We conducted thirty structured and semi-directed qualitative interviews of people with diverse social characteristics. The respondents were contacted and interviewed at their place of occupation (in the case of the active) and in selected pedestrian areas where foot traffic is heavy, such as along the Conakry railway line.

The quantitative survey covered 627 households directly in their homes in October 2003 (2,703 individuals over the age of 10 were surveyed). Our aim was to represent the different situations in which the poor live, instead of giving a statistical representation of the poor in the city of Conakry as a whole. Accordingly, the poor are purposely overrepresented in our sample insofar as the 30 selected survey areas are from among the disadvantaged neighborhoods. More to the point, the more privileged among the "non-poor" are underrepresented, because interviewers were even asked to avoid homes that from the outside appeared to belong to the affluent.

Information was collected from individuals regarding all travel completed on the day before the survey (except Sundays). A special effort was made to record short trips on foot undertaken in the vicinity of people's homes. A trip has a place of origin and a destination; an activity or purpose at the destination; departure and arrival times; a duration; one or more modes of transport; as well as a cost if public transport is used. A single trip may comprise several segments where a mode or vehicle change takes place. Therefore, someone going to work in the morning who walks 10 minutes to the bus stop and then takes a minibus would have a trip consisting of two legs, the first on foot, the second by minibus. In addition to collecting the previous day's mobility data, the household survey questionnaire provides information on access to basic services, on opinions on public transport modes and the travel conditions pedestrians face, on social integration, and on daily travel expenditure. These data have been cross-referenced with the variables on the sociodemographic standing of the households and individuals covered by the questionnaire.

The annual per capita income of poor households (77 percent of households in our sample) is less than GF 450,000. By analogy, a poor person earns an income (corrected by a factor of the total number of persons in the household/number of working people in the household) below this threshold (85 percent of respondents over the age of 10 fit this profile). The financial threshold corresponds to both the equivalent in Purchasing Power Parity (PPP) of the threshold retained for Douala and the annual equivalent of a minimum wage in Conakry. This monetary definition is restrictive because the manifestations of poverty are multidimensional. Nevertheless, the structural linkages discovered between poverty and daily mobility remain when we extend the definition of poverty to encompass housing and living conditions and even the degree to which food needs are met.

The Sub-Saharan Africa Transport Policy Program (SSATP) undertaken by the World Bank and the Economic Commission for Africa (ECA) has the objective of developing a full understanding of the mobility and accessibility conditions applicable to poor populations in African cities, prior to the identification of targeted programs of action. The Urban Mobility component of the SSATP has turned to the SITRASS network to carry out the present study on Conakry, with financing from the French Ministry of Foreign Affairs. This study is aimed at elucidating the nature and scope of the major needs of the poor of Conakry with respect to mobility, specifically by analyzing the social, economic, and spatial parameters that come into play. A similar study focuses on the city of Douala.

The SITRASS network, the primary goal of which is to develop and consolidate African expertise in the area of transport economics, brings together researchers from the Transport Economics Laboratory (*Laboratoire d'Economie des Transports*: LET) in Lyon, the National Institute for Research on Transport and Transport Safety (*Institut national de recherche sur les transports et leur sécurité*: INRETS), and African teams to conduct studies and research on the transport and road safety sector in Sub-Saharan Africa.

In connection with this study, we have had the opportunity to meet with various government officials and private sector representatives (labor unions of transporters and drivers, community leaders, city officials and employees, etc.). We would like to express our sincere gratitude for the time and information that they so generously provided. In particular, we would like to thank the Minister of Transport, the Secretary General of the Ministry of Transport, the Governor of the city of Conakry, and Mr. IRACI MARA, the Director of Territorial Administration and Decentralization and Chairman of the Consultative Committee on Urban Mobility in Conakry, who, with Mr. Bano SOW (National Director of Transport), was able to enlist the support of all the members of his committee throughout the study. We further thank all the interviewers and supervisors as well as the "mere" citizens without whose participation this study could not have been conducted.

The following experts contributed to the study on Conakry and Douala:

- Didier PLAT (Team Leader, Transport Economics Laboratory, Lyon)
- Amakoé ADOLEHOUME (Chief Representative, SITRASS)
- Bano BARRY (University of Conakry)
- Esther BOUPDA (University of Douala)
- Lourdes DIAZ OLVERA (Transport Economics Laboratory, Lyon)
- Xavier GODARD (INRETS, Arcueil)
- Louis-Roger KEMAYOU (University of Douala)
- Pascal POCHET (Transport Economics Laboratory, Lyon)
- Maidadi SAHABANA (Transport Economics Laboratory, Lyon)
- Bi Nagone ZORO (AIDET, Abidjan)

At the SSATP level, the study was coordinated by Hubert NOVE-JOSSERAND, senior urban transport specialist at the World Bank.

#### ANALYTICAL FRAMEWORK

Poverty has traditionally been pinpointed on the sole basis of economic resources available to the household, but a consensus has gradually emerged regarding the multidimensional character of poverty in many works and papers produced by international institutions. Yet there is no single definition of poverty, even though, in very general terms, poverty can be viewed as a combined lack of various resources (economic, social, cultural, etc.) limiting the capacity to meet minimum nutritional standards, participate in the daily life of society, and ensure economic and social reproduction. Obviously, reference to a minimum level of monetary resources is an indispensable step in identifying situations of poverty.

However, in the majority of households, individuals are relatively independent in using individual resources, which can result in their having different capacities for financing their travel, independent of the household's general circumstances. Earlier work on Sub-Saharan capitals shows, for example, that access to an individual vehicle is determined by the availability of individual resources more than by household resources (Diaz Olvera et al., 1998). The distinction between household poverty and individual poverty thus adds an extra layer of knowledge to the analysis. In particular, the individual/household distinction makes it possible to focus on the specific needs of various especially vulnerable categories. These categories, such as youth and women, are often targeted by general poverty reduction policies, but no transport component is systematically included, and it is important to develop ways to better describe their mobility needs.

Mobility, as reflected in all trips made over a given unit of time, usually one day, is simply the means to carry out a number of activities that are localized in both time and space. Of course, observed demand for transport does not fully expose all travel needs, nor ultimately all activities, of individuals. It only shows the needs that could be satisfied, hinging to some extent on transport supply, on the one hand, and on the capacity of individuals to tap this supply and cover its cost, on the other, and depending on urban opportunities for activities.

Such mobility thus faces a major constraint, namely the urban supply of services. Some services are concentrated in specialized buildings, designated as urban facilities (hospitals, schools, playing fields, etc.), while others may be more diffuse, reaching individual dwellings: these generally involve networks to which a household may or may not be connected (water, power, telephone, etc.). If there is no home access to the network, then household members must resort to home services (for example, itinerant water sellers) or make use of outside services (standpipes, phone shops, etc.), which means obligatory trips for some members of the household, often at a higher cost.

Thus, the concept of accessibility emerges as an adjunct to the concept of mobility. The concept of accessibility is akin to a population's ease of travel in order to reach various types of urban facilities or services, starting out from their place of residence. The concept encompasses the conditions of physical access (time or distance, possibly transport costs) to the facilities, but does not generally take into account other sociocultural or economic dimensions that may limit or even prevent using the facilities, even if they are easily accessible from a spatial perspective. To better analyze travel practices, it therefore seems helpful to assess the population's real conditions of access.

#### RESEARCH PLAN

Arrangements in the field focused on three complementary goals: develop guidelines for the city and the transport system; interview poor city dwellers to understand their travel needs; and measure mobility practices and problems regarding access to basic necessities through a quantitative household survey. In addition, a meeting was organized in May 2004 to share the preliminary findings and sketch out the lines of action. This one-day meeting was attended by institutional representatives, operators, members of civil society, and donors (see Annex 8).

#### Assess urban transport supply by meeting with the principal actors

We initially set out to meet the principal representatives of the services in charge of city planning and transport, at both the national and especially the local level. The purpose was to build up knowledge of the urban setting, how it is organized, and how it is growing, in order to back up the quantitative data in the analyses. We also attempted to identify potential links between urban and transport policies and assess the feasibility of poverty reduction measures that are not purely sectoral in scope.

Group and individual interviews were also held with sector professionals, mainly the owners and operators of public transport vehicles. These interviews, along with those held with the sector's supervisory authorities, allowed us to see not only the current conditions under which the sector is operating, and thus its potential for change, but also the pool of potential jobs that it represents. On this last point, the information was rounded out by an examination of official records.

#### Assess mobility needs and problems of access by listening to city dwellers

Some thirty in-depth interviews of poor city dwellers were conducted during the autumn of 2003, based on a clearly identified line of questioning with a combination of factual and open-ended items. The interviewees were chosen to ensure diversity in terms of gender, employment status, and location within the urban space (see Annex 1). The interviews revolved around three main topics:

- identification of travel difficulties and individual strategies of mobility, based on adaptations in the use of modes of travel depending on travel purpose, the temporal variability of practices, etc;
- the purposes and conditions of visiting a number of facilities, whether present in the neighborhood or not (schools, health centers, etc.);
- finally, social practices and associational networks, and the role that transport plays in this area, as either an enabling or a limiting factor.

The qualitative approach was rounded out by group interviews with various populations in a position to understand the specific problems of transport or to express the voice of city dwellers: community leaders, women traders, and parents of students.

#### Assess mobility practices by producing a statistical data base

A survey of 627 households was conducted (in which 2,703 individuals over 10 years of age were personally questioned) in order to pinpoint and measure mobility circumstances and behaviors in relation to poverty. Apart from describing the situation of individuals, the purpose was to assess the average mobility of various subgroups of the poor population, describe the actual use and the perceptions of different modes of travel, identify unit costs of travel and relate them to total travel expenses in the household budget, and, finally, pinpoint the conditions of access to various basic services for these subgroups. The final questionnaire is presented in Annex 2. Annex 3 provides an assessment of the questionnaire and the field work.

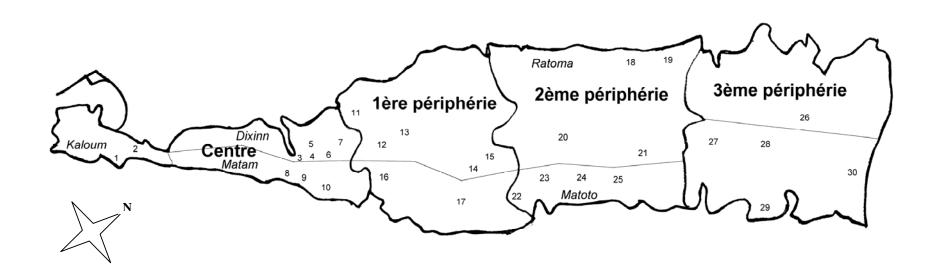
Evaluating these variables within each urban area makes sense mostly from a comparative standpoint, so as logically to be in a position at an early stage to assess these variables for other population groups. This objective was reached by establishing a sample, not of poor households, but rather of households residing in areas considered to be poorer than average city-wide. Since the great majority of neighborhoods are, at least partially, socially heterogeneous, a random selection of households in these areas is sufficient for establishing a control subsample of non-poor households and/or individuals. The selection of neighborhoods was based on secondary analysis of earlier surveys (see Annex 4). Map 1 indicates the location of the selected areas, which are scattered throughout the city of Conakry. However, owing in fact to this relative social blending, past experience has shown that it is difficult to obtain high rates of poor households without first possessing a reliable and recent sampling frame (see Annex 5). Still, the final sample is fully adequate for closely describing contrasting situations among poor populations for which the assessments appear quite robust (see Annex 7).

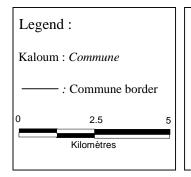
The definition of poverty that was used in processing the quantitative survey remains strictly monetary. The households considered to be poor are those whose per capita income is less than GF 450,000 per year. In the absence of a

recent consumption survey, this threshold was identified by analogy with the one selected for Douala; it also corresponds to the lowest annual wages declared. This definition is still, of course, debatable, because it poorly reflects the multidimensional character of poverty. In the opposite case, a description of household and individual poverty that immediately placed the emphasis on access (or rather lack of access) to basic necessities or social networks would have made the analyses focusing on these various dimensions fairly tautological, at least to the extent that the strictly monetary effects of poverty had not been clearly grasped. Our choice of monetary poverty (of households and individuals) is therefore accompanied by the objective of characterizing and analyzing the difficulties faced by individuals and households as regards mobility specifically, but also, more generally, their daily living conditions and the weight of travel in the difficulties they experience.

We shall first describe the context in which Conakry's system of transport operates. The second section discusses the conditions of access to this system of transport from the perspective of city dwellers, as well as their opinions about walking and public transport. The third section then discusses difficulties of access to basic necessities, and the fourth describes the mobility of Conakry residents, while distinguishing among various groups of residents. The weight that travel represents in household budgets is assessed in Section 5. The final section identifies various lines of action conducive to the mobility of poor city dwellers.

Map 1: Location of the quantitative household survey areas





- 1. Sans Fil
- 2. Tombo
- 3. Dixinn Gare
- 4. Kenien
- 5. Belle Vue Marché
- 6. Hafia Mosquée
- 7. Hafia 1
- 8. Boussoura
- 9. Touguiwondy
- 10. Matam Lido

- 11. Hamdallaye Mosquée
- 12. Hamdallaye 1
- 13. Hamdallaye 2
- 14. Koloma 1
- 15. Koloma 2
- 16. Dabondy 2
- 17. Tanéné Marché

- 18. Lambandji
- 19. Kobaya
- 20. Simbaya Gare
- 21. Wanidara
- 22. Yimbaya Permanence
- 23. Simbaya 1
- 24. Matoto Centre
- 25. Matoto Khabitaya

- 26. Sonfonia Gare
- 27. Kissosso
- 28. Tombolia
- 29. Tombolia Wassa Wassa
- 30. Dabompa

#### 1. THE DIFFICULT URBAN TRANSPORT SITUATION IN CONAKRY

The city of Conakry is located on a peninsula that juts out into the Atlantic Ocean. The 11,300-hectare peninsula is 36 kilometers long and its width varies from 2 to 6 kilometers. Conakry's population has been estimated at between 1.3 million and 1.5 million. Some estimates even put the city's population at 2 million. It is home to nearly one quarter of the total population of Guinea and is also the site of most of the country's economic activity. As regards transport, for example, the vehicles in use in Conakry are estimated to represent approximately 90 percent of the vehicles on the road in the whole country. Furthermore, the city has grown in a specific linear pattern. The old city center was originally built in the colonial period, starting in 1889. The Kaloum peninsula is still the functional center of the city, where most of the activities are located, including government offices, the port, corporate head offices, markets, and the road transit center.

Poverty is found throughout the city, but the most acute poverty is found in the Eastern communes of Ratoma and Matoto, which include vast slum areas. This is why survey areas in these municipalities are preponderant in our sample (see Map 1).

Two major constraints are characteristic of urban mobility in Conakry:

- (i) the road network is inadequate, poorly distributed, and in very poor repair in some places,
- (ii) the public transport system is inadequate and disorganized.

Urban transport conditions are determined to a large extent by these two constraints, combined with the city's linear geography, where activity zones (government offices, port, corporate headquarters, markets, and road transit center) are located at the end of the peninsular, primarily in Kaloum and Matam.

#### 1.1. INSTITUTIONAL FRAMEWORK: LACK OF COORDINATION AND LIMITED RESOURCES

In administrative terms, the city structure includes 5 communes and 99 districts. The outlying communes of Matoto and Ratoma have the largest populations by far (see Table 1). According to various people that we talked to, the population is now estimated to exceed 1.5 million.

Communes	Number of	Estimated	% of city
	districts	population in 2002*	population
Kaloum (west)	11	80,000	6.1
Matam (center-south)	20	177,000	13.5
Dixinn (center-north)	17	171,000	13.0
Ratoma (north)	20	415,000	31.6
Matoto (southeast)	31	470,000	35.8
Conakry total	99	1,313,000	100.0

Table 1: Conakry: distribution of districts and population by municipality

The communes are decentralized administrative divisions that manage their own budgets. They are run by elected mayors. The City Governor is appointed by presidential decree and carries out the City Council's decisions. The city of Conakry has a special department that deals with transport, roads, and housing. The mayors of the communes have their own technical departments with the same attributions as the city department, but at a lower level.

The division of responsibilities for road building and maintenance seems to be clear-cut, with the central government responsible for trunk roads and local governments responsible for secondary and local roads. The division of responsibilities for public transport regulation and planning also seems to be clear. Yet, human and financial resources are inadequate, and there is a lack of consultation and coordination between institutions that can sometimes lead to major problems in the field.

Among the consequences of the institutional weaknesses and the lack of resources are the inability to produce reliable statistics on automobiles on the road and the general lack of statistical and economic monitoring of the urban transport subsector. The National Land Transport Directorate issues a public transport license for each vehicle. These licenses have to be renewed each year. Most transport operators never bother to renew their license after the first year! Furthermore, the files of the Police Directorate that issues the door numbers for urban transport vehicles should give us an ideal of the number of public transport vehicles on the road in Conakry. Unfortunately, the file is not computerized for a variety of reasons and the paper files are no help at all!

The transport operators' unions also have a role in the operation and organization of the sector. The unions are based in each of the five communes that make up the city of Conakry. They are basically drivers' unions, but the real situation is more complex, since a union may include many drivers who have become owners and it seems that the union itself may own some vehicles.

The unions are affiliated with the FSNP-TMG (Transport and General Mechanical Engineering Federation), which is part of the CNT labor federation.

The road transit centers are managed by the drivers' unions. The relations between unions and drivers take different forms:

<sup>\*</sup> Estimated on the basis of the 1996 census and a growth rate of 3.12 percent per year.

ordinary membership for drivers working under contract with an owner,

- credit provided by the union and combined with employment contracts (the vehicle loans are repaid out of earnings over a few years);
- intermediation, with the union acting on behalf of owners to hire drivers.

Each of the unions in the five communes operates differently. The union in Matam provides loans to drivers who gain ownership of their vehicles by working off their debt, whereas the union in Matoto does not provide loans.

The union in Matam has a special role in that it operates the Madina bus station on behalf of the City Governor's office. This serves as the main station for interurban transport. It is to be moved in 2004 when work starts on the expressway interchange at Madina. Plans to locate the station at kilometer 9 were considered, but the new location is likely to be near kilometer 17, which raises the issue of the physical facilities and organization of the station.

The communal union has its own agents working in the field, with three to six agents per line to supervise traffic and deal with any incidents.

## 1.2. THE ROAD NETWORK IS UNEVENLY DISTRIBUTED, IN POOR REPAIR, AND THE MAIN ARTERIES ARE SEVERELY CONGESTED

The road network is a problem for the city of Conakry. There are three trunk roads running the length of the peninsula (Corniche Nord, Route Leprince, and Route Nationale 1) and several transverse roads running across its width (about ten roads of which four are paved). The road network is unevenly distributed over the five communes. Kaloum, and to a lesser extent Matam and Dixinn, have a dense and well-structured road system. Yet, away from the trunk roads, housing is built on very hilly terrain, especially in Matoto and Ratoma.

In recent years, there has been an effort to improve the situation as part of the Urban Development Project (PDU). The third Urban Development Project currently under way should end the isolation of the poor districts in Conakry. New roads are being built as part of the project in new and isolated districts (Photos 7 and 8).

The construction of an interchange at the site of the Madina bus station marks a milestone in the development of the Conakry road system. The interchange should regulate east-west traffic, as well as traffic flowing to the southern and northern areas of the city.

#### 1.3. PUBLIC TRANSPORT PROBLEMS IN THE CITY

Ever since the SOGETRAG public transport company of Conakry went out of business in the mid-1990s, Conakry has had an inadequate and poorly organized

public transport system. Public transport is reduced to minibuses, commonly called *magbanas*, and taxis that passengers share with others or hire individually. There are a handful of bus lines between the port and the upper suburbs. The rest of the market is made up of private, individually owned vehicles, or even government and corporate vehicles, so we are told, that occasionally provide "undeclared" public transport, especially during peak travel times.

The inadequate supply of public transport means that most travel involves a combination of walking and public transport (primarily taxis and *magbanas*). Many trips are made entirely on foot.

In addition, the number of minibuses has fallen sharply in recent years, and shared taxis have taken over some of the passenger load, as can be seen in the counts done in 1995 and 2002 (BCEOM, 2003). The taxis' share of traffic has risen from 15 percent to 32 percent, while the *magbanas*' share fell from 31 percent to 10 percent. Many of these are imported used vehicles that are very old, as is often the case in various African capital cities.

#### **Taxis**

Taxis are the leading mode of public urban transport as measured by the number of vehicles. Their numbers are estimated at between 5,000 and 6,000, but these figures should be taken with a grain of salt because of the problems with vehicle statistics mentioned above. Taxis operate throughout the city, plying the main roads, secondary roads, side streets, and market places. They provide the most acceptable level of comfort and fares cost around GF 200 for short trips on secondary roads and about GF 300 for trips on main roads. However, low purchasing power means that it is common practice to haggle over the fare. Taxis also provide point-to-point transport for individual passengers, in which case fares are much higher and the price of the trip is always negotiated before setting off.

#### Magbana minibuses

Magbanas are the second-ranking mode of public transport after taxis. They generally run along the main roads, with the main routes running: from Kilometer 3 to Kaloum via the highway or Route Le Prince, from ENTA to Madina via Route Le Prince or Route du Niger, from Madina to Kaloum or Lambanyi, or from Kaloum to Lambanyi via Dixinn. These vehicles can seat 15 to 18 passengers, but overloading is standard practice, especially during peak travel hours. The shortage of magbanas means that the police tolerate overloading during peak hours.

The number of minibuses increased substantially with an influx of vehicles from Liberia in the early 1990s, when Liberia was in the throes of a political crisis, followed by an arrival of vehicles from Sierra Leone in 2000. These vehicles can be driven in Guinea without clearing customs, but some private operators from Guinea also imported used minibuses from Europe during the same period. In

2001 and 2002, peace returned to Sierra Leone and transport operators were offered inducements to return. This meant that some minibuses then left Conakry to return to Freetown. The transport administration says it is difficult to determine how many *magbanas* left. However, the phenomenon was shortlived, it seems.

The problems with the administrative management of the transport sector (see above) and the lack of specific surveys mean that we can only give a rough estimate of the number of *magbanas* operating in Conakry. Based on a comparison of several data sources, including the license renewal drive of 1992/1993, vehicle registration statistics, discussions with various players, including the unions, etc., we can estimate that between 1,200 and 1,500 such vehicles were operating in Conakry in 2002. This figure also has to be taken with a grain of salt.

#### **Urban** buses

Despite the linear layout of the city, which lends itself to a mass transit system running along the central axis, there are no large passenger vehicles on the city streets. The only company operating a few urban bus lines with a dozen vehicles out of a total of 50 buses is Futur Transports (FT). The other buses are used on interurban and international routes.

Four urban bus routes are in operation, with the port of Conakry as their hub. They run to Lambanyi via Dixinn, to Enco5, to Tombolia/Dabompa via the expressway, and to Tombolia/Dabompa via Route du Niger.

Futur Transport's fleet is a mix of makes (GMC, Toyota, Saviem, DAF, etc.) and primarily made up of second-hand buses. The condition of the ancient and worn-out buses means that the company has an oversized maintenance department, which occupies 52 of the company's 200 plus employees. One of the biggest problems for the buses is poor infrastructure, combined with traffic jams caused by the complete lack of organization in the transport sector. We are told that the company's buses are frequently able to complete only a single afternoon run (beginning at 4:00 p.m.) from the port to the upper suburbs.

However, it must be acknowledged that a company like Futur Transport cannot have any significant impact on urban transport in Conakry unless certain conditions are met. These include a strong policy to promote bus transport backed up by incentives for private operators.

#### And, "naturally," unlicensed transport operators!

Privately owned vehicles are used to provide unlicensed transport, as are company vehicles and even government vehicles. We have no way of knowing what the exact numbers are, although some observers estimate that 500 to 800 vehicles make three to five trips each day, and nobody disputes the existence of

this business. A more detailed study of how the sector is organized and how it operates would give us a clearer idea of the real situation.

#### Urban transport is a major source of low-skilled jobs

Urban transport provides many direct and indirect jobs. With between 5,000 and 6,000 taxis on the road and 1,200 to 1,500 *magbanas*, we can estimate that urban transport provides between 12,000 and 15,000 permanent direct jobs (drivers, conductors, union agents, and touts). In addition to these permanent jobs, there is a reserve of 3,000 to 5,000 more casual jobs in the road transit centers. Furthermore, it could be deemed that managing their vehicles is the main occupation of some *magbana* and taxi owners. In aggregate, urban transport in Conakry generates some 20,000 direct jobs.

In addition to these direct jobs, there a myriad of indirect jobs in repair shops, spare parts dealerships, gas stations, small shops around the road transit centers, etc.

More specific surveys could provide more detail for the various estimates. On this basis, modernization of urban transport in Conakry seems to be a necessity and it should be possible to achieve it without any loss of jobs, which is an important consideration in any program targeting poverty reduction. But it must be acknowledged that the drive for greater efficiency and better organization will not result in employment for all of the jobseekers currently working on the margins of the system.

The household survey assessed access to transport networks on the basis of the time needed to reach the nearest road, the quality of the road, and the time needed to reach the public transport stop that the members of the household use most frequently. The households' opinions about different modes of transport help to fill in the picture by showing how city-dwellers feel about using public transport and walking.

We will not deal with individual means of transport. Even though many of the city-dwellers surveyed aspire to owning their own transportation some day (preferably a car), very few of the households in the survey sample own any means of transport. Only 1 percent of households own bicycles, fewer than one poor household in fifty owns a car and only one non-poor household in twenty-five<sup>1</sup> owns a car. Motorcycle ownership is a bit more common, but still only 6 percent of non-poor households own motorcycles and fewer than 1 percent of poor households, which is the population we are focusing on, own motorcycles. Therefore, public transport provides the only access to motorized modes of transportation for the poor.

#### 2.1. ACCESS TO THE TRANSPORT SYSTEM IS MORE DIFFICULT IN ISOLATED AREAS

The first step toward access to public transport is reaching a serviceable road. And this is only the very first step, since the road in question may not be one used by public transport vehicles and the passenger will have to continue walking to reach a transport stop. Then, the wait for transport to arrive may be a long one. This indispensable first step is the greatest source of inequalities between Conakry residents.

Poor households are a little less likely to live near a paved road than non-poor households (43 percent versus 51 percent) and the average time required to reach the road is a little longer (7 minutes versus 5 minutes); 19 percent of the poor need at least a quarter of an hour to reach a paved road, as opposed to 12 percent of the non-poor.

But the poverty of the household is not as important as the location of its residence in the city when it comes to determining access to transport networks. The farther a district is from the city center, the less likely it is to be on a paved road (65 percent of the central districts versus 18 percent of the districts in the outer suburbs), and the longer residents have to walk to reach the paved road (5 minutes in the center, 18 minutes in the outer suburbs). Furthermore,

<sup>&</sup>lt;sup>1</sup> NB: this is in no way an estimate of car ownership among affluent households in Conakry, since the quantitative survey sample did not include households that appeared to be affluent, which are the very households that own the most cars.

households in isolated areas<sup>2</sup> are less likely to live near a paved road (42 percent versus 48 percent) and, more importantly, the walk to the paved road is likely to be longer (9 minutes instead of 4). The time needed to reach all types of roads in isolated areas is 7 minutes, more than double the time needed in accessible areas (3 minutes). In addition, 13 percent of the households in isolated areas complain that the roads (all types combined) are not passable all year round (five months on average), versus 10 percent of the households in more accessible areas.

The difference between the poor and non-poor is quite small overall with regard to the time it takes to walk to the most frequently used public transport stop: 11 minutes versus 10 minutes. Once again, the location in the city is more important. The average walk is 10 minutes for the poor residents of the center and the inner and middle suburbs, but it jumps to 18 minutes in the outer suburbs. The average walk for residents of isolated areas is 16 minutes, more than double the average of 7 minutes for residents of more accessible areas. Most of the poor have to walk at least one quarter of an hour and 15 percent have to walk at least a half hour to reach public transport, if they live in isolated areas. The situation is much better in accessible areas, since only 6 percent of households have to walk at least a quarter of an hour from their home to a transport stop.

#### Conclusion

The very radial pattern of transport in Conakry appears at first glance to lend itself very well to a certain quality of service and the development of mass motorized transit flows. Yet, the glaring inadequacies of the road system mean that a substantial number of the city's residents suffer from very poor access to the roads and very bad transport service. The current structure of the transport system does not facilitate citywide travel. On the contrary, a number of outlying districts are isolated. Most of the poor have to walk a quarter of an hour or more to reach public transport. The poor, who often live in outlying areas and rely mainly on public transport, are often the most concerned, but isolation affects all of the city's population and not just the poor.

#### 2.2. PEDESTRIANS FACE A NUMBER OF DIFFERENT OBSTACLES

Everybody walks in Conakry; some walk farther than others, some walk more often, and some walk all the way to their destinations and/or take public transport part of the way. In their various capacities, all city residents are concerned by conditions for pedestrians. Survey respondents were asked to give their opinion about the main problems that pedestrians encounter, allowing them to choose up to three of the seven negative factors listed:

<sup>&</sup>lt;sup>2</sup> These differences are not surprising; isolated areas are defined as those areas more than ten minutes' walk from the public transport stop used by the members of the household, according to the survey responses. However, this distinction shows that situations in Conakry can vary greatly.

- obstruction of sidewalks,
- lack of sidewalks or sidewalks in poor repair,
- poor condition of roads,
- lack of lighting,
- risk of road accidents,
- risk of assault,
- bad smells, garbage, filth.

The first three choices are problems that are directly related to the condition of the road system, while the other four deal with broader problems associated with the risks incurred by pedestrians (crime, accidents) or environmental problems (lack of lighting, lack of sanitation). Survey respondents cited 2.7 problems on average, with 77 percent choosing three, 20 percent two, and only 2 percent choosing a single problem. The theoretical mean frequency of response for each item is 39 percent (or 2.7 divided by 7). This is the figure to which the observed rates should be compared.

#### Pedestrians encounter a wide variety of obstacles

The responses are very dispersed for the poor and the non-poor (see Table 2). Bad smells, garbage, and filth are cited most frequently, and even more so by the poor. There is no real order in which the other choices are cited: poor condition of roads, obstruction of sidewalks, risk of assault (with the poor citing these problems slightly less frequently), lack of lighting, and risk of road accidents (with the poor citing these problems slightly more frequently). The lack of sidewalks and sidewalks in poor repair does not seem to be the largest problem, especially for the poor. But the two dimensions of the inadequacy of the sidewalks, which theoretically constitute the space set aside for pedestrians, are a problem for traveling on foot for 57 percent of the poor respondents and for 63 percent of the non-poor respondents.

Table 2: Percentage of poor and non-poor city dwellers citing different types of problems facing pedestrians

	Poor	Non-poor
Bad smells, garbage, filth	52	46
Poor condition of roads	41	45
Obstruction of sidewalks	41	44
Risk of road accidents	40	39
Lack of lighting	39	36
Risk of assault	38	42
Lack of sidewalks or sidewalks in poor repair	23	28

The items are ranked in order of the frequency with which they are cited by the poor.

The poor quality of the urban environment in terms of lack of sanitation, lack of lighting, and risks of accidents and assault is a pervasive problem, with 96 percent of the poor respondents citing at least one environmental problem. A comparison of the number of problems related to the environment and the number related to the road system clearly shows that the problem is much

greater than the very real lack of amenities for pedestrians. For 62 percent of the poor and 58 percent of the non-poor, environmental problems are cited more frequently than problems relating to the road system, whereas the opposite is true for only 16 percent of the poor and 17 percent of the non-poor. But city dwellers see a link between these two dimensions of the problems. In 70 percent of the cases, respondents cite the road system aspects and the more general environmental aspects simultaneously as constituting obstacles for pedestrians.

## The environment of the place of residence is a determining factor for the problems encountered

Most trips on foot start in the environment of the place of residence and differences in income are broadly mirrored in the characteristics of the place of residence and the more or less complete degree of urbanization of districts in Conakry. Residents of accessible areas that are slightly less poor are more likely to cite obstructed sidewalks and the various risks of accidents and assaults incurred by pedestrians. On the other hand, residents of isolated areas are more likely to cite the lack of sanitation, the poor condition of roads, and the lack of lighting (see Table 3).

Table 3: Percentage of poor and non-poor city dwellers citing different types of problems facing pedestrians according to the type of area of residence

	Accessible areas		Isola	ated areas
	Poor	Non-poor	Poor	Non-poor
Bad smells, garbage, filth	46	41	58	51
Poor condition of roads	32	40	51	52
Obstruction of sidewalks	44	53	38	31
Risk of road accidents	47	48	33	27
Lack of lighting	36	28	42	45
Risk of assault	45	42	30	41
Lack of sidewalks or sidewalks in poor				
repair	22	24	25	34

When districts are ranked by their distance from the city center, the results are also contrasted, even though the small number of survey areas (and therefore the small number of districts) means that the differences are not very robust and sometimes difficult to interpret (see Table 4). In each suburban area, different survey areas would have produced different findings. Nevertheless, the problems cited seem to be fairly consistent with the characteristics of the different areas.

Table 4: Percentage of poor and non-poor city residents citing different types of problems facing pedestrians according to distance from the city center

	Center	Inner	Middle	Outer
		suburbs	suburbs	suburbs
Bad smells, garbage, filth	56	52	39	54
Poor condition of roads	50	34	34	48
Obstruction of sidewalks	39	53	42	30
Risk of road accidents	46	45	34	30
Lack of lighting	37	23	47	50
Risk of assault	22	42	46	55
Lack of sidewalks or sidewalks in poor				
repair	21	28	25	23

In the city center, three problems stand out: lack of sanitation, followed by the poor condition of roads and the risk of accidents, whereas the risk of assault is cited proportionately less frequently. In the inner suburbs, problems with sidewalks are cited as frequently as the lack of sanitation and more frequently than the risk of accidents and assault, whereas the lack of lighting is not cited frequently. In the middle and outer suburbs, risk of assault and the related problem of lack of lighting are cited more frequently than the risk of road accidents. These findings are logical, since there is less traffic and the poor condition of the road reduces the risk of accidents in these areas. However, the lack of amenities and the lack of crowds make it riskier to walk in these areas at night or early in the morning. Despite some convergence, the frequencies with which problems are cited are a bit different in the middle and outer suburbs. The lack of sanitation and the poor condition of the road are cited more frequently in the outer suburbs, and obstruction of sidewalks less frequently.

## The problems cited have little to do with the use of modes of transport and walking conditions

The different patterns of city residents' use of transport and, more specifically, their walking habits, have no influence on their perceptions of the problems encountered by pedestrians. Carrying heavy loads or walking for a long time each day do not seem to have any real impact on the ranking of problems for pedestrians and the irregular differences in responses do not seem to be related to any specific pattern. The only finding is that the minority who use individual means of transport cite problems relating directly to the road system, such as poor condition of the road and the lack of sidewalks, along with the lack of lighting, more frequently, and the risk of accidents and the lack of sanitation less frequently. This different perception of the problems seems to be directly related to their dominant status as drivers.

Among the poor, women cite safety and environmental problems more frequently, while men more frequently cite problems with the condition of the road system

Men and women do not have exactly the same perception of the problems facing pedestrians. More specifically, women cite the risk of assault more frequently than men do (11 percentage points more). Men are somewhat less likely to cite problems relating to the urban environment and more likely to cite problems relating to the condition of the road system. More specifically, gender differences are perceptible among school children and economically active adults, but the differences are smaller among the economically inactive users, with the exception of the fear of assault, which is obviously a key problem for women (see Table 5). Economically active women cite obstructed sidewalks less frequently than the average, perhaps because some of them account for part of this obstruction in their capacity as vendors. School children cite environmental problems most frequently, particularly the lack of sanitation, and cite problems relating specifically to the condition of the road system less frequently.

Table 5: Percentage of poor and non-poor city residents citing different types of problems facing pedestrians according to gender and occupational status

	Female	Male	Econo-	Econo-	Econo-	Econo-
	pupils and	pupils and	mically	mically	mically	mically
	students	students	active	active	inactive	inactive
			women	men	women	men
Bad smells, garbage, filth	58	50	53	48	51	54
Poor condition of roads	34	42	43	47	41	38
Obstruction of sidewalks	41	46	34	43	42	43
Risk of road accidents	40	42	38	41	40	42
Lack of lighting	37	42	39	38	37	41
Risk of assault	41	28	43	36	44	32
Lack of sidewalks or sidewalks in						
poor repair	20	23	25	25	22	25

Distinctions by broad age groups do not provide much more information, except that the risk of assault is cited more frequently by parents in the 35-to-54 age group and less frequently by children aged 11 to 13. Children, like the elderly, are much more concerned about road accidents.

#### Conclusion

Opinions about walking reflect many problems with different causes. These opinions vary more according to the place of residence than they do according to respondents' social and demographic characteristics, and more particularly, the respondents' gender. The problems cited vary according to the place of residence and the characteristics of that place. Residents of accessible areas are most likely to cite obstructed sidewalks and the various risks incurred by pedestrians, whereas residents of isolated areas are more likely to cite the lack of sanitation, the poor condition of roads, and the lack of lighting. The pattern of use of different modes of transport has practically no impact on the

perception of problems, except for the tiny minority with their own individual vehicles. More specifically, the type of walking done on the day before the survey does not reveal any specific problems for one category or another of pedestrian.

## **2.3.** THE IMAGE OF PUBLIC TRANSPORT: *MAGBANAS* ARE AFFORDABLE BUT INADEQUATE AND SHARED TAXIS ARE MORE CONVENIENT BUT TOO EXPENSIVE

Minibuses are the means of public transport that Conakry residents over the age of ten years report using most frequently, for the sample as a whole. For most city residents, *magbanas* are part of their daily life (see Table 6). Shared taxis come a distant second. Fewer than 10 percent of residents use the buses and fewer than 2 percent use undeclared cabs. It should be noted that when city residents have a bit more money, they prefer shared taxis (+24 percentage points) to *magbanas* (-11 percentage points). Of course, the non-poor are slightly less likely than the poor to live in isolated areas (44 percent versus 48 percent) but the differences according to income are still very sharp, even in isolated areas with the same level of transport service. Basic shared taxi fares are GF 300, as opposed to GF 200 for the basic *magbana* fare. Consequently, the poor are more likely to use *magbanas* and the non-poor are more likely to use shared taxis. In Conakry, economic constraints are more important than any other criterion in determining the choice of mode of transport.

Table 6: Percentage of residents over the age of 10 reporting use of each mode of public transport, according to individual income

	Shared	d Undeclare	Magbana	Bus
	taxi	d cab		
Non-poor	70	2	77	7
Of which: living in isolated areas	67	2	74	6
Poor	46	1	88	9
Of which: living in isolated areas	47	1	89	9
Total sample (poor and non-poor)	50	1	87	8

Furthermore, public transport services are concentrated primarily on the main roads, as the dirt roads in many neighborhoods are not passable, if they exist at all: "Where we live in Wanidara, we can't really say that we have roads. Even four-wheel drives can't get through." (Economically inactive 27 year-old man).

The time needed to walk to a transport stop and the wait for a ride can be very long, especially in the morning. Once again, individual interviews highlighted these problems: "I have terrible trouble finding a ride to the market in the morning and I think the main problem is the condition of the roads; there are practically no roads. I have to walk a long time to get to the highway to find a means of transport." (58-year-old vendor from the Bonfi market, living in Sonfonia (kilometer 24)). The problem is even more acute in the outer suburbs of Conakry, as explained by this teacher who lives in Coyah and works at the Aviation School near the airport:

"Getting home is easy, but getting to work is an ordeal. The main problem we face is finding a vehicle. Sometimes I have to wait more than two hours before getting a ride."

These different characteristics are reflected in the opinions gathered in the section of the questionnaire dealing with perceptions of public transport aimed at members of households over the age of 10. Transport users were asked whether they agree with the following nine statements with regard to each of the two most frequently used means of transport.

- It is cheap
- It stops near my home
- I don't have to wait too long
- I can get a ride anytime
- It takes me wherever I want to go
- It is fast
- I am not going to get into a road accident
- I feel safe from assault or theft
- I can carry my merchandise on it

It is not surprising to learn that users of different modes have a very negative opinion of public transport (Figure 1). Non-users were not asked for their opinion, but it could be thought that non-use results in many cases from access problems, such as lack of money, poor coverage, and lack of time. These problems do not lead us to think that non-users could have very positive opinions with regard to these aspects.

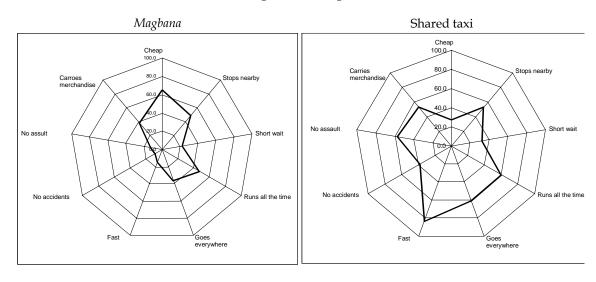
#### Magbanas, the poor man's public transport

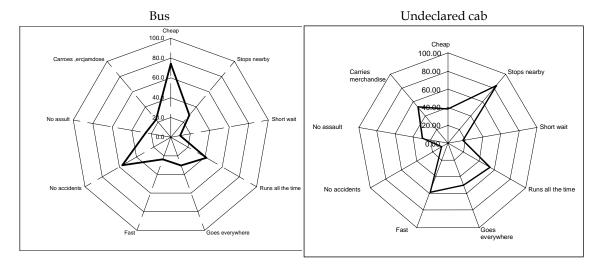
Magbanas are the most commonly used means of public transport, especially for the poor more so than the non-poor, but the service provided is not highly appreciated at all. Poor users have many complaints about magbanas and negative opinions always outweigh positive opinions, by a wide margin on some aspects, such as risks of assaults and accidents, speed, and wait times. The opinions are more balanced with regard to availability of the means of transport during the day and the distance to the nearest stop. However, the perception of the frequency of service is good on balance, but it is the average of the opinions expressed by residents in accessible areas, of whom two-thirds have a positive opinion on this aspect, and those expressed by residents of isolated areas, of whom only 30 percent agree with the questionnaire statement. The majority of the latter residents feel ill served by magbanas.

The only good thing about *magbanas* is that the poor can afford to use them, even though one in three users do not agree that they are cheap. For example, a 36-year-old welder-ironworker who lives in Tombo and works in the port says, "Transport prices tire people out. For example, I haggle over the fare for most of my trips so that the driver or the conductor gives me a discount of GF 100 or GF 200. Sometimes I just walk to work in the port" (A 4-km walk). These features mean that *magbanas* are seen as the poor man's public transport, but not all of the poorest residents have access to them all of the time.

Waiting times and walking times to reach stops, along with the slow progress of magbanas and the risk of traffic jams, mean that users have to allow a lot of time for travel: "It is not easy to find a ride at Enco5 in the morning. I can easily spend two hours waiting to get to Madina. Getting into a vehicle along with other workers also trying to get to work takes serious muscle power." (Used clothing vendor at the Madina market).

Figure 1: Percentage of poor city residents agreeing with the statements by mode of public transport





Key: with regard to the shared taxi, 27 percent of poor city residents agree with the statement "it is cheap" and 53 percent agree that "It stops near my home."

#### Shared taxis are too expensive for daily use

Poor users always rate taxis more highly than *magbanas*, usually substantially more highly. The only exception is the price aspect, which is critical. Only one in four poor users feel that shared taxis are cheap. Therefore, taxis are only used

when there is no choice ("When I'm in a hurry I take a taxi so that I'm not late. Otherwise, I take the minibuses or the bus," says the same 36-year-old welder working in the port. "When I have my good clothes on, I take a taxi, but for informal occasions, I take a magbana," or when users have some money in their pocket: "When I have a bit of money and I am dressed in my good clothes, I take a taxi. Otherwise, I take a magbana the rest of the time," (36-year-old longshoreman).

The majority have a good opinion of shared taxis' speed,<sup>3</sup> availability when and where needed, and protection against assault and theft. Poor users also have the best opinion of taxis as a mode of public transport. However, in addition to the high fares, shared taxis have a second drawback: they do not offer protection against road accidents. Finally, with regard to two important aspects, waiting time and quality of service in the place of residence, taxis are rated only slightly better than *magbanas*. Fewer than one user in three finds that the wait is not too long, whereas the figure is just one in four for *magbanas*. The figure of 52 percent who state that there is a stop near their home reveals that the shared taxis have the same problem providing service to residential areas that are not on the main roads. The percentage agreeing with this statement among poor residents in isolated areas is under 30 percent.

These figures give us an idea of the practical problems Conakry residents encounter when they want to ride on public transport. The lack of vehicles during peak travel hours and long walks are complaints frequently heard during the qualitative interviews. This from a 17-year-old mechanic living in Kountia (Kilometer 36) and working in Dixinn: "I leave home at 6 o'clock in the morning and sometimes I have to wait nearly two hours to get a ride. Since I have to wait for a long time, because I do not live near the magbana stops, I always walk down to the intersection by the cement plant, which takes nearly 30 minutes. Then I have to spend 1 hour and 45 minutes riding on a magbana to get to my place of work."

The other two means of public transport are much less commonly used and they each have their own very specific advantages. Three in four poor users feel that buses are cheap, and 83 percent of poor users of undeclared cabs feel that they stop near their home. After shared taxis, undeclared cabs are the mode of public transport with the highest rating. But these advantages need to be seen relative to the observation that the number of users is very small, and even tiny in the case of undeclared cabs.

There is no way of knowing whether the ratings of buses and undeclared cabs show any significant differences according to respondents' social and demographic characteristics, since the numbers concerned are too small. On the other hand, the differences in opinions on shared taxis and *magbanas* are fairly minor when the poor respondents are broken down into school children, economically active and inactive women, and economically active and inactive men. More specifically, there is a broad consensus among these five groups on

SITRASS

-

<sup>&</sup>lt;sup>3</sup> 84 percent of the poor acknowledge that taxis are fast. This high percentage could surprise some, in view of the recurrent traffic problems in Conakry, but it should be seen in opposition to the much slower *magbanas*.

the affordability of the *magbanas* and the high fares of the shared taxis. Economically active women are mainly self-employed merchants and are more likely to feel that the *magbana* enables them to carry their merchandise.

#### Conclusion

These opinions are those of users of the various means of public transport. Therefore, they do not tell us why other city residents do not use public transport. However, it is very likely that when respondents do not use a means of public transport it is because it fails to meet their needs. This means that the picture that emerges from these opinions is not a positive one. The magbanas are considered to be (relatively) cheap, but the quality of service is inadequate. On the other hand, shared taxis offer the best (or, rather, the least bad) service, but poor residents of Conakry feel that the fares are too high. Even though magbanas, along with buses, which only run on a handful of routes, are the most affordable means of transport for the poor, their frequent or daily use entails many inconveniences, such as long waits and walks, fares that are expensive nonetheless, which encourages haggling and sometimes disputes with conductors. Taxis make it possible to improve daily life and overcome the shortage of magbanas. The users' opinions show that, in addition to suffering from poverty, poor residents of suburbs also have more difficulty than others reaching the city center on public transport, especially when they do not live near the main roads.

The public transport problems in Conakry are not entirely due to the failings of the independent transport operators. The inadequate road system and the poor condition of roads place limits on transport services, cause traffic jams, and make travel even more unpleasant. The prevailing poverty of the city's population deprives city residents of a real choice between the different means of public transport and limits the operators' capacity to invest in vehicles.

To understand the role that public transport plays in city dwellers' daily lives, we need to analyze the extent to which it provides or prevents access to various essential daily activities. We need to see if it provides access to housing, access to work for people with jobs or potential jobseekers, access to schools for schoolage children, access to healthcare, access to essential supply points, such as markets and water supplies. We also thought it was important to analyze access to social networks. In a country with virtually no social safety net, especially for the poor, the various forms of social contact developed by city dwellers are a means of ensuring their social integration and maintaining local support networks.

The various topics mentioned above will be presented below. In each case, we have tried to take the broadest approach to access problems, since public transport is only one of the many obstacles to access to all of these activities. Therefore, we shall try to rank the different problems that affect poor city dwellers so that the role that public transport plays can be accurately described.

## 3.1. HOUSING - OWNING OR RENTING AT THE LOWEST COST

Poor city dwellers are slightly more likely to own their home than their non-poor counterparts (50 percent versus 40 percent). In both groups, heads of homeowning households are quite a bit older on average than heads of households that rent their homes. Homeowners are also more likely to have lived in their homes longer than renters, since the age at which renters and homeowners moved into their homes is quite similar (see Table 7). The fact that homeowners have lived in their homes longer than renters shows that younger generations are having more trouble buying their homes. This phenomenon has been observed in various capital cities in Africa (Antoine et al., 2001).

Table 7: Homeowners' and renters' current age, tenure in home, and age upon moving in, according to household income

		Poor			Non-poor	
	Current		Age upon	Current		Age upon
	age	Tenure	moving in	age	Tenure	moving in
Owner	55	22	33	55	21	34
Lodger	47	15	32	48	14	34
Renter	46	9	37	42	6	36

The arrival in the current home implies that renters do not move as far as owners do: 50 percent of poor households renting their home arrived from the same district or an adjacent district, as opposed to 39 percent who arrived from another area in Conakry. For homeowners, these proportions are more than reversed, at 32 percent and 55 percent, respectively. The differences between

homeowners and renters are even more pronounced among non-poor households, which also seem to be less attached to their district than poor households.

For homeowners, being able to afford their first home is the main reason for moving to a new district. This reason is cited by three quarters of poor and non-poor households, and nearly 20 percent also state that the reason for moving was to reduce housing costs. One in three poor households and one in five non-poor households also mention a related factor, being able to live in their own home. Being able to live in better housing is also cited by one in four poor households and one in three non-poor households. Two other reasons are mentioned by one in five households: being able to live closer to family and friends, and moving to a safer and quieter district. Other factors are rarely mentioned. More specifically, the quality of transport service is mentioned by fewer than 2 percent of either poor or non-poor households.

Therefore, owning a home is an end in itself. Because home ownership provides greater day-to-day security (even though it does not always include formal title to the property) and because it means no rent payments, it may warrant moving a long distance and changing districts. Ownership outweighs other potential factors when choosing a place of residence.

Renters give very different reasons for choosing their place of residence. There is some difference in the reasons given by poor and non-poor renters, even though the same factors rank in the top six out of the 14 possible factors. More than one in two poor households and two in five non-poor households cite cheaper rent (see Table 8). Poor households then cite three factors with the same frequency of one in four households: living closer to family, living in a better home and moving to a safer and quieter district. They mention living in their own home and living closer to their jobs less frequently. After cheaper rent, mentioned by 43 percent, non-poor households seem to seek a certain form of isolation more than poor households. The non-poor prefer a quiet district and living in their own home to being close to their families. As is the case with home-owning households, other factors are mentioned much less frequently, but concerns about daily mobility are mentioned more frequently. Living closer to the place of work is a first sign, which is backed up by the fact that nearly one in ten households mentions seeking better public transport service.

Table 8: The main reasons cited by poor and non-poor households renting their homes for choosing their current place of residence

	Cheaper	Closer to	Better	Quiet, safe	Living in own Closer to job		Better
	rent	family	housing	district	home		transport
Poor	55	26	25	25	19	19	8
Non-poor	43	23	28	32	28	17	9

#### Conclusion

The choice of place of residence is subject to major constraints for home owners and renters alike. The main constraints are financial, but other factors come into play, which mean that 10 percent of poor and non-poor, home-owning and renting households feel that they had no choice in where to live, like this 17-year-old mechanic who already has a long history of having to live farther and farther away from the city center: "At first, I lived in Kenien, then in Dixinn, then in Kaporo Rails, Enta, and finally at Kilometer 36. When I was living in Kenien, I was apprenticed to a tailor. I decided to change jobs, and since I couldn't afford to pay for transport from Kenien to Dixinn, I moved to live next to my master's workshop. When my master in Dixinn moved, I had to follow. I rented a place in Kaporo Rails and when they tore down the neighborhood, I moved to Enta. In Enta, my landlord evicted me, and since I didn't have any choice, I had to take the first rental that was available."

Under these major constraints, becoming a homeowner or paying less rent outweigh other factors in the choice of where to live, but the lack of "resources," especially for poor households, means that transport conditions (distance to job, level of service) are not completely overlooked.

## 3.2. WORKING - THE DAILY OBSTACLE COURSE

When times are hard, getting to work is more difficult, and yet even more crucial. Even though sources of income other than work, such as income from property and gifts, were significant in the survey, income derived directly from work accounted for 71 percent of poor households' income and 85 percent of non-poor households' income. Yet, in poor households, each working person supports 4.4 other members (unemployed, schoolchildren, housewives, other economically inactive members). This figure is only 3.3 in non-poor households, despite the similar number of economically active members in each type of household (1.9 and 2.2 respectively). In more general terms, access to employment seems to be more of a problem in poor households than it is in nonpoor households for the members of working age: for example, in the 15-to-65 age group, the ratio of economically inactive members to active members is 1.2 in poor households, as opposed to 0.8 in non-poor households, and the ratios are 0.6 and 0.4 respectively for the narrower 25-to-55 age group. Poor households are therefore larger, but there are also proportionally fewer economically active members in the age groups most likely to work.<sup>4</sup>

Except for individuals with payroll jobs in the modern sector, most of the economically active poor work at home, or in their neighborhood. Few of them go to work "in town" (see Table 9). The situation is less clear for economically

<sup>&</sup>lt;sup>4</sup> These findings are logical in view of the monetary definition of poverty that we have used and because the living standard indicator is per capita income, which tends to boost the number of large households classified as living in poverty.

active non-poor, but only two in five self-employed workers work in a distant district.

Table 9: Place of work for economically active poor and non-poor according to occupation (percent)

	Eco	Economically active poor				Economically active non-poor		
	Street	Home	Nearby	In town	Street	Home	Nearby	In town
Payroll employee,								
modern sector	0	0	40	60	0	2	23	75
Wage earner,								
informal sector	11	8	50	31	10	5	32	53
Self-employed Other non-wage	11	27	44	18	5	17	42	36
workers	10	10	52	28	9	13	36	42
Unpaid workers	6	17	55	22	-	-	-	-

"Nearby" means in the home district or adjacent districts, "In town" means the rest of the city.

Poor and non-poor workers in the informal sector are less likely to use public transport than payroll employees because their homes and workplaces are closer to each other and because their income is often lower (see Table 10).

Table 10: Mode of transport used to go to work for economically active poor and non-poor according to occupation (percent)

	Economically active poor			Economic	Economically active non-poor		
	*** 11 '	Public	0.1	*** 11 '	Public	0.1	
	Walking	transport	Other	Walking	transport	Other	
Payroll employee, modern sector	39	56	5	27	61	12	
Wage earner, informal sector	64	33	3	40	57	3	
Self-employed Other non-wage	79	19	2	56	42	2	
workers	72	27	1	51	49	0	
Unpaid workers	82	18	0	-	-	-	

The result is that the average travel time to work on public transport is 44 minutes for the poor and 36 minutes for the non-poor, and nearly one in three of the economically active poor using public transport to go to work takes more than an hour to get there, which is twice as long as for the non-poor (see Table 11). A combination of factors explain this difference: longer distances, peak-hour traffic jams, waiting times for rides, time walking to and from transport stops at the beginning and end of the trip, etc. From the methodological point of view, interviews revealed much longer commuting times than the quantitative survey did, since some respondents spoke of waiting at public transport stops for two hours to get a ride. These situations arise, but are not likely to happen every day. There are other days when there are fewer problems, as this fruit vendor in Kaloum testifies: "When I go to the suburbs to buy fruit, I may encounter problems, but it rarely happens."

Table 11: Commute times according to mode of transport for economically active poor and non-poor (average time in minutes and percentage of economically active users taking more than 60 minutes)

more than oo minutesy								
	Ec	onomica	lly active po	oor	Economically active non-poor			oor
	Wal	lking	Public tr	ansport	Walking		Public transport	
	Average	>=60 m	n Average	>=60 mn	Average	>=60 mr	Average	>=60 mn
Payroll employee, modern sector Wage earner,	14	0	51	38	17	0	41	22
informal sector Self-employed	16 15	6 4	48 43	32 28	13 15	0 3	49 32	25 13
Other non-wage workers	17	5	37	22	14	0	28	5
Unpaid workers	14	4	42	40	-	-	-	-

Transport problems seem to be substantially greater for economically active poor people, who have less frequent access to public transport and spend more time traveling. Access to the city center is complicated, since fewer poor people work in the city center and those that do are more likely to walk to work (26 percent, versus 12 percent of the non-poor) and more likely to spend more time traveling to work (34 minutes of walking versus 26 minutes, and 46 minutes riding on public transport versus 37).

Yet, being able to get to town means accessing higher paying jobs. Several of the women vendors surveyed mentioned the importance of location for sales volume and profit. Despite the daily problems with transport, this vendor travels far from Yimbaya Pharmacie to sell at the Niger market: "My type of merchandise does not sell very well in my own area, otherwise I would stay in my district instead of spending the money every day to go to the city center to sell my goods. I come to this area because the sale of meat is more profitable than it is in my area. I don't normally buy the kind of meat that sells best in my district." A toiletries vendor at the Madina market who lives in Dixinn tells a similar story: "I knit tablecloths and bedspreads as a sideline to my trade. [...] My trade is profitable if people are buying. [...] I can go for a whole day without selling to more than two customers. [...] My trade can turn a profit of GF 50,000 [per month]. [...]. In practical terms, I come to buy merchandise every morning and sell it at the same time at Madina. The transport problems are enormous, especially getting to Madina. I have to wait a long time at the stop to get a magbana, because a taxi is expensive. I chose a stall at the Madina market because there are a lot of people there, which means that merchandise moves faster."

Other significant examples of strategies to cope with constraints are explained by two rice vendors.

The first vendor takes a *magbana* to sell local rice at the Tanéné market. She chose this spot because of the frequent arrivals of merchandise: "On market days you can sell up to a whole bag of local rice, especially if the market day falls on the first of the month[...]. The profit on a bag of rice is small. At the most, you can make GF 5,000. Despite the transport problems, I would rather sell at the Tanéné market than elsewhere

because I think it is the right place for selling local rice. [...] You can always sell in your own district, but you can't be sure of finding as many customers as at the large markets."

But sometimes, transport problems make a vendor change markets. For example, the second rice vendor (age 42, with two children in school and a husband who is an unemployed upholsterer) lives in Gbessia, 500 meters away from the market where she sells rice: "The rice trade is not very profitable in Gbessia. It takes a week to sell one bag. [...] In practical terms, my sales are less than GF 2,500 per day. I used to sell at the Tombo market, but given the transport problems, I asked for a table at the Gbessia market. Even if I had the opportunity to sell elsewhere, I'd prefer to stay put, because it's closer to my home." This choice means that the vendor is probably able to achieve a better balance between her family life and her work, but her sales volume and profits are not the same.

The survey bears out this qualitative information with statistics. For example, the income of poor independent merchants is one-third greater on average if they work "in town" and take public transport to get there, instead of staying in their home district and walking to work. Naturally, access to the city carries a cost, but the increase in income more than offsets it. Using the same example of poor self-employed merchants, we see that average "net" income, after subtracting transport costs, is still 28 percent higher if they work in the city center. Of course, this is only an average figure and some economically active poor, especially those without dependents, sometimes find themselves spending a very large share of their income on travel to and from work.

#### Conclusion

Whether they walk to work or take inconvenient public transport, hardship seems to be the common denominator for many commuters in Conakry. This hardship is also revealed in the qualitative interviews. Finding public transport vehicles often resembles running an obstacle course, as this hairdresser from the Madina market relates: "To start with, my house is a long way from the main road where the vehicles stop. It's a fight every morning in Hamdallaye to get a ride to the city. I'm often soaked with sweat and thoroughly disgusted. The vehicles are already full when they get to our stop at Hamdallaye. Once I get in the vehicle, we are squeezed in like sardines. And most days, I arrive to find that some of my customers have given up on me."

Access to the city enables people to earn more, especially merchants. It also enables them to buy their own household supplies more cheaply. But this access comes at a high cost in money, time, and physical effort. For vendors and workers in the informal sector who are not lucky enough to live near a major market, staying in their own district is not an option, because it is very likely to mean less income.

## 3.3. SCHOOL - PRIVATE SCHOOLS BACK UP PUBLIC SCHOOLS, BUT AT WHAT PRICE?

Access to education plays a key role in poverty reduction strategies, because it develops individual skills and abilities. The findings of recent surveys confirm that full primary school access for children of the poor is not guaranteed in Conakry. The enrollment ratio is very low for children under age 6 from poor and non-poor households. In the 7-to-14 age group, one child in six from poor households is not enrolled in school and one child in nine from non-poor households is not enrolled. The enrollment ratio declines gradually among older children and is always higher for non-poor children than it is for poor children. These figures relate to parents' statements about the enrolment of their children, but the rate of children who attended school on the day before the survey shows another deviation from full school enrolment: just over three in four enrolled children<sup>5</sup> actually attended school on the survey reference day (a school day).

The means of traveling to schools of all levels and households' opinions about obstacles to the use of these means highlight a number of problems, which are more keenly felt by children attending public schools.

# Public primary schools provide poor service and poor access, and private schools are expensive

For primary school, two-thirds of poor and non-poor households report that their children attend a public school and nearly one in two households also has children enrolled in private schools. Private schools are a bit more likely to be in the home district than public schools. This is true for 79 percent versus 71 percent of poor households and 77 percent versus 60 percent of non-poor households.

Almost all children walk to school from their home and the average travel time is about a quarter of an hour. Average travel times for children enrolled in public schools are just a bit higher than they are for children in private schools (see Table 12). But in 16 percent of poor households with children in public schools and 8 percent of poor households with children in private schools, the walk to school is 30 minutes or more, which means that these children spend at least one hour of the day walking to and from school.

<sup>&</sup>lt;sup>5</sup> This rate needs to be interpreted with care, since the survey was conducted as children were returning to school after the break. If we do not count the first week of the school year, when attendance is still a bit sporadic, the rate increases to 88 percent, or even 93 percent, if we count only children aged 7 to 14. Nevertheless, a significant number of enrolled pupils missed school on the survey reference day. Furthermore, attendance tends to decline as the school year advances.

	Poor households		Non-poor ho	useholds
	Public school	Private school	Public school	Private school
Time for all modes (min.)	15	13	15	10
Percent walking	96	96	97	85
Percent walking more				
than 30 minutes	16	8	15	2

Table 12: Travel times (minutes) to primary school and percentage of children from poor and non-poor households who walk to school

The poor quality of service in public schools (no room, overcrowded classes, lack of personnel, lack of supplies, etc.) is the most frequently cited problem, mentioned by 71 percent of poor households with children in public schools and by 63 percent of poor households with no children in public schools. But access problems, such as public schools being too far from home and/or excessive transport cost, are mentioned very frequently, by non-users in the first instance, because three in five poor households mention these problems, and by users, with one in four poor households mentioning these problems.

On the other hand, virtually the only problem that non-users mention with regard to private schools is the cost: 91 percent of poor households mention it, whereas only 5 percent cite service quality or access problems. Cost is also mentioned very frequently by households with children in private schools (55 percent of poor households), but service quality problems are mentioned by more than a quarter of poor households and 21 percent cite access problems.

## Public secondary schools predominate because of the expense of private schools

There are few children in private secondary schools: fewer than one in ten poor households and one in four non-poor households have children in private secondary schools. Naturally, cost is mentioned as a reason for not using private secondary schools by more than 90 percent of poor and non-poor households. Among households that use private secondary schools, more than half of the poor households mention the cost, but more than 40 percent complain of accessibility problems and more than a quarter complain about the service quality.

Public secondary schools are used by nine in ten poor households and by three quarters of non-poor households. In comparison, complaints focus on poor service quality, cited by three in four poor households with children in public secondary schools, and on access problems, cited by three in five poor and non-poor households. Traveling time to secondary schools averages one half hour for poor and non-poor households (see Table 13). Pupils of secondary schools are proportionately more likely to walk to school. Their access to public schools seems to be more of a problem:

• They are much less likely to use public transport and never use individual vehicles to go to school.

• They are more likely to walk and likely to walk slightly longer (24 minutes, versus 20 minutes for children from non-poor households); 21 percent walk for 30 minutes or more, whereas this is only true for 10 percent of pupils from non-poor households.

Table 13: Travel times (minutes) to secondary school and percentage of pupils from poor and non-poor households who walk to school

	Poor h	ouseholds	Non-poor households		
	Public school	Private school	Public school	Private school	
Time for all modes					
(min.)	28	26	31	22	
Percent walking	61	75	45	56	
Percent walking more					
than 30 minutes	20	30	11	6	

### Conclusion

School enrollment rates are too low for non-poor households and are even lower when households are poor. Furthermore, poor households seem to encounter worse problems with access to schools: they are farther away and their children are more likely to walk to school. Access problems (distance and transport cost) seem to be the second greatest obstacle to full school enrollment, followed by service quality in public schools, and, to a much lesser extent, tuition fees for private schools. Poor households have more school access problems than non-poor households do as a result of their less favorable practical circumstances. These access problems may have a greater impact on the scholastic success or failure of children from poor households.

#### 3.4. HEALTH SERVICES - A LUXURY FOR MOST

A substantial proportion of the population does not make use of public or private hospitals. Nearly one-third of poor households and 17 percent of non-poor households report that they do not use public or private hospitals, whereas 9 percent of poor households and 11 percent of non-poor households report that they do not use local dispensaries or health centers.

# Health centers and dispensaries – public facilities are too far away and private ones too expensive

Conakry residents prefer public establishments for primary health care. Public health centers are used by 83 percent of poor and non-poor households, but private facilities are still used by 26 percent of poor households and 30 percent of non-poor households. Some 58 percent of poor households use private facilities located in their home district and 37 percent use public facilities.

Most patients walk to reach primary healthcare services (see Table 14). Poor households walk to reach public primary health care in 72 percent of the cases, but walk to closer private care in 79 percent of the cases. *Magbanas* rank far behind as a means of reaching public primary healthcare in 18 percent of the cases and private primary healthcare in 17 percent of the cases. Poor households do not make much use of taxis to reach primary healthcare (8 percent for public care and 3 percent for private care). This modal split that favors public transport to reach public primary healthcare explains why the travel time is 22 minutes, which is slightly less than the average of 25 minutes to reach private healthcare.

Table 14: Travel times (minutes) for poor and non-poor households to health centers and percentage walking or using public transport

	Poor h	ouseholds	Non-poor households		
	Public center Private center		Public center	Private center	
Time for all modes					
(min.)	22	25	21	17	
Percent walking	72	79	56	68	
Percent walking more					
than 30 minutes	16	18	6	3	
Percent riding PT more					
than 30 minutes	14	13	22	18	

These average travel times show that primary healthcare does not seem to be available in the local community. Thus, it is not surprising that nearly four in five poor households that do not use public healthcare cite access problems. Only 37 percent of these households mention service quality and cost. On the other hand, households that use public healthcare are less likely to be critical of access (35 percent) but more likely to cite service quality problems (70 percent). The reason households do not use private healthcare is very different, but it is the same as that mentioned with regard to private schools. Practically all of the poor households that do not use private healthcare cite the cost. Access problems and service quality are cited by only one household in twenty. Poor households that use private healthcare cite cost as the main problem (60 percent of households), but 39 percent cite service quality and 27 percent mention access problems.

## Public hospitals and clinics are used for lack of anything better

The survey population mainly uses public hospitals and clinics. Two in three poor households use public facilities, as opposed to 5 percent that use private ones. The situation is a bit less extreme for non-poor households, but 81 percent still use public hospitals, as opposed to 10 percent that use private hospitals.

*Magbanas* are the leading mode of transport for traveling to a public hospital. It is the choice of 72 percent of poor households and 67 percent of non-poor households. Riding on a *magbana* is often combined with walking. Shared taxis rank second. They are more likely to be used by non-poor households

(26 percent) than by poor households (14 percent). Walking is rarely cited as a mode of transport because hospitals are often very far away (see Table 15). The city's two public hospitals (Ignace Deen and Donka) are located in or near the city center and far from many people's homes: for nine in ten households, these hospitals are not in the home district or the adjacent districts. The average travel time to reach a public hospital is one hour for the poor and three quarters of an hour for the non-poor. These long travel times seem to be a factor that would promote the use of private hospitals, since their users have travel times of "only" 30 minutes, in the case of poor households, and 26 minutes in the case of non-poor households.

Table 15: Travel times on foot (minutes) for poor and non-poor households to hospitals and clinics, and percentage walking or using public transport

	Poor ho	useholds	Non-poor households		
		Private center*	Private		
	Public center		Public center	center*	
Time for all modes					
(min.)	60	30	48	26	
Percent walking	10	60	5	38	
Percent walking more					
than 30 minutes	13	10	20	0	
Percent riding public					
transport more than 30					
minutes	71	25	62	23	
Percent riding public					
transport more than 60					
minutes	44	5	29	8	

<sup>\*</sup> Small sample group.

Thus, 85 percent of poor households that do not use public hospitals cite access problems, whereas only 47 percent cite cost and only 18 percent mention service quality. Poor households that do use public hospitals are nearly as likely to complain of access problems (71 percent), but using public hospitals also makes households more likely to be more critical of service quality, which is mentioned by 54 percent of poor households, than they are of its cost (46 percent). Non-poor households cite the same problems in the same order, but the differences are smaller. The main problem with private hospitals is the cost; nearly all of the users and non-users mentioned this aspect. Non-users barely mention access problems (15 percent), but poor households that use private hospitals mention them in nearly one in two cases.

#### Conclusion

The reasons for relatively low use of healthcare services are fairly apparent. Private healthcare is too expensive, especially for poor households. Therefore, these households rely on public hospitals, but one in two poor households still finds that the cost is substantial. Furthermore, the distance to public hospitals makes them less

accessible, and nearly one in three poor households cannot use public hospitals for this reason. The situation is worse for those who live far from the city center: the average time poor households spend getting to the public hospital is 28 minutes for residents of the city center and 57 minutes for those that live in the inner suburbs. The average time for residents of the middle suburbs is 72 minutes and it rises to nearly 2 hours (113 minutes) for residents of the outer suburbs. These travel times have a major impact on hospital use, since three-fourths (78 percent) of residents of the city center and inner suburbs report using public hospitals, as opposed to just slightly more than half (56 percent) of the residents of the middle and outer suburbs.

There are too few public dispensaries and health centers to provide services in local communities. The shortage of health services and the high costs mean that many parents have to borrow money to get care for their children, leaving self-medication and traditional medicine as the only affordable alternatives. The mobility survey cannot capture such practices, but information about them comes out in several of the interviews. For example, a 20-year-old part-time musician living in **Coronthie states:** "I rely on traditional remedies that I find locally. Sometimes, I go to the Ignace Deen hospital, if I have the money"; a 26-year-old medical **student living in Dixinn reports**: "When I get sick, I treat myself at home with help from my doctor friends. My grandmother also helps me out with traditional remedies"; and a 36-year-old longshoreman living in Tombo relates: "I am torn between modern medicine and traditional remedies. When someone gets sick, we try to see what should be done. Sometimes we send them to the Ignace Deen hospital or else I go get traditional medicinal plants at the Ngninguèma market (a sector of the large Kaloum market that is closer to Tombo, less than 1 kilometer away). **In any event, the use of "modern"** medicine seems to be a problem and is decided on a case-by-case basis, since is it is primarily a matter of money.

### 3.5. FOOD AND WATER - A PROBLEM EVERY DAY

Access to markets and drinking water supplies are the last part of this overview of the use of basic services and everyday problems.

## Markets - expensive products

Almost everyone walks to the market: this is true of nine in ten households, with a slightly higher figure for poor households and slightly lower one for non-poor households (see Table 16). *Magbanas* are more likely to be used than shared taxis, but the use of either is extremely low among poor households (5 percent and 2 percent, respectively) and among non-poor households (10 percent and 3 percent, respectively). The proportion of people from poor and non-poor households who walk to the market is lower when the market is farther from home, but three quarters of the poor and two-thirds of the non-poor still walk to the market, even when it is located in the city center, beyond adjacent districts.

Table 16: Travel times (minutes) to markets for poor and non-poor households and percentage walking

	Poor	Non-poor households
	households	
Time for all modes (min.)	19	20
Percent walking	92	86
Percent walking more than		
30 minutes	20	22

Poor households shop at markets that are slightly closer to home than non-poor households. But the differences are very small, and it should be noted that even though most people walk to them, markets are not always close by. Distances are even greater in isolated areas, where the average walking times are a quarter longer for poor households and a third longer for non-poor households than they are in more accessible areas.

Only 15 percent of poor households and 21 percent of non-poor households do not report problems with the market. The main complaint is the cost, meaning product prices in this case. High prices are cited by 72 percent of poor households and by 68 percent of non-poor households. Access problems are cited by nearly one in three poor and non-poor households (32 percent and 33 percent, respectively), but they are much less likely to mention service quality (20 percent of poor households and 15 percent of non-poor households). The problems seem to be worse in isolated areas, where only 7 percent of poor and non-poor households do not report any problems: access problems are mentioned slightly more often and, more importantly, it is the cost of service that is mentioned by four in five poor households, even though access problems probably have an impact on product prices. There are few markets and this means that takes more time and effort to reach them. But, with the prevailing inflation, it is primarily the prices of products that concern poor city dwellers.

# Water supply - fetching water is a frequent chore despite the large number of homes with running water

Three in ten poor households and five in ten non-poor households have drinking water piped into their homes. But supply interruptions are frequent and poor households are hit hardest. Some 45 percent of poor households do without running water at least once a day, as opposed to 32 percent of non-poor households. The inadequacies of the water system mean that these relatively well-off households have to go outside the home for their water supply: 10 percent of the households with running water had to make at least one trip the day before to fetch water.

Reliance on a neighbor's running water is the second form of supply, concerning one in four poor and non-poor households, whereas other forms of supply, such as wells, boreholes, and public standpipes) seem to be much less frequently used. Consequently the usual water source is fairly close, for households without running water. Only 15 percent of poor households and 6 percent of

non-poor households have to walk more than 100 meters to their water supply. The average time is therefore about 5 minutes there and 5 minutes back, but fewer than 4 percent of poor households and 2 percent of non-poor households have to walk more than a quarter of an hour to reach their water supply. However, the situation is much worse in the outer suburbs, where 10 percent of households live more than a quarter of an hour on foot from their drinking water supply.

The chore of fetching water is particularly burdensome. The average times given here are the time it takes from the home to the water source. They only give a truncated picture of the burden that this chore can represent. We need to add in the time at the waiting at the water source, drawing water or purchasing water, and the time it takes to carry it home, which is 8 percent longer on average. Households try to reduce this demand on their time, as shown by the fact that the frequency of trips to fetch water is slightly lower when they take longer. Fetching water is primarily a chore for a very specific population group, made up mainly of women (on the day of the survey, four in five trips to fetch water were made by women), younger people (only one in five trips was made by a person over the age of 30) and school children, and people with low incomes (three quarters of the trips were made by individuals whose personal income was under GF 250,000 per year).

The need to fetch water daily makes great demands on the time of city residents who are already underprivileged. It hinders their ability to undertake gainful activity and disrupts their education. Even though neighbors sometimes share their running water for free, water brought in from outside the home often carries a price, according to the qualitative interviews. At the time of the survey, most suppliers charged GF 50 for a 20-to-25-liter can, but the price can be as high as GF 100. Fetching water is not only a grueling task; it also carries a substantial cost for households on tight budgets.

## Conclusion

Access to food and water are basic necessities. Poor households try to reduce the number of trips for food and water, especially when the point of purchase is far away. But the lack of refrigeration and, more importantly, money, means that poor households cannot stock up and must often shop for food every day. Consequently, they often have to pay higher prices than more affluent households do. The need to fetch water every day makes great demands on the time of women and children, who are more likely to be given this chore than adult men are. It hinders their ability to undertake gainful activity or disrupts their education.

#### 3.6. STAYING IN TOUCH - SOCIAL CONTACTS ARE MORE DIFFICULT

Various studies have highlighted the critical importance of a support network of family and friends for those living in poverty. These networks improve personal prospects for finding a job or casual labor, provide support in a crisis, or simply

to help meet daily needs. These trends are thwarted by increasing poverty, which encourages greater individualism (Marie, 1997). Nevertheless, the mobility analysis presented in the following chapter highlights the importance of social contacts in Conakry. The same is true of other African cities (Diaz Olvera et al., 1998).

More than one quarter of the trips made by poor city residents on weekdays are for social purposes. One-third of Saturday travel is for social contacts and the proportion of Sunday travel is probably even greater. Even though social contacts are not kept up for strictly practical motives, they do help maintain social integration. The number of visits and reasons for making social trips needs to be seen in the light of the important role that "gifts" play in the "economy" of poor households. In Conakry, for example, more than one in two poor households (52 percent) have at least one member receiving gifts from a person outside of the household. All in all, gifts account for 13.5 percent of poor households' total income and 9 percent of that of non-poor households. A substantial proportion of low-income city residents rely heavily on this source of income, particularly those who are not economically active. Gifts account for more than 20 percent of total income in nearly three in ten poor households (see Table 17).

Table 17: Proportion of poor and non-poor households' income from gifts (percent)

Percent of total income	Poor	Non-poor	Aggregate
0 – 5 %	53	54	54
5 – 10 %	9	12	10
10 -20 %	9	14	10
20 - 30 %	8	10	8
30 - 50 %	9	8	9
>=50%	11	2	9
Undetermined	1	0	0
Total	100	100	100

How closely linked are poverty and poor social integration? Can specific forms of social contacts be found in poor population groups? What role do transport problems play in the problem of maintaining a social network? We cannot claim to address these issues fully in this report, since our survey did not focus on the social life of Conakry residents. In the household survey, however, some elements of social life were covered, such as participation in associations, the number of people who could provide help for individual respondents over the age of 10 years, the form or forms that this help takes and some characteristics of the two main "help providers," such as the nature of their relationships to the respondent, places of residence, and relative income and age. Furthermore, examining all of the travel on the previous day helps us to compare the frequency of different forms of social contacts outside of the home on a statistical basis. Of course, these elements only tell part of the story: we do not know anything about people that the respondents might be helping, nor do we know anything about the people who come to visit respondents in their homes. We

also have no data on Sunday travel. However, the qualitative interviews help to round out and illustrate the statistical information about some of these various aspects, such as participation in associations, social activities, and interpersonal relationships.

## The poor are less likely to participate in associations

The poor are less likely to be members of an association than the non-poor. The income-linked differential is greatest with regard to *tontines* (rotating saving and credit associations). One reason for this is the lower proportion of economically active poor. Income-linked differentials with regard to participation in associations by the economically active are only half as large, but they still exist. Once again, the lack of income proves to be the decisive constraint in Conakry (see Table 18). The differential is particularly pronounced for economically active women: only 39 percent of economically active poor women participate in *tontines*, as opposed to 57 percent of non-poor women. This could lead us to think that the periodic financial contributions are an obstacle to developing this practice among economically active poor women.

Table 18: Participation in associations by the poor and non-poor (percent)

	Poor	Of which: economically active	Non-poor	Of which: economically active
Community associations	18	21	26	25
Tontines	14	23	29	31
Other associations	20	24	31	30
At least one association	39	52	59	59

The merchants surveyed confirm the importance of economic constraints: "When you're poor, you cannot hope to be part of a group or a member of a tontine," (35-year-old fruit vendor at the Kaloum market), or: "But I'm not a member of any tontine, since we are working just to feed ourselves. How could we be in a tontine at this time?" (34-year-old meat vendor at the Niger market).

Sometimes, respondents do not have time or would have to face difficult transport conditions to get to meetings. The same vendor reports: "I belong to a group. We have a rotating credit scheme, but I'm about to quit the group because I hardly ever get to the meetings anymore. My work prevents me from attending, because I don't have time," and "We meet in the suburbs every Thursday, either in the home of the head of the group or in someone else's home. One day, I waited from 4 p.m. to 7 p.m., without getting a ride to the home of the head of the group. I had to pay a fine of GF 4,000 at the next meeting."

Participation rates for economically active men are lower overall, and the differences linked to income are smaller. Unlike women, men are less likely to join *tontines*; they prefer other forms of mutual assistance: "Yes, I belong to an association. The transport operators here in the port have formed an association to help

each other out. For example, when somebody gets sick or has family problems, we chip in GF 500 each to assist them" (36-year-old driver living in Matoto).

In addition to the relatively low participation of the poor in associations and the correlated differences linked to income, the second finding is that the economically active poor in Conakry do not participate in associations much more than the economically inactive do (with the exception of belonging to tontines). Yet, it could be thought that economic activity would promote this form of social integration. The various obstacles to belonging to associations are probably not having enough time, being too tired to take public transport, and, most importantly, not being able to afford membership fees and the cost of transport to attend meetings. Given the deep crisis afflicting Conakry and the predominance of the informal economy, uncertainty about income and very tight budgets are the main obstacles to joining associations, which in most instances require periodic payments.

A substantial proportion of the poor population appears to be relatively isolated (see Table 19). Of course, most poor city residents can personally rely on some support if they need it, but more than four in ten poor and non-poor residents cannot count on any help from outside their own household. Yet, it could be thought that the non-poor do not feel such a great need for help. Whether or not the interview respondent is poor, he or she usually considers the person(s) providing help to be better off, which is only logical. On the other hand, poor residents are somewhat different from the non-poor in that their help is more likely to come from the extended family and less likely to come from friends and workmates. Their help is also a bit more likely to come from the respondent's home district (nearly half the cases).

Table 19: Number of persons providing help to poor and non-poor city residents and the overall characteristics of the persons providing help

	Poor	Non-poor
None	42	41
One person	27	28
Two persons	18	15
Three or more persons	13	17
Of which: proportion of relatives*	65	58
Of which: proportion of friends*	27	30
Of which: proportion of other acquaintances (workmates, etc.)*	8	12
Of which: proportion living in the same district as the	52	61
respondent*		
Of which: proportion with higher income than the respondent*	89	83

<sup>\*</sup> Calculated for respondents reporting that at least one person can provide them with financial or material help or help them find work (does not include moral and spiritual support).

## Contrasting social relations and activities in associations

For poor city residents, the number of persons providing help varies only very slightly by gender and occupation. Moreover, participation in associations logically seems lower for school children and higher for the economically active,

the only group in which the majority are members of at least one association. This is due to the widespread use of *tontines*, particularly among women market vendors (see Table 20).

Table 20: Reported participation in associations by the poor, according to occupation (percent)

	Community associations	Tontines	Other associations	At least one association
School children	14	5	17	28
Economically active women	20	39	23	60
Economically inactive				
women	16	14	16	36
Economically active men	23	7	26	43
Economically inactive men	26	2	21	37
Aggregate	18	14	20	39

The social purposes of travel on the day before the survey shed more light on the situation (see Table 21). Economically active women are the group that, on average, makes the fewest trips for social purposes, mainly because they make fewer social calls on friends (as do women who are not economically active, which seems to confirm the strong influence that traditional gender roles have on women's behavior in Conakry). The very low number of trips made for participation in associations could be due to the fact that women's associations often meet at their place of work, which means they do not necessarily involve travel, or just travel within the market, which is difficult to capture in a survey. The same is true of other social contacts in very busy locations like markets. For example, a 42-year-old vendor at the Gbessia market explains: "The people I meet are very often my relatives or my workmates. They come to see me at the market and I occasionally make a trip to see them." A 40-year old vendor at the Tanéné market says: "The people who come to see me are mainly my relatives. I give some of them money for their transport fares, especially the younger ones, and I give some of the elderly ones a bit of rice. Personally, I never go see them, except if they are welfare cases. We are linked by blood. As for our workmates, we go to their homes when there is a bereavement to present our condolences and give them a bit of money."

School children and men and women who are not economically active are less likely to participate in associations, but they make up for this in other ways: through their circle of friends for school children and through participation in ceremonies for economically inactive women, of whom one in eight makes a trip to attend a ceremony on an average day.

Table 21: Participation in social activities by the poor as measured by travel on the previous day, according to occupation (percent)

					Participating	At least one
	Visiting	Visiting	Visiting	Attending a	in an	trip for social
	family	friends	neighbors	ceremony	association	purposes
School children	7	31	3	2	1	40
Economically active						
women	10	13	5	6	2	32
Economically						
inactive women	14	12	5	13	1	42
Economically active						
men	9	25	3	5	1	38
Economically						
inactive men	13	26	7	7	1	45
Aggregate	10	22	4	6	1	39

Despite transport problems, visits are the main way of asking for help to cope with an unexpected event or a difficult situation: "I go visit my extended family. You know, in Africa, we have to go see our family to discuss problems and see what needs to be done. So sometimes on Sunday, I go visit members of my family who live in Kaloum and in Kipé" (36-year-old driver living in Matoto). But, "The high cost of transport is an obstacle to fraternal relations between men. In Africa, it's very important to go see people in the flesh. That's what makes us different from other continents" (24-year-old vegetable merchant at the Coléah market).

When travel and social visits take time and cost a lot of money, it is a sign of respect to go visit someone. More than half the people providing help do not live in the same district as the person receiving it. This means that visits are part of a system of reciprocity and exchange. The person receiving the visit often pays the cost of the return journey, or gives the visitor a small gift if he or she is poor: "I make many trips to see certain people. These people are either friends or relatives. These visits mean that I get a bit of pocket money. Quite often, when I visit certain friends, they give me some money for my return trip" (27-year-old unemployed bachelor living in Wanidara). Here is another account of these monetary transfers: "I am living on gifts from my family. I have a brother who sends me money; my aunt and uncle also give me money because my mother is no longer with us [...]. When I get to Hamdallaye and to Concasseur to see my aunts, they give me some money" (20-year-old unemployed man living in Coronthie).

The interviews reveal that this practice is extremely widespread, even though some economically active men and women feel that they are more "givers" than receivers, even when they are the ones to make a trip to visit someone else. This can make visits a problem when money is tight.

For example, a 24-year-old street barber working and living in Coronthie explains that when visiting his family: "I pay for my transport both ways and I sometimes give them some money because I don't want to live off of my family," and he does so even when his budget is tight: "As a general rule, I go see my family, but sometimes, when money is tight, there are people that I cannot visit, but they are not

relatives." Or take the case of the teacher, who is a bit better off than the other respondents, with a monthly income of GF 215,000. He sometimes hesitates to make visits because of a form of social pressure: "There are some people you would like to see, but because you don't have your own means of transport, you don't do it. So you worry about what these people will think of you. You start thinking that these people are always expecting something out of you." The same concern about the monetary cost of visits worries a 27-year-old woman who works as a vendor, lives with her parents, and contributes to the household budget. When discussing the topic of visits, she gives the following reasons for restricting their number: "Yes, but I don't have enough time, because I'm trying to earn my daily bread. The lack of money can also be a problem, because I don't make much profit. As I use my profits to help meet my family's needs, I refrain from making too many visits. I would like to visit my relatives sometimes and bring them gifts, but I can't afford to."

The quantitative survey confirms the practice of relatives' covering at least some of their visitors' public transport fare, but it also shows that it is not as frequent as the qualitative interviews suggest: 11 percent of the return fares for trips on public transport to visit relatives are paid by someone outside of the household, whereas 24 percent of the visits to relatives are financed by another member of the visitor's own household.

#### Conclusion

We should start by pointing out that the examination of Conakry residents' integration into social networks is incomplete: we have little or no information about visitors received in the respondents' homes (the frequency of visits received is closely associated with social status and age); other activities are occasions for social contacts (worship for men, shopping for housewives, work for economically active men and women, etc.)

Yet, the quantitative data from the household mobility survey show that a large proportion of trips made by the poor and non-poor alike are for social activities. These data also show the wide variety of forms that social integration can take, depending on an individual's occupation. For example, economically active poor men and women are somewhat more likely to be members of associations, especially women, who are likely to be members of tontines. Economically active men are more likely to make trips for social contacts than economically active women. These women are very busy with their dual burden of work and homemaking; while they make fewer trips for social contacts, they may perhaps receive more visits. Economically inactive men and women, school children, and students are a bit more likely to make social calls on friends, relatives, and neighbors, but these calls are more informal. However, economically inactive women are much more likely to attend ceremonial occasions.

The stories told by poor city residents during the interviews show the challenges and problems that they face in maintaining a diversified social network. Such a network is an investment for the future, and more importantly, a safety net in case of misfortune. But integration into this solidarity system requires regular contacts. It takes time and money. The cost of transport in money, as well as time, has a substantial impact on the frequency of trips for social activities, despite the gifts of money that visitors sometimes receive. These problems are particularly acute for the poor and can even hinder their ability to achieve social integration.

#### 4.1. THE MAIN FEATURES OF DAY-TO-DAY MOBILITY

The data in this section pertain to the final sample of 10,024 trips made within the city of Conakry, from the peninsula to the outskirts of Sonfonia and Dabompa. The 37 intercity trips captured have therefore been excluded from the sample. Four-fifths of the trips were made on weekdays (Monday to Friday), and the remaining one in five was made on Saturday, since the survey did not cover Sunday travel.

Walking is the main transport mode<sup>6</sup> both on weekdays and on Saturdays (see Table 22). *Magbanas* and shared taxis account for virtually all travel on public transport, with three in five trips being made on *magbanas*, one in three in shared taxis, and 1 percent of trips being made using other modes of public transport. Private cars and motorcycles account for a minimal share of trips. But the proportion of travel using private transport needs to be kept in perspective, since the sample deliberately excludes the more affluent households. The minimal share of private vehicles reflects the extreme poverty that afflicts the majority of households in Conakry.

Table 22: Modal Split of Urban Travel\* (percent)

	Weekdays	Saturdays
Walking	76	70
Motorcycles and bicycles	# 0	# 0
Cars	1	2
Magbanas	14	17
Shared taxis	8	10
Other public transport	1	1
Other modes	# 0	# 0
Aggregate	100	100

<sup>\*</sup> Percentages of the sample.

The analysis of travel by the number of trips provides a more detailed picture of the modal split and how it changes between weekdays and Saturdays (see Table 23). Most trips involving a single leg (80 percent of all travel) are made on foot, while the main mode of transport for most other travel is public transport, and

<sup>&</sup>lt;sup>6</sup>For the one in five trips involving more than one mode, the main mode was determined as follows. Because walking is often combined with other individual and shared modes of motorized transport, we defined the main mode as a function of the motorized mode(s) used on the different legs of the trip. If all of the motorized transport legs used the same mode, this mode is counted as the main mode; bicycles and motorcycles, cars, *magbanas*, and taxis are counted separately. Other public transport modes are placed in the "other public transport" category. When trips involve the use of different modes of motorized transport, the following principles are applied: if there is at least one mode of individual transport, it is counted as the main mode; if the legs of a trip involve any two modes of public transport (e.g. taxis, *magbanas*, buses, undeclared cabs, etc.), the main mode is classified as "other public transport." The "other mode" heading covers trips made by boat or by unidentified modes.

more specifically *magbanas* and taxis. Walking is also very frequently a secondary mode of transport used to get to a public transport stop and to walk from the stop at the other end to the final destination. In most cases, travel on public transport involves a walk of more than five minutes after arriving at the destination stop. Some 46 percent of trips made on public transport by poor city residents involve at least one walk of more than five minutes, and 41 percent of trips involve two. On Saturdays, there is increased use of shared taxis and, more particularly, *magbanas*, including for trips involving a single leg.

Table 23: Modal s	plit of urban	trips by n	umber of legs*	(percent)

Number of		Motor- cycles,				Other public	Other	
legs	Walking	-	Cars	Magbanas	Taxis	transport		All modes
Weekdays	Truming.	bicycles	Curs		Tunto	transport	modes	
1	95	0	1	2	2	0	0	100
2	0	0	1	59	38	2	0	100
3	0	0	0	68	28	3	1	100
4	0	0	0	25	39	36	0	100
Weekday total	76	0	1	14	8	1	0	100
Saturdays								
1	91	1	2	4	2	0	0	100
2	0	0	2	59	37	2	1	100
3	0	0	0	70	27	3	0	100
4*	0	0	0	17	33	50	0	100
Saturday total	70	0	2	17	10	1	0	100

<sup>\*</sup> Percentages of the sample.

On weekdays, the household necessities, such as fetching water, shopping, services and formalities, healthcare, and religion (worship accounts for a quarter of these trips) are the main reason for making trips (two in five trips), whereas work and school only account for one in three trips (see Table 24).

Trips for social purposes, which are primarily visits and, more rarely, attendance at ceremonial occasions and association meetings, account for slightly more than a quarter of the trips. On Saturdays, the slightly lower level of work and school activities entails a slight reduction in trips made for these purposes. Less work is done on household chores and more time is spent on social contacts. This means that the three major spheres of day-to-day life account for practically even shares of travel.

Table 24: Breakdown of urban trips by purpose\* (percent)

	Weekdays	Saturdays
Work, school	33	31
Household and family chores	40	35
Social contacts	27	34
Aggregate	100	100

<sup>\*</sup> Percentages of the sample.

Walking is the leading mode of transport for weekday and Saturday travel for all purposes (see Table 25). Proportionally fewer trips for work and school are made on foot, but walking still accounts for two in three trips in this category (76 percent of trips to school and 66 percent of work-related trips). The high proportion of people who walk to work is consistent with the prevalence of the informal economy.

Among motorized transport modes, *magbanas* are always used more than shared taxis, although the difference is slightly smaller for trips made for household chores. On Saturdays the use of different modes shows the same pattern, although walking loses a few percentage points to motorized transport modes for each of the three main spheres of day-to-day life.

Table 25: Modal split of urban travel for different purposes\* (percent)

		Motor- cycles,			Other public		
	Walking	bicycles	Cars	Magbanas	Taxis	transpor	t All modes
Weekdays		-				-	
Work, school	67	0	2	19	11	1	100
Household chores	84	0	0	8	6	1	100
Social contacts	73	0	1	16	9	1	100
Weekday total	<i>75</i>	0	1	14	8	1	100
Saturdays							<u>.</u>
Work, school	60	1	3	23	11	2	100
Household chores	78	0	1	13	8	0	100
Social contacts	70	0	2	17	10	1	100
Saturday total	70	0	2	17	10	1	100

<sup>\*</sup> Percentages of the sample.

The modes of transport used also depend on the distances traveled. The predominance of walking stems from the fact that most trips are made in the home district, whereas travel over longer distances only concerns one in three weekday trips (see Table 26). The number of middle-distance trips between the home district and an adjacent district is fairly small. The pattern of travel is a bit different on Saturdays, when city residents tend to travel somewhat farther from home and use motorized transport somewhat more in order to do so.

Table 26: Modal split of urban travel by type of trip\* (percent)

	Weekdays	Saturdays
Within home district	55	48
Between home district and adjacent districts	12	10
Other types of trip	33	42
Aggregate	100	100

<sup>\*</sup> Percentages of the sample.

The proportion of trips made on foot on weekdays or on Saturdays diminishes as the distances increase. Almost all trips within the home district are made on

foot, but the proportion shrinks to one-third for trips to more distant destinations (see Table 27). On longer trips, public transport is used for three in five trips, with *magbanas* being used for two in three such trips. On the other hand, shared taxis rank nearly evenly with *magbanas* as the means of transport for shorter trips between the home district and adjacent districts.

		Motor-				Other	
		cycles,				public	
	Walking	bicycles	Cars	Magbanas	Taxis	transport	All modes
Weekdays		-					
Home district**	99	0	0	1	0	0	100
Adjacent districts	84	0	0	7	8	1	100
Other types of trip	33	1	3	39	22	2	100
Weekday total	75	0	1	14	8	1	100
Saturdays							
Home district	98	0	0	1	0	0	100
Adjacent districts	87	1	0	6	6	0	100
Other types of trip	33	1	4	39	21	2	100
Saturday total	70	0	2	17	10	1	100

Table 27: Modal split of urban travel by type of trip\* (percent)

Thus, walking is the primary mode of transport to destinations near home. However, it should be noted that trips on foot take an average of twelve minutes within the home district, but the time increases rapidly once the walker leaves the home district, as is the case for more than one in four trips made on foot. Therefore, long walks are not rare: for the poor, nearly 11 percent of all trips are made on foot and last 30 minutes or longer, which, based on a speed of 4 kilometers per hour, means distances of 2 kilometers or more. These long trips on foot are necessary either because public transport is inadequate or because it is beyond the means of the poor; the real answer is likely to be a combination of both.

The people we met walking along the railroad tracks (see Photos 3 and 4) spoke of their low income and the cost of public transport. For example, a 45-year-old married watchman with three children who works for a security company in Matam and lives in Tombo explains: "I walk along the Conakry-Niger railway tracks to get to work [5 kilometers from home] and to get back home every day. I use public transport when I make social calls or travel on business. Since I walk to work and back home, I have no constraints except that my salary [GF 70,000 per month] means that I can't afford to pay for a ride to work." A medical student tells us: "My only income is my grant [GF 60,000]. I walk along the Conakry-Niger railroad tracks to the main university building. I walk back home the same way. I always travel on foot within Dixinn. When I go visit relatives and friends far from Dixinn, I take a magbana. My transport problems boil down to money problems. That's why I walk along the railroad tracks to go to the University. Sometimes, if I make a bit of money, I take a magbana. The number of times I walk to the university is then pretty much the same as the possibility of taking a minibus." A carpenter's apprentice, who walks some 8 or

<sup>\*</sup> Percentages of the sample.

<sup>\*\* &</sup>quot;Home district": trips within the home district; "Adjacent districts": trips between the home district and an adjacent district; "Other types of trip": all other trips.

9 kilometers from Carrière to Coronthie, tells us: "I'm an apprentice and I work for my master. If there's no work to be done in the shop, I can use the time to do some odd jobs, otherwise I do work for my master most of the time. How much do I earn? It's hard to say, sometimes I make GF 1,000, sometimes I don't make anything at all [...] My master gives each of his apprentices GF 1,000 to cover food and magbana fares. Most of the time, I walk to my master's shop along the railroad tracks. On days when I have some money, or when the sun is very hot, I take a magbana. I walk most of the time, for example I walk from the city center to Madina or Coléah. Sometimes it's hard because it's a long distance, but I don't have any problems otherwise."

Public transport is used for longer distances and is very time consuming. The reasons trips on public transport take so long include walks at either end, the lack of vehicles, and traffic jams on the main roads at peak travel times. *Magbanas* are particularly slow; the average trip on a *magbana* takes nearly three quarters of an hour, or one and a half hours for a round trip, as opposed to an average of 1 hour and 10 minutes in a shared taxi.

#### Conclusion

Day-to-day mobility for Conakry residents<sup>7</sup> is primarily a matter of trips around the neighborhood near home. Trips for household chores predominate on weekdays and rank evenly with social calls on Saturdays. Every trip involves walking: either the whole trip is made on foot or it involves walking at either end, when public transport is used. Some very long trips are made on foot: one in nine trips made on foot by poor city residents lasts more than half an hour. *Magbanas* are used much more than shared taxis, while the other modes of public transport play only a very minor role.

## 4.2. POOR INDIVIDUALS AND POOR HOUSEHOLDS

We have defined two levels of poverty on the basis of our sample: household poverty and individual poverty, stemming from the lack of personal income.<sup>8</sup> How does each type of poverty affect day-to-day mobility?

When we cross-tabulate using these two levels of poverty, we see that the relative differences are much greater in the number of trips on motorized transport than in trips using all modes of transport (see Table 28). In particular, individual poverty has a greater impact on mobility than household poverty does. This is shown both in a sharp increase in the number of trips on motorized transport and a decrease in the number of trips made on foot. Women in poor

<sup>&</sup>lt;sup>7</sup> The figures given in this section, and in the rest of this report, are taken from unadjusted data. Therefore, they should be interpreted as orders of magnitude rather than detailed estimates of the phenomena under consideration that are valid for the city as a whole, since the survey did not attempt to identify the mobility patterns of all Conakry residents; instead, it focused on the poorest segments of the population. However, the various experiments with adjustment showed that these estimates are very robust and only show minimal changes in most indicators, particularly with regard to the poor (see Annex 7).

<sup>&</sup>lt;sup>8</sup>Poor households are those where annual income is less than or equal to GF 450,000 per person. This means that individuals are poor if their annual income, adjusted by the factor [total number of household members/number of economically active persons in the household], is less than or equal to GF 450,000.

households are an exception. Higher personal income leads to a leveling off of the number of trips on motorized transport and an increase in the number of trips made on foot. This exception to the general pattern may stem from the small number of non-poor women living in poor households (only 33 individuals). If we consider that a higher number of trips indicates improved mobility, then a preliminary statistical analysis shows that men benefit much more from an increase in monetary income than women do.

Table 29: Mobility and Household and Individual Poverty Levels

						Of which: motorized
Gender	Household	Individual	Number	%	Mobility, all modes	transport*
Men	Non-poor	Non-poor	141	13	4.1	1,8
		Poor	88	8	3.6	0,8
	Poor	Non-poor	53	5	4.6	1,9
		Poor	763	73	4.1	0,9
All men			1,045	100	4,1	1.1
Women	Non-poor	Non-poor	101	9	3.4	1,2
	_	Poor	117	11	3.7	0,8
	Poor	Non-poor	33	3	3.8	0,7
		Poor	814	76	3.5	0,7
All women			1,065	100	3,5	0.8

<sup>\*</sup> Motorized transport: number of trips other than trips made on foot.

Other mobility indicators also show some variations within the poor population depending on whether the respondents live in a poor or a non-poor household (see Tables 29, 30, and 31). The modal split is similar for men and women and does not vary according to the income level of the household. Larger differences can be seen according to the purposes of travel and the types of trip. Higher household income means more travel for social calls and longer trips for men, which underscores the difficulty of maintaining social contacts on a low income. The effect for women is similar, but less pronounced.

Table 29: Purposes of trips made by poor city residents according to household income (percent of trips)

		Work and	Household	Social	
Gender	Household	School	chores	contacts	All reasons
Men	Non-poor	32	28	40	100
	Poor	36	31	32	100
Women	Non-poor	22	50	28	100
	Poor	25	49	26	100

Table 30: Modal split for trips made by poor city residents according
to household income (percent of trips)

Gender	Household	Walking	Cars	Magbanas	Taxis	Other public transport	Other modes	All modes
Men	Non-poor	78	0	14	7	0	1	100
	Poor	78	1	14	6	1	0	100
Women	Non-poor	78	0	14	7	0	0	100
	Poor	79	0	14	6	1	0	100

Table 31: Destinations of trips made by poor city residents according to household income (percent of trips)

			Adjacent	Other	
Gender	Household	Home district	district	destinations	All trips
Men	Non-poor	50	10	41	100
	Poor	55	14	31	100
Women	Non-poor	57	11	31	100
	Poor	61	12	27	100

Household income has a slightly greater impact on the types of trip made by poor women than the types of trips made by poor men. It could be helpful to carry this analysis further by making finer distinctions between the different groups of poor city residents on the basis of their household income. However, the size of our sample prevents us from systematizing such an approach. Furthermore, as we are about to see, the biggest differences relate to the individual's personal situation. This leads us to distinguish poor individuals, who make up 85 percent of the respondents, with low personal income, from non-poor individuals, who are better off.9

#### Conclusion

Household income has relatively little impact on the mobility patterns of city residents, but personal income has a much greater impact on mobility patterns, including the modal split.

#### 4.3. POVERTY LIMITS ACCESS TO MOTORIZED TRANSPORT AND DAY-TO-DAY MOBILITY

Before examining the mobility of poor city residents in detail, we should explain the differences between the poor and non-poor. The levels of mobility are virtually the same for both groups, with poor individuals making an average of 3.8 trips each day, which is just under the average of 3.9 trips for the non-poor.

<sup>&</sup>lt;sup>9</sup> Even though we did not survey apparently affluent households, this category of non-poor is substantially more diverse in terms of disposable income than the category of the poor. Furthermore, as is the case with any classification of the population based solely on a poverty line, individuals living on very similar incomes may be classified on either side of the line and the poorest of the non-poor are actually hardly any better off than the most "affluent" poor!

There is not much difference in the numbers of trips, but the two groups' trips have different characteristics.

The leading differences have to do with the purposes of trips (see Table 32). Because paid work produces an income, the proportion of the non-poor in the labor force is higher than the proportion of the poor. Furthermore, the working poor are more likely to work at home, which means that the proportion of trips made for work and school is substantially greater for the non-poor than the poor (17 percentage points greater). This is offset by a smaller number of social contacts, which means that non-poor individuals are half as likely to make trips for social calls as the poor are. In this group alone, the poor make more trips for social calls than the non-poor do.

Table 32: Purposes of trips made by the poor and the non-poor (percentage of trips made)

	Work and School		
		Household chores	Social
Non-poor	47	38	15
Poor	30	40	30

The modal split is also very different between the two groups. Poor individuals make less use of motorized transport. About one in five poor city residents uses motorized transport, as opposed to two in five non-poor residents (see Table 33).

Therefore, the mobility of the poor relies almost entirely on walking, with each poor person making 2.9 trips on foot on weekdays, as opposed to 2.4 trips on foot for the non-poor. Private vehicles are beyond the reach of the poor and they rely on public transport for motorized travel. The poor make an average of 0.8 trips per day on motorized transport, as opposed to 1.4 trips per day for the non-poor. The poor are twice as likely to take a *magbana* as a taxi (0.52 trips versus 0.24 trips), whereas better-off individuals are more likely to travel by taxi (0.58 trips by *magbana* and 0.77 trips by taxi). The *magbana* is the "poor man's transport mode," primarily because fares are more affordable, as we have already seen with regard to opinions about the different modes of transport.

Table 33: Modal split of trips made by the poor and the non-poor (percentage of trips made)

					Other public	
	Walking	Cars	Magbanas	Taxis	transport	Other
Non-poor	61	2	15	20	1	1
Poor	78	1	14	6	1	0

Not only are the poor less likely to use public transport; their travel is more complicated (see Table 34). The poor have to walk farther, before and after riding on public transport per se, than better-off city residents do: the poor have

to walk more than 5 minutes, before <u>and</u> after riding public transport four in ten times, as opposed to two in ten times for the non-poor. The reason for this is that the poor are more likely to take a *magbana* than a shared taxi. Compared to shared taxi users, the average number of times *magbana* passengers have to walk before and after riding is more than 20 percent greater. This is probably because the shared taxis run to more parts of the city than *magbanas* do. The fact that many public transport users finish their trips on foot could also be because of the very common practice of basing transport fares on "sections," which increases the cost of travel substantially. In some situations, users have to get off public transport and finish their trips on foot in order to reduce the cost.

Table 34: Modal split of travel on public transport by the poor and non-poor broken down by the number of legs (percent)

Trip with le	gs:	Legs on public	Percentage of trips made by	Percentage of trips made by
1	Legs on foot	transport	non-poor	poor
1	0	1	18	12
2	0	2	1	1
2	1	1	54	42
3	0	3	# 0	# 0
3	1	2	2	2
3	2	1	21	41
4	1	2	3	3
Aggregate trips o	n public transport		100	100

The difference in the modal split between poor and non-poor is closely linked to the locations of their activities (see Table 35). When walking is the main mode of transport, it restricts the area covered, and seven in ten trips made by poor city residents are close to home, primarily in the home district (58 percent). In contrast, the non-poor go into the city center in equivalent proportions (51 percent) and use motorized transport to do so.

Table 35: Destinations of the poor and the non-poor (percentage of trips made)

	Home district	Adjacent districts	Other destinations
Non-poor	42	7	51
Poor	58	12	30

The difference in transport modes and destinations means that traveling times are different (see Table 36). The average travel times are fairly similar for the poor and non-poor. Travel times on motorized transport are slightly longer for the poor, and slightly longer on foot for the non-poor. But the fact that the non-poor make greater use of motorized transport means that their daily travel time budget is substantially greater at 1 hour 43 minutes, including 42 minutes of travel on foot, even though poor city residents still spend nearly one and half hours a day traveling (1 hour and 20 minutes, including 44 minutes of travel on foot).

Average time per trip Daily travel time budget Motorized Motorized Walking Total Walking transport transport 40 103 Non-poor 18 42 61 Poor 15 44 44 36 80

Table 36: Average travel times and daily travel time budgets (minutes)

### Conclusion

The poor travel just a little less than the non-poor do. More importantly, they travel differently. Household chores are, logically enough, the primary reason for trips, and not work. The poor walk much more because their destinations are more likely to be nearby and because they cannot afford to use public transport, especially taxis. The poor are less likely to use taxis and more likely to encounter problems when they do.

#### 4.4. DIFFERENT CATEGORIES OF THE POOR: DIFFERENT BEHAVIORS AND DIFFERENT NEEDS

Social and economic factors relating to individuals, such as gender, employment status, occupation, age, and position in the household, have a strong influence on their daily mobility. In order to analyze the different mobility patterns of the population with low cash income more thoroughly and to identify the specific constraints and needs of various categories, we define five groups of poor city residents on the basis of two differentiation factors revealed by earlier research on cities in sub-Saharan Africa: gender and employment status (Diaz Olvera et al., 1998). School children are the largest group, accounting for 33 percent of poor city residents over the age of 10. This group is not divided by gender, since gender differences are not yet pronounced at their age. The next largest group is made up of economically inactive women (21 percent of poor city residents), followed by economically active women (18 percent) and economically active men (17 percent). Economically inactive men form a substantially smaller group (11 percent). Individuals engaged in paid work therefore account for slightly less than 40 percent of the poor. The main dimensions of these five groups' mobility are presented in the four tables that follow, and the various social and economic characteristics are presented in Annex 6.

Table 37: Overall mobility characteristics of five groups of poor city residents

					Of which on
	Immobility		Total daily	Of which on	motorized
Group	rate*	Mobility	travel time	foot	transport
School children	8	4.0	75	48	27
Economically active					
women	10	3.9	79	50	29
Economically inactive					
women	21	3.0	58	33	25
Economically active					
men	5	4.3	124	53	70
Economically inactive					
men	23	3.4	68	34	34

<sup>\*</sup> Immobility rate: percentage of individuals who did not make any trips on the survey reference day.

Table 38: Breakdown by purposes for trips and by groups of poor (percent)

-				
		Household	Social	
	Work, school	chores	contacts	All purposes
School children	40	25	35	100
Economically				
active women	38	43	19	100
Economically				
inactive women	0	68	32	100
Economically				
active men	45	33	22	100
Economically				
inactive men	8*	51	41	100

<sup>\*</sup> Primarily to seek work.

Table 39: Modal split by groups of poor (percent)

					Other public	Other	
	Walking	Cars	Magbanas	Taxis	transport	modes	All modes
School children	84	0	12	4	0	0	100
Economically							
active women	80	0	13	6	1	0	100
Economically							
inactive women	76	0	16	6	1	0	100
Economically							
active men	71	2	16	10	1	0	100
Economically							
inactive men	76	2	15	6	2	0	100

	Home district	Adjacent districts	Other destinations	All destinations
School children	54	16	30	100
Economically				
active women	64	9	27	100
Economically				
inactive women	61	13	26	100
Economically				
active men	53	11	36	100
Economically				
inactive men	62	10	29	100

Table 40: Breakdown by destination and by groups of poor (percent)

## Walking to school

School children form a group of young, unmarried people, three quarters of whom are under the age of 19. The average age of this group is 16, since the minimum age for survey respondents was set at 11. Because school enrollment discriminates against girls,<sup>10</sup> there are fewer girls than boys in this group (40 percent versus 60 percent) and the average age of the girls is slightly lower. Four in five school children are the children of the head of the household; one in five is the child of another relative.

Two in five school children attend primary and middle schools, and one in five attends high school. This population group includes very few students in higher education; in fact fewer than one in forty is in higher education. On average, one in two school children has to go to the city center to attend school, but the grade has a direct influence on which schools are attended. For nearly 90 percent of the children enrolled in primary school, the school attended is near their home (in the same district for 59 percent and in an adjacent district for 29 percent). After middle school, the number of schools attended in the home district is much smaller. For 60 percent of middle school pupils, 88 percent of high-school students, and 100 percent of students in higher education, attending school means traveling beyond adjacent districts. The correlated share of trips to school made on foot, as opposed to on public transport, shrinks from 94 percent for primary school pupils to 6 percent for students in higher education.

A small proportion of these school children (7 percent) report working in the last 30 days. The population of school children who work is slightly older, slightly less advanced in the school curriculum, and less closely related to the head of the household than schoolchildren who do not work. Two-thirds of those who work have vending jobs and one-sixth have service jobs. Nearly half report they are self-employed and more than one-fourth are family helpers. One-fifth work at home, one-fourth work in their home district, and another fourth are street vendors. Most of them walk to work (83 percent). These after-school jobs provide those who hold them with annual incomes that are three times greater

SITRASS

<sup>&</sup>lt;sup>10</sup> In the 15-to-20 age group, 46 percent of the girls are reported to be in school or university, versus 67 percent of the boys.

than the incomes of other school children, who rely mainly on gifts (GF 172,000, as opposed to GF 55,000).

School children make an average of four trips on weekdays, which is comparable to the number of trips made by economically active poor men and women. These trips take an average of one and a quarter hours, including 50 minutes on foot. As is to be expected, the main purpose of travel is school, plus work, if a job is held, accounting for two in five trips, followed by trips to make social calls, and, in last place, trips for household chores, which are not frequent for this group. Travel in the immediate neighborhood and home district accounts for 70 percent of the trips. Individuals walk to nearby destinations and to some further destinations, since 84 percent of the trips are made on foot. In fact, this group has a large contingent of "exclusive walkers," as six in ten school children made all of their trips on foot on the survey reference day.

Boys make a few more trips than girls and are more likely to travel to make social calls than to do household chores, reflecting the adult gender roles that are starting to be established. Boys are proportionately a bit more likely to walk, and spend a quarter of an hour more each day on travel. However, the level of schooling has a bigger impact on mobility patterns than gender. The level of mobility does not change much, but travel times are substantially longer: with an increase of more than 50 percent between primary school and high school. The changing pattern results from the increasing range of travel from home and the home neighborhood required to attend more distant schools. The proportion of trips to the city center increases from 14 percent to 50 percent, and the proportion of trips made on public transport increases from 4 percent to 29 percent.

Young people who hold down jobs while attending school have a distinctive mobility pattern. They travel to the city center more often, but they walk just as much as other school children, which means that their daily travel time budget is large at 1 hour and 40 minutes, including one hour of walking. Their mobility is dominated by work, and social contacts account for a smaller proportion, perhaps because the demands of work, school, and long travel times. Nevertheless, only a minority of young people attending school hold down jobs. They are very mobile, but stay more in the immediate vicinity of their home.

## Economically active women rarely work far from home

The majority of economically active women have family responsibilities; three in five are married to the head of household and 8 percent are the head of household. Fewer than two in three are married and nearly half of them are in polygamous marriages. The average age for this group is 33, but age is closely related to their status within the household, averaging 45 for women heads of household, 36 for wives, and only 25 for other women (daughters and other relatives). Educational attainment is very low. Some 85 percent of economically active poor women have not been to school and fewer than one in ten have been to middle school or beyond.

Lack of education determines what types of jobs are available for poor women. Only one in fourteen has a permanent payroll job, whereas one in five only has casual self-employed work. Some 70 percent of economically active poor women are self-employed. Most of them are married and they work almost exclusively as retailers. When they are not self-employed, they are mainly salesclerks or apprentices in retail businesses or services. Only 8 percent of these women hold more than one job. Annual income, including income that does not come from work (less than 7 percent of the aggregate), is low at GF 461,000, which is less than three-quarters of the income of economically active poor men. However, income varies greatly, depending on the nature of women's jobs: self-employed women in casual work have an average annual income of GF 254,000, whereas self-employed women with permanent jobs earn GF 520,000. The handful of women with payroll jobs earn an average of GF 826,000.

Another noteworthy characteristic of these low-skill jobs is that the work can be done near home (see Table 41). Fewer than one in five economically active poor women has to go into the city center, beyond the adjacent districts, whereas one in four works at home. The need to combine household chores with paid work is a further constraint on commuting by women with family responsibilities (heads of household or wives), who are more likely to stay home than younger women.

Table 41: Place of work for economically active poor women according to their status within the household (percent)

		Home	Adjacent		
	Home	district	district	Other places	All places
Heads and wives	31	46	7	16	100
Daughters and other					
relatives	18	52	8	22	100
Aggregate	27	48	7	18	100

Economically active poor women make an average of 3.9 trips per day, which is close to the figure for other groups holding jobs or attending school (economically active poor men and school children). But unlike the other groups, the main purpose of their trips is related to household chores, not work. Work and household chores are very time-consuming and leave little time for social contacts. Economically active women make up the group that makes the fewest trips for social purposes.

Mobility is also affected by the dual burden of a job and household chores, which restricts the possibilities for traveling far from home, especially since the use of public transport is limited to one in five trips. After school children, economically active poor women form the group that makes the largest proportion of trips on foot on average. Nevertheless, their daily travel time budget averages 1 hour and 20 minutes, with walking accounting for 50 minutes and the less frequent trips on public transport accounting for 30 minutes.

These general characteristics of the mobility of economically active poor women do not vary much with the status of the women within their households. Of course, when they are heads of household or, more especially, wives, trips to do household chores are much more frequent than trips for work (46 percent versus 35 percent, which is exactly the opposite of the figures for other women). But the other characteristics are virtually identical, including the level of mobility, the modal split, the travel pattern, and the daily travel time budget. Holding down a low-income job does not free a woman from the constraints relating to gender roles.

# Economically inactive women make fewer trips and stay closer to home

After school children, economically inactive women form the second largest group in the low-income population in Conakry. The social and demographic make-up of this group is very similar to that of economically active women. There are slightly more women categorized as other relatives and slightly fewer women classified as women in polygamous marriages. It is a group of women with very little education, the majority of whom are heads of household, or more especially wives, aged over 30. There is also a large one-third minority of younger women who are the daughters of the heads of household or other relatives. On average, these women have very low income (GF 111,000 per year), two-thirds of which comes from gifts, in addition to rents from property or, in rarer cases, money from pensions. Yet, the majority of these women report that they have no personal source of money outside of the household, but the situation improves somewhat with age (see Table 42).

Table 42: Annual income of economically inactive poor women, according to age

Age group	•	% of economically Annual income		
	inactive women	(GF)	with no income	
Children (10-13)*	4	27,000	83	
Teens (14-18)	12	54,000	68	
Young adults (19-34)	41	76,000	60	
Older adults (35-54)	33	131,000	55	
Elderly (55 and over)	11	269,000	39	
Aggregate	100	111,000	58	

<sup>\*</sup> Small sample group.

Economically inactive poor women have the most restricted mobility in terms of the number of trips made each day, which averages 3.0, and in terms of destinations, since barely a quarter of their trips take them farther than the adjacent districts. They also have the smallest travel time budget, which is less than one hour, including 33 minutes of walking. Household chores account for slightly more than two-thirds of their trips, with social contacts accounting for the other third. In proportionate terms, their use of transport modes is slightly better than that of economically active women: "only" three quarters of their trips are made on foot, since these women are a bit more likely to ride a *magbana* (16 percent versus 13 percent). Economically active poor women may seem required to stay close to home by their dual burden of a job and household

chores, but the travel possibilities for economically inactive women staying at home are actually even more limited. One in five did not make any trips on the survey reference day.

These dominant traits are accentuated with age. As women grow older, the level of mobility falls and trips outside of the home district become rarer and trips on foot become shorter. Economically inactive women over the age of 55 only make an average of 1.7 trips per day, of which more than 80 percent are in their home district and last about 20 minutes. More generally speaking, economically inactive poor women are restricted by household chores and lack of income. They seem to form the group that is most firmly tied to the home.

# Economically active men enjoy relative autonomy, but their travel is greatly restricted

Three in five economically active poor men are heads of households, and one in four is the son of the head of household. Heads of household are virtually all married, with three monogamous marriages for every polygamous marriage, whereas the other economically active poor men are predominantly single. The average age is high at 38, but heads of household are twice as old on average as the others, 47 as opposed to 24. Nearly two-thirds have no schooling, but one in eight has been to high school or beyond.

Access to employment seems to be easier than for economically active poor women, but it is still fragile. One quarter of economically active poor men have a permanent payroll job. But nearly three quarters are self-employed and one quarter of them have only casual jobs. Slightly more than two in five economically active men are self-employed and a quarter hold unskilled jobs (laborers, apprentices, family help, domestic servants). They work mainly in services (44 percent), retail (17 percent), and construction (16 percent). Only 8 percent of these men report holding more than one job.

As a consequence of the better level of jobs available, the average annual income of economically active poor men is higher than that of economically active poor women. These men's average annual income stands at nearly GF 700,000, of which 92 percent is income from work. But, as is the case with women, the nature of their jobs has a big impact on income. Self-employed men with permanent jobs earn 1.8 times more than self-employed men with casual jobs and men with permanent payroll jobs earn 3 times more than self-employed men with casual jobs.

The place of work is largely influenced by the nature of the job, as is the case for income. Men with payroll jobs are more likely to work in the city center, where activities in the formal economy tend to be located. Self-employed men with permanent jobs tend to stay in their home district and one in five works at home. Self-employed men with casual jobs are in an intermediate position (see Table 43).

		Home	Adjacent		Other	All places
	Home	district	district	City center	places	
Payroll job	2	28	12	49	9	100
Self-employed						
permanent job	20	33	7	32	8	100

8

9

43

39

8

8

100

100

Table 43: Place of work for economically active poor men according to the type of job (percent)

7

12

Self-employed casual job

Aggregate

The level of mobility of economically active poor men is very high. At 4.3 trips per day, it exceeds that of school children. Weekday mobility is mainly for work, leaving little time for social contacts. The relative financial autonomy of this group means that these men are slightly more likely to use motorized transport (29 percent) than other groups are. Nonetheless, 60 percent of economically active men walk to work, despite the relatively long distances to their places of work. This means that their daily travel time budget is more than 1 hour and 30 minutes, including 50 minutes on motorized transport. Travel time budgets are more than 2 hours, if we include itinerant workers.

34

32

Thus, despite a degree of financial autonomy, economically active men seem to be barely better off than other groups of poor city residents with regard to access to motorized transport, and their access to the city is restricted even when it is required by the nature of their job. When we consider the nature of their jobs, we see this very clearly. Men with payroll jobs are more likely to go the city center than other categories. They walk less, but their workload is much greater. More importantly, their level of mobility is lower, even though they spend the most time traveling (see Table 44).

Table 44: Mobility indicators, according to the nature of jobs

	% working				
	in the city	% walking to	% trips for	Mobility	Travel time
	center	work	work	level	budget (minutes)
Payroll job	47	62	58	4.0	152
Self-employed					
permanent job	36	72	44	4.4	118
Self-employed casual					
work	27	77	34	4.6	108

The need to travel to the city center greatly increases the travel time budget and leaves much less time for other activities, including social contacts.

The absence of a regular work schedule for economically inactive men has less impact than the lack of personal income

This group features diverse range of social and demographic characteristics. It includes retired workers over the age of 55, along with men who have stopped

working because of their age or their health, men who have lost their jobs, and men under the age of 35 who are unemployed school-leavers looking for their first job, or discouraged jobseekers. Men in the 35-to-55 age range are relatively underrepresented. The average age of 55 is the highest among the groups of poor city residents. This is because of the large number of elderly men in this group, where two in five are over the age of 55. Compared to their economically active counterparts, these men are less likely to be heads of household. Most of them are single, but, at the same time, the married men in this group are practically evenly split between those in polygamous and monogamous marriages. The level of educational attainment is a bit higher, but still low; 73 percent have not been beyond primary school.

The average annual income in this group is GF 334,000, but 42 percent of economically inactive poor men have no income (see Table 45). Incomes rise substantially with age, since individuals have more chances of having one or more sources of income from past work (pensions), more highly developed social networks (gifts), or past investments (rental income). The oldest economically inactive men have annual incomes that nearly match the average income of economically active poor men.

Table 45: Average annual	l income of economicall	v inactive	poor men by age
		<i>j</i>	r

	% of economicall	% of the age group	
Age group	inactive men	(GF)	with no income
Children and teens (<19)*	11	17,000	85
Young adults (19-34)	29	50,000	61
Older adults (35-54)	19	299,000	47
Elderly (55 and over)	42	625,000	16

<sup>\*</sup> Small sample group.

Their low level daily mobility (3.4 trips) is dominated by trips made for household chores, but not to the same extent as the daily mobility of economically inactive poor women. Social contacts account for two in five trips, and some trips are made to seek work. Economically inactive men stay near home, and this group has the highest proportion of immobility (more than one in five did not make any trips the day before the survey), especially among the elderly. The modal split is dominated by walking (76 percent of trips) and is very similar to that observed for economically inactive women. Their travel time budget is slightly more than 1 hour, and half is spent on motorized transport.

The mobility characteristics of economically inactive poor men change with age. Social contacts that take them away from home decline as men reach the age at which they receive visits rather than making them. But this does not mean that the mobility level declines; quite the contrary in fact, since religion plays a greater role in older men's lives. This means that, paradoxically, it is the youngest members of this group, who have the lowest incomes by far, who are the least mobile. This seems to show that, in the case of this group at least, the

lack of personal income restricts mobility much more than the lack of a work or school schedule that requires leaving home.

### Conclusion

The five categories of poor city residents have distinctive mobility patterns. Naturally, these are overall trends, which means that some individual patterns can be quite different from these average profiles, but the differences in behavior and the consequent needs of poor city residents stand out clearly. However, two broad mobility categories emerge from these analyses: mobility restricted to the home district and required travel to the city center.

The first category corresponds to the dominant profile of mobility in the vicinity of the home (the home district and adjacent districts), with virtually all trips being made on foot. Travel to the city center and the use of motorized transport are both rare. This is the case for economically inactive men and women, as well as school children, and a large number of economically active poor men and women.

The second category also includes poor city residents and concerns economically active men more than women. They tend to be men with payroll jobs and older school children and students who have to travel to the city center, far from home, for their schooling. Travel into the city center means long trips and a personal choice between the expense of public transport and the time and effort required for walking.

Public transport fares are high compared to the income of Conakry residents: the annual incomes of economically inactive poor women are so low that they cannot afford even one trip on public transport per day, even if they never spend any money on anything else!

The fares for different types of public transport vary substantially. On average, it costs 50 percent more to take a taxi than it does to take a *magbana* (GF 459, versus GF 300). The actual fares charged for using the main forms of public transport do not widen the already large differential between the official fares of GF 300 and GF 200, but the fares actually charged do vary greatly. Thus, 46 percent of the trips made that include one ride on a *magbana* cost GF 200, 15 percent cost less, and 38 percent cost more. Some 30 percent cost GF 400, or even up to GF 800 or GF 1,200, depending on the destinations. Similarly, 44 percent of the trips made that include one ride in a shared taxi, without changing vehicles en route, cost GF 300, 13 percent cost less (generally GF 200), but 43 percent cost more and 35 percent of all such trips cost GF 600 or more.

Therefore, we cannot rely on the official fare schedule to estimate actual expenditure on public transport. The fares that city residents actually pay to ride in shared taxis or on *magbanas* are on average 50 percent higher than the official fares. This means that the official fare schedule should be seen as giving the lowest fares. It is a very poor representation of actual fares paid, not because trips involve changing vehicles en route (only 5 percent of trips on public transport require such changes), but because the fare is often negotiated and depends on the distance, the time of day, and the amount of baggage the passenger is carrying.

Taxis appear to be the preferred mode for relatively short trips, whereas *magbanas* are used for longer distances<sup>11</sup> (see Tables 46 and 47). Yet, the fares charged are directly correlated to the distance covered. Even though our surveys do not provide this information, we have nonetheless observed that the fare is more than 2.5 times higher when the door-to-door travel time increases from less than 20 minutes to more than 90 minutes for *magbana* passengers and the fare more than doubles for taxi passengers when their travel time increased from less than 10 minutes to more than 1 hour.

<sup>&</sup>lt;sup>11</sup> It is interesting to note that the quantitative survey shows that trips in taxis are hardly any faster than trips in *magbanas*. For the 207 point-to-point itineraries over which trips in taxis and *magbanas* were identified, the average door-to-door travel time is shorter by taxi in 58 percent of the cases, longer in 35 percent of the cases, and equal in 7 percent of the cases. Of these 207 trips, the average travel times are hardly any different between the two modes, with 33 minutes for travel by taxi and 35 minutes for travel by *magbana*, but the average fare is 1.7 times higher by taxi.

Table 46: Distribution of travel times on *magbanas* (percent) and fares charged by travel time (GF)

	-10	11-20	21-30	31-40	41-50	51-60	61-90	91-
%	5	22	27	11	11	10	8	6
Fare	216	222	250	291	310	382	495	576

Table 47: Distribution of travel time in shared taxis (percent) and fares charged by travel time (GF)

	-10	11-20	21-30	31-40	41-50	51-60	61-
%	12	24	25	11	10	9	9
Fare	337	353	432	501	518	531	768

The differentials according to place of residence are noteworthy. Compared to residents of accessible areas, residents of isolated areas spend an average of 13 percent more on *magbana* fares and 28 percent more on taxi fares. But the largest differences depend on the distance between the residence and the city center. The need to change vehicles en route increases as passengers travel from the city center to the outer suburbs, from 1 percent to 14 percent of trips requiring such changes, and the unit prices for each mode of transport increase, with residents of the outer suburbs paying 30 percent more than city center residents (GF 467 versus GF 361).

Many respondents spoke of the high cost of public transport during the interviews. For example, a vegetable vendor, who lives in Ratoma and works at Coléah Domino and shares her business with her sister, tells us: "Transport is very expensive. If you don't have much money, you can't get around. For example, I spend GF 2,400 per day on transport for my sister and me. I get the feeling that we are sharing our profit with the drivers."

Many respondents said that it was difficult to pay the amounts charged by transport operators. Haggling with drivers and conductors is common practice to get a better fare: "The trip to work every day tires me out. The fare is expensive I think and I have to haggle with the conductor. I say to him, 'little brother, please let me ride for such and such a fare' [...]. It could be said that choosing to work in the Port is a calculated move on my part [...]. Getting a ride there is hard, but affordable, I can also walk if there is a problem" (36-year-old longshoreman living in Tombo).

But haggling sours relationships with drivers and conductors, as these commentaries show: "Some passengers just can't pay the full fare. This creates tension or even conflicts between them and the conductors. If you ask them to pay half-fare, they tell you that they can't run their vehicles just by peeing into the tank." Walking some of the way is one strategy for reducing the cost of a trip: "For example, when I have a very long way to go, I walk part of the way and then catch a ride, so I can pay a lower fare" (an apprentice who is accustomed to walking long distances). For many poor city

residents, coming up with public transport fares requires an effort in their daily budgeting: "Every time I really need to make a trip, it takes me days and days to come up with the fare" (a young street barber in Coronthie). Spending money on fares is not easy, especially for the economically inactive. Within households, where some income is pooled, there are clear priorities for transport. Necessity dictates that the transport needs of men working in the city center must be met first, followed by those of children attending distant schools. The lowest priorities are the needs of the economically inactive household members with no income, if there is any money left over.

Data from the 2003 Basic Integrated Survey for Poverty Assessment will soon be available for estimating the relative share of transport expenditure compared to the other big budget items, which are housing and, more importantly, food. But we can extrapolate an annual sum from the data on expenditure on public transport in the previous week from our survey, which already gives an idea of the heavy financial burden that the need for day-to-day mobility imposes on households. Poor households spend an average of 19 percent of their income on urban travel alone, as opposed to 12 percent in non-poor households. This burden exceeds 30 percent of income in one in four poor households.

If we focus on trips made on public transport (eliminating spending on private use of vehicles), these figures stand at 18.6 percent for poor households and 10.2 percent for non-poor households. Living closer to the city center reduces expenditure on public transport costs somewhat. On the other hand, poor households living in the suburbs and/or in isolated areas seem to pay a slightly higher price once again (see Table 48, Maps 2 and 3). More specifically, expenditure on public transport by poor households is 20 percent higher when they live in the neighborhoods that are farthest from the city center ("outer suburbs", Map 2). The distance from the city center is a factor in expenditure on public transport, but so is the quality of service. Living in an area within any suburb with poor public transport service adds another four or five percentage points to the share of income spent on public transport. Overall, this isolation effect is observed because households' average income is 15 percent lower in these areas and not because their expenditure is higher. This reveals that the poor have problems with access to housing and are relegated to the more isolated areas.

20.5

		Average annual	
	Average annual	expenditure on public	% of income spent on
	income	transport	public transport
Center	1,919,000	304,000	15.9
Inner suburbs	1,559,000	302,000	19.4
Middle suburbs	1,432,000	289,000	20.2
Outer suburbs	1,795,000	367,000	20.4
Accessible areas	1,801,000	307,000	17.0

315,000

Table 48: Average budget share that poor households spend on public transport by place of residence

1,535,000

This observation is noteworthy because poor households' use of motorized modes of transport is, as we have seen, very restricted. Poor households spend a lot less money per individual than non-poor households do on public transport (not to mention individual transport modes that are beyond their reach): individuals in non-poor households spend on average 1.9 times more on public transport than individuals from poor households. In other words, fewer poor people take public transport than better off people. Yet, these averages have nothing to do with the distribution of income within households. On the contrary, income is highly concentrated on a few members of the household, since individuals with no personal income in non-poor households show similar general mobility characteristics to those of their counterparts in poor households, and they use public transport only very slightly more.

# Conclusion

Isolated areas

Poor households spend nearly one fifth of their income on day-to-day mobility, even though their use of motorized transport is relatively low. These high quantitative estimates from the SITRASS mobility survey are borne out by the testimony of poor city residents about the recurring problems they have affording day-to-day transport. There is no getting around the monetary constraint; there are merely a myriad of strategies for coping with it and cutting costs, such as choosing *magbanas* rather than taxis, walking part of the way, making cash transfers between individuals, haggling over fares, prioritizing needs according to the purpose of trips, according to status within the household, etc. Poor people living in outer suburbs with poor transport services seem to be even more restricted than the others in terms of their budget for day-to-day mobility.

This information is a stark warning about the monetary pressure caused by the day-to-day mobility required for gaining access to work and thereby ensuring survival. Leaving aside the issue of varying mobility

needs (i.e. do the poor have less need to get around because there are fewer jobs and these jobs are closer to their homes?), we must face the fact that lack of income means that it is hard to imagine that the poorest will increase their use of public transport substantially. Budgetary constraints obviously restrict the poorest city residents' consumption of transport very severely. Overcoming these constraints requires either an increase in these populations' income or measures to reduce fares.

An analysis of the field research shows that Conakry residents have problems accessing basic necessities. These problems are especially hard on poor residents. For them, access to work is more complicated and therefore fewer of them have jobs; schools and healthcare facilities are far away and the quality of service provided by public institutions is poor, "local" markets are not always that local and the food they sell is more expensive, the chore of fetching water is a daily burden, etc. Social contacts are important and city residents try to maintain them, but many poor people are in a vulnerable situation and their "support network" is reduced or even nonexistent because they do not have enough money to maintain it. Furthermore, these problems often accumulate and make day-to-day life more difficult, especially in isolated areas and the outermost suburbs.

Observation of travel patterns clearly show that the poor have to contend with worse travel conditions than more affluent city residents do because the inadequacies of the transport system are compounded by the shortcomings of city services. Private vehicles are beyond their reach. Public transport is inadequate and the actual fares charged in certain places and at certain times of the day are a real burden on household budgets. In addition, the quality of service is poor. Some residents have to walk long distances. Walking is hard, because of the lack of sidewalks, the poor repair of infrastructure, and the lack of appropriate routes.

Of course, more affluent city residents also suffer from the poor state of the roads and the inadequacies of public transport and it seems difficult to promote a policy that targets the poorest residents exclusively. But it would be just as unrealistic to settle for a general urban transport policy in the hope that it would automatically benefit all segments of the population. Therefore, we need to aim at improving the overall transport system, while making substantial changes to the parts of the system that are most suited to the needs of the poorest segments of the population. A number of actions seem likely to help make the transport system fulfill its role of providing access to urban activities, whereas it presently acts more like an obstacle to such access. These actions concern roads, conditions for pedestrians and public transport. They should be backed up by action to make basic services available locally. Finally, monitoring indicators should be established to track the implementation of these various actions.

# **6.1.** ACTION TO IMPROVE ROADS

Conakry is in fact a two-speed city. It is Guinea's gateway to the world, the transit point for the country's trade, particularly its trade in goods, with the rest of the world. But it is also a city with nearly 1.5 million residents who all need to get around from day to day to earn enough income to cover their daily requirements.

The first action to be carried out is to improve mobility with an adequate road system. Current and recent programs have helped to renovate the main road network, but action also is needed to reach isolated areas by putting the priority on local roads. This brings us to the question of which changes are needed in existing programs. Various urban development projects (UDPs) have such aims and are deemed to be helpful, but these projects are undersized and inadequate given the needs of the rapidly growing city. More specifically, UDP3 should be strengthened. One of the project aims is to reach isolated areas. Transport systems "automatically" follow other basic services as soon as new roads reach into isolated areas.

In order to ensure the long-term success of the program, work should be done in two directions to ensure appropriate road design that gives due consideration to the financing capacities of the various partners. For many roads, the first step is merely to upgrade them so that shared taxis can get through, before eventually making them passable for *magbanas* and buses. In addition, consideration must be given to future maintenance work, since the appropriate technical solutions, such as asphalting, are available.

Before implementing these actions, given the upcoming decentralization measures, thought needs to be given to the division of responsibilities between the city government and the more local players, such as mayors and neighborhood leaders. Their input is critical for the success of certain neighborhood microprojects. The same question could come up if other civil society players emerge who are willing to work on these issues.

# **6.2.** ACTIONS TO IMPROVE CONDITIONS FOR PEDESTRIANS

We have seen that walking is the leading mode of transport in Conakry, as it is in most African cities. It is even more important for the poorest residents, who are only likely to used motorized transport occasionally and usually have to walk before and after riding.

Objectively, the conditions for pedestrians are so bad that it is critical to facilitate walking by means of a set of low-cost improvements that still require a minimum of know-how and coordination. These actions were sorely neglected in the past and it will probably take a "cultural revolution" to have pedestrians' needs systematically and explicitly taken into account in all future projects. Action should be taken at several levels:

- Improving neighborhood pedestrian walkways, especially in isolated areas. Micro-civil-engineering projects to provide safe crossings over ravines, drains, etc. are bound to improve day-to-day conditions for residents. Lighting is a delicate issue, because it relates to the increased risk of accidents and the security of persons and property, but it does carry a high cost.
- Preserving walkways along or parallel to main roads and making them safer.
   Sidewalks are not always fit for use and the financing for them is

hypothetical. In many cases, maintaining or improving (paving) the shoulders of roads would be adequate.

It is clear, however, that improvements to roads will only solve part of the problem. Other mobility obstacles stem from problems with the organization of public areas in order to limit conflicts of use and the resulting problems of comfort and security. More specifically, it is important to enforce (negotiate?) discipline with regard to the use of sidewalks for various activities such as craft businesses and street vendors, parking on the sidewalk, and the dumping of garbage, which aggravates sanitation problems. This approach should be different in different areas, however. In central areas and areas along the main roads or crossed by the main roads, the issue of sharing space is particularly acute and needs to be dealt with soon. On the other hand, in outlying areas or isolated areas, the coexistence of these activities with pedestrian traffic is much less of a problem and does not require such urgent action.

# 6.3. ACTIONS IMPROVING PUBLIC TRANSPORT

A more detailed analysis of the current public transport system in Conakry obviously needs to be carried out to identify the specific actions to be implemented. Such an analysis was not within the scope of this report. However, a number of avenues can already be mentioned for further exploration.

# Organizing multimodal transport by working to create an organizing authority

The current attempt by Futur Transports to establish an urban transport company operating large buses is an example of this new form of structured businesses, where the company finances are less and less dependent on public funds from the central or municipal government. These developments exacerbate the poorest residents' problems gaining access to public transport. The fares that these companies have to charge to remain financially viable (an issue which needs to be examined in detail) would appear to put them beyond the reach of poor passengers, who can only be occasional passengers at the most. There is a lot to discuss in this regard, but it is clear that a multimodal public transport system is required. Such a system would combine various means of public transport. The discussions could be extended by considering the contribution that could be made by a rail mass transit system using the existing railroad right of way, or even boat service to connect the various local ports.

It is clear that the diversity and adaptability of independently operated means of transport help improve the mobility of the poor, despite the many drawbacks, such as fare sections that can increase the cost of travel 2 or 3 times. These modes of transport warrant support and an effort should be made to improve organization and productivity, while enforcing minimum service quality standards.

Organizing a multimodal transport system calls for a hierarchy of routes with transfer points that shape the public transport network. Most routes run along the main roads where demand is strongest. Incentives could be created to encourage service on secondary routes in order to strike a balance in the prevailing pattern, which is the result of an unregulated market. Various types of action could be taken:

- improving certain problem areas in the road network;
- establishing parking areas in close consultation with transport operators;
- issuing permits to operate in different zones;
- providing information for transport users;
- support for transport operators (information and training);
- support for security services.

In any event, it would be unrealistic to hope that such an organized route system could be developed simply by improving the road network, with each mode of public transport "naturally" serving a particular type of route, depending on the infrastructure, with buses running along the main roads, taxis covering broad areas and trips from the main roads into isolated areas, and *magbanas* running on routes in the outlying areas only. This pattern is hardly carved in stone; some *magbanas* and taxis only run on specific local routes or on the main crossroads because of the extremely old age of the vehicles.

On the contrary, developing this system would require determined action and the creation of an organizing authority with appropriate human resources and funding. There have already been some experiments in Africa. They have encountered some deep-seated problems. But there is nothing surprising about these problems and they do not call into question the very good reasons for making these attempts at institutional reform. A prerequisite in Conakry would be a clarification of which institutions are responsible for organizing transport, but there seems to be a genuine consensus among the main players to achieve such a clarification. But this leaves the question of determining what the potential tasks of this Authority will be, and, more specifically, whether the fight against poverty should be one of those tasks.

# Making fares affordable - improving productivity rather than offering targeted fare reductions

No matter how you approach the problem, action to raise the productivity of the urban transport system as a whole is needed, including rebuilding infrastructure, improving traffic flow, and making transport stops and road transit centers more efficient. Once again, these measures will benefit all users, but they should still be seen as part of the fight against poverty, as long as productivity gains lead to fare reductions for the poorest users.

The poor do not have equal access to all modes of transport for a variety of reasons. Action to raise productivity must therefore be aimed at a multimodal transport system and include several components: shared taxis, independently operated *magbanas* that can be part of a coordinated organization, buses operated by one or more structured companies and, eventually, rail mass transit.

In developed countries, the usual way to improve access to public transport for underprivileged segments of the population is to offer reduced fares or free travel. This type of approach does not seem feasible for Conakry or other African cities, because it relies on administrative management of individual cases and means testing of potential beneficiaries. It is an approach that works in a formal economy, but most of African society relies on informal economic activities. Therefore, experiments with reduced fares for the poorest users should be regarded with skepticism or at least include strong safeguards to prevent them from being abused.

On the other hand, indirect action can have a helpful effect, especially action affecting the fare structure. More specifically, measures to introduce flat fares for the whole network obviously benefit users who live in the outer suburbs, many of whom are poor. But we must be careful about applying general principles without undertaking detailed analysis beforehand, since the situation varies from one city to another and the actual terms of the equalization that results from any fare policy need to be verified.

# Safeguarding transport jobs and making them better

We have already seen that urban transport provides a great many jobs. Our estimates put the likely number of direct jobs at around 20,000. The vehicles used have low carrying capacity and demand is constant, which means that even more jobs are created. The result is that independent transport operators create many jobs and some of these jobs can be filled by poor people with few skills. Public transport is directly involved in fighting poverty and enables young jobless people to enter the labor market. These types of job come in for some justified criticism, because they have many drawbacks, such as low pay and no social security. They also involve hard and tiring work, and workers are exposed to pollution and dangerous working conditions in some cases. But this type of criticism overlooks the essential fact that these jobs provide gainful employment and a minimum of social integration. Therefore, public transport's role as a provider of jobs needs to be recognized.

Action should be targeted first at independent operators, who need support and coordination. In any event, action should be aimed at improving working conditions in public transport and not simply eliminating jobs on the grounds of poor or dangerous working conditions. Training is critical, because it will promote positive developments in public transport by making some jobs more professional and more stable.

At the same time, it should also be remembered that structured transport companies also create many jobs, even though it is harder for the poorest segments of the population to meet the hiring requirements, which often include literacy and job skills.

On the other hand, it is not up to the bus companies or the independent operators to provide jobs for all of the unemployed, and hiring policies must be controlled so that the multiplication of jobs does not become counterproductive and cancel out efforts to organize the transport system.

# 6.4. ACTION TO MAKE BASIC SERVICES AVAILABLE LOCALLY

Meeting access needs does not only entail improvements to transport. It also requires making basic services and facilities of good quality available locally so that users can reach them easily on foot. More specifically, wider availability of public services would spare poor residents the dilemma of having to choose between public institutions that are often far away and of poor quality and private facilities that are closer, but prohibitively expensive.

These are important issues for urban productivity, as can be seen clearly in the case of access to water. Without asking for all residences to be connected to the city water supply, which would be beyond the means of government and households alike, improvements could be made to the network of standpipes in the outer suburbs and isolated areas that would reduce the burden of fetching water and probably provide cleaner water. The savings in time and effort are bound to improve living conditions for all members of households and promote the participation of women in paid work and school enrollment for children.

Such action could be considered after a detailed study of infrastructure shortcomings. It would require coordinated policy action by the government agencies concerned, and the study would have to encompass schools, healthcare centers, markets, and standpipes. This type of coordination is a prerequisite for proper consideration of physical conditions of access to this infrastructure in the design phase.

# **6.5.** DEFINING MONITORING INDICATORS

We have seen that a program of action to reduce poverty by improving urban mobility could be expected to result in better access, as well as quantitative and, more especially, qualitative improvements in the mobility of the poorest segments of the population. The requires action on transport in the broadest sense, including public transport and road networks, as well as action to make basic services available locally. Establishing indicators to monitor the effectiveness of an action program should make it possible to include mechanisms to adjust programs in response to the results obtained. It should also make it possible to set up a process for producing a steadier flow of information about urban mobility in Conakry. However, there are many problems that cannot be overlooked:

• Inadequacy of the existing information system on transport supply and demand: information tends to be produced only when consultants conduct surveys, with no local memory or use of previous data.

- Faster urban sprawl, which affects overall monitoring indicators, since travel conditions and access to services are always worse in the newly urbanized fringe than in the more established areas. Urban sprawl also reduces the value of indicators based on a constant urban structure.
- The diversity of factors that affect mobility and the volatility of transport demand in response to economic developments make it more difficult to show the chain of cause and effect resulting from sectoral program implementation.
- The variety of access and poverty situations in the city and the relative diversity of social and economic groups in most neighborhoods make it difficult to select a simplified sample of households and/or survey areas and to develop representative aggregated indicators.
- There are practical problems in determining the income level of an individual or a household.

Under these circumstances, we recommend the use of simplified indicators that are cheap to produce and easy to interpret. Two types of indicators can be imagined, depending on the conditions for producing them.

The first set is made up of indicators based on the time and money required for access to major activity centers in the city. These indicators should be based on measurement of travel times and the actual fares charged for public transport to standard destinations chosen for their representativeness. The indicators must be capable of reproducing actual access conditions correctly, which means they must include trips made on foot. Improvement is measured by reduction in access times and/or costs, since the two may be contradictory: time may be saved by riding on public transport rather than walking, but this entails expenditure. The 2003 household surveys, with prior selection of neighborhoods, are a helpful basis for selecting destinations. Data collection should combine surveys of transport users with surveys of transport operators, since the officially posted fares have little to do with the fares actually charged. However, collecting these data would not make it possible to evaluate changes in destinations and the reasons for such changes (for example, switching from a private school to a public school or from a distant healthcare center to a local facility). Access measurements cannot be comprehensive, but they could include:

 Costs and travel times for using public transport in the morning peak travel period to travel from a district to the city center and from the district to the central market.

- Modal split of transport and average travel time (with a breakdown between walking and riding on public transport, if appropriate) from the district to a set of public and private schools.
- Modal split of transport and average travel time (with a breakdown between walking and riding on public transport if appropriate) from the district to a set of public and private, primary and secondary healthcare centers.

A second set of indicators could be based on the mobility patterns of a set of households classified as poor. Improvement is measured by the proportion of persons whose situation has improved "adequately." This would entail simplified surveys of a subgroup of households selected from the survey areas of the 2003 household survey. However, we fear that the statistical representativeness requirements for measuring significant developments with reasonable confidence intervals would call for relatively large samples of several hundreds of households, which is ultimately fairly close to the size of the original sample. It is essential to develop a "standardized" questionnaire, using the lessons learned from the design of the 2003 questionnaire. In any event, the surveys would be a fairly substantial undertaking. Again, without being exhaustive, the practical measurements of the actual mobility of poor people could include:

- Walking times to the public transport stop actually used;
- Travel times and transport modes from the home to the schools attended;
- Travel times and transport modes from the home to the market used;
- Individual daily mobility and modal split;
- Individual total daily travel time budget in aggregate and by mode;
- Individual and household cash budgets for transport;
- Budget share (regular income) spent on transport by economically active people.

We conclude with two precautions. First of all, it is not a good idea to interpret each indicator on its own, since it could be ambiguous as a result of the many interactions between supply and demand in the transport system. For example, improving the public transport system may lead to increased daily mobility, which in turn would increase overall household expenditure on transport. The mobility effect would be positive, but the cost effect would be negative, even though it is bound to be deemed tolerable. Therefore we recommend using a range of indicators to assess the effects that can be attributed to the action program.

Finally, some developments may be caused by external factors that have nothing to do with the inherent effectiveness of the action program. It is up to the

consultants in charge of the information system to identify the potential influence of these factors. For example, improvements in costs also depend on fuel prices, regardless of any productivity gains in public transport.

- ANTOINE Ph., RAZAFINDRAKOTO M., ROUBAUD F., 2001, Contraints de rester jeunes? Évolution de l'insertion dans trois capitales africaines: Dakar, Yaoundé, Antananarivo. Autrepart, No. 18, pp. 17-36.
- BCEOM, 2003, Étude d'amélioration du trafic dans l'agglomération de Conakry. Ministère des travaux publics et des transports, République de Guinée, 120 p.
- DIAZ OLVERA L., PLAT D., POCHET P., 1998, Villes africaines au quotidien. LET, 170 p. (Coll. Études et Recherches No. 9).
- DIAZ OLVERA L., PLAT D., POCHET P., forthcoming, Marche à pied, pauvreté et ségrégation dans les villes d'Afrique de l'Ouest. Le cas de Dakar. In D. MIGNOT (ed.)
- DIRECTION NATIONALE DE LA STATISTIQUE, n.d., Enquête sur le questionnaire des indicateurs de base du bien-être QUIBB. Rapport final. Ministère du plan, République de Guinée, 68 p. + Ann.
- DIRECTION NATIONALE DE LA STATISTIQUE, December 2001, Enquête Intégrale sur les conditions de vie des ménages guinéens avec module Budget et Consommation (EIBC), Ministère du Plan, République de Guinée, 194 p.
- FILMER D., PRITCHETT L., 1998, Estimating Wealth Effects without Expenditure Data—or Tears: With an Application to Educational Enrolments in States of India. World Bank, Policy Research Working Papers No. 1994.
- GROUPE HUIT-BCEOM-CARIG-TAFSIR, 2003, Etude de faisabilité d'un programme prioritaire d'aménagement des quartiers sous-équipés de Conakry. Rapport de phase 1. Rapport pour la Direction Nationale de l'Aménagement du Territoire et de l'Urbanisme (Division Voirie Urbaine, assainissement et réseaux divers) du Ministère de l'Urbanisme et de l'Habitat de la république de Guinée (AFD financing), 196 p.
- GWATKIN D.R., RUSTEIN S., JOHNSON K., PANDE R., WAGSTAFF A., 2000, Socio-economic Differences in Health, Nutrition and Population in Niger. unpaginated (for the HNP/Poverty Thematic Group of the World Bank).
- LACHAUD J.-P., 2001, Bien-être des ménages et pauvreté au Burkina Faso. Dépenses versus actifs : choix pragmatique ou conceptuel ? Centre d'Économie du Développement, 26 p. (Document de travail No. 56).
- MARIE A., 1997, Individualisation : entre communauté et société l'avènement du sujet. In A. MARIE (ed.), L'Afrique des individus. Karthala, pp. 407-436 (Coll. Hommes et Sociétés).
- MONTGOMERY M.R., GRAGNOLATI M., BURKE K., PAREDES E., 1999, Measuring Living Standards with Proxy Variables. The Population Council, 64 p. (Working Papers No. 129) (http://www.popcouncil.org/pdfs/wp/129.pdf).
- SAHN D.E., STIFEL D.C., 2000, Poverty Comparisons Over Time and Across Countries in Africa. World Development, Vol. 28, No. 12, pp. 2123-2155.
- SCETAUROUTE INTERNATIONAL, December 2001, Plan National de Transport, Actualisation de la politique des transports et plan d'action, Volume 16/16, Rapport final, Ministère des Travaux Publics et Transports, République de Guinée, 135 p.
- TROISIÈME PROJET DE DÉVELOPPEMENT URBAIN (PDU3), December 2003, Rapport d'activités, Revue à mi-parcours du PDU3, Ministère de l'Urbanisme et de l'Habitat, République de Guinée, 175 p.

- TROISIÈME PROJET DE DÉVELOPPEMENT URBAIN (PDU3), June 2000, Désenclavement des quartiers défavorisés, Méthode de programmation, Ministère de l'Urbanisme et de l'Habitat, République de Guinée, 29 p.
- TROISIÈME PROJET DE DÉVELOPPEMENT URBAIN (PDU3), December 1999, Manuel d'exécution, Ministère de l'Urbanisme et de l'Habitat, République de Guinée, 57 p. + Annexes
- UNICEF Gouvernorat de Conakry, 1999, Élaboration d'une cartographie de la pauvreté urbaine de la ville de Conakry. 54 p.

WORLD BANK, June 2002, Poverty Reduction Strategy Paper, Republic of Guinea, 208 p.

# ANNEXES

# ANNEX 1: CHARACTERISTICS OF CITY RESIDENTS INTERVIEWED

The qualitative interviews were conducted with 16 women and 14 men. Their principal characteristics are summarized in the table.

Table: Principal characteristics of persons interviewed

Location	Activity	Level	Age	Gender	Marital status
of survey	of respondent	of education			
	Fish vendor	Illiterate	40	Female	Polygamous
	Unemployed	Primary	24	Male	Single
	Welder	Illiterate	38	Male	Monogamous
KALOUM	Dock worker	Illiterate	36	Male	Polygamous
KALOUM	Meat vendor	Secondary	34	Female	Single
	Fruit vendor	Primary	35	Female	Single
	Watchman	Primary	45	Male	Monogamous
	Unemployed	Primary	20	Male	Single
	Cosmetics vendor	Illiterate	28	Female	Monogamous
DIXINN	Student	University	26	Male	Single
	Apprentice carpenter	Primary	17	Male	Single
	Student	University	23	Male	Single
	Greens vendor	Illiterate	34	Female	Polygamous
MATAM	Fish vendor	Illiterate	55	Female	Monogamous
	Vegetable vendor	Illiterate	24	Female	Single
	Unemployed	Primary	27	Male	Single
	Unemployed	Illiterate	26	Male	Single
RATOMA	Vegetable vendor	Illiterate	26	Female	Divorced
	Secondhand clothing vendor	Illiterate	33	Female	Monogamous
	Hairdresser	Illiterate	28	Female	Monogamous
	Driver	Illiterate	36	Male	Monogamous
	Meat vendor	Illiterate	56	Female	Polygamous
MATOTO	Fruit vendor	Illiterate	54	Female	Monogamous
	Condiments vendor	Primary	25	Female	Monogamous
	Rice vendor	Illiterate	40	Female	Polygamous
	Teacher	Professional	52	Male	Monogamous
OUTLYING	Teacher	Professional	40	Male	Monogamous
AREAS	Condiments vendor	Primary	58	Female	Widow
ANEAS	Mechanic	Illiterate	28	Male	Monogamous
	Laborer	Primary	29	Male	Monogamous

# SITRASS "Poverty-Transport" Survey, Conakry, October 2003. Household sheet

usehold No.		2. Commur	ne	3	. District No.		4. Zone		
erviewer name			6. Interviewer c	ode	7. Day of	survey	Tu W Th F	Sa Su 8.	Date
First name	9. No.	10. Gender  1. Male 2. Female	11. Position in household  1. Head  2. Spouse  3. Son / daughter  4. Father / mother  5. Brother / sister  6. Grandson / daughter  7. Other relative	12. Age (full years)	13. Marital statu  1. Single 2. Married, monogamous 3. Married, polygamous 4. Divorced /	1. Acti 2. Stu 3. Une 4. Ret 5. Hou	employed	15. Contributes to household income  1. Yes, principal contributor 2. Yes, secondary contributor 3. No	1. Eligible adult (age 11 or over) 2. Eligible child (age 6- 3. Adult absent for long periods (please indicate reason) 4. Ineligible
			8. Not related 9. Household emp.		separated 5. Widow(er)				
	1				, ,				
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20			l					<u> </u>

Characteristics of housing	
1. Subdivided lot  1. Yes 2. No	12. How far from your home is the drinking water source that your household uses most often?
2. Housing type  1. Concession 2. Modern villa 3. Single-family home 4. Multi-unit housing 5. Multi-story structure	☐ 1. 0-50 m ☐ 5. 501 - 1,000 m ☐ 2. 51-100 m ☐ 6. 1,001 - 3,000 m ☐ 3. 101-300 m ☐ 7. Over 3,000 m ☐ 4. 301 - 500 m
3. Number of bedrooms	13. How long does it take to get there on foot? (minutes)
<b>4. Occupancy status</b> ☐ 1. Owner ☐ 3. Renter → <i>Question 6</i> ☐ 2. Free lodger ☐ 4. Other	14. Who normally goes to fetch water?  Rank up to 3 respons
5. What rent would you expect to pay for comparable housing in the district?  (Guinean francs)	1. Head of household    6. Other relative(F)    2. Spouse / partner    7. Household employee (M)    8. Household employee(F)
6. What is the monthly rent?	4. Daughter    9. Other
(Guinean francs)	5. Other relative (M)
7. Walls of housing unit  1. Concrete / cinderblock / fired brick / stone block  2. Earthen / unfired brick / rammed earth  3. Sheet metal  4. Board  5. Carabot  6. Other	<ul> <li>15. Is your housing located in a flood zone?  ☐ 1. Yes ☐ 2. No → Question 17</li> <li>16. During the last rainy season, was your housing ur flooded ☐ 1. Daily or almost daily?</li> </ul>
8. Roof of housing unit  1. Tile / slate 2. Concrete / cement 5. Other	<ul><li>□ 2. From time to time?</li><li>□ 3. Rarely?</li><li>□ 4. Never?</li></ul>
☐ 3. Sheet metal	Household equipment Yes No
9. Water supply to housing unit / concession  ☐ 1. Yes ☐ 2. No → Question 11	17. Connection to electrical grid
10. Is water service subject to interruption?  1. At least once a day  2. At least once a week  3. Less frequently  4. Never  5. Other	20. Radio
11. Supply of drinking water	25. Mobile telephone
Rank up to 3 responses     1. Indoor tap	26. Do you, or does someone else in your household, have agricultural land or livestock that provide regular supplies of food products for household consumption?  ☐ 1. Yes ☐ 2. No

Vehicles owned	Residential history of head of household
27. Does someone in your household have access, as driver, to a (motorized or non-motorized) vehicle for his or her personal use?  ☐ 1. Yes ☐ 2. No → Question 36	38. How long have you lived where you do now?  (number of years)
¥ 2.100 7 Question 30	39. Where did you live before?
28. How many canoes are there?  29. How many hand carts?  30. How many bicycles?	☐ 1. Same district ☐ 4. Another city ☐ 2. Neighboring district ☐ 5. In a village ☐ 3. Another district of Conakry ☐ 6. Abroad
31. How many private motorbikes and motor scooters are there?	40. Why did you chose to live here?  Rank up to 3 responses
32. How many private automobiles are there?  33. How many motorized passenger vehicles are there?	<ul> <li>    1. Improved housing</li> <li>    2. Cheaper / free rent</li> <li>    3. Living independently</li> <li>    4. Possibility of ownership</li> <li>    5. Better quality residential district</li> <li>    6. Safer / quieter residential district</li> <li>    7. Better transport services in district</li> </ul>
34. How many motorized cargo vehicles are there?	8. Move closer to family / friends / neighbors   9. Move farther from family / friends / neighbors   10. Move closer to place of work
35. Which member(s) of the household own this (these) vehicle(s)? Indicate a maximum of 5 numbers from the "Household Composition" table on the first page.	11. Move closer to schools    12. Have a room to devote to work    13. Did not have a choice    14. Other
	Access to transport network
Opinions on household situation	41. How long does it take you to walk
36. In the past 12 months, have you experienced difficulties meeting the food requirements of your household?	from home to the nearest vehicle- accessible road?  (minutes)
☐ 1. Always ☐ 4. Rarely ☐ 2. Often ☐ 5. Never ☐ 3. Sometimes	42. What kind of road is it?         □ 1. Paved       □ 3. Dirt / laterite         □ 2. Gravel       □ 4. Other
<ul> <li>37. How do you find the general economic situation of your household as compared to a year ago?</li> <li>1. Much better now</li> <li>2. Somewhat better now</li> <li>3. No change</li> <li>4. Somewhat worse now</li> <li>5. Much worse now</li> </ul>	43. Is this road accessible by vehicle year round?  ☐ 1. Yes → Question 46  ☐ 2. No  44. For how many months a year is it not accessible by vehicles?  45. Why?  ☐ 1. Flooding
☐ 6. Don't know	46. How long does it take you to walk from home to the public transport access point that household members use most frequently? (minutes)

# Access to basic services

1. Type of basic service	2. Do you (or someone else in your household) regularly use this service, for reasons other than professional ones?  1. Yes, often 2. Yes, sometimes 3. No, never  Question 6 4. Service not necessary, not applicable  Next service	3. In what district is this service located? (district code)	4. How do you (or another person in your household) normally go there? 1. On foot 2. Bicycle 3. Motorbike / motor scooter 4. Private automobile 5. Shared taxi 6. Undeclared cab 7. Bus 8. Magbana minibus 9. Other	5. Using this mode of transport, how long does it take you to get there from your home?  (minutes)	6. Do you have problems using this service? Rank up to 3 responses  1. Too far away 2. Transport problem 3. Too expensive 4. Too much waiting time 5. Poor quality service 6. Shortage of specialty 7. Overcrowded classes / waiting rooms 8. Other problem:
1.1. Public primary school			_ + _ + _ + _		
1.2. Private primary school			_ + _ + _ + _		
1.3. Public secondary education			_ + _ + _ + _		
1.4. Private secondary education			_ + _ + _ + _		
1.5. Public health center / dispensary			_ + _ + _ + _		
1.6. Private health center / dispensary			_ + _ + _ + _		
1.7. Public hospital			_ + _ + _ + _		
1.8. Private hospital / clinic			_ + _ + _ + _		
1.9. Market for food products			_ + _ + _ + _		
Interviewer's comments  Supervisor's comments					
Supervisor's comments					

# INDIVIDUAL ADULT SHEET (AGE 11 AND UP)

1. Household No. 2. Commune	3. District No. 4. Zone
5. Interviewer'sname	6. Interviewer code
Sociodemographic characteristics	
10. Gender  1. Male  2. Female	19. Are you currently attending school?  ☐ 1. Yes ☐ 2. No → Question 29
11. Age	20. Exact name of educational institution
12. Position  ☐ 1. Head of household ☐ 2. Spouse ☐ 3. Child ☐ 4. Other relative ☐ 5. Other	21. District of place of study (district code)  22. Customary mode(s) of travel from home to the
13. Marital status  ☐ 1. Single ☐ 2. Married, monogamous ☐ 3. Married, polygamous ☐ 3. Married, polygamous	educational institution   +  +  +  (mode codes)
<b>14. Place of birth</b> ☐ 1. Conakry ☐ 2. Another city ☐ 3. Village ☐ 4. Abroad	23. Customary mode(s) for returning home     +    +    +     (mode codes)
15. Nationality  ☐ 1. Guinean ☐ 2. ECOWAS ☐ 4. Other	24. Average time required for travel from home to the educational institution (minutes)
Education	25. Average time required to return home (minutes)
16. Can you read and write?  ☐ 1. Yes ☐ 2. No → Question 19 next column  17. In what language? ☐ 1. French ☐ 3. Arabic ☐ 2. English ☐ 4. Other	26. Do you normally have classes in both the morning and afternoon?  ☐ 1. Yes ☐ 2. No → Question 29  27. Do you return home for lunch? ☐ 1. Yes, always
18. Level of education  ☐ 1. None ☐ 2. Primary ☐ 3. Middle school  ☐ 4. Secondary ☐ 5. Advanced	□ 2. Yes, sometimes □ 3. No, never  28. Why? Rank up to 3 responses  □ 1. No break in day □ 5. Too much waiting for transport  □ 2. Too far □ 6. Too tiring  □ 3. Not enough time □ 7. Other

(3) .....

Professional activity						
29. Have you been gainfully employed (in cash or in kind) in the past 30 days?  ☐ 1. Yes ☐ 2. No → Question 32	For persons currently engaged in professional activity:					
30. Is this a permanent job?  1. Yes 2. No	39. For how long have you been engaged in this activity? (number of years)					
31. Are you a wage earner?  ☐ 1. Yes ☐ 2. No → Question 33	40. How many months did you work out of the past 12 months?					
<b>32. Are you</b>	41. How many days did you work out of the past 30 days?					
5. Otherwise not employed?	42. Principal place of activity					
Question 33 Question 50 on next page	☐ 1. At home → ☐ 4. Itinerant, in district					
33. What is (was) your principal activity?	□ 2. Fixed location, in □ 5. Itinerant, elsewhere → Q. 44					
34. What is (was) your function?	→ Question 44  □ 3. Fixed location. □ 6. Other					
1. Employer	□ 3. Fixed location, □ 6. Other					
2. Self-employed	<u> </u>					
☐ 3. Senior manager / engineer ☐ 4. Middle manager / foreman	43. District or specific location of					
☐ 4. Middle manager / foreman	workplace (district code)					
☐ 6. Unskilled clerk / worker						
☐ 7. Vendor	AA Customonu mode/a) of troughtrom home to work					
□ 8. Driver	44. Customary mode(s) of travel from home to work					
☐ 9. Day laborer / piece-worker	(mode codes)					
☐ 10. Apprentice	(initial course)					
☐ 11. Family help	45. Customary mode(s) of travel for return home					
☐ 12. Household employee	+  +  +					
☐ 13. Other	(mode codes)					
35. In what sector of activity are (were) you employed?	46. Average time required to go					
☐ 1. Agriculture / livestock	from home to work (minutes)					
☐ 2. Construction, public works	moni nome to work (minutes)					
☐ 3. Industry	47. Average time required to return					
☐ 4. Public and parapublic sector	home (minutes)					
☐ 5. Services						
☐ 6. Transportation	48. During the workday (daylight hours), do you return					
☐ 7. Retail trade	home for lunch?  ☐ 1. Yes, always ☐ 3. No, never					
8. Wholesale trade	☐ 2. Yes, occasionally ☐ 4. Not applicable					
☐ 9. Other	T 2. Tes, occasionally 4. Not applicable					
36. Do you have other activities that generate income in cash or in kind?	Question 50 Question 49					
☐ 1. Yes ☐ 2. No → Question 39	49. Why? (Rank up to 3 responses)     1. No break    5. Excessive transport waiting in day time					
37. How much?	2. Too far   6. Too tiring					
38. What are these activities?						
(1)	enough time					
(2)	4. Transport cost					

Individ	ual monetary resources			
	the past year, how has your personal situation changed in term Favorably $\square$ 2. Unfavorably $\square$ 3. No change $\square$ 4.		☐ 5. Don't kr	now
No.	Type of monetary resources (Guinean francs)	Do you receive 1. Yes 2. No	Periodicity 1. Daily 2. Weekly 3. Monthly 4. Quarterly 5. Half-yearly 6. Annually 7. Other	Amount
51.	Wages / salary / profit from principal activity			
52.	Wages / salary / profit from secondary activity (activities)			
53.	Wages / salary / profit from other professional activities			
54.	Total professional income (51+52+53)			
55.	Rents			
56.	Grants, gifts, alimony, allowances (from persons outside household)			
57.	Family allowances, pensions, scholarships, retirement			
58.	Other			
59.	Total other income (55+56+57+58)			
60.	Total individual income (54+59)			
_	our equipment and access to individual transport ou own or have access to, as driver, one or more household vei  1. Yes  62. How many motorized vehicles in a  63. How many non-motorized vehicles  2. No  Question 75 next page	II?	ed and non-motor	rized)?
	vehicle, indicate: (if more than two vehicles, chose the two used me	ost often)	Vehicle 1	Vehicle 2
1. C 5. A	automobile 6. Other	torcycle / scoote	er	
	nicle currently in operable condition?		- 75	
66. Vel 1. \ 2. \ 3. \	Yes 2. No, temporary breakdown 3. No, inoperable Next concle ownership  You are the owner and user  You are the owner but never use it  You are not the owner but are a user	numn or questiol	173	
	nicle usage Solely for private use 3. Solely for commercial us			
	Alixed private and business usage  **Next column or question**  **Next column or question**			
	ailability of vehicle 1. Always 2. Occasional			
69. Vel	nicle status when purchased 1. New 2. Used	3. Don't kn	ow	
	r of purchase of vehicle			
	chase price of vehicle (Guinean francs)			
	costs (Guinean francs / month)			
	ntenance, repairs (Guinean francs / year) urance, licensing (Guinean francs / year)			

75. Do you hav employer, e	'e access as driver to a vehicle own etc.)?	ned by s	omeone outside the ho	usehold (fa	ımily, friend, neiç	jhbor,
	permanent access to a bicycle	Пиу	es, occasional bicycle ac	2000	☐ 7. No	
☐ 2. Yes, permanent access to a motorcycle			es, occasional motorcycl		□ 7.1NO	
	permanent access to an automobile		es, occasional auto acce			
<b>—</b> 0. 100, j	community addeds to an adjoint of the	<b>—</b> 0	co, ocoasional auto acce	.00		
76. Do you hav	e access as a passenger to a vehic	cle owne	d by someone outside	the househ	old?	
☐ 1. Yes. r	permanent access to a bicycle	□ 4. Y	es, occasional bicycle ac	cess	☐ 7. No	
	permanent access to a motorcycle		es, occasional motorcycl			
	permanent access to an automobile		es, occasional auto acce			
Use of public	c transport					
77 Do you uso	public transport?					
77. Do you use	i -	ĺ			_	
	☐ 1. Yes, daily or almost daily ☐ 2. Yes, occasionally		☐ 3. No, never 🗗	Question 9	2	
	L 2. res, occasionally					
	In the past 7 days, how many tim	nes	Number of trips	Amount	spent in past 7	]
	have you taken a		in past 7 days	7	days	
	78. Shared taxi					
	79. Undeclared cab					
	80. Bus					
	81. Magbana					
<b>Opinions on</b>	transport					
	•					
					Mode 1	Mode 2
82. What are	e the two modes of public transpor	t that yo	ou use most frequently?	?		
1. Shared	taxi 2. Undeclared cab 3	<b>3</b> . Bus	4. Magbana			
Regarding t	these modes, would you say that yo					
83 11	1. Agree 2. No opinion 3 is cheap	3. Disagr	ee 4. Don't know			
	stops near my home					
	lon't have to wait too long					
	an get a ride anytime					
	takes me wherever I want to go					
	is fast					
89. I a	ım not going to get into a road acci	ident				
90. I f	eel safe from assault or theft					
91. I c	an carry my merchandise on it					
l					<u>'</u>	
92. When you t	ravel on foot, what is the most both	hersome	?			
ĺĺ			ses from the 7 proposed			
II	<u> </u>					
	ostruction of sidewalks		5. The risk of road accid	dents		
	or repair or lack of sidewalks		6. The risk of assault	£:141-		
	or condition of roads e lack of lighting at night		7. Bad smells, garbage,	ıllurı		
4. 111	o lack of lighting at hight					
-	ravel on foot, do you carry heavy lo	-				
□ 1.	Yes, daily or almost daily 2. Yes	s, occas	ionally 🔲 3. No, neve	r		

Social activities					
De veu perticipate in t	ha fallowing comm	numitu ootivitioo?			
Do you participate in t	ne following comm				
94. District associations		1. Yes	☐ 2. No		
95. Tontines		1. Yes	☐ 2. No		
96. Other group activities		☐ 1. Yes	☐ 2. No		
With those in your nei	ghborhood, do you	ı share:			
97. Occasional passenger	r or cargo transpor	t?	☐ 1. Yes	☐ 2. No	
98. Shared fields, livestoo food products?	k, or purchases of		☐ 1. Yes	□ 2. No	
99. How would you character 1. Good 2. Neither goo	_	of social harmony  4. No dealings  5. Don't know	-		
☐ 3. Bad					
100. When the need arise	s, are their persons	s outside the hous	sehold in a pos	ition to help you?	
☐ 1. Yes → 101	. How many?				
□ 2. No <b>→ Go</b>	to the module on "Tr	avel the previous da	av (next page)		
		,	7 ( - 7-3-7		
From among these person	ns, dosoribo for us	the two on whom	vou can roly o	n the most	
From among these person	ns, describe for us	the two on whom	i you can rely o	n the most	
				1st person	2nd person
102. Is this person					
1. Male? 2. Fema	ale?				
103. Is this person					
1. A family member?		A colleague? 4. Ot	her		
<b>104. In relation to yours 1.</b> Older? <b>2.</b> Rough	ply the same age?	2 Voundor? 4	. Don't know		
105. Compared to your			. DOIT KNOW		
-	-		Oon't know		
106. Does this person liv					
1. Yes 2. No	<b>3</b> . Don't k	-			
107. What is the nature	of this help?	Rank up to 3 r	esponses		
1. Financial 2. Mate	rial 3. Labor /	Activity			
4. Other					
INTERVIEWER'S COMME	NTS				
SUPERVISOR'S COMMEN	115				

Travel	the day before												
For emplo	oyed persons and stude	nts: 1. We	re you idle yesterday (r	esting or ill)	? 🛮 1. Yes		☐ 2. N	No					
For all:	2. Did you go ou	t of the ho	ome yesterday?	Yes I	□ 2. No→	3. Why?	☐ 1. III / ha☐ 2. Relig					n to go anywł	
No. of trips	Starting point (district code)	Starting time	Destination (district code)	Arrival time	Duration (min)	Reason (reason code)	No. of trips	Mode trip	Mode trip	Mode trip	Mode trip	Total cost (CFAF)	Who paid for trip?
1													
3													
4													
5													
7													
8													
9													
10													
11													
	mber of trips												
		eason for t				Mode	of travel			Who pa	id for trip?		
<ol> <li>Other</li> <li>Secondary</li> <li>Job</li> <li>Stud</li> <li>Food</li> <li>Non</li> <li>Adm</li> </ol>	d purchases nfood purchases ninistrative proceedings vices	13. \\ 14. \\ 15. \\ 16. \  17. \(0\) 18. \(0\) 19. \(0\) 20. \(0\)	Meal away from home Visit to family Visit to friends Visit to neighbors Prayer / Religion Ceremonies Association Sports / leisure activities Accompaniment Return home	2. 3. 4. 5. 6.	Private auton	ycle, passenger	8. Shared to 9. Undeclar 10. Bus 11. <i>Magbana</i> 12. Shuttle bi 13. Intercity b 14. Other	ed taxi n us service fro ous		1. You 2. Sor 3. Em	urself meone else i ployer		

	Responses of father, mother, o	r other adult in	household				
1. Household No.	2. Commune	3. District No.		4. Zone			
5. Interviewer name	6. Interviewer code	7	'. Day of survey	M Tu W Th F Sa Su			
8. Date	9. Child No.	10. No. of r	espondent indiv	ridual			
Characteristics of chil	d						
11. Age of child				in the morning AND			
<b>12. Gender</b> ☐ 1. Boy ☐ 2.	Girl	afternoon?	2. No→ Qu	uestion 25			
The child and school			ne return home f	or lunch?			
13. Is the child attending so ☐ 1. Yes → Question 15		☐ 1. Yes, a☐ 2. Yes, o☐	ccasionally	3. No, never			
14. Why?	Rank up to 3 responses and then go to question 25	Question 2		Why? Rank up to 3 responses			
<ol> <li>Too young</li> <li>Tuition is too expensive</li> <li>The school is too far away</li> <li>Problem with transport</li> <li>Transport costs are too hit</li> <li>Poor school performance</li> </ol>	y	1. No break in day    5. Waiting time too long    2. Too far    6. Too tiring    3. Not enough time    7. Other					
7. Need his/her help for hou		The child ar	ıd work				
15. Name of educational in	<u>  </u>	cash or in	kind) on his or h member, or for	d in gainful employment (in the form of the household as a whole, in the household as a whole, in			
<b>16. Is this institution</b> ☐ 1. Public? ☐ 2. Pri	vate?	<b>↓</b> 26. For how lo	ng has he/she b	een working? (years)			
17. Location of school	(district code)			ent activity			
Ш		<b>28. Is it a perm</b> ☐ 1. Yes	nanent job?				
18. Customary mode of tra		□ 1. Yes	□ 2. NO				
+    +    +    (mode codes)		29. Is the child ☐ 1. Yes	I a wage earner? ☐ 2. No	•			
school	nsport for returning home after	1. Self-em		1?			
(mode codes)		☐ 2. Clerk / ☐ 4. Vendor					
20. Time required to travel home to school? (minut		☐ 5. Labore ☐ 6. Appren ☐ 7. Family	r / piece-worker	er			
21. Time required to return school to home?(minute							

31. What is her/his sector of activity?  ☐ 1. Agriculture ☐ 2. Construction, public works ☐ 3. Industry ☐ 4. Public and parapublic sector ☐ 5. Services ☐ 6. Transportation ☐ 7. Retail trade ☐ 8. Wholesale trade ☐ 9. Other		36. Customary mode(s) of travel to work     +    +    +			
32. What is the frequency of this work?  □ 1. Regular □ 2. Irregular / occasional  → Question 34  33. Indicate frequency □ 1. Daily □ 4. On weekends □ 2. Monday to Friday □ 5. Other	). 36	☐ 1. → Yes ☐ 2. No → Q  43. Is the child's ☐ 1. Yes ☐ 1. The incomplete the house ☐ 2. The incomplete for a specific the	(minutes) come-generating at the second seco	activity?(day /week /month) household expenses?	
Other activities					
unaccompanied by an adult for the following reasons	<ol><li>Every o</li></ol>	Frequency I times a day or almost every day t once a week ten	Location  1. Same district as residence 2. Elsewhere	Customary mode of travel  1. On foot 2. Bicycle 3. Public transport 4. Other	
46. Fetching water	J. INCVCI				
47. Finding wood or some other fuel					
48. Discarding household trash or waste water					
49. Shopping for food					
50. Running other errands					
51. Visiting family or friends					
52. Taking action or running an errand in the context of the professional activity of a household member					
INTERVIEWER'S COMMENTS		SUPERVISOR'S	COMMENTS		

# ANNEX 3: OVERVIEW OF CONDUCTING THE HOUSEHOLD SURVEY AND EVALUATING THE QUESTIONNAIRES

We will first offer a few thoughts on the conduct of the field work (1.) and then provide some initial quantitative assessments with respect to the samples obtained (2.), for both Douala and Conakry.

Using the questionnaires for a full-scale quantitative survey of households made it possible to identify a number of flaws (missing items, difficulties, ambiguities, etc.) which did not appear during the test phase, which, of necessity, was narrower in scope. The remarks which follow (3. to 5.) thus refer to specific questions, referenced by their numbers in the questionnaires (which are provided in their final versions in Annex 1). Taking these remarks into account would enhance the relevance of the responses obtained from those surveyed, but it most cases would also be reflected in a more unwieldy questionnaire. A middle ground should therefore be sought for taking such changes into account in a possible later survey.

Reference to the questionnaires contained in Annex 2 is of value.

#### 1. CONDUCT OF FIELD WORK

Training for interviewers and supervisors was held in Conakry from September 30 to October 2 and in Douala from October 1 to 3. Because the training began one day earlier in Conakry it was possible to send e-mail to Douala each evening containing information on the topics or questions that appeared to be the most problematical. On the third day of training, all the interviewers took a two-hour test made up of four exercises on the most important and most sensitive parts of the questionnaire: travel, profession and income, household composition, and reasons for travel. In both cities, thirty interviewers were selected from the 34 (Conakry) or 32 (Douala) candidates who took the training. For reasons of practical organization specific to each city, there were 6 supervisors selected in Conakry and 5 in Douala.

The geographical distribution of the interviewers and supervisors met multiple objectives:

- 1. Insofar as possible, to limit the amount of unproductive travel time by both groups (taking their place of residence into account);
- 2. In Conakry, to limit the problems of questionnaire translation and comprehension depending on the languages spoken in each district: Sousou (the most widespread), Poular (spoken primarily by the Peuls), and Maninka (spoken by the Malinkés);
- 3. Again in Conakry, the problems associated with circulating questionnaires among women in districts where fundamentalist Islam is widespread

(Hamdallaye, Koloma, and especially Wanidara) prompted us to select a female rather than male interviewer whenever it was possible to do so (especially for Wanidara).

4. Finally, in Douala, at the request of interviewers and supervisors alike, the interviewers systematically worked in pairs in each district.<sup>12</sup> This was done to limit the risks associated with the lack of security in some districts.

The interviewers were placed in their zones in Conakry on October 3 (and partly on October 4) and in Douala on October 4, with instructions to avoid housing units that showed obvious external signs of wealth.

A first overall stock-taking exercise (review of a number of common problems, individual "correction" of the first questionnaires, etc.) took place on Monday, October 6, after one or two days of interviews. In both cities, periodic meetings were subsequently held with all the personnel, at least once a week on Mondays, the day when there was no field work to be performed since we were not asking about mobility on Sundays.

The final surveys were turned over to the chief researchers on October 22, in both Conakry and Douala.

In general, the survey staff were fully satisfactory. In both cities there was a good level of understanding, indeed prior knowledge for the "professionals," of general questioning (for example on household composition or on the skill levels of professions), but it proved difficult, at least for some, to pick up concepts that were more specifically transport-related: this is especially the case, in the section on travel, of the distinction between a leg of a trip and travel more broadly. The training phase is thus essential in order to familiarize survey personnel with these concepts, and it is advisable to devote considerable time to this task. This time could be used to good advantage later "professional" interviewers in the event they had the opportunity to conduct other targeted surveys of if certain more general surveys were to devote particular attention to transport issues.

In the course of the field work, problems arise with day-to-day liaison with the survey personnel, in particular in cities where transport problems are pronounced and where the telephone system functions poorly or not at all or, because it is too costly, is not sufficiently widespread. The supervisor's systematic involvement in conveying questionnaires to and from the interviewers and the chief researchers may thus slow the proper conduct of the survey, especially if the supervisor fails to examine the questionnaires thoroughly before passing them on to the chief researchers.

All in all, the interviewers were well received in the households, although it was not always easy to survey every individual over the age of 10 even after repeated visits, particularly in the large households (sometimes as many as 20 persons).

SITRASS

-

<sup>&</sup>lt;sup>12</sup> Each pair was thus assigned two districts which it dealt with in succession.

Among the major reasons for absence or for non-response are frequent references to stays in the village, either to work the fields or for reasons of health, illness, or advanced age, individuals who couldn't be met with, and finally some refusals. Also worthy of note on occasion was a sense of resignation on the part of those interviewed (especially in Conakry), who deplored the lack of change if not deterioration in their situation despite the large number of surveys on poverty and living conditions to which they or those close to them had responded (related information is set forth in the "Interviewer's comments" portion of the questionnaires).

It bears noting that the new school year begins in Conakry in the week of October 6, first for primary school and then for the middle and secondary schools. The academic year for university studies was not scheduled to begin until early November. Consequently, travel for study reasons is slightly underestimated in that city as compared to an "average" school period.

#### 2. SAMPLES OBTAINED

In both cities, the surveys were conducted in the 30 areas planned.

There were 626 households surveyed in Conakry and 600 in Douala. They represent 4,533 and 2,739 individuals, respectively. Of these, 2,703 persons in Conakry and 1,885 in Douala provided information for the *Individual* questionnaire (92 percent and 96 percent of the individuals age 11 and over, respectively). The *Child* questionnaire was used for 842 individuals aged 6 to 10 (99 percent) in Conakry and 349 (100 percent) in Douala. The differences in the scale of the samples between the two cities are attributable to quite genuine sociodemographic differences. These were in fact quite clear from the earlier surveys, and the sizes of the households surveyed are consistent with the information available to us, and with the number of "adults" completing the *Individual* form.

There were 10,056 trips identified in Conakry and 8,474 in Douala, yielding average urban mobility as expressed in terms of number of trips of 3.7 and 4.5 (including a small share of trips outside the urban area) in Conakry and Douala, respectively.

# 3. HOUSEHOLD SHEET

For this evaluation of the questionnaires, the reader is invited to make reference as necessary to the survey questionnaire provided in Annex 2. For each sheet of the household survey questionnaire, we will begin with any general comments that may be appropriate and then will address, module by module, questions that call for remarks. We conclude with proposals for additional questions.

## 3.1. Existing questions

# Household Composition module

It is not always easy for the interviewers to fill out the form with information obtained in the order indicated in the manual (sequencing individuals depending on their relationship to the head of household). Mentioning the numbers for the father, mother, and spouse may help make it possible not to observe this order too strictly. Moreover, this information, which considerably slows down completion of the questionnaire, is not necessarily essential.

Q. 13 led to discussions during the training of the interviewers, and did so in both cities. The indication "Married, polygamous" refers to the real status of the individual, not to a legal status gained at the time of the marriage ("under the polygamy regime"): the man or woman falls into this category if he or she has, respectively, several wives or at least one fellow wife.

Obtaining information about Q. 15 is sometimes difficult, especially as regards the differences between a principal or secondary contributor, and the distinction between whether or not the respondent has his or her own income and does or does not make a portion of this income available to benefit the household.

# Characteristics of housing module

There is hesitation as to whether or not the lot is subdivided (Q. 1).

For Q. 11, "Vendor" should be replaced by "Itinerant vendor" (response 7) in order to draw a distinction from purchases made in a store.

For Q. 12 to Q. 14, there should either be a breakout at the end of Q. 11 in the case of an indoor tap, or an indication that the reference is to water supply in the event of a "breakdown." As the questionnaire now stands, not all interviewers reacted the same way, necessitating some adjustments.

For Q. 13, after processing it would appear that some responses reflect the total time devoted to the activity (going, waiting, purchasing, returning). If the aim is to learn the exact time requirement for the activity, it should be made clear in the question that the reference is only to the travel time to go there.

#### Vehicles Owned module

For Q. 27, the current formulation is complex and restrictive, with potential risks of error. The question actually pertains to vehicles to which one has access as a driver for personal use: access/own, driver/passenger, personal use/mixed use.

#### Residential History of Head of Household module

For Q. 39 and Q. 40, there is a problem with individuals who have never left the residence they grew up in. There should either be a breakout in Q. 38 (but this calls for care, because then the interviewer has to refer back to the first page showing the age of the head of household), or consideration should be given to including an additional response in order to take this situation into account.

For Q. 40, provide a separate response for "Marriage" (for female heads of household who moved there to join their husband).

# Access to Transport Network module

In Q. 44, it is sometimes difficult to evaluate the number of months (if the phenomenon is intermittent, in the event of extremely heavy rainfall, for example). It may perhaps be necessary to revisit this question together with Q. 45.

## Access to Basic Services module

In Q. 4, there should not be a nomenclature of specific modes that differs from the one used for travel.

In Q. 5, two kinds of problems arise as regards evaluating the time requirement: (i) what should be put down if several individuals make use of the same equipment? (This would then also have caused problems in respect of the response to Q. 4.) (ii) The value recorded corresponds to the respondent's perception, and hence not necessarily to the time actually spent by users, giving rise to possible discrepancies with the *Individual* forms.

## 3.2. Questions to be added

If there is no specific questionnaire for District Heads, provide a Supervisor code in the header.

Language(s) in which the interview was conducted.

#### 4. SHEET ON EACH INDIVIDUAL (AGE 11 AND UP)

#### 4.1. General remarks

It is unfortunate that the same information is not gathered systematically in the Individual questionnaire and the Child questionnaire, making it impossible to "track" certain phenomena over time: for example, the nature of the school (public/private), participation in various activities (see the final module of the Child questionnaire), or, as the pendant for education level, the fact of knowing how to read and/or write (and in what languages). This initial choice was made with the aim of not making the questionnaires more unwieldy.

#### 4.2. Existing questions

### **Education module**

In Q. 28, make it more clear to interviewers that "No break in day" (reply 1) is a response that is sufficient by itself, and that therefore it is not necessary to add further responses.

# Professional activity module

Q. 29 is sometimes ambiguous (as regards the status of apprentices, for example, as some pay for the apprenticeship period). The 30 day period is sometimes restrictive, particularly for individuals with highly episodic jobs. It is, of course, preferable to using a 7-day period (a common definition) when the focus is not on employment, underemployment, or unemployment, but rather on potential income sources.

The concept of a "permanent" job should be clarified (Q. 30).

Q. 36, Q. 37, and Q. 38 on secondary activities yielded interesting results, but there is no subsection on the frequency or duration of such activities so as to be able to reconstitute annual compensation using the Individual Monetary Resources module. Precise information on this would be particularly valuable when the income derived from the secondary activity constitutes daily or weekly payments, which is frequently the case for small-scale activities of this kind.

In Q. 42 (place of work), there is no provision for a reply of "Mixed," an intermediate position between an itinerant job and a job in a fixed location, such as for drivers whose vehicles are garaged away from their residence and who must therefore go retrieve them before starting their work day (and also bring them back in the evening). A code 7, "Mixed," was therefore added after the survey, before the data were input.

## Individual monetary resources module

The recording of income data appears to have gone rather well. In particular, the breakdown in Q. 56 to Q. 58 makes it possible to gather information that is frequently lacking when these other income sources are not listed separately. However, the problems with gathering income data have obviously not all been resolved. Of particular note is the difference between profits and turnover, despite the fact that particular emphasis was placed on this issue during the training of the field personnel and one question of the selection examination was partly devoted to it. Moreover, the periodicity response "Other" (reply 7) is used too frequently by some interviewers, which makes it difficult to reconstitute an annual income figure.

#### Transport equipment and access to individual transport module

For Q. 76, it should be clarified during training that this does not involve the usage of a public transport vehicle as a passenger, but instead refers to access to a vehicle owned by another household (for example, use of a friend's motorcycle and not taking a *bendskin*).

# Use of public transport module

In Q. 77, the distinction of degree between the two usage patterns (reply 1 "Yes, daily or almost daily" and 2 "Yes, occasionally") may not be useful and was not always properly understood. It could be eliminated, but does appear to be of value for purposes of determining expenditure on public transport.

For Q. 78 to Q. 83, some interviewers broke down the calculation of amounts spent, which could be systematized in the questionnaire in order to help them reconstitute the weekly sum. The number of trips is extremely valuable for verifying the plausibility of the spending level, and some additional information could perhaps be sought.

For Q. 78 to Q. 83, it is important in the training process to emphasize, more clearly than was done in the two cities, that the past 7 days of course include the day before (making the range consistent with the Travel module).

## Social activities module

Q. 99 and Q. 100 would be more appropriately placed in the Household questionnaire. Be that as it may, as in the case of Q. 101, they probably should not be asked of every individual: consideration should be given to applying an age limit or restricting them to the head of household and spouse(s).

An effort should be made to ensure consistency between the responses to Q. 102 to Q. 109 and those on nonprofessional income.

In Q. 105, allow for a reply reading "Neighbor."

In Q. 109, allow for a reply reading "Moral support," which was frequently cited in Douala in the category "Other."

#### Travel module

The listing of individual trips, which we heavily stressed during the training sessions, posed no particular difficulties. The instructions appear to have been followed quite well. The question of the cost of travel in public transport proved quite valuable as a way of testing the reliability of expenditure over the past seven days.

In Q. 1, use the term "leave" and specify which kind.

In Q. 2, split the reply "Ill/handicapped" into two possible responses.

Under Reason, add the replies "Purchasing/fetching water" and "Itinerant labor."

#### 4.3. Questions to be added

Language(s) in which the interview was conducted.

#### 5. CHILD (AGES 6-10) SHEET

#### 5.1. General remarks

It was difficult to obtain information on children's work, which is nonetheless visible in the streets but seems rarely to be reported to interviewers (this problem was encountered more in Douala than in Conakry). This may be attributable,

but only in part, to the fact that children who are working are not all in households, and a fair number of them live and work in the shops, in the markets, and hence are part of a population that is not covered by the survey. Perhaps there is also some reluctance on the part of adults to acknowledge this situation. It is probably worth considering a means of gathering additional data for this specific question in the future.

# 5.2. Existing questions

The questions from The child and work module were rarely answered and are difficult to evaluate, which is unfortunate as regards the questions on income (Q. 40 to Q. 45).

# 5.3. Questions to be added

Language(s) in which the interview was conducted.

The selection of the zones covered by the quantitative survey is based, in each city, on first constructing typologies of the neighborhoods that are more or less strongly characterized by the prevalence of poor households, which for our purposes are those in the first income quartile. We first review the available data, then present the methodology for determining the typology of the districts, and conclude with a listing of the districts selected for the survey.

#### 1. THE DATA AVAILABLE AND THEIR LIMITATIONS

When the Poverty and Urban Mobility survey was conducted, there was no recent consumption-focused survey for the city of Conakry.<sup>13</sup> In contrast, there were two other surveys conducted in recent years which provide various information about Conakry households: the UNICEF survey aimed at producing a poverty map for Guinea's capital city, conducted in 1999 (UNICEF, Conakry Governorate, 1999), and the *QUIBB* survey on the living conditions of city dwellers, conducted in 2002 (National Statistics Directorate, n.d.).

Neither the *QUIBB* survey nor the UNICEF survey make it possible to identify the income or expenditure of each household.<sup>14</sup> On the other hand, both indicate household ownership of a number of consumer durables and identify various characteristics of housing units and their occupants. Because it provides more recent information, but also owing to easier access to the computerized data files, we selected the *QUIBB* survey for constructing the typology of districts. Various limitations of the survey, of a more general nature, must nevertheless be mentioned first.

As happens with many household surveys, the size of the sample in each spatial unit covered by the survey is small, which limits the quality of the information from the standpoint of a district scale (data by sector is totally unavailable). As regards the *QUIBB* survey, except for several districts where several enumeration zones were selected, the number surveyed is 12 households per district: passing from one household in a quartile to the next is thus mechanically reflected in percentage terms by a variation of 8.5 percent for that quartile.

<sup>&</sup>lt;sup>13</sup> More specifically, such a survey (EIBEP) is currently being conducted, but on the scale of Guinea as a whole. However, the files from it are obviously not yet available, as the field work was completed in September-October 2003.

<sup>&</sup>lt;sup>14</sup> It bears noting that the Statistics Directorate does have, pending the results from the EIBEP, an estimate of household resources from the *QUIBB* survey, based on calibration of a multiple linear regression of expenditure = f(household goods, various characteristics, etc.) against data from the budget survey of 1994. However, on the one hand this information was not provided to us, and on the other it is uncertain whether the structural relationships quantified by this regression remain valid a full 10 years later and make it possible to classify households unambiguously.

A second limitation of the survey pertains to a recurrent problem that arises when conducting surveys in African cities: the difficulty of obtaining an exhaustive list of the "districts" and "subdistricts" (with these terms being used to describe the result of subdividing the space within the city on a small scale, regardless of the official designations for such divisions which may vary from one city to another) and, correlatively, the uncertainty surrounding their exact spatial location. Here, it is immediately evident that the list of districts used in the QUIBB survey does not coincide fully with the other sources available (UNICEF survey, G8-BCEOM report on underequipped districts), either because the places listed in the QUIBB sample do not appear in these sources, or, conversely, because the zones that appear in the UNICEF survey were not selected in the context of the QUIBB survey. For the latter, it is thus quite evident that it will not be possible to classify them on a poverty scale, thereby limiting the possibilities for using them for the survey. Moreover, the small scale maps available to do not make it possible to situate "precisely" those districts that appear only in QUIBB, especially in the case of the zones that are more distant and more recently established, east of the city center.

Finally, quite apart from the size of the *QUIBB* sample for each zone surveyed, we do not have the precise position of the enumeration area (ZD) within each district. Moreover, some districts are obviously quite vast. To what extent can the ZD selected be regarded as representative of the district as a whole?

These various limitations in respect of our objectives are noteworthy, and the results of the statistical analysis will therefore have to be assessed in light of the more qualitative knowledge about the city available from the Guinean members of the team as well as the local authorities.

# 2. THE METHOD FOR DEVELOPING ZONE TYPOLOGY

In the absence of information about household resources in various districts, we endeavored to estimate their economic circumstances and to rank them in accordance with various characteristics relating to the head of household, to the ownership of various property, and to the comfort level of the housing unit. Technically, households are classified in terms of their projection on the first axis of a factorial analysis of the multiple correspondences relating to these various characteristics. It is known that the decision to engage in multidimensional analysis, which is "more pragmatic than conceptual" (Lachaud, 2001), makes it possible overall to obtain satisfactory estimations of various phenomena concerning education (Filmer, Pritchett, 1998) or health (Montgomery et al., 1999), and even more general comparisons of poverty (Gwatkin et al., 2000; Sahn, Stifel, 2000), but that the individual predictors it provides are imprecise and distorted. As the aim here is not to perform a pinpoint analysis of households but rather to classify districts as a whole, the method would appear to be well suited to the objective sought.

In order to obtain more robust results, we conducted several different factorial analyses of multiple correspondences (FAMCs) based on different sets of

indicators. Analysis of these FAMCs led us to select four of the eight that were conducted and to compare the district classifications they provide in order to identify zones that systematically were characterized as having an overrepresentation of poor residents.

Table 1 shows the variables used in the four FAMCs selected. They are grouped into four categories: characteristics of the household itself, characteristics of the head of household, characteristics of the housing unit, and the ownership of consumer durables. One final category is added, namely the commune of residence. The reason for choosing this variable as well is that at little cost it provides a rudimentary but adequate approximation of the household's distance from the city center. In addition, it may also identify certain disparities between one commune and another, even if there are considerable restrictions on their capacity to take action. More pragmatically speaking, it bears noting that inclusion of this information scarcely affects the results. The eighth FAMC is identical to the seventh, except that it does not take the commune into account; the household classification it produces is identical.

Table 1: Indicators selected in the FAMCs

	FAMC 3	FAMC 4	FAMC 5	FAMC 7
Household characteristics				
Size	X	X	X	
Problems obtaining food		X	X	X
Characteristics of Head of household				
Age	X	X	X	
Gender and marital status	X	X	X	X
Employment situation	X	X	X	X
Level of education	X	X	X	X
Characteristics of housing unit				
Ownership of housing	X	X	X	X
Indoor tap	X	X	X	X
Electricity	X	X	X	X
No. of persons/room			X	X
Ownership of consumer durables				
Refrigerator	X	X	X	X
Television set	X	X	X	X
Radio	X	X	X	Х
Other				
Commune	X	X	X	X

The reader may be surprised by the absence of indicators selected in order to characterize the housing unit by a variable describing the structure or its components. However, *QUIBB* provides no information on the nature of the building (concession, multistory building, villa, etc.). There also appears to be little specificity about the materials used: 94 percent of the walls are made of "cement brick" (but "only" just shy of 80 percent in the UNICEF survey) and

91 percent of the roofs are made of corrugated sheet metal (95 percent according to the UNICEF survey).

Means of transport were deliberately not included among the consumer durables, as ownership of them is one of the topics of the study we will be conducting on the basis of the quantitative survey. Selecting zones as a function of the low level of equipment could not but lead later to the "finding" that the rate of vehicle ownership was low, but without knowing whether this was a byproduct of the sampling or a datum representative of the population of Conakry.

By way of example, Figure 1 reproduces the first factorial plane from FAMC 5.15

In these various FAMCs, the first axis may be interpreted as a resource level axis, classifying households from those least well-off to those most well-off<sup>16</sup> (in Figure 1, from left to right). Depending on the position of each of the households on the axis, it is then possible to rank them and then assign them to a resource quartile for each FAMC used. The four sets of quartiles obtained provide cohesive information, as shown by the first factorial plane of the FAMC that superimposes these four sets of quartiles and the different districts (Figure 2). The position of a quartile on the plane is largely independent of the FAMC used, even though the four quartiles occupy distinctly different positions.

It is noteworthy that quartiles 1 and 2 are in close proximity, which may be interpreted as indicating that there is a relative lack of differentiation within the poorest half of households. This is one of the conclusions of the UNICEF report, though it of course took a different form, which should that a substantial proportion of the districts (49 in one case, 36 in the other) were in zones that would have to be considered extremely poor. In other words, a very sizable share of the households and districts are extremely poor, and this condition is not limited solely to the first quartile.

<sup>&</sup>lt;sup>15</sup> It accounts for 16 percent (9+7) of the total inertia for 48 active modalities (and 1,079 households having all of the variables identified).

<sup>&</sup>lt;sup>16</sup> It should be noted at the outset that the specification used for the various indicators (in particular as regards assets: whether or not the good was owned, regardless of the number and without reference to the household structure) brings the classification obtained closer to a ranking by total income than to one by per capita income.

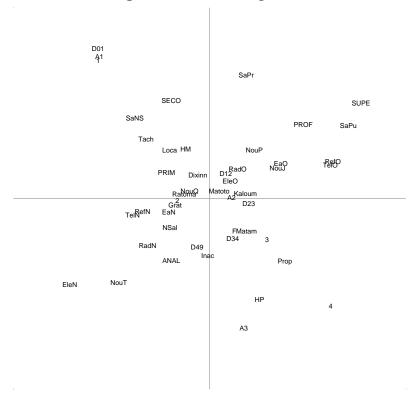
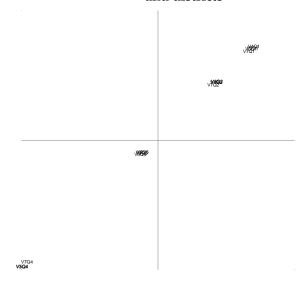


Figure 1: First factorial plane of FAMC 5

Legend: Communes: Dixinn; Kaloum; Matam; Matoto; Ratoma. Status of housing occupancy: Grat (free); Loca (renter); Prop (owner). Number of persons per room: D01 (]0, 1]); D12 (]1, 2]); D23 (]2, 3]); D34 (]3, 4]); D49 (]4, 17]). Refrigerator: RefN (no); RefO (yes). Television set: TelN (no); TelO (yes). Radio: RadN (no); RadO (yes). Difficulties feeding the household: NouJ (never); NouP (rarely); NouQ (sometimes); NouT (often, always).Indoor tap: EaN (no); EaO (yes). Household size: 1 (1 to 3); 2 (4 to 6); 3 (7 to 12); 4 (13 or more). Electricity: EleN (no); EleO (yes). Age of head of household: A1 (]18, 34]); A2 (]35, 55]); A3 (]56, 95]). Gender and marital status of head of household: F (female); HM (male, monogamous or single); HP (male, polygamous). Employment situation of head of household: Inac (Unemployed); Nsal (non-wage earner); SaNS (wage earner employed by an individual or private household); SaPr (wage earner, private sector); SaPu (wage earner, public or parapublic sector); Tach (piece worker, etc.). Level of education of head of household: ANAL (illiterate); PRIM (primary); PROF (technical vocational training); SECO (secondary); SUPE (higher).

Figure 2: First factorial plane of the FAMC superimposing the four sets of quartiles and districts



In order to determine the survey districts, we then observed their position on the first factorial plane of the FAMC superimposing districts and sets of quartiles as well as the share represented by the first and second quartiles in each set of quartiles. This produces two groups of districts, those labeled "unquestionable" and those labeled "tangential" (Table 2). We added to the latter group two districts of Kaloum, perhaps a bit of a stretch from the standpoint of our criteria, but in any event the districts in that commune that were the most poorly "placed," namely *Sans Fil* from the standpoint of the first quartile alone, and *Tombo* from the standpoint of the first two (the second more so than the first). It bears noting that this constitutes less a typology than the identification of several groups of districts in which poor populations (in the sense of the populations surveyed) are overrepresented.

Table 2: Identification of two groups of districts, by their robustness as regards the selection of poverty indicators

	"Unquestionable"	"Tangential"
Kaloum	•	Sans Fil
		Tombo
Dixinn	Bellevue Marché	Bellevue Ecole
	Dixinn Gare	Hafia 2
	Dixinn Mosquée	Kenièn
	Hafia 1	
	Hafia Minière	
	Hafia Mosquée	
Matam	Touguiwondy	Boussoura
	-	Carrière
		Hermakono 3
		Matam Lido
Matoto	Dabompa	Dabondy 2
	Kissosso	Matoto Khabitaya
	Matoto Centre	Tombolia
	Simbaya 1	Tombolia Wassa Wassa
	Tanene Marché	
	Yimbaya Permanence	
Ratoma	Hamdallaye	Kaporo Centre
	Hamdallaye Mosquée	Koloma
	Kaporo Rails	Koloma 1
	Kobaya	Koloma 2
	Lambanyi 2	Nongo
	Simbaya Centre	Simbaya Gare
	Sonfonia Gare	
	Wanidara 1	

## 3. ZONES SELECTED

We then endeavored to define thirty survey districts within these zones while seeking to observe three criteria:

- Seeking systematically to select "unquestionable" districts;

- Including districts from within each commune, while closely respecting the criteria of population balance (at least in respect of the number of districts to be surveyed);

- Ensure a broad range of different distances from the city center of the survey districts, as well as a broad range of accessibility levels. This latter point pertains at least as much to the exact choice of the survey zones within the districts (a choice which, owing to the lack of data other than those used here, was done "in the field") as it does to the choice of the districts themselves. This also involves considering at least two districts in Kaloum even though they are probably not among the poorest.

An initial list taking into account the classification set forth in Table 2 and incorporating these three rules was submitted to our local partners. After discussions, there were two changes made:

- The *Kaporo Rail* district, from which many inhabitants were expelled and which is currently being redeveloped (construction of the U.S. Embassy) is now relatively empty, particularly in the zones bordering main transverse road T2, which would have complicated the conduct of the survey. This district was replaced by *Matoto Khabitaya*, which was among the "tangential" districts identified in the FAMCs. The elimination of one district from Ratoma also made it possible to rebalance the number of survey zones between the communes of Matoto and Ratoma: the former, which appears to be slightly more heavily populated than the latter, now has 10 survey districts, just as Ratoma does (as compared to 9 and 11 in the original arrangement).
- The *Lambandji* district includes a relatively large number of developed zones, which once again would not have made it possible to survey poor households easily. Accordingly, it was decided to focus on the northern part, which has been settled for longer and is known as *Lambandji village*.

The final sample thus includes 2 districts from Kaloum, 5 from Dixinn, 3 from Matam, 10 from Ratoma, and 10 from Matoto (Table 3). This distribution makes it possible to properly observe the three criteria we had set for ourselves. All the "unquestionable" districts were selected, with the sole exceptions, in the commune of Dixinn, of *Dixinn Mosquée* and *Hafia Minière*, which were replaced by *Kénièn*, classified as "tangential," thus making it possible, as in the other communes (other than Kaloum), to survey a slightly more diverse population. Among the "tangentials" still available are *Belle Vue Ecole* and *Hafia* 2 in Dixinn; *Carrière* et *Hermakono* 3 in Matam; and *Kaporo Centre* and *Nongo* in Ratoma.

Table 3: Districts selected for the quantitative survey in Conakry

Kaloum	Sans Fil	Matam	Boussoura
	Tombo		Matam Lido
Dixinn	Belle Vue Marché		Touguiwondy
	Dixinn Gare	Matoto	Dabompa
	Hafia 1		Dabondy 2
	Hafia Mosquée		Kissosso
	Kénien		Matoto centre
Ratoma	Hamdallaye 1		Matoto Khabitaya
	Hamdallaye 2		Simbaya 1
	Hamdallaye Mosquée		Tanéné Marché
	Kobaya		Tombolia nord (ENTA)
	Koloma 1		Tombolia Wassa Wassa
	Koloma 2		Yimbaya Permanence
	Lambandji village		•
	Simbaya Gare		
	Sonfonia Gare		
	Wanidara 1		

#### 1. TECHNICAL BACKGROUND

In the absence of any measurement of the distribution of monetary resources among Conakry residents based on recent surveys, the selection of survey zones in which poor households are overrepresented was carried out by constructing, for the *QUIBB* survey, an indicator that summarizes a number of characteristics of the head of household, the ownership of various goods, and certain household convenience items (see Annex 4). This indicator (the projection on the first axis of a factorial analysis of multiple correspondences—FAMC—relating to these various characteristics) is known to provide a satisfactory overall predictor, but at the individual (i.e., household) level it yields only inaccurate and distorted estimations of monetary resources.

The reconstitution of overall annual incomes for individuals and households on the basis of the gross data gathered during the quantitative household survey has made it possible to characterize poor households and individuals. However, because of the lack of adequate information in the *QUIBB* survey, which provides neither household incomes nor expenditures, it does not make it possible to draw proper comparisons between the data from the two surveys. Indeed, since the *Mobility* survey is intended to use construction (via the initial selection of survey zones) to ensure an overrepresentation of poor households, overall comparison of the two surveys would appear to be of little value.

The way to get around the relative incompatibility of the two sources is thus to construct, for the Mobility survey, a typology of households based on their level of equipment while using the same method as for QUIBB, with this typology of the poor and non-poor then replacing the income-based typology for purposes of the comparison. "Technically," the procedure is quite simple. Based on the QUIBB survey, an FAMC is used to develop a "plane base" which takes account o the organization of various characteristics of these households (the 14 variables of FAMC 5—see Annex 4). By projecting the QUIBB households on this base, one learns the typologies of households by equipment quartiles, which typologies were used to determine which districts entail an overrepresentation of household surveys. By projecting onto it a household from the Mobility survey, it is then possible to determine which equipment quartile it "belongs" to. The only "technical" condition is that the same variables (with the same response choices) exist in both surveys, which we ensured when designing the questionnaire for the Mobility survey. It is thus possible either to compare the equipment quartiles and income level quartiles within the Mobility survey, or to assess the changes in equipment between the QUIBB and Mobility surveys within one and the same quartile.

#### 2. WEIGHTS OF HOUSEHOLD EQUIPMENT AND MONETARY RESOURCE QUARTILES

The *Mobility* survey<sup>17</sup> presents an overrepresentation of the two quartiles at the lower extreme, mostly to the benefit of the second quartile (Table 1). As regards the first quartile, the gap is even more pronounced if comparison is drawn with the *QUIBB* subsample limited only to the districts surveyed. Various factors suggest, however, that this phenomenon should be assessed in relative terms, as it is also found, to a somewhat lesser extent, in Douala.

Table 1: Distribution of households by QUIBB quartiles, for various samples (%)

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
QUIBB, Conakry	25	25	25	25
QUIBB, Districts	34	25	21	20
Mobility, Overall	20	35	26	19

QUIBB and Mobility designate the comparable surveys. Conakry corresponds to the entire QUIBB sample, Districts to the subsample of the districts common to both QUIBB and Mobility, and Overall to the total Mobility sample.

This is first because of the fact that the districts of African cities are, for the most part, at least partially heterogeneous socioeconomically: the phenomena of segregation relate less to the choice of residential location than to the segmentation of sociospatial practices ((Diaz Olvera et al., forthcoming). Drawing on a small number of households in zones that are sometimes vast may thus result in obtaining a relatively "deviant" subsample. In contrast, it should be noted that the fourth quartile is more weakly represented than in *QUIBB* (global and even partial).

Then comes the issue of the high degree of presence of households from the second quartile. As noted earlier (Figure 2 of Annex 4), the first two quartiles (indeed, even the first three) were relatively close together, a sign of the relative lack of differentiation within the poorest half of households, a conclusion also reached in the UNICEF report (UNICEF, 1999).

Finally, the four equipment quartiles have average income levels that are in a clear hierarchy (Table 2), although, at the same time, these quartiles remain heterogeneous in terms of incomes (Figure 1). This, however, is the anticipated effect of the method used to determine the equipment quartiles, as we indicated in the first section (satisfactory overall results, but poor "individual" prediction).

Table 2: Average income level, by equipment quartile (Mobility survey, in GF)

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Total income	1,472,068	2,104,711	2,631,445	3,323,325
Per capita income	263,755	290,651	348,313	390,174

 $<sup>^{17}</sup>$  The comparison covers only the 589 households (out of 627 surveyed) that completed all 14 of the questions selected in the FAMC.

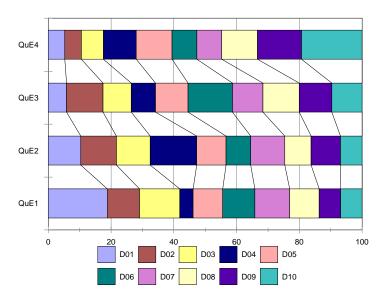


Figure 1: Distribution of equipment quartiles in pseudo-deciles\* of per capita income (Mobility survey)

QuE1 to QuE4 designate the four equipment quartiles, from the least well-off to the most well-off.

It also bears noting that total income increases more rapidly between the extreme quartiles than does income per capita: this is yet again an effect of the method used to establish the equipment quartiles, which, by not taking household size explicitly into account in the rates of equipment used, more closely resembles a classification of households by total income than by a classification by per capita income (on this question, see for example <sup>Lachaud,</sup> 2001). One result of this is an increase in the size of households from the first to the last quartile, which is even more pronounced in *QUIBB* than in *Mobility* (from 3.6 to 10.1 in *QUIBB* and from 5.6 to only 8.5 in *Mobility*).

# 3. QUARTILES AND HOUSEHOLD EQUIPMENT IN THE HOUSEHOLD SURVEY AND IN QUIBB

The comparison may be extended by observing, for the various quartiles, the occupancy status of the housing unit and several indicators of equipment. We will focus our attention here on the first two quartiles.

Owners are systematically represented more frequently in *Mobility* than in *QUIBB*. However, in both surveys, the ownership rate increases with the quartile as the rental rate declines. This again is a consequence of the ranking method: with a classification of households by per capita income, owners are more numerous among poor city dwellers, while a classification by total income (thus closer to the one used here) produces the opposite result.

<sup>\*</sup> Pseudo-deciles of per capita income were constructed in the Mobility survey: they distribute the 589 ménages being compared into 10 groups of the same size, by order of increasing per capita income.

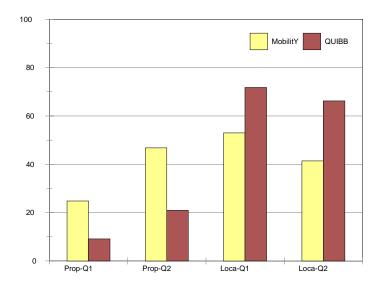


Figure 2: Proportion of owners and renters by quartile and by survey (%)

Mobility and QUIBB designate the surveys being compared; Prop designates owners, Loca designates renters, and Q1 and Q2 designate the first and second quartiles, respectively.

The two surveys are quite similar as regards the type of material used for roofing, but there is actually one variable in the quite homogeneous responses. Some 92 percent of roofs are made of corrugated sheet metal according to QUIBB, with the remainder made of concrete or cement or of tile or slate. The latter materials, which are somewhat more elaborate, have an even lower response pattern in Mobility, where corrugated sheet metal roofs account for 96 percent of the answers. In contrast, there is significant divergence between the surveys as regards the walls: according to QUIBB, 95 percent of the walls are made of cement brick, while the range of responses is more varied in Mobility, according to which 61 percent of walls are made of concrete, concrete block, fired brick, or stone block, while 31 percent are made of earth, unfired brick, or rammed earth. The possible replies are not strictly comparable (in Mobility, the range of selections was designed to ensure compatibility between the two surveys in Conakry and Douala), but perhaps there were problems of interpretation as regards distinguishing between the various kinds of brick in Mobility. We will thus not draw further comparisons as regards both roofs and walls, as the variable is not sufficiently precise in the first case, and because of the possibility of responses skewed by the reply options in the second case.

Connection to the water supply system and the electricity grid appears to be somewhat higher in *QUIBB* than in *Mobility*, especially in the first quartile (Figure 3). Access to various consumer durables shows a similar tendency, with *QUIBB* and *Mobility* showing comparable situations (Figure 4). Both in the case of a relatively widespread product, such as a radio, or more costly goods such as a television set or refrigerator, rates of ownership are nevertheless systematically somewhat higher in *QUIBB*. The same holds true in the two other quartiles

(those not shown in the figures), although the conditions reported by households in the two surveys become significantly closer as incomes rise.<sup>18</sup>

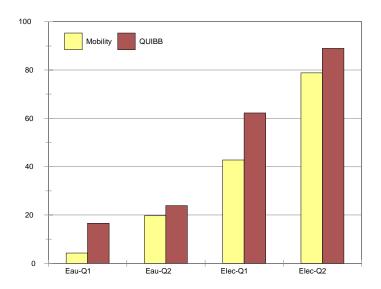


Figure 3: Connection to water system and electricity grid, by quartile and by survey (%)

Mobility and QUIBB designate the surveys being compared; Eau designates connection to the drinking water system, Elec indicates connection to the electricity grid, and Q1 and Q2 designate the first two quartiles, respectively.

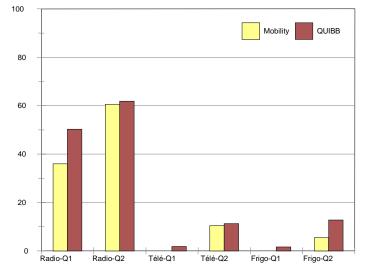


Figure 4: Rate of ownership of various goods, by quartile and by survey (%)

Mobility and QUIBB designate the surveys being compared; Radio indicates radio ownership, Télé the ownership of a television set, Frigo that of a refrigerator, and Q1 and Q2 designate the first two quartiles, respectively.

Finally, Figure 5 appears to show a more contrasting situation as regards access to individual means of transport. This is deceptive, however: in both surveys, individual means of transport are virtually nonexistent in the first two quartiles and the gap between the two sources, which is variable depending on the type of

<sup>&</sup>lt;sup>18</sup> The sole exception, which is unexplained, is the significantly higher proportion of households in the third quartile that own a television set, according to *Mobility*.

vehicle, is never as great as 2 percentage points! In contrast, the situation is markedly different for the last quartile, where the gaps are far more pronounced: the *QUIBB* households have greater access to bicycles (7 percent as against 1 percent) and to 4-wheeled vehicles (27 percent as against 10 percent), while *Mobility* households have a better showing as regards motorcycles and motor scooters (9 percent as against 2 percent). This overall balance in favor of *QUIBB* is a clear indication that the interviewers were able, in the course of their field work, to steer clear of households that appeared to be more affluent, as they were explicitly instructed to do.

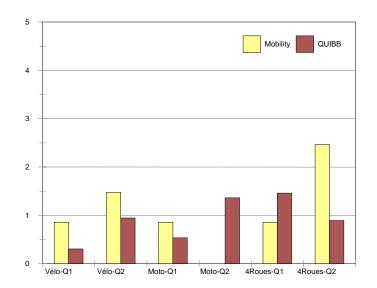


Figure 5: Rate of vehicle access, by quartile and by survey (%)

Mobility and QUIBB designate the surveys being compared; Vélo indicates bicycle ownership, Moto the ownership of a motorized 2-wheeled vehicle, 4Roues that of an automobile or truck, and Q1 and Q2 designate the first two quartiles, respectively.

#### 4. CONCLUSION

There are three major findings which emerge from this comparison.

First, the identification of poor populations on the basis of property ownership and housing characteristics does make it possible to establish neighborhood typologies in which poor city dwellers are overrepresented. However, as earlier work intimated, the method, or at least the one used, more closely resembles a classification of households by total income than by per capita income.

Second, the use of a district-based typology does not make it possible to yield a sample consisting fundamentally of poor city dwellers. As it happens, the districts of African cities are, for the most part, socioeconomically heterogeneous. There are two immediate consequences of this social heterogeneity of the districts, one relating to the calibration base, and the other to the selection in the field of the sample for the survey. All of the surveys select, for each zone covered, a "small" number of households, frequently from 12 to 30. Ranking a zone as "poor" (in the sense that households from the first quartile are overrepresented in the calibration base) is then tainted by a significant risk of

error. Conversely, while it is relatively easy to ask the interviewers to steer clear of households that appear to be more affluent (as confirmed after the fact by the weakness of the fourth quartile in our survey and its relative lack of consumer durables by comparison with its *QUIBB* counterpart), it proves to be considerably more difficult<sup>19</sup> to identify households that are genuinely "poor" (in strictly monetary terms) without access to an ad hoc pre-survey or to a recent and sound sampling base (population census).

Finally, in overall terms the data from *Mobility* would appear to be fully comparable with those from *QUIBB*. Except as regards access to individual means of transport (and here, the rates are extremely low), the households from the first quartile of *Mobility*, and indeed those of the second quartile though somewhat less clearly, would even appear to be slightly more disadvantaged than those from *QUIBB*. Clearly the comparison should not be pushed too far, if only because of the two-year time lag between the two surveys. In the event, households would appear to be significantly more pessimistic in Mobility: 46 percent report that they "always" or "often" experienced difficulties feeding the household in the preceding year, as against only 17 percent in *QUIBB*, and 54 percent as against 35 percent consider their economic situation to be "somewhat worse" or "much worse" than the year before. While the households covered by *Mobility* thus seem to be somewhat poorer, this is perhaps because of a sample that was skewed downward rather than because of an effective increase in poverty over the two-year period.

<sup>&</sup>lt;sup>19</sup> Moreover, it is not entirely clear that this would have been desirable strictly on the statistical level.

# Breakdown of poor and non-poor city dwellers, by group (%)

	Poor	Non-poor'	Total
Students	33	3	28
Employed females	18	37	21
Females not			
employed	22	3	19
Employed mails	17	52	22
Males not			
employed	11	5	10
All	100	100	100
	85	15	100

# Household position of city dwellers, by group (%)

	Head of	Spouse	Child	Other relative	Other	Total
	household					
Students	0	1	81	17	1	100
Employed females	8	59	20	11	2	100
Females not						100
employed	6	58	17	17	1	
Employed males	61	0	25	13	1	100
Males not employed	54	0	30	15	1	100
Poor, overall	19	23	41	15	1	100
Non-poor, overall	46	25	21	7	0	100
Total surveyed	23	24	38	14	1	100

# Marital status of city dwellers, by group (%)

	Single	Married		Divorced,	Total	
		Monogamo	Monogamou Polygamou Combined		widow(er)	
		S	S			
Students	98	1	0	2	0	100
Employed females	23	36	29	65	12	100
Females not						100
employed	24	40	23	64	13	
Employed males	33	50	15	65	2	100
Males not employed	41	30	26	56	3	100
Poor, overall	52	27	16	43	6	100
Non-poor, overall	23	49	20	69	8	100
Total surveyed	47	30	16	46	6	100

Educational level of city dwellers, by group (	%	)
--	---	---

	None	Primary	Middle	Secondary	Higher	Total
Students	0	40	39	19	2	100
Employed females	85	5	6	3	1	100
Females not						
employed	84	6	6	3	1	100
Employed males	65	11	11	7	6	100
Males not employed	62	11	9	9	9	100
Poor, overall	52	18	18	9	3	100
Non-poor, overall	55	9	13	12	11	100
Total surveyed	53	16	17	10	4	100

# Structure by age group and average age of city dwellers, by group (%)

	Child	Youth	Young	Middle	Senior	Total	Average
	(10-13)	(14-18)	adult	aged	(>54)		age
			(19-34)	(35-54)			(years)
Students	29	47	24	0	0	100	16
Employed females	3	8	46	37	6	100	33
Females not							
employed	4	12	41	33	11	100	34
Employed males	2	8	31	44	15	100	38
Males not employed	3	7	29	19	42	100	45
Poor, overall	11	21	33	23	10	100	30
Non-poor, overall	0	5	33	46	15	100	39
Total surveyed	10	19	33	27	11	100	31

# Professional activity and annual income of city dwellers, by group (%)

Group	Type of work	% of group	Annual income	Weighted annual
			(GF)	income (GF)*
Students	Not employed	93	55,000	15,000
	Working	7	172,000	44,000
	Students, total	100	63,000	17,000
Employed females	Wage earner	8	826,000	223,000
	Permanent, non-wage earner	72	520,000	154,000
	Non-permanent, non-wage			
	earner	20	254,000	81,000
	Employed females, total	100	492,000	145,000
Females not				
employed	Not employed	100	111,000	24,000
Employed males	Wage earner	28	1,064,000	253,000
	Permanent, non-wage earner	48	634,000	181,000
	Non-permanent, non-wage			
	earner	24	355,000	131,000
	Employed males, total	100	688,000	189,000
Males, not employed	lNot employed	100	334,000	59,000
Poor, overall			284,944	79,000
Non-poor, overall			1,948,000	729,000
Total surveyed			539,000	183,000

<sup>\*</sup> The weighted annual income is defined as the annual income declared in the survey multiplied by the ratio "total number of persons in household/number of employed persons in household" in order to take account of the composition of the respondent's household and the number of "dependent persons" per employed person.

# Location of work site for individuals declaring professional activity (% of group\*)

	Home	Home district	Neighboring	Elsewhere	Total
			district		
Students	17	38	9	36	100
Employed females	26	47	7	20	100
Employed males	11	31	8	49	100
Poor, overall	19	39	8	34	100
Non-poor, overall	12	28	6	53	100
Total surveyed	17	36	7	39	100

<sup>\*</sup> For students, the percentage is calculated on the basis of individuals with a professional activity; for the two other groups, the basis is the total size of each group.

The sample for the quantitative survey of households was not intended to be representative of Conakry households as a whole. Quite the contrary, it was a contractual requirement to overrepresent the poorer households (namely those belonging to the first income distribution quartile) in order to gain a better sense of the differences in the requirements and behavior of the population groups that are less well off. To achieve this aim, specific zones in the urbanized area in which such groups were proportionally more numerous were identified and selected for the field work (see Annex 4). Moreover, the interviewers were explicitly instructed to steer clear of households that appeared to be more affluent, because of the type and quality of the structure, the presence of private vehicles, etc.

The available data can thus not be construed to be representative *per se* of the situation of Conakry residents in general. It is possible, however, to test the effect of various corrective options on the results set forth in this report. We therefore corrected our sample, on the basis of the data from the *QUIBB* survey, in accordance with three sets of criteria: structure by quartile (for property), structure by commune and by quartile, and structure by quartile and by gender of the head of household. The corresponding results for several accessibility and day-to-day mobility indicators are presented in Tables 1 and 2 below.

- The mobility and accessibility indicators relating to the practices of the poor (whether households or individuals) are substantially unchanged regardless of the calculation method used: the results for the uncorrected sample are sometimes marginally lower, sometimes scarcely higher, than those from corrected samples, and no regular pattern in the changes can be observed.
- As regards the non-poor, in respect of whom the sample is smaller, the estimates are also quite stable. The gaps continue to be minimal, though slightly higher than in the case of the poor, which is to be expected in view of the way the sample was established.
- For the population as a whole, correcting the basic data never has an impact on orders of magnitude: the changes never, for example, are as great as 0.1 trip per day.

In conclusion, the estimates would appear to be quite solid when they pertain to the poor population groups only, as they were the target for the survey, and only slightly less robust for the population as a whole and, especially, for the non-poor. It should of course be recalled that, because the interviewers were instructed to steer clear of households that appeared to be more affluent (villa, large fleet of motor vehicles, etc.), automobile usage is probably slightly underevaluated for purposes of drawing conclusions about the city as a whole, as in

the fourth quartile those most well-off are heavily underrepresented both before and after correcting the sample.

Table 1: Comparison of effects of three correction methods on several accessibility indicators

	Unadjusted	Quartile	Quart*Comm	Quart*Gender
Time required to reach road on foot (minutes)	·			
Poor	4.9	5.1	5.1	5.2
Non-poor	4.3	3.8	3.6	3.7
Combined	4.8	4.8	4.8	4.8
Time required to access public transport on foot				
(minutes)	. 11.0	11.0	11.0	11 /
Poor		11.3	11.2	11.4
Non-poor Combined		9.9 11.0	10.1 11.0	9.8 11.0
	10.9	11.0	11.0	11.0
Households require more than 15 min to access				
public transport on foot (%) Poor	30.8	31.2	31.4	31.0
Non-pooi		22.2	22.6	21.0
Combined		29.1	29.3	28.7
	L 29,2	49.1	29.3	20.7
Time required to access public primary school (minutes)				
Poor	15.3	14.9	15.1	14.8
Non-poor	14.8	14.3	15.0	14.9
Combined	15.2	14.8	15.1	14.8
Time required to access private primary school				
(minutes)				
Poor	13.5	13.2	13.2	13.3
Non-poor	10.2	10.1	10.7	10.3
Combined	12.8	12.5	12.7	12.7
Time required to reach market (minutes)				
Poor	18.8	18.6	18.9	18.4
Non-poor	20.2	20.4	20.7	20.2
Combined		19.0	19.3	18.9
Households going to market on foot (%)				
Poor	93.1	94.2	93.6	94.1
Non-poor	85.9	84.9	85.0	84.9
Combined	91.4	92.0	91.5	91.9
Households going to market on foot and requiring over 30 min (%)				
Poor	21.2	21.4	22.4	21.2
Non-pooi		23.4	24.7	22.1
Combined		21.9	23.0	21.4
	21.0	41,7	23.0	41.4
Time required to travel from home to work (employed persons with fixed place of work outside				
the home)				
Poor		24.3	24.4	24.2
Non-poor		28.0	28.8	27.7
Combined	24.7	25.6	26.0	25.4

Unadjusted refers to the basic data, Quartile to the correction of the structure by quartile, Quart\*Comm to the correction of the structure by quartile and by commune, and Quart\*Gndr to the correction of the structure by quartile and by gender of the head of household.

Table 2 : Comparison of effects of three correction methods on several mobility indicators

	Unadjusted	Quartile	Quart*Comm	Quart*Gender
Number of trips per day				
Poo		3.74	3.70	3.72
Non-poo	or 3.91	3.94	3.89	3.92
Combine	d 3.78	3.77	3.73	3.76
Time budget for transportation (minutes)				
Poo	or 80	81	82	81
Non-poo	or 103	106	104	104
Combine	d 84	85	85	85
Number of work-related trips				
Poo		1.12	1.12	1.10
Non-poo	or 1.84	1.80	1.76	1.77
Combine	d 1.25	1.22	1.22	1.21
Number of household-related trips				
Poo		1.49	1.46	1.48
Non-poo		1.55	1.53	1.55
Combine	d 1.49	1.50	1.47	1.49
Number of socially motivated trips				
Poo		1.13	1.12	1.14
Non-poo		0.59	0.60	0.60
Combine	d 1.03	1.04	1.04	1.06
Number of trips on foot				
Poo		2.92	2.89	2.91
Non-poo		2.35	2.35	2.37
Combine	d 2.85	2.83	2.80	2.83
Number of trips by automobile				
Poo		0.03	0.04	0.03
Non-poo		0.08	0.08	0.07
Combine	d 0.04	0.04	0.04	0.04
Number of trips by magbana				
Poo		0.51	0.52	0.51
Non-poo		0.55	0.53	0.55
Combine	d 0.53	0.52	0.52	0.52
Number of trips by taxi				
Poo		0.24	0.23	0.24
Non-poo		0.84	0.80	0.82
Combine	d 0.32	0.33	0.32	0.33
Number of trips by taxi + magbana				
Poo		0.02	0.02	0.02
Non-poo		0.02	0.02	0.02
Combine	d 0.02	0.02	0.02	0.02
Number of trips in other public transport				
Poo		0.01	0.01	0.01
Non-poo		0.02	0.02	0.02
Combine	d 0.01	0.01	0.01	0.01

Unadjusted refers to the basic data, Quartile to the correction of the structure by quartile, Quart\*Comm to the correction of the structure by quartile and by commune, and Quart\*Gndr to the correction of the structure by quartile and by gender of the head of household.

A meeting focused on feedback and exchanges of views was held in Conakry on May 24, 2004. It was chaired at the highest level by the Minister of Transport, alongside his counterparts from Security, Territorial Administration, and Decentralization. The Governor of the City of Conakry was also in attendance. The workshop gathered together representatives of the institutions in the sector, professionals, members of civil society, and representatives of donors and lenders. The morning was devoted to a presentation by the SITRASS consultants on the findings of the study and the lines of action, followed by initial discussion with the participants. In the afternoon, three groups were set up on a voluntary basis to focus on the three following issues: public transport supply; transport infrastructure; and accessibility to urban services. Finally, the major lessons from each of these three workshops were presented at a plenary session.

As the discussions in the three workshops overlapped to some degree, we provide below a summary that is restructured around the four action areas identified in the report (see Chapter 6).

#### 1. ACTIONS TO IMPROVE ROADS:

#### NEED TO DEVELOP A COMPREHENSIVE STRATEGY WITH A LONG-TERM FOCUS

In Conakry, the infrastructure requirements pertain as much to access to poor districts as they do to the major road arteries. The participants reached a consensus on the desire to take a global approach to the issue. To be sure, depending on who was speaking, there were recommendations to begin by upgrading the structural backbone first, or to begin by providing access to isolated districts. In fact, this difference in the approaches espoused reflects the fact that Conakry is a two-speed city: a city of rapidly expanding urbanization, and a city that is turned toward the rest of the country and the rest of the world. It is hence understandable that it is difficult to reach agreement on the need to prefer one action as distinguished from another. The questions listed below are the outgrowth of the analyses of the mobility of the urban poor from the workshop on road infrastructures: (i) Can priority be given (and how) to public transport on the primary road network in order to ensure productivity and reduce production costs? In particular, can the 4-lane expressway be used to this end? (ii) Should the prioritized actions to open up road access to isolated areas previously identified by the Third Urban Development Project (UDP3) be strengthened? Which modes of transport are preferred for this road system and how can it be tailored to those modes? (iii) How should pedestrians be dealt with in respect of road improvements, given the knowledge that 60 percent to 80 percent of travel is on foot?

The discussions focused on three main points:

- building the capacity of the main primary and secondary road system;

- intensifying programs for opening up road access to isolated districts, including poor districts in particular;
- taking steps to decrease the congestion on particular roads.

The discussions and proposals focused as much on strengthening the major road system as on intensifying programs for opening up road access to isolated Paving secondary roads that parallel the main arteries could significantly ease the congestion of the primary trunk roads, and the gradual paving of the major transverse roads (depending on financing) should proceed hand in hand with strengthening and speeding up the road programs initiated by the World Bank in the context of UDP3. These programs are regarded as worthwhile but too narrow in scope, failing to meet the needs of the city beset by a rapid pace of urban sprawl, in particular in the districts to the east. Some advocated going beyond the actions contemplated in UDP3 and paving the district-level access roads to enable them to be used by taxis, as well as the identification of new financing sources to carry on after World Bank financing, which is not permanent and the share of which will decrease over time. Opening up the road system in isolated districts is a powerful factor in increasing property values, as recognized by all participants, but the consequences in respect of poverty are not assessed with the same uniformity: workshop participants see this as beneficial for the poor, whose net worth and resources stand to increase, but questions may also be raised as regards the mechanisms driving a portion of the population toward other isolated poor districts. Furthermore, easing congestion by increasing the capacity of the road system is a process that drives an increase in vehicle usage, thereby increasing congestion yet again, although one participant noted forcefully that this is in keeping with the aspiration shared by the majority of the population to own a car.

With regard to the difficult issue of congestion, the participants proposed a battery of measures aimed at easing congestion throughout the city. First, the central government is called upon to serve as an example by taking concrete steps to decentralize the ministerial departments, a move announced many times but never implemented. It is urgent to actually move forward with this idea in order to ease the pressure of traffic bound for the peninsula. Participants maintained that easing congestion also entails: (i) effective introduction of regulations on traffic, and truck traffic in particular (however, no consensus was reached on the precise content of the measures already taken or forthcoming, with some participants stressing the harmful effects of such vehicle traffic while others took note of the importance of economic activity at the port); (ii) conduct of a functional analysis of the various bottlenecks in the city, as well as the development of traffic interchanges and the increased use of traffic lights at intersections (although the latter approach is excessively affected by power outages), and greater discipline in the inspections carried out by the law enforcement authorities, which also contribute to traffic jams; (iii) the obligation to build underground parking garages for structures to be built along major roads.

All in all, the participants acknowledge that the city of Conakry has infrastructure problems. However, they further acknowledge that more optimal use of the existing roads would partially address the problem of traffic jams.

# 2. ACTIONS TO IMPROVE CONDITIONS FOR WALKING, LOW-COST MOBILITY: MUCH THINKING ABOUT WALKING ALONGSIDE ROAD ARTERIES, LITTLE ON PEDESTRIAN PATHWAYS

Walking, the leading mode of transport in Conakry, is extremely difficult both in local neighborhoods and along the major axes of the main road system. While there was a wealth of discussion on the conditions for walking alongside the major arteries, it is regrettable that comments on pedestrian pathways in local areas were confined simply to the observation that little is being done to facilitate it.

"The only safe and practical route for pedestrians in Conakry is the railway right of way," observed one participant. Indeed, since the railroad company ceased operations, the rail right-of-way is used daily by a huge number of Conakry's pedestrians, in particular in the mornings and evenings. The route has the further advantage of remaining dry during the rainy season as well as safe for pedestrians owing to the absence of motorized vehicles. After the increases in transport fares in the summer of 2004, it would even appear necessary to get up early in order to find one's spot in the line of pedestrians using the rail right-of-way, given that the poorest found public transport less attractive.

Most of the exchanges on actions to improve conditions for pedestrians related to the cluttering of sidewalks. Stress was placed on the need to enforce regulations to ban parking and the conduct of small business on the sidewalks. Alongside the enforcement of regulations, the participants also recommended (i) the construction of sidewalks designed to protect against the risk of use by vehicles (built at a prohibitive height, for example); (ii) improvements in special pedestrian pathways, particularly in isolated districts but also along the major road arteries; and (iii) the development of grade-separated pedestrian passageways along the road system, combined with speed bumps.

#### 3. ACTIONS TO IMPROVE TRANSPORT SUPPLY:

THESE ACTIONS SHOULD BE CONSIDERED AS PART OF A GLOBAL STRATEGY TO IMPROVE THE WAY DIFFERENT MODES COMPLEMENT ONE ANOTHER, AND ALONGSIDE ACTIONS TO IMPROVE ROADS

Discussions on this topic were organized around the following questions:

- Should there be special attention on one (or two) mode(s) in order to improve the way they complement one another?
- What is the best approach to promoting a structured mass public transport service in Conakry?
- How best can the activities of the various parties be coordinated?
- How can Conakry's road transit centers be managed more efficiently?

The workshop first discussed the general problems of urban transport and reached the key conclusion that the following basic principle should apply: Transport should be regarded as a priority sector in Guinea's economy; accordingly, urban transport is an essential aspect of the proper functioning of the city of Conakry."

There was consensus around the crucial problem of urban transport in Conakry, the basic issues of which are: the complete disorganization of the sector, the multiplicity of parties involved in it—without knowing the precise area of involvement of each, and the failure to observe regulations. According to one participant (a representative of the transport unions), "the public authorities seem to have given up on transport; there aren't any clear guidelines in the field, which leads to conflicts of jurisdiction and powers." At this stage, the workshop's main recommendation is the establishment of a coordinating body for urban transport, along the lines of an organizing authority. Such an authority was regarded as a way to resolve the weakness of institutional coordination and to impart greater transparency to financing in the sector. Interest was also expressed in adopting a legal and regulatory approach to resolving the existing supply shortages affecting urban transport.

The poor condition of the vehicles on the road in Conakry is one cause of the dysfunctions in the transport system. One transport operator highlighted the fact that "it's not a profitable activity so you can't guarantee the ability to renew the fleet." In this connection, some recommend central government assistance to operators in renewing the fleet, especially in the case of the smaller businesses. However, discussions were focused much more on the establishment of a structured transport enterprise. The participants were not of one mind as to the form of and modalities for establishing such an enterprise:

- some representatives argued that the central administration, the state, and local governments should create a public interest grouping that would be capable of managing an urban mass transit structure;
- private operators felt that the state should intervene, but only by setting up a public-private partnership. "As private operators, we're not in a position to work at a loss. Therefore, the state should establish a high capacity transport structure by lowering the taxes on fuels, spare parts, and imported vehicles, or even by setting up a credit system for automobile purchases";
- for still others, the problem boils down simply to the terms for making use of the city's central rail artery (passenger rail system or bus line using the same space), supplemented by the feasibility of using boat transport between the various local ports.

It is good that consensus was reached on the need to address the supply of urban transport as part of an overall strategy. The discussions even moved beyond this simple agreement, with the participants striving to sketch out just what such a strategy might be. The provision of urban transport services should be ranked and structured around a mass transit system.

It was observed that links are drawn between the type of road system and the mode of transport. Prioritizing the kinds of transport to be supplied would be closely associated with ranking the structure of the road system itself. Indeed, the road system is regarded as an important lever for improving urban transport service: improving the system would shift the supply level upward and would tend to shift the shared taxis to outlying areas and, more generally, to areas where the infrastructure is inadequate. Coming as it did from the unions representing operators and drivers, this proposal to tier the supply of transport (shared taxes, minibuses between communes, high capacity buses on the major trunk roads) clearly shows that organizing the operation of the sector does in fact constitute a first step toward resolving urban transport problems in Conakry.

Such organization of the transport supply further entails the management of the road transit centers, yet another problem leading to the dysfunctional nature of the system. In point of fact, there are no real stops designed for urban public transport in Conakry. The workshop recommends the improvement of road transit centers and stops. Without calling into question the rotating system used in the stations, it is recommended that priority be given to taking passenger safety into account: the state should play its role of ensuring that regulations are enforced, in particular as regards the technical condition of vehicles.

The introduction of a comprehensive strategy of actions on public transport supply should be accompanied by controlling the fare structure so that the poorest are not priced out of this mode. The simple fact of improving the road system could trigger a reduction in vehicle maintenance costs. With respect to the targeted fare-related measures, the socioeconomic context of Conakry considerably restricts the room for maneuver. One practice called to mind, however, was the drawbacks of the route shortening approach used by operators for a single trip, which significantly increases transport costs for passengers, especially for the poorest. The introduction of a high capacity transport enterprise on the central axis should increase the scope of using a flat fare, to the benefit of those traveling longer distances and the residents of the major outlying centers of Matoto and Ratoma.

The urban transport center is a major source of jobs in the city. Unfortunately, this issue was addressed only marginally during the discussions.

## 4. ACTIONS TO MAKE BASIC SERVICES AVAILABLE LOCALLY:

AN URBAN PLANNING ISSUE

Actions relating to the location of basic services (markets, water points, schools, healthcare services) and the accessibility thereof of necessity involve cooperation between the various players responsible for these services and those responsible for urban transport. There is thus a second level of cooperative work to be structured, after the one involving only those in the transport sector. Indeed, it emerged that this aspect touches upon the issue of urban planning.

However, the bitter observations of participants on the spaces set aside for social services are instructional in this regard: "For over twenty years now, the Ministry responsible for housing and urban planning has always set aside, in restructured districts and more developed areas, spaces for social services; in most cases, however, these spaces are taken over by third parties in complete disregard of the regulations."

The problem of accessibility by the poor to basic social services is governed by the effort put into extending and refurbishing such services. These measures are, to be sure, making it possible to increase capacities and making the existing social facilities more functional, but there is no avoiding the observation that the problem of accessibility to basic social services by the poor is still with us.

The main recommendation emerging from the discussions relates to identifying and securing the sites reserved for basic social services in the districts, and developing and disseminating a mapping of such facilities. After this is done, expansions and refurbishing of basic facilities should be undertaken in Kaloum, Dixinn, and Matam, while new construction is carried out in Matoto and Ratoma.

In conclusion, it should be stressed that it is revealing that, for example, the restatement of the conclusions of the road system workshop in the plenary session, which of necessity was brief, just mentioned in passing the need for pedestrian improvements and did not highlight it as an important component, contrary to what had been stated in the workshop. The rapporteur did acknowledge that the formulation of these recommendations did seem a bit off to him.

One is thus faced with the paradox that, in a workshop focused on mobility and poverty, the problems of managing the mobility of those who are more well off (for example, building underground parking garages in the buildings alongside the main roads) while neglecting the problems of the poorest. This confirms how difficult it is for a poverty approach to be used to structure thinking and identify actions.

### 5. LIST OF PARTICIPANTS

Name (last, first)	Function	Organization
Minister of Transport		
Minister of Security		
Minister of Territorial Administration		
and Decentralization		MATD
Head, World Bank mission		World Bank
Mr. Mbemba Bangoura	Governor	Governorate
Abdoulaye Diallo	Member	FEGUIPEPAE
Abdoulaye Keita	Chargé de mission	PDU3
Alhassane Bah	<u> </u>	
Alhassane Balde	Director	MUH/Matam
Alhassane Mohamed Diakité		RTG
Amakoé Adoléhoumé	Consultant	SITRASS
Bademba Barry	DST	Dixinn Mayor's Office
Bah Thierno	Journalist	RTG
Baldé Mamdou	Journalist	RTG
Bangoura Ousmane	District advisor	Matam Mayor's Office
Barry Amadou Bano	Consultant	SITRASS
Barry Boubacar Bhoye	Co-chair	Basic infrastructure/PRSP
Barry Mamadou	Deputy Director-General	Futur Transport
Ben Abdel Condé	Journalist	AGP
Bhaye Boubacar	SP	PRSP
Cissé Souleymane	Chair	UNTRG
Condé Sory	Director	MUH/Building permits
Diallo Abdoulaye	Vice chair	UNTRG
El Hadj Baldé	S/G	FSPNTMG
El hadj Mamadou Saliuo Balde	Research director	MUH/DATU
El Hadj Mamadou A. Bah	Secretary General	UNTRG
Fodé Touré	Chief, secondary roads unit	PDU3
Fofana Mamady	Operator	
- Orana mamaay		Central Directorate of Road
G. Lambert Zoabélémou	Police colonel	Security
Hadja Marie Mamour	Legal advisor	Ministry of Transport
Hubert Nove-Josserand	Urban transport specialist	World Bank
I. Dounane Trani		IG
Ibrahima Baldé		Transport operators union
Ibrahima Adama Camara	Senior staff	DNTT
Ibrahima Bah		UNTRG
Ibrahima Binany Diallo	Supervisor/interviewer	SITRASS
Ibrahima Cissé	SP	PRSP
Ibrahima S. Camara	Director	DEV/Conakry
Iraci Mara	Chair	MATD/Consultative committee
Ismail Bayo		Assainissement Guinée—NGO
Kaba Fodé	Trainer	CERE
Madina	Director	Road transit center
Mamadi Mara	Section chief	DNTT
Mamadou Bano Sow	Director	DNTT
Mamadou Yaya Baldé	Secretary General	Drivers union—Ratoma
Mangue Yansané	Municipal advisor	Kaloum commune
Mariama Sylla	Secretary General	Kaloum commune
Marie-Anne Doualamou	Deputy national director	National Statistics Directorate
Mohamed Benny Bah	Secretary General	Matam commune
Mohamed Cheik Touré	Deputy Director	DNTT
Mohamed Sanlihon	Journalist	RTG
MONAINEU JANIINUN	Journalist	NIO

Mohamed Soumah	Research Bureau	Ministry of Transport
Morel Marguérite Camara	Director-General	ONCFG
Mossi Condé	Head of STE	RTG
Mouctar Doukouré	Section chief	DNTT
Moussa Conté	Regional inspector	Ministry of Health
Ousmane Camara	Supervisor/interviewer	SITRASS
Ousmane Horya Sylla	Secretary General	Drivers union—Matam
Pathé Diallo	District advisor	Matoto commune
Paul-Jean Remy	Deputy Director	AFD
Sékou Cissé		UNTRG
Sory Kouyaté	Coordinator	PDU3
Sounioh Ali Mangué		DRUHTPT/Governorate
Sow Mamadou Bobo	Technical assistant	SP/SRP
Sow Saliou	Journalist	RTG
T. Madjou Diallo	Administrative Secretary	Drivers union—Matam
Thierno Ibrahima Diallo		UNTRG
Xavier Godard	Consultant	SITRASS
Younoussa Koita	Advisor	Ministry of Transport
Yves Boudot	Director	AFD
Zié Ibrahima Coulibaly	Program leader	World Bank



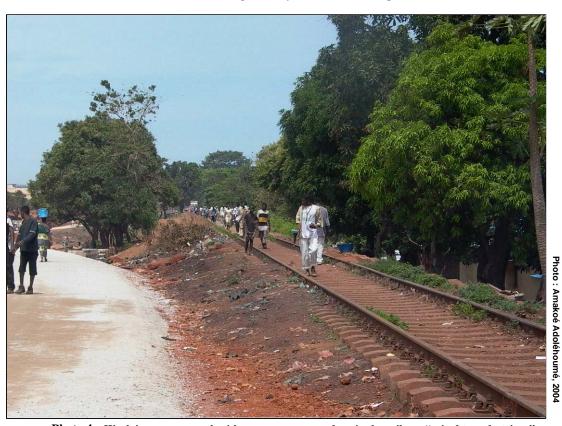
Photo 1 For want of a bridge, this water supply pipe is used to cross from one side of the neighborhood to the other, especially by students



 $Photo \ 2 \hspace{0.5cm} ... \ and \ getting \ across \ can \ get \ a \ bit \ dicey$ 



Photo 3 The rail right-of-way: "an area suited to pedestrians"



 $Photo \ 4 \quad Work \ in \ progress \ on \ the \ 4-lane \ expressway, and \ again \ the \ railway \ "suited \ to \ pedestrians"$ 



Photo : Amakoé Adoléhoumé, 2004

Photo 5 UDP3: A bridge to end local isolation...



Photo : Amakoé Adoléhoumé, 2004

Photo 6 UDP3: ... and to bring increased local economic activity as a result



Photo : Amakoé Adoléhoumé, 2004

Photo 7 UDP3: Sanitation problems in an older district



Photo 8 UDP3: Sanitation works in a newer district



Photo 9

Madina: road transit center



Photo 10 Madina:

Madina: entrance to the road transit center during rainy season

ı0.	INTRODUCTION	1
AN	IALYTICAL FRAMEWORK	2
RES	SEARCH PLAN	3
	Assess urban transport supply by meeting with the principal actors	3
	Assess mobility needs and problems of access by listening to city dwellers	3
	Assess mobility practices by producing a statistical data base	4
1.	THE DIFFICULT URBAN TRANSPORT SITUATION IN CONAKRY	7
1.1.	INSTITUTIONAL FRAMEWORK: LACK OF COORDINATION AND LIMITED RESOURCES	7
1.2.	THE ROAD NETWORK IS UNEVENLY DISTRIBUTED, IN POOR REPAIR, AND THE MAIN ARTERIES ARE SEVERELY CONGESTED	9
1.3.	PUBLIC TRANSPORT PROBLEMS IN THE CITY	9
	Taxis	10
	Magbana minibuses	10
	Urban buses	11
	And, "naturally," unlicensed transport operators!	11
	Urban transport is a major source of low-skilled jobs	12
2.	AN URBAN TRANSPORT SYSTEM WITH A NEGATIVE IMAGE	13
2.1.	ACCESS TO THE TRANSPORT SYSTEM IS MORE DIFFICULT IN ISOLATED AREAS	13
2.2.	PEDESTRIANS FACE A NUMBER OF DIFFERENT OBSTACLES	14
	Pedestrians encounter a wide variety of obstacles	15
	The environment of the place of residence is a determining factor for the problems encountered	16
	The problems cited have little to do with the use of modes of transport and walking conditions	17
	Among the poor, women cite safety and environmental problems more frequently, while men more frequently cite problems with the condition of the road system	18
2.3.	THE IMAGE OF PUBLIC TRANSPORT: MAGBANAS ARE AFFORDABLE BUT INADEQUATE AND SHARED TAXIS ARE MORE CONVENIENT BUT TOO EXPENSIVE	19
	Magbanas, the poor man's public transport	20
	Shared taxis are too expensive for daily use	21
3.	ACCESS TO BASIC SERVICES.	25
3.1.	HOUSING - OWNING OR RENTING AT THE LOWEST COST	25
3.2.	Working - the daily obstacle course	27

3.3. SCHOOL - PRIVATE SCHOOLS BACK UP PUBLIC SCHOOLS, BUT AT WHAT PRICE?	31
Public primary schools provide poor service and poor access, and private schools are expensive	31
Public secondary schools predominate because of the expense of private schools	32
3.4. HEALTH SERVICES – A LUXURY FOR MOST	33
Health centers and dispensaries – public facilities are too far away and private ones too expensive	33
Public hospitals and clinics are used for lack of anything better	34
3.5. FOOD AND WATER – A PROBLEM EVERY DAY	36
Markets - expensive products	36
Water supply - fetching water is a frequent chore despite the large number of homes with running water	37
3.6. Staying in touch - social contacts are more difficult	38
The poor are less likely to participate in associations	40
Contrasting social relations and activities in associations	41
4. Day-to-day mobility for poor city residents	47
4.1. THE MAIN FEATURES OF DAY-TO-DAY MOBILITY	47
4.2. Poor individuals and poor households	51
4.3. POVERTY LIMITS ACCESS TO MOTORIZED TRANSPORT AND DAY-TO-DAY MOBILITY	53
4.4. DIFFERENT CATEGORIES OF THE POOR: DIFFERENT BEHAVIORS AND DIFFERENT NEEDS	56
Walking to school	58
Economically active women rarely work far from home	59
Economically inactive women make fewer trips and stay closer to home	61
Economically active men enjoy relative autonomy, but their travel is greatly restricted	62
The absence of a regular work schedule for economically inactive men has less impact than the lack of personal income	63
5. THE FINANCIAL BURDEN OF DAY-TO-DAY MOBILITY	67
6. Proposed lines of action	<b>7</b> 3
6.1. ACTION TO IMPROVE ROADS	73
6.2. ACTIONS TO IMPROVE CONDITIONS FOR PEDESTRIANS	74
6.3. ACTIONS IMPROVING PUBLIC TRANSPORT	75
Organizing multimodal transport by working to create an organizing authority	75
Making fares affordable - improving productivity rather than offering targeted fare reductions	76
Safeguarding transport jobs and making them better	77
6.4. ACTION TO MAKE BASIC SERVICES AVAILABLE LOCALLY	78
6.5. DEFINING MONITORING INDICATORS	78
BIRI IOCRAPHY	82

ANNEXES	85
ANNEX 1: CHARACTERISTICS OF CITY RESIDENTS INTERVIEWED	87
Annex 2: Household Survey Questionnaire	89
ANNEX 3: OVERVIEW OF CONDUCTING THE HOUSEHOLD SURVEY AND EVALUATING THE QUESTIONNAIRES	
1. CONDUCT OF FIELD WORK	105
2. Samples obtained	107
3. HOUSEHOLD SHEET	107
3.1. Existing questions	108
3.2. Questions to be added	109
4. Sheet on each individual (age 11 and up)	109
4.1. General remarks	109
4.2. Existing questions	109
4.3. Questions to be added	111
5. CHILD (AGES 6-10) SHEET	111
5.1. General remarks	111
5.2. Existing questions	112
5.3. Questions to be added	112
ANNEX 4: DETERMINATION OF HOUSEHOLD SURVEY ZONES	113
1. THE DATA AVAILABLE AND THEIR LIMITATIONS	113
2. The method for developing zone typology	114
3. ZONES SELECTED	118
ANNEX 5 : POSITIONING OF THE FINAL SAMPLE OF THE MOBILITY SURVEY IN RELATION TO EARLIER DATA	121
1. TECHNICAL BACKGROUND	121
2. WEIGHTS OF HOUSEHOLD EQUIPMENT AND MONETARY RESOURCE QUARTILES	122
3. QUARTILES AND HOUSEHOLD EQUIPMENT IN THE HOUSEHOLD SURVEY AND IN QUIBB	123
4. Conclusion	126
ANNEX 6: SOCIOECONOMIC CHARACTERISTICS OF CITY-DWELLER GROUPS	129
ANNEX 7: HOW REPRESENTATIVE ARE THE QUANTITATIVE SURVEY DATA?	133
ANNEX 8: REPORT ON THE FEEDBACK WORKSHOP	137
1. ACTIONS TO IMPROVE ROADS: NEED TO DEVELOP A COMPREHENSIVE STRATEGY WITH A LONG-TERM FOCUS 137	
2. ACTIONS TO IMPROVE CONDITIONS FOR WALKING, LOW-COST MOBILITY: MUCH THINKING ABOUT	

	WALKING ALONGSIDE ROAD ARTERIES, LITTLE ON PEDESTRIAN PATHWAYS	139
3.	ACTIONS TO IMPROVE TRANSPORT SUPPLY: THESE ACTIONS SHOULD BE CONSIDERED AS PART OF A GLOBAL STRATEGY TO IMPROVE THE WAY DIFFERENT MODES COMPLEMENT ONE ANOTHER, AND ALONGSIDE ACTIONS TO IMPROVE ROADS	139
4.	ACTIONS TO MAKE BASIC SERVICES AVAILABLE LOCALLY: AN URBAN PLANNING ISSUE	141
5.	LIST OF PARTICIPANTS	143
A	NNEX 9: PLATES	145
Т	ABI FOF CONTENTS	151